Comprehensive plan for Hallowell, Maine; Vol. 1: First Phase of Comprehensive Plan 1962

James W. Sewall Company

Hallowell Planning Board

Maine Department of Economic Development

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FIRST PHASE
OF A COMPREHENSIVE PLAN
FOR
HALLOWELL, MAINE

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James W. Sewall Company
Planning Consultants
Old Town, Maine
1962
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Comprehensive plan for
Hallowell, Maine.
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ACKNOWLEDGMENTS

The consultants wish to express their appreciation to the residents of Hallowell who gave their time to answer the questions of the field survey team. The efforts of the city officials and private citizens who offered much pertinent information about past and existing conditions in Hallowell are also gratefully acknowledged. Without their help, it would have been impossible to obtain the insights into the character and needs of the city which were needed to formulate planning goals.

A special word of thanks is due the Planning Board. The many meetings with the Board were constructive and enjoyable.

The consultants also wish to acknowledge the assistance of the Maine Bureau of Vital Statistics, the State Highway Commission, the State Bureau of Taxation and the Maine Department of Economic Development. It is always a pleasure to work with these agencies and their staffs.
Hallowell was first settled in 1762. During the French and Indian Wars, Massachusetts, the then seat of government for the territory of Maine, established a trading post and then a fort to protect the growing Augusta-Hallowell settlement. Both the Fort and the Hook, as they were known respectively, grew and flourished during the 18th and most of the 19th centuries as centers of commerce, granite quarrying, other manufacturing and as service and trading centers for the nearly self-sufficient lumbering and farming region of southwestern Maine. Hallowell was, in addition, a social, cultural and printing center of some importance.

The Hallowell Academy opened in 1791, the second academy in the District of Maine, and for many years distinguished itself with noted teachers and students from every part of the northeastern United States.

Hallowell was also a printing and publishing center. A newspaper called the "Eastern Star" was published there as early as 1794. Early Maine school books and classics of English literature came off Hallowell presses and the Maine Farmers' Almanac, the mainstay (along with the family Bible) of many a Maine household library, was printed in Hallowell for over fifty years. Today the Hallowell Library has a good collection of early volumes, "Hallowell imprints", of interest to historians and book collectors.

Sea captains and men of business and social distinction built houses on the sharply rising banks of the Kennebec and huge and prosperous farms spread over the open land flanking the urban settlement. Many of the fine houses which still grace the hillside represented the best in colonial architecture and Hallowell doorways were worthy of special note.  

Distances to Bangor in those days were reckoned from Hallowell, not from Augusta, and in 1807 the American Encyclopedia predicted that Hallowell one day would be one of the nation's largest cities.

Ice cutting and granite quarrying were major Hallowell industries during the 19th century. From about 1830 until the turn of the century, ice cutting on the Kennebec employed 15,000 men and 1,000 horses and the product was sold all along the Atlantic seaboard.

The Hallowell Hotel, now the Worster House, was completed in 1834, representing the convictions of Hallowell residents and businessmen that their city could more appropriately than Augusta play host to legislators.

2/ Most of the material concerning the Hallowell Hotel and the ice cutting industry based on information from an advertising pamphlet for the Worster House, published 1950.
Historic and Economic Background of Hallowell Cont'd:

and visiting personages if only Hallowell had a satisfactory hostelry. The Hallowell Hotel was for a time a popular meeting place for politicians and several famous people are known to have been guests. Nevertheless, the hotel never attained the prosperity predicted for it. It had been mortgaged and foreclosed several times between 1835 and 1850. Completion of the Kennebec and Portland Railroad spelled economic distress for Hallowell. "Business houses failed and the streets took on a dejected air."3/ Between 1855 and 1870, the Hallowell Hotel was forced to close its doors altogether.

Augusta, on the other hand, was able to benefit by the shift from wooden ship water transport to railroad land transport technology partly because her economy was more diversified than that of Hallowell and because of her function as seat of state government.

Hallowell did see some happier times after the initial distress of the 1850-1900 era. The hotel was reopened in 1898 and thereafter gained its reputation as headquarters for legislators, governors and their councils. Leased in 1915 by members of the Worster family and later purchased by them, it has operated continuously since as the Worster House, although under new ownership-management since 1959.

Granite quarrying was the chief industry of the 20th century and because of its fine quality, Hallowell granite was used in many noted public buildings and other structures. Availability of other kinds of building materials and the higher cost of transporting granite brought an end to quarrying operations around 1925. 4/

3/ Ibid.
4/ Maine Writers' Research Club, Maine, Past and Present, D. C. Heath Company, Boston, 1929
HALLOWELL FACT SHEET

Physical Setting:

Hallowell is located on the westerly bank of the Kennebec River near the head of tidal water which is at Augusta. Hallowell is bounded on the north by Augusta, on the west by Manchester and on the south by Farmingdale. The Maine Turnpike transects Hallowell, effectively splitting the city into two sectors. The most westerly of these is rural open land or wooded; the easterly sector comprises the urban area. The topography rises steeply from the narrow valley floor at sea level to the crest of a ridge which runs roughly parallel to the river with a minimum elevation of approximately 300 feet rising to a maximum of over 400 feet at some points. West of the ridge, the terrain is rolling with hills rising from an average base elevation of roughly 300 feet to a maximum of 520 feet.

Land Use Pattern:

Hallowell streets run either parallel to the river or perpendicular, in the first case following the contours of the river bank and, in the second case, climbing the steep hillside. The central business district is strung along both sides of Water Street in a fairly tight pattern from Winthrop Street on the north to Temple Place on the south. A strip of commercial and storage uses extends north along Water Street and is continuous with Augusta urban development. Some business uses, notably the Worster House, and some public buildings reach west on Winthrop Street for one block. The older residential neighborhoods press tightly against the business district on the east and along to the steep hillside in a closely developed pattern which thins at an elevation of roughly 200 feet and is thereafter channelled along only four east-west streets to the top of the ridge at 300 feet. Most of the newer housing in Hallowell, of which there is not very much, is located on the higher elevations which did not tend to be as popular with earlier settlers as the locations closer to the river. Thus the pattern of development is denser near the river, thinning out as it reaches up the hillside.

The crest of the hill on Winthrop Street is dominated by the State School for Girls. West of the turnpike, which divides the city roughly in half, the land is entirely in open fields or woodland.

A single-track line of the Maine Central Railroad traverses the urban area. It closely follows the river shore at the northerly and southerly ends of the city but swings west at the most densely developed central section and runs through the interiors of several residential blocks.
Transportation and Communications:

The Maine Turnpike runs through Hallowell but there are no Hallowell interchanges. The nearest interchanges are at Augusta and Gardiner. Through highway routing for regional traffic destined for Hallowell from the Augusta turnpike exit would be via Western Avenue in Augusta to the traffic circle downtown and then south on Route 201 to Hallowell. The distance from the interchange to the northerly Hallowell boundary line is approximately 2 1/2 miles.

Water Street in Hallowell is Route 201, the major Brunswick-Augusta highway.

The Maine Central Railroad line which traverses Hallowell is the freight route for southbound shipments only. Northbound freight goes through Auburn. There is a freight terminal in Hallowell. There is no rail passenger service.

Air passenger service is supplied by Northeast Airlines from the state-owned and operated airport at Augusta. A new airport to serve the Augusta-Waterville area is in the early planning stages.

Type of Government:

City Council - Manager

Tax Rate:

$97 per $1000 of valuation

Valuation:

$2,473,349. Assessment ratio - 1/3

Public Facilities:

Hallowell Water District
City Hall
Hubbard Free Library
City Garage
City Dump
Hallowell Fire Department
Federal Post Office
Schools:

Hallowell Elementary School
Hallowell High School
Maria Clark School

Churches:

Baptist
Catholic
Congregational
Episcopal
Methodist

Economy:

Hallowell is mainly a suburban community for Augusta with little industry of its own. The Hallowell Shoe Company, the single manufacturing enterprise of importance employs 250-300 persons. Manufacturing represents the most important source of employment for Hallowell residents but 60% of those so engaged work in either Augusta or Gardiner. The suburban character of the Hallowell economy is demonstrated by the fact that 72% of all employed residents commute to work in Augusta and, to a lesser extent, in Gardiner.

Other components of the Hallowell economy are retail trade, commercial services and some warehousing and storage functions.

Major Planning Problems:

Because of the influence of two regional transportation facilities which traverse the Hallowell urban area, downtown has become severely blighted and its economic viability is threatened. Route 201 (Water Street) is at the same time the service street for the downtown shopping center and a regional highway carrying a large volume of fast through traffic. The two functions conflict violently at the expense of healthy operation of the shopping center. The problem is further complicated by the absence of off-street parking facilities.

The Maine Central Railroad which runs through residential neighborhoods represents another conflicting land use which has resulted in deterioration of property values at some critical locations.

A radical urban renewal program to clear and redevelop parts of downtown is needed to solve the major planning problems in Hallowell. Also a regional planning study is needed to coordinate the many elements of individual community problems which are dependent on regional considerations.
<table>
<thead>
<tr>
<th>INDEX</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUMMARY AND CONCLUSIONS</td>
<td></td>
</tr>
<tr>
<td>LAND USE</td>
<td></td>
</tr>
<tr>
<td>Existing Land Use</td>
<td></td>
</tr>
<tr>
<td>Proposed Land Use</td>
<td>7</td>
</tr>
<tr>
<td>POPULATION</td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>Natural Increase and Migration</td>
<td>3</td>
</tr>
<tr>
<td>Characteristics of the Population</td>
<td>5</td>
</tr>
<tr>
<td>Age and Sex Distribution</td>
<td>6</td>
</tr>
<tr>
<td>Prospects for Future Population Growth</td>
<td>8</td>
</tr>
<tr>
<td>ECONOMIC BASE STUDY</td>
<td></td>
</tr>
<tr>
<td>The Economic Setting</td>
<td></td>
</tr>
<tr>
<td>The Components of the Hallowell Economy</td>
<td>3</td>
</tr>
<tr>
<td>Conclusions and Recommendations</td>
<td>19</td>
</tr>
<tr>
<td>GEOLOGY</td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>Applied Geology</td>
<td>1</td>
</tr>
<tr>
<td>Use of Map</td>
<td>2</td>
</tr>
<tr>
<td>Slope</td>
<td>2</td>
</tr>
<tr>
<td>Bearing Capacity</td>
<td>2</td>
</tr>
<tr>
<td>Drainage</td>
<td>3</td>
</tr>
<tr>
<td>Depth-to-Bedrock</td>
<td>3</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>Conclusions</td>
<td>4</td>
</tr>
</tbody>
</table>
# Index

## Utilities

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>SECTION VI - 1</td>
</tr>
<tr>
<td>Water</td>
<td>1</td>
</tr>
<tr>
<td>Sewerage</td>
<td>4</td>
</tr>
</tbody>
</table>

## Transportation

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streets and Highways</td>
<td>SECTION VII - 1</td>
</tr>
<tr>
<td>Rail Transportation</td>
<td>10</td>
</tr>
<tr>
<td>Air Transportation</td>
<td>11</td>
</tr>
<tr>
<td>Water Transportation</td>
<td>11</td>
</tr>
</tbody>
</table>

## Building and Environmental Conditions

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>SECTION VIII - 1</td>
</tr>
<tr>
<td>Neighborhood Delineation</td>
<td>2</td>
</tr>
<tr>
<td>Building Conditions</td>
<td>2</td>
</tr>
<tr>
<td>Summary of Problem Areas</td>
<td>5</td>
</tr>
<tr>
<td>Recommendations</td>
<td>5</td>
</tr>
</tbody>
</table>

## Public Lands and Buildings

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Land Proposals</td>
<td>SECTION IX - 1</td>
</tr>
<tr>
<td>Evaluation of Existing Community Facilities and Recommendations</td>
<td>5</td>
</tr>
</tbody>
</table>

## Preliminary Zoning Plan and Ordinance

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefatory Zoning Plan and Ordinance</td>
<td>SECTION X</td>
</tr>
</tbody>
</table>
TABLES

Land Use:

Urban Land Uses ............................................. I - 5

Population:

Population by Decades ..................................... III - 1
Percentage Growth of Population .......................... 2
Population Growth Trends .................................. 3
Resident Births and Deaths ................................. 4
Birth and Death Rates ....................................... 5
Natural Increase and Migration ............................ 5
Age-Sex Distribution ......................................... 7
Three Population Projections .............................. 8

Economic Base:

The Economic Setting ....................................... IV - 2
Manufacturing in Augusta and Kennebec County ......... 3
Major Kinds of Manufacturing in Kennebec County ...... 4
Manufacturing in Hallowell, Augusta, Gardiner and Kennebec County ........................................ 4
Manufacturing Employment-Southwestern Maine Counties .................................................. 6
Proportion of Total Maine Manufacturing ................ 7
Proportion of State Manufacturing ........................ 8
Retail Trade ................................................... 10
Kind of Retail Business Group ............................. 11
Selected Service Trades ..................................... 11
Kind of Service Business Group ........................... 12
Retail and Service Trade Receipts ......................... 12
Augusta and Hallowell Retail Trade ....................... 14
Percentage Changes .......................................... 14
Shopping Characteristics .................................. 15
Occupation and Industry Classification ................ 16
Employed Population by Occupation and Industry ...... 17
Resident Labor Force Working in Hallowell ............... 18
Resident Labor Force Working Outside of Hallowell .... 18

Transportation:

Proposed Minimum Specifications for Street Construction and Reconstruction .................................. VII - 4
Minimum Requirements for Street Construction .......... 5
Street Conditions .............................................. 6
Priority List for Street Repair and Reconstruction ....... 8
MAPS AND GRAPHS

SECTION II

Existing Land Use (Urban)
Existing Land Use (Rural)
Existing Land Use (C.B.D.)
Proposed Land Use (Urban)
Proposed Land Use (Rural)
Elevation Map (C.B.D.)

SECTION III

Population Projection Chart
Population Distribution

SECTION V

Applied Geology

SECTION VI

Water
Sewer
Natural Drainage

SECTION VII

Proposed Street Classification
Traffic Flow
Classification of Roads
Street Conditions

SECTION VIII

Neighborhood Delineation
Building Conditions
Building Conditions (Central Area)
Problem Areas
Preliminary Urban Renewal Recommendations

SECTION IX

Public Buildings
SUMMARY AND CONCLUSIONS
Hallowell, once one of the most prosperous communities in Maine, still retains much of its 18th and 19th century charm. Its riverbank setting, some excellent architecture, many ancient and stately trees lining streets which climb steeply up the hillside, imaginatively planned older neighborhoods and unsurpassed views of the Kennebec River Valley give Hallowell a unique style. Yet its problems are manifold. Hallowell suffers from extensive building blight, economic stagnation and deterioration of public facilities.

During the past 20 years, the Augusta region as a whole and Augusta as the regional core have exhibited growth trends typical of urban clusters everywhere in the nation. There has been some population increment in the central city, suburbs close by have grown at substantial rates - in some cases more than 20% per decade. Yet Hallowell, contiguous with and easily accessible from Augusta, lost population during the last decade. In 1960, Hallowell had roughly the same number of residents as in 1890. For various reasons, time has seemingly stood still in Hallowell. After a period of promising expansion during the 18th and early part of the 19th centuries, there was little, if any, net growth in either the economy or the population. Although there was a time when Hallowell was considered to be at least as important as Augusta, the latter far outdistanced Hallowell in all respects after becoming the seat of state government. Even subsequently, Hallowell was able to capitalize on here proximity to Augusta and her reputation as a center of culture, literature and graceful living when, for a short time, the Worster House (then the Hallowell Hotel) was the meeting place for lawmakers and visiting dignitaries.

Many years of economic distress were climaxxed by the depression of the 1930's from which Hallowell never fully recovered and a serious flood in 1936. During that particularly trying period, the numerous apartment housing units in the city were either occupied by destitute families or were vacant and property owners were so severely distressed that such housing was permitted to fall into serious disrepair. Water Street, the main street of the commercial center and a major regional highway, had many such multi-family structures which served both to give Hallowell a negative public image and to contaminate other Water Street structures with the kind of blight to which they themselves had fallen victim. An additional destructive factor has been fear on the part of Water Street merchants and property owners that all of the structures on the river side of the street were subject to condemnation and demolition as part of a rumored highway widening project. The ultimate result of all such pressures combined has led to falling property values and almost universal deterioration of buildings along Water Street.

Today, Water Street is a fast, through-highway traffic carrier lined with old and shabby looking stores. Several of these are occupied by dealers in antiques and second-hand merchandise which draw a regional and
even extra-regional clientele from amongst the hundreds of thousands of automobile drivers who pass through Hallowell every year. But there is no shopping center in Hallowell oriented to local needs and the few stores which do cater primarily to residents are neither modern nor attractive. As a result, at least 75% of Hallowell families do most of their shopping, even for food, in Augusta or elsewhere out of town. Hallowell retail merchants did a combined total gross business amounting to $4 million in 1958 (the most recent year for which sales figures are available). A substantial part of this must have been due to the unusual concentration of antique and second-hand stores which can draw shoppers from a wide market area. These stores represent perhaps the optimum adjustment possible of enterprise to the limitations of location. Few other kinds of merchandising could be successful on a tightly built-up highway with no off-street parking in mouldering buildings - in short, in a setting which is inconvenient and without any of the trappings of "good" public relations.

The result of all of this has been that Hallowell has failed to attain a public image as an attractive place to live. While Winthrop and Farmingdale, for example, have been increasingly popular Augusta suburbs, Hallowell has been passed over by individuals seeking new home sites and the difficulty of sewerage otherwise appropriate land has kept developers away. There has been relatively little new construction and many of Hallowell's truly distinctive old houses have been neglected or inappropriately converted into multi-family housing or nursing homes. In addition, Hallowell has been unable to attract private commercial or industrial capital in amounts needed to balance and sufficiently broaden the municipal tax base.

To overcome such problems, a radical program of renewal and redevelopment is called for. The consultants propose that the entire downtown area along Water Street be subjected to scrutiny within the framework of a federally aided urban renewal program to determine precisely which sectors of it can be saved and improved and which must be cleared and rebuilt. Fundamental to the proposed redesign of downtown is the need to relieve Water Street of its through-traffic burden. A new highway to serve the Route 201 function could probably be built parallel with Water Street but farther east toward the river. Only a little less pressing is the need for relocation of the Maine Central Railroad to free the residential neighborhoods west of Water Street from its blighting influence and to release land contiguous with the northerly end of the shopping center for reuse as a civic center. The railroad might most appropriately be located side-by-side with a new Route 201 along the river shoreline.

Redevelopment of downtown and removal of all dilapidated buildings along Water Street is the indispensable condition to Hallowell progress, in the opinion of the consultants. Other actions which are equally important but which could not be effective by themselves will have to follow. These include construction of sewage treatment facilities, extension of water and sewer lines to areas selected for residential expansion, also
Summary and Conclusions Cont’d:

acquisition of considerable amounts of land to preserve the open-space character of the city and to provide recreational opportunities for residents against the time when demand for buildable land may destroy the very values which now enhance the beauty of the city. As Hallowell grows, other needs for public services and facilities will develop. Revenues to meet such needs should be met partly by residential property taxes and partly by taxes on commercial and industrial property which can be attracted both to a redeveloped downtown and to an industrial area proposed in the northwesterly part of the city at the Augusta-Hallowell boundary line. Proximity of the Augusta turnpike interchange and industrial development proposed for the matching land just across the line in Augusta will encourage development at the latter location.

Many of Hallowell’s planning problems are closely related to regional problems and can be attacked only on the regional level. It therefore is proposed that Hallowell take steps to initiate a regional planning study in cooperation with Augusta and other nearby communities. In specific areas, cooperative action could have immediate and concrete value for all communities concerned. Construction of sewage treatment facilities is an example.

Successful redevelopment of downtown complemented by a municipal improvement program of the scope outlined will radically improve the prospects for economic and residential growth in Hallowell. The consultants feel that, given such improvements, Hallowell would be an outstandingly attractive community in which to live, work and play. The extent of growth to be expected would then be limited only by the factors which will determine growth for the Augusta region. Within that limitation, Hallowell could compete successfully with every other community in the region.
LAND USE

Existing Land Use:

Land Uses of the Past .... 1
Land Uses of Today .... 2
Existing Land Use (Urban)
  By Area .... 5

Proposed Land Use:

Introduction .... 7
The Hallowell City Plan .... 8
The Downtown Plan .... 8

Citywide Proposals:

  Residential Uses .... 10
  Business Uses .... 13
  Industrial Uses .... 13
  Highways .... 15
EXISTING LAND USE

Land Uses of the Past:

The early land use pattern in Hallowell was typical of settlements along all four of Maine's major rivers. Dictated by the need for no more than walking distance separation of homes from business and commerce, early development was tightly clustered around the town center. Use of the river as major means of transportation determined the location of industries, stores, warehouses, business offices and community service and meeting places. The valley floor at Hallowell was just wide enough to contain these town center functions plus the first tier of houses. Other succeeding tiers reached gradually up the steep hillside and streets were laid out along direct lines of access at right angles to the hillside contours with the then popular grid pattern of cross streets. The upper slopes of the hill and the land on either end of the town center were in broad tracts of farmland. Augusta and Hallowell were settled and built up simultaneously and what is now Route 201 was the connecting link between them for land travel.

During the latter part of the 18th and the first half of the 19th centuries, Hallowell was a self-sufficient farming community with sufficient industry and commerce to serve the needs of its own residents and to do some trading with the outside world. Local industries included ice-cutting on the river, granite quarrying, printing and publishing, agriculture and some forestry. There were also three shoe factories, a box factory, woodworking mill, foundry and a patent medicine manufactory.

From the late 1700's until contemporary times, Hallowell was noted as a city of distinctive houses and an exceptionally fine hotel, the Hallowell House. The influence of Sir Christopher Wren could be seen in many neighborhoods and numerous Hallowell doorways were then and still are considered noteworthy.

Sometime in the late 1920's or early 1930's, Hallowell granite shipments declined and finally ceased. High transportation costs and a growing tendency to use other materials in the construction of public buildings thus deprived Hallowell of its last remaining important industry. Wooden shipbuilding and ice cutting had long before succumbed to the influence of changing technology and many of the smaller manufacturing enterprises in Hallowell had ceased to operate either because rail transportation had made it unnecessary for the community to be self-sufficient or the manufacturing sector of the local economy was not able to compete profitably with growing manufacturing centers elsewhere.

During the depression of the 1930's, numerous multi-family residential structures were either vacant or poorly maintained because of straitened economic circumstances of both property owners and tenants. Wherever original construction was not exceptionally sound, such buildings quickly deteriorated and spread their blight to other neighboring structures. Thus originated one of the characteristics of the land use pattern.
and of one of the major planning problems of contemporary Hallowell. Water Street, in particular, is lined with numerous buildings in very poor physical condition.

During the 1940's, farming declined in economic importance while manufacturing at industrial centers in southeastern Maine became the economic mainstay of the region, as it still is today. Formerly prosperous Hallowell farms were in many cases abandoned, the land permitted to return to woodland and rural buildings allowed to fall into a state of disrepair. Today some of the best examples of colonial architecture, formerly the homes of prosperous business men, sea captains, and land-owners, are abandoned or neglected and run down.

Land Uses of Today:

Hallowell, just south of Augusta and sharing with it a common boundary line, is in a sense a continuation of the Augusta land use pattern. The most densely built-up area parallel with the westerly Kennebec River shoreline is a continuation of Augusta urbanization. There is no interruption by rural or suburban open development between the Augusta commercial land uses along State Street and the strip of commercial uses along Water Street in Hallowell. Also some governmental and wholesale operations have spilled over into Hallowell. Just south of the Augusta-Hallowell city line is the headquarters and distributing center of the State Liquor Commission; also oil storage and distributing facilities which serve an area within a hundred mile radius, via the Bangor-Portland pipeline. The continuous flow of urbanization from Augusta through Hallowell is understandable, both because they have developed over the years as an entity and because the Hallowell commercial center lies along a major traveled route between Brunswick-Bath and Augusta.

In spite of the natural tendency for Hallowell to become integrated in the land use pattern of the state capital city, there has been very little overflow of residential building from Augusta to Hallowell with the exception of some on Mayflower and Winthrop Roads. The major Augusta residential expansion has in fact skipped Hallowell and gone to Gardiner, Farmingdale, Readfield and Winthrop. Traffic congestion on Route 201 partly accounts for this, especially when counterpoised against turnpike and Route 202 access to some other localities. Also, the unattractive appearance of Water Street buildings and the fact that much of Hallowell's buildable land is not sewererd are important factors. As a result, very little of outlying Hallowell is developed.

