

1-2017

# Maine Forest-Based Economy: Report of the Economic Development Assessment Team, 2017

Economic Development Assessment Team (EDAT)

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Maine Forest-Based Economy:  
Report of the Economic Development Assessment Team  
January 2017



### ACKNOWLEDGEMENTS

This report was prepared by the Economic Development Assessment Team (EDAT), including representatives of the U.S. Economic Development Administration, U.S. Department of the Treasury, U.S. Department of Transportation, U.S. Department of Agriculture, U.S. Department of Labor, U.S. Department of Energy, U.S. Environmental Protection Agency, U.S. Small Business Administration, and the Northern Border Regional Commission.

Additional assistance was provided by J&M Global Solutions LLC and Geoff Huntington, Oregon State University.

This report was also developed in consultation with the EDAT Planning Committee, which includes industry representatives, elected officials, community members, and regional economic development officials.

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## TABLE OF CONTENTS

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EXECUTIVE SUMMARY	1
<b>Immediate Next Steps</b>	<b>3</b>
INTRODUCTION	7
<b>What is an EDAT?</b>	<b>7</b>
<b>On-Going Local Efforts</b>	<b>8</b>
<b>EDAT in Maine</b>	<b>8</b>
STRATEGIES AND IDENTIFIED RESOURCES	10
EXISTING EFFORTS	54
SUSTAINING THE EFFORT	59
<b>Monitoring and Evaluation</b>	<b>60</b>
APPENDIX A: BACKGROUND	61
APPENDIX B: RESOURCES	78
APPENDIX C: INDUSTRY AND COMMUNITY PRIORITIES	108
APPENDIX D: EDAT MEMBERS	124
APPENDIX E: AGENDA	126
APPENDIX F: LETTER SENT TO SECRETARY PRITZKER REQUESTING EDAT	127
APPENDIX G: ACRONYMS	129

## EXECUTIVE SUMMARY

*"We stand ready to focus on the art of the possible...to make navigating federal opportunities easier by breaking down silos." – Matt Erskine, Deputy Assistant Secretary, Economic Development Administration*

The goal of this report is to identify federal resources that can help Maine's forest products industry create and retain jobs, and strengthen the future of Maine's forest economy. The forest products industry has a long and proud heritage in Maine and remains a significant economic driver in the state's economy. In 2016, the total economic impact of the forest products industry was estimated at \$8.5 billion, accounting for more than 33,000 total jobs.<sup>1</sup>



*Pleasant River Lumber Sawmill*

At the same time, rapid marketplace changes have led to the closure of five pulp and paper mills in recent years, with profound impacts on Maine's rural communities and the Penobscot River Valley region in particular. In a relatively short amount of time, the forest products industry in Maine lost 20-25 percent of its markets, including markets for two million tons of low-grade pulp wood and between one and two million tons of biomass (forest residues and waste wood). Pulp, paper and paperboard mills comprised about 21.6 percent of Maine's total exports in 2010, yet at the end of 2015 accounted for only 12.4 percent.

Maine's decline in employment in pulp, paper and paperboard mills has been steady, following national trends. In 1990, the pulp and paper manufacturing sector accounted for approximately 17,400 jobs in Maine.<sup>2</sup> In 2015, employment averaged approximately 4,100 jobs in Maine, representing a 75 percent decline from 1990. In this integrated economy, these losses influence the sawmill industry, the logging industry, and the landowners. The resulting imbalance puts Maine's rural communities in peril.

Last spring, industry and community leaders came together to develop a set of immediate priorities and strategies to reinvigorate Maine's forest economy. The priorities are intended to encourage capital investment in the market gaps as soon as possible to minimize the risk of further collapse. For example, if Maine loses 25 percent of its logging workforce, it will be very difficult to rebuild that essential component of the forest products industry, and further limit its ability to secure new and expanded market opportunities.

<sup>1</sup> <http://maineforest.org/>

<sup>2</sup> *The Economic Importance of Maine's Forest-Based Economy 2013.*

At the request of local industry and community leaders and the Maine congressional delegation, the U.S. Economic Development Administration (EDA) coordinated and mobilized its federal partners to participate in an Economic Development Assessment Team (EDAT). A coordinated, multiagency efforts, the goal of the EDAT is to leverage the power of multiple federal agencies and harness stakeholder input to create economic development strategies that help pave the way for job growth. Modeled after structures established in the National Disaster Recovery Framework (NDRF), an EDAT enables EDA to marshal the full range of federal resources to work on behalf of a region experiencing economic distress.

The EDAT spent three days in Maine gaining a deeper understanding of issues facing the region through a series of site visits, community meetings, and briefings by community and industry leaders. The federal team saw firsthand how the state has been impacted by the recent industry challenges. Importantly, the team also saw how the industry and many communities have come together to develop new efforts and ideas for economic development. Along with identifying strategies to support the revitalization of Maine's forest-based economy, the EDAT's federal partners identified potential resources and programs that could be leveraged by the state, local governments, businesses, economic development organizations, and industry partners to implement these strategies.



*EDAT Site Visit*

Based on the information gathered during the visit, and the priorities identified by the industry and community partners, the EDAT developed a series of recommended strategies. They are as follows:

*STRATEGY 1: Develop an industry-wide strategic plan to assess future demand for wood products and Maine's wood supply now and in the future*

*STRATEGY 2: Conduct a transportation analysis to determine where infrastructure investments are necessary to improve transportation efficiencies*

*STRATEGY 3: Invest in the development and commercialization of new forest products*

*STRATEGY 4: Support the development of markets for forest product residuals*

*STRATEGY 5: Identify training needs and prepare the workforce to meet changing requirements*

*STRATEGY 6: Support the redevelopment of vacant mill sites*

*STRATEGY 7: Support vibrant Maine communities where people want to live, work and visit*

*STRATEGY 8: Invest in long-term community infrastructure for the future*

This report describes the federal resources<sup>3</sup> available to support each of the EDAT recommendations, including next steps and federal agency contacts. It summarizes the challenges and opportunities highlighted during the EDAT site visit and presents the priorities identified by industry and community partners.

The federal government is fully committed to working with Maine's forest products industry and impacted communities to implement the priorities described here. This report aligns the EDAT recommended strategies with these priorities and identifies sources of possible funding to implement them. Individual points of contact for each agency stand ready to assist Maine stakeholders to move forward with developing and funding specific proposals. In addition, Maine's Regional EDA Representative will assist stakeholders with the federal process, and EDA's Economic Development Integrator<sup>4</sup> will facilitate collaboration across multiple federal stakeholders. EDA has also awarded a three-year grant to the Maine Development Foundation (MDF) to coordinate and track the economic recovery efforts that result from the EDAT's findings and recommendations and coordinate with EDA to track federal commitments.

The forest products industry is changing, and if Maine's forest economy adapts quickly it can maintain its leading role in a global forest economy and ensure that the state's rural communities prosper.

