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## **STATE OF MAINE SELECTED SERVICE CENTER DEVELOPMENT CAPACITY ANALYSES**

Organized by

Androscoggin Valley Council of Governments (AVCOG)

In Partnership with

Southern Maine Regional Planning Commission (SMRPC)

Greater Portland Council of Governments (GPCOG)

Kennebec Valley Council of Governments (KVCOG)

Northern Maine Development Commission (NMDC)

A Background Paper Prepared for the  
Brookings Institution Metropolitan Policy Program in support of its larger project, "Charting Maine's  
Future: An Action Plan for Promoting Sustainable Prosperity and Quality Places"

October 2006

*Note: The views expressed in this paper do not necessarily reflect those of either the trustees, officers, or staff members of the Brookings Institution; GrowSmart Maine; the project's funders; or the project's steering committee. The paper has also not been subject to a formal peer review process.*

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# STATE OF MAINE

## SELECTED SERVICE CENTER DEVELOPMENT CAPACITY ANALYSES

### I. EXECUTIVE SUMMARY

Promoting more development in the state's traditional regional hubs, its so-called "service centers," in order to reduce sprawl has for a decade now been an attractive theoretical goal of Maine's state and local planning efforts.

However, questions persist not only about how this might occur, but about whether there is enough room in Maine's more established regional centers to absorb enough growth to make a real difference.

This report seeks to answer the latter question, and concludes that in many of the most populous Maine regions the state's so-called "service centers" contain more than enough available un-built land or existing space to significantly reduce rural land conversion.

In fact, this report finds that under current land-use regulations in selected Maine regional hubs there lies more than enough capacity to absorb most or all of the residential and commercial/industrial growth projected for a 20-year planning horizon across the towns' respective labor-market areas (LMAs). In short, the service centers studied in this inquiry are in no sense "fully developed" or "built out" in terms of their existing land-use regulations.

Among the specific findings are these:

- In **Portland, South Portland, and Westbrook**, available development capacity is estimated to be capable of supporting an additional 35,000 people. This represents more than six times the population increase currently projected for the urban core, and just 10,000 fewer people than forecast for the entire labor market
- The **Lewiston, Auburn** service center communities theoretically can accommodate all of the growth in housing and commercial/industrial activity projected for their entire LMA
- **Augusta** has sufficient land area and utility capacity to absorb residential development at three to four times the existing rate without noticeable impact, although roadways in certain areas could be overwhelmed. It has sufficient variety and capacity of commercial buildings and subdivisions to absorb substantial and diverse employment opportunities over the next 20 years without touching the additional commercially zoned land. The limiting factor to employment growth may be the transportation system
- **Waterville** has sufficient land and utility capacity to absorb further residential development, although land could be limiting factor in the near future and investments would be necessary

in public facilities. It also has sufficient variety and capacity of commercial space to support more than twice the projected employment over the next 20 years without touching the additional 750 acres of commercially zoned land

- **Presque Isle** easily could accommodate all projected housing growth, and much of the projected job growth, for the LMA
- **Biddeford, Saco, and Sanford** have considerable vacant, residentially zoned land. These three communities have the land available to meet the region's future residential needs. Potential commercial and industrial growth are not constrained by public utilities or services

Making these findings at once and ironic and noteworthy is the fact that Maine's current development patterns are currently moving away from the state's service centers. Although Maine's service-center communities can accommodate additional development, the bulk of the state's growth is currently occurring in communities adjacent to the service centers. And yet, the service centers—while remaining fairly stable or decreasing only slightly in population—remain primary places of employment. A large percentage of residents employed are employed within the same communities—e.g., in Portland, South Portland, Westbrook, 78 percent; in Lewiston and Auburn, 75 percent; in Presque Isle, 76 percent; and in Augusta and Waterville, 72 percent. This suggests the desirability of the service centers as both places to live and work.

At the same time, mobility, land availability, and prices—as well as real and perceived ideas about the quality of education and tax burdens for services—have accelerated the pace of development of the communities adjacent to service centers and those farther out. Once this growth pattern has been established, demand grows for professional, service, and retail services close to housing in the suburbs. As a result, schools and public amenities/services tend to be newer and are perceived to be of better quality. Sometimes these adjacent communities have the convenience of service-center amenities such as hospitals, social services, shelters, subsidized housing, etc., without the attendant costs and responsibilities.

While Maine does not really have suburban flight, it does exhibit some of the characteristics. The service centers may have the theoretical capacity to absorb additional growth, but basic investments in public infrastructure are necessary to facilitate and accommodate that growth. Service-center investments could address many of these real and perceived issues, and partially relieve development pressures on surrounding communities. Mobility and price will continue to stimulate growth of surrounding communities, although public policies that direct investment must acknowledge the long-term costs as well as the short-term benefits.

Efforts to alter today's prevailing development pattern and usher more development into the service centers will almost certainly be a critical agenda for the state as concerns about suburban sprawl continue to grow. It is hoped that this study will spur the state's consideration of that agenda.

## II. INTRODUCTION

GrowSmart Maine and its partners commissioned the Brookings Institution, in Washington, D.C., to undertake a major review of the demographic, economic, and land-use trends shaping the state, and to provide recommendations for a series of bold steps that can be taken to protect the state's uniqueness, while building a prosperous and sustainable future.

