**J. REGIONAL COORDINATION**

The purpose of this section is to:

1. Identify the issues, facilities and services that lend themselves to regional cooperation.
2. Describe the extent to which [town name] cooperates within the region including opportunities to do more, particularly in ways that can save the town revenues and support economic development.

The town of [town name] is a rural community situated ## miles to the northeast of Bangor and ## miles to the southwest of Calais. The towns of ------, -----------, ----------, ----------, and --------- border [town name]. Commercial retail activity does occur in [town name] but larger regional centers in Calais, Machias, and Bangor mainly serve [town name]’s needs for retail and employment centers. OR [town name] is a center of commercial activity in ------trn Washington County

Comprehensive planning recognizes the importance of regional cooperation. The land uses in one community can impact another community, particularly when that land use is located near the boundaries of the town. The surrounding towns of ----------, ----------, and --------- each have a locally adopted Comprehensive Plan that is consistent with state law. Only (or the towns of…) [town name] has/have adopted a town-wide land use ordinance. The neighboring communities of --------- and ----------- are updating their Comprehensive Plans at the same time as [town name].

[town name] has included analyses of regional issues in the areas of:

* **Transportation,**
* **Economic development,**
* **Energy use and production,**
* **Housing,**
* **Public facilities,**
* **Natural resources management,**
* **Healthy communities and**
* **Adaptation to climate change.**

[town name] will attempt to develop compatible regional coordination policies with nearby communities.

**REGIONAL TRANSPORTATION ISSUES**

**Roads**

As a community that provides services and employment to surrounding towns, the main artery in [town name], Route #, serves as a pass through for freight and commuters as well as a destination in the village center. Route 1 therefore serves as both a main thoroughfare and a regional collector highway. The true Main Street in [town name] is located to the east of Route 1 and runs parallel to the ------------.

Transportation linkages in [town name] consist of US/State Route # and US/State Route #. Route # enters the town from the northern municipal boundary of --------- immediately south of the junction of Routes # and #, and provides direct access to the [town name] Commercial Park. Route # traverses [town name] from southeast to northwest and delineates the western side of the village of ---------------. Route 1 leaves [town name] and enters the neighboring town of ------------ in an area of minimal residential or commercial development. Route # ends at its junction with Route # near the [town name] Commercial Park. Route # traverses the southern part of the town and enters neighboring ----------- near its junction with ----------- Road. [town name] and the entire region are reliant on Routes 1 and 9 as the primary means of transportation mobility. Overall, roadways in [town name] are in -------------- condition.

Although the population of Washington County decreased between 1990 and 2010, the total number of vehicle miles traveled increased by over 13 percent. Most roads are not congested now, but there is a need to protect them from future degradation and the significant taxpayer expense of adding remedial capacity. The town should ensure that access management standards are used to keep the Level of Service (LOS) on Routes 1 from deteriorating.

It is important that [town name] continue to participate in regional transportation planning efforts. Municipalities can cooperate with neighboring communities and regional committees. The 3 largest communities in eastern Washington County - Baileyville, Calais and Eastport - have particularly significant transportation linkages that are all dependent on a shared labor force, large retail services (in Calais), regional education and health services, and the deep-water port facilities in Eastport. OR The 3 largest communities in southern Washington County – Eastport, Machias and Milbridge - have particularly significant transportation linkages that are all dependent on a shared labor force, large retail services (in Calais), regional education and health services, and the deep-water port facilities in Eastport. (modify as needed)

[town name] has and will continue to participate in regional Corridor Management Planning initiatives including the Downeast Coastal Corridor, the Coastal Canadian Corridor, the Eastern Interior (Route 6) Corridor (see <http://www.wccog.net/corridor-planning.htm>) and the East-West Highway, as outlined in chapter #-Transportation. These regional corridor-planning initiatives provide the opportunity to encourage residential, commercial and industrial development in locations that support local development goals while retaining efficient transportation mobility. Corridor management plans outline the appropriate locations for sound access management techniques such as frontage roads, shared driveways, intersections, turning lanes and signals.

**Public Transportation**

[town name] has limited public transportation options. West’s Transportation offers daily round trip service from Calais to Bangor with in-town stops along Route 1. The Washington Hancock Community Agency (WHCA) provides scheduled van and door-to-door on demand transportation for clients referred to them by the State of Maine Department of Human Services.

*WHCA transportation services* are provided to income-eligible clients, children in state custody, welfare clients, Medicaid patients with medical appointments, the elderly and disabled, or people needing transportation to Meals for Me. Transportation is also available for members of the general public on a space-available basis. Most of the longer trips are for medical services: shorter trips are to local doctors, pharmacies and groceries.

The general public is theoretically free to schedule rides with WHCA, although less than six percent of the current ridership is unsubsidized fare-paying customers. The average worker cannot use Sun Rides as a commuter service, because:

1. General-public riders are taken on a space-available basis only, so even a ride scheduled well in advance will be bumped if the transit vehicle is at capacity with contracted clients;
2. Unsubsidized fares are too high for low-wage workers to use the service on a daily basis; and
3. Demand-response systems serve some rural communities just one day a week, with fluctuating departure and arrival times.

**Workforce Transportation**

The sporadic nature of demand-response service typically eliminates public transit as a viable option for rural workers with inflexible daily hours, shift workers, and those with on-call or overtime work responsibilities.

*West’s Transportation* operates the other public transit service in Washington County. This incorporated firm has adopted a public-private partnership model. It receives federal transit funding to operate a daily fixed-route (i.e., scheduled) public service between Calais and Bangor and back via US-1 and US-1A, as well as several smaller intercity fixed routes, and it also markets its services to social service agencies (particularly for the longer trips to Ellsworth and Bangor). Thus the ridership on West’s Transportation routes is a mix of general public and contracted agency clients, and any revenues in excess of operating expenses generate corporate profits.

Fixed-route transit service is a much more predictable and reliable transportation mode for rural workers, and many workers would be willing to spend an hour or more of commute time each morning and evening in return for predictable and reliable daily transportation. However, West’s current fixed routes and schedules are too limited to accommodate the average 8-to-5 workers, let alone those on shift work or non-standard schedules.

As currently configured, neither WHCA’s Sun Rides service nor West Transportation’s fixed-route service adequately meet the needs of the rural workforce in Washington County.

**Transit Improvements**

Innovative strategies and practices could greatly enhance the current level of service for all transit operations in Washington County, particularly in their capacity to serve working-age adults. The current emphasis on agency-contracted clients can be attributed to a chronically inadequate federal transit funding formula, offset by fairly generous contract reimbursement incentives that help to ensure the availability of rides for social service agency clients.

