

INDICATORS OF LIVABLE COMMUNITIES

A report on Smart Growth and the impact of land use decisions on Maine's communities, environment and countryside



A report
by the
Land and
Water
Resources
Council,
January
2002

Goal of the Land and Water Resources Council Smart Growth Action Plan:

Maintaining Maine's Competitive Advantage as One of the Most Livable Places In The United States – A Place of Growing, Vital Cities and Towns, A Revered Natural Environment, and A Productive Countryside

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smart growth – a primer

Will Maine be able to sustain its high quality of life into the future? Can we find a way to balance growth with responsible use of our natural resources? The answers to these questions are inextricably linked to the decisions we make today about land-use development: they will determine the Maine we know tomorrow.

Imagine Maine fifty years from now. You might picture a community where businesses and residences are interspersed with parks and walking paths. In the center of town there might be a thriving commercial district, where businesses prosper and workers run lunch errands on foot, walking down the street to get a haircut or mail a letter. You might also imagine thick forests, and farms where potatoes grow in long rows as they have for several generations.

Or you might picture strip malls, empty downtowns or sprawling housing developments that stretch across what was once open space. You might envision endless, tangled roadways and traffic jams.

Which vision will be realized? The reality that our grandchildren experience fifty years from now depends in large part on the individual and collective decisions we make today.

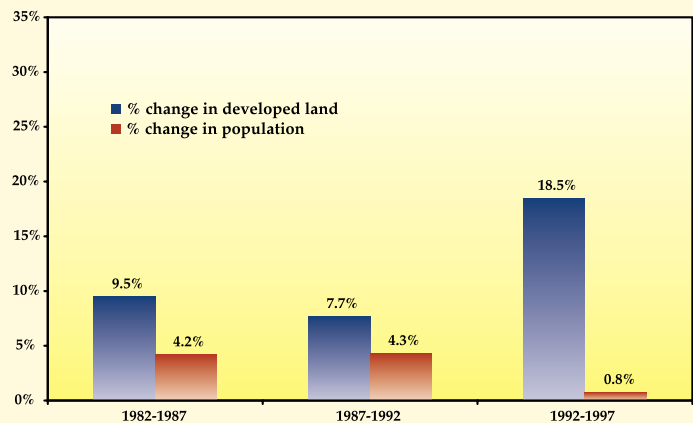
Our recent history is not encouraging. Over the past twenty years, Maine has experienced vast spreading development away from village and city centers into the farthest rural countryside. In July 2001 a report released by the Brookings Institution listed Portland as the 9th fastest growing metropolitan area in the nation. Between 1982 and 1997, the amount of farmland and forestland converted to urban uses in Portland increased by 108 percent, but the population of Maine's largest city increased only 17 percent.

The state has experienced similar trends. The State Planning Office estimates that between 1970 and 1990, land development occurred at *four* times the rate that population increased. In addition, data from the National Resources Inventory, which tracks the amount of non-federal land (95 percent of Maine is non-federal) that has been developed every five years, illustrate the same disturbing trend: declining population and increasing consumption of rural lands for residential or commercial development.

As people spread outwards, we lose what is vital about Maine's towns - and what is good for the open lands around them. And it is costing us a fortune: sprawling development compromises Maine's high quality of life, the state's primary competitive advantage.

Sprawl is difficult to define, but easily recognizable. Characterized by low-density development that is center-less and sporadic, strip malls, and traffic congestion, sprawl is a national epidemic. In just 15 years, between 1982 and 1997, the amount of urban and built-up land in the United States grew by almost 40 percent – two and a half times the rate of population growth. The costs of sprawl are registered on our fiscal health, our environment, our communities and our productive countryside. In Maine alone, sprawl costs more than \$50 million per year in duplicative services (school buses, new schools, roads), and municipalities millions more. It weakens traditional-center towns, which are threatened by a fleeing middle-class population, high tax rates, as well as isolated dependent populations like the elderly and poor. Sprawl also hurts the environment. It degrades local air quality, eats away open space and productive natural lands, and harms Maine's lakes. Sprawl compromises the habitat of many plants and animals. It strains the vitality of traditional indus-

Percentage Change in Population vs. Land Developed in Maine 1987-1997



tries that rely on natural resources. Fishers, loggers and farmers watch helplessly as the land and places they relied on for a living are swallowed by residential development.

Lately, a counter-concept to sprawl has emerged. Smart Growth focuses on, and invests in, developing in a wiser, more sustainable manner. It encourages development patterns that enhance and maximize the purpose and functions of Maine's cities, towns and countryside.

The features that distinguish Smart Growth vary from place to place, but in general Smart Growth invests time, attention and resources in restoring community spirit and vitality to older cities and suburbs. Smart Growth is town-centered, is transit and pedestrian oriented, and has a mix of housing, commercial and retail space that encourages community vitality. It preserves open spaces and the productive countryside.

Employing strategies that facilitate Smart Growth is an important part of promoting the best in Maine for future generations. This report invites us all to think about the future of Maine, and, about the impact of the decisions we make today on that future.

the purposes of this report

This report has two primary, and equally important, purposes. Both are derived from the goal of the Land and Water Resources Smart Growth Action Plan: "... to maintain Maine's competitive advantage as one of the most livable places in the United States – a place of growing, vital cities and towns, a productive countryside, and a revered natural environment."

This report's first objective is to define what Smart Growth is - how would we know it if we saw it? The 23 indicators contained in this document, when viewed together, provide a definition of Smart Growth. If each of these indicators were to achieve its stated objective, Smart Growth would be a reality. Accomplishing the goal requires positive performance by the entire suite of indicators.

The report's second purpose is to track and monitor the accomplishment of Smart Growth. It examines the impact of our land-use decisions on Maine's communities, countryside and environment using several indicators. The chosen indicators offer a baseline of information against which to judge the impacts of future development and land-use decisions.

the value of indicators

We use indicators to understand the progress we are making – or failing to make – toward a stated objective. They are essentially data that show the workings of a larger, more complex system, without trying to categorize each part of the system. Dashboard lights, for instance, or body temperature give us an idea about the workings of our cars or our bodies, but do not take the place of a mechanical checkup or a physician's visit.

In the same way, the indicators for Smart Growth allow us to make a statement about how well we are encouraging land-development patterns that stimulate vitality in our communities, support productive countrysides and natural-resource-based industries, and protect Maine's environment. They do not tell the whole story, but do condense a large amount of information into a manageable narrative.

This report is about the impact of land-use decisions on Maine's communities, environment and productive countryside. Several of the indicators are used in a similar report, the Maine Economic Growth Council's annual Measures of Growth report, which tracks economic development in Maine.

By monitoring the health of our lakes, the ability of people to travel within their communities, and the acres of productive farmland in the state, we can understand how well policies, programs and individual decisions are stimulating development decisions that sustain and restore our resources, communities and land. Using those indicators as a *baseline* of information against which to judge the impacts of future development and land-use decisions. This can allow us to understand if the decisions being made are good ones or if they need to be reassessed.

using the report

Organization

The indicators contained in the report are grouped within three areas: *Vital Cities and Towns*; *Revered Natural Environment*; and *Productive Countryside*. They were identified by the Land and Water Resources Council as the basis for Maine's competitive advantage of being one of the best places to live in the United States. The indicators selected serve the purpose of measuring goals within each of those identified areas: that Maine has *vital* cities and towns, a *revered* natural environment and a *productive* countryside.

Each indicator occupies a separate page. Each page succinctly states what Smart Growth is relative to that specific indicator, as well as provides a graph of the related data. It also has a statement about the overall significance of the indicator, the trends that the data illustrate and details about the specific indicator. Information about the data – the source and in some cases how it was derived – is also provided.

Work in Progress

It is important to recognize that this report is a **work in progress**. This first edition is designed to stimulate discussion about what Smart Growth in Maine would look like, how we can best measure achievement of the stated goal and what ways we might stimulate its development, whether through policy or private action. The report is the result of many months of conversations and research by the state's interagency Smart Growth Coordinating Committee, but is by no means a definitive statement.

Lack of Data

With the two inter-related purposes of the report in mind – to define Smart Growth and measure the achievement of Smart Growth in Maine - the interagency Smart Growth Coordinating Committee developed a list of criteria that guided the selection of indicators. The eight criteria were chosen deliberately to ensure that the indicators were relevant and representative of Smart Growth in Maine.

The fourth criteria – that indicators be '*courageous*' – is especially important, given that, in several cases, finding data for the selected indicators proved difficult.

Indeed, there is a lack of data related to Smart Growth, which is one of the problems we face in planning for the future. If we cannot measure the impacts of our land-use patterns we cannot respond effectively.

Selecting what to measure is as important as the actual measurement, especially in an exercise where the measurements define as diverse a topic as Smart Growth. By not limiting the selection process to data availability, the committee can better accomplish the purposes of this report. In several cases in the report, survey data was collected in lieu of existing data sets, which simply were not available. In other cases, a proxy was developed with the recommendation that in the future a more targeted indicator be utilized.

INDICATOR CRITERIA

1. *Easily Understandable*
2. *Relevant*
3. *Outcome-Based*
4. *Courageous*
5. *Interrelated*
6. *Technically Accurate*
7. *Long Term*
8. *Future Data Accessible*



future steps

An important future step of this report is to refine the indicators to further our understanding and improve decision-making. This report challenges the public, the academic community, and government officials to create the policies, programs and decisions about land-use that will facilitate Smart Growth. And, because measurement and understanding guide our policies and actions, part of this refinement and challenge includes determining better ways to assess the impact of our choices and actions.

We also would like to gain public feedback about the indicators and the definition of Smart Growth that has been provided in this report. Please take a moment to fill out the feedback form at the back of this report and provide us with advice on how to make future editions an even better report card on Smart Growth in Maine.

genesis of report

In the summer of 1999, Governor King formed a sub-cabinet and working group from the Land and Water Resources Council to consider how state government can support Smart Growth for Maine. Governor King challenged the working group to devise an action plan that would assure a strong rate of return on public investment, a renewed commitment to environmental stewardship and increased efforts to strengthen and build the state's communities. Four principles were presented to the working group to guide the strategic planning process:

- *That individuals be free to choose where to live*
- *That individuals bear the costs of their decisions*
- *That healthy places do not die – supporting the vitality of Maine's service-center communities and natural resource based economies will help sustain their existence.*
- *That developers can be allies and partners in implementing public policy, when given the right signals and avenues for choice.*

The governor suggested that the cabinet members review their agency's policies, laws, regulations and operations and investment-decision making processes searching for any that may unintentionally erode the vitality of Maine's communities, rural enterprises and working waterfronts, as well as the health of Maine's natural environment.