Outlying Hallowell is predominantly wooded or open fields with scattered old residential and farm accessory buildings. The urban area, bounded generally by the river on the east and by Interstate 95 on the west, is devoted about half (in terms of land coverage) to residential uses and about half to commercial, storage and other uses. It is in the
Land Uses of Today Cont'd:

strip along the river that settlement originally occurred, following the major Brunswick-Augusta stage coach route. Further impetus was given this development by the location of the Maine Central Railroad route parallel to and near the river and, in later years, it was securely locked in place by conversion of the old stage route to the needs of the automobile. Newer housing construction has occurred high on the hillside and at the crest of the hill on High Street, Mayflower Road and Central Street.

The railroad had little effect on the distribution of land uses by type, freight terminal facilities and the warehouse off Franklin Street being the major exceptions. These represent the only railroad-oriented land uses in residential neighborhoods where they are in conflict with surrounding uses. However, the railroad itself is a detrimental influence on all other uses in its vicinity.

Another land use in the urban area which is incompatible with and injurious to its surroundings is the firewood storage facility located off Second Street, the major commuter route from Augusta to outlying Hallowell, on 4 acres of land in a neighborhood which could support choice residential development.

Commercial uses in Hallowell are strung along the length of Water Street and are strongly oriented to a non-local market. Antique and related kinds of stores are the most important of these and they dominate the northerly end of the street. There is no shopping center in Hallowell which serves local needs and the few establishments on Water Street which depend on a purely local clientele are small, old fashioned and unattractive. Under existing conditions, such enterprises cannot be expected to operate much above marginal standards. Water Street is a major through-highway carrying a large volume of fast traffic and off-street parking facilities are absent. Moreover, easy access to modern shopping centers in neighboring communities is available and most Hallowell residents are in the habit of shopping out of town. The sole asset of the Hallowell central business district is that the commercial buildings along Water Street are without false fronts and thus retain their original simplicity.

There are a number of multi-family residential buildings at the southerly end of the business district which are poorly designed and constructed and in shabby condition.

River views from Water Street, a potential asset to a redeveloped shopping center, are rare and where they exist, are marred by junk, building ruins or other kinds of rubble between buildings.

On the hillside, just above the business district, is the original residential settlement which retains much of the charm and architectural integrity of the wooden shipbuilding era which inspired it. The hillside neighborhood has changed little in a hundred years. There have been a few conversions of historic houses to multi-family dwellings or nursing
homes and a few houses have fallen into serious disrepair but, by and large, this area is unequaled anywhere in Maine for historic value and urbane beauty.

Over the years, residential development has crept up the steep hillside which once was woodland and farm land. Several relatively new houses are located on High Street, at the crest of the hill. The Maine State School for Girls, fronting on Winthrop Street, occupies land atop the hill and affords a fine view of the river valley.

Most of the land south of Academy Road and west of Middle Street is in agricultural use or large ownership tracts which are kept in their natural state. The land west of the Maine Turnpike is rural and undeveloped.

The topography presents two distinct problems in Hallowell. The low land along the valley floor, on which the downtown business district stands, is subject to flooding. The island just off shore in the vicinity of the junction of Greenville and Water Streets is periodically under water and the adjacent shore is flood plain which is unsuitable for building. Secondly, the steep terrain of the riverbank to which urban Hallowell clings limits expansion potentials in many areas and creates maintenance problems by reason of storm runoff.

According to the 1959 Augusta City Plan, the mean range of tides on the Kennebec River vary from 8 1/2 feet at the mouth of the river to 4 feet at Augusta, which is the limit of tidal water. The mean level at Hallowell would be between 4 and 5 feet. Heights of 9 feet above mean level are reported to occur several times a year at Augusta. Hallowell, being closer than Augusta to flood level, is subject to more flooding than the latter, more from backing up of water behind downstream-bound ice jams than from the flood volumes of the river.

Floods exceeding the annual rise of 9 feet above mean high tide levels have occurred twelve times between 1832 and 1936, three times in autumn, eight times in spring and once in December. No floods reaching more than the annual nine-foot-high levels have been recorded since 1936.

In view of this problem, the Hallowell urban development along Water Street represents to some extent a misuse of land. However, because of the steep terrain of the hillside rising immediately west of Water Street coupled with the fact that dense development covers the hillside and presses closely against the Water Street business section, there is literally nowhere else for the commercial center to go. Other problems are raised by the fact that both the major Bath-Brunswick-Augusta highway and the Maine Central Railroad were built close to the river for topographical reasons and will be

Land Uses of Today Cont'd:

difficult to move. Nevertheless, their effect on the Hallowell land use pattern and on the economic viability of downtown is so seriously destructive that the success of a redeveloped urban area rests heavily on what can be done to modify their influence.

**URBAN LAND USES**

<table>
<thead>
<tr>
<th>I. Built-up Urban Area</th>
<th>Acres</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Density Residential</td>
<td>168.8</td>
<td>51.7%</td>
</tr>
<tr>
<td>High Density Residential</td>
<td>7.7</td>
<td>2.3%</td>
</tr>
<tr>
<td>Commercial</td>
<td>17.8</td>
<td>5.4%</td>
</tr>
<tr>
<td>Industry &amp; Warehousing</td>
<td>8.0</td>
<td>2.4%</td>
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<tr>
<td>Public</td>
<td>23.8</td>
<td>7.3%</td>
</tr>
<tr>
<td>Parking (off-street)</td>
<td>0.5</td>
<td>0.1%</td>
</tr>
<tr>
<td>Offices</td>
<td>1.0</td>
<td>0.3%</td>
</tr>
<tr>
<td>Cemetery</td>
<td>12.6</td>
<td>3.9%</td>
</tr>
<tr>
<td>Recreation</td>
<td>3.2</td>
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</tr>
<tr>
<td>Urban Streets</td>
<td>83.0</td>
<td>25.6%</td>
</tr>
<tr>
<td><strong>Total Built-up Area</strong></td>
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<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Total Urban Area</th>
<th>Acres</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacant, Developed</td>
<td>68.8</td>
<td>7.5%</td>
</tr>
<tr>
<td>Vacant, Undeveloped</td>
<td>515.0</td>
<td>56.6%</td>
</tr>
<tr>
<td><strong>Total Built-up</strong></td>
<td><strong>326.4</strong></td>
<td><strong>35.9%</strong></td>
</tr>
<tr>
<td><strong>Total Urban Area</strong></td>
<td><strong>910.2</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

**Existing Urban Land Use by Area:**

For the purpose of this study single and two-family resident uses have been combined into low-density residential use which utilizes 168.8 acres or slightly over one-half of the presently developed urban area.

High density multi-family residential uses comprise 7.7 acres or 2.3% of the urban area and are located primarily in and around the central business district. Commercial uses consume 17.8 acres or 5.4% of the total urban built-up area and industrial and warehousing uses comprise about half as great an area or 8.0 acres.

Offices, mostly located over ground floor stores, consume a total of 1.0 acre or 0.3% of the total urban area, indicating that Hallowell is not an office and service center of more than strictly local importance.
Existing Urban Land Use by Area Cont'd:

The 23.8 acres of public land and buildings comprise 7.3% of the total built-up urban area and consist mainly of school property and the state institution on Winthrop Street. Cemetery land covers 3.9% of the total urban area or 12.6 acres. Land used for recreation consumes 3.2 acres or 1.0% of the developed urban area and is located adjacent to the present school facilities. There is no other non-school open space or recreational land reserved in Hallowell for public use.

Urban streets in Hallowell consume 83.0 acres or 25.6% of the total built-up urban area. This is slightly above the general average of 22.5% for the average community of Hallowell's size.

The total urban area measuring 910.2 acres has been divided for the purpose of this study into the built-up area of 326.4 acres or 35.9% of the total urban area, vacant undeveloped land measuring 515 acres and the vacant but developed land measuring 68.3 acres or 7.5% of the total urban area. Vacant developed land is defined as land located on presently existing streets, sewer or water lines or a combination of the three.

The total urban area is defined as that area lying between the interstate highway and the Kennebec River north to Augusta and south to Farmingdale. It is this area which has been subject to the most intensive study under the continuing planning program.
PROPOSED LAND USE

Introduction.

The proposed land use plan represents a policy statement for the future development of the community. It is designed to guide the course of development into natural and economic patterns in the years to come. Future zoning decisions as well as future development of the private and public sectors of the community organization should be carried out within the framework of the plan. While the plan incorporates those existing elements of the community organization which either are not subject to change or which for various reasons it is desirable to retain, its primary purpose is to indicate those new elements needed to meet contemporary social and economic standards and to conserve community resources for future generations. Because of the particular problems existing in Hallowell, the plan strongly emphasizes future changes.

The land use plan represents only one step in the planning process. It is the function of the Planning Board to implement it through public relations efforts and through proper designation of priorities; also, to up-date specific elements of the plan as the needs of the community change over the years.

In view of the urban renewal program which is expected to be undertaken shortly in Hallowell, and in view of the interdependence of Hallowell with other communities in the Augusta metropolitan region, the land use plan described here is both generalized and tentative. The more detailed planning which will be required once an urban renewal program is initiated will very likely indicate the need for some decisions which differ from those presented here. Also, because many of the elements of Hallowell planning action are clearly dependent upon actions of neighboring communities, additional study will be needed at the regional level.

Hallowell's economic ties to Augusta are so strong that future growth of population in Hallowell depends almost entirely on the economic viability of Augusta. In fact, there is no community in the immediate environs of Augusta which could expect any significant amount of population growth except that generated by the urban character of the region of which Augusta is the core. In short, the communities in the Augusta region, including Hallowell, are primarily residential suburbs for the central city. Even many of the outlying manufacturing concerns depend on the distribution and transportation services available in Augusta and the potential labor force present in the urbanized area. In other more concrete ways too, Hallowell's planning problems are not strictly local. For example, highways, existing and proposed, are fundamental to Hallowell planning problems and highways are inter-community facilities which must be planned, financed, and built by coordinated local authorities. Other services customarily under individual community jurisdiction could be handled more effectively on the regional level. Schools, hospitals, recreation facilities, and sewage treatment facilities are a few examples.
Cooperative inter-municipal effort to attract industry is much more likely to be successful than separate efforts by small communities with limited resources. Coordination of individual community plans for Augusta, Hallowell, Farmingdale, Chelsea and Pittston at least and ultimately for all of the separate town units of the Augusta conurbation would benefit each of the communities concerned. Regional planning on an even wider geographic basis would also be justified, for all of Kennebec County, for example. It is therefore recommended that Hallowell take steps to initiate and support the formation of some kind of regional planning commission to develop a regional plan with state or federal financial aid, or both. Those Hallowell land use proposals which involve matters of intercommunity concern would then be subject to review and possibly to revision by such a regional commission.

The Hallowell City Plan:

Hallowell needs to reverse some trends which have operated in the past and have led to stagnation. Before building, it first will be necessary to tear down. The following proposals are based on the assumption that Hallowell has at least as much potential for growth as the Augusta region does. Given certain fundamental changes, particularly downtown, there is no reason why Hallowell would not be an outstandingly attractive community. In fact, it is probable that over, say, the next twenty years, demand will be manifested for all of Hallowell's buildable land both east and west of the turnpike. There is also no reason why an imaginatively redeveloped downtown could not attract substantial amounts of private capital for commercial development. In short, Hallowell can look forward to economic growth and residential expansion accompanied by increasing tax revenues. The critical element in all of these prospects is the kind and extent of redevelopment which is undertaken downtown.

The Downtown Plan:

It is proposed that the entire downtown area reaching generally from the river to west of the railroad be subjected to radical urban renewal action. Winthrop Street on the north and Temple Place to the south are suggested boundaries for initial development of a central business district. Clearance north and south of this area along Water Street will open up ample land for future expansion of the commercial center. This land is proposed to be reserved for such expansion through public controls instituted under urban renewal procedures. Commercial development should initially be concentrated at the downtown core in order to bolster commercial property values. The concept of the open-ended central business district is of fundamental importance. Hallowell will have an opportunity afforded few urban communities to concentrate high-value uses downtown where they belong and at the same time to have reserve land held back for
The Downtown Plan Cont'd:

future expansion when there is need for it. One of the major problems of cities everywhere can thus be avoided, namely the congested business center with no potential for expansion which literally forces new commercial investment to go to outlying locations. Cities elsewhere have seen their downtown property values debilitated and traditional downtown functions assumed by highway shopping centers. The proposed urban renewal program will give Hallowell the opportunity to avoid that problem in the future.

Civic center uses are proposed to be concentrated in the area bounded by Middle, Winthrop, Central and Second Streets and encompassing a half-block depth on the northerly side of Winthrop Street where the U.S. Post Office and City Hall are already located. Governmental and community facilities buildings would dominate this neighborhood which would be contiguous with and quickly accessible by auto or on foot from the shopping center.

The railroad and Route 201 represent major obstacles to the successful redevelopment of the downtown area. Since there is no indication that the railroad will be discontinued in the foreseeable future, ways must be found to reduce or eliminate its destructive influence on property values. Relocation is the most promising method of doing this.

Because of the hilly terrain of most of Hallowell, the alternatives for railroad location are strictly limited. One alternative is its present alignment, another is along the river bank and a third is underground. The latter would be ideal from an environmental point of view but might be unfeasible because of cost. The present location is distinctly undesirable under existing conditions and is inconsistent with redesign proposals. On the other hand, any relocation would involve, in addition to the cost of construction, loss of railroad terminal facilities and some attendant business in Hallowell which probably could not be replaced. Nevertheless, it appears that a new alignment along the river bank would solve most of the problems generated by the railroad and would not be economically unfeasible.

If efforts to revitalize downtown at its present location are to be successful, through traffic must be removed from Water Street. Although there could be other ways to accomplish this, the only feasible location in Hallowell for Route 201 is along the river parallel with the relocated railroad for a sufficient distance to by-pass the entire length of downtown. Once through traffic is rerouted, a service street would be established to function for a commercial center.

It may be that a more radical rerouting of Brunswick-Augusta traffic to by-pass Hallowell altogether would be still more desirable from a regional point of view. A bridge at the southerly end of Hallowell,
The Downtown Plan Cont'd:

connecting with Route 201 from Gardiner, could carry the highway to the east bank of the river whence it could run northerly through Chelsea to Augusta. Still another alternative would be to rebuild the highway from some point south of Gardiner downtown to an alignment along the turnpike so that it would enter the westerly part of Augusta. This is one of the many areas of planning in which extra local interests are deeply involved and which should be studied within the scope of a regional plan.

After relocation of the railroad and Route 201 all of the land from relocated Route 201 to a half-block depth on the westerly side of Second Street can be made available through clearance procedures (where warranted) for redevelopment. If it proves unfeasible to move one or both of these major regional transportation facilities, some other central business district design will have to be developed.

While the cleared land along Water Street is proposed to be reused primarily for commercial construction, high-quality multi-unit apartment housing at carefully selected locations would be appropriate. In all cases, low land-coverage uses should be encouraged. Industrial and highway-oriented business uses should be specifically excluded with the exception of the shoe factory which could remain as a non-conforming use.

Service streets, landscaped esplanades, small green parks and pedestrian malls should be designed to add interest to the pattern of urban high-rise buildings and modern single-story shops and adequate off-street parking should be provided.

A redeveloped Hallowell downtown, along the lines proposed, could be an eminently and uniquely attractive urban center which would draw local, regional and tourist shoppers.

Citywide Proposals:

Residential Uses: With redevelopment of downtown, increasing pressure for residential expansion will be felt in Hallowell. There are substantial amounts of undeveloped land which is buildable to varying degrees. Most of this land, however, is currently inaccessible because of the absence of streets or is not served with public utilities. Hallowell can shape the pattern of new residential development through zoning and building restrictions and by extending sewer and water lines and streets to selected areas.

Because of the relatively higher costs of extending public services to the large, open land areas west of the turnpike, initial residential development should be channelled into those sectors of town east of the turnpike which are in the same drainage basin as the already sewered urban area. Since much of this land is not easily buildable because of
steep slope, clay soils and shallow depth to bedrock, it will be most suitable for high-value housing where economy of construction is not a controlling factor. The city should encourage such development by extending sewerage and water service to these areas.

The open land south of Mayflower Road with its magnificent views is one such potentially developable area. It will need, in addition to public utilities, new collector streets linked with High and Winthrop Streets and possibly with Chestnut or Middle Street.

The south and east slopes of Howard Hill are aesthetically suited for residential construction in spite of the difficulties presented by terrain and soil conditions. This area is proposed to be used for residential construction with emphasis on apartment buildings including public housing. Collector streets will be needed to connect the area with Second and Winthrop Streets. It is recommended that no action be taken to construct either utility lines or streets here until concrete interest has been shown by private capital to undertake development on a fairly large scale.

There is some buildable land left in the South End neighborhood which is within the critical drainage basin. This area is proposed to continue to be used for single and two-family housing. No need for new collector streets is foreseen here.

Other important areas of the city which are proposed for eventual residential development, depending upon the feasibility of sewer ing them, are the land east of the turnpike in the Vaughan Brook drainage area and most of the land west of the turnpike. Which of these areas should be opened for earliest development should depend on how and when they can be sewer ed. Because of technical problems of drainage, of subsoil conditions and of sewage treatment costs, it will be necessary to await the results of a detailed sewer study before any municipal policy decision can be made about this matter. If it should prove to be feasible to sewer the Litchfield Road area it should be opened initially to large lot development (by double subdivision requirements) until such time as sewers are installed when minimum lot sizes could be halved to increase density. However, care must be exercised to protect property values where construction has already taken place on large lots from any depreciating effect which might accompany the lowering of lot-size requirements. If a "702" sewer study indicates that the Litchfield Road area cannot be economically sewer ed, urban residential development should be discouraged. Such an arrangement would be especially appropriate if the area west of the turnpike is found to be economically sewerable and is thus subjected to intensive residential development. In this case, Litchfield Road would be the major access route from there to downtown and its traffic-carrying capacity would be enhanced by the absence of housing and driveways along it.
The areas west of the turnpike (and those east of the turnpike but outside the presently used drainage basin) should not be developed unless they can be sewered and served with other public facilities. If random house construction is permitted to occur on small lots or if subdivision on any scale whatever is permitted without provision for municipal services, the city will inevitably be faced with the necessity of providing such services at excessive cost after private sewage disposal systems have become a nuisance. By that time, the pattern of development will have been established at the whim of private subdividers and individual home owners. If initial development is poorly planned and if the value of structures which dominate the new neighborhoods is low, subsequent high-value construction will be discouraged. Precaution should be taken in all areas slated for residential expansion to prevent the establishment of trends which will turn middle-and high-income home owners away from Hallowell.

The area along Winthrop Road east of the turnpike and just south of the Hallowell-Augusta boundary line has unusual features which can be expected to attract people seeking house construction sites. However, its remoteness from the presently urbanized parts of Hallowell puts it beyond the range of sewerability. It is thus recommended that a very large minimum lot size requirement be used to restrict development to an open pattern which will generate as few problems as possible in terms of public service needs.

In the area west of the turnpike it is particularly important that public services be provided in adequate kind and quantity to insure proper development. Since residential neighborhoods here will be effectively cut off from the rest of urban Hallowell, it is proposed that open land in public ownership, recreational facilities and a community center be developed. A building for civic and recreational use, some retail stores, church, playground and school comprising the community center will integrate these neighborhoods and lend them an internal community identity. If homeowners are not able to develop a consciousness of membership in the community, they will have a strong tendency to identify with Augusta and to patronize Augusta stores and services.

Although some of the public services required to insure rational development of new residential neighborhoods can and should be financed by subdividers, the most costly cannot. For example, sewerage west of the turnpike will require either a separate treatment plant on Vaughan Brook or a trunk line to conduct sewage from the collector system all the way down the hill to the treatment plant recommended on the river bank. Neither procedure would be warranted by anything less than large-scale development. Therefore, it is recommended that initial development be restricted to very large lot sizes through double subdivision requirements or that the land be held in farming and rural residence use until private capital is guaranteed for extensive subdivision. The findings of a "702" sewer study will facilitate decisions on this matter.
Citywide Proposals Cont'd:

Business Uses: Commercial development should be restricted to the downtown redevelopment project area with three exceptions. Neighborhood stores are justified in the South End area and eventually will be justified in the community center west of the turnpike for the reasons stated above. Both of these retail centers should be restricted to neighborhood service functions to avoid diverting business away from downtown. The third exception is the area proposed for industrial park and shopping center at the northerly end of the Hallowell segment of the turnpike. The rationale for encouraging commercial development here is that a certain amount of commerce is expected to be pushed out of downtown Augusta where traffic, parking, land use conflicts and high land costs are growing problems. The new commercial establishments are likely to seek outlying locations easily accessible by automobile. In view of Hallowell's need to diversify its tax base, it would be desirable to make land available for this kind of use.

The area proposed is close to the Augusta turnpike interchange, is relatively level, moderately well drained and has sufficient depth to bedrock to permit satisfactory construction. The proposed residential belt route paralleling the turnpike would provide excellent automobile access from points north and south of Hallowell.

Industrial Uses: The area described above would be developed partly as shopping center and partly as industrial park. It is well suited for industrial uses for much the same reasons as it is suitable for commerce. An added advantage is the fact that the Augusta preliminary land use plan designates the land just across the boundary for similar development and indicates that water could be supplied from the Augusta water system. It would be desirable for Hallowell and Augusta to undertake cooperative development of the entire tract of land making use of the Augusta interchange for turnpike access. The fact that the Augusta part of the park is closer to the turnpike interchange would operate in favor of Augusta during the earlier stages of development. However, this disadvantage could be overcome by rerouting and reconstructing the road west of the turnpike which connects with Winthrop Road. This would provide suitable truck access to both the industrial and commercial areas while the proposed new residential belt route east of the turnpike would provide excellent automobile access for employees.

The major disadvantage of this area for industrial use is that it cannot now be economically sewer. It is outside both the Augusta and the Hallowell developed drainage basins. In view of this problem and the need to protect underground water supplies from pollution in case of need for them in the near future, it would be necessary to restrict development here to those uses which do not produce harmful liquid wastes. Moderate amounts of sanitary wastes can be disposed of by means of septic tanks since the soils are suitable.
In view of the difficulties involved in providing adequate sewerage for industrial purposes, it is not certain that the proposed Hallowell industrial park represents the best possible use of the land involved. However, it is certain that the new employment opportunities promised by establishment of new industry anywhere in the metropolitan region would be beneficial to both Augusta and Hallowell as well as to other communities nearby. Therefore, it is recommended that before any municipal funds are committed for industrial park construction at the designated location, efforts be made by Hallowell officials and civic leaders to investigate alternative locations within the framework of a regional planning study. It may be discovered that some other site outside Hallowell and perhaps outside Augusta has more of the characteristics which can be expected to attract industry than either the proposed Hallowell location or the Augusta location already preliminarily adopted. The potential increment to regional employment opportunities should be the overriding consideration of any industrial development effort.

Whether the industrial park location chosen is the one proposed here or one chosen as a result of inter-community effort, contemporary zoning and building standards should be established to control performance and uses in the park. Use, area, coverage, height and parking restrictions should be enacted to protect the interests of industry and of other property owners in the vicinity of the park. For the same reason, industrial nuisances such as noise, vibration, odors, air, ground, or water pollution, smoke and fumes should be prohibited.

The existing railroad terminal facilities and related storage uses on Winthrop Street would very likely have to be moved to a site in the south end of town if the railroad is relocated along the river.

The shoe factory on Water Street is not ideally suited to a downtown location but it is not viewed by the consultants as sufficiently undesirable to warrant moving it. It is proposed that it be continued on its present site as a nonconforming use but not expanded.

Public Lands and Facilities: Proposals for public land acquisitions and reservations and construction of public buildings are covered in a special section of this report. It is appropriate to note here that these proposals are designed to complement other elements of the proposed land use plan and are of equal importance. Hallowell is already an attractive community with many potentials which are not easily recognized because they are hidden behind a shabby main street. One of the important positive features of the city is its natural beauty which in large part has remained intact precisely because there has been little growth in the community. Now Hallowell is planning for growth and can anticipate its effects. Hallowell needs to protect its open space characteristics now by reserving substantial amounts of land in public ownership before the appropriate land areas either become unavailable or so high-priced as to be uneconomic.
Highways: It is proposed that Route 201 which follows Water Street in Hallowell be relocated along the river in order to relieve Water Street of through traffic. The function of Water Street will then revert to what it should be - service street for the downtown shopping center.

A new residential belt route is also proposed for ultimate construction when warranted by development west of the turnpike. This highway would be located parallel to the turnpike and would carry regional commuter traffic from south of Hallowell to Augusta and would serve as automobile access to the proposed industrial park - shopping center at the northerly end of the turnpike in Augusta.