At present, the “public” best served by the rural public transportation system is a very narrow subset of the total population. This is true all over the United States, not just in Washington County. However, other transit agencies have found ways of increasing their efficiency and ridership that might work in Washington County. This assumes, of course, that the agencies delivering the transit services (currently WHCA and West’s Transportation) are willing to undergo changes – some minor, some fairly radical – to their current operations, in return for potential increases in ridership and efficiency. The current externally governed MaineCare brokerage system pays transit providers with a very small portion of the client reimbursement fees to get to medical appointments. Both agencies may be operating too close to a financial break-even point to risk expanding their services to accommodate workforce transit, even if the changes are likely to produce greater efficiencies and enhanced revenues over time.

Notwithstanding these barriers, several alternative service ideas from other places are summarized below. They all have some potential to expand access to public transportation and workforce development in Washington County.

* “Fixed-schedule” service – combines the convenience of demand-response service with a published daily schedule, making it more predictable and reliable for general public riders
* Immediate-response “Dial-A-Ride” service (works best as a community-based system in relatively compact population centers, with a strong local volunteer base if volunteer drivers are used)
* Establish transit stops at formal and informal “Park and Ride” lots
* Ride-sharing and vanpooling programs, often using GIS to match drivers to riders; some vanpool programs are “self-organized” by a group of employees living in the same general area
* Innovative use of transit scheduling software
* Child-oriented transit service: hire a transit attendant to escort young children on rides to daycare/school/appointments, thus allowing the parent(s) to work
* Dues-paying, 24-7 non-profit ride service with incentives for pre-scheduling, flexible scheduling, and shared rides; successfully operating in Portland and surrounding communities (eg. http://www.gomaine.org/)
* Provide easy-load bike racks on ALL vehicles in the public transit fleet.

**Airports**

There are no/ is one airport(s) or public airfields within [town name]. Primary regional airports include:

1. Bangor International Airport is the nearest airport with regularly scheduled passenger commercial service. BIA provides national and international commercial passenger and freight services, as well as Air National Guard operations. It has an 11,441-foot main runway and car rental services are available.
2. Deblois Flight Strip, off State Route 193, has a 4,000-foot runway but no beacon or fueling services. Last rated by the state in poor condition.
3. Eastport Municipal Airport has a 4000-foot runway and provides limited charter and instructional services. Beacon and fueling services. Last rated by the state in good condition.
4. Hancock County - Bar Harbor Airport located in Trenton provides daily commuter service to Boston, Massachusetts, and charter service is offered. Car rental services are available. 5,200-foot main runway.
5. Lubec Municipal Airport has a 2032-foot gravel/turf runway, with beacon, but no fueling services. Last rated by the state in good condition.
6. Machias Valley Airport has a 2909-foot runway and is used by private plane owners and in an emergency, by air ambulance services. Beacon, but no fueling services. Last rated by the state in good condition.
7. Princeton Municipal Airport has two runways, the larger of which is 3999 feet, and is used primarily by private businesses and recreational fliers. Beacon, but no fueling services. Last rated by the state in poor condition.

**Railroad Facilities and Rail Services**

Abandoned rail lines stretch across Washington County and are generally in poor condition, as passenger service stopped nearly fifty years ago and freight service stopped in the mid-1980s. Recent efforts have created recreational trails along abandoned rail lines and rights-of-way. The Downeast Sunrise Trail is an 80-mile multi-use trail on the exempt Calais Branch rail line corridor from Ellsworth to Ayers Junction. The Management Plan for the Calais Branch specifies that if rail becomes a feasible use of the corridor then the Downeast Sunrise trail will no longer be the primary use of the corridor. The East Coast Greenway is a bicycle and walking trail planned to extend from Key West, Florida to Calais, Maine, which also uses the rail line rights-of-way.

There are efforts to expand freight rail service in Washington County, particularly in the Calais and Eastport areas with connections to the railroad lines that cross into Canada and back into Maine to reach the western part of the state across the Route 6 corridor in northern Washington County. Passenger rail service in the State has increased with the reinstatement of passenger service between Boston and Portland and, more recently up to Brunswick, Maine.

**Ports**

The deep-water port of Eastport at Estes Head is only ## miles east/south of [town name] and is of critical importance to current and future economic activity in [town name] and the region. Eastport has the greatest natural depth of water of any port on the east coast of the United States and as the easternmost port in the United States, is significantly closer to Europe. With 100 feet of water on approach channels, 64 feet of water at the pier at low tide and more than sufficient space to turn the largest ships afloat, Eastport is uniquely positioned and naturally endowed to accommodate any size vessel existing or planned. The port has two piers, three berths, with a low tide depth of 40 feet, and over 75,000 square feet of covered storage. The outer berth can accommodate a ship up to 900 feet in length. There is also a municipal breakwater in downtown Eastport for use by smaller vessels.

**REGIONAL ECONOMIC DEVELOPMENT ISSUES**

[town name] is tied into the regional economy of Washington County in several ways. [town name] residents obtain goods and services from service center communities like Calais, Machias and, to some extent, Bangor. Some residents also rely on these centers for employment. Thus their well being is tied to fluctuations in the entire region’s economy.

Recent closures of the Louisiana Pacific plant and the closure/re-opening/sale of the Woodland Pulp LLC (formerly Domtar) mill (both located in Baileyville) affected residents in [town name] and many surrounding communities. Responses to these shifts vary and include retraining, returning to school, taking early retirement and doing other related work. Some younger workers are leaving the area but many of all ages remain. Many are simply travelling further for employment and working several jobs.

As noted in the Employment and Economics chapter, the overwhelming majority of [town name] residents (from 2007-2011) worked for private companies (71%). During this same time, a relatively small percentage of [town name] residents were either self-employed (7.2%) or ‘unpaid family workers (0.8%). Among those who are self-employed, many are employed in natural resource-based industries. Although not a large percentage of the whole employment picture, home-based business play an important role in the local economy; and it is very important that the Town of [town name] continue to support home-based and natural resource-based businesses.