The working group developed a Three-Year Smart Growth Action Plan. The goal of the plan is to "...maintain Maine's competitive advantage as one of the most livable places in the United States — a place of growing vital cities and towns, a productive countryside, and a revered natural environment" The group established measurable objectives and provided recommendations for achieving these goals. The concluding recommendation was the development of a biennial "report card" on progress made towards the measurable objectives within the state that will track how well the state is faring in achieving the stated goal.

An interagency Smart Growth Coordinating Committee was established in January 2001 to facilitate achievement of the goals set forth in the three year Smart Growth Action Plan, consisting of representatives from over 15 state agencies (see next page). The report was developed at monthly meetings held between March and November of 2001. The Smart Growth Coordinating Committee contracted with the Maine Development Foundation to develop and publish the Smart Growth Report Card. Darcy Rollins, program officer, served as primary staff from the Maine Development Foundation, providing data collection, and analysis and writing the body of the report. The assistance of individuals at various state agencies was invaluable to this effort, particularly in regard to data collection.

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1. local land use planning

Significance

Community-based comprehensive planning is the foundation for Smart Growth. Good planning facilitates efficient and appropriate use of land in a manner that enhances the vitality of towns and countryside, and protects the environment.

Trends

As of December 31, 2001, 193 of Maine's 457 organized non-LURC (*Land Use Regulation Commission*) municipalities had adopted consistent comprehensive plans, according to the Maine State Planning

Office. There are currently dozens of municipalities actively working on new Comprehensive Plans. We would like to see an increase in the number of municipalities enacting comprehensive plans consistent with the state's Comprehensive Planning and Land Use Regulation Act.

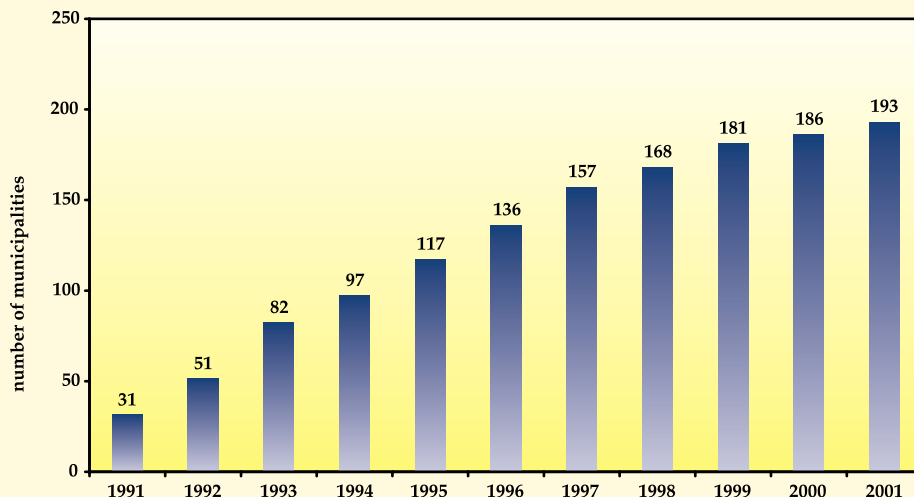
Details and Data

Comprehensive planning refers to the process whereby a community develops a plan to guide development and land-use into the future. In 1989, in an effort to control sprawl, Maine developed a Growth Management Program that provided guidance and incentive for towns to develop comprehensive plans. The Comprehensive Planning and Land Use Regulation Act mandated that towns develop plans consistent with a set of ten goals, principles and guidelines developed by the state. The first goal is "to encourage orderly growth and development and prevent sprawl" which is then followed by, among others, goals related to water quality, forest and agricultural lands, as well as transportation and housing.

Comprehensive plans at the municipal level can encourage orderly growth and prevent sprawl *within* a municipality, but they do not address all the problems associated with regional sprawl. Many components of smart growth, such as transportation planning or watershed management, can be addressed only at a regional or state level.

Comprehensive plans do not in themselves create Smart Growth of course. But given that they are exercises in democracy, they encourage citizens to carefully consider how they want their towns to grow. When coupled with effective and committed long-term leadership, then, comprehensive plans are an effective blueprint for Smart Growth.

Maine Municipalities with Comprehensive Plans Consistent with the Comprehensive Planning and Land Use Regulation Act, 1991-2001



Maine State Planning Office, November 2001



2. population clusters

Significance

In 1996 the Maine State Planning Office identified 69 service-center communities in Maine. While they vary in size and appearance, they share three attributes: they are job centers; they are retail centers; and they offer an array of social, cultural, health, and financial services to the surrounding region. Service-center communities are equipped with the social and physical infrastructure to support growth.

Trend

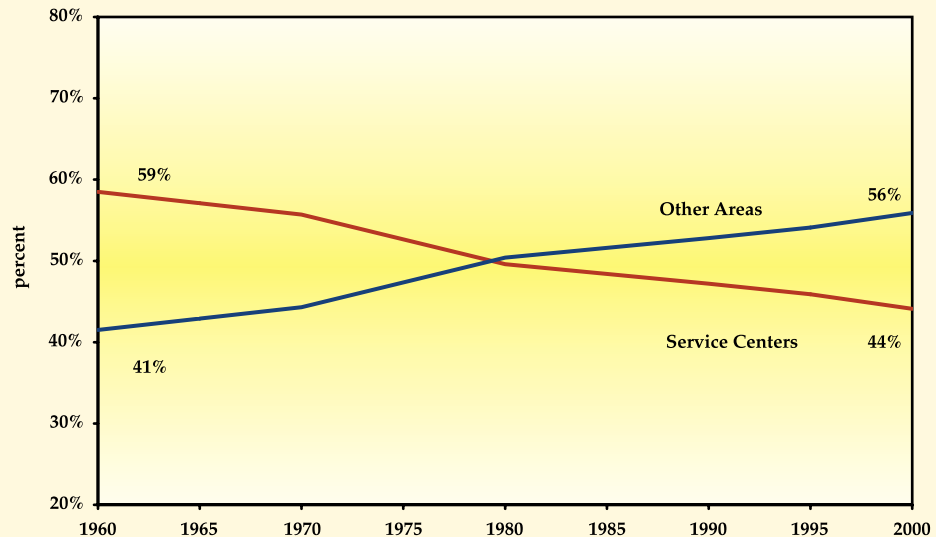
Maine's population is slowly, but steadily, leaving service-center communities for other places. In 2000, 44 percent of people in Maine lived in Maine's 69 service-centers as opposed to 58 percent in 1960. We would like to see the percentage of Maine people living in service-center communities increase relative to other areas.

Details and Data

The Maine State Planning Office identified specific service-center communities according to the following criteria: level of retail sales; jobs to workers ratio; amount of federally assisted housing; and volume of service-center jobs. By these criteria, 69 regional service-center communities – primary, secondary and small - are identified. Further, 26 specialized service-center communities that historically served as service-centers were identified. (The methodology and the list of service-center communities can be found in Appendix A of this report.)

People choose to live outside of service-center communities for multiple reasons. Increased privacy, more living space and proximity to nature are a few of the perceived or legitimate benefits of living in such outside or rural areas. While the individual decision to move to rural areas is not in itself harmful, the accumulation of those decisions results in increased costs. In 1997, the Maine State Planning Office released a report called *The Cost of Sprawl* that outlined the costs sprawl inflicts on taxpayers, and the environment, as well as to community character. These include increased air, land, and water pollution; increased costs associated with redundant infrastructure; loss of productive farmland and timberland; and even the loss of quality time with family and friends.

Percent of Maine's Population Living in Regional Service Centers (Compared to Other Municipalities), 1960-2000



Maine State Planning Office, 2001



3. new home location

Significance

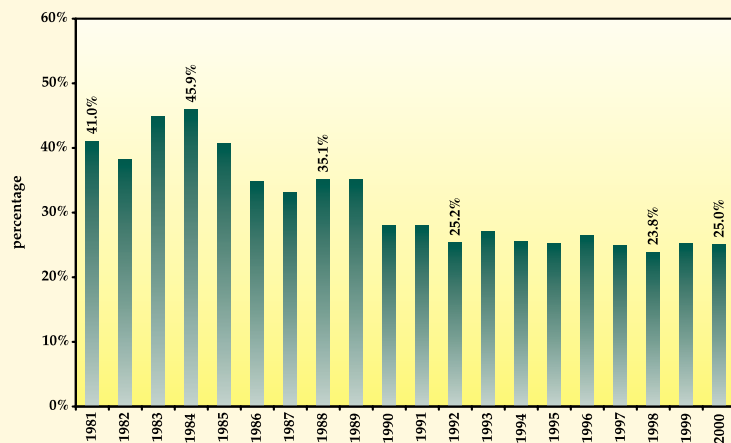
Encouraging people to build their homes in areas designated for growth is an important component of Smart Growth because it decreases development in rural areas. New roads and services must be added when homes are constructed in rural areas, compromising the vitality and health of Maine's environment and productive countryside.

Trends

Since 1984, the percentage of new homes and residence buildings constructed (as reported by municipalities) in Maine's 69 service-center communities has declined or remained stagnant. In 1984, almost 46 percent of new residences were constructed in these communities. During the past three

years 25 percent or less of new home construction has been in service-center communities. We would like to see an increase in the percentage new homes built in Maine's service-center communities.

Percentage of All New Homes Built in Maine That Are Constructed in Service Center Communities, 1981-2000



Maine State Housing Authority Database, 1981-2000

Details and Data

Tracking the number of homes constructed in service-center communities serves as a proxy for a measurable objective of Smart Growth identified by the Land and Water Resources Council. The Council's objective is that: *"The number of new homes in locally designated growth areas as identified in the comprehensive plans will account for 65 percent of all new homes in the state."* A locally designated growth area is established by a community's comprehensive plan, and serves as the area where new development in the community is targeted.