The narrow road just west of the turnpike and at the Hallowell-Augusta city line should be reconstructed and relocated to provide truck access via Winthrop Road to both halves of the proposed industrial park-shopping center on either side of the turnpike.
SECTION III

POPULATION

Introduction . . . . . . 1

Natural Increase and Migration. . . . 3

Characteristics of the Population . . . 5

Age and Sex Distribution . . . 6

Prospects for Future Population Growth . . . 7
Hallowell and Augusta were originally settled in 1627 as the Cushnoc Trading Post. In 1797 Hallowell was set off from Augusta and the latter became the shiretown of Kennebec County. By 1850 Hallowell had a population of nearly 5,000, a peak which has not been reached or even closely approached since. Between 1850 and 1860, with the opening of the West, there was appreciable outmigration from Maine and Hallowell lost almost half of its settlers. Town boundary relocations, continuing until 1870, affected the size of the population from time to time and thenceforth until very recent times, Hallowell either grew very little each decade or lost population. From 1850 to 1960, decennial population losses exceeded gains by an overall total of 1.5%. The largest gain occurred between 1940 and 1950, the post World War II decade of high birth rates and a concerted movement away from the more densely developed urban centers. Other Augusta suburbs grew appreciably during this period for the same reasons. Farmingdale, Winthrop and Gardiner all grew more between 1940 and 1950 than during the preceding or succeeding decades. For Hallowell, the 17% growth of the 1940's was unprecedented in modern times and has been very sharply reversed since. The 1960 census figure is almost 7% under the 1950 high. The Hallowell population is now about equal to its 1870-1890 average.

### TABLE 1

Population By Decades 1860 - 1960

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Increase or Decrease</th>
<th>%Increase or Decrease</th>
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</thead>
<tbody>
<tr>
<td>1860</td>
<td>2,435</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1870</td>
<td>3,007</td>
<td>+ 572</td>
<td>23.5</td>
</tr>
<tr>
<td>1880</td>
<td>3,154</td>
<td>+ 147</td>
<td>4.9</td>
</tr>
<tr>
<td>1890</td>
<td>3,181</td>
<td>+ 27</td>
<td>0.9</td>
</tr>
<tr>
<td>1900</td>
<td>2,714</td>
<td>- 467</td>
<td>- 14.7</td>
</tr>
<tr>
<td>1910</td>
<td>2,864</td>
<td>+ 150</td>
<td>5.5</td>
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<tr>
<td>1920</td>
<td>2,764</td>
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<td>- 3.5</td>
</tr>
<tr>
<td>1930</td>
<td>2,675</td>
<td>- 89</td>
<td>- 3.2</td>
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<tr>
<td>1940</td>
<td>2,906</td>
<td>+ 231</td>
<td>8.6</td>
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<tr>
<td>1950</td>
<td>3,404</td>
<td>+ 498</td>
<td>17.1</td>
</tr>
<tr>
<td>1960</td>
<td>3,169</td>
<td>- 235</td>
<td>- 6.9</td>
</tr>
</tbody>
</table>

Source: U. S. Census of the Population
Augusta, the urban core of an area embracing all of the municipalities contiguous with it and some not contiguous but nearby, has been growing at a rather steeply declining rate since 1920. The range has been from almost 22% growth 1920-1930 to 3.7% for the 1950-1960 period. The latter represents both the smallest percentage and the smallest numerical population increase for Augusta in almost a century. Of all of the Augusta suburbs, only Farmingdale and Winthrop show strong growth trends which have been uninterrupted since 1910.

TABLE II

Percentage Growth of Population for Hallowell and Other Places, 1850-1960

<table>
<thead>
<tr>
<th></th>
<th>Hallowell</th>
<th>Augusta</th>
<th>Chelsea</th>
<th>Farmingdale</th>
<th>Winthrop</th>
<th>Gardiner</th>
<th>Kennebec County</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>1860</td>
<td>48.9%</td>
<td>7.5%</td>
<td>-</td>
<td>8.5%</td>
<td>30.8%</td>
<td>-11.0%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1870</td>
<td>23.5</td>
<td>2.6</td>
<td>20.9%</td>
<td>-4.1%</td>
<td>-4.7</td>
<td>0.2</td>
<td>-4.4</td>
<td>0.002%</td>
</tr>
<tr>
<td>1880</td>
<td>4.9</td>
<td>11.0</td>
<td>24.2</td>
<td>-8.1</td>
<td>-3.7</td>
<td>-1.3</td>
<td>-0.3</td>
<td>3.5</td>
</tr>
<tr>
<td>1890</td>
<td>0.9</td>
<td>21.5</td>
<td>53.3</td>
<td>4.1</td>
<td>-1.6</td>
<td>23.7</td>
<td>7.5</td>
<td>1.0</td>
</tr>
<tr>
<td>1900</td>
<td>-14.7</td>
<td>11.0</td>
<td>31.2</td>
<td>32.9</td>
<td>-1.1</td>
<td>0.2</td>
<td>3.7</td>
<td>5.1</td>
</tr>
<tr>
<td>1910</td>
<td>5.5</td>
<td>13.1</td>
<td>4.0</td>
<td>-2.9</td>
<td>1.3</td>
<td>-3.5</td>
<td>6.3</td>
<td>4.3</td>
</tr>
<tr>
<td>1920</td>
<td>3.5</td>
<td>6.8</td>
<td>-36.3</td>
<td>-0.5</td>
<td>-10.0</td>
<td>3.1</td>
<td>1.6</td>
<td>6.0</td>
</tr>
<tr>
<td>1930</td>
<td>3.2</td>
<td>21.9</td>
<td>7.8</td>
<td>27.5</td>
<td>17.5</td>
<td>2.5</td>
<td>10.7</td>
<td>3.8</td>
</tr>
<tr>
<td>1940</td>
<td>8.6</td>
<td>12.6</td>
<td>3.2</td>
<td>14.7</td>
<td>12.3</td>
<td>7.8</td>
<td>9.3</td>
<td>6.2</td>
</tr>
<tr>
<td>1950</td>
<td>17.1</td>
<td>8.0</td>
<td>-4.9</td>
<td>21.1</td>
<td>20.7</td>
<td>10.0</td>
<td>8.6</td>
<td>7.9</td>
</tr>
<tr>
<td>1960</td>
<td>-6.9</td>
<td>3.7</td>
<td>-12.7</td>
<td>34.0</td>
<td>16.9</td>
<td>3.7</td>
<td>6.3</td>
<td>6.7</td>
</tr>
</tbody>
</table>

Source: U. S. Census of the Population.

Although there is some evidence that the economic ties of some of the Augusta suburbs are not strong enough to designate them as bedroom communities for that city alone, Augusta continues to be the major employment center for its immediate area, and thus the major determinant of population size.

The 20th century has been characterized by an accelerating tendency toward urbanization in the United States and, less markedly, in Maine. Prior to the just concluded decade, the five most urbanized of the Maine counties have also been those whose populations have increased at the highest rates. From the vantage point of 1961, this appears to be no longer the case. Aroostook County, for example, only 3% urbanized in 1950, had a 10.4% population increase during the 1950's, its largest since 1910. And Penobscot, about 57% urbanized in 1950, grew by 16.2%. Major
growth in both counties was tied not to any important increase in in-
digenous employment opportunities nor to other local amenities but rather
to the activation of large federal government military installations.

Nineteen-sixty U. S. census figures indicate that all of the five
southwestern Maine counties which in 1950 contained about 3/4 of the
urban population of the state and 3/4 of its manufacturing employment
failed to match their own growth rates for the 1940-1950 decade. This
is mainly due to the loss of textile manufacturing jobs in the area.

TABLE III
Population Growth Trends of the Five Most
Urbanized Maine Counties, 1930-1960

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Androscoggin</td>
<td>80.3</td>
<td>82.0</td>
<td>7.7</td>
<td>7.9</td>
<td>3.4</td>
</tr>
<tr>
<td>Cumberland</td>
<td>71.4</td>
<td>67.9</td>
<td>8.4</td>
<td>15.9</td>
<td>8.0</td>
</tr>
<tr>
<td>Kennebec</td>
<td>62.2</td>
<td>60.7</td>
<td>9.3</td>
<td>8.6</td>
<td>6.3</td>
</tr>
<tr>
<td>Sagadahoc</td>
<td>50.9</td>
<td>47.0</td>
<td>13.0</td>
<td>9.3</td>
<td>9.0</td>
</tr>
<tr>
<td>York</td>
<td>62.9</td>
<td>56.3</td>
<td>13.2</td>
<td>13.3</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Source: U. S. Census of the Population.

Natural Increase and Migration as Factors in Hallowell Population Changes:

The number of births in Hallowell began to climb in 1946 after the
end of World War II, continued upward for ten years, reached a peak in
1956 and thereafter declined.

Averaging for the two decades 1940-1950 and 1950-1960 and dividing
by the average population for each decade produces a birth rate (per 1,000
population) of 22.3 for the 1940's and 24.0 for the 1950's. At the same
time, the death rate has fallen from 14.2 to 13.6. Natural increase
(the total number of births in excess of total number of deaths) for the
1940's was 254 and since the Hallowell population increased by 498 persons
from one decennial census to the next, the difference, 244, represents net
in-migration (excess of people moving into town over those moving out).
Thus, during the 1940-50 decade, Hallowell conformed to the pattern for
suburban communities all over the country. Both migration and higher
birth rates contributed to sometimes astonishingly high growth rates for
suburban communities. It was during this ten-year period that the
Hallowell population increased 17% while the population of Kennebec County
as a whole increased less than 9% and that of Augusta, 8%.
### TABLE IV

Resident Births and Deaths for Hallowell and Kennebec County - 1940-1959

<table>
<thead>
<tr>
<th>Year</th>
<th>Hallowell Births</th>
<th>Hallowell Deaths</th>
<th>Kennebec County Births</th>
<th>Kennebec County Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>66</td>
<td>47</td>
<td>1,380</td>
<td>952</td>
</tr>
<tr>
<td>1941</td>
<td>52</td>
<td>45</td>
<td>1,396</td>
<td>952</td>
</tr>
<tr>
<td>1942</td>
<td>60</td>
<td>44</td>
<td>1,484</td>
<td>904</td>
</tr>
<tr>
<td>1943</td>
<td>64</td>
<td>57</td>
<td>1,551</td>
<td>888</td>
</tr>
<tr>
<td>1944</td>
<td>76</td>
<td>48</td>
<td>1,401</td>
<td>940</td>
</tr>
<tr>
<td>1945</td>
<td>56</td>
<td>34</td>
<td>1,375</td>
<td>901</td>
</tr>
<tr>
<td>1946</td>
<td>67</td>
<td>44</td>
<td>1,812</td>
<td>916</td>
</tr>
<tr>
<td>1947</td>
<td>94</td>
<td>49</td>
<td>2,137</td>
<td>887</td>
</tr>
<tr>
<td>1948</td>
<td>80</td>
<td>41</td>
<td>1,961</td>
<td>905</td>
</tr>
<tr>
<td>1949</td>
<td>87</td>
<td>39</td>
<td>1,905</td>
<td>879</td>
</tr>
<tr>
<td>1950</td>
<td>77</td>
<td>44</td>
<td>1,859</td>
<td>906</td>
</tr>
<tr>
<td>1951</td>
<td>83</td>
<td>41</td>
<td>1,938</td>
<td>951</td>
</tr>
<tr>
<td>1952</td>
<td>74</td>
<td>44</td>
<td>1,973</td>
<td>887</td>
</tr>
<tr>
<td>1953</td>
<td>78</td>
<td>40</td>
<td>1,929</td>
<td>936</td>
</tr>
<tr>
<td>1954</td>
<td>78</td>
<td>40</td>
<td>2,019</td>
<td>904</td>
</tr>
<tr>
<td>1955</td>
<td>83</td>
<td>47</td>
<td>2,030</td>
<td>938</td>
</tr>
<tr>
<td>1956</td>
<td>90</td>
<td>60</td>
<td>1,998</td>
<td>931</td>
</tr>
<tr>
<td>1957</td>
<td>74</td>
<td>41</td>
<td>2,088</td>
<td>939</td>
</tr>
<tr>
<td>1958</td>
<td>77 (Est.)</td>
<td>45 (Est.)</td>
<td>2,024 (Est.)</td>
<td>924 (Est.)</td>
</tr>
<tr>
<td>1959</td>
<td>74</td>
<td>44</td>
<td>2,106</td>
<td>924</td>
</tr>
</tbody>
</table>


Between 1950 and 1960, a significant reversal occurred. While the total number of births and birth rates have remained high and death rates have continued to decline both for Hallowell and the county, out-migration has increased markedly. In Hallowell, although the natural increase was greater than for the previous decade, it fell far short of the total net out-migration and resulted in an overall population decrease for the decade. There was net out-migration from the county as a whole in the 1940-1950 decade but, because of migration from one locale to another within the county, and from outside the county to some places in the county, some municipalities experienced in-migration. Out-migration for the county as a whole increased during the 1950's. Although 10,724 people were added to the population through natural increase, the overall population increased by only 5,269. Thus 5,455 more people moved out of the county than moved in.
TABLE V
Birth and Death Rates for Hallowell and Kennebec County - 1940-1960

<table>
<thead>
<tr>
<th></th>
<th>Birth Rate (per 1,000 pop.)</th>
<th>Death Rate (per 1,000 pop.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1940-50</td>
<td>1950-60</td>
</tr>
<tr>
<td>Hallowell</td>
<td>22.3</td>
<td>24.0</td>
</tr>
<tr>
<td>Kennebec Cty.</td>
<td>20.4</td>
<td>23.1</td>
</tr>
</tbody>
</table>

TABLE VI
Natural Increase and Migration of the Hallowell and Kennebec County - 1940-1960

<table>
<thead>
<tr>
<th></th>
<th>Total Population Increase</th>
<th>Natural Increase for the Decade</th>
<th>Net Immigration for the Decade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hallowell:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1940-1950</td>
<td>498</td>
<td>254</td>
<td>244</td>
</tr>
<tr>
<td>1950-1960</td>
<td>-235</td>
<td>342</td>
<td>-577</td>
</tr>
<tr>
<td>Kennebec County:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1940-50</td>
<td>6,650</td>
<td>7,281</td>
<td>-631</td>
</tr>
<tr>
<td>1950-60</td>
<td>5,269</td>
<td>10,724</td>
<td>-5,455</td>
</tr>
</tbody>
</table>

Characteristics of the Population

In terms of occupation, the Hallowell employed population had a greater number of persons classified as operatives and kindred workers than in any other group. Craftsmen, foremen and kindred workers was the second largest occupational group and managers, proprietors and officials represented the third largest category. The same rank order obtained for Kennebec County. Farmers comprise the smallest occupational group in Hallowell.

The median age of the Hallowell population was 30.9 years compared with 31.2 years for the Kennebec County population.

Median income of families and unrelated individuals was $5,429 in Hallowell and 21.8% of Hallowell families and unrelated individuals received incomes under $3,000 a year, compared with 20.0% for the county. Median income for families and unrelated individuals in the county as a whole was $5,101.
Age and Sex Distribution of the Hallowell Population:

In 1950, Hallowell had considerably more females than males and a larger proportion of persons over 65 years of age than in 1960. Also in 1950, the proportion of people under 20 years of age was high compared with that for the county while the proportion of those between the ages of 20 and 35 was low. While the high birth rate of the late 1940's corresponds to a large percentage of children, the relatively low percentage of the population in the major child-producing age brackets seems anomalous unless it is assumed that out-migration began to take place in these age groups just before 1950. Very likely this did occur since wartime job market in the vicinity began to contract after 1946. Also just after the war, American families became more mobile than ever before.

The 1960 Sewall Company Field Survey for Hallowell shows that the proportion of the Hallowell population under 20 years of age has increased since 1950 while the proportion in the 20 to 34 year age groups has diminished slightly. Compared with the 1960 figures for the county, the proportion of the Hallowell population in the major child-producing age brackets is low, while at the same time the proportion of children under 10 years of age is high. This would indicate that more children are being produced per family in Hallowell than in the county as a whole. This is borne out by the higher birth rate for Hallowell than for the county.

The proportion of the population aged 10-19 in Hallowell was higher in 1950 than for the county and since then it has increased even more. At least part of the disparity between town and county can be attributed to counting as residents of Hallowell the student body of the Steven's Training Center.

The proportion of the Hallowell population aged over 39 has also decreased since 1950. Yet Hallowell has now, and did have in the preceding decade, a higher death rate than the county. This may be due, at least in part, to the presence in Hallowell of several nursing homes for elderly people.
<table>
<thead>
<tr>
<th>Age-Sex Distribution of the Hallowell Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Ages</td>
</tr>
<tr>
<td>Under 5</td>
</tr>
<tr>
<td>5-9</td>
</tr>
<tr>
<td>10-14</td>
</tr>
<tr>
<td>15-19</td>
</tr>
<tr>
<td>20-24</td>
</tr>
<tr>
<td>25-29</td>
</tr>
<tr>
<td>30-34</td>
</tr>
<tr>
<td>35-39</td>
</tr>
<tr>
<td>40-44</td>
</tr>
<tr>
<td>45-49</td>
</tr>
<tr>
<td>50-54</td>
</tr>
<tr>
<td>55-59</td>
</tr>
<tr>
<td>60-64</td>
</tr>
<tr>
<td>65 and over</td>
</tr>
</tbody>
</table>


Prospects for Future Population Growth

The following are not predictions. They are mathematical projections of past trends. In many communities, such projections are reliable indicators of what can be expected in the future. The use of some such method is usually accepted as the most valid, if yet imperfect, way of predicting the future size of any population with the qualification that the smaller the population used as a base, the larger the error introduced. In the case of Hallowell, the inherent errors of the method are further magnified by wide and erratic fluctuations in the base periods and by the expectation that conditions which affect population growth will change radically in the future. If such conditions did not change, perhaps
Prospects for Future Population Growth Cont’d:

an average of the three projections below would represent a realistic indication of what can be expected during the next 40 years. This would mean growth at the rate of about 1% per decade or a population of 3,300 in the year 2000.

TABLE VIII

Three Population Projections Based on Past Rates of Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>At Average Rate of Decline (-6.9%)</th>
<th>At Average Rate of Growth (+6.3%)</th>
<th>At Average Rate of Growth (+3.2%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>3,169</td>
<td>3,169</td>
<td>3,169</td>
</tr>
<tr>
<td>1970</td>
<td>2,950</td>
<td>3,369</td>
<td>3,270</td>
</tr>
<tr>
<td>1980</td>
<td>2,677</td>
<td>3,581</td>
<td>3,375</td>
</tr>
<tr>
<td>1990</td>
<td>2,492</td>
<td>3,807</td>
<td>3,482</td>
</tr>
<tr>
<td>2000</td>
<td>2,320</td>
<td>4,047</td>
<td>3,595</td>
</tr>
</tbody>
</table>

Hallowell has failed to grow during the past ten years partly because of the offensive aspect of Water Street which represents the sociological and economic core of the city, partly because the history of Hallowell development has generated a negative image in the minds of regional residents and partly because other nearby communities have buildable land at least equal in quality to that in Hallowell.

Except for the limitations imposed by central business district problems, there is no intrinsic reason why Hallowell cannot grow as much as it wants to within the obvious restrictions imposed by physiography and soils. Hallowell has certain assets which, if protected, should help to attract high-value residential development. These include its distinctive setting on the hillside above the Kennebec River, panoramic views of the valley from the higher elevations, fine neighborhoods of distinguished homes, many examples of excellent colonial and turn-of-the-century architecture scattered throughout town, and a venerable history kept alive by the existence of structures which often were the scenes of important happenings in the past. Moreover, no other community in the region is more easily accessible from Augusta, the employment center.

The consultants feel that future Hallowell growth will depend on the approach taken by local residents to the major community problems. A timid approach, it is felt, cannot be effective. Only a radical approach will erase the existing public image of Hallowell from the minds of regional
ECONOMIC BASE STUDY

The Economic Setting . . . . 1

Components of the Hallowell Economy:

Manufacturing . . . . 3
Retail Trade . . . . 8
Occupation & Industry . . 16

Conclusions & Recommendations . 19
The Economic Setting

Notwithstanding early and continuing rivalry between Hallowell and Augusta, the economies of the two municipalities have always been integrated and interdependent. Today, Hallowell functions primarily as a residential suburb for Augusta. Hallowell is the home of one medium-sized shoe manufacturing industry, of some economic enterprises directly or indirectly connected with state government functions and of some retail and service business. However, the Hallowell population is largely dependent upon employment either at Augusta or at manufacturing centers nearby.

Augusta, although considerably less dependent economically on Hallowell than vice versa, is nonetheless integrally related to its more immediate surroundings including especially Hallowell and Gardiner but also Winthrop, Windsor, Chelsea, Randolph, Whitefield, Gardiner, Manchester, West Gardiner and Readfield. Most of these are forest and farm communities with more or less tenuous ties to Augusta but there are indications (new housebuilding and commuter traffic flow patterns) that Augusta is the major place of employment and probably major shopping and service center for Hallowell, Farmingdale, Chelsea, Gardiner, Randolph, Manchester and Winthrop.

Its location in the southwesterly part of Maine is as important a determinant of the economic structure of the Augusta-Hallowell-Gardiner urban area as is the presence there of state government. The five southwestern counties were the first to shift from rural to urban economic organization and are still the most intensely urbanized and industrialized of the 16 Maine counties. Although some shifting in urban concentration within the state is currently taking place, mainly in terms of increased rate of population and industrial growth in Penobscot and Aroostook Counties, southwestern Maine, because of its relative closeness to large New England and northeastern metropolitan centers, is likely to remain the most important manufacturing region and the most securely urbanized part of the state.

The five southwestern counties, comprising a little over 1/10 of the land area of Maine, in 1950 contained 49.4% of the state population, 68.6% of the state urban population and about 60% of the manufacturing employment. In 1960, the five counties had a slightly larger proportion, 49.6% of the state population, but a smaller proportion of the state urban population, 65.7%, and approximately 56% of the manufacturing employment. The shift in regional rates of urbanization is due primarily to the establishment and staffing during the 1950's of large federal military installations in Penobscot and Aroostook Counties. The southwestern Maine share of manufacturing jobs has contracted relative to the state total because of the rapid decline of textile mill employment which was largely concentrated in the southern part of the state.
The Economic Setting Cont'd:

<table>
<thead>
<tr>
<th>County</th>
<th>Population</th>
<th>1950</th>
<th>% State</th>
<th>% Urban</th>
<th>Population</th>
<th>1960</th>
<th>% State</th>
<th>% Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Androscoggin</td>
<td>83,594</td>
<td>9.2</td>
<td>80.3</td>
<td>86,312</td>
<td>8.9</td>
<td>82.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumberland</td>
<td>169,201</td>
<td>18.5</td>
<td>71.4</td>
<td>182,751</td>
<td>18.9</td>
<td>67.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kennebec</td>
<td>83,881</td>
<td>9.2</td>
<td>62.2</td>
<td>89,150</td>
<td>9.2</td>
<td>60.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sagadahoc</td>
<td>20,911</td>
<td>2.3</td>
<td>50.9</td>
<td>22,793</td>
<td>2.4</td>
<td>47.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>York</td>
<td>93,541</td>
<td>10.2</td>
<td>62.9</td>
<td>99,402</td>
<td>10.3</td>
<td>56.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-Counties</td>
<td>451,128</td>
<td>49.4</td>
<td>68.6</td>
<td>480,408</td>
<td>49.6</td>
<td>65.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The long-term trend, not only in Maine, but throughout the United States, has been toward increasing urbanization, fed mostly by migration from rural areas. In this respect, Maine has been somewhat behind other states. In fact, the major characteristics of intense urbanization have been almost absent from the Maine scene. In recent years, the forces working in favor of ever larger agglomerations of population in northeastern United States metropolitan centers have so radically intensified as to outstrip similar but smaller scale movements in Maine. In short, in a national or even northeastern regional frame of reference, Maine must be viewed as essentially rural in relation to geographic areas of greater population density. Out-migration of population from the state helps to explain the slower growth rate of the urbanized than of the rural sector during the last decade in southwestern Maine where continuing urbanization should otherwise be expected. Increasing unemployment during the past few years and continued decline in numbers of manufacturing jobs (for which a large proportion of the Maine labor force is trained and best adapted) would help to support the assumption that Maine's potentially urban population has had a tendency to move out of the state to urban centers elsewhere. Also, there may be some tendency for erstwhile urban residents to move to outlying rural areas while they continue to commute to urban job centers for employment.

In any case, the economy of southwestern Maine will continue to be organized along predominantly urban lines. The more important urban centers especially, including the Augusta-Hallowell-Gardiner complex, will continue to function as distribution points for the goods and services needed by their own residents and to varying extents by regional residents and tourists. In addition, Augusta has the extra function, unique in the state, of being headquarters for state government and for the many public and private agencies which find it beneficial to locate nearby.
The Components of the Hallowell Economy

Manufacturing: The Directory of Maine Manufacturers, 1959-60, lists only two Hallowell manufacturing establishments, the Hallowell Shoe Company with 250-300 employees and Tri-City Auto Upholstering with fewer than 5 employees. Hallowell firms, between 1956 and 1959, accounted for approximately 2% of the Kennebec County value of manufactured produce and about 3½% of county manufacturing employment.

