List of State Planning Board Maps Showing Existing Conditions in Maine

Maine State Planning Board

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LIST OF
STATE PLANNING BOARD MAPS
SHOWING
EXISTING CONDITIONS IN MAINE

PURPOSE OF PLANNING: The purpose of the Maine State Planning Board, in cooperation with the New England Regional Planning Commission and National Resources Board, is to promote through intelligent and comprehensive study an orderly development of Maine; to act as a clearing house for State Departmental data; and to act as a central agency to which members of the Council and Legislature may come from time to time to secure definite non-partisan information on matters relating to the physical, economic, recreational and social welfare of the State.
LIST OF
STATE PLANNING BOARD MAPS
SHOWING
EXISTING CONDITIONS IN MAINE

Compiled by
Arthur H. Lewis

MAINE STATE PLANNING BOARD

Arthur C. Comey
Alfred Mullikin
Planning Consultants
Augusta, Maine
1935

PRICE TWO DOLLARS
INTRODUCTION

The information in this Bulletin has been assembled and correlated through research and investigation by members of the technical staff of the Maine State Planning Board, in cooperation with State and Federal Departments and Bureaus, and graphically presented by means of Existing Condition maps prepared by the drafting force of the Board. By the use of maps for the presentation of facts and data, immediate visualization of the existing conditions is obtained. The maps deserve careful study if the facts are to be understood and an intelligent idea obtained of existing conditions relating to the social, physical and economic welfare of the State.

The following pages are devoted to an explanation and reproduction of the maps completed to date. Pictorial rather than geometric symbols have been used, lending interest to the maps but not detracting from their practical value.

These maps should prove of inestimable worth to those interested in a progressive plan of development of Maine's resources.
Under this subject a study has been made of Maine's transportation facilities, including highways, railways, airways and waterways. Following are ten maps and their descriptions, which present, graphically, transportation conditions in the State of Maine.
This map shows the five types of surfaces used on the arteries of Maine's highway system. These types, as indicated by the legend in the upper right hand corner, include 233.6 miles of concrete, 359.4 miles of bituminous macadam, 962.61 miles of surface-treated and improved gravel surfaces, and 813.2 miles of unimproved surface.

These surface types and distances apply to the existing conditions only for that portion of the highway system shown, and include any improvements or construction completed up to January 1, 1934.
CLASSIFICATION OF MAINE HIGHWAYS

This map, based on the January, 1934, figures of the State Highway Commission, shows, in symbols the State highway system of Maine together with the state aid roads. Comparatively few miles of third class and special resolve roads are shown, and these are indicated only to demonstrate their utilization for linking the State highways with the State aid roads. The approximate length of the roads plotted on this map is 7,000 miles, or about one-third of the total road mileage of Maine. A careful study of this map will show the secondary or State aid roads as "feeders" to or from the main arteries of travel. It will indicate also the shorter routes which may be taken when traveling from one highway to another or from one community to another.
EXISTING CONDITION MAP
CLASSIFICATION OF MAINE HIGHWAYS

SCALE IN MILES

SOURCE OF INFORMATION
MAINE STATE HIGHWAY COMMISSION

PREPARED BY MAINE STATE PLANNING BOARD
This map shows nearly all the highway systems of Maine with the road widths exaggerated to give an indication of the amount of daily motor vehicle traffic as explained by its accompanying legend. The average daily volume of motor traffic is shown between specific points, from September 3 to September 9, 1931, inclusive. At that time the trend of traffic was in a northeasterly direction along the coast.

This map (2-A-57) should be compared with the map on "Motor Vehicle Traffic Volume - Maine, 1925" (2-A-59) to note the increase of traffic and the change of traffic direction since September, 1925. Both surveys were taken during the first part of September and for the same length of time. The surveys, 1931 being the last taken, shows the relative importance of each branch of the highway system. They also denote the "earning power" of each branch through the medium of the gasoline tax.
EXISTING CONDITION MAP
MOTOR VEHICLE TRAFFIC VOLUME
MAINE 1925

SOURCE OF INFORMATION
MAINE STATE HIGHWAY COMMISSION

PREPARED BY MAINE STATE PLANNING BOARD

TRANSPORTATION
2-A-59
The purpose of this map is to show the steam railroad systems serving the State of Maine. There are eight standard gauge roads with a total mileage of 2,054, and four narrow gauge roads with a total mileage of 110 miles; 275 miles of road have been discontinued since 1916. The name of each road is shown by letter symbols on the map and the full name in legend. The Aroostook Valley Electric road is shown because it handles a large amount of freight, and is located between two major lines, the Bangor and Aroostook Railroad, and the Canadian Pacific Railroad.
RAILROAD PASSENGER TRAIN SERVICE IN MAINE

This map shows the frequency of the passenger train service rendered by the steam railroads in Maine. It indicates the number of trains operating weekly between the principal cities, as advertised in the winter service schedules for 1934-35. The map also shows the lines which have suspended the passenger service during the indicated season and the name of the operating companies involved in railroad transportation.
This map locates the present development and extent of tidewater commerce in Maine. The circles or port enlargements graphically represent the 1930-34 average annual tonnage movement of all commerce by water for each port of entry. The recorded commerce through Maine ports, foreign and domestic, aggregates annually a mean during this period of 4,392,000 tons, valued at $110,000,000. The map shows existing mean low water depths of the rivers and harbors; the tide gauges indicate the mean tidal range in the vicinity of their location. Steamship and ferry lines on regular schedule are shown during the summer season of 1934 in connection with frequency of service and markets served.
EXISTING CONDITION MAP
WATERWAY TRANSPORTATION
PORTS AND HARBORS
ALONG
COAST OF MAINE

SCALE IN MILES
0 5 10 15 20

NOVEMBER 1934

PREPARED BY THE MAINE STATE PLANNING BOARD
Landing fields are classified with the symbols used by the United States Board of Surveys and Maps. There are 21 established landing fields within the State, with several new locations under consideration. There are 59 aircraft, 42 of which are licensed and 17 unlicensed.