Service-center communities can encompass locally designated growth areas, but the regions are not identical. Designated growth areas are also found in non-service-center communities and parts of designated service-center communities are not contained within a designated growth area. Ideally, new homes would be constructed in Maine's service-center community's designated growth areas, but construction in service-center communities and in designated growth areas in other communities is also part of Smart Growth.

Data about home construction in locally designated growth areas will eventually be mapped digitally through a statewide Geographic Information System but is currently not available. In the future, that information will provide a map of where new development actually occurs in a community, which will serve as a powerful monitoring and planning tool.

The affordability of housing in Maine plays a large role in the extent to which people build or settle in service center communities and growth areas. The Committee recommends that future editions of this report track the affordability of houses in Maine's service center communities as an indicator of livability, once such an index becomes available.



4. walk-ability

Significance

Many people no longer have the option of walking in their communities, because the physical layout of their towns and cities makes it difficult to walk to shops and services. Smart Growth makes it possible and enjoyable for people to walk to local shops and services - the local post office, their school or to get an ice-cream cone - by incorporating pedestrian access into community design.

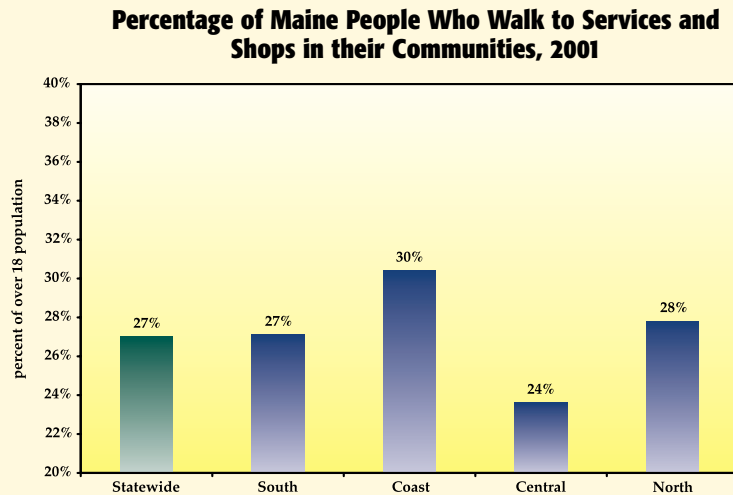
Trends

In 2001, 27 percent of all Maine people reported they had walked to services or shops in their communities. We would like to see the number of people reporting that they had walked to shops and services in their community increase.

Details and Data

Walking is beneficial to people's health, to community vitality, and for the environment. It improves community interaction. People are more likely to talk with neighbors and shop in local stores when they are walking through a community. It also provides easy, inexpensive and low-impact exercise that can improve overall health. Walking instead of driving also protects environmental quality. Vehicular emissions are a primary source of air pollution, which affects plants, watersheds, and the health of wildlife and people alike.

This year, Maine citizens were surveyed about the extent to which they walk within their communities to services and shops. The survey question was: "In the past year, how often have you walked from your home to services or shops (for example a post office, general store or school)?" The graph represents the total number of people responding that they walk to services and shops "always", "often" or "about half the time".



Maine Development Foundation
Annual Survey of Maine Citizens, 2001



5. outdoor recreational access

Significance

Many people feel that access to outdoor recreational sites in or near their communities is important to a high quality of life. Smart Growth incorporates outdoor recreation sites into community design, providing easily accessible opportunities for activities such as softball games, picnics, and boating, as well as just bird watching or walking through a peaceful, natural place.

Trends

In 2001, the only year for which those data have been collected, 46.6 percent of Maine people reported that they had local outdoor recreational opportunities – places they could walk or bike to. We would like to see an increase in the percentage of Maine people who report being able to walk or bike to an outdoor recreational activity in their community.

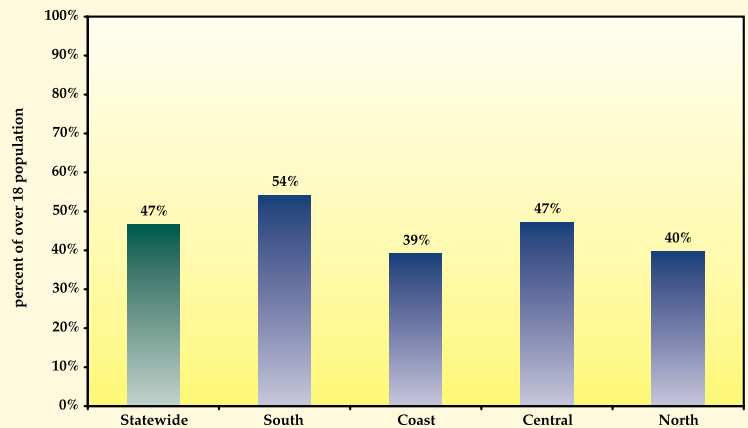
Details and Data

Parks and recreation areas serve to make a community a more enjoyable place to live and can even attract residents. Providing access to the outdoors within a community can help people living in more developed areas feel close to nature without building a home in undeveloped areas.

Maine's hiking, skiing, biking, snowmobiling and all-terrain vehicles trails are important outdoor recreational opportunities that cross community boundaries. These trails are utilized by hundreds of people each year and, provide both leisure activities and economic benefits for communities. Walking and bike trails improve the vitality of the community in which they are located. Furthermore, outdoor recreational sites can provide a place for passive recreation opportunities, such as bird watching, strolling or meditation.

In 2001 the Maine Development Foundation surveyed Maine citizens about the extent to which they could walk or bike to an outdoor recreation site. The following question was asked: "In the last year, did you walk or bike to an outdoor recreational site (such as a park, ball field, golf course or boat launch?" The graph represents the number of people responding "yes".

Percentage of Maine People Who Walk or Ride Bicycles to Local Outdoor Recreation Activities, Maine 2001



Maine Development Foundation
Survey of Maine Citizens, 2001



6. downtown vitality

Significance

Smart Growth revitalizes downtown business districts, and supports their traditional roles as service and retail centers of a community and region. Healthy downtown business districts are important to Smart Growth because they stimulate community vitality, and draw residents and businesses into communities.

Trends

The percentage of Maine people who reported choosing to purchase basic household goods in their downtown or local villages was 62.2 percent in 2001. We would like to see the percentage of people who choose to purchase basic goods and services in their local downtowns increase.

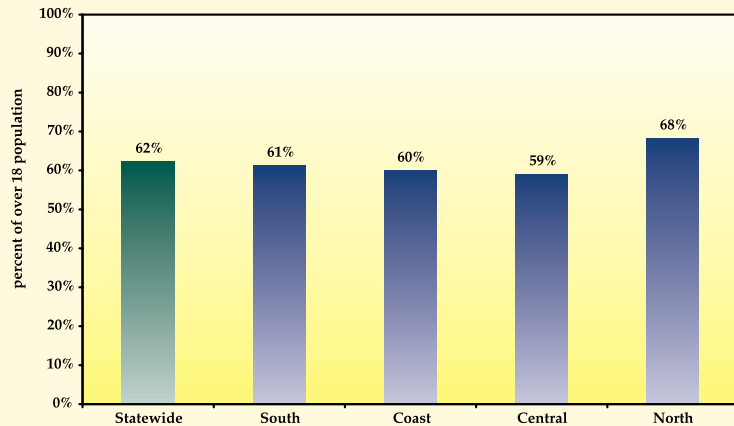
Details and Data

“Downtown” generally refers to the central business district of a community that serves as the center for business interaction and is characterized by a cohesive core of commercial, mixed-use buildings and higher density, compact living arrangements. Businesses in a downtown are typically arranged along a main street, which makes downtowns walkable. Vital downtowns can attract development within established communities rather than in undeveloped areas.

In the past it was possible to buy local household goods and services within many of Maine’s local downtown areas. Today many Maine businesses have left those areas because of a desire for large, adjacent parking lots and because they have followed commercial anchors – big box retail stores – to undeveloped areas. In addition, archaic building codes in downtown areas often discourage downtown re-development. Thus, many of Maine’s downtown areas are in decline.

This year, Maine citizens were surveyed for the first time about the extent to which they were able to purchase common household goods in their downtowns. The survey question asked was: “In the last year, when you have purchased basic household goods, such as socks, milk and toothpaste, how often did you purchase these items in a downtown area or village?” The graph represents the number of people responding “about half the time”, “often” or “always”.

Percentage of Maine People Purchasing Basic Household Goods in Downtown Areas or Village Centers, 2001



Maine Development Foundation
Annual Survey of Maine Citizens, 2001



7. economic vitality

Significance

An economically vital community is one where jobs are increasing, businesses are investing in expansion, and retail sales are flourishing. Smart Growth means promoting Maine's service-center communities as the state's primary business and economic centers in order to retain and draw development to these areas, and to relieve the pressure of development on major roadways and rural places.

Trends

The percent change in taxable sales made in Maine's primary service-center communities has fluctuated widely. We would like to see a stable increase in taxable sales in the primary service-center communities, ideally at a faster rate than in the rest of the state as a whole.

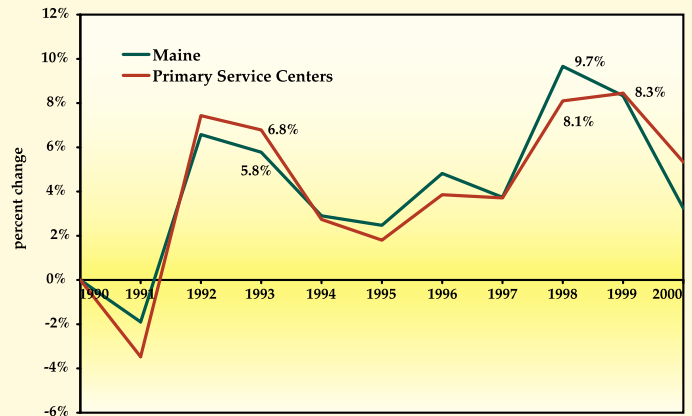
Details and Data

Promoting economic vitality in service-center communities strengthens them and makes them more attractive to potential residents and businesses. And, these communities are already equipped with the services and infrastructure that businesses need to thrive. Because of this, it is still possible to positively state that economic vitality in service-center communities is preferable to other areas. The report tracks only the percentage of change in taxes in Maine's 29 primary service-center communities as a proxy, with the understanding that a high level of economic vitality is desired in all 69 identified service-center communities.