Brookings researchers talked with scholars, businesses, non-profit and governmental leaders, and citizens throughout Maine to gather ideas and insight and to review critical in-state data and policy changes. As a component of their research, Brookings contracted with the Androscoggin Valley Council of Governments (AVCOG), which, in turn, subcontracted with other Maine regional-planning and development districts to produce a significant new assessment of the development capacity available in some of Maine's key service centers.. This approach was considered desirable, as each regional organization has knowledge and familiarity with local planners and developers and the market conditions and development patterns for their respective regions.

### **The Task**

The objective was to produce a plausible assessment of the development capacity within selected service centers throughout Maine that make up representative clusters of communities. A goal has been to demonstrate if in-fill development and redevelopment of established towns is in fact a reality, at least in terms of capacity. Further, the assessment was to determine the share of the region's projected development that theoretically could be accommodated in the core service-center communities. Brookings will use its findings to inform debates about Maine development patterns and how best to reduce sprawl. Such recommendations may be associated with efforts to encourage or direct growth to the service-center cores.

### **Methodology**

The objective was to determine if selected service centers in Maine could accommodate a projected level of growth for their respective labor market areas (LMAs). The concept was to use local knowledge of growth and development patterns, combined with standardized projections of population, housing and employment, to test the capacity of the service-center communities to absorb growth. Development patterns are influenced by many factors and choices based upon both real and perceived issues and opportunities, yet it nevertheless was considered to be useful to provide a perspective for observation and debate.

Brookings, in concert with AVCOG, selected certain service centers that were felt to be representative of the various levels of growth and development activity occurring throughout the state. The selected centers were: Saco/Biddeford; Portland/South Portland/Westbrook; Lewiston/Auburn; Augusta/Waterville; and Presque Isle.

Given the need for local knowledge and expertise to generate reasonable assumptions on growth, redevelopment, and new development patterns, state-designated Planning and Development Districts that operate in each service center were engaged. These are regional organizations that play varied roles in planning and development with both the public and private sectors in their regions.

The task then involved a build-out analysis of the respective communities, using uniform, accepted projections of population, housing and employment applied to the current available and useable development stock and the regulations covering undeveloped, appropriately zoned land. Consumption patterns were extrapolated from rates of consumption exhibited in that center for the most recent three years. Developments were reviewed to establish ratios for gross consumption of land for various housing types, and to determine square-footage patterns for employment growth (i.e., jobs per acre and jobs per square foot) and the resulting land consumption associated with that activity. This method allows for the inclusion of a factor for non-developable lands (i.e., roads, water/sewer, and wetlands) that are typically included in any development plan.

The initial inventory of the centers detailed: approved but undeveloped housing projects; vacant lands zoned residential; approved but undeveloped commercial/industrial projects; vacant mill and other reusable commercial/industrial space; and vacant land zoned for commercial/industrial activity. It was determined at the beginning of the project not to address retail growth because the dynamics of this sector were considered to be too volatile, and reasonable predictions would not contribute greatly to the purposes of the assessment.

The population projections used were developed by the Maine State Planning Office, as were the housing projections. Employment projections were developed by the University of Southern Maine utilizing the REMI model. These are also the projections that are used by the Planning and Development Districts to generate their Comprehensive Economic Development Strategies (CEDS). Because employment projections are available at a county or regional level, they were factored utilizing the current ratio of the service center with respect to total employment within the county or region. (The projections are available from AVCOG.)

What follows are region-by-region summaries of the development capacity of the state's key service centers.

### **III. LEWISTON/AUBURN SERVICE CENTERS BUILD-OUT ANALYSIS**

#### **Housing**

Total housing units in Lewiston and Auburn together are expected to increase by only 2 percent from 2000 to 2015 (Lewiston -105 and Auburn +336). The surrounding communities that comprise the LMA are expected to see much more significant gains in total housing units of 2,244.

An assessment of vacant and currently zoned residential land in Lewiston and Auburn yielded an estimated 12,185 acres. Current development patterns in Lewiston and Auburn show a land-consumption rate of .75 to 1.5 acres per unit. This acreage theoretically could support 12,000 units if fully developed. Even if there were a 10-30 percent reduction in the total acreage, due to roads, lot-size variations, and other factors, this still would yield well over 8,000 acres on the low side. This, in turn, still would accommodate 8,000 units, using an average of one acre per unit in lot size.

This makes no assumption for creating housing units in existing vacant mill space. The redevelopment of old mills for apartments and condominiums is a new concept in this market, and only limited projects currently are being proposed. However, there does seem to be a market interest, as expressed by local developers and their requests for zoning changes and considerations to accommodate such uses. Our assessments show that there are approximately 1 million square feet of vacant brick mill space in the downtowns of Lewiston and Auburn. These downtowns are seeing considerable new investment in a variety of uses, including public amenities.

Each city considers that housing should, and will, play a role in their redevelopment efforts. It is likely that the projected housing demand in these spaces and for traditional condo projects, which are starting to be offered in this market, will expand the ability of current vacant residentially zoned land to accommodate additional growth. Neither city is currently constrained by public utilities or services to accommodate growth.

#### **Commercial and Industrial**

Projections for commercial and industrial development are derived from regional employment estimates for the western Maine counties of Androscoggin, Franklin and Oxford. These projections, which are through 2025, were factored to provide reasonable estimates for the Lewiston-Auburn LMA, based on the distribution of current employment.