Since 2002 the number of [town name] residents finding work within [town name] has increased/decreased by approximately ## %. Over the same time the number of people commuting to ---------- has increased by approximately ##%. In 2010, 225 jobs in [town name] belonged to residents of ----------, ------------, ------------, and -----------, with another ### jobs belonging to residents of at least # other communities.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Where [town name] Residents Work** | **2002** | | **2010** | |
| **Count** | **Percent of Total** | **Count** | **Percent of Total** |
| Total All Jobs |  |  |  |  |
| [town name] |  |  |  |  |
| Calais |  |  |  |  |
| Alexander |  |  |  |  |
| Princeton |  |  |  |  |
| Caribou |  |  |  |  |
| Bangor |  |  |  |  |
| Hermon |  |  |  |  |
| Augusta |  |  |  |  |
| Machias |  |  |  |  |
| Houlton |  |  |  |  |
| Ellsworth |  |  |  |  |
| Pembroke |  |  |  |  |
| Orono |  |  |  |  |
| All Other Locations |  |  |  |  |

Source: <http://onthemap.ces.census.gov/>

**Brownfields Assessment and Redevelopment**

A regional driver of economic renewal comes from the Washington County Brownfields Assessment program that has operated since 2009 with a regional advisory committee and USEPA Brownfields Assessment funds through the Washington County Council of Governments (<http://www.wccogbrownfields.com>). Brownfields are defined as real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Since 2009 the Washington County Brownfields Program has conducted site assessments on 24 properties throughout Washington County. Redevelopment/reuse is complete on 3 of those sites and several more are under active redevelopment. There is a pending inventory of at least another 50 sites. By definition Brownfields assessment is needed on properties with a commercial/industrial history. (numbers in this paragraph are current to March, 2014)

WCCOG staff and the regional advisory committee rank sites for use of public funds according multiple criteria and place an emphasis on redevelopment potential. With their history of use Brownfields sites are often in the very best locations for redevelopment; they are located in downtown centers, near existing infrastructure, at the junction of arterial highways, in historic structures, and on municipal waterfronts.

[town name] strongly supports active solicitation of industrial, commercial, and residential redevelopment of existing developed areas.  Redevelopment of abandoned residential, commercial, and industrial properties fosters a sense of vibrancy, promotes diversity, and expands the experience of community.  Infill erases signs of emptiness and decay, and allows existing natural areas to continue providing forest products, wildlife habitat, land for sports and recreation, and a continued sense of a rural landscape. The town of [town name] is represented on the Washington County Brownfields Advisory Committee. The town has and will continue to recommend sites to the program for assessment and redevelopment.

**Community Economic Development Strategy (CEDS)**

In July of 2011, Washington and Aroostook Counties were combined in a realignment of the seven Economic Development Districts (EDDs) in Maine. The purpose of this realignment was to better represent natural economies. The linkage between Aroostook and Washington counties is based on many similar attributes and unique assets – some of them with great promise and some with serious challenges. This new Economic Development District is called the Aroostook Washington Economic Development District (AWEDD) and the Comprehensive Economic Development Strategy (CEDS) that is required for all EDDs was completed in July of 2013. It can be downloaded on the GROWashington-Aroostook web site here: <http://gro-wa.org/region-wide-resources>.

In its initial statement of regional urgency the CEDS document states that we face two critical issues to shift from a condition of mere survival to sustainable prosperity.

First, our young people continue to leave for work (and lives) in other parts of our state and region. This is the root of the region’s economic and social challenge; the critical imperative we face. The 18 to 44 year old age cohort is the workforce lifeblood and is hovering at 30% of the total population; a level below which economists agree a local/regional economy is no longer sustainable. When the pool of younger workers drops below this 30% threshold, companies struggle to find the workers needed to operate their business eventually causing them to close or relocate.

The second issue creating constraining Northern and Eastern Maine is our energy cost burden. The region’s citizens and businesses “survive” in a region with twice the national average cost burden for energy. Since energy is the primary input to life and economic performance our region faces a greater barrier than many regions in the US. The cost burden is driven by an 80% use of heating oil, 16 cents per Kw for electricity, and low median household income.

Mobilize Maine, an asset-based strategic planning process, offers an effective process for accomplishing this positive change. It engages local and regional business leaders to establish measurable goals that are then linked to assets (natural, business and human resources), job creation, and business expansion from within the region. The foundational premise is that business, municipal and non-profit leaders have the capacity to lead economic change if it is based on regional assets that are in our control. Using the Mobilize Maine process, the 2013 Community Economic Development Strategy (CEDS) for the AWEDD has identified the economic sectors that offer the best opportunity, and are investigating, defining and initiating business activities in those clusters that will improve wages and create new jobs to achieve the goals of the strategy. Driving the strategies in the CEDS is the following regional vision:

AWEDD Regional Vision

Our region is a place of abundant natural resources that is reflected in the beauty of our landscape and the potential for economic and social prosperity it offers. We value the individuality and endurance of our people while recognizing the strong sense of community and place that sustains us. We will create economic growth by focusing on sectors that best leverage these assets and by working to develop policies that promote private sector investment; while at the same time, retaining the quality of life that makes the region special.

The following Opportunities and Challenges drive the CEDS regional vision:

Opportunities:

* Very active international border with Canada that offers significant economic opportunity for business expansion and more meaningful cross-cultural engagement.
* Expanded shipping opportunities at the Port of Eastport (deepest port on the U.S. east coast); especially to European biomass market.
* Available (and increasing) tillable cropland, much of it suitable for organic use.
* Expanding and diversifying value-added wood products that will leverage the most concentrated wood resource in the U.S.
* Utilization of our renewable and alternative energy resources in wind, tidal, biomass and compressed natural gas.
* Expanding value-added processing of crop and marine resources
* Potential of mining in Northern Maine
* Expanded utilization of higher education resources

Challenges:

* Lowering energy costs for business and industry
* Mitigating distance to market through more effective/efficient transportation.
* Limitations on local economy’s ability to support more businesses/service providers.
* Inability to capture more transiting tourism visitors.
* Reversing the prevalent negative mindset and aversion to risk-taking/trying something new.
* Lack of rail infrastructure connection to Port of Eastport
* Small number of “leaders” in the region
* General lack of business acumen/sophistication and lack of entrepreneurial training and assistance
* Accessing Canadian market

AWEDD’s approach to asset based economic development focuses on the regions competitive strengths and opportunities. Systematic regional asset mapping has been completed in nine categories including tangible and intangible assets, natural, human/skills, knowledge, cultural/historic, geographic, excellence, infrastructure, government and innovation. The exploration and analysis of the region’s assets has included prioritizing assets that are “truly unique and indigenous” and that can be leveraged to reach the measureable economic vision. Outputs from this analysis are regional priority assets, targeted industry clusters, strategies and specific industry sectors for value chain mapping. AWEDD’s priority industry clusters are:

* ***Alternative Energy***
* ***Manufacturing***
* ***Agriculture***
* ***Forest Resources***
* ***Tourism***
* ***Marine Resources***

AWEDD economic development professionals and engaged business leaders will be paying particular attention to how educational institutions and workforce training address the changing structural job requirements to better support these clusters.