It is important to note that the change in sales tax revenue represented in the figure above does not delineate between sales in traditional downtown business districts and what is considered by many to be a hallmark of sprawl – the strip mall. For example, total taxable sales in the service-center community of Brunswick encompasses not only those sales generated on Maine Street, but also sales tax from businesses located in outlying areas. Ideally, future reports will be able to delineate between the two.

Economic vitality can also be stimulated by a community's physical composition, specifically its ability to support multiple uses within its downtown business district and even within individual commercial buildings. Towns and cities that effectively mix business, retail, commercial, and residential space can stimulate positive economic development. The effective use of space can bring people, businesses, and employment together in one productive place.

Percent Change in Total Taxable Sales, Primary Service Center Communities Compared to All of Maine, 1990-2000



Maine State Revenue Service, May 2001



8. reliable infrastructure

Significance

A healthy infrastructure provides the foundation for sound development and stable growth. Smart Growth invests in and improves the physical infrastructure—water systems, electricity, roads and other physical systems - of Maine's service-center communities and designated growth areas in other communities so that they will be able to support growth into the future. As a proxy, this report is measuring the health of Maine's public drinking water systems, which are a critical infrastructure system that people rely on daily.

Trends

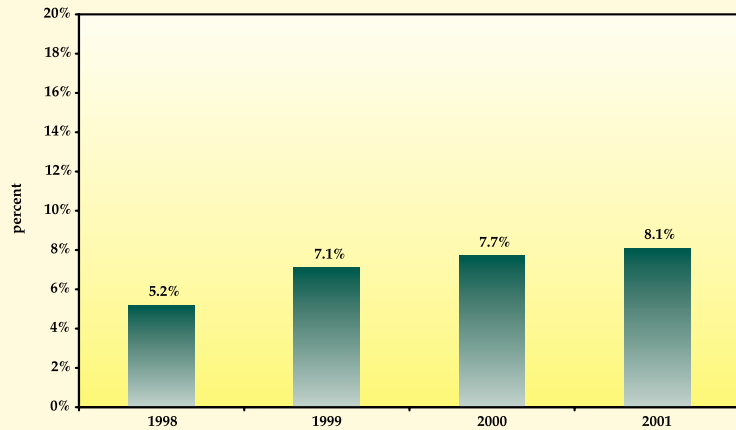
In 2001, 8.1 percent of public water systems had experienced non-acute bacterial contamination. This percentage has slowly but steadily increased since 1998 when only 5.2 percent of public water systems experienced contamination. We would like to see a decline in the percent of public water systems experiencing non-acute bacterial contamination.

Details and Data

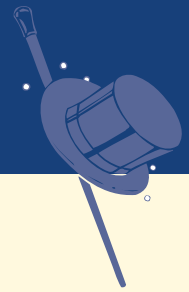
More than 75 percent of Maine households get their drinking water from Maine's 2,139 public water systems. Reducing the percentage of Maine's public water systems contaminated by bacteria would indicate an improvement in the infrastructure supporting Maine's communities. This is because bacterial contamination of public water supplies may occur throughout a system as the result of a break on a water main or a problem with the water distribution system itself. Common bacteria contamination can occur when piping becomes pitted through age or through cross-connections with non-potable water sources. Bacterial contamination is also related to inadequate source water protection or well contamination.

Bacterial contamination of public water systems is either acute, or non-acute. Acute bacterial contamination means that the presence of *E. coli* bacteria has been confirmed in the water supply. Non-acute bacterial contamination means that a coliform bacterium is present in the water supply, but does not contain *E. coli* bacteria. The presence of *E. coli* is considered acute contamination because of the potential health hazards of the bacteria. Disinfection by chlorine eradicates the bacteria from the system.

Percent of Maine Public Water Systems Experiencing Non-Acute Bacterial Contamination, 1998-2001



Maine Drinking Water Program
Department of Human Services, August 2001



9. cultural assets

Significance

Smart Growth is promoted when people choose to live in service-center communities; many people report that access to cultural events and entertainment opportunities makes a place more attractive. Determining what makes a community a desirable place to live, and developing these items in service-center communities encourages development in those areas, removing development pressure from Maine's countryside and environment.

Trends

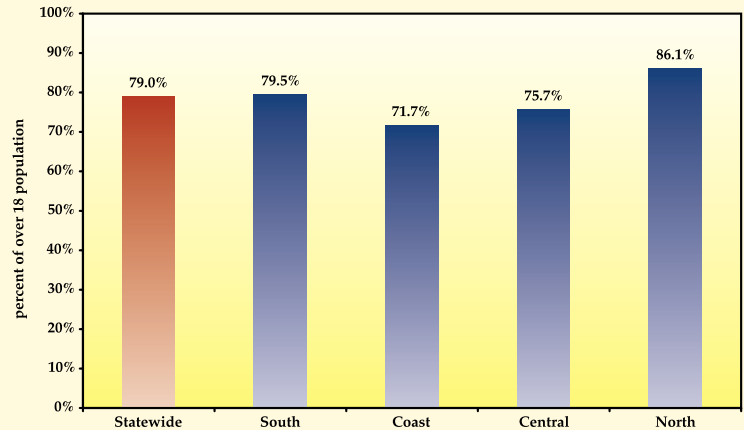
2001 was the first year that Maine citizens were surveyed about the extent to which cultural access is important in their decision of where to live: 79 percent of Maine residents responded that it would be important to them that the town they moved to have cultural and entertainment opportunities. We would like to see an increase in the number of people responding that access to cultural events and entertainment was an important or very important part of their decisions about where to live.

Details and Data

People moving into the country generally have a negative view of the places they left behind. Noise, lack of privacy, and living too far away from nature are common complaints. Listening to, and then responding to these complaints as much as is possible, is important to achieving Smart Growth. People report that access to cultural events, lower taxes, affordable housing and nicer neighborhoods could prompt consideration of moving back into towns and cities.

People surveyed were asked, "If you were to move tomorrow, how important would it be for the town you move to, to have cultural events and entertainment opportunities locally?" The graph reflects the percent of Maine people responding "very important" and "somewhat important."

Percent of Maine People Who Report That Local Cultural Opportunities Are Important in Choosing Where to Live, 2001



Maine Development Foundation
Annual Survey of Maine Citizens, 2001



10. highway congestion

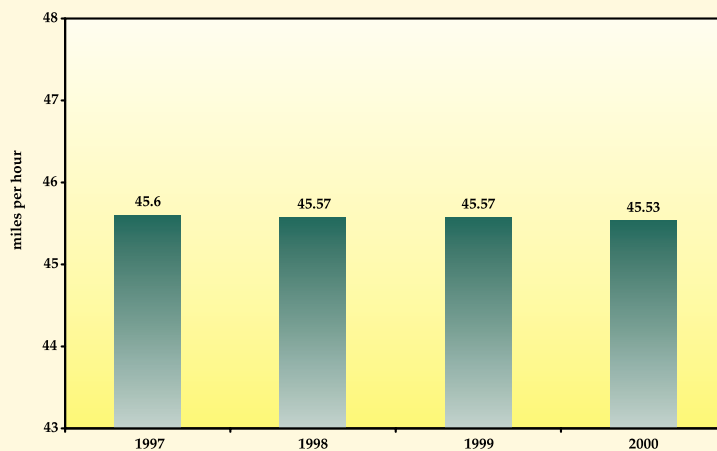
Significance

Maine communities are developing outward along Maine's arterials, rather than using these roads for their intended purpose, which is to provide a high degree of mobility for relatively long road trips. Development along these roads increases the number of access points, slowing traffic and creating hazardous driving conditions. Smart Growth encourages development that facilitates efficient transport along roadways.

Trends

In 1998 almost 15 percent of Maine's arterial roadways were posted at 45 mph or less, with approximately three miles of rural arterials converted to urban designation. From 1997 to 2000, the average posted speed on arterial roads has decreased slightly – from 45.6 miles per hour to 45.53 miles per hour. We would like to see the average posted speed on arterial roadways be maintained or increased.

Average Speed Posted on Arterial Highways, Maine 1997-2000



Maine Department of Transportation, Bureau of Planning, Research and Community Services, 2001

Details and Data

Development along arterial roadways creates more access points, increasing the danger of driving at high speeds and resulting in decreased posted speed limits. The resulting highway congestion and noise from traffic compromises commercial productivity and efficiency, and is a source of stress and frustration for commuters and businesses alike. Increased congestion also results in increased vehicular emissions, which harms the environment. Mobile sources, or cars and trucks, are a primary source of pollutants that negatively affect air and water quality.

Furthermore, as the purpose of these arterials is undermined, roads have to be widened or new roads created to facilitate mobility. This added expense costs taxpayers money and perpetuates a cycle of construction, development and more construction to by-pass even more clogged arteries.



11. freight transport

Significance

Smart Growth provides options for transporting freight, including trucks, trains, ships and airplanes. Increasing the amount of freight shipped by rail, ship and air proportionally faster than freight shipped by truck can reduce highway congestion, and can also decrease expenditures for new road construction.

Trends

In 2000, the percent of freight shipped by alternative modes was 10 percent. The percent of freight that is shipped using alternative modes has remained below 20 percent of the total freight transported since 1991, the first year data are available on the subject. We would like to see an increase in the percentage of freight shipped by alternative modes such as rail, ship and airplane, relative to that shipped by truck.