Maine has one established air route making scheduled trips between Boston and Bangor, with stops at Portland, Augusta, and Waterville airports. The airports indicated on the map by circles are those used daily by the air mail and passenger planes.
This map shows the routes used by motor vehicles carrying passengers for hire over regular scheduled routes in the State.

The routes extend over practically all of the thickly settled southern section of the State. The only district which might be considered thickly settled, not served by motor buses, is Aroostook County.

It is also noticeable that passenger routes do not extend through Dover-Foxcroft to Greenville and Farmington to Rangeley.
This map indicates the highways used by motor trucks carrying freight and express for hire over regular schedule routes within the State. The names and locations of the principal towns served are shown. It is evident that common carrier routes are not confined to designated highways and that they are much more extensive than passenger routes (Map 2-E-24). Practically the entire population of the State at the present time is served by common carrier routes. A heavy broken line marks the traveled routes.
Project III
AGRICULTURE & LAND UTILIZATION

Research under this subject comprises a study of agriculture and land use conditions in the State. The twenty-two accompanying maps illustrate conditions relating to farm land, farm buildings, crops, livestock, pest infested areas, land uses, problem areas, and climatic conditions.
PERCENTAGE OF TOTAL TOWN AREA IN FARM LAND

This map shows by towns, the percentages of farm land areas in Maine as reported in the 1930 U.S. Census. Those civil divisions, left blank, did not report farm lands or farm statistics. The map tends to demonstrate the intensity of agricultural activities, and may be interpreted as an indication of soil productivity and market conditions. The percentages are based on the land area survey of the Maine State Planning Board as the areas of all civil divisions were not available for this study.
EXISTING CONDITION MAP
PERCENTAGE OF TOTAL TOWN AREA IN FARM LAND

SOURCE OF INFORMATION:
U.S. AGRICULTURAL CENSUS-1930
LAND AREAS COMPUTED BY THE MAINE STATE PLANNING BOARD

PREPARED BY THE MAINE STATE PLANNING BOARD

AGRICULTURE 3-A-52
Map 3-A-44

VALUE OF FARMLAND AND BUILDINGS BY THE ACRE AVERAGE BY TOWNS 1930

This map shown by symbols of varying limits, in dollars, the average value per acre of farm land and buildings, for each civil division as reported to the United States Agricultural Census of 1930. It demonstrates the better class of farms in areas of intensified agricultural activities and higher real estate values in the sections of dense population and industry. This map, like map 3-A-32, indicates by blanks, those areas not reporting to the 1930 Agricultural Census. No town names have been used, as the ultimate purpose is to show the zones and trends by sections within the State, rather than within the civil divisions.
MAP SHOWING
VALUE OF FARM LAND
AND BUILDINGS BY THE ACRE
AVERAGE BY TOWNS
1930

SOURCE OF INFORMATION
U.S. AGRICULTURAL CENSUS 1930

RESEARCH BY
DE COSTER AND ME INTIRI
DRAWN BY M.A. JOYCE

PREPARED BY THE MAINE STATE PLANNING BOARD
3 - A - 44
This map at first sight may appear rather intricate, but a study of the legend and the enclosing lines, will plainly illustrate their purpose, namely, the zoning of areas devoted to commercial crops and live stock culture. The statistics for this map were obtained from the 1930 Report of the United States Agricultural Census. For many reasons these figures seem to be applicable to the present existing conditions, influenced by the depression. However, the 1935 Census report, now being completed, will soon reveal more up-to-date conditions and may be compared with this map as soon as the publication is available. The sections cross-hatched are those for which statistics were not available; in most cases, there are no farms or agricultural activities prevailing.
Map 3-A-53

AREA IN MAINE INFESTED WITH GYPSY MOTH FOR 10 YEAR PERIOD

The source of information for the data shown on this map is the several divisions of the Maine and United States Departments of Agriculture.

The lines of boundary on this map clearly indicate the intensity of infestation from 1924 to 1934. The dates at the loft, and the legend, aid in showing the progress of the gypsy moth in Maine. Of interest is the life cycle of the moth, as shown at the upper right hand corner. The first stage is the egg mass which in the required brooding time develops progressively to the caterpillar, the pupa and the moth. The time for brooding is shown on the circle at the upper loft conter.
MAP SHOWING AREA IN MAINE INFESTED WITH GYPSY MOTH FOR 10 YEAR PERIOD

SOURCE OF INFORMATION
MAINE DEPT. OF AGRICULTURE
BUREAU OF PLANT INDUSTRY
U.S. DEPT. OF AGRICULTURE
BUREAU OF ENTOMOLOGY AND
PLANT QUARANTINE.

RESEARCH BY
H. O. DECOSTER
DRAWN BY
W. M. MILLWARD.