Augusta is the center of manufacturing employment for its own metropolitan region and accounts for more of the manufacturing jobs held by Hallowell residents than any other town or city. Gardiner is second in importance in both respects.

TABLE II
Manufacturing in Augusta and Kennebec County

1947 - 1958

(money figures in thousands)

<table>
<thead>
<tr>
<th></th>
<th>Augusta</th>
<th>Kennebec County</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947</td>
<td>20</td>
<td>112</td>
</tr>
<tr>
<td>1954</td>
<td>34</td>
<td>176</td>
</tr>
<tr>
<td>1958</td>
<td>38</td>
<td>171</td>
</tr>
</tbody>
</table>

*logging mills and milk processing plants not included prior to 1954.


1/ Maine Department of Labor and Industry, Census of Manufactures, 1956 through 1959.
<table>
<thead>
<tr>
<th>Major Kinds of Manufacturing in Kennebec County, 1958</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food &amp; Kindred Products</strong></td>
</tr>
<tr>
<td><strong>Meat Products</strong></td>
</tr>
<tr>
<td><strong>Textile Mill Products</strong></td>
</tr>
<tr>
<td><strong>Lumber &amp; Wood Products</strong></td>
</tr>
<tr>
<td><strong>Paper &amp; Allied Products</strong></td>
</tr>
<tr>
<td><strong>Leather &amp; Leather Products</strong></td>
</tr>
</tbody>
</table>

Source: U. S. Census of Manufactures

Although U.S. Census of Manufactures and Maine Census of Manufactures statistical procedures are not identical, figures from the latter are given below since they include separate figures for such small cities and towns as Hallowell. Note that the value concept used in Tables 2 and 3 is different from that in Table 4. The former is "value added" or value of shipments less cost of raw materials and certain other costs while "value of product" is roughly equivalent to total value of shipments and thus involves double counting.

<table>
<thead>
<tr>
<th>Manufacturing in Hallowell, Augusta, Gardiner and Kennebec County</th>
</tr>
</thead>
<tbody>
<tr>
<td>1958 and 1960</td>
</tr>
<tr>
<td>Number</td>
</tr>
<tr>
<td>Emp.</td>
</tr>
<tr>
<td>Hallowell</td>
</tr>
<tr>
<td>Gardiner</td>
</tr>
<tr>
<td>Augusta</td>
</tr>
<tr>
<td>Kennebec Cty.</td>
</tr>
</tbody>
</table>

Source: Census of Maine Manufactures - 1958 and 1959
Manufacturing Cont'd:

From the viewpoint of employment in Hallowell and in the Augusta region, manufacturing is the single most important industrial category. More than 200 residents of Hallowell (or 23% of the employed labor force) are engaged in manufacturing industries, mainly in Augusta, Hallowell and Gardiner. Even larger proportions of the Augusta and of the Kennebec County populations are engaged in manufacture - 30.7% and 31.2% respectively.

Manufacturing employment in the state as a whole and in the five southwestern counties has been declining slowly since 1947 (see Tables V and VI). The number of manufacturing establishments has likewise decreased, at least between 1954 and 1958. It is possible that some consolidation of smaller into larger units accounts in part for the decrease in number of establishments but a more important factor has been the defection of plants, especially textile manufacturers, out of the State. At the same time, new production methods have helped to increase output per man-hour and conversely to decrease manufacturing employment.

In the whole southwestern Maine region, according to the Census of Maine Manufactures, there were approximately 13,000 fewer manufacturing jobs in 1959 than in 1952. Over the same time period, manufacturing employment in the state as a whole shrunk by 22,000. In both the region and the state value of product and total gross wages have increased in money terms (but somewhat less in real terms) so that money income to all the human factors of production has increased. However, Maine's five most urbanized and industrialized counties have lost some of their preeminence according to U.S. Census of Manufactures data. Five-county aggregate totals for specific manufacturing values have been computed in Table VII as percentages of state totals for the years 1947, 1954 and 1958. Southwestern Maine accounted for larger proportions of state manufacturing establishments, employment, wages and value of product in 1947 than in 1954 or 1958. This is attributable partly to modest growth in manufacturing elsewhere in the state and, more importantly, to the absolute loss of manufacturing establishments from the region.

2/ Hallowell 1960 industry classification from Sewall Company Field Survey; all others from U.S. Census of the Population, 1950

3/ All manufacturing data used herein for years prior to 1956 is from U.S. Census of Manufactures, published for states and counties - 1949, 1954 and 1958. Data for individual years 1956, 1957, 1958 and 1959 is from the Census of Maine Manufactures.

4/ The data in Table V, which was taken from the Census of Maine Manufactures, would appear to contradict this conclusion which is based on data from U.S. Census of Manufactures. The latter source was used here because it provides a comparable data over a longer time period.
**TABLE V**

Southwestern Maine Counties - Manufacturing Employment, 1952-1959

<table>
<thead>
<tr>
<th>Year</th>
<th>Androscoggin</th>
<th>Cumberland</th>
<th>Kennebec</th>
<th>Sagadahoc</th>
<th>York</th>
<th>Five Counties</th>
<th>Maine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>% of State</td>
<td>No.</td>
<td>% of State</td>
<td>No.</td>
<td>% of State</td>
<td>No.</td>
</tr>
<tr>
<td>1952</td>
<td>15,671</td>
<td>12.4</td>
<td>16,310</td>
<td>12.9</td>
<td>11,791</td>
<td>9.3</td>
<td>5,294</td>
</tr>
<tr>
<td>1953</td>
<td>16,111</td>
<td>13.4</td>
<td>15,766</td>
<td>12.1</td>
<td>11,621</td>
<td>9.7</td>
<td>4,588</td>
</tr>
<tr>
<td>1954</td>
<td>14,902</td>
<td>13.5</td>
<td>16,397</td>
<td>12.8</td>
<td>10,660</td>
<td>8.6</td>
<td>3,705</td>
</tr>
<tr>
<td>1955</td>
<td>15,968</td>
<td>14.8</td>
<td>14,662</td>
<td>11.6</td>
<td>10,895</td>
<td>10.1</td>
<td>3,960</td>
</tr>
<tr>
<td>1956</td>
<td>16,210</td>
<td>14.8</td>
<td>14,833</td>
<td>11.6</td>
<td>9,920</td>
<td>9.1</td>
<td>3,845</td>
</tr>
<tr>
<td>1957</td>
<td>14,990</td>
<td>14.2</td>
<td>14,714</td>
<td>11.0</td>
<td>10,866</td>
<td>8.6</td>
<td>4,000</td>
</tr>
<tr>
<td>1958</td>
<td>14,696</td>
<td>14.7</td>
<td>14,194</td>
<td>11.4</td>
<td>9,758</td>
<td>8.8</td>
<td>4,139</td>
</tr>
<tr>
<td>1959</td>
<td>15,702</td>
<td>15.0</td>
<td>14,763</td>
<td>11.1</td>
<td>9,659</td>
<td>9.3</td>
<td>4,178</td>
</tr>
</tbody>
</table>

Source: Census of Maine Manufactures

**TABLE VI**

Manufacturing in Five Southwestern Maine Counties 1947-1958

<table>
<thead>
<tr>
<th>County</th>
<th>1947</th>
<th>1954</th>
<th>1958</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Est.</td>
<td>Emp. ($1000)</td>
<td>($1000)</td>
</tr>
<tr>
<td>Androscoggin</td>
<td>161</td>
<td>16,717</td>
<td>37,774</td>
</tr>
<tr>
<td>Cumberland</td>
<td>314</td>
<td>13,957</td>
<td>32,711</td>
</tr>
<tr>
<td>Kennebec</td>
<td>112</td>
<td>11,129</td>
<td>27,104</td>
</tr>
<tr>
<td>Sagadahoc</td>
<td>28</td>
<td>4,157</td>
<td>10,896</td>
</tr>
<tr>
<td>Five Counties</td>
<td>771</td>
<td>62,670</td>
<td>117,075</td>
</tr>
<tr>
<td>Maine</td>
<td>1635</td>
<td>100,181</td>
<td>233,594</td>
</tr>
</tbody>
</table>


Note: Logging operations and milk processing plants not included prior to 1954.

IV - 6
### TABLE VII

Proportions of Total Maine Manufacturing Accounted for by Augusta, Kennebec County and the Five Southwestern Counties

<table>
<thead>
<tr>
<th></th>
<th>Establishments</th>
<th>Employees</th>
<th>Payroll</th>
<th>Value of Product</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Augusta:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1947</td>
<td>1.2%</td>
<td>2.9%</td>
<td>2.8%</td>
<td>3.1%</td>
</tr>
<tr>
<td>1954</td>
<td>1.1</td>
<td>3.1</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>1958</td>
<td>1.4</td>
<td>3.4</td>
<td>3.1</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Kennebec County:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1947</td>
<td>9.9</td>
<td>11.1</td>
<td>11.7</td>
<td>11.9</td>
</tr>
<tr>
<td>1954</td>
<td>5.8</td>
<td>10.7</td>
<td>10.4</td>
<td>10.4</td>
</tr>
<tr>
<td>1958</td>
<td>6.3</td>
<td>10.8</td>
<td>10.4</td>
<td>11.6</td>
</tr>
<tr>
<td><strong>Five Southwestern Counties:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1947</td>
<td>47.2</td>
<td>62.6</td>
<td>62.9</td>
<td>64.0</td>
</tr>
<tr>
<td>1954</td>
<td>34.7</td>
<td>57.3</td>
<td>58.3</td>
<td>58.0</td>
</tr>
<tr>
<td>1958</td>
<td>36.3</td>
<td>56.6</td>
<td>55.3</td>
<td>55.0</td>
</tr>
</tbody>
</table>

Source: U. S. Census of Manufactures

Thus, while Kennebec County and the five-county region as a whole both have suffered some loss of former manufacturing strength relative to statewide manufacturing, Augusta has held her own and even to a limited extent increased her share. Hallowell too appears to be holding her own, at least during the recent years for which the Census of Maine Manufactures has published information for smaller towns and cities.
TABLE VIII

Proportion of State Manufacturing Accounted for by
Kennebec County, 1956-1959

<table>
<thead>
<tr>
<th>Year</th>
<th>Employment</th>
<th>Payroll</th>
<th>Value of Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1956</td>
<td>9.0%</td>
<td>8.8%</td>
<td>11.5%</td>
</tr>
<tr>
<td>1957</td>
<td>9.6</td>
<td>9.1</td>
<td>11.1</td>
</tr>
<tr>
<td>1958</td>
<td>9.7</td>
<td>8.9</td>
<td>11.6</td>
</tr>
<tr>
<td>1959</td>
<td>9.3</td>
<td>8.6</td>
<td>12.4</td>
</tr>
</tbody>
</table>

Proportion of Kennebec County Manufacturing Represented by
Hallowell, 1956-1959

<table>
<thead>
<tr>
<th>Year</th>
<th>Hallowell</th>
<th>Payroll</th>
<th>Value of Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1956</td>
<td>3.6</td>
<td>2.8</td>
<td>1.8</td>
</tr>
<tr>
<td>1957</td>
<td>3.6</td>
<td>2.9</td>
<td>2.1</td>
</tr>
<tr>
<td>1958</td>
<td>2.9</td>
<td>2.4</td>
<td>2.5</td>
</tr>
<tr>
<td>1959</td>
<td>3.4</td>
<td>2.8</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Source: Census of Maine Manufactures

No information is available for Hallowell for earlier years which could help to throw light on longer range trends. In the immediate Hallowell region manufacturing appears to be healthy. Unlike the average experience of Maine industrial centers, Augusta manufacturing employment did not decline and in fact increased steadily, if slightly, between 1948 and 1958.

The Augusta industrial scene is heavily influenced by shoe and textile manufactures, both of which are extremely sensitive to cost variations and to price competition. Many textile mills which originally moved north to Maine from Massachusetts have subsequently moved south. Shoe manufactures also have had a tendency to leave higher labor-cost areas in southern New England for Maine and the danger is always present that they may eventually be forced to follow the textile mills south.

Retail Trade and Service Trades

Hallowell retail sales in 1958 (per U.S. Census of Business) were higher than the appearance of Water Street would indicate. Per capita (per resident) retail sales in Hallowell were lower than for Augusta or Gardiner but not much lower. Also sales per establishment were higher than would be expected and were, in fact, higher than in Gardiner. (See Table 13). Moreover, the total volume of sales increased between 1954
Retail Trade and Service Trades Cont’d:

and 1958 by approximately 46%. However, this increase came after a decline of about 6% between 1948 and 1954 when sales were climbing rapidly elsewhere in Maine and the nation.

It can be seen from the data contained in Table X that over half of the dollar volume of sales in Hallowell were in the "other retail stores" category which includes antique, second hand and gift shops.

The service trades in Hallowell 5/ fared much less well. On a per capita basis, Hallowell service receipts lagged far behind all other major Kennebec County communities, behind the average for the county and behind the average for the five southwestern Maine counties. In terms of receipts per establishment, Hallowell was behind all other major communities except Gardiner, but not far behind (Table XIII). Also, receipts from services declined by almost 50% during the four-year period.

5/ Selected Services for which data is available include business, repair, personal and miscellaneous services but excludes professional services.
TABLE IX
Retail Trade, Kennebec County and Five Southwestern Counties 1948-1958

<table>
<thead>
<tr>
<th></th>
<th>1958 Est.</th>
<th>Sales ($1000)</th>
<th>Payroll ($1000)</th>
<th>Employees</th>
<th>Active Proprietors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennebec Cty.</td>
<td>1005</td>
<td>100,803</td>
<td>9388</td>
<td>3764</td>
<td>915</td>
</tr>
<tr>
<td>Augusta</td>
<td>271</td>
<td>30,855</td>
<td>3112</td>
<td>1183</td>
<td>226</td>
</tr>
<tr>
<td>Gardiner</td>
<td>109</td>
<td>10,154</td>
<td>863</td>
<td>355</td>
<td>95</td>
</tr>
<tr>
<td>Hallowell</td>
<td>45</td>
<td>4,205</td>
<td>302</td>
<td>111</td>
<td>44</td>
</tr>
<tr>
<td>Waterville</td>
<td>288</td>
<td>37,363</td>
<td>3855</td>
<td>1547</td>
<td>255</td>
</tr>
<tr>
<td>Rem. County</td>
<td>292</td>
<td>18,226</td>
<td>1256</td>
<td>568</td>
<td>295</td>
</tr>
<tr>
<td>Winslow Town</td>
<td>35</td>
<td>2,869</td>
<td>271</td>
<td>103</td>
<td>38</td>
</tr>
<tr>
<td>5 Southwestern Counties</td>
<td>5640</td>
<td>546,776</td>
<td>55353</td>
<td>22142</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1954 Est.</th>
<th>Sales ($1000)</th>
<th>Payroll ($1000)</th>
<th>Employees</th>
<th>Active Proprietors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennebec Cty.</td>
<td>1095</td>
<td>91,757</td>
<td>8199</td>
<td>3715</td>
<td></td>
</tr>
<tr>
<td>Augusta</td>
<td>302</td>
<td>27,274</td>
<td>2700</td>
<td>1180</td>
<td></td>
</tr>
<tr>
<td>Gardiner</td>
<td>120</td>
<td>8,265</td>
<td>659</td>
<td>325</td>
<td></td>
</tr>
<tr>
<td>Hallowell</td>
<td>47</td>
<td>2,860</td>
<td>201</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td>Waterville</td>
<td>322</td>
<td>36,920</td>
<td>3526</td>
<td>1571</td>
<td></td>
</tr>
<tr>
<td>Rem. County</td>
<td>304</td>
<td>16,438</td>
<td>1113</td>
<td>536</td>
<td></td>
</tr>
<tr>
<td>5 Southwestern Counties</td>
<td>5884</td>
<td>494,534</td>
<td>48705</td>
<td>21486</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1948 Est.</th>
<th>Sales ($1000)</th>
<th>Payroll ($1000)</th>
<th>Employees</th>
<th>Active Proprietors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennebec Cty.</td>
<td>1020</td>
<td>71,226</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Augusta</td>
<td>262</td>
<td>21,698</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gardiner</td>
<td>110</td>
<td>7,328</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hallowell</td>
<td>53</td>
<td>3,045</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waterville</td>
<td>241</td>
<td>25,040</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rem. County</td>
<td>354</td>
<td>14,115</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Southwestern Counties</td>
<td>5425</td>
<td>388,324</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: U.S. Census of Business, Retail Trade
### TABLE X

**Kind of Retail Business Group, Hallowell, 1958**

<table>
<thead>
<tr>
<th>Kind of Retail Business Group</th>
<th>Number of Establishments</th>
<th>Sales Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lumber, Bldg.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Material, Hardware Stores</td>
<td>1</td>
<td>n.a.**</td>
</tr>
<tr>
<td>General Merchandise Stores</td>
<td>3</td>
<td>n.a.</td>
</tr>
<tr>
<td>Food Stores</td>
<td>10</td>
<td>$464,000</td>
</tr>
<tr>
<td>Automobile Dealers</td>
<td>2</td>
<td>n.a.</td>
</tr>
<tr>
<td>Gasoline Service Stations</td>
<td>2</td>
<td>n.a.</td>
</tr>
<tr>
<td>Apparel and Accessory Stores</td>
<td>1</td>
<td>n.a.</td>
</tr>
<tr>
<td>Furniture, home furnishing stores</td>
<td>1</td>
<td>n.a.</td>
</tr>
<tr>
<td>Eating and drinking places</td>
<td>5</td>
<td>88,000</td>
</tr>
<tr>
<td>Drug and Proprietary Stores</td>
<td>4</td>
<td>196,000</td>
</tr>
<tr>
<td>* Other Retail Stores</td>
<td>12</td>
<td>2,197,000</td>
</tr>
</tbody>
</table>

* Includes gift, antique and second-hand shops

** Sales withheld to avoid disclosure of individual operations

Source: U.S. Census of Business, Retail Trade, 1958

### TABLE XI

**Selected Service Trades, Kennebec County and Five Southwestern Counties, 1958**

<table>
<thead>
<tr>
<th>County</th>
<th>Est.</th>
<th>Receipts ($1000)</th>
<th>Payroll ($1000)</th>
<th>Employees</th>
<th>Active Proprietors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennebec Cty.</td>
<td>563</td>
<td>11,348</td>
<td>3,011</td>
<td>1,234</td>
<td>543</td>
</tr>
<tr>
<td>Augusta</td>
<td>145</td>
<td>3,476</td>
<td>1,028</td>
<td>329</td>
<td>139</td>
</tr>
<tr>
<td>Gardiner</td>
<td>50</td>
<td>497</td>
<td>96</td>
<td>43</td>
<td>48</td>
</tr>
<tr>
<td>Hallowell</td>
<td>13</td>
<td>255</td>
<td>67</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>Waterville</td>
<td>141</td>
<td>3,278</td>
<td>973</td>
<td>457</td>
<td>145</td>
</tr>
<tr>
<td>Rem. of Cty.</td>
<td>214</td>
<td>3,842</td>
<td>847</td>
<td>375</td>
<td>196</td>
</tr>
<tr>
<td>Winslow</td>
<td>7</td>
<td>194</td>
<td>45</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Five Southwestern Cts.</td>
<td>3312</td>
<td>69,716</td>
<td>19,618</td>
<td>7,795</td>
<td></td>
</tr>
</tbody>
</table>

**1954**

<table>
<thead>
<tr>
<th>County</th>
<th>Est.</th>
<th>Receipts ($1000)</th>
<th>Payroll ($1000)</th>
<th>Employees</th>
<th>Active Proprietors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennebec Cty.</td>
<td>510</td>
<td>9,206</td>
<td>2,355</td>
<td>1,050</td>
<td>467</td>
</tr>
<tr>
<td>Augusta</td>
<td>119</td>
<td>2,169</td>
<td>599</td>
<td>313</td>
<td>113</td>
</tr>
<tr>
<td>Gardiner</td>
<td>36</td>
<td>379</td>
<td>96</td>
<td>54</td>
<td>37</td>
</tr>
<tr>
<td>Hallowell</td>
<td>18</td>
<td>461</td>
<td>96</td>
<td>53</td>
<td>23</td>
</tr>
<tr>
<td>Waterville</td>
<td>221</td>
<td>3,064</td>
<td>697</td>
<td>175</td>
<td>194</td>
</tr>
<tr>
<td>Winslow</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Five Southwestern Cts.</td>
<td>2790</td>
<td>50,152</td>
<td>13,566</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

### TABLE XII

Kind of Service Business Group, Hallowell, 1958

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Number Establishments</th>
<th>Total Receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Services</td>
<td>5</td>
<td>80,000</td>
</tr>
<tr>
<td>Auto repair, auto services</td>
<td>3</td>
<td>58,000</td>
</tr>
<tr>
<td>All other selected services</td>
<td>5</td>
<td>117,000</td>
</tr>
</tbody>
</table>

Source: U. S. Census of Business, Selected Services, 1958

### TABLE XIII

Per Capita and Per Establishment Retail and Service Trade Receipts, 1958

#### Retail Sales 1960

<table>
<thead>
<tr>
<th>Location</th>
<th>Pop.</th>
<th>Sales ($1000)</th>
<th>Sales per Capita</th>
<th>No. Estab.</th>
<th>Sales per Establm't.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hallowell*</td>
<td>3,169</td>
<td>4,205</td>
<td>1,327</td>
<td>45</td>
<td>93,444</td>
</tr>
<tr>
<td>Augusta</td>
<td>21,680</td>
<td>30,855</td>
<td>1,423</td>
<td>271</td>
<td>113,856</td>
</tr>
<tr>
<td>Gardiner</td>
<td>6,897</td>
<td>10,154</td>
<td>1,472</td>
<td>109</td>
<td>93,156</td>
</tr>
<tr>
<td>Waterville</td>
<td>18,695</td>
<td>37,363</td>
<td>1,999</td>
<td>288</td>
<td>129,733</td>
</tr>
<tr>
<td>Winslow</td>
<td>5,891</td>
<td>2,869</td>
<td>49</td>
<td>35</td>
<td>81,971</td>
</tr>
<tr>
<td>Kennebec Cty.</td>
<td>89,150</td>
<td>100,803</td>
<td>1,131</td>
<td>1,005</td>
<td>100,302</td>
</tr>
<tr>
<td>5-Cty. Region</td>
<td>480,408</td>
<td>546,776</td>
<td>1,138</td>
<td>5,640</td>
<td>96,946</td>
</tr>
</tbody>
</table>

#### Service Trade Receipts

<table>
<thead>
<tr>
<th>Location</th>
<th>Receipts ($1000)</th>
<th>Receipts Per Capita</th>
<th>Number Estab.</th>
<th>Receipts Per Establm't.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hallowell*</td>
<td>255</td>
<td>81</td>
<td>13</td>
<td>19,615</td>
</tr>
<tr>
<td>Augusta</td>
<td>3,476</td>
<td>160</td>
<td>145</td>
<td>23,972</td>
</tr>
<tr>
<td>Gardiner</td>
<td>497</td>
<td>72</td>
<td>50</td>
<td>9,940</td>
</tr>
<tr>
<td>Waterville</td>
<td>3,278</td>
<td>175</td>
<td>141</td>
<td>23,248</td>
</tr>
<tr>
<td>Winslow</td>
<td>194</td>
<td>33</td>
<td>7</td>
<td>27,714</td>
</tr>
<tr>
<td>Kennebec Cty.</td>
<td>11,348</td>
<td>127</td>
<td>563</td>
<td>20,156</td>
</tr>
<tr>
<td>5-Cty. Region</td>
<td>69,716</td>
<td>145</td>
<td>3,312</td>
<td>21,050</td>
</tr>
</tbody>
</table>

* Hallowell per establishment retail sales 1954-$60,851; 1948-$57,453; per establishment service receipts 1954-$25,611


IV - 12
Retail Trade and Service Trades Cont'd:

Maine has consistently lagged behind United States trends in retail sales. While sales in the nation as a whole increased 17% between 1951 and 1958, Maine sales increased 12%. Sales in the five southwestern Maine counties increased 10.6% during the same period. The average increase for Maine was pulled upward by a 24% increase in Aroostook County because of the influence of Loring Air Force Base at Limestone. Cumberland County sales, the largest for any Maine county, accounting for 23% of total Maine sales, rose 13% and Kennebec County, which accounts for about 10% of state retail sales, had 10% higher sales in 1958 than in 1954. Augusta sales rose by 13% during the four-year period. 6/

Food stores account for a larger proportion of all retail sales in Maine (28%) than they do in the United States (24.5%), probable because of the lower income level in Maine. The lower the income, the larger the proportion spent on food and necessities. But food store sales have increased 25% for the United States and only 18% for Maine, undoubtedly because of the relatively slower rate of population growth in the latter. The proportion of retail sales accounted for by food stores in Kennebec County (27%) is closely comparable with the average for the state in spite of relatively high income per household. 7/

Both Augusta and Hallowell, between 1948 and 1954, did a more or less consistent share of Kennebec County retail business and the county has likewise maintained its share of southwestern Maine sales. The relative number of retail establishments has decreased in Hallowell but increased in Augusta. The statewide and nationwide trend in this respect is toward fewer but larger establishments. In Augusta there has been some consolidation of smaller into larger units, some new large stores (and probably some extinction of smaller operations) but also there is some evidence of establishment of new retail business operations at several levels. In Hallowell, the picture is different. The smaller number of establishments in 1958 than in 1954 is due primarily to the termination of small operations with no appreciable replacement on any level, small or large.