**regional Energy Issues – use and production**

Energy use and production issues are intimately related to the economic health of the region. The Findings and Recommendations of the Down East Maine Renewable Energy Working Group[[1]](#footnote-1) (January, 2014) summarized a 6-month exploration of renewable energy issues.

The following is excerpted from the Executive Summary (hereafter referred to as the 2014 Renewable Energy Working Group Report):

The Renewable Energy Working Group assumed that expanded investment and deployment of renewable energy, if found to be cleaner and more affordable than existing fuels and systems, would benefit Maine residents, who currently rely on fossil fuels for heat and electricity to a much greater extent than the average American or the average New Englander. The report examined investments, challenges, and opportunities – real and anticipated – in relation to renewable power, its sources, networks, mechanical systems, costs, and workforce requirements.

The topics arising most consistently, urgently, and persuasively throughout all these investigations concerned the linked challenges of **front-end transition costs, market distortion, and fair policy frameworks**. In particular, these issues were recurrent in relation to expanded deployment of renewable energy in Down East Maine:

1. status quo is full of liabilities, full of opportunities: existing conditions in Down East Maine’s energy sector are problematic due to high reliance on non-renewable fuels (which creates a statewide path dependency), prevalence of fuel poverty, home energy affordability gaps, excess winter morbidity, investment efficiency gaps, and market failures; at the same time, renewable assets are unusually high on a per capita basis, with new employment potential dovetailing with ailing traditional industries.
2. lack of equitable, consistent, and predictable regulation: when there is a perception of imbalance or caprice, investors can lose confidence and startups cannot attract the affordable capital they need.
3. new incentives for new energy markets: feed-in tariffs are viewed as an important tool with which to approach price-parity between incumbents and newcomers in the renewable energy marketplace, providing the funding and stability that support comprehensive development strategies.
4. reliable and affordable access to capital for installation, transition & retrofit: front-end industry investments in alternative energy technologies bring unit prices “multiples above market” in relation to incumbent energy sources, sending a discouraging message about investment in renewables.
5. uniform metrics for impacts & pricing: without apples-to-apples yardsticks for the full cost, success, impact of alternative energy, foggy decision-making precludes long-term policies and investments.
6. prohibitive transaction costs: insufficient information about options coupled with a lack of time and energy to investigate them; absence of trustworthy (neutral) technical guidance
7. low workforce capacity: even if investment were high, Down East Maine currently lacks the technical workforce (and capacity-building potential) to support large-scale energy transition to renewables.

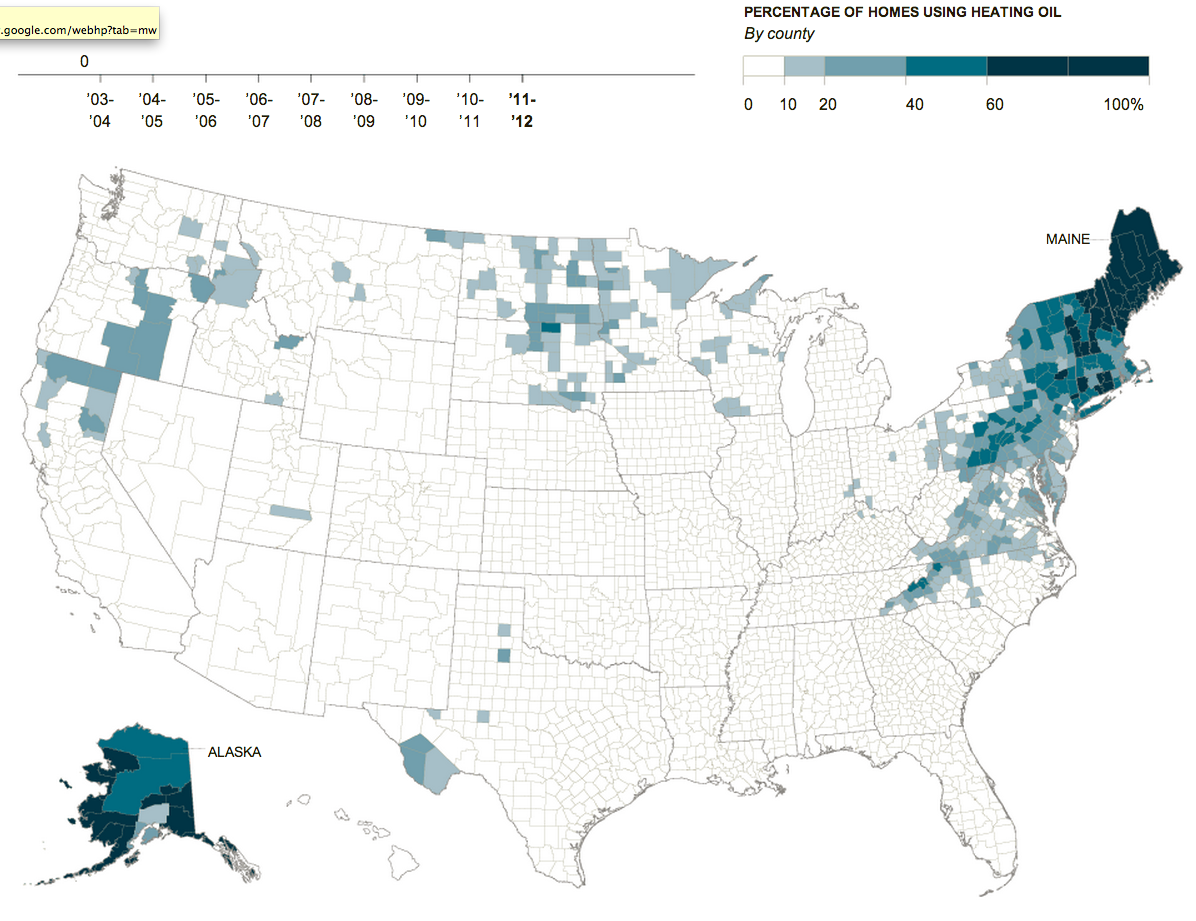
The renewable energy profile for Down East Maine, based on asset inventories of institutional, production, and workforce capacities, shows a widespread need, a high potential, and low deployment. In the region, this study found 46 organizations with, or having significant projects addressing, the development and deployment of renewable energy fuels and systems; of these, 4 addressed finance, 13 addressed industrial production of fuels, power, or mechanicals (4 of which were startups), 11 addressed non-profit research, advocacy, or consulting, 8 addressed public-private partnerships, and 8 addressed grid and utility-scale issues. Meanwhile, of the 10 workforce capacity-building institutions within a 150-mile radius, **just one institution in Washington and Hancock Counties (the Washington County Community College) provides specialized professional training in renewable energy systems and efficiency.**  This is surely not enough to train a the number of new technicians needed to support desirable levels of renewable energy deployment. As for renewable energy production, Down East Maine currently generates approximately 384 MW (with an additional 287 MW pending), constituting about 22% of the state’s total.Prospects for renewable energy expansion in Down East Maine can be put into perspective alongside non-affluent regions and small, rural communities – in the northeast and elsewhere – which have made the transition with good results. The keys to their success transferrable to the Down East region include the following: strong local leadership and ambitious, comprehensive local energy transition strategies (Shutesbury, MA & Güssing, Austria); a highly collaborative approach and emphasis on winter heating (Berlin, NH & Cambridge Energy Alliance); linkage of energy concerns with broader strategies for poverty alleviation, sustainable housing, and public health (Haringey’s Affordable Heat Strategy, UK); clean energy municipal financing, coordinated on-bill financing, reduction of bureaucratic adoption barriers, and ‘class action‘ transition negotiation (Efficiency Vermont & Berkeley FIRST). See the 2014 Renewable Energy Working Group Report for details.