PREPARED BY THE MAINE STATE PLANNING BOARD
This map shows by graphic representation the areas infested by the brown-tail moth during several periods from 1905 to 1934. The line of quarantine, shown by an irregular heavy black line, has been changed but little since 1931. In 1934 there was a slight increase in the quarantined area in the vicinity of Bangor. The information necessary to make this map was obtained from the Agricultural Departments and Bureaus of Maine and the United States. An artist's conception, showing the metamorphosis of the brown-tail moth from the egg-mass to the moth, is pictured in the upper right-hand corner of the map. The time required in the morphology of the insect to its maturity is shown at the left just under the legend which describes the infested areas.
MAP SHOWING AREA IN MAINE INFESTED WITH BROWN-TAIL MOTH FOR 29 YEAR PERIOD

SOURCE OF INFORMATION
MAINE DEPT. OF AGRICULTURE
BUREAU OF PLANT INDUSTRY
U.S. DEPT. OF AGRICULTURE
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

RESEARCH BY
H.O. DECOSTER
DRAWN BY
W.B. MILLWARD

PREPARED BY THE MAINE STATE PLANNING BOARD

LEGEND
UNINFESTED AREA
AREA GENERALLY INFESTED 1914-19
AREA GENERALLY INFESTED 1913
AREA GENERALLY INFESTED 1908
AREA GENERALLY INFESTED 1905

BROWN-TAIL MOTH LIFE CYCLE

LEAF
NEST
CATERPILLAR
MALE
FEMALE
EGG-MASS

SCALE IN MILES
0 10 20 30 40

JANUARY 1935
This map shows by graphic representation the areas and degree of infestation by the Japanese Beetle. This pest is a relatively new invader of this State and information concerning its activity is for this reason quite new and insufficient. Information may be obtained from the U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine; and the Bureau of Plant Industry, Maine Department of Agriculture. One may learn considerable about the life cycle of the Japanese Beetle from this map in the artist's conception of the various stages in the morphology of the insect. This pictures the stages in the cycle from the dormant larvae to the young beetle, its action on fruit, and the time required in each transition to maturity.
LIFE CYCLE OF JAPANESE BEETLE

LEGEND:

UNINFESTED AREA.

AREA LIGHTLY INFESTED.

QUARANTINED AREA.

RESEARCH BY H.O. DECOSTER
DRAWN BY WM. MILLWARD.

SOURCE OF INFORMATION
MAINE DEPT. OF AGRICULTURE
BUREAU OF PLANT INDUSTRY.
U.S. DEPT. OF AGRICULTURE
BUREAU OF ENTOMOLOGY AND
PLANT QUARANTINE.

MAP SHOWING AREA IN MAINE INFESTED
WITH JAPANESE BEETLE
FOR 3 YEAR PERIOD

SCALE IN MILES

10  20  30  40

JANUARY 1935

PREPARED BY THE MAINE STATE PLANNING BOARD
The European Corn Borer has been a source of great expense and trouble to Maine agriculturists. Also there has been a costly burden to the State government for quarantine enforcement as an aid to farm production and protection. Previous to 1932, the Maine Department of Agriculture maintained its quarantine stations on the State border, but the degree of infestation caused the stations to be removed to points within the infested areas as a means to more efficient law enforcement. The map on the following page shows the degree and areas of corn borer infestation and one may readily see its gradual increase. As on the three preceding maps, the artist's conception of the life cycle of the insect is pictorially represented. It shows the metamorphosis from the egg to the moth with the length of time and season common to each stage of the cycle.
LEGEND

UNINFESTED AREA.

AREA GENERALLY INFESTED 1934

AREA GENERALLY INFESTED 1933

AREA GENERALLY INFESTED 1932

LIFE CYCLE

ADULT LARVAE
EUROPEAN CORN BORER

YOUNG LARVAE

EUROPEAN CORN BORER

PREVIOUS TO 1932 -- QUARANTINE WAS MAINTAINED ON STATE BORDER.

MAP SHOWING AREA IN MAINE INFESTED WITH EUROPEAN CORN BORER FOR 3 YEAR PERIOD

SOURCE OF INFORMATION
MAINE DEPT. OF AGRICULTURE
BUREAU OF PLANT INDUSTRY
U.S. DEPT. OF AGRICULTURE
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE.

RESEARCH BY
M.O. DECOSTER
DRAWN BY
W.M. B. MILLWARD

PUBLISHED BY THE MAINE STATE PLANNING BOARD.

SCALE IN MILES

MADE JANUARY 1935
Map 3-A-65

DISTRIBUTION OF APPLE TREES
IN MAINE, 1930

This map shows the average number of apple trees per 100 acres of farm land for each civil division of Maine, reporting to the 1930 U. S. Agricultural Census. It also indicates by a chart the total crop production of apples for Maine and the United States, each year from 1889 to 1934. A note gives the number of trees in the State; also the estimated value of the crop, and its percentage of the value of the New England and the United States crops. The areas shown graphically in black denotes the zones of greatest density of fruit-bearing trees. The civil divisions which are left blank indicate that no reports were filed with the census bureau and statistics are not available for these areas. There has been no attempt made to designate the kinds of apples grown as there are often many within a single orchard. The figures for 1935 will soon be available from Washington as the farm census of this year is nearly completed.
TOTAL NO. OF TREES 1930 -- 1,731,981.
ESTIMATED FARM VALUE OF APPLE CROP FOR YEAR 1933 $1,225,000.00
THIS VALUE REPRESENTS 20.4% OF NEW ENGLAND CROP VALUE AND 1.26% OF UNITED STATES CROP VALUE.

TOTAL PRODUCTION OF APPLES IN MILLION BUSHELS.

LEGEND -- TREES PER 100 ACRES OF FARM LAND.
25 TREES OR LESS
25 TO 50 TREES
50 TO 75 TREES
75 TO 100 TREES
100 TREES OR OVER

SOURCE OF INFORMATION.
MAINE DEPT. OF AGRICULTURE
FARM CENSUS 1930.
U.S. DEPT. OF AGRICULTURE
YEARBOOK -- 1934.