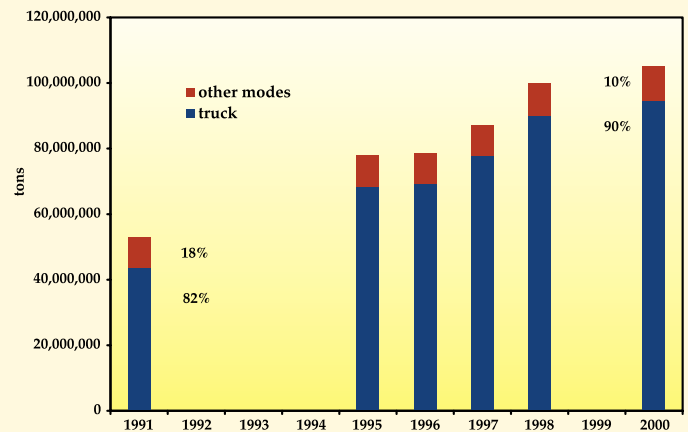
Details and Data

Traditionally, Maine has relied on trucks to ship freight throughout the state and beyond. Reducing reliance on trucks and increasing the use more fuel-efficient modes of transport can positively impact the health of Maine's environment. In addition, improving the balance among transport modes will result in increased modal choice.

The use of rail and ships to transport freight can reduce the amount of stress trucks place on the state's major highways and bridges. More heavy truck traffic on Maine's highways and bridges increases the rate of pavement consumption and bridge stress, which translates into more bridge and highway funding needs. It also increases traffic congestion on major highway corridors, and degrades the safety of these corridors. Trucks also compete for space with passenger cars on Maine's highways, stimulating the widening and expansion of the highway system.

It is important to note that increasing the use of air, water and rail as modes of freight transport demands that those modes transportation be efficient, accessible and flexible. Ideally, service-center communities would serve as nodes where alternative modes of freight transport intersect, facilitating the effective and efficient transport of goods and movement from one mode to another.

Manufacturing Freight Shipped by Truck & Alternative Modes, Maine 1991-2000



Maine Department of Transportation
Maine Integrated Freight Plan, 1998 – 2001



12. passenger travel

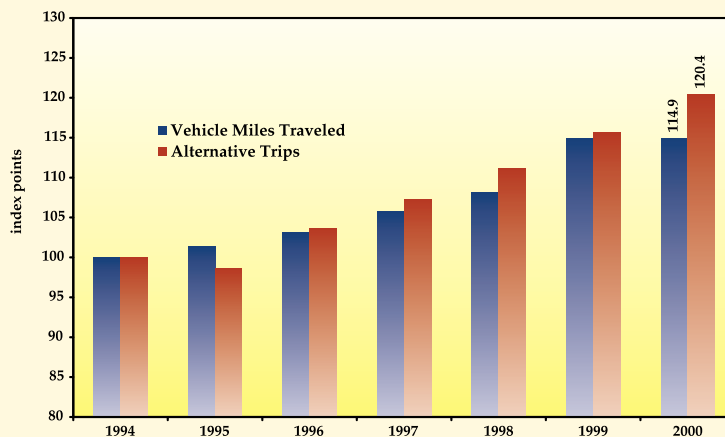
Significance

Smart Growth provides people with options for travel that are integrated and consistent with land-use objectives. Smart Growth allows people to ride a bus, rail system or ferry to errands, events and work, which helps to improve overall environmental quality, and to increase the vitality of Maine's cities and towns.

Trends

In 2000, the number of trips made using alternative modes increased by 4.0 percent while the total vehicle miles traveled actually declined by .03 percent. We would like the trend to continue, and for the number of alternative trips increase relative to personal and low-occupancy vehicle travel.

**Vehicle Miles Traveled and Alternative Mode Trips
(indexed from 1994), Maine 1994-2000**



Maine Department of Transportation's 1997 Strategic Plan
Strategic Passenger Transportation Plan

Details and Data

Because sprawl increases the distance that must be traveled between residences, services and schools, cars become essential. Increased use of automobiles increases the vehicle miles traveled, increases ozone, reduces environmental quality and affects the quality of people's lives while increasing the number of cars on the roads. More cars on the road create congestion and frustrating traffic delays. Use of alternative modes of transport can alleviate these problems. (Although not represented in the graph above, alternative modes of passenger transport also include non-vehicular types – such as bikes and walking.)

Increasing the use of alternative modes of transport by the public requires that they exist and are easily accessible. The patterns of land-use have evolved to favor just one mode of transportation, usually the car. Smart Growth creates transit-oriented development and creates "modal shift" centers, places where travelers and goods arrive by one of several possible transit modes and can switch to another of several possible modes that best meet their needs. These modes might include buses, rail, park and ride lots and bike paths. Residences and services can be grouped around these transport centers, further increasing their functionality as "one stop" centers. Such centers reduce driving distances and support the businesses and transport systems they contain.

Offering alternative modes of transport is not a panacea, and should be balanced with public needs and within dense areas. Creating new bus lines and ferry options for areas without the demand for these services can actually contribute to sprawl by subsidizing transport to new areas. There needs to be a direct relationship between density and transportation – ensuring that these services are self-supporting, and serving the needs of a wide number of people.



13. air quality

Significance

Smart Growth can enhance air quality, an important component of Maine's high quality of life. While Maine's geographic location affects the state's air quality, our air is also affected by local factors, such as the use of vehicles that emit harmful pollutants. By planning communities in a manner that relies less on automobiles and supports the use of clean modes of transport, Smart Growth promotes healthier local air quality, which can assist in achieving better air quality for the entire state.

Trends

Maine's air quality is heavily affected by the fact that it is downwind of both major energy production plants in the Midwest, as well as from the urban transportation corridors of Boston, New York City, and even Washington D.C.. Unfortunately, land-use and planning decisions within Maine cannot affect the amount and type of pollutants emitted from those sources, and most air quality data measure the effect of these sources rather than local emissions. Data on the amount of local emissions and their contribution to poor air quality in those areas and the state are not available at this time. Thus, we can discuss no trends. We do, however, recommend that the amount of 1,3 Butadiene present be used as a proxy for the quality of Maine's air.

Details and Data

The Bureau of Air Quality has begun to measuring the presence of 1,3 Butadiene, a chemical released when gas is burned. Because it is highly reactive and quickly evaporates, the amount present in any given area can provide information about local automobile emissions, one of the elements that Smart Growth seeks to control.

Air quality is important for the health of the environment, animals and humans. Specifically, 1,3 Butadiene can cause central nervous system damage, blurred vision, headaches, as well as eye and throat irritation. It is also a known carcinogen.

By planning communities in a manner that reduces the distance that is driven between residences and goods, services and work and facilitates cleaner types of transport, Smart Growth reduces use of automobiles. The built environment can encourage the use of alternative modes of transport and reduce the use of automobiles, the primary source for emissions that compromise air quality. By creating a built environment that promotes walking, biking and the use of buses, emissions of pollutants such as 1,3 Butadiene are reduced and local air quality is improved.



14. lake quality

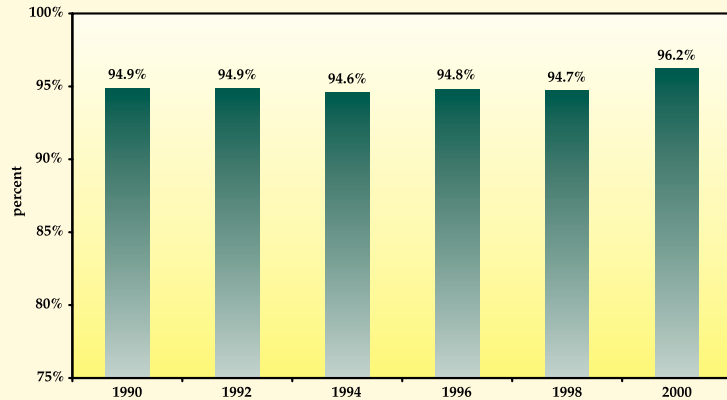
Significance

Maine's lakes are important ecological zones, recreational sites, and, for sixty Maine communities, the source of community drinking water. Development increases the amount of pollution entering a lake, increasing the filtration and treatment costs for those lakes that provide drinking water and compromising their natural as well as recreational value.

Trends

Of Maine's 5788 lakes, 2,314 are deemed significant by Maine's Department of Environmental Protection. These lakes make up 97 percent of the state's total lake area and amount to 959,193 acres. Of the significant lakes, 96.2 percent of the acreage of significant lakes were considered fully suitable for swimming. This is an increase from 1998 when 94.7 percent of Maine's significant lake area was deemed suitable for swimming. We would like to see the percentage of Maine's lakes that are suitable for swimming remain very high.

Percent of Maine Lakes Deemed Suitable for Swimming, Maine 1990-2000



Maine Department of Environmental Protection
State of Maine Water Quality Assessment, 2000

Details and Data

Development increases the amount of nonpoint source pollution in Maine's lakes. Nonpoint pollution is so-named because it occurs anywhere in a watershed, as opposed to a single discharge point. A watershed is the land area in which water is collected. Water flows by gravity downhill, first forming small streams that flow into larger streams into lakes, rivers and eventually the ocean. Every time it rains, the rainwater washes off unnatural surfaces, often called impervious surfaces, carrying with it contaminants to Maine's waters. The amount of impervious surface and pollutants increases as new homes and parking lots are built in watersheds, which ultimately deposits more pollution in Maine's waters and lakes.

Increased pollution has multiple consequences on lake water, including compromising its quality as drinking water. Pollutants stimulate algal blooms, increase water temperature and decrease the visibility in lakes.

Tracking the consequences of increased development and pollution loads in lakes relative to increased development within a lake's watershed could provide a better indicator of the health of Maine's lakes relative to the impact of sprawl. Unfortunately, this combination of data is not currently available for analysis. In the future, this report recommends establishing a baseline suite of lakes in Maine to monitor the water quality of lakes against increased development within their watersheds.