The assessment inventoried: vacant land zoned industrial and commercial; vacant brick mill space; vacant and proposed commercial and industrial buildings, as well as vacant lots, in existing industrial parks; and other vacant office, commercial, industrial and warehouse space. This latter category was subdivided into areas suitable for occupancy and ones requiring some or substantial rehabilitation.

Lewiston and Auburn have approximately 3,500 acres of vacant industrial/commercially zoned land; approximately 1 million square feet of vacant brick mill space; approximately 1.3 million square feet of existing and proposed space located in industrial parks; 33 lots and 286 acres of vacant industrial park land; and approximately 216,000 square feet of vacant office, industrial, warehouse or flex space suitable for occupancy. (In this latter category there are limitations for certain uses, which creates the need for new space even though existing space exists.)

Employment projections indicate that the Lewiston-Auburn labor market will realize an additional 8,000 jobs net of retail by the year 2025. These jobs range from logistics in the warehousing and distribution sectors to back-office operations for various financial and service organizations. The former is a large consumer of land relative to job creation, while the latter provides a dense employment base, and is typical of the redevelopment occurring in Maine's vacant brick mills.

Traditional industrial patterns in an industrial-park setting typically have yielded a factor of approximately 15 jobs per developed acre. More modern parks in the area tend to a mixture of uses, with larger building-to-land ratios and less dense employment patterns. One mixed-use industrial park in the area, which is not atypical, has 8-10 jobs per acre, while a back-office operation in a redeveloped mill has 350 employees in 75,000 square feet, yielding a ratio of approximately 215 square feet per employee.

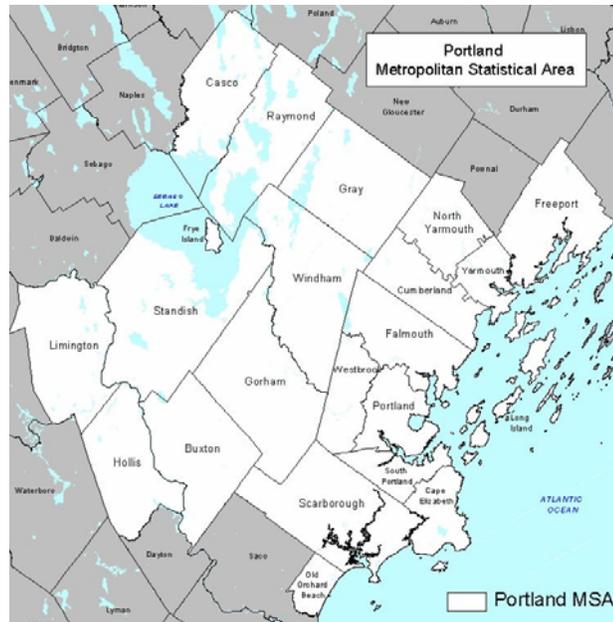
If all projected jobs in the LMA were to occur in a light industrial/commercial-park setting, which is not realistic, this would require 1,000 acres. This could be accommodated with existing developed parks and quality vacant buildings and vacant land. We expect that a good portion of that projected growth in employment, in fact, will occur in the institutional/government/financial-services sectors. This projected growth for easily could be accommodated in existing and redeveloped properties. This leaves existing vacant park space and zoned, but undeveloped, lands to accommodate anticipated larger buildings with low employment-level ratios typical of the logistics and distribution operations that are a centerpiece of current industrial development efforts of the Lewiston and Auburn area.

## **Conclusion**

The Lewiston/Auburn service center communities theoretically can accommodate all of the growth in housing and commercial/industrial activity projected for their entire LMA.

#### IV. PORTLAND-SOUTH PORTLAND-WESTBROOK BUILD-OUT ANALYSIS

This analysis determined that there is a sufficient inventory of land and properties available in Portland, South Portland and Westbrook to absorb future employment and residential growth projected for the Portland labor market by 2025. By that year, the Portland labor market is expected to grow by 36,135 jobs and 45,210 people. This forecast originally was developed by the Greater Portland Council of Governments in 2003 for the Portland Area Comprehensive Transportation Committee, based on 2025 employment and population projections for Cumberland and York counties generated by the University of Southern Maine’s Center for Business and Economic Research. For purposes of this analysis, the boundaries of the “old” Portland labor market were used. This includes five communities identified by the Maine State Planning Office as service centers – the contiguous urban cores of Portland, South Portland, and Westbrook, plus the more suburban service centers of Freeport and Scarborough.



The inventory constructed for this analysis does not consider the development potential associated with:

- Upper-floor additions to existing buildings. For example, Portland has no minimum lot-size requirement for its B-3 zones, which could support high-density development along its arterials. Although such development is allowed by right, and actually encouraged as part of transit-oriented development, such investments presently are not occurring within the study area.
- Redevelopment opportunities associated with currently occupied buildings. For example, Mercy Hospital is slated for relocation to the western end of the Portland Peninsula. Adaptive reuse opportunities for the existing hospital, which is in a prime downtown location,

have not been considered. Similar opportunities, such as potentially relocating the Portland Public Works complex from the peninsula to a more industrial section of the city, also have not been considered.