### Immediate Next Steps

Federal partners have committed to work with industry and community partners on outlining specific next steps to move forward with the recommendations in this report. Along with the full description of strategies and resources available to support industry and community revitalization and current grant awards (see Strategies and Resources sections), a number of specific commitments made across multiple federal agencies as a result of the EDAT visit are already underway. These include:

- EDA is collaborating with Maine forest products industry leaders on expedited funding opportunities to quickly move forward with developing an industry-wide strategic plan—the top priority identified through the EDAT process (Strategy 1). In January 2017, EDA took a significant step toward achieving this priority by investing \$997,269 to help industry leaders create a vision and roadmap for Maine's forest products sector, including identifying products with strong future demand; analyzing Maine's competitiveness against other regions and countries; conducting wood supply analyses to understand availability by species, product, and location; assessing key transportation assets; and investigating combined heat-and-power opportunities.

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<sup>3</sup> A full description of federal resources can be found in Appendix B.

<sup>4</sup> Learn more about EDA's Office of Economic Development Integration here: <https://www.eda.gov/edi/>

- As previously announced, EDA has also awarded a three year grant to the Maine Development Foundation to coordinate and track the economic recovery efforts that result from the EDAT's findings and recommendations. MDF will also continue to coordinate with EDA to track federal commitments.
- The Oak Ridge National Laboratory (ORNL) is proposing a stronger collaboration platform with the University of Maine (UMaine), specifically in the areas of developing forest-based biomaterials for use with advanced additive manufacturing, biorefineries, bioenergy and biofuels. UMaine staff and faculty visited the ORNL Advanced Manufacturing Demonstration Facility in October 2016, with subsequent visits to Maine from ORNL in the fall of 2016. ORNL has developed a major focus in composite materials manufacturing and world leadership in additive manufacturing. The ORNL and UMaine are working to establish a hub-and-spoke model bringing together ORNL's expertise in additive manufacturing and composites along with UMaine's focus on bio-based composites and structures. A nationally recognized hub at UMaine will function as an ORNL affiliated facility, advancing additive manufacturing of biobased low cost materials, supporting ongoing relationships with marine, military and renewable energy clients and providing a regional center for workforce training. ORNL will work with key stakeholders to organize a workshop on market and technology opportunities on non-timber forest products, including residual material utilization. On October 18, 2016, the Agriculture Technology Innovation Partnership (ATIP) North East Bioeconomy Forum, one of six forums held nationally and sponsored by USDA and the U.S. Department of Energy (DOE), was held at UMaine to engage public and private stakeholders in Maine on efforts to build and grow the "Billion Ton Bioeconomy" and to seek local input on the Billion Ton initiative's vision, strategies and implementation. (Strategy 3 and 4).
- ORNL and the Department of Energy will also provide technical expertise to Maine industry in Combined Heat Power (CHP) technologies. A team from Maine visited ORNL on December 1, 2016 to learn about the latest R & D that is being conducted related to the utilization of biomass for CHP, microgrid and cutting edge research related to biofuels. (Strategy 4)
- The Department of Energy will deploy the Combined Heat and Power Technical Assistance Program (CHP TAP) to provide baseline project evaluation on technology and possible financing opportunities for approximately three discussed projects. Beyond specific project review, the CHP TAP will provide workshops to a wide-range of stakeholders including municipal, schools, high schools, and industrial that present the opportunities and benefits of CHP. (Strategy 4)
- USDA Rural Development has partnered with the National Institute of Food and Agriculture (NIFA) at USDA to partially fund some of the research proposed in the EDAT report. Through the intra-agency agreement, NIFA is currently working with the University of Maine to allocate \$150,000 provided by Rural Development to assist the University of Maine to study the current and emerging forest products market, and to conduct both a competitive analysis and a Strengths, Opportunities, Aspirations, and Results Analysis (SOAR) in 2017.



- USDA's Forest Service is working with industry to define specific technical assistance, data and other resources that could support the forest inventory aspect of the strategic plan (Strategy 1). Forest Inventory and Analysis (FIA) efforts are already underway within the state, and additional modeling support will be made available through the Forest Service.
- The Environmental Protection Agency's (EPA) Brownfields Office is identifying available resources and technical assistance for mill site redevelopment in Maine communities (Strategy 7). The EPA has awarded \$200,000 to the Eastern Maine Development Corporation to support a development and implementation strategy in Bucksport, ME for the former Verso Paper Mill project area. The funding is awarded through the EPA Brownfield Area-Wide Planning program which aims to engage communities to help clean-up old sites for economic development initiatives.
- EDA's Maine-based Economic Development Representative is coordinating with the Professional Logging Contractors of Maine and the state's technical schools on a project to provide equipment (forwarders, processors and simulators) for training high school students in the logging trades (Strategy 5).
- In December of 2016 Maine qualified for a disbursement of \$4,477,240 from the State Small Business Credit Initiative (SSBCI). This initiative is an innovative program run out of the U.S. Department of the Treasury, that awards funds to State agencies for lending and investing programs. SSBCI programs fall into five categories: Capital Access Programs, Loan Participation Programs, Collateral Support Programs, Loan Guarantee Programs, and Venture Capital Programs. The Finance Authority of Maine (FAME), the State agency that administers the SSBCI program, now has these funds available for lending and investing through its approved SSBCI programs.
- EPA and USDA will support efforts in Millinocket and Eastport to leverage broadband service to revitalize their downtowns. Through the Cool & Connected planning assistance program, a team of experts will help the two towns develop strategies and action plans to improve broadband in ways that boost main street investment activity and local economic development. (Strategy 7)
- The U.S. Small Business Administration (SBA), along with its resource partners, will increase outreach in the region and schedule a series of small business events on important related topics. SBA is also prepared to increase collaborative efforts with local trade organizations, chambers of commerce, municipalities, resource partners and economic development organizations. As dates and times are finalized, they will be announced at [www.sba.gov/me](http://www.sba.gov/me).
- In October 2016, SBA awarded a \$145,000 grant to the Maine International Trade Center to support export growth among the state's small businesses. The funding was awarded through SBA's competitive State Trade Expansion Program (STEP). These awards are granted to U.S. states and territories to support programs that help small businesses expand their export-related activities. This includes participation in foreign trade missions, foreign market sales trips, subscription services for access to

international markets, as well as the design of international marketing campaigns, export trade show exhibits, export training workshops and more. Eligible Maine businesses may receive up to \$8,000 in reimbursements for costs associated with these activities. STEP funds allow small businesses the opportunity to meet foreign buyers face-to-face at trade shows or on trade missions, and complement SBA's export loan guaranty programs, which can finance the working capital needed to complete export orders and in turn help finance the expansion of production facilities due to export success.

- The Maine forest products industry has identified a number of areas where new or currently proposed projects would help meet strategic industry goals. These include, port improvements, CHP projects, and wood to fuel efforts such as biorefineries. As the EDAT process continues, industry and related stakeholders will be putting forward these projects to achieve many of the goals outlined in this report.

## INTRODUCTION

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### What is an EDAT?

A coordinated, multi-agency team, the goal of the Economic Development Assessment Team (EDAT) is to leverage the power of multiple federal agencies and harness stakeholder input to create economic development strategies that help pave the way for job growth. Modeled after the National Disaster Recovery Framework (NDRF), an EDAT enables the Economic Development Administration (EDA) to marshal the full range of federal resources to work on behalf of a region experiencing economic distress. This tailored response has been used to address incidents like the Deepwater Horizon oil spill, the Colorado wildfires, and the collapse of New England's fisheries.