15. groundwater quality

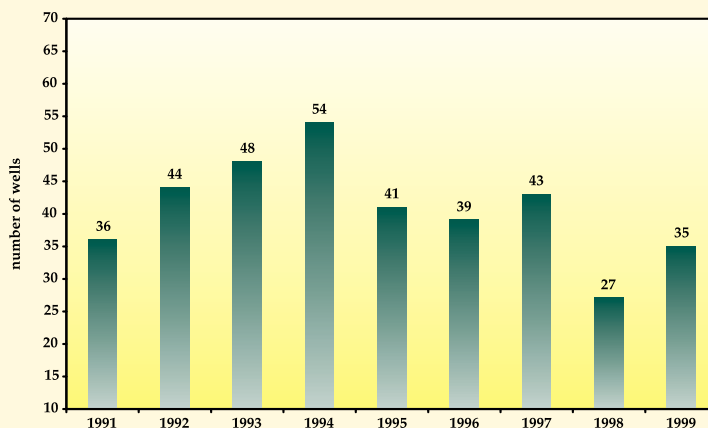
Significance

Groundwater is Maine's primary source of drinking water and protecting its quality is critically important to the health of Maine citizens. Smart Growth builds communities in a manner that helps protect groundwater from pollution by planning development that does not degrade groundwater resources.

Trends

In 1994, 54 public and private wells were replaced due to petroleum contamination of their water source. Since that peak, the number has declined somewhat, with only 35 public and/or private wells replaced due to contamination in 1999. We would like to see the number of wells replaced due to petroleum contamination continue to decrease.

Public and Private Wells in Maine Replaced Due To Petroleum Contamination, 1991-1999



Maine Department of Environmental Protection
Bureau of Remediation and Waste Management, May 2001

Details and Data

Groundwater is water contained within open spaces that exist between soil, sand and gravel and within rock fractures. The water comes from rain or melting snow that seeps through the ground and is stored in geologic structures called aquifers. Groundwater moves slowly downhill and ultimately discharges into a surface water body.

More than 60 percent of Maine households get their drinking water from groundwater supplied by private or public wells or springs that rely on natural aquifers—and sometimes that water is polluted. In most cases, the pollution is a result of contaminated snowmelt or rain entering the aquifers, which is called nonpoint-source pollution. But development is at fault as well: petroleum leaks from gas stations and houses also contaminate groundwater, and that risk increases when development occurs on or near Maine's primary aquifers.

It is quite difficult to develop a proxy for groundwater quality, because it is subject to so many forces, but, while narrow, petroleum contamination does indicate pollution levels. We do, however, recommend that further research and data collection be performed on the impact of development on our critical aquifers.



16. river quality

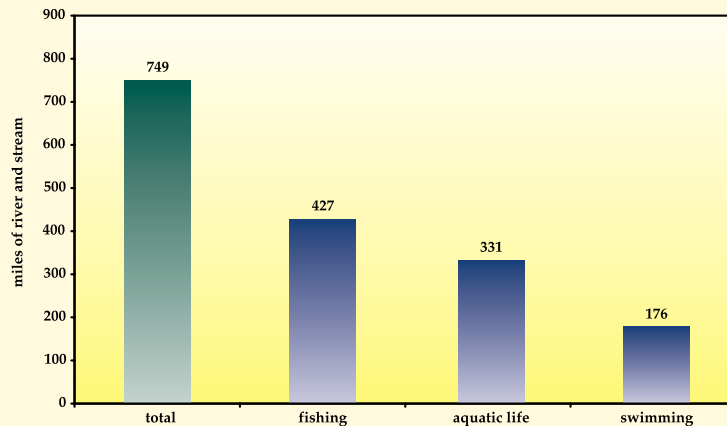
Significance

Maine's rivers are diverse ecological zones, important to the state's history and economy. They serve as transportation arteries, public water supplies, and recreational areas. Smart Growth protects the quality of Maine's rivers, allowing them to successfully support fishing, aquatic life, and swimming.

Trends

In 2000, 749 miles of the estimated 31,752 total miles of rivers, streams and brooks in Maine were estimated to not fully support one or more of their designated uses – which include fishing, aquatic life and swimming. Of those, 427 miles of river did not support fishing, 331 miles were unfit to support aquatic life, and 176 miles could not support swimming, and several rivers were unable to support more than one type of use.

Miles of Rivers and Streams in Maine Not Supporting Designated Uses, Maine 2000



Maine Department of Environmental Protection
Bureau of Land and Water Quality, June 2001

Although we have only one year of data for this indicator (because of difficulty in comparing information collected in 2000 with previous data sets) we would like to see a decrease in the number of miles of Maine's rivers not supporting one or more of their designated uses.

Details and Data

Historically the primary contaminant of Maine's rivers has been point source pollution that comes from identifiable, concentrated sources such as sewer overflows or dioxins discharged from paper mills. Detection and removal of these waste sources has greatly improved the quality of Maine's rivers in recent years.

However, Maine's rivers are still at risk and threatened by nonpoint source pollution that accompanies development. As it does to groundwater and lake water, runoff carrying pollutants can compromise river water quality. Increased development also decreases the forest cover around streams, which increases water temperatures by allowing more sunlight in the area. That harms the quality and ability of a stream to support aquatic life.

The graph reflects the miles of river in Maine that are not in attainment of all the uses and with the water quality standards in sections 305(b) of the Federal Water Pollution Control Act. (The 305(b) report is issued bi-annually and provides details about the water quality of Maine's rivers, streams, lakes, ponds, drinking water and estuarine areas.)



17. estuarine quality

Significance

Maine's estuarine areas are important ecological zones that support a vast array of species and are an important resource for the commercial fishing industry. Closing shellfish beds and ocean waters can be a consequence of many things, but development around or near sensitive marine areas is one factor that accounts for such closures. Smart Growth allows development in a manner that does not impact the health of these areas.

Trends

As of June 2001, 156,758 acres of flats and waters were closed to shellfish harvesting, a slight decrease from October 2000, when 166,555 acres of flats and waters were closed. We would like to see the acres of flats and waters closed to shellfish harvesting continue to decline.

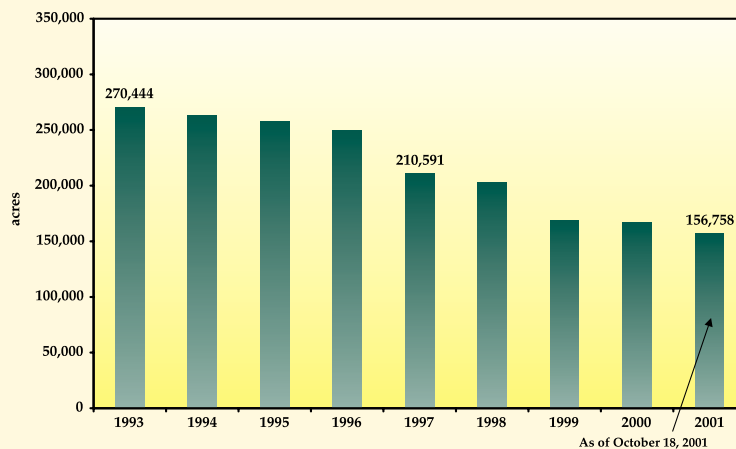
Details and Data

Monitoring the area of shellfish beds and clam flats closed to harvesting is important because it provides an indicator of overall marine and estuarine water quality. This is important to the commercial fishing industry, as well as to the myriad species that these ecological zones support. Further, although not included in this data set, marine and estuarine water quality is important to the health and proliferations of fish stocks in Maine generally.

A primary factor for a closing is direct discharge of sewage from boats and residences, which has largely been controlled. It is thus increasingly important to monitor flats and waters closings relative to development pressures. An increase in the number of flats and waters closed to shellfish harvesting would signal that development near these areas is having a detrimental effect on their quality.

For Smart Growth, the question of *how* to build or develop is as important as *where* to build. The design of what is built is a central theme of Smart Growth. The design, structure and efficiency of a structure can impact the environment and influence personal choice of where to live. Extending sewer lines to remove previous direct sewer discharges is occurring already and is one example of how to build to support Smart Growth. Building new sewers in more compact development areas is an example that marries consideration of where to build with how. Yet another example of choices on how to build is constructing affordable and attractive housing that supports and draws growth into service-center communities.

Acres of Clam Flats and Ocean Waters Closed to Shellfish Harvesting, Maine 1993-2001



Maine Department of Marine Resources, June 2001



18. lands conserved

Significance

A primary component of Maine's competitive advantage is its beautiful and unique natural places. Conserving those lands will ensure that Maine's natural beauty remains in perpetuity despite encroaching development. Smart Growth preserves open space, scenic vistas, wildlife habitat and environmentally sensitive areas. It recognizes their inherent value, and guides development with the preservation of important landscapes in mind.

Trends

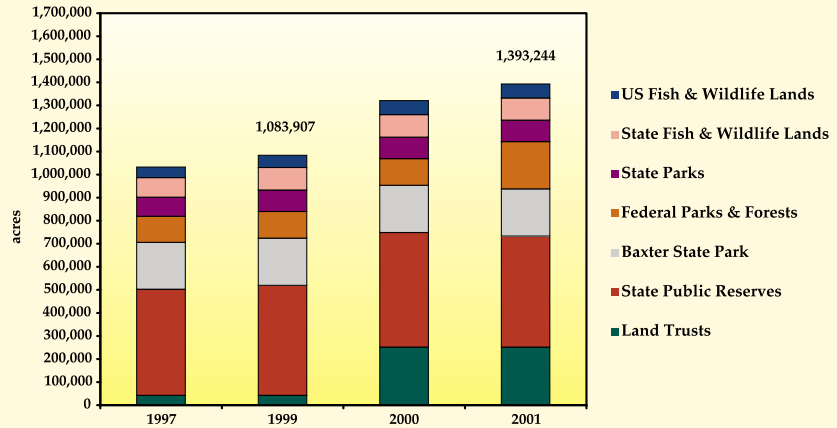
In 2001, over one million acres of land were conserved and over 800,000 acres of land had been protected through conservation easements held by local land trusts or state entities, including nonprofit organizations. We would like to see an increase in the amount of important natural land conserved in Maine.

Details and Data

Maine has an abundance of beautiful natural spaces, but many are threatened by housing development and private road construction. Those places are being protected from such pressures in several ways. One is donation or purchase of property for conservation purposes. The majority of land conserved in Maine is held in public ownership and a very small percentage is protected through private conservation.