- Lots unsuitable for development. Reviews of current inventory reveal that there are hundreds of acres available in existing business and industrial parks within the urban core for development. However, much of this land is too wet, and, thus, too expensive, to develop under current market conditions. Similarly excluded for the residential analysis are lands beyond 200 feet of sewer lines (Portland) or in resource-protection zones.

Sources for data include:

- Discussions with city planning staff;
- Comprehensive plans and master plans;
- Planning Board minutes;
- *Market Study of Industrial Properties in Cumberland and York Counties* prepared by Mainland Consultants (2002); and
- Annual commercial broker reports prepared by Boulos and Ram Harnden.

## Commercial and Industrial Growth

As noted, payroll and self-employment in the Portland labor market is expected to grow from 200,467 jobs to 236,602 jobs, an increase of 18 percent. The urban core is expected to claim 22,563 jobs or 62 percent of future job growth, with the balance going to outlying rural areas and suburbs, including Freeport and Scarborough. In 2000, 69 percent of total employment in the labor market was in the urban core. By 2025, this share is expected to decline by just 1 percent.

An inventory of development capacity in Portland, South Portland, and Westbrook was constructed using the following categories:

Type	Total
Existing business/industrial parks	30 lots
Properties under construction	705,307 square feet
Projects proposed	500,000 square feet
Vacant industrial and warehouse facilities	508,508 square feet
Brownfields	30 acres
Vacant land zoned industrial/commercial	1,372.24 acres
Vacant commercial office space	479,221 square feet

In order to calculate the number of jobs that could be supported by the available development capacity, multipliers were identified based on prevailing development patterns as well as industry standards from the Institute of Transportation Engineers:

Category	Multiplier
Commercial	1 employee per 300 square feet
Industrial	1 employee per 1,000 square feet
	23 employees per developed acre
	Average lot size of four acres

Using the multipliers, available development capacity in Portland, South Portland, and Westbrook is estimated to be able to support an additional 28,687 jobs. This represents 6,000 more jobs than currently projected for the urban core, but 8,000 less jobs than is forecast for the entire labor market. If the existing service-center communities of Freeport and Scarborough were to absorb their expected increase of 6,673 jobs by 2025, then the urban core could absorb the balance of jobs projected for Portland's labor market. Another way for the urban core to absorb the entire region's forecast would be to consider the development potential of upper-floor additions to existing buildings, currently occupied buildings whose uses are slated for relocation elsewhere, and lots in existing business and industrial parks that are now too expensive to develop.

### Residential Growth

By 2025, the population in the Portland Labor Market is expected to grow from 243,537 to 288,747, an increase of 19 percent or 45,210 people. The service centers of Portland, South Portland, and Westbrook are expected to grow by 5,492 people, a modest 5 percent. Unlike the jobs forecast, the urban core is expected to lose a significant share of the region's population, from 45 percent in 2000 down to 37 percent in 2025. Unlike the suburbs and rural areas, however, city officials consistently encourage new housing in the urban core, where construction consistently tops one hundred permits per city per year for a diverse array of multi-family and single family units.

An inventory of residential development capacity in Portland, South Portland, and Westbrook was constructed using the following categories:

Type	Total
Vacant land zoned residential	12,239 acres
Units permitted, pending or under construction, 2000-2006	3,993 units

In order to calculate the number of people that could be supported by additional development, units were estimated at the highest density allowed by zone. These were added to the number of actual units permitted, approved or under construction from 2000-2006. The number of units estimated for each city was then multiplied by that community's average household size, with a decline of 1.5 percent factored into the equation.

Executing the multipliers, it is estimated that available development capacity in Portland, South Portland, and Westbrook could support an additional 35,160 people. This represents more than six times the increase currently projected for the urban core, but 10,000 fewer people than is

forecast for the entire labor market. If the existing service center communities of Freeport and Scarborough were to absorb their expected increase of 8,963 people by 2025, than the urban core could indeed absorb the balance of the population projected for the Portland Labor Market. As discussed, another way for the urban core to absorb the entire region's forecast would be to consider the development potential of upper floor additions to existing buildings, currently occupied buildings whose uses are slated for relocation elsewhere, and lots requiring sewer extensions of more than 200 feet.

## V. AUGUSTA AND WATERVILLE (KENNEBEC COUNTY) SERVICE CENTERS BUILD-OUT ANALYSIS

### Housing

Maine State Planning Office projections of housing-stock growth between 2000 and 2015:

Augusta:	loss of 244 units
Waterville:	loss of 21 units
Kennebec County:	gain of 4,900 units

Using State Planning Office (SPO) projections, both Augusta and Waterville would see negative growth in housing to 2015. Both cities have the capacity to absorb the county's growth. Kennebec Valley Council of Governments has tallied actual housing units placed on tax rolls (from MRS Municipal Valuation Returns) between 2000 and 2005:

Augusta:	gain of 115 units
Waterville:	gain of 21 units
Kennebec County:	gain of 2,774 units

Using a simple, straight-line projection, growth to 2015 would include an additional 230 units in Augusta, 42 units in Waterville, and 5,548 units countywide. Since this extrapolation for Kennebec County is half the SPO projection for the 15-year period, all three geographic areas could be expected to exceed the SPO projections, with the two service centers accommodating 5 percent of the total.