EXISTING CONDITION MAP
DISTRIBUTION OF APPLE TREES IN MAINE 1930

SCALE IN MILES
10 0 10 20 30 40
FEBRUARY 1935.
The mean annual temperature is obtained by taking one-half the sum of the average maximum and average minimum daily temperatures. By referring to the map it is readily seen that the mean annual temperature varies from the readings of 45.4° at Portland, to 38° at Van Buren.
CLIMATIC CONDITIONS MAP
MEAN ANNUAL TEMPERATURE
IN MAINE

SOURCE OF INFORMATION
U.S.D.A. WEATHER BUREAU
CLIMATIC SUMMARY OF THE UNITED STATES 1930.

SCALE IN MILES

OCTOBER 1934

PREPARED BY THE MAINE STATE PLANNING BOARD.
The mean summer temperature is obtained in the same way as the mean annual temperature, except that it is based on the three summer months, June, July, and August. It is interesting to note that the mean summer temperature is less as we proceed along the coast, reaching the lowest point of 58.5° for the State at Eastport. The Eastport reading is also 4° less than that of Van Buren.
CLIMATIC CONDITIONS MAP
MEAN SUMMER TEMPERATURE
IN MAINE

SOURCE OF INFORMATION
U.S.D.A. WEATHER BUREAU
CLIMATIC SUMMARY OF THE UNITED STATES 1930

OCTOBER 1934

PREPARED BY THE MAINE STATE PLANNING BOARD
The length of the growing season in days, is the time between the average date of the last killing frost in spring, to the average date of the first killing frost in the fall. In Maine it ranges from 90 days at Van Buren, to a maximum of slightly over 170 days along the coast.
CLIMATIC CONDITIONS MAP
LENGTH OF GROWING SEASON
IN MAINE
30 YEAR AVERAGE

SOURCE OF INFORMATION
U.S.D.A. WEATHER BUREAU
CLIMATIC SUMMARY OF THE
UNITED STATES 1930.
NEW ENGLAND'S PROSPECT
1933.

OCTOBER 1934.

PREPARED BY THE MAINE STATE PLANNING BOARD 3-C-31
Map Number 3-C-33

MEAN WINTER TEMPERATURE IN MAINE

This map shows the mean or average winter temperature of the State. It shows at a glance that the southern section of the State does not experience real cold weather for the winter months, December, January, and February. The mean winter temperature varies from 24.5° at Portland to 10.7° at Van Buren.
The isotherms or temperature lines showing the average maximum temperature are obtained by finding the average figure for the winter months, December, January, and February from the daily readings of maximum temperature at the different stations.
CLIMATIC CONDITIONS MAP
AVERAGE MAXIMUM WINTER TEMPERATURE IN MAINE

SOURCE OF INFORMATION
U.S.D.A. WEATHER BUREAU
CLIMATIC SUMMARY OF THE UNITED STATES 1930.

RESEARCH BY
JOHN ROCHE
DRAWN BY
WM. MILLWARD

PREPARED BY THE MAINE STATE PLANNING BOARD 3-C34
The average minimum winter temperature figures are obtained by finding the average for the three winter months December, January, and February from the minimum daily temperature at each station. It readily shows that Maine's minimum temperature is fairly low, averaging less than 0° at Van Buren and reaching a maximum of 17.1° at Portland.
The average minimum summer temperature figures are obtained by determining the average for the summer months, June, July, and August from the minimum daily readings at the various stations. It may be seen that as we go up the coastline, the temperature decreases to 50.5° at Eastport, which is less than the reading at Presque Isle and Houlton.
The average maximum summer temperature is obtained by taking the daily maximum readings and averaging it for the three months period, June, July and August. The highest average maximum summer temperature obtained was for Winslow and Farmington. The coastline temperatures are less, due to the effect of the ocean breezes. As we move inland the average maximum summer temperature increases.
CLIMATIC CONDITIONS MAP
AVERAGE MAXIMUM SUMMER TEMPERATURE IN MAINE

SOURCE OF INFORMATION
U.S.D.A. WEATHER BUREAU
CLIMATIC SUMMARY OF THE UNITED STATES 1930.

SCALE IN MILES

OCTOBER 1934.

PREPARED BY THE MAINE STATE PLANNING BOARD
The lowest temperature records on this map have been taken from the stations which had the most reliable records. These are official figures and include the winter of 1933 and 1934. Although temperatures lower than are shown on this map may have been recorded in various sections of the State for our purpose we are taking the figures that have been recorded on U. S. Government thermometers in shelters and placed at official cooperative weather stations.
CLIMATIC CONDITIONS MAP
LOWEST TEMPERATURE ON RECORD IN MAINE

SOURCE OF INFORMATION
U.S.D.A. WEATHER BUREAU
CLIMATIC SUMMARY OF THE UNITED STATES 1930.
NOTE—THese ARE OFFICIAL READINGS INCLUDING THE WINTER 1933-34.
ALL FIGURES IN DEGREES FAHRENHEIT.

RESEARCH BY
JOHN ROCHE
DRAWN BY
WM. MILLWARD.

PREPARED BY THE MAINE STATE PLANNING BOARD 3-C-40

SCALE IN MILES
OCTOBER 1934
The highest official temperature ever recorded in the State was 106° at Millinocket. The lowest of those high readings is 93° at Eastport. The fact that Eastport is an island, situated where great tidal movements take place and where the temperature of the sea water remains fairly cool throughout the summer has an appreciable effect on the temperature conditions at this station.
CLIMATIC CONDITIONS MAP
HIGHEST TEMPERATURE
ON RECORD IN MAINE

SOURCE OF INFORMATION
U. S. D. A. WEATHER BUREAU
CLIMATIC SUMMARY OF THE UNITED STATES 1930.
NOTE- THESE ARE OFFICIAL READINGS
ALL FIGURES IN DEGREES FAHRENHEIT.