Scanning targeted scholarly research with special relevance to the Down East context, a handful of “best practices” emerged: monetizing hidden costs of non-renewables to level the playing field for competing clean technologies; creating of shared local energy infrastructure to leverage localized purchasing power; private sector performance contracting to provide a market-driven, comprehensive way to distribute and manage risk; decentralizing the power grids by encouraging smaller-scale, local energy producers. In sum, three broad strategies for policy-makers are recommended by this report’s findings:

1. Revoke “most favored nation” status for non-renewable energy incumbents.If the price of non-renewable energy reflected its comprehensive social costs, market “externalities” would disappear and renewable systems could more readily compete. Relevant tools are carbon taxes, carbon cap and trade regimes, life cycle cost accounting, and strict emission standards.
2. Lower barriers that stall market entry of renewable energy producers & consumers.Front-end costs are a high fence keeping individuals, institutions, and firms out of renewable energy’s greener pastures. Relevant tools are subsidies, tax credits, renewable energy certificates, feed-in tariffs, specialized loan product interest buy-downs, and on-bill financing.
3. Prove that the more expensive choice is the less expensive choice.Access to reliable, non-partisan information and technical guidance will allow many prospective renewable energy producers, consumers, and lenders to take the renewable energy plunge, priming the pump for deployment at scale and amortization of public subsidies for renewable energy.

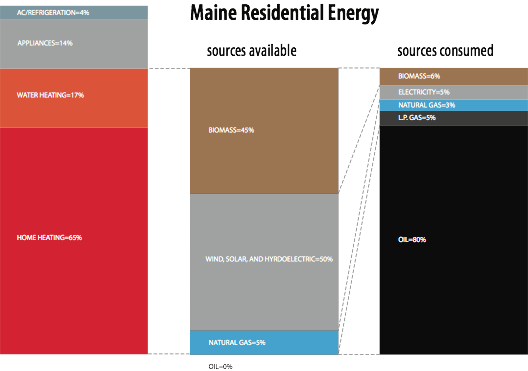
All of the inventories, observations, and suggestions articulated in the 2014 Renewable Energy Working Group Report point to topics that deserve further discussion and study in Down East Maine.

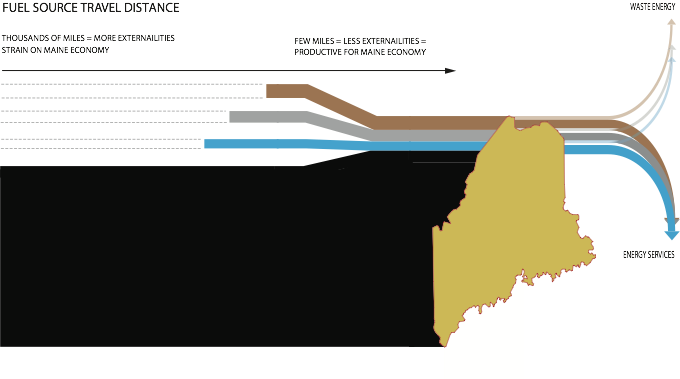
Associated with production of renewable energy is the issue of affordable heat for low-income households. The 2014 Renewable Energy Working Group Report describes the energy consumption profile in Maine and Washington County. As of 2011, Maine’s overall energy consumption was 26th in the country (at approximately 311m BTU per capita annually), but the cost of that energy ranked much higher – at 10th in country (approximately $5,508 per capita annually, amounting to 14% of Mainers’ personal income on average and a statewide expenditure of $7.32b for the year).[[2]](#footnote-2)



Since Maine residents have household incomes generally well below the national average, these figures spell out a painful picture: those with less to spend spend more per unit of energy. **The map above, published in 2013 by the New York Times**, shows the special dependency on fossil fuel for structural heating in Maine, reflecting recent data from the US census showing that 75.6% of Maine’s homes use #2 heating oil,[[3]](#footnote-3) is by far the highest proportion of heating oil dependency of any state in the continental U.S.

Another way to look at Maine’s energy consumption profile is to compare regionally available energy sources with the fuels actually burned. The following two illustrations (from the 2014 Renewable Energy Working Group Report) depict the discrepancy between regionally available energy sources (mostly renewables in the form of biomass, wind, solar, and tidal sources) and current dependencies is evident.





Environmental concerns aside, Maine’s reliance on heating oil is problematic because it contributes to energy insecurity, exposes consumers to price volatility, wastes resources on long-distance fuel transport, and constitutes a large annual net export of wealth out of the state and, in large part, out of the country.

**regional housing Issues**

The housing challenges in Washington County are related primarily to the age of the housing stock as well as the age and income of the population. It is more cost effective and often preferred by elders to stay in their homes. However, older housing (71% is pre-1979) is often in disrepair; many of these houses are very large and most have inefficient heating systems and inadequate thermal insulation.  Rental housing is also broadly inadequate; it is not affordable for low-income persons especially young families who pay a disproportionate percentage of their income for rent; and there are quality issues for all income levels that are also related to the age of the housing stock.

There is a “Catch-22” in relation to subsidized housing. There are an insufficient number of vouchers in relation to need and those that are available can expire due to a common inability to find adequate housing that meets the standard for a voucher given the short (30 day) timeframe allowed to find the rental. In addition, landlords are deciding not to accept vouchers because of the requirements to upgrade the housing (also related to age of housing stock).  If housing is found, there is often a mismatch between its location and that of the tenants place of employment. Low-income persons do not often have a reliable vehicle for a long commute.