Recently, conservation easements have also played a large role in protecting Maine's important lands, including farmlands, timberlands and open space. Conservation easements benefit landowners financially while simultaneously protecting their property from development. By placing an easement on land, a landowner formally agrees to certain permanent restrictions on the property's uses and potential development, and gains tax benefits from enacting those restrictions.

Acres of Land Conserved in Maine, 1997-2001



Maine Department of Conservation, Bureau of Parks and Lands; Maine Department of Inland Fisheries and Wildlife; Baxter State Park Authority; Acadia National Park; White Mountain National Forest; Appalachian Trail Commission; US Fish and Wildlife Service and Maine Land Trust Network



19. biological diversity

Significance

Maine enjoys a diversity and abundance of wildlife and plant life. The state's multitude of species is supported by healthy and diverse ecosystems and habitat. Perhaps the most significant threat to these ecosystems – and the animals and plants they support - is the development of open space for low-density human habitat and commercial consumption. Smart Growth creates land-use patterns that incorporate the protection of ecosystems and that support a diversity and abundance of species by directing growth to areas prepared to support more compact development.

Trends

Is there a problem with biodiversity in Maine? Unfortunately, there are no statewide data that would be able to shed light on the status of biological diversity. Present information does not indicate a biodiversity crisis in Maine in terms of outright loss of species. But considering the number of rare species, the number of species for which we have no information, and the lack of land management for biodiversity, neither does it support complacency.

Details and Data

As human development increases in rural areas, natural habitat is altered and its critical function is often destroyed. Native vegetation is replaced by asphalt and lawns, while natural water drainage patterns are altered to accommodate roads and building sites. Fragmented land can no longer support as many animal species. Understanding the habitat needs of Maine's native plants and animals is critical to planning development that supports these needs and is an important component of Smart Growth.

A group of wildlife experts was asked to determine what species, if any, could serve as an indicator species in this report. It was unanimously advised that using one species as an indicator of abundance and/or diversity would be problematic. Using a suite of species to represent the state of Maine's diverse ecosystems would be more appropriate. Several species were suggested as possible members of the suite of indicators, including the red backed salamander, spotted and blanding's turtles, the new England cottontail, the bobolink, and the fisher. The habitat of each of these native species is threatened by development; unfortunately none of them have sufficient data to render them an effective and credible indicator of species abundance generally.

There is an opportunity to avoid a crisis in Maine, but it calls for action and greater understanding. The report highly recommends supporting existing research and projects, such as the efforts of the Maine Department of Inland Fisheries and Wildlife (among several other agencies and private partners), to develop a habitat-based approach for conservation needs in southern Maine. This information could help development plans in that region incorporate habitat needs and could serve as a model for other areas of the state.



20. sustainable forests

Significance

Smart Growth places importance on the long-term vitality and integrity of natural resources. When a landowner's forest management is certified as sustainable it indicates a commitment to manage the forest in a manner that supports the quality and character of the forest for future generations.

Trends

From 1995 to 2001, the acres of forest land certified as well as managed as sustainable in Maine increased dramatically, and the number of certification programs grew from one to two. We would like to see the acres of forest land certified as well as managed as sustainable continue to increase.

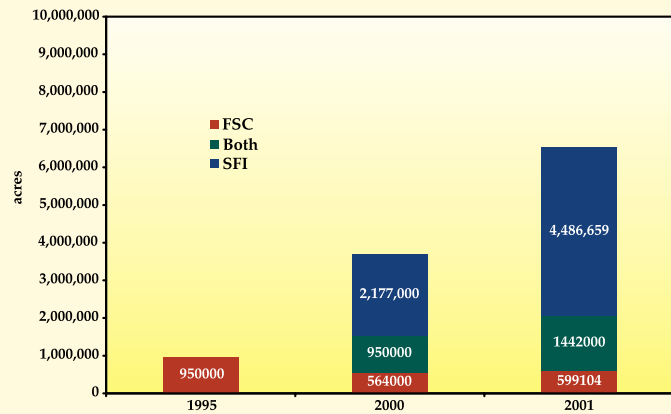
Details and Data

Sustainable refers to the use of a resource in a manner that ensures that it will be available for future generations to enjoy. Forests certified and managed as sustainable are protected for the long-term, which benefits the industry, the environment and the species within the forest. Increasing the acres of forest certified as well as managed as sustainable can help protect Maine's forests from some destructive logging practices and promote the health of the forest ecosystem and the viability of the industry, which in turn can help protect Maine's forests from suburbanization.

A major challenge is to encourage participation of small, nonindustrial private land owners, despite the high administrative costs associated with sustainable management practices and certification. Many small woodlot owners manage forests in southern Maine, the area most intensely threatened by sprawl, and certification of these lands could help protect Maine's woodlands from development.

The two certification programs represented in the figure above – the Forest Stewardship Council (FSC) and the American Forest Product's Association Sustainable Forestry Initiative (SFI) - differ somewhat in their certification process and goals. FSC is an international, nonprofit organization with the goal of providing market-based incentives for sustainable forestry, specifically the "green labeling" of forest products. SFI's guidelines were developed by the American Forestry and Paper Association and are more focused on the overall process of forest management than on a specific outcome.

Acres of Forest Land Certified as Sustainable, Forest Stewardship Council (FSC) & Sustainable Forestry Initiative (SFI), 1995-2001



Maine Department of Conservation
Forest Service, May 2001



21. commercial fishing access

Significance

Maine's coast and commercial fishing access points are under intense pressure from development. Conversion of traditional commercial fishing sites and structures to commercial, residential or retail space compromises the ability of fishermen to access the resource their livelihoods depend on. Smart Growth incorporates the needs of the commercial fishing industry into development, and maintains these commercial resource access points.

Trends

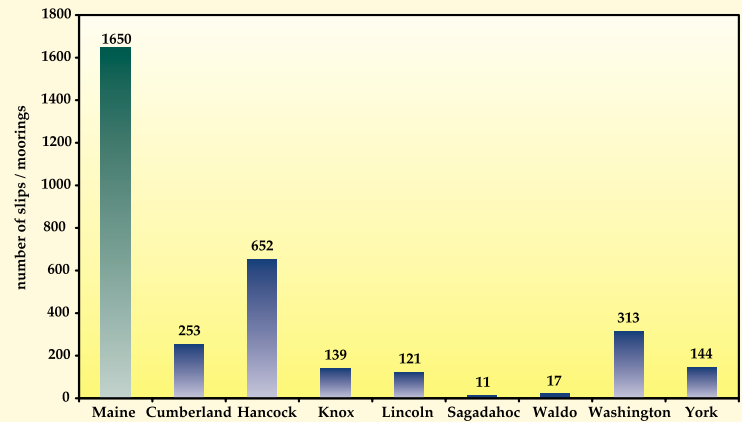
We would like to see that the number of berths and moorings in Maine not decline below the number reported in 2000: 1,650 slips and moorings. The data comes from a survey of Maine's coastal communities that was completed in 1999 and provides a baseline for this objective.

Details and Data

Maine's coastal communities are shifting from commercial fishing to tourism and related services. Private residences and tourist facilities such as restaurants, hotels and marinas now dominate the waterfront in many coastal towns, often usurping commercial fishing areas for these businesses. In addition, these new businesses and residents often complain about the smells and sounds associated with fishing and fish processing at commercial piers.

Data on the number of commercial fishing access points comes from a comprehensive 1999 inventory of about 600-marine related facilities in Maine's coastal communities. The project was a collaborative effort of the Maine Departments of Marine Resources and Transportation; the Economic Development Administration, the Southern Maine Economic Development District and the Eastern Maine Development Corporation. This report is recommending that the same survey be conducted in the future.

Number of Commercial Slips & Moorings in Select Maine Counties, 2000



Maine Coastal Port Facilities Database, 1999



22. farmland vitality

Significance

Land traditionally used for crops and livestock production is being converted into housing, commercial, and industrial development, and to other nonagricultural uses. Supporting the economic vitality of Maine farmers, reducing costs associated with maintaining farmland, and directing development away from farmlands is a major part of Smart Growth.

Trends

In 1950 there were more than 4.8 million acres of farmland in Maine, compared to 1.2 million acres in 1997, the last year for which data are available from the USDA Census of Agriculture. We would like to see no further decline in the acres of farmland in Maine.

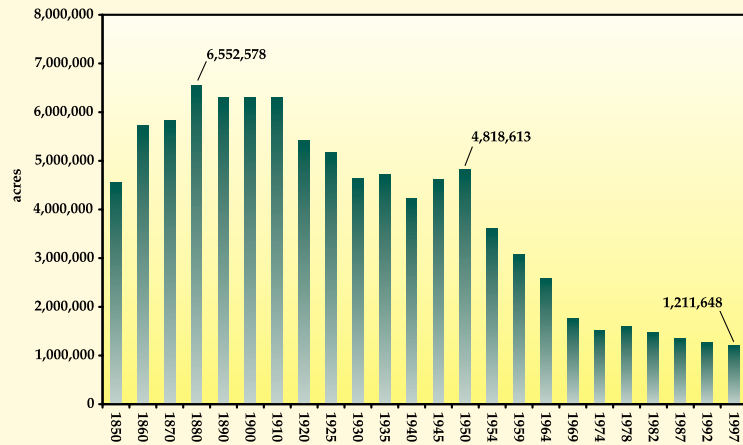
Details and Data

Farmland represents a key resource for open space, recreation and the food security of Maine people. Unfortunately, farmland is an easy target for sprawl. It is already cleared, relatively well drained and level, rendering it easy to develop. Several types of farmland are especially at risk to development, including feed crops (hay and other grains) and orchards, which have become fashionable locations for new housing developments. Between 1978 and 1997, Maine lost almost 70,000 acres of feed crops alone to development, for example.

Several programs have already been developed to help preserve agricultural land for farming purposes, though more strategies are needed. Conservation of farmland through a conservation easement is one; a study conducted by the Maine Farmland Trust determined that 6,128 acres of Maine's farmland had been protected through conservation easements in 2000. A second is application of the Farm and Open Space Tax Law, which allows farmland to be assessed based on its productive value rather than on its market value, which is inflated by the potential for development. Valuing farm property in this manner helps farmers maintain ownership and keep their lands in agricultural production. In 1999, there were 150,334 acres of farmland valued by the Farm and Open Space Tax Law.