### Commercial/Industrial Job Growth

The 2000 Census, as tabulated by the Maine State Planning Office, reports existing jobs as follows (Kennebec and Somerset Counties are combined to correspond to the Regional Economic Model, or REMI, analysis):

Augusta	28,156
Waterville	11,835
Kennebec/Somerset Counties	76,507

The REMI Analysis of job growth through 2025 shows 115,900 jobs in the Kennebec/Somerset Economic Area—and increase of 17,400 jobs over 25 years. Allocation to Augusta and Waterville using existing proportions yields the following:

	<u>Proportion of existing</u>	<u>2025 Jobs</u>	<u>Growth (annual)</u>
Augusta	36.8 percent	34,555	6,399 (256)
Waterville	15.5 percent	14,525	2,690 (108)

Since retail is projected to lose less than 400 jobs under the REMI model, it is ignored in the analysis.

In order to determine development impacts, jobs must be calculated in terms of developed area. This calculation can be highly variable with the type of development. Some industrial and warehousing operations will employ as few as five to six people per developed acre, whereas a call center near Waterville has capacity for 60 employees per acre. Assuming a mixture of industrial and commercial uses across a service center will average 20 persons per developed acre, or eight persons per 1,000 square feet of building area, this results in the following projections for Augusta, Waterville, and the Kennebec/Somerset area:

	<u>Projections to 2025:</u>	<u>Developed Acres</u> <i>or</i> <u>Building Area (in 1,000's)</u>
Augusta		320                      800
Waterville		135                        336
Kennebec/Somerset		870                        2,175

These are unrealistic, “theoretical” numbers. Obviously, any employment growth will be a blend of new acreage and existing buildings, and, as in the past, a large fraction of employment growth will be increases in existing business and growth in small, home-based businesses.

### **Analysis of the Augusta Service Center**

Recent Development Activity:

- 115 new housing units in five years;
- Dramatic growth in retail sector; moderate growth in service sector; and.
- Stagnant growth in office and industrial sectors (excluding government and medical).

Near-term prospects:

- At least 100 new residential units, in assorted configurations, are currently under review or proposed;
- Retail will continue to boom without municipal encouragement;
- Renewed interest in multi-family units; and
- Growth potential on the east side is facilitated by a new bridge (but requires utility extensions.).

### Geographic Profile:

At 55 square miles, Augusta has a relatively large land area to support development. However, according to the city planner, approximately one-third of existing vacant land is not readily usable (already incorporated into calculations). The eastern third of the city is also in lake watersheds, limiting the practicality of build-out densities.

East of the river, the city generally is developed at a lower density. Access had been constrained by river crossings, but the new bridge greatly enhances its development potential. The current constraint is lack of public water and sewer infrastructure, although the city is planning extensions to the east-central area. Two zoning districts, which together encompass roughly 2,000 acres, encourage mixed-use, mixed-density development, and have good access to transportation.

The northwest quadrant of the city has been traditionally rural, with the exception of Civic Center Drive (Route 27), which is rapidly commercializing with service and retail development. The non-arterial roads in this quadrant would be unable to absorb significant new development unless improved.

The southwest quadrant of the city is already densely developed, with little capacity for additional growth (except infill), and challenging topography makes development problematic on remaining vacant land. Adequate capacity exists for all services, with some congestion on arterial roads.

Augusta dominates its neighboring communities in terms of its economy and development opportunities. Surrounding towns are nearly all suburban communities, with the exception of Hallowell, which is an extension of Augusta's urban area.

### Housing Capacity:

The spreadsheet indicates that Augusta has 265 subdivision lots available for development, and 25 vacant residential spaces on downtown upper stories. An additional 100-plus lots are in the pipeline, including 20 multi-family units. If all proposed lots are approved, Augusta would have almost double the capacity to accommodate housing units projected under the KVCOG projection for the next 10 years without development of any new land. Under an unrealistic "build-out scenario," Augusta has more than enough land capacity to absorb all of the development projected for Kennebec County over the next decade.

The capacity of public facilities could limit overall development. While most developable land is in eastern Augusta, existing roadways do not have the capacity to absorb a doubling of traffic. Public water and sewer service has reserve capacity, having lost major industrial customers since initial construction, but do not currently extend into rural eastern Augusta. Extension of water and sewer service would result in a rise in allowable densities over what is currently calculated.

### Employment Capacity:

The spreadsheet indicates that Augusta currently has 1,814 acres of land zoned commercial, plus 411,000 square feet of vacant commercial building space. Augusta requires 320 acres or 800,000 square feet of building space for its continued employment growth over the next 20 years. The city could fill its vacant buildings and still only utilize half of its existing business/industrial-park space over the next 20 years. The city has more than twice the amount of acreage zoned commercial for all of the projected job growth in the two-county area.

All of the commercially zoned property and buildings have access to public utilities and collector or arterial highways. Since the level of water use is highly dependent on the type of business, it is hard to say that facility capacity exists for that volume of growth. In addition, the commercial roads in Augusta are already functioning at or above the preferred level of service.

### Conclusions:

- Augusta has sufficient subdivision lots/units on the books or proposed to absorb all of the growth projected for the next 10 years;
- Augusta has sufficient land area and utility capacity to absorb residential development at three-to-four times the existing rate without noticeable impact, although roadways in certain areas could be overwhelmed; and
- Augusta has sufficient variety and capacity of commercial buildings and subdivisions to absorb both the diversity and quantity of employment opportunities over the next 20 years without touching the additional commercially zoned land. The transportation system is the only possible limiting factor to employment growth.