6/ Most figures in this paragraph are from Maine Business Indicators, published by the Center for Economic Research, Bowdoin College.

7/ "Sales Management" 1960, estimates effective buying power per household in Kennebec County to be $6,144, second only to Cumberland County where the comparable figure is $6,226. Augusta ranks 5th in this respect among Maine major urban centers with per household buying power estimated at $6,713. Also a comparatively large proportion of Kennebec County households (61.9%) are estimated to have annual income over $4,000 (Copyright 1960, Sales Management Survey of Buying Power; further reproduction is forbidden). The 1960 U.S. Census shows the following median income for families and unrelated individuals: for Hallowell- $4,079; Augusta-$5,509; Maine - $4,021.

IV - 13
### TABLE XIV

Augusta and Hallowell Retail Trade as % of Kennebec County

<table>
<thead>
<tr>
<th>Year</th>
<th>Augusta Sales</th>
<th>Hallowell Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948</td>
<td>25.7</td>
<td>5.2</td>
</tr>
<tr>
<td>1954</td>
<td>27.6</td>
<td>4.3</td>
</tr>
<tr>
<td>1958</td>
<td>27.0</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Kennebec County, Augusta & Hallowell Retail Trade as % of 5-County Region

<table>
<thead>
<tr>
<th>Year</th>
<th>Augusta Pay-roll</th>
<th>Hallowell Pay-roll</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948</td>
<td>4.8</td>
<td>1.0</td>
</tr>
<tr>
<td>1954</td>
<td>5.1</td>
<td>0.8</td>
</tr>
<tr>
<td>1958</td>
<td>5.5</td>
<td>0.6</td>
</tr>
</tbody>
</table>


More recent changes in Hallowell retail business are indicated by Maine sales tax data. No separate information is available before 1958 for Hallowell but the change in sales taxes collected between 1958 and 1959 is inauspicious. While retail sales virtually everywhere rose, at least in dollar terms, $4,290 less in sales taxes was collected in 1959 in Hallowell than in 1958. Percentage changes in Hallowell and elsewhere are shown in Table XV below.

### TABLE XV

<table>
<thead>
<tr>
<th>City</th>
<th>1958 Sales</th>
<th>1959 Sales</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hallowell</td>
<td>58,230</td>
<td>53,940</td>
<td>-7.4</td>
</tr>
<tr>
<td>Augusta</td>
<td>672,000</td>
<td>747,000</td>
<td>11.2</td>
</tr>
<tr>
<td>Bath</td>
<td>261,000</td>
<td>278,000</td>
<td>6.7</td>
</tr>
<tr>
<td>Brunswick</td>
<td>400,000</td>
<td>417,000</td>
<td>4.3</td>
</tr>
<tr>
<td>Gardiner</td>
<td>159,000</td>
<td>175,000</td>
<td>10.3</td>
</tr>
<tr>
<td>Portland</td>
<td>3,634,000</td>
<td>3,947,000</td>
<td>8.6</td>
</tr>
<tr>
<td>South Portland</td>
<td>373,000</td>
<td>439,000</td>
<td>17.8</td>
</tr>
<tr>
<td>Waterville</td>
<td>762,000</td>
<td>847,000</td>
<td>11.2</td>
</tr>
<tr>
<td>State</td>
<td>23,867,000</td>
<td>26,212,000</td>
<td>9.8</td>
</tr>
</tbody>
</table>

* Estimated by State Bureau of Taxation

Source: Maine State Bureau of Taxation
Retail Trade and Service Trades Cont'd:

It is not surprising, in view of the results of the 1960 Sewall Company Field Survey, that Hallowell retail business is not as healthy as it could be. In fact, it is surprising that per capita and per establishment sales were as high as they were in 1958. (see Table XIII). Assuming that the shopping characteristics of the local population have not changed radically since 1958, the conclusion must be drawn that Hallowell merchants were doing most of their business with tourists or with regional residents who traveled to Hallowell specifically to shop for certain kinds of merchandise. Certainly Hallowell residents are currently doing very little of their shopping at home. Even food, which usually is bought as close to home as possible is bought by local residents in three-quarters of the cases outside of Hallowell.

TABLE XVI

Shopping Characteristics of Hallowell Resident Families, 1960

Place Where Shopping is Usually Done:

<table>
<thead>
<tr>
<th>Place Where Shopping is Usually Done</th>
<th>Hallowell</th>
<th>Augusta</th>
<th>Gardiner</th>
<th>Other*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Food</td>
<td>120</td>
<td>23.9</td>
<td>336</td>
<td>66.7</td>
</tr>
<tr>
<td>Clothing</td>
<td>98</td>
<td>19.5</td>
<td>556</td>
<td>70.7</td>
</tr>
<tr>
<td>Appliances</td>
<td>110</td>
<td>21.8</td>
<td>344</td>
<td>68.3</td>
</tr>
<tr>
<td>Automobiles</td>
<td>98</td>
<td>19.5</td>
<td>353</td>
<td>70.1</td>
</tr>
<tr>
<td>Repair Services</td>
<td>126</td>
<td>25.0</td>
<td>334</td>
<td>66.4</td>
</tr>
<tr>
<td>Medical Services</td>
<td>86</td>
<td>17.1</td>
<td>351</td>
<td>69.7</td>
</tr>
<tr>
<td>Legal Services</td>
<td>0</td>
<td>0</td>
<td>410</td>
<td>81.5</td>
</tr>
<tr>
<td>Banking Services</td>
<td>97</td>
<td>19.3</td>
<td>348</td>
<td>69.1</td>
</tr>
<tr>
<td>Insurance</td>
<td>94</td>
<td>18.7</td>
<td>351</td>
<td>69.7</td>
</tr>
</tbody>
</table>

* "Other" includes Waterville, Winthrop and out of State.

** Each reply represents the usual shopping practice of one family with regard to the specific item shopped for. There are therefore as many as 9 separate replies for each family interviewed, one for each of the nine shopping categories. The "No Response" category includes those persons who said they did not shop for the item in question.
Occupation and Industry Classification of the Hallowell Population:

Economic characteristics of the Hallowell population for 1950 and 1960 are listed below:

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>1950 Male</th>
<th>1950 Female</th>
<th>1950 Total</th>
<th>1960 Male</th>
<th>1960 Female</th>
<th>1960 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons 14 years old &amp; over</td>
<td>1140</td>
<td>1417</td>
<td>2,557</td>
<td>988</td>
<td>1268</td>
<td>2256</td>
</tr>
<tr>
<td>Labor Force</td>
<td>884</td>
<td>475</td>
<td>1,359</td>
<td>741</td>
<td>426</td>
<td>1167</td>
</tr>
<tr>
<td>Civilian Labor Force</td>
<td>883</td>
<td>475</td>
<td>1,358</td>
<td>741</td>
<td>426</td>
<td>1167</td>
</tr>
<tr>
<td>Employed</td>
<td>821</td>
<td>465</td>
<td>1,286</td>
<td>701</td>
<td>399</td>
<td>1100</td>
</tr>
<tr>
<td>Unemployed</td>
<td>62</td>
<td>10</td>
<td>72</td>
<td>40</td>
<td>27</td>
<td>67</td>
</tr>
<tr>
<td>Not in Labor Force</td>
<td>256</td>
<td>942</td>
<td>1,198</td>
<td>247</td>
<td>842</td>
<td>1089</td>
</tr>
</tbody>
</table>

The most striking change in employment status of Hallowell residents is the smaller total number employed in 1960, reflecting the population loss which occurred between 1950 and 1960. Another significant change has occurred in the number and proportion of the employed labor force working in manufacturing, both as production workers and in other capacities. Also there has been a decrease in numbers of sales workers and of proprietors and managers, most of whom could be expected to be engaged in retail trade or services. And although the number of persons engaged in public administration (including all levels of government administrative service) has decreased the proportion of the labor force represented by them was larger in 1960 than in 1950.

The most striking increase in any industry category was in professional and related services. There also have been increases in the proportions of the total accounted for by finance, insurance and real estate, construction and wholesale and retail trade (notwithstanding a decrease in the "sales worker" category).

The pattern of change in the occupation and industry profile is in the direction of greater emphasis on white collar employment for Hallowell residents.
TABLE XVII
The Hallowell Employed Population by Occupation and Industry

<table>
<thead>
<tr>
<th>Occupation/Industry</th>
<th>1960 Male</th>
<th>1960 Female</th>
<th>1960 Total</th>
<th>% of Total</th>
<th>1950 Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number Employed:</td>
<td>701</td>
<td>399</td>
<td>1,100</td>
<td>100.0</td>
<td>1,286</td>
<td>100.0</td>
</tr>
<tr>
<td>Major Occupation Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional, technical &amp; kindred</td>
<td>102</td>
<td>55</td>
<td>157</td>
<td>14.3</td>
<td>118</td>
<td>9.2</td>
</tr>
<tr>
<td>Farmers &amp; farm managers</td>
<td>13</td>
<td>-</td>
<td>13</td>
<td>1.2</td>
<td>12</td>
<td>0.9</td>
</tr>
<tr>
<td>Managers, officials &amp; proprietors,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>except farmer</td>
<td>96</td>
<td>12</td>
<td>108</td>
<td>9.8</td>
<td>141</td>
<td>11.0</td>
</tr>
<tr>
<td>Clerical and kindred</td>
<td>80</td>
<td>150</td>
<td>230</td>
<td>20.9</td>
<td>182</td>
<td>14.2</td>
</tr>
<tr>
<td>Sales workers</td>
<td>35</td>
<td>15</td>
<td>50</td>
<td>4.6</td>
<td>71</td>
<td>5.5</td>
</tr>
<tr>
<td>Craftsmen, foremen, kindred</td>
<td>116</td>
<td>4</td>
<td>120</td>
<td>10.9</td>
<td>146</td>
<td>11.4</td>
</tr>
<tr>
<td>Operatives and kindred workers</td>
<td>130</td>
<td>66</td>
<td>196</td>
<td>17.8</td>
<td>401</td>
<td>31.2</td>
</tr>
<tr>
<td>Private household workers</td>
<td>-</td>
<td>16</td>
<td>16</td>
<td>1.4</td>
<td>27</td>
<td>2.1</td>
</tr>
<tr>
<td>Service workers, except private household</td>
<td>40</td>
<td>71</td>
<td>111</td>
<td>10.1</td>
<td>108</td>
<td>8.4</td>
</tr>
<tr>
<td>Farm laborers and foremen</td>
<td>27</td>
<td>-</td>
<td>27</td>
<td>2.4</td>
<td>21</td>
<td>1.6</td>
</tr>
<tr>
<td>Laborers except farm and mine</td>
<td>47</td>
<td>-</td>
<td>47</td>
<td>4.3</td>
<td>51</td>
<td>4.0</td>
</tr>
<tr>
<td>Occupation not reported</td>
<td>15</td>
<td>10</td>
<td>25</td>
<td>2.3</td>
<td>8</td>
<td>0.6</td>
</tr>
<tr>
<td>Major Industry Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, forestry, fisheries</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mining</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Construction</td>
<td>83</td>
<td>7.6</td>
<td>73</td>
<td>5.7</td>
<td>51</td>
<td>4.0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>252</td>
<td>22.9</td>
<td>428</td>
<td>33.3</td>
<td>312</td>
<td>24.4</td>
</tr>
<tr>
<td>Transportation, communication, utilities</td>
<td>75</td>
<td>6.8</td>
<td>101</td>
<td>7.9</td>
<td>65</td>
<td>5.0</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>200</td>
<td>18.2</td>
<td>214</td>
<td>16.6</td>
<td>132</td>
<td>10.2</td>
</tr>
<tr>
<td>Finance, insurance &amp; real estate</td>
<td>33</td>
<td>3.0</td>
<td>23</td>
<td>1.8</td>
<td>28</td>
<td>2.2</td>
</tr>
<tr>
<td>Business &amp; repair services</td>
<td>10</td>
<td>.9</td>
<td>27</td>
<td>2.1</td>
<td>27</td>
<td>2.1</td>
</tr>
<tr>
<td>Personal services</td>
<td>42</td>
<td>3.8</td>
<td>80</td>
<td>6.2</td>
<td>80</td>
<td>6.2</td>
</tr>
<tr>
<td>Entertainment &amp; recreation services</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Professional &amp; related services</td>
<td>174</td>
<td>15.8</td>
<td>104</td>
<td>8.1</td>
<td>104</td>
<td>8.1</td>
</tr>
<tr>
<td>Public administration</td>
<td>167</td>
<td>15.2</td>
<td>177</td>
<td>13.8</td>
<td>177</td>
<td>13.8</td>
</tr>
<tr>
<td>Industry not reported</td>
<td>19</td>
<td>1.7</td>
<td>8</td>
<td>0.6</td>
<td>8</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Source: U.S. Census of the Population of Maine

Somewhat less than 1/3 (28%) of the resident employed labor force works in Hallowell. The other 72% works mainly in Augusta and Gardiner. Of those employed in Hallowell, the largest number is engaged in manufacturing; the next largest in wholesale and retail trade.
### TABLE XVIII

Resident Labor Force Working in Hallowell, 1960

<table>
<thead>
<tr>
<th>Industry</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, fisheries</td>
<td>11</td>
<td>11</td>
<td>12</td>
<td>4.2</td>
</tr>
<tr>
<td>Construction</td>
<td>23</td>
<td>23</td>
<td>46</td>
<td>8.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>46</td>
<td>35</td>
<td>81</td>
<td>31.2</td>
</tr>
<tr>
<td>Transportation, communication &amp; other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>public utilities</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>1.9</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>35</td>
<td>15</td>
<td>50</td>
<td>19.2</td>
</tr>
<tr>
<td>Finance, insurance, real estate</td>
<td>3</td>
<td>8</td>
<td>11</td>
<td>4.2</td>
</tr>
<tr>
<td>Business &amp; repair service</td>
<td>4</td>
<td>4</td>
<td>8</td>
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<td>Personal service</td>
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<tr>
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<tr>
<td>Professional &amp; related service</td>
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<td>9.2</td>
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<tr>
<td>Public administration</td>
<td>30</td>
<td>3</td>
<td>33</td>
<td>12.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>176</td>
<td>84</td>
<td>260</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: James W. Sewall Company field survey, 1960

The most important single industry classification for Hallowell residents employed outside of Hallowell is public administration, mostly state employment at Augusta. Manufacturing accounts for the next largest number of jobs. Most of these are in Augusta and Gardiner which together account for approximately 60% of the manufacturing jobs held by Hallowell residents.

### TABLE XIX

Hallowell Resident Labor Force Working Outside of Hallowell

<table>
<thead>
<tr>
<th>Industry</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry fisheries</td>
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<tr>
<td>Construction</td>
<td>33</td>
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<td>34</td>
<td>5.5</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>94</td>
<td>39</td>
<td>133</td>
<td>21.7</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>public utilities</td>
<td>48</td>
<td>15</td>
<td>63</td>
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<tr>
<td>Wholesale and retail trade</td>
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<tr>
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<tr>
<td>Business and repair service</td>
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<td>Personal service</td>
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<tr>
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<td>Public Administration</td>
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<td>140</td>
<td>22.8</td>
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<tr>
<td><strong>Total</strong></td>
<td>426</td>
<td>188</td>
<td>614</td>
<td>100.0</td>
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</tbody>
</table>


IV - 18
Conclusions and Recommendations:

There is considerable potential for further economic development in Hallowell for several reasons:

1. The Augusta urban complex, of which Hallowell is an integral part, appears to be relatively healthy economically. Chances are fair that some new industry will continue to locate there and it is certain that government employment will continue to increase, perhaps at a faster rate than in the past since Maine has had smaller government employment per capita of the population than other states or than the national average. Thus many government services, not now available, are needed in Maine - in the fields of education, highways and traffic control, public lands and promotion of recreation, health and welfare and many others.

2. Hallowell has unique features which with planning and development can make it an exceptionally pleasant place to live and a convenient and attractive place to shop.

3. Hallowell has hardly tapped the buying power resources of its own population.

4. There is an existing core of antique, curio and second-hand shops which draw clientele from far away and for which Hallowell could be a widely known outlet.

5. Hallowell has as good an access to Augusta as any community in the region and much better than most. This, in conjunction with needed improvements in municipal services and commercial shopping facilities, would undoubtedly attract many new residents.

The key to future economic success for Hallowell lies in some kind of extensive redevelopment of the business section. The shore of the Kennebec River should be opened for visual and physical access. Parkland, landscaping and possibly areas for active recreation, say, a small marina for pleasure-boat launching and service, could add a great deal to the charm of downtown. A contemporary shopping center development could accent the old buildings for which Hallowell is already known and at the same time provide the food and service shopping facilities needed to capture resident dollars which are now going elsewhere. Careful redevelopment planning, which takes account of existing commercial values, could encourage private investment in contemporary retail establishments and in improvement and extension of the existing core of antique and curio shops.

In short, the potential of Hallowell is mainly in its downtown commercial center. Imaginative development could turn it into a place of both business and pleasure where a truly unique shopping experience could be enjoyed not only by local residents but by regional residents and tourists as well.
Conclusions and Recommendations Cont'd:

Also there is no reason why Hallowell could not attract additional industry, provided such industry is seeking a location somewhere in the Augusta-Hallowell-Gardiner area. However, it seems more feasible to suppose that any potential new manufacturing enterprise could best be secured for the area if all three communities, plus others nearby, combined forces to encourage industrial development at a mutually agreed-upon location which could offer the greatest number of advantages to the industry. The specific location of any given plant does not limit the land area from which employees may be drawn except in terms of commuting time and distance. Thus Hallowell would benefit from new manufacturing employment opportunities in Augusta, in Gardiner, or anywhere within easy commuting distance of Hallowell. It is true that industry pays taxes only to the town in which it resides but on the other hand, the efforts of individual communities to attract new plants are so often unrewarded (because small non-industrialized communities seldom can offer what industry wants and needs) that it is more feasible for such communities to pool their efforts and resources. Tax payments represent only one of the benefits of industrial development; adequate employment opportunities are more important in most cases.

Hallowell is already a uniquely attractive city in many ways and it has a rich and colorful history which could and should be exploited for its tourist interest as well as for the pleasure of residents. The fine old buildings on the steep bank of the Kennebec should be protected by careful zoning and building codes. New residential development may be encouraged in areas now largely open but this too should be carefully controlled through municipal ordinances to protect property values elsewhere.
SECTION V

GEOLOGY

Introduction . . . . . 1
Applied Geology . . . . 1
Use of Map . . . . . 2
Slope . . . . . . 2
Bearing Capacity . . . . 2
Drainage . . . . . 3
Depth-to-Bedrock . . . . 3
Natural Resources:
    Aggregate Material . . . . 3
    Granite . . . . . 3
    Ground water . . . . 4
Conclusions . . . . . 4
GEOLOGY

Introduction:

Geology, as applied to a comprehensive planning program, constitutes (1) a study of the surface of the area involved, (2) a study of what has been defined as the "shallow zone", up to a few tens of feet, immediately below the surface, and (3) an evaluation of the natural resources within a given area. The specific purpose of this work is to provide consultants and the Planning Board with information which is vital for formation of logical land utilization and development plans. This does not substitute for sound engineering subsurface surveys which should be a part of any serious public or private endeavor; likewise, this does not pretend to be a complete analysis of the mineral deposits of the area. The work is designed to be a guide for the formulation of ideas involving land utilization, zoning ordinances, water and sewer facilities and ground water reserves.

Applied Geology:

An evaluation of surficial conditions was made primarily in four categories; slope, bearing capacity, drainage and depth of soil cover to bedrock. This survey included examination of topographic maps published by the U. S. Geological Survey, study of aerial photographs and field survey in Hallowell. The accompanying map, prepared from this information, is generalized and intended as a guide to planning and land utilization. The map should not be used as final authority for site selection and any sites for specific types of construction should be thoroughly tested to be sure they meet the desired requirements.

The use of such criteria as slope, bearing capacity, drainage and depth-to-bedrock for construction of the map is based on the needs of the planning program and this does not result in a geologic map as the term is normally used. As an example, a surficial geologic map of Hallowell would distinguish such as gravel and sand, glacial till, marine clay and organic soils and each of these soil types might be classified further on the basis of origin and shape. For practical considerations involving sewer and water facilities, residential development and related factors, such soils as gravel are characterized by good internal drainage and good foundation characteristics and are shown on the map as such.

A substantial part of Hallowell development has been in areas of rather steep slope underlain by marine clay. Most of desirable area underlain by gravel and sand is found along the Maine turnpike although this is locally complicated by pockets of clay and a thin layer of clay over the gravel. The higher elevations in the western part of the town are mostly covered with glacial till. The till is an unsorted mixture of particle sizes ranging from clay to boulders but it generally represents fairly good foundation material with drainage characteristics that may vary from poor to good.
Use of Map:

A pattern of vertical, horizontal and 45° lines is used to represent the conditions which prevail at any locality in the city. Areas of contrasting conditions are outlined lightly in order that the boundaries be distinct. Economic deposits that should be considered in land utilization are indicated by proper symbol and further discussed in the text.

Slope:

In evaluating slope conditions all slopes exceeding fifteen percent were considered to be undesirable for most building purposes and such areas are unlined on the map. Areas less than 400 feet in diameter have not been considered for excessive slope purposes.

Optimum conditions for many structures include a slope of less than three percent and these have been designated by solid vertical lines. All other portions of the map, not designated as above fifteen percent or below three percent slope have intermediate slope, between the two previously mentioned values, and these areas are quite usable for many purposes.

Bearing Capacity:

Accurate measurements of bearing capacity of a soil involve rather precise engineering tests which are far beyond the limits of this study. It is possible, within the scope of this work, to classify foundation conditions as adequate, questionable and definitely poor. Even the poor foundation conditions can be utilized but this generally implies additional costs for investigation, treatment and design.

Areas designated as adequate, on the map (solid lines 45° to the right) should be satisfactory for nearly all residential structures and most industrial structures not exceeding two floors. Heavy footing loads, structures housing precision machinery, and buildings with decorative walls, murals, etc., should always be preceded by proper engineering investigation of subsoil conditions.

Areas designated as questionable on the map, (dashed lines 45° to the right), should be adequate for most two-story residential construction and light, one-story industrial buildings. These areas are generally underlain by fine grained soils, mostly clay, and are subject to both settlement and relatively poor subsurface drainage. Heavier structures and stable structures may require either pile foundations or excavation to ledge.

The areas of poor foundation materials, indicated by the absence of any 45° line to the right, may serve for light residential or light industrial use. These areas are generally underlain by soft clay, organic soils or uncompacted silts. Any structure planned within such areas must anticipate probable settlement and poor drainage.
Drainage:

The drainage characteristics of the surficial material have been evaluated to define areas where public sewerage utilities will most likely be necessary. Areas underlain by clay will have poor drainage due to the impervious nature of clay and public sewerage will be needed in these areas rather than septic tanks. Areas where bedrock is close to the surface will also be poorly drained and require sewers.

Depth-to-Bedrock:

Depth-to-bedrock information was obtained by outlining ledge exposures in the field, inspecting excavations for ledge and stereoscopic study of aerial photographs. The occurrence of ledge at or near the surface may be detrimental or beneficial, depending on the type of construction contemplated. For residential areas, shallow ledge implies problems in that sewerage and water facilities will involve comparatively high cost excavation for lines and many individual connections. Single installations such as schools, individual municipal buildings, public buildings, industrial buildings, and recreational areas might very well utilize shallow ledge areas.

Natural Resources:

The natural resources of an area may be classified as recurring such as timber, fisheries, etc., and non-recurring such as mineral deposits and soil deposits. The nonrecurring resources may be harvested but once. If such deposits are to be best utilized for the benefit of any area then they must be diagnosed in considerable detail and protected against conflicting uses and wasteful development.