Despite these programs, it is clear that more needs to be done to protect Maine farmland from development. One suggestion is developing a Farm Link database, which would link established and/or retiring farmers with younger farmers interested in apprenticeships or ownership of farms. Another is developing an agricultural internship to allow foreign students to learn about the importance of agriculture while providing critical labor on small farms.

Acres in Productive Farmland, Maine 1850-1997



USDA Census of Agriculture



23. timberland vitality

Significance

Maine's forest and paper industry is an important part of the state's economy and cultural identity. The industry's vitality is threatened by sprawling development, which reduces the amount of viable timberland available, and affects loggers access to the resource. Smart Growth plans development in a manner that protects Maine's timberland, and supports the continued vitality of the industry.

Trends

While the entire state faces loss of timberland due to development, this problem is most severe in southern Maine. Southern Maine (York and Cumberland Counties) had 977,000 acres of timberland in 1989. By 1995 that amount had declined to 846,000

acres, a loss of over 13 percent. We would like to see the rate of timberland lost in Maine slow and then stabilize in Maine's southern counties.

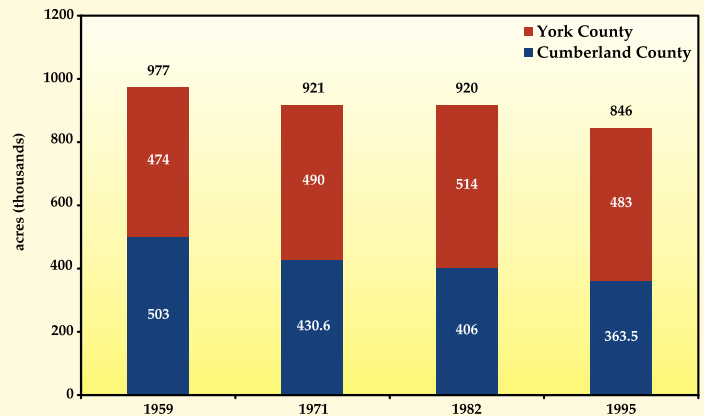
Details and Data

Timberland is defined as at least one acre of forestland capable of producing at least 20 cubic feet of timber per year. While the total amount of timberland in the entire state has remained fairly stable, the amount that can be used for timber *harvesting* has actually declined, due primarily to suburbanization and land conversion. Sprawl removes timberland from production — wood lots are cleared for houses and lawns and commercial strips. Sprawl fragments timberland holdings, increasing the costs of logging those areas. Loggers also find it difficult to operate in residential areas where they often meet resistance to their logging practices from neighbors, which reduces access to the resource.

The forest and paper industry's vitality depends on maintaining both ownership and access to timberland. One program designed to support this is Maine's Tree Growth Tax Law, which provides for timberland to be valued at its current use rather than at market value. That supports ownership of timberland by working foresters rather than developers. In 2000 there were 3,725,778 acres assessed through the Tree Growth law in Maine's municipalities and 7,509,676 acres in the unorganized territories.

Protecting Maine timberland from development will take more than tax incentives. Educating the Maine forest industry companies about how to compete in global markets will help promote the industry's viability. Developing a comprehensive forest policy to provide direction on current and emerging issues and communicating this policy throughout the state could also protect timberland in southern and northern regions.

Acres of Timberland in York & Cumberland Counties, Maine, 1959-1995



United States Department of Agriculture, Forest Service Forest Statistics for Maine, 1959-1995.
Maine Department of Conservation, Forest Service

SERVICE-CENTER COMMUNITIES – Definition, Methodology and Lists

The Maine State Planning Office has identified 69 regional service-centers throughout Maine. Of these, 29 are considered primary centers, 21 are secondary centers, and 19 are small centers. Four basic criteria were used to identify the municipalities in Maine that serve as centers: the level of retail sales; the jobs to workers ratio; the amount of federally assisted housing; and the volume of jobs. Consideration was also given to the geographic distribution of municipalities. Communities were identified that serve as small (local) centers as well as large urban places that serve as primary (major) centers. Factors such as trade were weighted to regional/local figures to help identify small centers.

Indexes were created for each of the criteria so that standardized comparisons could be made:

- The 29 primary centers had a score of at least 1.0 on all four criteria measured.
- Secondary centers had a score of 1.0 on three of the four criteria and scored above 0 on the fourth criteria.
- Small centers scored above 1.0 on two of the four criteria and above 0.5 on the other two criteria.

In addition, the State Planning Office identified 26 Specialized Centers that are characteristically urban in nature, but that do not meet the criteria to be classified as a regional center. They have been included, bringing the total number of centers to 95, because of their history, their urban character and their proximity to regional center communities. Supporting and promoting development within the identified service-center communities, as well as within the specialized centers, is Smart Growth.

Regional Centers and Specialized Centers

29 Primary Centers

Auburn
Augusta
Bangor
Bar Harbor
Belfast
Blue Hill
Boothbay Harbor
Brunswick
Calais
Camden
Caribou
Damariscotta
Dover-Foxcroft
Ellsworth
Farmington
Fort Kent
Gardiner
Greenville
Houlton
Lewiston
Lincoln
Machias
Milbridge
Paris
Portland
Presque Isle
Rockland
Skowhegan
Waterville

21 Secondary Centers

Bath
Biddeford
Bingham
Dexter
Falmouth
Jackman
Lubec
Madawaska
Mars Hill
Newport
Norway
Orono
Pittsfield
Rangeley
Sanford
South Portland
Thomaston
Unity
Van Buren
Westbrook
Wiscasset

19 Small Centers

Ashland
Bethel
Brewer
Bridgton
Bucksport
Eastport
Freeport
Guilford
Hallowell
Island Falls
Kennebunk
Kingfield
Kittery
Millinocket
Milo
Princeton
Rumford
Saco
Winthrop

26 Specialized Centers

Baileyville
Berwick
Castine
Cherryfield
Dixfield
East Millinocket
Easton
Fairfield
Fryeburg
Hartland
Jay
Jonesport
Kennebunkport
Livermore Falls
Madison
North Berwick
Ogunquit
Old Town
Rockport
Searsport
Southwest Harbor
Stonington
Waldoboro
Wilton
Winter Harbor
York

appendix b

SURVEY METHODOLOGY AND RESOURCES

Several of the indicators in the Indicators of Livable Communities report required that a survey of Maine Citizens be conducted. These measures include *Walk-ability, Recreational Access, Downtown Vitality and Cultural Assets*.

In September of 2001, the Maine Development Foundation Conducted a Survey of Maine Citizens. This survey was used to generate data for the four indicators above. The Citizen Survey was conducted among a statewide sample of 601 Maine households. A sample of this size yields a sampling error of +/- 4.00 percentage points with 95 percent confidence at the total sample level.

RESOURCES

Many of the resources consulted are noted in the details and data section of each indicator.

RELATED DOCUMENTS

Smart Growth: the Competitive Advantage. Recommendations of Governor Angus S. King's Cabinet Committee on Smart Growth.

A Response to Sprawl: Designing Communities to Protect Wildlife Habitat and Accommodate Development. Report to the Patterns of Development Task Force, Maine Environmental Priorities Project, July 1997

Challenging Sprawl: Organizational Responses to a National Problem. National Trust for Historic Preservation. 1999

Smart States, Better Communities. Beaumont, Constance. National Trust for Historic Preservation.

Reviving Service-Center Communities. Report of the Task Force on Regional Service-center Communities. September 1998.

The Cost of Sprawl. Maine State Planning Office, May 1997.

"Who Sprawls the Most? How Growth Patterns Differ Across the U.S." Fulton, William, et al. The Brookings Institution Survey Series, July 2001.

Markets for Traditional Neighborhoods, Maine State Planning Office, August 1999

Why Households Move. Maine State Planning Office, August 1999

Fishing, Farming and Forestry: Resources for the Future. Maine State Planning Office, January 2001.

The 2001 Biennial Report on the State of the Forest and Progress Report on Sustainability Standards. Report to the Joint Standing Committee of the 120th Legislature on Agriculture, Conservation and Forestry. May 2001.

Report on the Use of Incentives to Keep Land in Productive Farming, Fishing and Forestry Use. Presented to the Joint Standing Committee on Natural resource, Taxation, and Agriculture, Conservation and Forestry of the 120th Maine Legislature. Prepared by the Land and Water Resources Council. February 2001.

Measures of Growth. Maine Economic Growth Council. February 2001.

Maine's Transportation System: Status and Trend Indicators of Economic Growth and Quality of Life. Maine Department of Transportation. October 1999.

An Assessment of the Quality of Maine's Environment 1998. Maine Environmental Priorities Council

Comprehensive Planning: A Manual for Maine's Communities. Maine State Planning Office. November 1992.

Travel and the Built Environment. Ewing, Reid and Cervero, Robert. Rutgers University, 2001.

WEB RESOURCES:

Maine State Planning Office:
<http://www.state.me.us/spo/>

Maine Downtown Center
<http://www.mdf.org/downtown/>

Sierra Club
<http://www.sierraclub.org/sprawl/>

National Historic Trust for Preservation
<http://www.nthp.org/>

Communities by Choice
<http://www.communitiesbychoice.org/>

Smart Growth Network
<http://www.smartgrowth.org/index2.html>

The Vermont Forum on Sprawl
<http://www.vtspawl.org/index3.htm>

Coalition for Healthier Cities & Communities
<http://www.healthycommunities.org>

feedback form

The Land and Water Resources Council invites your comments. Please tear out this form and send it to the address below.

General comments about the report:

Please comment on how well you feel the slate of indicators defines Smart Growth for Maine:

How could the report be improved? What changes should we make if we publish a similar report in the future?

Are there specific actions that should be taken as a result of some of the findings of this report?

If you would like someone to contact you, please provide your name and contact information:

Please return to:
Maine State Planning Office
184 State Street
38 State House Station
Augusta, ME 04330
Fax: 207-287-6489



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