### **Analysis of the Waterville Service Center:**

#### Summary of Recent Development Activity:

- 21 new housing units in the past five years; and
- Moderate growth in the retail sector and medical services, while stagnant in all other sectors.

#### Near-Term Prospects:

- Slow market for traditional housing, growing interest in multi-family/condo-style housing and river-oriented development;
- Possible redevelopment of mill space could expand downtown capacity in both office and residential sectors; and
- Some expansion of retail development is possible.

#### Geographic Profile:

Waterville covers a relatively small geographic area of only 15 square miles. There are, however, few environmental constraints. Most undeveloped land zoned residential is currently in pasture or other agricultural use.

A significant fraction of the land base in Waterville is unavailable for development due to existing use and ownership, including land belonging to Colby and Thomas Colleges, three hospitals, a golf course, and the airport. Both residential and commercial development activities are most active at the outskirts of the urbanized area, particularly in the vicinity of both interstate interchanges.

The northern half of the city is almost completely developed, although this is also where new development is occurring through infill and redevelopment. The city's southern half contains some apartments and mobile home parks, and one vacant factory, with many large unoccupied tracts (some zoned commercial). Water, sewer, and road facilities all would have to be extended or improved to handle build-out, though a suggested, but not programmed, new I-95 interchange could change the area's dynamic.

Waterville is not a dominant service center or development engine in relation to neighboring communities. The adjoining towns of Winslow, Fairfield, and Oakland all have serviced commercial lands, business or industrial parks, and attractive residential areas. The three communities have a combined population 33 percent greater than Waterville's, and are all growing, while Waterville experiences population decline.

Waterville is making a concerted effort to revitalize its downtown area, assisted by the National Main Street program. Significant efforts include development of the riverfront (currently under city ownership) and redevelopment of a more than 400,000-square-foot brick mill complex. Several commercial development projects in the pre-proposal stage are being inhibited by uncertainty and lack of capital, and one major new residential subdivision is under review by the city, according to the City Planner.

#### Housing Capacity:

Housing-unit growth for Waterville, based on a five-year average, is estimated at 42 units between 2005 and 2015. The spreadsheet indicates that there are 31 approved subdivision lots or multi-family units. The city planner reports that a single subdivision application now before the planning board would create 79 new housing units (33 duplexes plus 13 single-family homes), and a mill redevelopment underway would create between 50 and 120 new residential units. Thus, the city has the capacity to absorb at least four times its projected growth over the next decade without development of any new land. Needless to say, successful development of these projects would dramatically turn around Waterville's current population decline.

A build-out analysis for Waterville indicates that the land-area capacity is for more than 1,000 new residential units at current densities. Even in theory, that is only a small percentage of the

overall demand for housing in Kennebec County over the next decade. In addition, it limits the overall population potential of Waterville to less than 20,000 (currently 15,500). This would reinforce the emerging role of Waterville as an integral part of a group of towns, rather than a dominant population center. Nearly all of the expansion area is in the southern half of the city, but—as noted—water and sewer service, as well as roadways would have to be expanded to handle the added volume.

#### Employment Capacity:

The spreadsheet indicates that Waterville has roughly 600,000 square feet of commercial building space, about half of which is in old, multi-story textile mills, and 65 acres of commercial subdivision. The projected job growth of 2,690 over 20 years could be handled by only a little more than half of the existing commercial buildings. Existing, available space (serviced land and buildings) could support job growth of at least 6,200, one-third of the total projected for the Kennebec-Somerset area over 20 years. Additional land zoned commercial could support up to 15,000 more workers.

There is adequate road, water, and sewer capacity, in general, to support the existing space available. However, much of the land zoned commercial is in a group of tracts in the southwestern corner of the city, rezoned because of a potential, new interstate interchange. The land is not serviced by city water or sewer, and would not be a viable development area without the interchange.

Growing the employment base in Waterville beyond the REMI projections may be neither realistic nor desirable. The new employment potential for Fairfield, Winslow, and Oakland serve to disperse the impacts of job growth.

#### Conclusions:

- Waterville has sufficient subdivision lots/units on the books or proposed to absorb four times the housing growth projected for the next 10 years;
- Waterville has sufficient land area and utility capacity to absorb further residential development, although land area could be a limiting factor in the nearer future, and investments would be necessary in public facilities;
- Waterville alone has sufficient and diverse commercial space to support more than twice its projected employment over the next 20 years without touching the additional 750 acres of commercially zoned land; and
- Waterville does not emerge as a dominant municipality in its sub-region. Competent planning for the “service center” should include the three towns of 6-8,000 that adjoin the city.

## VI. PRESQUE ISLE SERVICE CENTER BUILD-OUT ANALYSIS

### Housing

The Maine State Planning Office (SPO) projected that Presque Isle will see an increase of 226 new housing units by 2015. Communities located in the LMA are also expected to see increases through the period.