The EDAT brings together agencies from across the federal government to focus their efforts, build relationships, and better understand the challenges facing a region. The federal team collaborates with local and industry stakeholders to explore strategies for diversification and familiarizes them with applicable programs to support economic development and revitalization. **By engaging with local stakeholders with diverse interests in the community, the team accelerates community planning and action and assists communities in leveraging and applying best practices for economic development and diversification.** It is not a federal-only approach, nor is it a complete economic analysis.

*"While not a silver bullet, this process is a valuable tool that will provide technical assistance connecting the region and state to key resources and spurring critical partnerships."*

– Matt Erskine, Economic Development Administration

The forest products industry has a long and proud heritage in Maine, and remains a significant economic driver in the state's economy. In 2016, the total economic impact of the forest products industry was estimated at \$8.5 billion, accounting for more than 33,000 total jobs.<sup>5</sup>

At the same time, rapid marketplace changes have led to the closure of five pulp and paper mills in recent years, with profound impacts on Maine's rural communities and the Penobscot River Valley region in particular. In a relatively short amount of time, the forest products industry in Maine lost markets for two million tons of low-grade pulp wood and between one and two million tons of biomass (forest residues and waste wood). In this integrated market, these losses have influenced the sawmill industry, the logging industry, and the landowners. The resulting imbalance puts Maine's rural communities in peril. Immediate action is necessary to preserve local employment opportunities and the sustainable use of natural resources, while encouraging economic diversification with the state's forest economy.

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<sup>5</sup> <http://maineforest.org/>

## On-Going Local Efforts

Industry trade associations, stakeholder groups, and partner organizations such as the University of Maine have been actively working to reinvest and revitalize the state's forest-based economy. They have been working closely with state commissions and agencies, elected officials, and community organizations to identify issues and potential solutions.

At the request of industry and community leaders, in the spring of 2016, Maine's congressional delegation contacted the Department of Commerce requesting assistance for Maine's forest product industry in the wake of several mill closures (see Appendix F). In response to this request, EDA deployed an EDAT to Maine.

## EDAT in Maine

At the start of this process, many key industry and community leaders across Maine came together to identify shared priorities and goals for the EDAT process. This group, formalized as the EDAT Planning Committee, organized site visits, briefings, listening sessions and community meetings to provide the federal team with a more in-depth understanding of the stakeholders, challenges, current initiatives and resource needs throughout Maine's forest-economy.

At the invitation of local stakeholders, the EDAT deployed to Maine and, through the activities arranged by the EDAT Planning Committee, gained a better understanding of the economic development challenges and opportunities facing the state's forest-based economy. These activities informed the development of this report and the strategies designed to foster robust economic growth. The federal team was comprised of 25 representatives from eight federal agencies—the U.S. Departments of Treasury, Agriculture, Commerce, Labor, Transportation, and Energy, the Environmental Protection Agency, the Small Business Administration, and the Northern Border Regional Commission.



*EDAT in Maine*

*"A day of seeing is worth thirty days of reading." - Senator King*

The EDAT visit allowed members of the site visit team to evaluate new and existing economic strategies to address Maine's forest-based economic challenges, with the goal of working to build a robust and enduring economy. Its objectives were to:

- *Meet with local community and business leaders*—Hold qualitative conversations with stakeholders to develop key insight on the local economy.

- *Assess current and emerging economic issues*—Further examine the primary economic issues identified from meetings.
- *Identify new and existing resources to leverage*—Assess local economic development capacity and identify potential public and private resources in the region.
- *Provide economic development strategies*—Develop a customized report that outlines both short- and long-term solutions for economic diversification and resiliency.

The EDAT participated in three full days of briefings, site visits, and community discussions, and had opportunities to listen to forest products industry representatives, community leaders, citizens and economic development leaders about Maine’s forest-based economic challenges. (See Appendix E for agenda.)

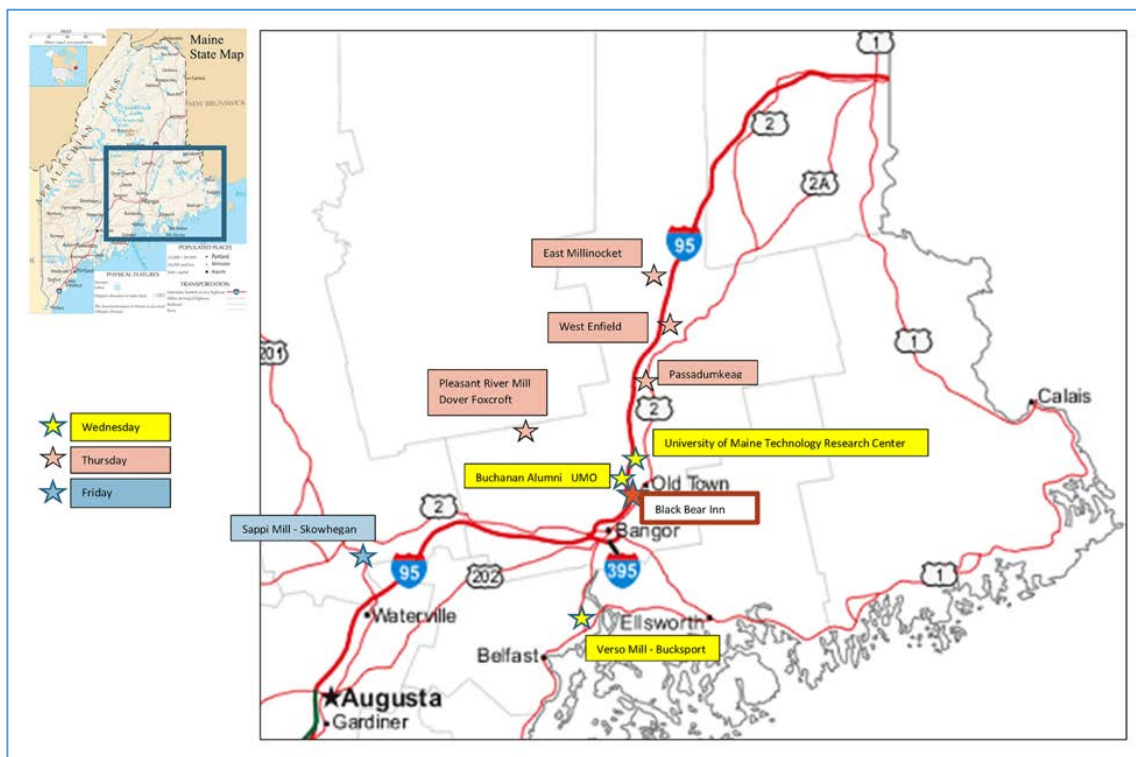


Figure 1: Overview of EDAT Visit

Federal members of the EDAT listened to industry and community stakeholders, captured their concerns and recommendations, and identified strategies and resources to assist the region in meeting its economic recovery goals. Based on these visits and meetings, the EDAT developed the following strategies to encourage revitalization of local economies, and the potential federal resources local communities and industry partners may be able to leverage to foster economic recovery and resiliency.