RESEARCH BY JOHN ROCHE
DRAWN BY WM. MILLWARD

PREPARED BY THE MAINE STATE PLANNING BOARD 3-C-41

SCALE IN MILES
10 20 30 40

NOVEMBER 1934.
The figures for this map were taken from stations having a reliable record of thirty years or more. The term precipitation includes both rainfall and the water equivalent of the snowfall. The area of greatest precipitation increases along the coast to Bar Harbor which has an annual average of 47.89 inches. The area of least precipitation is along the northeastern border of the State, the least being at Houlton 30.97 inches which is nearly 17 inches less than at Bar Harbor. The average for the State is approximately 40 inches. The topography of the various stations has a notable effect on the amount of precipitation.
The area of greatest snowfall is believed to be along the northwestern border of the State adjacent to Canada, and the highest average obtained is 126.4 inches at Jackman. Portland averages about 72 inches of snow.
This map shows the distribution of the cooperative weather stations in the State. These stations are equipped with U. S. Weather Bureau instruments, operated by unpaid observers who keep a daily record of weather conditions and submit monthly data to the Boston Weather Bureau. Cooperative stations are indicated by circles. The stations making weather observations relative to forest fire hazards are shown by triangles. Coastal stations displaying flags by day and lanterns at night as signals approaching storms, are shown by black dots.
This map serves two very useful purposes. It clearly demonstrates that further mapping is desirable in Maine as the sections left blank are not shown in detail on any maps available. To date there are 125 completed and advanced U. S. Geological Survey Topographic Quadrangle Sheets on Maine which are available and the total number necessary to show the topographical features of the entire area is 192. The available sheets represent 65% of the required number but these adequately show an area equal to about 73% of the total surface. The second purpose is to show the altitudes of Maine as a single unit, no attempt being made to show any specific locality but rather to treat the state in general. This feature will indicate that Maine from the ocean and the Penobscot River is generally and fairly evenly inclined from a zero elevation at the water to its highest average elevation in the area where Maine, New Hampshire and Canada meet. This indicates the slope of Maine to be generally northwest. The greatest part of the south section of Maine is from 200'-500' in elevation; the north part has an average elevation of about 1000' forming a rather large and pronounced plateau region.
This map, like the one preceding, shows the unmapped regions of Maine and portrays the need for completion of a topographic survey. It shows the boundaries of the minor civil divisions of the State, but without their names. The contours demonstrate the general elevation of specific localities, but no attempt has been made to show the degree of elevation as it might prove confusing on a map of this scale and size. It has been impossible to obtain authoritative information on the topography of the sections unmapped by the U.S. Geological Survey. The sum of $50,000 was made available by the 86th Maine Legislature and a like amount allotted by the Federal Government for Maine work which was to be completed by 1936, but due to economic conditions the mapping program was suspended by the 86th Legislature and no cooperative mapping has been done after June 30, 1933. Topographic maps have many valuable uses.
Project 4

CONSERVATION

Under the general subject heading of Conservation, research on the natural resources of the State includes studies of the geological conditions, such as the numerous deposits of slate, granite, limestone, feldspar, clay, and smaller quantities of mica, gemstones, quartz, iron, copper, silver, gold, lead, and zinc; present status and quotations in the mineral industry; also a study of Maine fishes, mammals, and birds, with a digest of the fish and game laws; an analysis of the fishing industry; and information on our National, State, and privately owned forests.

A study has been made of the progress of the state in maintaining and protecting forest land, one of our most valuable natural resources, from fire and other destructive agencies, and providing public camp sites and forest nurseries. Material has been included on forest products and their markets; and on forest entomology and pathology. So far as possible, this information has been presented graphically on maps which follow.
Of especial interest to fishing enthusiasts is this map which shows by definite location where black bass, brook trout, white perch, lake trout, pickerel, and lake salmon are common or exist abundantly, where State fish hatcheries and rearing stations are established. The principal highways make accessible the lakes and streams where good fishing abounds. The State Department of Inland Fisheries and Game and data furnished by many game wardens in Maine comprise the sources of information for this map.
METALLIC ORES AND RARE MINERALS

This map shows graphically the location and distribution of the more precious metals and rarer minerals to be found in the State. Placer gold deposits, appealing to the prospector and adventurer, are represented on the map by a metal heap; metallic mines and prospects, including iron, copper, silver, lead, gold and zinc, by a shaft-house and head frame; rare minerals by a crystal cluster. The Katahdin Iron Works, located on the map, is an example of the past achievement of the iron industry in Maine. By a glance at the map it is readily seen that the known mines and minerals are located in Hancock, Washington, Somerset and Oxford Counties. Some of these mines, long deserted or disregarded seem to offer possibilities for the economic development of Maine.
EXISTING CONDITION MAP
METALLIC ORES AND RARE MINERALS
AUGUST 1934

SOURCE OF INFORMATION
U.S. GEOLOGICAL SURVEYS AND MAPS
PUBLIC UTILITIES COMMISSION OF MAINE 1916

PREPARED BY THE MAINE STATE PLANNING BOARD
CONSERVATION 4-C-15
Non-metallic Minerals and Stones

The distribution of the granite quarries, slate quarries and the active and non-active lime quarries are shown on this map. Granite quarries are indicated by a picture of a quarry, a derrick and hoist house. The lime quarries are shown by a picture of a small kiln; the present active ones having a smoking kiln, the non-active, dormant.