Presque Isle: gain of 226 units  
Presque Isle LMA: gain of 1,713 units (includes Presque Isle)  
Aroostook County: gain of 3,783 units

Presque Isle can absorb its projected growth because nearly 294 acres of vacant, zoned residential land and the city's minimum lot size is 9,000 square feet. The Presque Isle LMA not only could absorb its projected housing increase of 1,713 new units by 2015, but approximately 1,423 new housing units could be located in vacant lands currently zoned for residential uses and served by public water and sewer. The remaining projected units could be located in rural farm districts or through efforts to rezone portions of the city for residential uses. There are currently no capacity issues with the Presque Isle Water and Sewer District plants.

### Commercial and Industrial

Projections for commercial and industrial development in the Presque Island LMA are derived from regional projections for employment through 2025 for Aroostook County.

Employment projections completed by the University of Southern Maine indicate that the Presque Isle labor market will realize an additional 3,570 jobs net of retail by 2025. These jobs range from logistics in the warehousing and distribution sectors, which consume considerable land, to back-office operations for financial and service organizations, which provides a dense employment base.

Traditional industrial patterns in the Presque Isle industrial park typically have yielded a factor of approximately four to six jobs per developed acre. The relatively small number of jobs per acre is indicative of the land-intensive, as opposed to person-intensive, uses at the park, such as an intermodal facility, lumber mill, and distribution terminals. Commercial and institutional buildings in Presque Isle are more densely populated, and showed a ratio of between 75 to 175 square feet per employee, with an average of 115 square feet per employee.

Were all projected jobs for the labor market area to occur in a light industrial/commercial-park setting and be similar to the type of employment presently located within the industrial park, 14,280 acres would be required. However it should be noted that modern industrial/commercial parks located elsewhere in Aroostook County and the state contain more intensive employment-to-land ratios, usually in the 8-10 person-per-acre range. Projected job growth for the LMA could be

partially accommodated with currently developed parks and quality vacant buildings and vacant lands. The Presque Isle water and sewer plants impose constraints, as neither can accommodate intensive wet-processing industries at this time.

## **Conclusions**

Presque Isle easily could accommodate all of the projected housing growth and some of the projected job growth for the LMA.

## **VII. SERVICE CENTERS OF BIDDEFORD, SACO, SANFORD AND YORK COUNTY BUILD-OUT ANALYSIS**

### **Industrial and Commercial**

The 2025 employment projections for Biddeford, Saco and Sanford indicate a decrease in manufacturing employment, thus creating no additional demand on existing or future inventories. The decline in manufacturing would place empty facilities on the market that could be purchased or converted to other uses. The current industrial-park inventory includes 29 sites and 287 acres. This number may not accommodate all future industrial/commercial uses (e.g., warehousing, transportation, etc.). However, it should be noted that industrial-park development typically is demand driven. Therefore, as current industrial parks reach full capacity, municipalities are likely to develop new and/or expanded industrial parks.

These three service center communities have approximately 2,500 acres of vacant industrial/commercial zoned land; approximately 1.4 million square feet of vacant brick mill space; 29 lots and 287 acres of vacant industrial park land; and approximately 275,000 square feet of vacant office, industrial, warehouse, or flex space suitable for occupancy.

According to the latest County Business Patterns data published by the U.S. Census, there are eight non-retail employees, on average, per business in York County. Thus, it is estimated that 1,944 new businesses could be created in York County by the year 2025. However, a portion of the new business growth is likely to be in existing businesses. Thus, if half of the projected new employment is from new businesses, this would equal 972. Assuming that these new businesses would be located on two-to-three acre parcels, there is sufficient vacant industrial/commercial land in Biddeford, Saco and Sanford to accommodate the projected future employment growth.

Employment projections indicate that the York County labor market will realize an additional 15,551 jobs net of retail by 2025. Approximately 2,500 acres of vacant zoned industrial and commercial land exists in Biddeford, Saco, and Sanford. Despite the anticipated decrease in manufacturing employment, non-retail employment in the three service centers and remaining communities in York County is expected to increase through 2025. Given the significant amount of vacant zoned industrial and commercial land in the three service centers, much, if not all, of this growth could be accommodated in the three service centers.

### **Conclusion**

The ability of the three service center communities to accommodate future growth varies. Biddeford has nine industrial park lots remaining, covering 32 acres, making the total amount of vacant industrial park land 200 acres. The ability of Biddeford to accommodate a third of the future growth probably is limited unless additional land is rezoned. Saco has the highest amount of available industrial park sites, with 15 sites totaling 200 acres. Saco also has 1,000 vacant commercial/industrial land, which is sufficient for more than a third of its future growth. Sanford has

five vacant industrial park sites totaling 55 acres. Also, Sanford has the most vacant industrial/commercial land, with 1,300 acres, enabling it to handle significant business growth. Together, Biddeford, Saco and Sanford can accommodate the region's projected commercial/industrial growth.

## **Housing**

A housing-market assessment of the region needs to look at both the service centers of Biddeford, Saco, and Sanford, and York County as a whole, as the market is interrelated. According to the 2000 U.S. Census, the population in York County was 186,742 persons. The average household size was 2.47 persons, and there were 75,604 households. According to population projections by the Maine State Planning Office, York County's population is expected to increase to 214,609 persons in 2015. Using the 2000 household size, the total number of households would be 86,886—an increase of 11,282 households.