Aggregate Material: Gravel and sand constitute the main source of low-cost granular aggregates in the Hallowell area. These deposits have not been mapped or outlined in any detail by previous work but generally follow a north-south zone along both sides of the turnpike with the more important volumes lying on the western side of this highway. The general centers of three such deposits are indicated on the map by appropriate symbol. Leavitt and Perkins \(^1\) as part of their road materials survey of Maine, tested several samples of sand and gravel from this general area with good results which they attribute to the high percentage of particles of fresh granite. These deposits of granular material should be considered as a valuable natural resource.

Granite: A considerable volume of granite, quarried from this area is still well known in the building trade as "Hallowell Granite". The immediate market for this granite is not promising but it might again find favor with architects if it becomes available. The facts that it has been rather widely used and that it has acquired a trade name are advantageous. The granite is suitable as a crushed aggregate.

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Ground Water: Those areas west of the city which are underlain by gravel offer a possible source of ground water. Ground water surveys and depth determinations are lacking so that it is not possible to discuss this potential resource in terms of supply or yield. Contamination of the area should be avoided if there is any possibility that a water source of this nature may be needed in the future.

Conclusions:

In planning the future of a community, natural resources should be considered along with the usual problems of town expansion. By so doing, priorities of land use may be established which will permit working of the natural resources. A gravel deposit, for instance, after it has been worked out and abandoned is very low-value property and often a safety hazard because of water and unstable banks. The site of the pit may be put to use for house lots or some other purpose if the banks are cut and the depressions filled. On the other hand, housing or other development should not be undertaken on the site of a gravel deposit, thus removing all possibility of using the material in the future.

In general, appraisal of resources and plans for their extraction, are justified before committing land to specific uses.
SLOPE MORE THAN 15% DEPTH TO BEDROCK ADEQUATE
SLOPE LESS THAN 3% GRANITE QUARRY
BEARING GOOD GRAVEL SAND DEPOSITS
BEARING FAIR TO UNCERTAIN
DRAINAGE GOOD
DRAINAGE UNCERTAIN

HALLOWELL PLANNING BOARD
KENNEBEC COUNTY, MAINE
1960
JAMES W. SEWALL COMPANY PLANNING CONSULTANTS,
OLD TOWN, MAINE
SCALE 1:8000

BASIS ON U.S. GEOLOGICAL SURVEY DATA
PREPARED IN FURTHER USE FOR URBAN PLANNING AGENCY FROM THE MAPS, SECTION 70 OF THE
U.S.G.S. MAINE 15-MIN. QUADRANGLES.
UTILITIES

SECTION VI

Introduction ........................................ 1

Water:
   General ........................................ 1
   Water Supply .................................. 1
   Distribution System .......................... 2

Problems and Needs in Summary ................ 2
Recommendations ................................ 3
Future Water Supply .............................. 3
Future Water Distribution System ............. 3

Sewerage .......................................... 4

Problems and Needs in Summary .............. 5
Recommendations ................................ 5

Financing of Sewerage ........................... 7
UTILITIES

Introduction:

Although it is not a function of community planning to go into the design and engineering aspects of utility systems, it is an important part of community planning to assess the adequacy of these systems with regard to existing conditions and potential future expansion.

The function of the Planning Board is to recommend public utility programs in conformity with the Master Plan which will provide the residents of Hallowell with efficient utilities services at minimum public expense.

Sewerage and water facilities are the utilities evaluated here.

Water:

General: Water availability has always been a decisive factor in settlements. In the past, water supply was an individual responsibility but increased urbanization, bringing with it the dangers of pollution, has forced communities to assume the responsibility of providing a common water supply. Many municipalities have been forced to seek out new water sources and build new supply systems in order to meet the demands of urban expansion. Hallowell is fortunate in that its water supply at Jamie's Pond is adequate to provide water for everyday use and fire protection.

Water Supply: The water system is owned and operated by the Hallowell Water District which also serves a small part of Farmingdale. The source of water supply is Jamie's Pond, located in the towns of Farmingdale and Manchester. Water is pumped from this source by an electrically powered centrifugal pump to the standpipe in Hallowell. At present this pump operates at one-third capacity (i.e., eight hours a day) to provide Hallowell with the 288,000 gallons it consumes in an average day. The capacity of the pumping system is 864,000 gallons per day.

The standpipe in Hallowell has a storage capacity of 734,000 gallons or a little more than a two-day supply (storage capacity of the reservoir is limited at 1,120,000 gallons) bringing the total reserves without replacement to about a six day supply. The estimated daily yield of the system (in a dry year) is 300,000 gallons which is slightly over the average daily use. This yield together with the storage capacity of the system insures an adequate supply in the event of fire. For a community of Hallowell's size, slightly over 600,000 gallons of water should be available to cover serious fire emergency. The standpipe would at present answer this need.
In the event of an increase in the average daily consumption of water in Hallowell to a figure in excess of the 300,000 gallon yield of the system due to industrial or residential expansion, careful re-evaluation of the system would be mandatory. The yield and storage capacity of Jamie's pond could prove to be inadequate in which case some additional source of water would be needed. However, the capacity of the system is adequate to serve present needs. In addition, there is an emergency tie-in with the Augusta water system which gives the community an additional safety reserve.

The water is purified by an automatic proportioneer chlorinator which provides ample safety against injurious bacteria.

Distribution System: The water mains in Hallowell vary in size from 12-inch feeder pipes to a few lengths of three-quarter inch pipe. The preponderance of the mains, some 41,311 feet, are 6-inch. However, over 6,000 feet of mains are 2-inch and under. A 6-inch main is recommended for any line servicing a fire hydrant. Lines smaller than 6-inches allow for no increased volumes for new development and are in many cases inadequate for present use. The laying of any water mains under 6 inches in diameter should be discouraged in the future and existing two inch and smaller lines should be replaced by 6-inch pipe for adequate service and fire protection.

There are also numerous dead-ends in the distribution system.

Problems and Needs in Summary:

While presently and for the immediate future, Jamie's Pond affords an adequate water supply for the city, considerable residential growth is likely to create need for additional supply. There is only one pump between the source and the city. This shortcoming is partly offset by the fact that this pump operates at only 1/3 capacity and that there is an emergency link with the Augusta system.

In the event of sizable future population growth in Hallowell and Farmingdale there will probably be need for an additional standpipe. The single existing standpipe is adequate to serve approximately a 30% increment to the population.

The distribution system contains approximately 6,000 feet of mains which are substandard in size (less than 6 inches diameter) and numerous dead-ends.
Recommendations:

None of the problems or needs associated with the water supply system in Hallowell are very serious nor do they call for high priority action. By and large, they can be handled in conjunction with the development of anticipated and planned areas of residential, commercial and industrial growth. Specific proposals to be integrated with the long-range implementation of the Comprehensive Plan are outlined below and are subject to ultimate approval of Water District Officials.

Future Water Supply:

Water reserves including lakes outside Hallowell as well as underground water sources should be expertly investigated to determine the potential for future expansion of the local water supply. Such investigation should be undertaken in cooperation with other nearby communities with financial aid under a "702" program.

Future Water Distribution System:

Eventually a new standpipe will be needed. It should be installed before the combined population of Hallowell and that portion of Farmingdale which is served by the Hallowell Water District has grown 30%. The location of this standpipe should be coordinated with the land use proposals of the planning program and the information collected in a detailed sewer and water study.

Water service lines will need to be extended to areas proposed for residential expansion as will other public services. Installation of such services to appropriate locations can be used to channel residential settlement into such patterns as are most desirable from the municipal viewpoint.

Existing dead-end mains should be eliminated and new ones prohibited wherever feasible.

The laying of mains of less than six inches, the minimum for fire hydrant service, should be prohibited. Mains of less than six inches should be replaced to meet minimum requirements.

New subdivisions should be required by the local subdivision ordinance to be provided with an approved water supply system, either private or public. This combined with other requirements for suitable sanitary and storm sewerage, will help to prevent substandard housing developments and will reduce the burden of public costs associated with large-scale residential construction.
Future Water Distribution System Cont'd:

Further study of water needs and specific recommendations should be sought in conjunction with a detailed sewer study under Section "702" of the Federal Housing Act of 1949, as amended. Prior consideration should be given such a study on the regional level, in cooperation with neighboring communities since regional or joint solutions to some parts of the local water and sewer problems could be distinctly beneficial to Hallowell and to the other communities involved.

It is possible that some parts of the costs of study, design and construction or reconstruction of water and other public facilities can be charged against downtown urban renewal costs.

Sewerage:

Most of urban Hallowell is sewered. Lines range from 6 inches in diameter to 20 inches. Exact dimensions and locations of all lines are not known. All lines converge in twelve out-falls measuring 8 inches to 36 inches in diameter. The latter empty untreated sewage into the Kennebec River. There are several large storm sewers which connect with smaller lines in the sanitary sewerage system.

Major problems are: 1.) the absence of sewage treatment facilities; 2.) combined use of sewers for sanitary and storm drainage.

The dumping of raw sewage into the river adds to an already serious problem of pollution which eventually will have to be controlled. State and federal legislation can be expected to become increasingly restrictive in this area. Meanwhile, each community which, over the years, has contributed to such pollution is individually responsible for seeking ways to overcome the problem. Contamination of water bodies, watersheds and streams is not only wasteful of a vital natural resource but is often economically damaging to communities with shore frontage. In Hallowell, the river could be a distinct asset with considerable economic value. Shorefront parks and recreational facilities would significantly increase the attractiveness of the shopping center, enhance residential amenities and attract tourists and regional residents.

Some of the proposals evolving from this study for downtown redevelopment hinge on the installation of treatment facilities to help remove some of the more offensive elements of shorefront pollution. Waterfront parks, recreational areas and especially a marina to service small boats would be of questionable value under existing conditions.

Storm drainage carried by sanitary sewers present some maintenance problems now. Sanitary lines are seldom large enough to handle peak run-off and often become clogged by leaves, twigs and other large objects which
issue from storm sewers. With the installation of a treatment plant, separate storm sewers will become even more important. If storm water were combined with sanitary sewage, the absolute volume of the flow requiring treatment would be considerably enlarged and the treatment facilities would need to have proportionately greater capacity to handle it.

Problems and Needs in Summary:

All sewage, consisting of sanitary and industrial wastes, is dumped untreated into the Kennebec River contributing to a serious pollution problem. The system combines sanitary and storm flow. This results in overflowing, erosion and consequential expensive maintenance of sewers, streets and private property. In addition, the sanitary waste which would be delivered to a treatment plant would be diluted, considerably swollen and thus costly to handle. Most elements of the system are old and some deterioration has undoubtedly taken place, requiring maintenance or replacement. Some parts of the system appear to have been laid out in haphazard fashion. There are therefore more lines and more out-flows than necessary. In view of anticipated future growth of the city, expansion of the existing system and possible creation of a new system may be required. Only a very limited part of the land area proposed for residential expansion is within reach of the present sewer system or even located in the same drainage area.

Of the problems listed above, the absence of sewage treatment facilities and the resulting river pollution is the most serious and should be accorded the highest priority for remedial action.

Recommendations:

A combined sewer and water study should be undertaken, as outlined in the previous section of this report dealing with problems of water supply, to determine the specific improvements needed in the sewer system and to verify the proposals contained herein regarding choice of treatment plant site. The findings of such a study must be coordinated with the comprehensive plan. Contingent on the results of that study, the following recommendations are made.

A sewage treatment plant should be constructed to handle sanitary wastes from Hallowell alone or from Hallowell and other contiguous communities, depending on the relative financial benefits to be gained and the willingness of such communities to cooperate.

The most appropriate site for a treatment plant serving only Hallowell is at the lowest possible elevation relative to all areas sewered. This would be on the riverbank, preferably on the peninsular land just south of the mouth of Vaughan Brook. However, this land is subject to flooding
Recommendations Cont'd:

as is much of the urban strip and suitability as location for a treatment plant will have to be further investigated in the light of this problem.

Such a facility, properly constructed and maintained, will not normally emit offensive odors. It can thus be set on landscaped park-land continuous with the riverfront recreational area proposed in the section of this report dealing with public lands and buildings.

In the event that a treatment plant can be installed to serve Hallowell and one or more other communities, the most appropriate site may be farther downstream along the Farmingdale rivershore line.

In order to foster desirable development in areas designated for residential expansion by the Comprehensive Plan, the city could undertake a trunk sewer construction program in selected areas to be financed 90% by assessment of direct beneficiaries and 10% from public funds. Such a program would permit the location, size and easement to be determined prior to any extensive housing construction and would help to discourage development in out-lying regions which would be impossible to service economically. Areas judged feasible for such action are shown on the accompanying proposal maps and are designated in order of priority.

That part of Hallowell lying east of the turnpike which otherwise is appropriate for residential expansion presents certain obstacles to economic sewering. The area drains to the Kennebec River via Vaughan Brook but the larger portion, north of Central Street, is cut off from the brook by the turnpike. If it were to be publically sewered, a gravity line down along Vaughan Brook or a forced line over the hill would have to be built. It is questionable whether such expensive installation could be warranted by the developments possible in this area.

The large areas west of the turnpike also drain via Vaughan Brook. Sewage from this area would have to be piped by gravity along Vaughan Brook to the river, treated where the system converges with the brook, or pumped over the drainage divide. A gravity line would have the advantage of permitting the land on both sides of Litchfield Road to be sewered. Which solution would be more feasible is impossible to answer with the information now available. Further careful study will be needed before any decisions can be made.

The area in the northerly end of Hallowell near the Augusta boundary line on both sides of the turnpike is proposed for industrial and commercial use. This area will be difficult to drain to the Hallowell treatment plant site. Therefore, the possibility of connecting with the Augusta sewerage system should be explored.
Recommendations Cont’d:

A firm policy should be incorporated in the Hallowell subdivision regulations requiring the provision of adequate sewerage in all new subdivisions. In specific areas which are properly zoned for large enough lot sizes to permit the use of private systems, these may be permitted subject to public approval. Wherever public sewerage is available, the subdivider should be required to install approved sewerage in the subdivision to be connected with public lines. In no case, should the city have to finance the installation of subdivision sewerage, either at the time of housing construction or later when inadequate private installations begin to result in health hazards and nuisances.

Neither water or sewer facilities are in Hallowell’s case strictly local problems. Hallowell’s present water source is in Farmingdale and joint treatment of sewage with Augusta could be more economical for both communities than individual installations.

It is recommended that subdividers be required by ordinance to provide for satisfactory storm drainage, separate from sanitary systems, in all new subdivisions. This may be accomplished by reservation and protection of natural or partly artificial surface drainage ways or by construction of subsurface storm drainage lines. Easements along all natural drainage ways should be retained in public control.

In addition, it is recommended that the city designate and gain control of all natural drainage ways which could now or in the future be advantageously utilized as part of a storm drainage system. On the generalized drainage map the major drainage ways are indicated. Others must be located through detailed observation. Minimum fifty-foot wide easements should be taken by the city along all such surface drainage ways. In some cases (indicated on the Proposed Land Use Map), such easements should be wide enough to permit use of the land and stream for public recreation.

Financing of Sewerage:

For the detailed planning and design of a sewer system, federal funds are available to cover a considerable part of the cost under a so-called "702" Program.

Since Hallowell is confronted with heavy expenditures for a variety of capital needs, a way should be sought to finance the necessary sewer improvements which would not burden the city budget nor affect its borrowing capacity. Thus, it is recommended that Hallowell explore the possibility of forming a sewer district which has the right to issue revenue bonds. Such a sewer district combined with the water district would permit charges for use of sewers to be assessed on the basis of
Financing of Sewerage Cont'd:

water consumption.

Another possibility would be to combine the Hallowell and Augusta Sewer Districts. Other communities downriver could also be included.

It is also worth considering including in the sewer district the towns downstream.

The above recommended "702" consultation should furnish information of pertinence also to the administration of the sewer system.

While sewer construction, sanitary or storm, can be financed as it has been in the past through the issuance of general obligation bonds payable from taxes over a period of years (and with financial responsibility for subdivision sewer construction assumed by the subdivider) other means might be explored. It is recommended that the City of Hallowell investigate the possibilities of financing proposed sewer improvements, as well as new construction, in whole or in part, by one or both of the following methods:

1.) Special Assessments:

A compulsory charge against properties which benefit from a public improvement such as sanitary and/or storm sewers, including trunk sewers as well as service lines.

2.) Sewer Rentals:

A service charge against users of the sewer system. This may be a uniform charge for all properties connected to the sewer system or it may be a variable charge based on the number of sewer connections, the type of property, the number of plumbing fixtures, or the water consumption. Both special assessments and sewer rentals have gained widespread municipal acceptance in recent years. Both methods are based on the assumption that there should be more direct relationship between costs and benefits resulting from public improvements. However, since such improvements benefit not only the property owners who use them but also the community as a whole, some percentage of the costs (pre-determined and made a part of administrative policy) should be borne by the town.
TRANSPORTATION

Streets and Highways:

Introduction . . . . . .  1
Traffic Volumes . . . .  1
Street Classification . . .  3
Proposed Specifications . . .  4
Street Conditions . . . .  6
Recommendations . . . .  8

Rail Transportation . . . .  10

Air Transportation . . . .  11

Water Transportation . . . .  11
STREETS AND HIGHWAYS

Introduction:

Because the Hallowell street system was laid out many years ago, it is largely inadequate for contemporary needs. Future development of Hallowell is heavily dependent upon improvement of existing street facilities and provision of new ones.

In many respects, the solution of local problems depends on regional considerations. Streets and highways particularly, because they are the structural links between Hallowell and other elements of the Augusta region, cannot be realistically evaluated except in the light of broader, inter-community usefulness. Therefore, extensive collaboration with Augusta, with other nearby communities and with state highway authorities will be necessary to produce sound solutions to local traffic problems. The State Highway Commission is in the process of carrying out an extensive traffic study for the Augusta region and expects to have useful results available in 1963. Until Hallowell's traffic system has been evaluated in the light of the results of this study, recommendations made here must be looked upon as preliminary.

Much of the basic data for this study has been courteously provided by the Maine State Highway Commission whose cooperation is gratefully acknowledged.

Problems in the downtown area are treated only superficially here since this area will be subjected to detailed study in the early stages of the anticipated urban renewal program.

Traffic Volumes:

Much of the information outlined in this study is shown graphically on the accompanying map entitled Administrative Classification of Streets and on the Traffic Flow Map. The major traffic flow patterns in and through Hallowell are summarized in generalized terms below.

There is heavy traffic containing a large number of trucks between points south of Gardiner and points north of Hallowell carried mainly by the turnpike and Route 201. Such through traffic brings very little business to Hallowell, one of the few possible exceptions being impulse buying at Water Street antique stores by tourists. Indications are that a substantial proportion of such through traffic chooses to use Route 201 rather than the turnpike. This circumstance is due partly to the fact that the turnpike is a toll road which discourages some traffic and to partly the fact that Route 201 is the most practical route between Brunswick and Augusta. The through traffic contributes to very heavy traffic flow on Route 201 which, being the main street along which virtually all Hallowell commercial uses are located, is extremely detrimental.
Traffic Volumes Cont'd:

to the local economy. Even as a carrier of solely through traffic, Route 201 is an inadequate facility. In its triple role as through highway, local shopping street and major commuter street between Hallowell and Augusta, it is worse than inadequate. It represents a serious destructive force, attacking property values, generating unhealthy uses of land and undermining residential attractions. Moreover, there is every indication that through traffic between Brunswick-Bath and Augusta will continue to increase and in the absence of any change in the highway pattern this will mean even heavier traffic on Water Street.

Commuter traffic between neighboring communities just south of Hallowell and Augusta also uses Route 201 through downtown Hallowell, mainly because turnpike accesses are not conveniently located to serve short-distance commuter needs. Also commuter traffic from Hallowell to Augusta is carried primarily by Route 201 although some part of it spills over onto Second Street. It is these sectors of Route 201 traffic which cause wide fluctuations in traffic volumes during the day. Use of Second Street for commuter traffic is undesirable and, as emphasized above, Water Street is highly unsuited for any such use because of its strategic importance as central business district access. Future residential growth in Hallowell or in neighboring communities which feed traffic through Hallowell will compound these problems.

Local shopper traffic on Route 201 generated by the residential neighborhoods in the built-up urban area of Hallowell is moderate and traffic from the outlying westerly sectors of Hallowell to downtown is light. Fluctuation in traffic volumes during the day is insignificant. This faction of Water Street traffic is the only one of those listed which can be considered desirable because its destination is the central business district. The major problem arising from it is congestion caused by on-street parking along Water Street.

Most of the traffic coming from westerly Hallowell and bound for the central business district uses Winthrop Street but if residential development occurs in the Litchfield Road area, this road would carry a considerable amount of traffic. Thus Winthrop Road and Litchfield Road both should be improved to secondary thoroughfare standards and should be protected from the hazards caused by entering driveways.

Residential developments in Farmingdale are likely to add to the traffic on Maple Street.

Possible future industrial development near the turnpike in the northerly end of town or a possible new railroad terminal would generate traffic of cars and trucks. The truck traffic will occur between these locations and the turnpike exits and Route 201. Some car traffic would enter Hallowell on Winthrop Street.
Street Classification:

For the purpose of defining specifications for street construction and reconstruction, streets in Hallowell have been classified on the basis of their proposed functions according to the following schedule:

1. Expressway. This is a controlled access highway which may be divided or not depending on local need. Its function is to expedite the movement of all types of traffic between points in and between urban areas and is integrated with principal rural highways serving the area. One of its major purposes is to remove through traffic from the existing street system to permit that system to perform its role more effectively.

2. Major and Secondary Thoroughfares: These are highways designed to connect areas of principal traffic generation. These highways integrate the expressways and residential neighborhoods, industrial areas, commercial areas, and downtown business areas with each other.

3. Collector streets. This system of streets serves traffic needs between major and secondary thoroughfares and local streets and is also used to handle major traffic movements within the residential, commercial, industrial, and business areas.

4. Local streets. This system of streets is used primarily for direct access to properties in residential, commercial, industrial, and business areas. These streets are not designed for through traffic movement and such traffic is discouraged and diverted to the types of highways set forth in the three classifications.

For reconstruction and new construction the following standards are recommended:
The following summaries are minimum specifications to serve as guides for final construction and may vary. The paving may be performed in stages depending upon demand.

**Local Streets**

- **50' Right-of-Way**
  - 32' Minimum Travel-way
  - 15" Gravel or 8" Soil Cement Base
  - Surface Treatment (Asphalt or Tar)
  - 6.5' Grass Esplanades
  - 1 - 5' Sidewalk
    - 2" Hot Asphalt Surface
  - 6" Gravel Base
  - Underground Drainage as required

**Secondary Thoroughfares**

- **66' Right-of-Way**
  - 36' Minimum Travel-way
  - 21" Gravel Base
  - 66' Minimum Right-of-way
  - 3" Bituminous Concrete
  - 10' Esplanades
  - 2 - 5' Sidewalks
    - 2" Bituminous Concrete Surface
  - 6" Gravel Base
  - Underground Drainage as required

**Major Thoroughfares**

- **120' Right-of-Way**
  - 42' Minimum Travel-way
  - 21" Gravel Base
  - 120' Minimum Right-of-way
  - 5" Crush Stone Sub-base
  - 3" Bituminous Concrete
  - Granite Curbs
  - 7' Grass Esplanades
  - 2 - 5' Sidewalks
    - 2" Hot Asphalt Surface
  - 6" Gravel Base
  - Underground Drainage as required

In business areas omit the Esplanades and widen the sidewalks to 9'.

The rural areas will not have sidewalks or esplanades.
MINIMUM REQUIREMENTS FOR STREET CONSTRUCTION

RESIDENTIAL

COLLECTOR

SECONDARY THOROUGHFARE

MAJOR THOROUGHFARE II

RURAL
Street Conditions:

Each street in Hallowell was evaluated on the basis of physical condition as it related to the present or anticipated future traffic volume carried by the street, as follows:

1.) Adequate
2.) In need of moderate repair such as resurfacing.
3.) In need of major repair or reconstruction

As shown on the accompanying street conditions map, a large proportion of the streets in Hallowell were found to be poor. Generally, the streets running east-west are in the worst condition but others also were rated poor. The steep terrain and the presence of clay soils are partially responsible for unsatisfactory surfacing. Also inadequate provision for storm drainage has caused deterioration at some locations. In some cases, unsatisfactory original construction and subsequent neglect have contributed to existing poor conditions.

All of the streets rated poor are seriously in need of repair and some of them will require reconstruction.

In the westerly part of town only Winthrop Street from High Street to the turnpike was rated adequate. Water Street, from its junction with Winthrop Street south to the Hallowell-Farmingdale boundary, was also found to be adequate. Those found to be in need of moderate to extensive repair include parts of Greenville Street, parts of Vaughan Street, Summer Street, Middle Street, Litchfield Road, Academy Street, most of Union Street, outer Central Street, Warren Street, High Street, Lincoln, Pleasant and Page Streets, parts of Second Street and some other short connector streets. All of those not listed and parts of some of the listed streets are in need of reconstruction.