## STRATEGIES AND IDENTIFIED RESOURCES

*"Developing new value added products, securing the workforce and attracting new workers, and developing a statewide plan to assist the forest industry are steps to make the forest products industry more resilient." – Maine Comprehensive Economic Development Strategy (CEDS) 2015-2016*

Based on the priorities identified by the Maine forest products industry and community leaders and available resources, the EDAT identified eight strategies to support the growth of Maine's forest-based economy and the resilience of local economies. The EDAT has identified a number of resources available to assist local communities with their economic revitalization.



*Stacked lumber: Maine EDAT visit*

The following section of the report identifies EDAT recommended strategies, the industry and community stakeholder priorities each responds to, and the available federal resources that best correspond to each strategy.

### *STRATEGY 1: Develop an industry-wide strategic plan to assess future demand for wood products and Maine's wood supply now and in the future.*

A consortium of forest industry organizations (Maine Forest Products Council, Professional Logging

#### *Maine Forest Economy Stakeholder Priorities:*

- A. Conduct a global market assessment to assess future demand for Maine wood products.
- B. Conduct a statewide wood supply analysis to attract new markets.

Contractors of Maine, Small Woodland Owners of Maine and the Maine Pulp & Paper Association), and the University of Maine (led by the Center for Research on Sustainable Forests) have been working together to develop a long-term vision and roadmap for Maine's forest products sector. This consortium will help industry and government leaders work together to develop a common long-term vision for the sector by identifying the key opportunities that must be captured, key challenges that must be met, and key obstacles that must be overcome to develop greater economic prosperity in the forest products sector across the state.

Industry should continue to move forward with developing a strategic plan as proposed. The plan should be based on benchmarking and real-world assessment and prospective modeling of forest growth and harvest levels, by species, grade and geography. Through these assessments, the state will have a better idea of the industry's strengths and weaknesses as well as opportunities for growth. The plan should

also integrate economic resilience principles and look beyond the initial economic crisis. Building on the results of the strategic plan, the region should develop a roadmap with actionable items that will help to address market diversification.

The outcomes of the strategic planning process include:

- Inventory of product and capabilities, including assessment of growth partners and harvest levels
- Better understanding of how Maine's forest products industry compares with its competitors across a standard set of measures to identify policy changes to improve our current position
- Analysis of current product offerings compared to global markets
- Identification of new and emerging markets and opportunities for Maine's forest products industry
- Industry goals, objectives and implementation strategies
- A roadmap to guide market diversification efforts while supporting existing local businesses
- Performance metrics and benchmarks to continually gauge success and potential course corrections



Figure 2: From "Strategic Planning Initiative for Maine's Forest-Based Economy"

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*Strategy Lead Agency(s): USDA, DOE, NBRC, EDA, Treasury (via the Finance Authority of Maine (FAME))*

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AVAILABLE FEDERAL RESOURCES:

- ✓ **United States Department of Agriculture**
  - **Forest Service: Forest Inventory and Analysis National Program**  
The Forest Inventory and Analysis (FIA) Program provides the information needed to assess America's forests. The program projects how forests are likely to appear 10 to 50 years from now. This enables users to evaluate whether current forest

management practices are sustainable in the long run and to assess whether current policies will allow the next generation to enjoy America's forests as we do today. FIA reports on status and trends in forest area and location; in the species, size, and health of trees; in total tree growth, mortality, and removals by harvest; in wood production and utilization rates by various products; and in forest land ownership.

The Northern Research Station Forest Inventory and Analysis Unit (NRS-FIA), headquartered in Newtown Square, Pennsylvania, has the responsibility to provide detailed forest resource information on the nature, condition, and use of the forests in 24 states in the Northeast and Midwest. FIA efforts are underway in the state of Maine and additional modeling support will be available to assist the state as the need for advanced spatial analyses are developed in partnership with the University of Maine and the Maine Forest Service.

- **Rural Development: Rural Business Development Grant (RBDG)**

RBDG is a competitive grant designed to support targeted technical assistance, training and other activities leading to the development or expansion of small and emerging private businesses in rural areas that have fewer than 50 employees and less than \$1 million in gross revenues. RBDG funds must be directed for projects benefitting rural areas or towns outside the urbanized periphery of any city with a population of 50,000 or more. Programmatic activities are separated into *Enterprise* or *Opportunity* type grant activities.

*Enterprise* type grant funds must be used on projects to benefit small and emerging businesses and may include: training and technical assistance, such as project planning, business counseling/training, market research, feasibility studies, professional/technical reports, or product/service improvements; acquisition or development of land, easements, or rights of way; construction, conversion, renovation, of buildings, plants, machinery, equipment, access streets and roads, parking areas, utilities; pollution control and abatement; capitalization of revolving loan funds including funds that will make loans for start-ups and working capital; distance adult learning for job training and advancement; and rural transportation improvement.

*Opportunity* type grant funding can be used for projects such as community economic development, technology-based economic development, feasibility studies and business plans, leadership and entrepreneur training, rural business incubators, and long-term business strategic planning.

*Next Steps:* Identify an eligible applicant/owner. Identify an eligible project that supports the particular strategy in question. Work with USDA Rural Development to file an application for grant. Applications may be accepted at any time, but the final



due date is typically May 1. Maine's fiscal year 2016 (FY16) state allocation was \$290,000.

*Point of Contact:* Cheryl Pelletier, Acting Business Programs Director  
Cheryl.Pelletier@me.usda.gov, 207-764-4157

- **Rural Development: Rural Community Development Initiative (RCDI)**

This program provides funding to help non-profit housing and community development organizations support housing, community facilities, and community and economic development projects in rural areas. Eligible entities include public bodies, non-profit organizations, and federally-recognized tribes. Eligible areas include any area other than (i) a city or town that has a population of greater than 50,000 inhabitants; or (ii) the urbanized area contiguous and adjacent to such city or town. Eligible entities act as intermediaries that provide assistance to sub-grantees. Examples of assistance provided by intermediaries include (1) training sub-grantees to conduct home-ownership education and minority business entrepreneur education; and (2) providing technical assistance to sub-grantees on strategic plan development, accessing alternative funding sources, board training, developing successful child care facilities; creating training tools, such as videos, workbooks, and reference guides; and effective fundraising techniques. Funding availability is offered through a Notice of Solicitation of Applications (NOSA). In FY16, \$4 million was made available in May with an application due date in July. FY17 funding has not yet been announced.

*Next Steps:* Depending on funding availability, identify potential project and interested applicant. Work with USDA Rural Development contact to assist in submitting an application. If awarded, monitor progress toward successful completion.

*Point of Contact:* Robert J. Nadeau, Community Programs Director USDA Rural Development 967 Illinois Avenue, Suite 4 Bangor, Maine 04401-2767 207-990-9121

- ✓ **United States Department of Treasury**

- **Regional Economic Development Revolving Loan Program/Finance Authority of Maine (FAME)**

On September 27, 2010, the Small Business Jobs Act of 2010 (the Act) was signed into law, creating the State Small Business Credit Initiative (SSBCI). The Act provided almost \$1.5 billion for state programs that support access to credit for small businesses and small manufacturers. Participating states are required to demonstrate a reasonable expectation that they will leverage \$10 in private lending for every \$1 in SSBCI funds.