North Jay, Hallowell, Mount Waldo, and Stonington are among the most important producers. Value of production from 1905 until 1932 was $55,500,000, or an average of over two million dollars, annually, for a period of twenty-seven years. The lime quarries shown have also contributed heavily toward the mineral industry of the State for twenty-seven years. The income was $28,300,000, a little over a million dollars annually. The most important producing area is Rockland and Thomaston.

The slate quarries are shown by a deep pit and derrick. Although the distribution is not so extensive as the granite and lime quarries, the production has been of importance to the State, in that the total value of production from 1905 to 1932 was $9,600,000.

The areas outlined by a thin line on this map represent the known granite areas taken from the preliminary geological map of Maine, 1933.

The total value of $83,400,000 over a period of 27 years shows the importance of this industry to the State of Maine.
The known mineralized regions in the State are located by irregular shaped areas, enclosed by a black line and identified as to type of mineral by letters running from A to I inclusive, referring to silver-lead, pegmatite, tin, lead-pyrite, asbestos, hematite, and iron sulphide. Specific mines are shown by numbers enclosed in circles, corresponding to the names in the legend.

It is worthy of note that the majority of the mines known and exploited are located east of Rockland within thirty miles of the coast. Operation of many of those mines, for sometime, has been discontinued, yet the mineral industry is of tremendous importance to the State and should be encouraged.
The purpose of the research under the heading, Recreation, is an analysis of the recreational facilities of Maine with relation to the economic and social values of an industry which contributes $85,000,000 annually to the support of the State. Every type of recreational activity, summer and winter, has been considered in this investigation.

The economic importance of recreation to the State is evident from the fact that the assessed value in 1930 of all property used for recreational purposes was $53,776,000 in an average year; 23,578 persons are directly employed in the recreation business and receive $7,420,123 in wages. The revenue of the State is increased by the money from fishing and hunting licenses, gasoline tax, and licenses from hotels, camps, and eating places.
SUMMER HOTELS AND SPORTING CAMPS

By means of dots of graded sizes, indicative of the capacity of the accommodations, from 5 to 5,000 persons in each community, this map designates the present situation of Maine hotels and sporting camps. Its value to out-of-state persons is at once apparent. Public shelters in hotels, sporting camps, juvenile camps, overnight cabins, and camp grounds offer a daily accommodation for 95,400 visitors. A list, by counties, of the towns and cities offering shelter, of the above mentioned types, to summer tourists fills in the margins of the map.
EXISTING CONDITIONS MAP
SUMMER HOTELS
AND SPORTING CAMPS

SOURCE OF INFORMATION - MAINE STATE DEPARTMENT OF HEALTH AND MAINE DEVELOPMENT COMMISSION.

LEGEND
- 100-500
- 500-1000
- 1000-2500
- 2500-5000

PREPARED BY THE MAINE STATE PLANNING BOARD

JULY 1934
This is a map devoted to some of the recreational advantages available in Maine during the summer season. There are 225 organized boys' and girls' summer camps within the state, of which 181 were licensed in 1934. Each is located on the map by symbols explained in the legend. These camps pay annually a million dollars to employees, over $300,000 in property taxes, and purchase a half million dollars of farm produce. Forty-four percent of the parents of boys and girls in these camps also vacation in Maine.

Thirty-three canoe trips are outlined on the map, each indicated by a black line and numbered to correspond to a name in the list of canoe trips on the upper right-hand corner of the map.

Bathing beaches are indicated by a heavy black line. The best bathing facilities exist from the Kittery line to Portland where there are 23 beaches with a total water frontage of 33.4 miles.
ADULT CAMPS, GOLF COURSES, PARKS, AND YACHTING

The locations of the 293 adult recreation camps which were licensed in 1934 is indicated by a tree-sheltered tent. No municipal parks are shown on the map, only Acadia National Park, The White Mountain National Forest, and Baxter State Park. The 88 golf courses in the State are indicated by small flags bearing the number of holes on the course. Beside each flag, is a number corresponding to one of the golf courses listed in the left corner of the map. Yacht clubs, of which Maine has nine, are identified by their insignia. Yachting has declined somewhat in recent years, but Maine has an unparalleled seacoast, well sheltered harbors, accomplished ship builders, and crew material in whom the love and technique of sailing is inborn. Increased interest in yachting can be promoted through publicity and salesmanship.
EXISTING CONDITION MAP
ADULT CAMPS
GOLF COURSES, PARKS, AND YACHTING

SOURCE OF INFORMATION
MAINE STATE DEPARTMENT OF
HEALTH AND MAINE DEVELOPMENT
COMMISSION

SCALE IN MILES

OCTOBER 1934

PREPARED BY THE MAINE STATE PLANNING BOARD

RECREATION 5-A-46
Winter sports at present, are comparatively undeveloped in Maine, a state which furnishes unusually favorable opportunities. Fryeburg and Rumford have been the most active communities in promoting winter activities. Auburn, Lewiston, Portland, Bethel, Bridgton, Cornish, Poland and Westbrook have attempted to encourage winter sports, but due to a lack of proper civic interest and organized effort, the results have been negligible.

From 1925 to 1930, the cities of Augusta and Waterville promoted winter carnivals but due to unseasonable weather conditions these communities maintained that lack of snow and ice prevented the continued investment. Bangor, Orono, Bar Harbor, Houlton, Caribou, Fort Fairfield and New Sweden have thousands of citizens interested in winter sports. There is a permanent club at Fort Fairfield with several hundred members. Rumford and Fort Fairfield hold regular carnivals. An international carnival was held in Lewiston in January, 1935. In general, the development of winter sports has been retarded by lack of funds for publicity and development.
PRINCIPAL MAINE MOUNTAINS

Mountain climbers will find valuable this chart which shows by graded pyramids, significantly shaded as explained on the sheet, the 40 mountains of the State considered of especial interest. Within its borders Maine has 1029 mountains; 889 named, 140 unnamed. The chart shows the altitude of each mountain above sea level, at summit and base, as well as the vertical altitude of the climb.