As shown in the tabulation below, 36,400 running feet of Hallowell urban streets need either repair or reconstruction. The remaining 900 of the total of 37,300 feet of streets which are within local jurisdiction were rated adequate.

<table>
<thead>
<tr>
<th>Proposed Classification</th>
<th>Adequate No. Feet</th>
<th>Need Repair No. Feet</th>
<th>Need Reconstruction No. Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Thoroughfare</td>
<td>-</td>
<td>3,500</td>
<td>2,700</td>
</tr>
<tr>
<td>Collector Street</td>
<td>-</td>
<td>2,550</td>
<td>(800)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(500)*</td>
</tr>
<tr>
<td>Local or Residential Street</td>
<td>900</td>
<td>17,350</td>
<td>8,400</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(800)*</td>
<td>(3,200)*</td>
</tr>
<tr>
<td>All Classifications</td>
<td>900</td>
<td>23,400</td>
<td>12,100</td>
</tr>
</tbody>
</table>

* Streets in proposed urban renewal areas
Street Conditions Cont'd:

The street footages shown which are located within the proposed boundaries of the downtown urban renewal project can be planned and financed as part of the urban renewal program. In addition, it is possible that some other costs in connection with street repair and reconstruction will be found to be closely enough related to that program to allow offsetting of some costs.

Needs for street improvements in Hallowell are so extensive that it will be necessary to schedule them on a priority basis and budget expenditures over a number of years. Probably the most feasible method of doing this is to appropriate a set amount of money each year until the major deficiencies have been removed and then reduce the appropriation for the remaining years needed to complete the program.

Utility improvements should be incorporated in street reconstruction projects wherever possible.

It is possible that certain Hallowell streets could be reclassified either now or in the future as state-aid roads, namely Winthrop Street, Litchfield Road and Second Street. In this case, the Hallowell financial responsibility would be reduced somewhat.

The following priority list for reconstruction and resurfacing includes only those streets which require the earliest action. Note that streets which might be eligible for state-aid are included on the basis of their current status.
# Priority List for Street Repair and Reconstruction

<table>
<thead>
<tr>
<th>Street</th>
<th>From</th>
<th>To</th>
<th>Length</th>
<th>Standard</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pleasant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Central</td>
<td>Second</td>
<td>Orchard Lane</td>
<td>3,700</td>
<td>Collector</td>
<td>Reconstr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(possibly</td>
<td></td>
<td>Sec.Thor. )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(possibly</td>
<td></td>
<td>collector)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Litchfield</td>
<td>Middle</td>
<td>Second</td>
<td>600</td>
<td>Sec. Thor.</td>
<td></td>
</tr>
<tr>
<td>6. Maple</td>
<td>(whole length)</td>
<td></td>
<td>1,800</td>
<td>Sec. Thor.</td>
<td>Resurface</td>
</tr>
<tr>
<td>7. Mayflower &amp;</td>
<td>whole length</td>
<td></td>
<td>2,100</td>
<td>Res.</td>
<td>Reconstr.</td>
</tr>
<tr>
<td>Orchard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Greenville</td>
<td>about 45%</td>
<td></td>
<td>1,800</td>
<td>Res.</td>
<td>Reconstr.</td>
</tr>
<tr>
<td>13. High</td>
<td>whole length</td>
<td></td>
<td>1,500</td>
<td>Coll.</td>
<td>Resurf.</td>
</tr>
<tr>
<td>19 Summer</td>
<td>whole length</td>
<td></td>
<td></td>
<td>Res.</td>
<td>Resurf.</td>
</tr>
</tbody>
</table>

**Recommendations:**

Since many of the Hallowell’s traffic problems originate outside of Hallowell, the following recommendations are tentative. Only further study on the regional level can yield the proper solutions.

It is desirable that such changes in the regional highway system be made that much of the long distance through traffic in Hallowell will be diverted from Water Street. Such changes may include the following.
Interstate 95 should be toll free. Whether or not an agreement to this effect could be reached with the turnpike authorities before the normal retirement of the turnpike bonds is a matter which should be investigated. Toll-free public use of the turnpike would have a considerable economic value to the public for which it might be possible to compensate the turnpike authorities from public funds. As related to the particular stretch of turnpike in question here, the primary benefit would accrue to Hallowell through the removal of much long-distance through traffic from Water Street. Additional public value could be reckoned in terms of faster and easier access to Augusta from points south. However, it is unlikely that any such change in the status of the turnpike could be effected in the immediate future.

To remove through traffic from Water Street, several alternative courses should be evaluated in the context of a regional plan. It may be that removal of Route 201 from urban Hallowell to a location on the easterly side of the river with a bridge in the south end of Hallowell would prove to be more desirable than an alignment in Hallowell. Or a more westerly alignment through Hallowell perhaps in the vicinity of the turnpike, might be more feasible. In the absence of an authority to assume such regional planning functions, the proposal tentatively made here appears to be the most desirable from the limited viewpoint of Hallowell's needs, that is, that Route 201 be realigned through urban Hallowell nearer the river. Water Street then should be limited to use as access street to local shopping facilities. Simultaneously, the railroad should be moved to a location close to the river. All of these improvements will have to be planned, designed and carried out in conjunction with the anticipated downtown urban renewal program. In the context of such planning, the problems of the over-and under-passes affecting the highway and the railroad and the problem of placing the highway above flood level can receive the detailed study they require.

In the future, when warranted by larger traffic volumes, it may be necessary to build an alternate controlled access route through Hallowell from residential areas south of Augusta as shown on the Proposed Urban Land Use Map. The proposed location for such a facility is easterly of and parallel to the turnpike where land and construction costs are likely to be lower than elsewhere in Hallowell. This belt route would connect with Litchfield Road, Winthrop Street and Central Street in Hallowell and would also serve as major access to the proposed industrial and commercial development area near the Hallowell-Augusta boundary line. The effect of this belt route and a relocated and improved Route 201 would be to remove all through traffic from local streets in Hallowell and to substantially improve highway access between Augusta and points south of Hallowell.
Recommendations Cont'd:

After relocation of Route 201, Water Street would revert to its appropriate function as business district service street, running parallel with Route 201 and linked with the latter at no less than two points - Winthrop Street and Litchfield Road - and perhaps at two additional intermediate points.

Since Winthrop Street, Litchfield Road and Maple Street are expected to carry increasing numbers of cars and thus will serve as secondary thoroughfares, they should be protected from residential development wherever possible. Proposals for extensive reservations of land along Winthrop Street in public ownership are aimed in part at preventing construction of housing and driveways here where they will be subjected to the unwholesome influence of fast and heavy traffic and where they would, in turn, limit to some extent the traffic and moving capability of the street.

Rail Transportation:

Hallowell is traversed by a major one-track line of the Maine Central Railroad which links Waterville and Augusta with points south and is used for freight only. This line is used for shipments going south while a line through Auburn is used for shipments going north. The railroad serves a small but significant number of customers in Hallowell.

The railroad cuts through the urban built-up part of Hallowell and is an important source of nuisance. It undoubtedly has contributed to environmental deterioration. For this reason, the consultants would prefer to see the railroad relocated next to the river. This appears to be technically possible. The railroad now enters Hallowell from Augusta at an elevation of $+3.5'$, rises to an elevation of about $+60'$ at the terminal and leaves Hallowell to Farmingdale at an elevation of $+38.8'$. The worst flood (1936) reached an elevation of about $+29'$. Embankments for the railroad may have to be built to an elevation which would be above the elevation of anticipated floods. Indications are that future floods will not reach the $+29'$ elevation and necessary elevations for embankments are likely to be in the range of $+20'$ to $29'$. The railroad, if relocated, would gain a shorter run with better grades and fewer problems associated with crossings and signals of various kinds but it would lose its existing terminal. Whether a new terminal to compensate for this loss should be arranged in the southern end of Hallowell is an economic question. The consultants would prefer not to see growth of such industrial facilities in lower Hallowell for reasons discussed in the Proposed Land Use section of this report. If a terminal should be absolutely necessary, a location in the vicinity of the confluence of Vaughan Brook with the river would be preferable.

Further exploration of all these problems of possible relocation of the railroad must be undertaken in conjunction with the anticipated Urban Renewal Program.
BUILDING AND ENVIRONMENTAL CONDITIONS

Introduction ........................................... 1
Neighborhood Delineation ............................. 2
Building Conditions .................................... 2
Summary of Problem Areas ............................. 5
Recommendations ....................................... 5
Selection of Urban Renewal Approach ................. 7
Neighborhood Delineation:

For the convenience of those engaged in planning and executing urban renewal action the city is divided into lesser units, called neighborhoods. Although these are not necessarily established and identified sociological neighborhoods they are units logically delineated to facilitate decisions and actions.

The accompanying Neighborhood Delineation map shows the following neighborhoods graphically:

1. The Downtown Area
2. The North Water Street Area
3. South Water Street Area
4. The Middle Town Area
5. The Hillside Area
6. The North End Area
7. The South End Area
8. The Highland Area

Building Conditions, Blight, Causes of Blight, Environments, Need for Urban Renewal, by Neighborhoods:

1. The Downtown Area:

This area extends east-west from the river to the railroad and north-south from a Lincoln Street extension to a Grove Street extension.

The area is traversed by Route 201 and contains the business center of the community. It is comprised of a mixture of shops, industries, warehouses, offices, gas stations, etc., a few residences, mostly of the multi-family type, City Hall, City Library, a couple of churches, a hotel and the railroad with its shop and warehouses.

South of Second Street, building conditions are almost consistently poor or dilapidated. It is not unlikely that dwelling unit (interior) conditions are even worse in some cases than exterior building conditions indicate. Thus, if anything, the evaluation described here is understated. There are a very few buildings in this area which are in better condition than the average and they, ostensibly, would constitute the justification for any kind of treatment other than complete clearance.
Building and environmental conditions

Introduction:

The major planning problems in Hallowell are strikingly reflected in the physical condition of buildings in various parts of the city. The downtown area in particular is seriously and extensively blighted. Such blight was initiated by other primary factors—heavy traffic on Water Street, the presence of the railroad, occasional flooding, conflicts between land uses and economic problems. However, once deterioration began to set in, it quickly spread as it inevitably must where constructive forces to counteract it are weak or absent. Once blight became well established, constituting a perpetual threat to all property in its way, it gained the power to act as one of the primary causes of Hallowell's economic and fiscal problems.

Future population growth in Hallowell and the prospects for economic viability of downtown clearly rest on the eradication of blight along Water Street and the removal of its important causes, namely rerouting of through traffic away from Water Street and elimination of conflicting land uses. Because of the enormity of such an undertaking, only one course of action is open to Hallowell—a federally aided urban renewal program designed to clear and redevelop most of the downtown area. After the successful completion of such a program, there is every reason to expect that private capital will be attracted to Hallowell embodied perhaps in large apartment buildings, in commercial enterprises, perhaps in some industrial development and certainly in single-family housing construction. Because of the uniquely attractive character of some parts of Hallowell, it should be possible for the city to encourage and permit only high-quality new construction.

The following outline of building and environmental conditions is intended to constitute a record of location, intensity and causes of blight in accordance with the federal requirement for evidence of need for urban renewal. However, this evaluation is preliminary and generalized. More detailed and intensive study will not be required until urban renewal action is initiated.

Each building in Hallowell was individually evaluated on the basis of exterior condition and rated as follows:

A. Good
B. Fair—in need of minor repairs, such as painting, gutter repair, window repair
C. Poor—in need of major non-structural repairs
D. Dilapidated—has structural weaknesses and could not be economically repaired.

Although environmental deficiencies were not included among the rating criteria, the more important ones are discussed in the following text.
1. The Downtown Area Cont'd:

Building conditions north of Second Street are better on the average, mainly because of the influence of a few buildings which are in good condition - the Worster House, the library, a church and parish house and several old and well-built residences. However, there are many buildings in the area which are in poor condition and the railroad manifestly exerts a blighting influence on property in its immediate environs.

The initial causes of blight in this neighborhood were the heavy and fast traffic carried by Water Street (Route 201) and the presence of the railroad. Ancillary causes, themselves generated by early evidences of blight, were the one-time practice of locating destitute families in Water Street rental property and the limited potential for commercial success which, in its turn, brought about further physical deterioration. Another factor contributing to apathy on the part of property owners which has resulted in inadequate building maintenance has been the threat of flooding.

Healthy future growth and changes in Hallowell depend primarily on the future attractiveness and success of the downtown area. What happens here is of such importance that it may safely be said that the future course of Hallowell development pivots on this.

The most outstanding and the most fundamental problems in the downtown area are the presence of a regional traffic artery and the railroad. No significant upgrading of the Hallowell business district is possible until the through traffic which now is routed through downtown is diverted elsewhere. Clearance and redevelopment of much, if not all, of the downtown business district will be necessary and will follow logically the more fundamental actions concerning transportation routing.

2. The North Water Street Area:

This neighborhood, encompassing the properties on the westerly side of Water Street and all of the land between Water Street and the river from Lincoln Street to the Hallowell-Augusta boundary line, is affected by much the same blighting influences as is downtown Hallowell. The presence of Route 201 as a carrier of through traffic has helped to diminish the value of residential properties and has encouraged a spilling over of commercial land uses from Augusta. In view of the nature of the highway, the latter is neither surprising nor inappropriate but the older residential properties which are adversely affected by such commercial development have a deteriorating effect on the entire neighborhood. Clarification and separation of conflicting land uses is indicated here.
3. The South Water Street Area:

   The problems here are much the same as in the North Water Street area. Residential property along the highway has been subjected to deteriorating influences by proximate commercial development. The few residences which appear to be relatively well maintained are separated from the general character of the area by their location at higher elevation. Here, as in the North Water Street area, a clarification and separation of conflicting land uses is needed.

4. The Middle Town Area:

   This was originally an area of high-quality single-family residential buildings which has begun to show signs of serious deterioration. Some erstwhile excellent buildings have been poorly maintained and others have been converted to multi-family dwellings, rooming houses or nursing homes. The effects of the blight in the Downtown Area and of the proximity of the railroad are manifestly spreading into this neighborhood. Improvements and protective measures in this neighborhood will be contingent upon redevelopment of downtown.

5. The Hillside Area:

   This area, encompassing the land from just west of Warren Street to High Street, is a good residential neighborhood. There are very few buildings here which are not well constructed and well maintained. The only problem in this neighborhood is the influence of the "Middle Town" area which will have a tendency to push uphill because there is nowhere else for it to go.

6. The North End Area:

   Although residential structures in this neighborhood are not of the fine quality found in the "Hillside Area", buildings are generally carefully maintained and in good to fair condition. Here, as in the "Hillside Area", the major problem is encroachment by inappropriate land uses and blight from contiguous neighborhoods, namely, the "Middle Town area", "Downtown" and "North Water Street" neighborhood. Also the railroad and the wood storage facility negatively affect this area.

7. The South End Area:

   Like the "North End" area, this neighborhood never had buildings of the same high quality as the "Hillside" area. Nevertheless and in spite of the existence of a few poor quality buildings, this area constitutes a good neighborhood of essentially sound structures. It is
7. The South End Area Cont'd:

anticipated that the proposed construction of a new school just over the Farmingdale boundary will enhance the desirability of this area for new residential construction.

8. The Highland Area:

This area is currently under development for residential use and presents no problems of a kind which might be subject to urban renewal. However, it too may be subject to deteriorating influences unless municipal codes are applied to protect it.

Summary of Problem Areas:

1. The Downtown Area constitutes the major problem area. It is characterized by severe and extensive blight, particularly along Water Street becoming somewhat less pronounced at the westerly edge of the neighborhood near the railroad. The latter area is affected mainly by the presence of the railroad and by contamination from Water Street where the incidence of dilapidation is higher. The major causes of blight along Water Street are the through highway function of the street itself and the resulting economic distress of commercial enterprises. It may prove to be more feasible to divide the Downtown Area into two separate project areas for purposes of redevelopment - one encompassing a half-block to a block width along Water Street; the other including the land between Water Street and the railroad bounded on the north and south by Wilson Lane and Temple Street respectively.

2. The Middle Town Area where blight has been introduced by the proximity of the railroad to residential land uses and by contamination from the Downtown Area.

3. The North End Area where problems of moderate dimensions exist because of the presence of the wood storage facility and the spread of blight from other areas.

4. The South End Area, where blight is not yet a serious problem but where some poor quality buildings exist.

Recommendations:

It is recommended that the problem areas listed above be subjected to urban renewal action. Such action must be initiated by appointment of an Urban Renewal Authority.
Recommendations Cont'd:

The specific kind of action and the specific approach needed will be determined by the kinds of problems existing in a given area, ability of the area to meet federal eligibility criteria and local financial and political considerations.

Contingent upon the findings of subsequent studies after the initiation of urban renewal action, the following tentative recommendations are made:

1) Problem Area No. 1 - (The Downtown Area) will qualify for federal assistance under "Title I" because more than 50% of the buildings located within it have deficiencies warranting clearance. The area should be subjected to "Partial Clearance and Redevelopment". Existing good buildings should be preserved and incorporated in the redevelopment plan wherever possible. These would include the Worster House, City Hall, churches, some office buildings and some residences.

The area may need to be divided in two as outlined above in the discussion of problem areas or it may be found to be more feasible to treat it as a single project area and undertake clearance and redevelopment in stages.

Proposed reuse of this area would include a civic center with landscaped squares, a shopping and business center with ample off-street parking, green parks and pedestrian malls, a marina and river-front recreational area, and possibly high-value apartment buildings.

2) Problem Areas 2, 3 and 4 (including the lower part of the North End Area, most of the Middle Town Area and the built-up part of the South End Area) should be subjected to "Comprehensive Rehabilitation," including some spot clearance.

3) The Hillside Area and the upper part of the North End Area are recommended for conservation treatment to protect them from the spread of the few instances of blight which are already in evidence.

Urban renewal action will need to be accompanied by a public relations program aimed at educating Hallowell residents with respect to the potentials and goals of the program and securing their active support. Also, strong local ordinances (zoning, subdivision, building and mobilehome) will be needed not only to meet federal requirements for assistance, but to give continuing protection to the property values which will be created by the successful implementation of urban renewal.
Recommendations Cont'd:

plans. Finally, progressive municipal policies related to construction and maintenance of public facilities will complement the accomplishments of the urban renewal program and will be mandatory in order to protect upgraded private property values.

Selection of Urban Renewal Approach: There is the choice between several approaches to Urban Renewal:

- Community Renewal Program (C.R.P.) approach.
- Feasibility Survey approach.
- General Neighborhood Renewal Program (G.N.R.P.) approach.
- Title I Urban Renewal Project approach.

It is recommended that the City of Hallowell apply a General Neighborhood Renewal Program (G.N.R.P.) approach for the following reasons:

It will enable Hallowell to study simultaneously all of its blighted areas. This will make it possible to plan and schedule various projects for maximum total benefit. Because a G.N.R.P. may be extended over a ten-year period, long range programming is possible. This will increase the economic feasibility of undertaking Urban Renewal.

Until detailed information has been developed from an Urban Renewal Study about building and environmental conditions and about the financial resources which could be used for urban renewal, an exact delineation of an appropriate G.N.R.P. cannot be made.

The alternative delineations listed in order of desirability and described below should be examined for eligibility and financial feasibility. While at this stage, the G.N.R.P. may be referred to in terms of the neighborhoods listed below, it is likely that modifications of the detailed boundaries in this neighborhood delineation may be necessary.

Alternative 1 - This alternative is preferred because it includes all blighted areas: Downtown, Middletown, South Water Street (the northern part), North Water Street, North End and South End.

Alternative 2 - Downtown, Middletown, South Water Street (northern portion), North Water Street, North End.

Alternative 3 - Downtown, Middletown, South Water Street (northern portion), North Water Street, South End.
Recommendations Cont’d:

Selection of Urban Renewal Approach Cont’d:

Alternative 4 - Downtown, Middletown, South Water Street (northern portion), North Water Street.

Alternative 5 - Downtown, Middletown, South Water Street, (northern portion), North End.

Alternative 6 - Downtown, Middletown, South Water Street (northern portion)

Alternative 7 - Downtown, Middletown.

Alternative 8 - Downtown

Alternative 9 - Variations of these locations with boundaries not following the neighborhood boundaries.
NEIGHBORHOOD DELINEATION

HALLOWELL

SCALE 1:3600

PREPARED UNDER THE URBAN HOUSING ACT OF 1960 AS AMENDED. MEASUREMENTS ACCORDING TO TOWN SURVEY.

SCALE: 1:2400

HIGH LAND AREA
HILL SIDE AREA
MIDDLE TOWN AREA
DOWNTOWN AREA
SOUTH END AREA
NORTH END AREA
NORTH WATER STREET AREA
SOUTH WATER STREET AREA

HALLOWELL PLANNING BOARD

Kennebec County, Maine

Hallowell Planning Board
1960

James W. Sewall Company Planning Consultants, Old Town, Maine

PREPARED UNDER THE URBAN HOUSING ACT OF 1960 AS AMENDED.
IV Problem created mostly through contamination from surrounding areas and by the wood storage.

I Bad conditions essentially stemming from the traffic conditions.

II Severe problems of partly bad conditions stemming from road and railroad traffic conditions, from land use conflicts and from spreading through contamination.

III Moderate decay stemming from the railroad and contamination from areas below and from incidental poor buildings.

V Problems created from within through neglect.
PRELIMINARY URBAN RENEWAL RECOMMENDATIONS

CONSIDER REHABILITATION

CONSIDER PARTIAL (MORE THAN 50%) CLEARANCE AND REDEVELOPMENT

CONSIDER REHABILITATION

CONSIDER CONSERVATION

CONSIDER REHABILITATION

HALLOWELL
KENNEBEC COUNTY, MAINE
HALLOWELL PLANNING BOARD
1980

SCALE: 1" = 500' (100 M.)

PREPARED BY: ADAMS & COMPANY PLANNING CONSULTANTS, CINCINNATI, OHIO
PUBLIC LANDS AND BUILDINGS

Public Land Proposals . . . . 1

Evaluation of Existing Community Facilities and Recommendations:

City Hall . . . . . . . . . . . . 5
City Garage . . . . . . . . . . . . 6
City Disposal Facilities . . . . . . 6
City Fire Station . . . . . . . . . . . . 7
City Water System Facilities . . . . . . 8
City Sewer " " . . . . . . . . . . . . 9
Federal Post Office . . . . . . . . . . . . 9
Assembly Facilities . . . . . . . . . . . . 10
Library Facilities . . . . . . . . . . . . 10
School Facilities . . . . . . . . . . . . 10
Street Trees . . . . . . . . . . . . 10
Public Land Proposals:

Preservation of open land is increasingly recognized as an important function of government at all levels - federal, state and local. The twentieth century in the United States has been characterized by vast urbanization. Rural residents have migrated in increasing numbers to urban job centers and as such centers have become more and more densely built up, people have moved outward from them into the surrounding rural countryside and small towns. Thus, urbanism has been intensified at metropolitan hubs and at the same time, diffused in ever widening concentric circles around such hubs. In countless cases, the urbanization of outlying areas has amounted to a reckless assault on the natural values of the countryside. Trees, open spaces, streams and water bodies have given way to bulldozed acres of monotonous streets and lawns covered with new houses at regular intervals. Such development patterns are, at best, contradictory in the sense that they destroy the very values which attract new residents. At the worst, they are economically dangerous. As the natural charm of suburbia evolves into an ersatz urban pattern, minus the typical urban cultural, commercial, financial, educational and recreational services, property values may fall, municipal responsibilities multiply and municipal financial resources on a per capita basis decline. As the community becomes less attractive to both residents and potential residents, it also becomes less attractive to industry, to retail merchants and to tourists. The only effective cure for such problems is prevention in the form of planning and action for the preservation of open space while it still exists.

It is fortunate, in a sense, that Hallowell population growth was arrested in the late 1800's. New construction and continued expansion over the years without the controls available today could have destroyed the features which are now Hallowell's greatest assets. The city, in 1961, is remarkably similar to itself at the turn of the century. It retains much of the grace and grandeur of the New England clipper ship era, much of the charm of open fields, of rolling wooded hills and, from almost any point west of Middle Street, it still affords a fine vista of the Kennebec River Valley. Some of the older sections of town with their excellent examples of colonial and Victorian architecture, imaginatively sited amidst ancient trees and other greenery, represent models of a middle-income residential settings. While essentially urban in feeling and function, they preserve enough of their sylvan origin to provide a superb cops-and-robbers environment for anyone under twelve years of age, to offer adventures in worm and insect study, brooks for wading and trees to climb. In other parts of town, where development has been very slow or non-existent, there is still much open space associated with woodland and agricultural uses of land.
Public Land Proposals Cont'd:

While the open land in Hallowell is almost entirely in private ownership, it has immense aesthetic value which enriches the lines of all Hallowell residents. In the future, as development is intensified, action on the governmental level will be required to preserve the open character of some areas. Some land will need to be reserved in public ownership and residential lot sizes will need to be controlled in appropriate areas to produce a relatively open pattern.