SSBCI is an innovative program that awards funds to State agencies for lending and investing programs. SSBCI programs fall into five categories—Capital Access Programs, Loan Participation Programs, Collateral Support Programs, Loan Guarantee Programs, and Venture Capital Programs. The program allows each state to design its own small business support programs in response to local economic conditions. Maine was awarded \$13,168,350 to be received in three disbursements that are conditioned on program performance. In the past, Maine has qualified for two disbursements totaling \$8,691,110, and in December of 2016, qualified for its third disbursement of \$4,477,240. The Finance Authority of Maine (FAME) now has these funds available for lending and investing through its approved SSBCI programs.

Maine is using its award to fund two loan participation programs – the Regional Economic Development Revolving Loan Program (REDRLP) and the Economic Recovery Loan Program (ERLP) – and one venture capital program – Small Enterprise Growth Fund (SEGF). The agency that administers the SSBCI program on a day-to-day basis is FAME.

*Point of Contact:* James Clark, Outreach Manager, SSBCI  
[James.Clark2@treasury.gov](mailto:James.Clark2@treasury.gov); 202-622-2635

#### ✓ **U.S. Department of Commerce**

##### ▪ **Economic Development Administration (EDA): Short Term Planning Program**

The EDA Short Term Planning Program provides funding to establish plans and strategies to meet specific local and regional economic development needs. These projects are typically pursued by communities, groups of communities and/or industry groups to address their unique economic circumstances. Working with EDA-designated Economic Development Districts (EDDs), which receive annual funding to maintain regional Comprehensive Economic Development Strategies (CEDs), recipients of Short Term Planning funds can further leverage the impact and effectiveness of their specific planning projects.

*Eligible Applicants:* state, county and municipal governments, quasi-governmental organizations, qualified non-profit organizations and institutions of higher education.

*Next Steps:* Eligible recipient reviews the EDA Federal Funding Opportunity (FFO) for the Short Term Planning and Local Technical Assistance Program available through the EDA web site ([www.eda.gov](http://www.eda.gov)) to determine if the proposed planning project appears to be consistent with the program requirements. If so, or if there is any question regarding consistency, contact the EDA point of contact provided below for consultation and technical assistance on the program and the development of an application for EDA assistance if appropriate.

*Point of Contact:* Alan Brigham, EDA Economic Development Representative for Maine, 34 Timberhill Road, Windham, ME 04062, 215-316-2965, [ABrigham@eda.gov](mailto:ABrigham@eda.gov).

- **Economic Development Administration (EDA): Local Technical Assistance Program**

The EDA Local Technical Assistance Program (LTA) provides funding to conduct projects that fill knowledge or data gaps necessary for further investment decision-making, or to build local capacity to address a specific local need. Typical projects include feasibility and market studies, economic impact analyses, site/location assessments and inventories of resources (e.g., development sites) and areas requiring attention (e.g., brownfields).

*Eligible Applicants:* state, county and municipal governments, quasi-governmental organizations, qualified non-profit organizations and institutions of higher education.

*Next Steps:* Eligible recipient reviews the EDA FFO for the Short Term Planning and LTA Program, available through the EDA web site ([www.eda.gov](http://www.eda.gov)), to determine if the proposed local technical assistance project appears to be consistent with the program requirements. If so, or if there is any question regarding consistency, contact the EDA point of contact provided below for consultation and technical assistance on the program and the development of an application for EDA assistance if appropriate.

*Point of Contact:* Alan Brigham, EDA Economic Development Representative for Maine, 34 Timberhill Road, Windham, ME 04062, 215-316-2965, [ABrigham@eda.gov](mailto:ABrigham@eda.gov).

- ✓ **Northern Border Regional Commission (NBRC)**

- **Economic & Infrastructure Development (EID) Investment Program**

The NBRC EID Investment Program provides funds to public bodies (including states), Native American Tribes, and nonprofit corporations for a myriad of uses related to direct or indirect job creation. EID funds support eligible projects in Androscoggin, Aroostook, Franklin, Hancock, Kennebec, Knox, Oxford, Penobscot, Piscataquis, Somerset, Waldo, and Washington counties. Projects are eligible for up to an 80 percent matching grant (of up to \$250,000) depending on the economic distress of the counties being assisted. By statute, NBRC funds can be used as match for leveraging other federal grant funds. All grants are in the form of reimbursement for previously paid and eligible expenses, and applications are expected to be available in March 2017 on the NBRC's website ([www.nbrc.gov](http://www.nbrc.gov)). Typically, applications are due in June with ultimate decisions being made in August.

The NBRC's process of decision-making is based on a consensus between the federal co-chair and the collective approval of the four NBRC state governors. Applications are prioritized by the states based on an objective scoring process. State economic development plans influence decision-making as does the NBRC's Five Year Strategic Plan.

While the NBRC has not generally supported requests for planning assistance in the past, in 2016 the NBRC approved a \$40,000 grant to the State of New Hampshire to aid in creating the first statewide comprehensive economic development plan. New Hampshire is using NBRC funds as match for a larger request for planning assistance with EDA.

*Next Steps:* Identify an eligible applicant and summarize a scope of work for NBRC assistance. Organize a meeting between the Federal Co-Chair (Mark Scarano) or the Program Director Christine Frost, and Governor LePage's representative to the NBRC (Economic Development Advisor to the Governor, John Butera) to discuss the project and its impact on the State of Maine and NBRC region.

*STRATEGY 2. Conduct a transportation analysis to determine where infrastructure investments are necessary to improve transportation efficiencies*

*"The ability to export goods efficiently and at reasonable costs is key to growing the identified clusters. Maine seaports, such as Eastport, Searsport and Portland, are crucial to these efforts." – Maine CEDS 2015-2016*

*Maine Forest Economy Stakeholder Priorities:*

- C. Conduct a transportation analysis to determine where infrastructure improvements are necessary to increase profitability for the forest products value chain.

As facilities close and new opportunities develop, wood transportation patterns in Maine will have shifted. There will be a need for specific investments and more strategic planning to accommodate those changes.

Forest sector representatives noted the need to examine trucking inefficiencies and challenges. The majority of remaining pulpwood mills are in the southern part of the state, so transporting the wood to market has become more expensive. The average hauling distance is 100 miles, which is higher than in other states, and longer transportation routes mean increased cost, handling, and wear and tear on vehicles and equipment.

There is a great deal of opportunity for the forestry industry to utilize rail transportation, but greater coordination, research, and investment is necessary. The Maine CEDS contains recommendations to

increase rail loads from manufacturers by working with both the Maine and U.S. DOT and rail carriers to provide more stability in rail transportation. These ongoing discussions can include the forestry industry to better plan for and invest in solutions that better move marketable products, reduce road wear, and create jobs.