Homelessness is known on an anecdotal basis but existing measures do not adequately document those who “couch-surf”, double up with families in homes built for single-family occupancy, or live in sub-standard structures (camps, trailers, school busses). Finally, and also related to the age of the housing stock, many homes are unhealthy due to lead paint and mold.

Housing is primarily an issue measured and planned for on a town-by-town basis. However the needs of certain populations, like seniors and those who may need an institutional setting, are often served at the regional level. Funding for housing assistance, whether for new construction or rehabilitation, is also provided at the regional level.

In Maine, Federal Community Development Block Grant (CDBG) funds for housing assistance are available through the Office of Community Development at the Maine Department of Economic and Community Development (DECD). Local governments applying for these limited funds must demonstrate their capacity to properly administer the funds. A town may work with one or two of its neighboring towns to develop this capacity, or it can seek assistance from the Washington Hancock Community Agency, which currently administers most of the region's CDBG housing assistance funds.

The town of [town name] is completing an in-depth housing assessment in early 2014 to prepare for an application from the region in the 20## CDBG grant application cycle. If awarded, the grant would implement housing rehabilitation/assistance over the 20##-20## construction seasons.

**REGIONAL NATURAL RESOURCE ISSUES**

According to interpretation of 2004 satellite imagery (*see Land Cover, Map 4*), conducted by the University of Maine at Machias GIS Center, approximately ##% of the land in [town name] is forested, and ##% of the land area is open water. Lakes bound the town to the north (----------- Lake) and south (---------) and the ------------ River forms the ----tern boundary. ---------- is shared to the north with the - town of -----------. ------------- Lake is shared to the north/south with the town(s) of --------- and -----------. [town name] is divided among several small watersheds.

Some of the land area of [town name] drains toward --------------- Lake. The remainder of the land area drains into the --------- or into the ----------River itself. All are part of the ---------- River watershed. The town of [town name] shares the shoreline of two large lakes with neighboring towns. A portion of --------- Lake is located in neighboring -------------; and --------- is shared with ----------- and -----------. The majority of stream segments in [town name] are identified as class A, indicating that the water quality is “suitable for the designated uses of drinking water after disinfection; fishing; recreation in and on the water (obtain for water quality classifications in Washington County here: <http://www.maine.gov/dep/water/monitoring/classification/index.html> )

[town name] has many natural resources, most significantly wildlife habitat. The richest wildlife diversity in [town name] is associated with the Significant Wetland formation of --------, a ###-acre ----------- ecosystem located in the northwest portion of [town name], between the ------- River and Route 1 in -----------. Other notable wildlife habitats in [town name] include large, undeveloped habitat blocks and riparian habitats. [town name] is home to a diverse array of terrestrial and avian wildlife. Inland-forested areas provide habitat for an array of common terrestrial mammals including deer, bobcats, beaver and otters. Conservation of wildlife habitat is important for traditional activities such as hunting and fishing. Bald eagle, a species of Special Concern, and the Brook Floater, a Threatened species of freshwater mussel are found in the town. (Get specifics from Beginning with Habitat data)

In addition to the habitats mapped by IF&W and mentioned above, other notable wildlife habitats in [town name] include large, undeveloped habitat blocks and riparian habitats which extend into neighboring Princeton, Alexander, and to some extent into New Brunswick, Canada.

There are ## Overboard Discharges (OBD permits and wastewater outfalls located along -----------.

A long narrow aquifer with potential yields of ##+ gallons per minute traverses across the --------tern corner of [town name] and is part of the same regional aquifer that runs through neighboring ------- and ---------. A mapped aquifer with potential yields of ##-## gallons per minute is located in nearby ----------- under the large blueberry heath located on either side of Route ##.

**REGIONAL PUBLIC FACILITIES ISSUES**

The Town of [town name] contracts with the Downeast EMS/(insert regional provider) provides their own for their ambulance service, which is located - in ----------. The ambulance and rescue squads consist of ## full-time and ## part-time personnel trained and certified as Intermediate Level Emergency Medical Technicians. 24-hour coverage is provided by Downeast EMS/(insert regional provider) to [town name] along with several neighboring mutual aid towns. The Ambulance and Rescue department is housed at the Fire Department.

Recreation facilities accessible to [town name]’s residents and to visitors include wildlife boat landings and ATV/snowmobile trails. Indoor recreational facilities open to the public include the Public Library and limited access to school facilities. Likewise, boat launching facilities and libraries in nearby -------- and ------------- also serve [town name] residents.

A range of outpatient health-care services is available through the insert regional heath center located in neighboring/nearby ---------. [town name] residents travel to Calais, Machias, Ellsworth and Bangor to access other health care and medical services. The Town would like to recruit a full-time family practitioner to serve [town name] and neighboring communities.

The Town of [town name] share/operates the [town name] Animal Kennel, with one part time Animal Control Officer. The animal control officer assists with domestic pet issues, but passes wildlife issues to the Maine Department of Inland Fisheries and Wildlife. The animal control facility is in -------- condition and is in need of full replacement immediately OR in reasonable condition and can serve well for years to come…, or the facility must be abandoned and services contracted or coordinated with neighboring communities. ------- and ----------- may be good regional partners as neither they nor other small communities nearby have their own animal control facilities. Nearby facilities are located in Calais, Cherryfield, Bangor, and Houlton.

**REGIONAL LAND USE ISSUES**

Comprehensive planning recognizes the importance of regional cooperation. The land uses in one community can impact another community, particularly when that land use is located near the boundaries of the town. As indicated in the natural resources section of the plan, the town should attempt to develop compatible resource protection standards with nearby communities.

[town name] has physical boundaries with -------, ---------, ----------, ---------, and ----------. Proposed land use districts are consistent with the existing pattern of development in neighboring communities as well as the communities’ Future Land Use Plans.

The [town name] Commercial Park is a ##-acre complex located in [town name] at the junction of Routes ## and ##. The Park is the center of the Atlantic Northeast International Trade network. The Network offers multiple business parks and trade services, including a deep-water port, rail access, and air transportation. The [town name] Commercial Park is designed to contain two components: an Atlantic Northeast International Trade Center and a Logistics and Manufacturing Park. The Trade Center will house both private and public resources and the Park is a modern industrial park that will provide financial benefits and business opportunities to domestic and international companies. Revise as applicable. The [town name] Commercial Park is developed with sewer, water, electric, and paved roads and currently houses the ------ and the -------------.

[town name] regularly coordinates with neighboring communities on a variety of issues, including land use, through participation in the Washington County Council of Governments, Washington Hancock Community Agency, and other regional groups.