In many cases, land reservations can serve dual or multiple purposes. For example, a sewage treatment plant may be located in a landscaped park which also may be used for recreation. A green strip along a highway may provide visual relief from densely developed areas and may at the same time act as a buffer between two different land uses which could not be mutually harmonious.

Many of the proposals below are made with long-range goals in mind. In some cases, it will be possible for the city to control the use of land without actually acquiring it. In other cases where outright city ownership is indicated, the city may buy the land in question as it comes on the market in the near or distant future or, where appropriate, it may condemn and acquire property in conjunction with urban renewal action. In rare instances, land may be left in its present ownership status and may yet serve its function as open space because soil or topographic conditions will prevent its development for any other purpose.

In order to protect its open-space amenities, it is proposed that Hallowell acquire:

1. Easements at least one hundred feet wide along all of the major natural drainage ways within city boundaries, including Vaughan Brook and its tributaries. The streams would carry storm run-off while the green strips would offer visual relief from developed residential neighborhoods in the westerly and southerly parts of town. Also such areas provide walking, fishing, nature study and other outdoor recreational opportunities for all who care to use them.

2. Land on the southerly side of Winthrop Street reaching as far south as the high school to be used for outdoor recreational activities related both to school and to community functions and as parkland affording a full view of the valley.

3. Land atop the hill on both sides of High Street extending down over the hillside as far east as the high school to be used as a park, with benches and perhaps picnicking facilities, affording a wide view of the Kennebec River valley and of the rolling land to the west.
The two pieces of land described in items 2) and 3) above would effectively join the several parcels now in public or semi-public ownership in the same vicinity - water district property, the land owned by the State School for Girls and the high school grounds. Thus the whole of the hillside along Winthrop Street would be protected from residential development. This is desirable in view of the intensified use, including the carrying of truck traffic which is expected to be made of Winthrop Street in the future.

4. Land adjoining the property of the elementary school on Middle Street extending in a westerly direction over the brow of the hill to be used as public park land. That part of the land adjacent to the school should be developed as playground, while the land lying farther up the hill should eventually become parkland to provide a protected and naturally beautiful place for children to play and for all to walk, relax, enjoy bird and nature study and the exceptional hilltop views which are such an asset to Hallowell.

5. The peninsular riverbank land in the vicinity of the junction of Water and Greenville Streets to be developed as landscaped parkland surrounding certain municipal facilities - a sewage treatment plant, city garage and marina to service small boats. Construction of sewage treatment facilities in Hallowell will help to clean up the riverbank and, to some extent, the river in the vicinity of Hallowell. In the future, as controls on river pollution are tightened at the state level, as they inevitably will be, added impetus will be given the already rapidly growing popularity of boating. Hallowell can enhance residential attractions through the development of such a facility and, in addition, attract vacationists whose expenditures at a marina and in downtown will help to broaden the local economic base.

6. A public recreational area at Cascade Pond from Litchfield Road to and including the pond, to be developed for swimming, picnicking and boating.

7. Land west of the turnpike to be held for future use as natural green open space and community center recreation for the surrounding proposed residential neighborhoods.

8. Turfed and landscaped squares and pedestrian malls in the downtown sector along Water Street to be incorporated in urban renewal plans for the redeveloped area.
9. Large areas at the northerly and southerly ends of Hallowell, spreading into the contiguous communities, are very hilly and would be difficult to develop for residential use. It is therefore likely that these areas will be left in their natural state and that they will continue to be available as additional green space for the enjoyment of Hallowell, Augusta and Farmingdale residents.

10. Somewhere in the area west of the turnpike, preferably on land not designated for residential expansion, land should be reserved for the eventual development of a municipal golf course. This could be an important attraction for potential Hallowell residents and, if properly built and maintained, could represent a source of public revenue.

11. Other open spaces serving primarily as grounds of public buildings, as detailed below.

Community facilities, including public buildings, serve the needs of community residents in the realm of education, recreation and aesthetics while they also function at a simple utilitarian level. Public buildings have an important symbolic value; also the design and condition of such buildings is usually indicative of the economic and social health of the community. Hallowell is particularly weak in this respect. Some needed municipal services are absent, some functions are inappropriately housed and some existing public buildings are in very poor condition.

Public facilities in Hallowell should be designed to complement the unique character of the city. With completion of the anticipated downtown redevelopment and initiation of new housing construction which the urban renewal project is expected to stimulate, Hallowell will become a composite of the old and the new. Contemporary homes and a modern business center will be integrated with the historic parts of the city to produce a uniquely attractive composite of timelessness and progress.

Large expenditures will be required to bring public facilities in Hallowell up to the standards implied by the long-range goals of the city. It is possible that, in one or more cases, construction can be incorporated in urban renewal plans and city expenditures can be credited toward the local share of net project costs. In other cases, it may be necessary to acquire land now but delay construction until a predetermined time in the future. In all instances, it is desirable that land acquisitions be made as soon as possible to avoid higher land costs which will surely come as development of the city progresses.
Evaluation of Existing Community Facilities and Recommendations:

City Hall: The major functions presently permanently provided for in the City Hall are as follows:

City Council - approximately 10 persons at sessions
Mayor - 1 person, part time
Treasurer and Collector - 2 persons
Assessors - 3 persons, part time
Police Department - approximately 3 persons
Welfare Department - 3 persons, once a week
The Municipal Court - approximately 10 persons

Several of the rooms serving the functions listed above double as meeting rooms for other groups. There is also provision for assembly of about 200 persons. With growth of the city, all of these functions will demand additional personnel and more space.

The City Hall is located on the northeast corner of the intersection of Winthrop and Second Streets. The location is appropriate, even in view of the anticipated renewal of downtown.

The present lot is small; it can only accommodate the present structure. Additional land is already needed for parking. Still more land would be needed for any expansion of the building or to meet increased parking needs. It appears that adjacent properties could be acquired to meet these needs.

The building was built in 1898 of brick and granite. It is substantial and well designed, according to the standards of its time. It is in fair condition structurally but needs maintenance throughout the interior. The building is adequate in size to accommodate the present administrative functions on the first floor except for the Police Department which is located in the basement.

The Assembly Hall is of dubious value in its present condition. The possible removal of the assembly function to the new high school is feasible and would release the second floor of the City Hall for other uses. If all existing interior partitions on this floor were expertly removed and replaced with low, partially glassed partitions, the city would have ample excellent rooms for administrative functions to meet present and foreseeable future needs.

Should space beyond the described alterations eventually be required a separate annex should be constructed and linked to the existing structure via a walk-way. Addition of a new wing which would necessarily be incompatible with the old building would be less desirable.
City Garage: The present function of the city garage is to house:

- 7 maintenance vehicles ranging in size from large to medium
- Ancillary equipment such as plows, etc.
- The maintenance of city equipment

The city garage facilities are located mainly behind the Fire Station in the middle of the block southeasterly of the Second and Union Street intersection. This location is inappropriate for such a use and the anticipated renewal of downtown will intensify the conflicts arising from it. The site is too small even to carry out the functions now required of it and such functions will need to be expanded as the city grows.

The present facilities are small, shabby wooden structures in dilapidated condition. They are inadequate and inappropriate in type, condition and size. Neither rehabilitation nor expansion is warranted. The same assessment applies to the facilities in the Franklin, Central and Middle Street block. Two alternative locations for new city garage facilities are:

* in the vicinity of the proposed sewage treatment plant near the river in the southerly end of town. This location would offer advantages for maintenance of both facilities and is preferable, in the view of the consultants, contingent upon further investigation of flooding conditions;

* in the proposed industrial park near the turnpike at the northerly end of town.

City Refuse Disposal Facilities: The function of refuse disposal is performed by a dump located centrally in the city about 3/4 of a mile west of the urban area. This dump is also used by Farmingdale and Manchester, in return for moderate compensation to Hallowell and by some residents of Augusta, Winthrop and Gardiner.

Although this location is not unacceptable now it will be undesirable when urban development is eventually expanded westward. There are also some other considerations which may affect the desirability of the dump location. The nearby fish and game preserve is adversely affected to some extent by its proximity to the dump.

The site is large enough to serve for many years, even in case of population growth. Also there is a question of possible contamination of the underground watershed which may be needed in the future. This matter should be investigated further.
Evaluation of Existing Community Facilities and Recommendations Cont'd:

City Refuse Disposal Facilities Cont'd:

The dump is properly built and maintained and could be expanded. The proximity of the surrounding woods does however, constitute a fire hazard. Trees and brush should be cleared from a wide enough strip around the dump to guard against the spread of fire.

The city-employed, full-time attendant works with inadequate equipment and allegedly at a wage which is insufficient to sustain an acceptable standard of living.

The dump is currently not inadequate to any significant extent in spite of the shortcomings listed here. However, Hallowell long-range plans should incorporate a more efficient and better located facility. To meet standards for a high-value residential community, a city incinerator or sanitary land-fill operation may be needed.

City Fire Station: The present function of the Fire Station is to provide a strategic shelter for firefighting equipment.

The Fire Station, housing the three large pieces of fire-fighting equipment owned by the city, is located near the city garage on Second Street between Academy and Union Streets. This location is central but is nevertheless not suited either to the existing environment or to the projected redeveloped neighborhood. Moreover, the station is inadequately served by narrow residential streets.

The site is awkward and too small to allow safe exit of fire department equipment or parking of private cars. There is no room for expansion of the building which certainly will be needed.

The building is partly of brick and granite and partly of wood construction. Although it was originally of adequate construction, it now appears antiquated. It also contains residential rental quarters which represent an undesirable use of such a public building.

The building is in only fair condition and it is too small even for present needs. It certainly would be inadequate to house additional equipment.

Land should be reserved now for replacement of the existing fire station and for one or more additional new stations which will be needed in outlying areas of town as residential expansion occurs. Two alternative locations for a new central fire station appear to be feasible:
City Fire Station Cont'd:

* downtown in the proposed urban renewal area. This location would be in the heart of city with quick and easy access to the most densely populated parts of town. Also, street access to the westerly part of town is good although uphill;

* on High Street near the standpipe. This location would permit downhill approach to all parts of town but is farther from the most densely populated area.

A second fire station is likely to be needed east of the turnpike in the northerly part of town.

City Water System Facilities: The functions performed by the public water supply system are storage, pumping, pressure storage, treatment, maintenance and administration. Facilities consist of Jamie's Pond in Farmingdale and Manchester, a standpipe on High Street, a station on the south side of Winthrop Street and a downtown office on Water Street.

The location of the standpipe is logical and unobjectionable and the site is large enough to allow for expansion if necessary.

The standpipe is unattractive in appearance but adequate in size to serve present and foreseeable needs. However, an additional standpipe may eventually be needed in the southerly part of town.

The location of the maintenance station is less suitable since it has an industrial flavor which conflicts with the residential neighborhood in the immediate vicinity. The lot on which the station stands is adequate in size but would not permit expansion of the facilities. The building is of industrial concrete block and is relatively modern in construction. It appears to be adequate for present and foreseeable future needs. The building itself could be added to.

Long-range planning for Hallowell should encompass any restrictions on future development which are needed to protect other watersheds (the Kennebec Valley esker, for example) which may be needed in the future to augment the water supply. Also the future water needs of Hallowell should be integrated with those of the region. Both problems and their solutions should be sought through future studies and action on a regional level.

The water system is discussed in more detail in the section of this report dealing with utilities.
City Sewer System Facilities: The Hallowell sewerage system is deficient mainly because of the absence of sewage treatment facilities. Raw sewage is currently dumped into the Kennebec River, contributing to pollution and detracting from the aesthetic and recreational value of the river. A sewage treatment plant is needed to serve all of the presently built-up areas of Hallowell.

The possibility of a joint sewage treatment system to serve both Hallowell and adjacent communities should be carefully investigated before independent action is taken. Such a joint facility might be more advantageously located farther downstream on the river shore than in Hallowell.

Until the question of joint facilities serving several communities has been resolved, Hallowell should reserve ample land to support a sewage treatment plant of its own. Contingent upon further investigation of flooding conditions, the most appropriate site for a sewage treatment to serve only Hallowell appears to be on the river bank at the southerly end of the urban area just south of Vaughan Brook. The building should be attractive and the site should be landscaped and functionally linked to the proposed recreational area at the point of the peninsula. Thus the treatment plant grounds can be used to lengthen a riverbank green strip offering visual and physical access to the waterfront.

Storm runoff should not be carried by the sanitary system, especially after construction of treatment facilities which would be more expensive to build and to operate by reason of the larger volume of material to be handled. Wherever possible, storm water should be carried by natural drainage ways - streams and brooks. To protect such waterways from private uses which could endanger or limit their carrying capacity, it is proposed that Hallowell control all of those within city boundaries with fifty-foot easements on either side. Vaughan Brook and all of its tributaries should be included. The streams and their easements will also have important recreational and aesthetic value.

The sewer system is discussed in more detail in the section of this report dealing with utilities.

Federal Post Office: The Post Office is located at the northwest corner of the Winthrop, Second Street intersection. This location is appropriate now and also in view of projected future changes in the area.

The site is small and does not allow for customer parking or for expansion of the building.

The building is of relatively modern construction in good condition. Its size is adequate to handle the current scope of operations but there is no provision for expansion. Thus, there will very likely be need in the future for a complementary facility on another site. Land should be reserved for this purpose in the proposed community center west of the turnpike.
Assembly Facilities: The largest existing facility is the Assembly room of the City Hall which seats 200. This is a relatively poor facility and is, as previously mentioned, to be replaced by the auditorium in the new high school.

As Hallowell grows, it is likely that the need will become increasingly apparent for a good public auditorium, large enough to be used for functions of city-wide or even regional interest. Long-range plans should therefore make provision for such an auditorium, in that area designated in the Comprehensive Plan as civic center. The civic center location is in the block bounded by Winthrop, Middle, Central and Second Streets south and west of the Worster House and near the post office, city hall, library and downtown. The entire block should be developed as the central park of the urban area supporting only two buildings - the Worster House and a civic auditorium. Plans for a civic center at this location are contingent upon removal or relocation of the Maine Central Railroad tracks. If this is not done, a different location for the civic center probably will have to be chosen.

Library Facilities: The Hubbard Free Library is financed predominantly from private funds. The city contribution amounts to only $1,000 annually.

Although the site is small and does not allow for parking or for expansion of the building, the location on Second Street is good. At its present location, the library will be well integrated with other civic functions in the proposed new civic center and will be easily accessible from the redeveloped downtown.

The building is in excellent condition and is large enough to comfortably house some 20,000 books. The basement which is essentially unused could very likely be equipped to provide additional stack space and storage. It would be difficult to expand the building by a structural addition but there is no reason why an annex could not be built if sufficient land can be made available in the proposed new civic center.

School Facilities: There doubtless will be need for new schools as the areas proposed for residential expansion are developed. In some cases, it will be feasible to plan and build schools in cooperation with other nearby communities. As with many other kinds of public facilities, regional planning, construction and maintenance offers the opportunity for less expensive, higher quality and more extensive service. A study of local school needs will be included in the second phase of this planning program.

Street Trees: It is recommended that Hallowell undertake a program and allocate an annual budget to maintain, replace and plant trees on all important streets, malls and squares.
SECTION X

PRELIMINARY PROPOSED ZONING
The zoning ordinance is a tool for implementation of the Comprehensive Plan. According to State law it may regulate the following:

1.) Location and use of real estate for industrial, commercial, residential and other purposes.
2.) Construction, height, number of stories, area and bulk of all structures.
3.) Size and open spaces of real estate.
4.) Population density.
5.) Setback of structures along ways of public property.

A zoning ordinance does not apply to structures and uses existing at the time it is enacted, but applies to new structures and uses, and changes in structures and uses made afterward. In order to take effect the zoning ordinance must be enacted by the legislative body of the city. The city must enact a zoning ordinance in order to be eligible for urban renewal.

A preliminary ordinance has been drafted and will be finalized in the near future. A summary of the main features of this ordinance is given below. Tentative zoning maps are also attached.

The provisions of Zone A are unusual. The land encompassed by this zone, which is sparsely built up or vacant, yet close to the downtown area, is not suitable for any other use than business and should be used for downtown expansion. Its use for residential or industrial purposes would be inappropriate. To zone it for business use at this time however, might jeopardize the city's downtown urban renewal as it would offer an abundance of land comparable in value with the land planned and zoned for downtown. The provisions of Zone A are therefore designed to prohibit developments in this zone until such time as the land may be used for downtown expansion without threat to the downtown renewal program. These provisions are judged to be reasonable since the land in question has little value now but will most likely gain value through the downtown urban renewal. It is also recommended that the Urban Renewal Authority at earliest possibility acquire control over the Zone A area by at least obtaining rights of first refusal.

Areas in the Litchfield Road vicinity on both sides of the turnpike, which presently are proposed to be zoned rural, may, after completion of the current "702" sewer study and as the need for residential land warrants, be rezoned for residential use. They should then be classified either "Residential 1", if public sewers can feasibly be furnished or otherwise, "Suburban Residential" with lot sizes not requiring sewer service in the foreseeable future.

The rural zone is intended to discourage scattered developments. While developments within the urban area can be adequately and economically serviced by the city, scattered suburban or rural developments cannot, and can become a burden for the municipality.
Zoning Cont'd:

Residential zones are intended to secure residential developments of appropriate standards. Regulations for the "Residential 3" Zone should encourage use for large-scale apartment houses and discourage use for incidental homes.

The Downtown zone will be equipped with more specific controls through urban renewal plans. The Highway Business zone on Water Street permits a continuation of the business use in existence.

The Industrial zone near the river is merely an acknowledgment of existing industry. The industrial zone near the turnpike should, until sewers can be furnished, be restricted to industrial uses which can safely dispose of their sewage on the site.

It is the intent of this ordinance that all uses in all zones shall have adequate provisions for off-street parking and loading. The most restrictive of the following rules governs parking requirements.

Two (2) parking spaces for each dwelling unit, one for each transient accommodation, for each first three (3) employees and/or customers and for each 1.2 additional employees or customers, for each 250 sq.ft. of retail or office space, for each three (3) persons normally accommodated at a place of public assembly. For other uses the Building Inspector shall prescribe adequate standards. Off-street parking lots of more than 10 spaces shall be appropriately screened or landscaped. Where the city provides municipal parking facilities, adjacent uses may be proportionately freed from the requirements of off-street parking provided such use participates proportionally in the costs of municipal facility. All uses requiring regular loading or unloading of trucks shall be equipped with adequate off-street space for this purpose and for turning movements. Public right-of-way may not be used for this purpose.
PROPOSED ZONING REGULATIONS IN SUMMARY FORM

Zone: Rural

Minimum Size of Lot: 5 Acres
Minimum Frontage: 200 Feet

Minimum Setbacks:
  Front: 30 Feet
  Side: 30 Feet
  Rear: 30 Feet

Ground Coverage: Minimum 1000 Sq.Ft.
  Maximum 10% of lot

Maximum Building Height: Maximum twice smallest actual setback

Uses: Forestry, farming, selling of products produced on premises; one and two family dwellings, customary home occupations. Exceptions: extractions of ground resources, uses not provided for in other zones.

Zone: Residential #1

Minimum Size of Lot: 1/3 Acres
Minimum Frontage: 100 Feet

Minimum Setbacks:
  Front: 25 Feet
  Side: 15 Feet
  Rear: 30 Feet

Ground Coverage: Minimum 1000 sq.ft.
  Maximum 25% of lot

Maximum Building Height: Same as Rural

Uses: Single family dwellings.
  Exceptions: school, church, non-profit club, community facility, hospital, cemetery, customary home occupation not involving more than 3 employees and/or customers at one time. Use of dwelling without alterations to lodge maximum 3 non-family persons.
Zone: Residential #2

Minimum Size of Lot: Single family 9,000 sq.ft.
   Two-family 15,000 sq.ft.

Minimum Frontage: 75 Feet

Minimum Setbacks:
   Front: 20 Feet
   Side: 10 Feet
   Rear: 25 Feet

Ground Coverage: Same as Residential #1

Maximum Building Height: Same as Rural

Uses: Same as Residential #1 plus two-family dwellings.
   Exceptions: Same as Residential #1 plus neighborhood retail
   store in accordance with the recommendations
   of the comprehensive plan.

Zone: Residential #3

Minimum Size of Lot: 1/3 Acre for first family
   + 3000 sq.ft. for each additional family

Minimum Setbacks:
   Front: 30 Feet
   Side: 30 Feet
   Rear: 30 Feet

Minimum Frontage: 100 Feet

Ground Coverage: Same as Residential #1

Maximum Building Height: Same as Rural

Uses: Same as Residential #2 plus multi-family dwellings
   Exceptions: same as Residential #2
Zone: Downtown

Minimum Size of Lot: -

Minimum Setbacks:
  Side: none or minimum 10 Feet

Ground Coverage: minimum 1000 sq.ft.

Uses: Retail except gas station, office, entertainment establishment, community facility, hotel, club, church, multi-family dwelling, newspaper printing, mfg. of articles to be sold exclusively on premises, signs pertaining only to premises. Exceptions: gas stations, advertising structures.

Zone: Highway Business

Minimum Size of Lot: 1/2 Acre

Minimum Frontage: 150 Feet

Minimum Setbacks:
  Front: 30 Feet
  Side: 30 Feet
  Rear: 30 Feet

Ground Coverage: Same as Residence #1

Building Heights: Same as Rural

Uses: Same as in downtown plus motels, gas stations, advertising structures

Zone: Industry

Minimum Size of Lot: 1/2 Acre

Minimum Frontage: 150 Feet

Minimum Setbacks:
  Front: 20 Feet
  Side: 20 Feet
  Rear: 50 Feet

Ground Coverage: Same as Residence #1

Building Heights: Same as Rural

Uses: Manufacturing, warehousing not involving junk, automotive business not including car graveyard, wholesale, gas stations
Zone: Zone A.  

Ground Coverage: Minimum 1000 sq.ft. 

Uses: Exceptions: same as Downtown Business 

1/ In no zone shall a lot be less than 1 acre if it is not served by public sewers. 

2/ A structure not higher than 10 feet with no windows facing neighboring property may be built with no setback on side or in back. 

3/ In no zone are permitted uses which are judged dangerous, noxious, injurious, unsightly or otherwise offensive to the neighborhood. 

4/ All uses shall be equipped with adequate parking and loading facilities for all cars and trucks which may frequent the facility. 

5/ Exceptions may only be granted by the Board of Appeal after it has obtained advice in writing from the Planning Board and held an adequately publicized hearing. Exceptions may be granted only on the following conditions. 

The proposed use must be desirable for the city and not detrimental to the neighborhood and must not conflict with the intent of the Comprehensive Plan and this ordinance. 

6/ In industrial area not serviced by sewer shall only be permitted uses which can safely dispose of sewers on the lot. 

7/ The intent of this zone is to reserve the land it includes for expansion of downtown. Extra restraint shall be exercised in granting permits for development in this zone in order that the success of the downtown urban renewal will not be jeopardized.
PROPOSED ZONING URBAN AREA

LEGEND
RES-1 RESIDENTIAL 1
RES-2 RESIDENTIAL 2
RES-3 RESIDENTIAL 3
RUR. RURAL
IND. INDUSTRIAL
DT. DOWNTOWN
H. B. HIGHWAY BUSINESS

NOTE:
SCALE MEASUREMENTS TO CENTER OF ZONE BOUNDARY LINE AND STREET RIGHT OF WAY BOUNDARY LINE

HALLOWELL KENNEBEC COUNTY MAINE
HALLOWELL PLANNING BOARD 1960
JAMES W. RYALL COMPANY, PLANNING CONSULTANTS, AUGUSTA, MAINE
SCALE 1:3600
PROPOSED ZONING
RURAL AREA

NOTE:
SCALE MEASUREMENTS TO CENTER OF ZONE BOUNDARY
LINE AND STREET RIGHT OF WAY BOUNDARY LINE

AS NEED FOR RESIDENTIAL LAND WARRANTS, THESE AREAS SHOULD BE ZONES EITHER RESIDENTIAL, IF PUBLIC SEWERS CAN BE FEASIBLY PROVOKED OR SUBURBAN RESIDENTIAL WITH MINIMUM LOTS LARGE ENOUGH TO NEED PUBLIC SEWERS IN THE FORESEEABLE FUTURE.

Legend
IND. INDUSTRIAL

Hallowell
KENNEBEC COUNTY, MAINE
HALLOWELL PLANNING BOARD
1960
JAMES W. SEWALL COMPANY, PLANNING CONSULTANTS, OLD TOWN, MAINE
SCALE 1"=1200"
James W. Sewall Company.

Comprehensive plan for
Hallowell, Maine.
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