Moving forestry products to export markets is a critical component of future profitability and growth in the sector. Maine has significant port-side opportunities for shipping products to Europe and beyond, but fundamental links that connect ports to industry are lacking. Following the lead of the Maine CEDS, intermodal capacity at ports should be strengthened with emphasis put on developing direct rail connections to ports. Investments in increasing efficiencies at ports should be considered from public sources. Moreover, innovative ways of supporting port stability and growth should be considered, including collocating industrial facilities at port locations so that natural agglomeration effects may occur. For example, specific investment opportunities have been identified at Searsport and Eastport ports, and Bucksport is interested in exploring deep water port opportunities.

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*Strategy Lead Agency(s): U.S. DOT, USDA, NBRC*

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#### AVAILABLE FEDERAL RESOURCES:

- ✓ **U.S. Department of Transportation Supplemental Discretionary Grants for National Surface Transport System**
  - **TIGER Program**

The Transportation Investment Generating Economic Recovery (TIGER) grant program is a competitive grant program administered by the Office of the Secretary of the USDOT. The program supports innovative projects, including multi-modal and multi-jurisdictional projects. One of the goals of the program is to improve the state of good repair of transportation infrastructure. Through public sponsorship, Maine's railroads, ports and roadways have been able to take advantage of this program with more than \$100 million going to improve and modernize infrastructure.

*Eligible Applicants:* Public entities including states, cities, counties, tribal governments, metropolitan planning organizations, and port and transit authorities. While a privately owned railroad is not an eligible applicant, public entities can partner with a private railroad in applying for a grant to improve infrastructure.

*Next Steps:* Eligible applicants should review the Notice of Funding Opportunity (NOFO) for TIGER grant offering from the U.S. DOT Office of the Secretary, when available. (See <https://www.transportation.gov/tiger>.) This will not be known until after the first of the year and funding is provided in the 2017 appropriations.

Applicants should look at enhancing and improving infrastructure to a state of good repair which will improve the economic competitiveness of Maine forest products.

*Point of Contact:* Robert Mariner, Office of Policy, Office of the Secretary, U.S. Department of Transportation, 1200 New Jersey Ave., S.E., Washington, DC 20590, 202-366-8914, [Robert.mariner@dot.gov](mailto:Robert.mariner@dot.gov)

- **FASTLANE Program**

The Fostering Advancement in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) Program provides dedicated, discretionary grant funding for projects that address critical freight issues facing our nation's highways and bridges and establishes broad multi-year eligibilities for freight infrastructure, including railroads, intermodal terminals, and ports. The program is authorized at \$4.5 billion for fiscal years 2016 through 2020, including \$850 million for FY17. In September 2016, Maine was awarded \$7.7 million toward a \$15.4 million intermodal port productivity project.

*Eligible Applicants:* States, cities, counties, metropolitan planning organizations that serve an urbanized area, public transportation authorities including port authorities, federal land management agencies that apply jointly with a state or group of states, and tribal governments.

*Next Steps:* Eligible applicants should review the Notice of Funding Opportunity (NOFO) for FASTLANE grant offering from the DOT Office of the Secretary (<https://www.transportation.gov/buildamerica/FASTLANEgrants>). The NOFO was announced on October 28, 2016, and project applications were due December 15, 2016.

*Point of Contact:* Robert Mariner, Office of Policy, Office of the Secretary, U.S. Department of Transportation, 1200 New Jersey Ave., S.E., Washington, DC 20590, 202-366-8914, [Robert.mariner@dot.gov](mailto:Robert.mariner@dot.gov).

- **StrongPorts Program**

The StrongPorts program and PortTalk assist the DOT Maritime Administration (MARAD) in understanding where ports' greatest needs, concerns and challenges exist. PortTalk helps MARAD determine opportunities for creating solutions. PortTalk assists ports by working towards the consideration of port plans and projects in local, regional, state and federal plans, and planning efforts. It also includes tailored plans of programs responding to the needs of the ports, typically discovered during PortTalk consultation efforts with MARAD Gateway Directors.

The StrongPorts program is targeted toward port planning and can be a component of state freight planning and state rail planning documents.

*Next Steps:* Interested parties should review the MARAD StrongPorts website (<https://www.marad.dot.gov/ports/strongports/>) for more information and the Port Planning and Investment Toolkit.

*Point of Contact:* Travis Black, Office of Marine Highways and Passenger Service, Maritime Administration, 1200 New Jersey Ave., S.E., Washington, DC 20590, 202-366-9087, [travis.black@dot.gov](mailto:travis.black@dot.gov).

✓ **Northern Border Regional Commission**

▪ **Economic & Infrastructure Development (EID) Investment Program**

The NBRC EID Investment Program provides funds to public bodies (including states), Native American Tribes, and nonprofit corporations for a myriad of uses related to direct or indirect job creation. EID funds support eligible projects in Androscoggin, Aroostook, Franklin, Hancock, Kennebec, Knox, Oxford, Penobscot, Piscataquis, Somerset, Waldo, and Washington counties. Projects are eligible for up to an 80 percent matching grant (of up to \$250,000) depending on the economic distress of the counties being assisted. By statute, NBRC funds can be used as match for leveraging other federal grant funds. All grants are in the form of reimbursement for previously paid and eligible expenses, and applications are expected to be available in March 2017 on the NBRC's website ([www.nbrc.gov](http://www.nbrc.gov)). Typically, applications are due in June with ultimate decisions being made in August.

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It should be noted that the NBRC has supported transportation implementation grants in the past. In 2016, the NBRC approved a grant to Maine DOT's Rail Program for upgrading a rail bridge in Madawaska to accommodate greater weights of freight cars. In 2014, the NBRC approved a grant to Maine DOT for highway improvements in Ashland to accommodate higher truck weights for the transportation of wood products.

*Next Steps:* Identify an eligible applicant and summarize a scope of work for NBRC assistance. Organize a meeting between the Federal Co-Chair (Mark Scarano), or the Program Director Christine Frost, and Governor LePage's representative to the NBRC (Economic Development Advisor to the Governor, John Butera) to discuss the project and its impact on the State of Maine and NBRC region.

✓ **United States Department of Agriculture**

▪ **Rural Development: Business & Industry Loan Guarantee**

The B&I program provides financial backing for rural businesses with commercial loan guarantees for up to 80 percent of the loan amount. Applicants work with their private-sector lender and USDA Rural Development provides a guarantee for the loan. Funds can be used to convert, enlarge, repair, modernize, or develop business; purchase and develop land, easements, rights-of-way, buildings, or facilities; purchase equipment, machinery, supplies, or inventory; refinance when new jobs will be created and other conditions are met; and, acquire businesses and industries in cases where the loan will keep the business from closing and/or save or create jobs.

*Eligible Applicants:* Individuals and entities located in rural areas, including for-profit businesses, nonprofits and cooperatives, federally recognized tribes, and public bodies.

*Next Steps:* Identify an eligible applicant/owner (a legally-organized entity or individual business owner). Identify an eligible project that supports the particular strategy in question. Identify a lender for the project. Work with USDA Rural Development to file an application for loan guarantee. Applications may be accepted at any time, on an ongoing basis Maine's FY 2016 state allocation was \$11,374,000, and additional funds are usually obtainable.