The total amount of vacant residential land in Biddeford, Saco, and Sanford is slightly less than 20,100 acres. If each new household was on a lot of an acre or less, theoretically, the vacant residential land in the three service centers could accommodate the anticipated future growth. Even if total acreage is reduced by 10-30 percent due to roads, lot-size variations, and other constraints, this would still yield well over 14,000 acres, which still would accommodate 14,000 units at an average of one acre per unit.

This assessment makes no assumption for creating housing units in the 1.4 million square feet of existing, vacant mill space in the downtowns of Biddeford, Saco and Sanford. Redevelopment of this type of facility for apartments and condominiums is relatively untested in this market, with only limited projects currently under development; two examples are Saco Island in Saco and the Cummings Mill in South Berwick. The projects have had mixed results in their ability to attract tenants or buyers.

## **Conclusion**

Biddeford, Saco, and Sanford believe that housing will play a role in their economic development efforts. The availability of workers is an impediment in some industries, and the ability to attract and house new residents is key to future economic stabilization and growth. All three communities have significant amounts of vacant residentially zoned land—enough to meet the future residential need of the region. None of the communities are currently constrained by public utilities or services to accommodate growth.

## **VIII. SUMMARY OF POPULATION, HOUSING & COMMUTING PATTERNS BY SERVICE CENTER**

### **Lewiston-Auburn**

Seventy-five percent of people who live in Lewiston-Auburn and hold jobs work in Lewiston-Auburn. Of the remainder, 7.5 percent work in Portland, Bath, or Lisbon. Lewiston and Auburn together lost 16 percent of their population between 1990 and 2000. Projections indicate that the two cities will lose an additional 17 percent of their population by 2020. The surrounding communities all saw moderate population increases of 10 to 20 percent during the 1990s, and are expected to have more significant growth of 20 to 30 percent between 2000 to 2020. Total housing units in Lewiston and Auburn are expected to increase by only 2 percent from 2000 to 2015, while the surrounding communities are expected to see significant increases.

### **Biddeford-Saco-Sanford**

Nineteen and a half percent of people who live in Biddeford-Saco and hold jobs work in Biddeford-Saco. Of the remainder, 14.8 percent work in Portland, and 11 percent work in South Portland or Scarborough. Forty-one percent of people who live and hold jobs in Sanford work in Sanford. Of the remainder, 9.8 percent work in Saco. Biddeford's and Sanford's population stayed roughly the same between 1990 and 2000. Saco's population grew by 10 percent, while all of the surrounding communities saw significant growth of as much as 20 to 40 percent. Biddeford is expected to lose 15 percent of its population by 2020, and Sanford will grow slightly (6 percent), while all of the surrounding communities, including Saco, are expected to see significant growth of 20 to 40 percent between 2000 and 2020. Biddeford, Saco, and Sanford are all expected to see small gains in total housing units from 2000 to 2015, while all of the surrounding communities are expected to see more significant growth of 15 to 20 percent.

### **Portland-South Portland-Westbrook**

Seventy-eight and eight-tenths percent of people who live in Portland-South Portland-Westbrook and hold jobs work in these communities. Of the remainder, a majority 10 percent work in Scarborough. The population of Portland, South Portland, and Westbrook was stagnant during the 1990s, and all are expected to lose an aggregate of 33 percent of their population by 2020. Growth has occurred in many surrounding communities, and all are expected to continue to grow by 20 to 25 percent between 2000 and 2020. Portland, South Portland, and Westbrook are all expected to see small increases in total housing units between 2000 and 2015. Most regional growth will be in surrounding communities, which should see 15-to-20 percent increases in total units.

### **Augusta-Waterville**

Seventy-two percent of people who live and Augusta-Waterville and hold jobs work in these communities. Of the remainder, workers commute to a number of surrounding communities. Augusta and Waterville together lost 25 percent of their population between 1990 and 2000. This

demographic loss is expected to double between 2000 and 2020, with these two communities expected to lose 50 percent of their population. A majority of the surrounding communities are expected to see population growth of about 15 to 20 percent. Augusta is expected to have a slight decrease in total housing units between 2000 and 2015, while Waterville is expected to maintain its present number. Surrounding communities are all expected to see growth in total housing units between 2000 and 2015 of up to 10 to 20 percent.

### **Bangor-Brewer**

Seventy-nine percent of people who live in Bangor-Brewer and hold jobs work in these communities. Of the remainder, workers commute to various surrounding communities.

Bangor and Brewer lost population between 1990 and 2000, and are expected to lose 12 percent in additional population by 2020. Most of the surrounding communities experienced moderate gains in population between 1990 and 2000, and are expected to see more growth to 2020. Bangor and Brewer also are expected to have a 6 percent increase in total housing units between 2000 and 2015, while all surrounding communities are also expected to see a moderate gain.

### **Presque Isle**

Seventy-six percent of people who live in Presque Isle and hold jobs work in the community. Of the remainder, 4.6 percent work in Caribou. Presque Isle lost 11 percent of its population between 1990 and 2000, and is expected to lose an additional 20 percent between 2000 and 2020. The surrounding communities also have lost population, with the exception of the town of Chapman. Continued population loss is expected in all communities between 2000 and 2020, with Presque Isle, Fort Fairfield, and Caribou losing the most. Total housing units in Presque Isle and all surrounding communities are expected to see some increases, although the most growth is expected outside the more urban communities of Presque Isle, Fort Fairfield, and Caribou.