**REGIONAL PUBLIC HEALTH ISSUES**

A coordinated effort between Washington, Aroostook, and Hancock Counties is underway to develop and implement solutions to reduce the incidence of preventable chronic disease throughout the region. Theses efforts are spearheaded by the 3 Healthy Maine Partnerships serving the 3 counties: Healthy Acadia, Washington County: One Community and Healthy Aroostook. A primary focus is to increase access to and availability of both local food and opportunities for exercise.

**Desired outcomes** are summarized as follows:

* Reduction in the incidence of preventable chronic disease throughout the region
* Increased access/availability to local food;
* Improved access to recreational assets providing opportunities for healthy exercise;

Additional public health goals for Washington County: One Community, the Healthy Maine Partnership serving the region, include:

* Reduce, prevent and manage substance abuse; increase awareness of its impacts and provide healthy alternatives.
* Improving access to the full continuum of affordable health care services

Initiatives to achieve these solutions currently underway in Washington County include several focus areas: access to physical activity, access to transportation, access to healthy foods and a wide range of outreach programs provided by Washington County: One Community.

**Active Communities**

Regular physical activity is an essential part of improving health and wellbeing. People who are moderately or vigorously active lower their risk of high blood pressure, heart disease and stroke, Type 2 diabetes, colon and breast cancer, and osteoporosis. Regular physical activity can also significantly improve mental health. Exercise can sharpen thinking, learning and judgment skills, reduce symptoms of anxiety and depression, and help us sleep better.

Fewer than half of all Americans get the physical activity they need to provide health benefits and 25% of adults are not active at all in their leisure time. In Maine only 23.7% of youth get the recommended level of exercise (60 minutes per day) and only 56% of Maine adults get the recommended levels of physical activity (30 minutes, 5 times per week).

Physical activity does not have to be strenuous and highly time-consuming to be beneficial. As an example, for adults, walking 30 minutes 5 times a week can benefit health and wellbeing. For youth, participating in school sports, engaging in after school activities, or walking to school can provide the recommended exercise to promote health and wellbeing.

**Transportation for Health**

Access to Transportation is a significant challenge in rural communities. Lack of transportation can be an obstacle to reaching needed health and social service appointments as well as employment and other services. Significantly more detail on this issue is provided above in the section on **Regional Transportation Issues - Public Transportation.**

**Local Food Systems**

Washington County is often deemed a [“food desert”](http://www.ers.usda.gov/data-products/food-desert-locator/go-to-the-locator.aspx" \t "_blank), a term that comes from the Food Access Research Atlas of the USDA (http://www.ers.usda.gov/data-products/food-access-research-atlas). In a food desert “those with low incomes have limited access to supermarkets, supercenters, grocery stores, **or other sources of healthy and affordable food**” (Emphasis added). However the two Census Tracts (9551, 9559) in Washington County where these criteria are met include only our large depopulated areas and account for only 18% of our population.

Countywide there are indeed many low-income households, also many with inadequate transportation that limits access to fresh food. However 82% of the population resides in the census tracts NOT deemed a “food desert” and 56% of low-income households reside in the service centers where the existing supermarkets, supercenters and grocery stores are located.

Furthermore, the USDA Food Access Research Atlas does not fully reflect data on “other sources of healthy and affordable food” in Washington County. And Washington County has a great deal of great food. The **Washington County Local Foods Map** posted at <http://www.gro-wa.org/wcfood> depicts over *80 farms, several active farmers markets and buying clubs, producers and retailers of local specialty food, and abundant seafood*. There is an active local food movement in Washington County that is growing within the county and reaching out to the rest of the state to support a regional (Maine and New England) food system.

In the face of this potential plenty we do indeed have significant **food security** issues mostly as a result of the high rates of poverty. Food pantries report that demand outstrips supply, yet also report difficulty in distributing fresh vegetables. Many do not have the experience or knowledge of preparing whole, fresh foods for consumption. In response pantry organizers provide classes on whole food cooking. The 11” by 17” poster of Food Pantry and Community Meal Sites shown at right can be downloaded from the GROWashington Aroostook web site here: <http://www.gro-wa.org/washington-county-food-pantries>.

In addition to increased health, building the local foods infrastructure has powerful economic implications. Not only do local dollars stay in the economy, new dollars arrive and bring jobs and business opportunities, providing the resources needed for equal access for all.

**Healthy Maine Partnership Programming**

The programs of Washington County: One Community that reach out to youth and adults span the public health spectrum. They are provided at a regional scale as well as to individual municipalities and schools; they include:

* **Tobacco Cessation and Substance Abuse Prevention** - tobacco-free and tobacco cessation programs work to reduce exposure of children to second hand smoke, raise awareness of prevention assistance programs, provide tobacco-free policy for public events, and increase the number of retailers adhering to Maine NoButs! Program that limits tobacco sales to minors. Likewise, businesses and law enforcement collaborate on strategies to reduce underage drinking; schools, parents and businesses support open discussion of risks associated with under-age or binge drinking.
* **Farm and Food programs** – Farm to School including curriculum outreach, vermiculture, recipe and menu planning for school cafeterias; FoodCorps service leadership; support to the Food Pantry network; greenhouse materials & construction at discounted prices; support in the formation of a regional food council and healthy eating initiatives.
* **Nutrition programs** – We Can! (Ways to Enhance Children’s Activity & Nutrition) public education; SNAP-Ed (Supplemental Nutrition Assistance Program) providing nutrition and cooking classes for residents receiving SNAP benefits; 5-2-1-0 Let’s Go to encourage kids and families to et 5 servings of fruit and vegetables, 2 hours or less of recreational screen time, 1 hour or more of physical activity and 0 sugary drinks.
* **Living Well programs** – worksite wellness; Keep Me Well health assessment tool; Screen Washington County to increase awareness and actual screening for colon cancer; free Breathe Easy signs to reduce exposure to second hand smoke; Tobacco Free Pledge resources; Healthy Homes information on lead exposure, testing and education on symptoms of high lead blood levels; information on trails in the region.
* **Youth programs** – Washington County: One Voice youth coalition; Jobs for Maine Graduates profiles; Downeast Teen Leadership Camp for students entering grades 7,8, and 9
* **School and Community programs** – Coordinated School Health Program, an 8 part program to improve kids health and capacity to learn; Transportation Infrastructure and access to Quality Health Care including collaborating with regional partners to improve transit options and publication of a Transportation Services Guide; Annual October Turkey-A-Thon to raise funds for the Food Pantries.

**REGIONAL climate change issues**

Climate change - change in the long-term, broad patterns of weather - is happening in Maine. It is well documented[[4]](#footnote-4) by more frequent and stronger storm events, higher tides, hotter summers, greater precipitation, shifting ranges of plant and animal species, expanded ranges of southern pests and disease, rising sea levels and acidification of the waters of the Gulf of Maine.