In selecting the 40 mountains, accessibility, recreational features and historical importance were the chief considerations. Maine has 266 miles of the northern section of the Appalachian Mountain Trail, terminating at Mount Katahdin. This trail enters Maine from New Hampshire in the town of Riley in Oxford County and follows many interesting summits across the central part of the State.
PRINCIPAL MAINE MOUNTAINS

EXPLANATION:

A- Altitude of Summit
B- Altitude of Base
C- Elevation of Climb

LEGEND:

D- Difficult to Climb
M- Moderately Difficult to Climb
E- Easy to Climb

SCALE IN FEET

DECEMBER 1934

PREPARED BY MAINE STATE PLANNING BOARD
PERCENTAGE OF TOWN TAX DERIVED FROM
THE RECREATIONAL INDUSTRY

Towns where 10% or more of the taxes
are derived from recreation are shown on the
accompanying map by Money bags which bear
figures indicating the percentage of tax
revenue received. The total tax paid in
1930 on all property used for recreational
purposes in the State was $2,381,000. More
than 50% of the towns, having 70% or more
of the town tax derived from the recreational
industry, are located along the coast of Maine.
Tax assessors in the various towns, and the
Maine Development Commission, furnished the
information from which the statistics and data
for this map were compiled.
LEGEND

- 10\% TO 30\%
- 30\% TO 50\%
- 50\% TO 75\%
- 75\% TO 100\%

PERCENTAGES ARE BASED ON TAX RECEIPTS FROM THE FOLLOWING SOURCES:

- PRIVATE SUMMER HOMES AND COTTAGES OWNED BY OUT OF STATE PEOPLE.
- PRIVATE SUMMER HOMES AND COTTAGES OWNED BY MAINE RESIDENTS WHO RESIDE IN OTHER TOWNS DURING THE WINTER.
- TAX RECEIPTS FROM ALL PROPERTY DOING SUMMER BUSINESS, SUMMER HOTELS, SPORTING CAMPS, OVERNIGHT CAMPS, TEA ROOMS, ETC.

TOWN TAX ASSESSORS
MAINE DEVELOPMENT COMMISSION
EVERETT GREATON
RESEARCH BY RENWICK
DRAWN BY LEWIS

MAP SHOWING PERCENTAGE OF TOWN TAX DERIVED FROM THE RECREATIONAL INDUSTRY

FIGURES IN THE MONEY BAGS DENOTE THE PERCENTAGE OF TAX REVENUE

SCALE IN MILES
10 0 20 30 40

OCTOBER 1934
PREPARED BY THE MAINE STATE PLANNING BOARD

SOURCE OF INFORMATION - TOWN TAX ASSESSORS
MAINE DEVELOPMENT COMMISSION
EVERETT GREATON

RESEARCH BY RENWICK
DRAWN BY LEWIS
This map correlates the information and data for the use of engineers investigating the water power resources and electric energy distribution in Maine. The accompanying maps portray the extensive power resources of the state and the distribution of the electric energy produced.
Map 6-A-17

ELECTRICAL POWER STATIONS
AND TRANSMISSION LINES

To picture the extent and present set up of the electric power industry is the purpose of this map. It indicates the type and location of 76 electric generating plants producing power for distribution by the four electric light and power companies in Maine. Nearly 200 of the principal transformer stations are located, and the transmission lines of the distributing companies are indicated with the line voltage.
EXISTING CONDITION MAP
ELECTRICAL
POWER STATIONS
AND
TRANSMISSION LINES

SOURCE OF INFORMATION
MAINE PUBLIC UTILITIES COMMISSION
PUBLIC UTILITY COMPANIES IN MAINE

SCALE IN MILES
10 20 30 40

SEPTEMBER, 1934
PREPARED BY THE MAINE STATE PLANNING BOARD
Symbols on this map indicate the amounts in Kilowatt hours of electric energy distributed and sold by the electric power companies in Maine for 1933. The symbols show by their location the approximate geographical position of the district systems. The extent of the territories served by the various companies is outlined.
EXISTING CONDITION MAP
DISTRIBUTION OF ELECTRIC ENERGY IN MAINE
FOR YEAR 1933

SOURCE OF INFORMATION
MAINE PUBLIC UTILITIES COMMISSION
REPORT 3, 1933

PREPARED BY THE MAINE STATE PLANNING BOARD
FEBRUARY 1935
Water sheds, comprising an area of about 33,000 square miles within the State, drained by ten principal inland rivers and their tributaries, and four coastal basins, draining directly into the Atlantic Ocean, are shown on this map.

Forty-two gaging stations, maintained by the Water Resources Division of the Maine Public Utilities Commission in cooperation with the United States Geodetic Survey for the purpose of measuring and recording the daily discharge of the main rivers and their most important branches, are located approximately.

Fifty of the principal storage reservoirs developed and operated by several of the larger power users and having a capacity of over 200 billion cubic feet, are designated.
SANITATION, PUBLIC HEALTH AND WELFARE

Investigation has been made of the communities served, inadequately supplied, or not served at all, by public water supplies. Curves and charts have been made showing the sanitary character of water supplies in Maine since 1923 and the effect of an improved quality of water in lowering the death rate from waterborne diseases. The problem of civic waste disposal and sewage systems has been considered, and the effect of the discharge of industrial wastes into the Kennebec, Androscoggin, Penobscot, Presumpscot, and St. Croix Rivers upon fish life. The question of hospitals, clinics and mental and tubercular sanitariums has been studied, and in many cases inspection visits were made to the institutions.
This map represents 169 water supply organizations serving 197 communities. The symbols on this map show the location of each community and the type of its source of water supply, whether spring, well, stream or lake. Where one community is served by another, a line connects the two. The communities served are listed by counties and are numbered to correspond with the number of the symbols on the map.