*Point of Contact:* Cheryl Pelletier, [cheryl.pelletier@me.usda.gov](mailto:cheryl.pelletier@me.usda.gov) or 207-764-4157, x135

▪ **Rural Development: Rural Business Development Grant (RBDG)**

RBDG is a competitive grant designed to support targeted technical assistance, training and other activities leading to the development or expansion of small and emerging private businesses in rural areas that have fewer than 50 employees and less than \$1 million in gross revenues. RBDG funds must be directed for projects benefitting rural areas or towns outside the urbanized periphery of any city with a population of 50,000 or more. Programmatic activities are separated into Enterprise or Opportunity type grant activities.

*Enterprise* type grant funds must be used on projects to benefit small and emerging businesses and may include: training and technical assistance, such as project planning, business counseling/training, market research, feasibility studies, professional/technical reports, or product/service improvements; acquisition or development of land, easements, or rights of way; construction, conversion or renovation of buildings, plants, machinery, equipment, access streets and roads, parking areas, and utilities; pollution control and abatement; capitalization of revolving loan funds including funds that will make loans for start-ups and working capital; distance adult learning for job training and advancement; and rural transportation improvement.



*Opportunity* type grant funding can be used for projects such as community economic development, technology-based economic development, feasibility studies and business plans, leadership and entrepreneur training, rural business incubators, and long-term business strategic planning.

*Next Steps:* Identify an eligible applicant/owner (public body, nonprofit corporation or Native American Tribe). Identify an eligible project that supports the particular strategy in question Work with USDA Rural Development to file an application for grant. Applications may be accepted at any time, but the final due date is typically 05/01. Maine's FY16 state allocation was \$290,000.

*Point of Contact:* Cheryl Pelletier, Acting Business Programs Director  
[Cheryl.Pelletier@me.usda.gov](mailto:Cheryl.Pelletier@me.usda.gov), 207-764-4157

### *STRATEGY 3. Invest in the development and commercialization of new forest products*

Forest products research efforts are currently underway in both university and private industry settings.

#### *Maine Forest Economy Stakeholder Priorities:*

- E. Invest in the research, development and commercialization of emerging wood technologies such as forest bioproducts as an opportunity for the utilization of low value fiber.

For example, Biobased Maine—a business-led trade association creating good manufacturing jobs in Maine by converting renewable biomass into higher-value products, chemicals and fuels—is collaborating with UMaine, under an EDA grant, to advance biobased manufacturing by working with stakeholders statewide to establish a roadmap for the development of new, high-value, high-demand products such as cellulosic sugars and fuels from the timber resource, and to market Maine's paper mill capacity/capabilities to investors in these newer product areas. Similar 'roadmaps' in other states guide investors and help attract substantial new investment.

Within the region, there is an opportunity to match and link investment in research and development more directly with the existing forest products industry. Working together, business and university researchers may establish an innovation hub that focuses not only on emerging markets but also on production efficiencies (i.e., saw mill optimization and silviculture practices aimed at reducing log waste). Establishing formal relationships and an innovation roadmap would help identify ways to leverage what work is already being done through academic institutions, industry, and businesses including UMaine, Maine Technology Institute, Sappi, and other Maine companies and entrepreneurs. It would also allow these organizations to identify where shortfalls might exist (for example, formal technical assistance and outreach programs).

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*Strategy Lead Agency(s): USDA, DOE*

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AVAILABLE FEDERAL RESOURCES:✓ **United States Department of Agriculture**▪ **Rural Development: Rural Business Development Grant (RBDG)**

The RBDG is a competitive grant designed to support targeted technical assistance, training and other activities leading to the development or expansion of small and emerging private businesses in rural areas that have fewer than 50 employees and less than \$1 million in gross revenues. RBDG funds must be directed for projects benefitting rural areas or towns outside the urbanized periphery of any city with a population of 50,000 or more. Programmatic activities are separated into *Enterprise* or *Opportunity* type grant activities.

*Enterprise* type grant funds must be used on projects to benefit small and emerging businesses and may include: training and technical assistance, such as project planning, business counseling/training, market research, feasibility studies, professional/technical reports, or product/service improvements; acquisition or development of land, easements, or rights of way; construction, conversion, renovation, of buildings, plants, machinery, equipment, access streets and roads, parking areas, utilities; pollution control and abatement; capitalization of revolving loan funds including funds that will make loans for start-ups and working capital; distance adult learning for job training and advancement; and rural transportation improvement.

*Opportunity* type grant funding can be used for projects such as community economic development, technology-based economic development, feasibility studies and business plans, leadership and entrepreneur training, rural business incubators, and long-term business strategic planning.

*Eligible Applicants:* Public body, nonprofit corporation or Native American Tribe.

*Next Steps:* Identify an eligible applicant/owner. Identify an eligible project that supports the particular strategy in question. Work with USDA Rural Development to file an application for grant. Applications may be accepted at any time, but the final due date is typically May 1. Maine's FY16 state allocation was \$290,000.

*Point of Contact:* Cheryl Pelletier, Acting Business Programs Director  
[Cheryl.Pelletier@me.usda.gov](mailto:Cheryl.Pelletier@me.usda.gov), 207-764-4157

▪ **Agricultural Research Service (ARS)**

The USDA-Agricultural Research Service (ARS), the in-house, research agency of the USDA conducts research to develop and transfer solutions to agricultural problems of high national priority and provide information access and dissemination to: ensure high-quality, safe food, and other agricultural products; assess the nutritional needs of Americans; sustain a competitive agricultural economy, and enhance the natural resource base and the environment. Programmatic activities are separated into four national program areas: Animal Protection and Production; Crop Protection and Production; Natural Resources and Sustainable Agricultural Systems; and Nutrition, Food Safety and Quality.

Although the majority of ARS research is conducted in-house at 95 locations across 42 states, ARS participates in Non-Assistance Cooperative Agreements with industry and universities to solve agricultural problems. One such agreement with the UMaine entitled Forest-based Products, started in September 2014 and ends July 2021, with \$1 million in funding each year.

Current research projects, listed below, will be phased out as they are completed, in three to five years, with new, to be determined projects of critical interest to Maine's forestry industry added in upcoming years.

- Forest Products Research
- Technologies for Improving Industrial Biorefineries that Produce Marketable Biobased Products
- Technologies for Improving Process Efficiencies in Biomass Refineries
- Development Technologies for Production of Platform Chemicals and Advanced Biofuels from Lignocellulosic Feedstocks
- Enable New Marketable, Value-Added Co-Products to Improve Biorefining Profitability
- Technologies for Producing Renewable Bioproducts

*Point of Contact:* Gene Lester, National Program Leader, gene.lester@ars.usda.gov, 301-504-4616

▪ **US Forest Service/Forest Products Laboratory**

The USFS / Forest Products Laboratory (FPL) is administratively managed with the Northern Research Station (NRS). The FPL has a full-time scientist located at the University of Maine beginning July 2016 with the NRS siting a full-time forest scientist at UMaine for over 20 years. Increased support for the NRS/FPL to enable the established working relationship to be expanded is a natural pathway.