The short and long term impacts associated with climate change are significant and far-reaching.

* Storm severity and frequency has and will continue to cause flooding, erosion and property damage.
* Sea levels will rise at an accelerated rate and threaten coastal infrastructure including roads, rail, working waterfronts, water and sewage treatment plants and many downtown centers.
* The temperature and salinity of the Gulf of Maine is reducing the productivity of the entire aquatic food chain with significant declines in zooplankton and stresses on shellfish.
* Pest species like Lyme disease-bearing ticks are reaching further north as winters become milder.
* Agricultural production is threatened with both drought and extreme precipitation as well as new pests and pathogens with expanded ranges and survival.
* The forest products industry might benefit from higher growth rates for some species. However a longer mud season and shorter periods of hard freeze will reduce harvest opportunity and large shifts in species composition (from insect, disease, or dieback) could ripple across the forest products industry.
* The public health impacts are also a concern, particularly for the elderly or infirm, as extreme temperatures increase risk of heat stroke and, during coastal flooding, isolation from services or emergency response.
* Natural systems also face loss of wetlands and wildlife are exposed to exotic species and temperature-related stress.

Some changes may bring more tourism to Maine; increase forest productivity (and carbon sequestration), and increased variety and security in food production.

**Climate Vulnerability Assessment**

Climate vulnerability assessment (CVA) is a collection of tools and analyses used to understand how we are vulnerable or resilient in terms of impacts on people, infrastructure, public health, natural systems, and the economy. It asks what systems, species, populations, entities, facilities and infrastructure are most vulnerable to expected climatic changes, often depending on factors such as exposure, sensitivity, and adaptive capacity. Geographic information systems (GIS) mapping tools are a powerful means of:

1. visualizing our vulnerability,
2. recognizing the gaps in our understanding of our vulnerability, and
3. focusing our efforts on gathering necessary information and preparing for risk and change.

In the fall of 2013, the Washington County Council of Governments, working in cooperation with the University of Maine at Machias GIS Service Center presented a series of town- and bay-specific climate vulnerability assessments (CVAs) that anticipate a variety of storm impact scenarios. The GIS Service Center adapted the Sea, Lake and Overland Surges from Hurricanes (SLOSH) model, a computerized numerical model developed by the National Weather Service (NWS)[[5]](#footnote-5) to estimate storm surge heights resulting from historical, hypothetical, or predicted hurricanes by taking into account atmospheric pressure, size, forward speed, and track data. The SLOSH model is applied to a specific locale's shoreline, incorporating the unique bay and river configurations, water depths, bridges, roads, levees and other physical features.

The bay-specific CVAs were based on SLOSH model output of a hypothetical but entirely plausible hurricane that makes landfall in Penobscot Bay.

These CVAs did not include inland towns like [town name] because of the lack of reliable flood hazard data OR included [town name] and can be downloaded here: <http://gro-wa.org/washington-county-climate-change-response>. The coastal CVAs are made possible by the very recent (2012) acquisition of LiDAR (light detection and ranging) elevation data. The flights and analysis that provide this very high-resolution elevation data are very expensive. As a result they are only available along the immediate coast of Washington County.

**Adaptation to Climate Change Impacts**

There is a range of adaptation responses that landowners, businesses, and municipalities can take to limit exposure to our vulnerabilities. These include:

##### For storm adaptation:

* Evacuation and shelter planning including in real time
* Establish communications protocol between UMM-GIS Service Center Director and County EMA Director to Ensure real time scenario development in event of actual predicted hurricane in the Gulf of Maine
* Pre-position equipment to areas that may be cut off during a storm
* Map house bound and elderly residents; add to Climate Vulnerability Assessment

##### For roads, bridges and transportation:

* Inventory transportation infrastructure
* Participate and update culvert mapping inventory of Washington County Council of Governments
* Keep sand & salt piles above flood levels
* Improve stormwater capacity
* Improve culverts, flow under causeways
* Evaluate substructure of roadways most vulnerable to inundation and upgrade where necessary

##### For municipal officials:

* Limit building in flood prone areas using on-line mapping tools provided by Washington County Council of Governments (http://www.gro-wa.org/planners-maps)
* Adopt construction codes for coastal properties
* Maintain wetlands and floodplains to absorb flood waters

##### For Public Health:

* Plan for heat emergencies
* Distribute education about pest borne illnesses especially Lyme disease;
* Translate health advisories into Spanish and Passamaquoddy
* Assist elders and low income households with air conditioning/cooling

##### For any and all concerned:

* Train all personnel on use of on-line scenario mapping tool
* Always document impacts from severe storms ([Damage and Injury Assessment AKA “Form 7”](http://www.gro-wa.org/assets/files/climate-change/Form7.pdf" \t "_blank) & photos) to ensure County EMA officials can assemble documentation of regional storm impacts to reach Federal Disaster Declaration thresholds

**Summary**

[town name] cooperates whenever possible with adjoining towns and regional agencies and should continue to do so. [town name] is reasonably active on regional committees and authorities dealing with solid waste, emergency response, public health, and transportation and economic development. These activities will continue with a strong emphasis on regional transportation policy, facilities sharing, public health, and infrastructure development.

1. Calame, Jon and Woodworth, Asher. January, 2014. Down East Maine Renewable Energy Working Group: Findings and Recommendations Report. Available at: http://www.gro-wa.org/down-east-maine-renewable-energy-report [↑](#footnote-ref-1)
2. US EIA Maine state profile based on 2011 data. [↑](#footnote-ref-2)
3. From the Energy Information Agency [website](http://www.eia.gov/state/state-energy-profiles.cfm?sid=ME). [↑](#footnote-ref-3)
4. *Maine’s Climate Future* An Initial Assessment; February, 2009. University of Maine; [People and Nature Adapting to a Changing Climate - Charting Maine’s Course, February, 2010](http://www.georgetownclimate.org/resources/people-and-nature-adapting-to-a-changing-climate-charting-maines-course) – a Summary of the Report Presented by the Maine Department of Environmental Protection to the Joint Standing Committee on Natural Resources of the 124th Legislature [↑](#footnote-ref-4)
5. According to the NWS, the surge height predictions from the SLOSH model are accurate to within +/-20% for storms that follow the track and force patterns within the model. National Weather Service Sea, Lake, and Overland Surges from Hurricanes (SLOSH) Model. 2013. <http://www.nhc.noaa.gov/surge/slosh.php> [↑](#footnote-ref-5)