Many of these communities are not adequately served; some have as many as five water supplies. Several communities have little or no fire protection because the pipes are too small to deliver a large quantity of water. About 57 per cent of the supplies are from surface water sources, and 43 per cent are from ground water sources. Piscataquis is the only county in Maine where all concentrated districts are served by public water supplies.
HOSPITALS AND SANITARIUMS

There are 89 hospitals in Maine, including 69 general, 8 convalescent, 5 mental and nervous, 5 maternity, 1 isolation, and 1 children's. The majority of the convalescent and mental sanitariums are located in Bangor and Portland, two of the largest cities; these are well equipped and are operated on a paying basis.

Tubercular sanitariums are located in the towns of Fairfield, Hebron, Presque Isle, and in the city of Bangor. The death rate of tuberculosis has dropped steadily for the past forty years in the State of Maine. In 1892 the death rate was 2.29 as compared to 0.51 per thousand population in 1933. Private and general hospitals and sanitariums are located on the map by suitable symbols explained in the legend and are listed by cities and towns.
Population trends and distribution, with emphasis on the years 1830, 1880, and 1930, have comprised an outstanding section of this subject. With the cooperation of the Maine State Library, a study of the libraries and those towns not served by libraries has been undertaken. Religious and educational conditions, health and living conditions, valuation, relief, and social welfare work have been considered for their sociological importance to the State. The United States Department of Commerce survey of housing conditions shows that building repair is needed in all sections of Maine.
Each dot represents 100 people, the dots being placed as near as possible in the towns where the people live. The map shows the greatest majority of the 797,423 inhabitants to be located in the southwestern areas and specifically in the industrial centers. Comparing this map of 1930 with the map of the same nature for 1880, it will be noticed that the migration tendency was from the urban to the rural sections.
MAP SHOWING DISTRIBUTION OF POPULATION IN MAINE FOR YEAR OF 1930

SOURCE OF INFORMATION: UNITED STATES CENSUS FOR 1930

RESEARCH BY: ECHAMPUN-E. HUCKE
DRAWN BY: LEWIS

PREPARED BY THE MAINE STATE PLANNING BOARD

LEGEND:
EACH DOT REPRESENTS 100 PEOPLE

SCALE IN MILES:
0 10 20 30 40

AUGUST 1934
Each 100 persons is represented in its respective town by a dot. In 1830, only the western and coastal sections of the State were inhabited. There is a marked rural movement reflected in the maps of 1880 and 1930. Industrial centralization has since occurred and is illustrated in the map for 1930.
MAP SHOWING DISTRIBUTION OF POPULATION IN MAINE FOR YEAR OF 1830

SOURCE OF INFORMATION
MAINE REGISTER FOR 1830

LEGEND
EACH DOT REPRESENTS 100 PEOPLE

PREPARED BY THE MAINE STATE PLANNING BOARD
Map 8-D-60

LIBRARIES FACILITIES IN MAINE

This map shows by a set of symbols explained in the legend the types of libraries in the State. The information in making this map was supplied by the Maine State Library. There are shown 168 stipend libraries, 110 non-stipend libraries, 152 libraries which have their own library buildings, and 126 which are libraries in one or more rooms in some other public building. There is only one historical public library, situated in Portland. Well equipped libraries are connected with each of the four colleges. The number beside each symbol indicate the hundreds of volumes contained in that particular library. There are more towns without public libraries, namely 289, than are provided with such institutions; 228 towns maintain public libraries. The total number of volumes in Maine libraries is 1,919,739.
This project is so closely linked socially with that of Housing and Living Conditions, that the two have been treated together. Unemployment and its bearing on manufacturing establishments, retailers and wholesalers and price levels, have been considered. In 1929, there were 1568 manufacturing establishments with 70,159 workers receiving $74,200,000 in wages as compared with the 1931 figures of 1235 establishments with 56,303 workers receiving $55,187,000 in wages. This is the most recent data available.
The National Reemployment Service of Maine furnished the information used for the graphic representation of the number of unemployed in each county. In each county, the number of unemployed and its ratio to the total population of that county is shown.

Cumberland County leads with 14,605 unemployed; Aroostook is second with a total of 11,430; and Penobscot ranks third with 11,822. The total number of unemployed in the above named counties represent 40% of the total unemployed in Maine.
LEGEND
NUMBER UNDERLINED INDICATES TOTAL REGISTERED UNEMPLOYED FOR COUNTY. PERCENTAGE INDICATES RATIO OF UNEMPLOYED TO TOTAL POPULATION OF COUNTY.

NUMBER OF REGISTERED UNEMPLOYED
1500 TO 2499
2500 TO 4999
5000 TO 7499
7500 TO 9999
10000 TO 12499
12500 TO 15000

SOURCE OF INFORMATION
NATIONAL REEMPLOYMENT SERVICE OF MAINE.

MAP SHOWING UNEMPLOYED IN MAINE REGISTRATION BY COUNTIES. OCT. 1933 TO JAN. 1935.

SCALE IN MILES
10 15 20 25 30 35 40
FEBRUARY 1935

PREPARED BY THE MAINE STATE PLANNING BOARD

RESEARCH BY E.W. HUCKE
DRAWN BY WM. MILLWARD
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