*Point of Contact:* Tony Ferguson, Director of Forest Products Laboratory and Director of Northern Research Station, tferguson@fs.fed.us

✓ **US Department of Energy**

- **Agricultural Technology Innovation Partnership (ATIP)**

The Biomass Research and Development Board, co-led by DOE and USDA, is developing an interagency collaboration to enable a Bioeconomy Initiative. The goal of the Bioeconomy Initiative, is to develop and implement innovative approaches to remove barriers to expanding the sustainable use of America's abundant biomass resources, while maximizing economic, social, and environmental outcomes.

DOE and USDA asked the ATIP Foundation—a consortium of state economic development organizations—to develop and co-host with a coordinating entity, a series of regional Bioeconomy Forums to garner input from a broad range of stakeholders on the Challenges & Opportunities to help shape a “multiyear implementation plan.”

The ATIP North East Bioeconomy Forum took place on October 18, 2016, in Orono, ME, at the University of Maine. This forum provided a key opportunity to shape the future of the bioeconomy in the state.

The forum conversation included the following topics:

Scale up from R&D – public private funding  
Developing a message on sustainable forest  
How can Maine capitalize on the billion ton opportunity?

- **Advanced Composites Manufacturing Innovation Partnership (IACMI)**

IACMI is a partnership of industries, universities, national laboratories, and federal, state and local governments who share resources and co-invest in innovative research to accelerate the development and commercial deployment of advanced fiber reinforced polymer composites. The University of Maine has been invited to join the IACMI network, which will work to introduce composite forest products to new markets.

IACMI has a powerful network and could bring end-users into the game. For example, the introduction of cellulose fiber reinforced polymer composites for automotive and emerging applications would catalyze the commercialization of new technologies and help develop supply chains along different industries.

Since the EDAT, two meetings have been hosted by the Oak Ridge National Laboratory (ORNL). The first was held on October 6, 2016 with representatives from the University of Maine, Maine Forest Economy and staff from the Maine congressional delegation.

*Next Steps:* There were significant capabilities and synergies identified by ORNL staff. The team discussed forming a major strategic integrated ORNL-UMaine collaboration on composite materials and manufacturing. Suggested next steps

included return visits to UMaine by very high-level ORNL and DOE-manufacturing program staff. Two major opportunities and stakeholder groups were identified:

- Group 1: Composites materials and additive manufacturing, 3D Printing, nanocellulose and bio-based materials
- Group 2: Combined heat-power generation: technology and policy discussions

Meeting two was hosted at ORNL Manufacturing Demonstration Facility on October 26-28, 2016, with representation from UMaine and SAPPI. The goals of this meeting were to identify how ORNL can leverage or help to speed up the current projects in Maine as well as direct new initiatives that will be helpful.

The ORNL and UMaine wish to establish a hub-and-spoke model, bringing together ORNL's expertise in additive manufacturing and composites along with UMaine's focus on bio-based composites and structures. Under this initiative, UMaine's Advanced Structures and Composites Center (ASCC) will function as an ORNL affiliated facility, advancing additive manufacturing opportunities and supporting job growth in state and regional forest products, manufacturing, composites and boatbuilding industries.

▪ **Small Business Voucher (SBV) Program**

**This program allows small businesses to request technical support from DOE's national labs using vouchers.** In turn, labs help address technical problems, test and validate technologies, develop and test unique materials, conduct modeling and analyses, prototyping, provide advanced technology for hardware and software applications, scale up technologies and processes, develop engineering designs, conduct field-testing, and conduct analyses to understand the market value of a product. This program, which is administered by EERE, provides up to \$20 million in vouchers to small businesses seeking technical expertise in clean technology development and commercialization. Contributing national labs are the Oak Ridge National Laboratory, Pacific Northwest National Laboratory, Lawrence Berkley National Laboratory, Sandia National Laboratory, and the National Renewable Energy Laboratory.

As entrepreneurs in Maine continue thinking about the future of their wood resources, the SBV program can assist in advancing those business ventures. DOE can also provide workshops on EERE's financial assistance programs. For example, a company in Wisconsin is exploring a catalyst structure for converting biomass to fuel and plastics. This project helps bio-based replacements for oil to create new markets for biomass and agricultural products. Additionally, studies show that the company, Virent, utilizes a process that reduces greenhouse gas emissions as much as 70% compared to petroleum counterparts.

Work similar to this idea is being conducted the University of Maine. The small voucher program could help to advance the research to commercialization.

Research areas within the next generation manufacturing that could apply to Maine include:

- Additive manufacturing
- Advanced materials manufacturing
- CHP and grid integration
- Composites and lightweight materials

*Point of Contact:* Victor Kane, [Victor.kane@ee.doe.gov](mailto:Victor.kane@ee.doe.gov), 202-287-1807

- **Small Business Innovation Research/Small Business Technology Transfer**  
DOE released its Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) funding opportunity here: <https://science.energy.gov/sbir/funding-opportunities/>. The Funding opportunities cover many topics, including three bioenergy topics (including two on nanocellulose) beginning [on page 29](#). Letters of Intent were due December 19; full proposals are due February 7, 2017; and award notification is set for May 1, 2017. Businesses and universities in Maine are well positioned to compete effectively for the two topics on nanocellulose.

*Point of Contact:* Bob Iverson, [Robert.ivester@ee.doe.gov](mailto:Robert.ivester@ee.doe.gov), 202-586-9488

✓ **U.S. Department of Commerce, Economic Development Administration (EDA)**

- **Public Works and Economic Adjustment Assistance programs**  
The EDA Public Works (P/W) and Economic Adjustment Assistance (EAA) programs provide funding to construct economic development infrastructure and facilities, including those for university and non-profit research and development, product commercialization and business incubation. The EAA program can also provide limited-term operational (non-construction) funding for eligible research and development, product/technology commercialization and entrepreneurial support activities.

*Eligible recipients:* state, county and municipal governments, quasi-governmental organizations, qualified non-profit organizations and institutions of higher education.

*Next Steps:* Eligible recipient reviews the EDA Federal Funding Opportunity (FFO) for Economic Development Assistance Programs (EDAP) available through the EDA web site at [www.eda.gov](http://www.eda.gov) to determine if the proposed project appears to be consistent with the program requirements, and contact the EDA point of contact provided below for consultation and technical assistance on the development of an application for EDA assistance if appropriate.

*Point of Contact:* Alan Brigham, EDA Economic Development Representative for Maine, 34 Timberhill Road, Windham, ME 04062, 215-316-2965, [ABrigham@eda.gov](mailto:ABrigham@eda.gov).

✓ **Northern Border Regional Commission**

▪ **Economic & Infrastructure Development (EID) Investment Program**

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The NBRC recently adopted Five Year Strategic Plan that prioritizes “Entrepreneurship and Innovation” which would certainly allow for investments at UMaine for research and development. Additionally, the NBRC has supported entrepreneurship projects in New Hampshire and New York, specifically to start or enhance business incubators.

*Suggested Next Steps:* Identify an eligible applicant and summarize a scope of work for NBRC assistance. Organize a meeting between the Federal Co-Chair (Mark Scarano), or the Program Director Christine Frost, and Governor LePage’s representative to the NBRC (Economic Development Advisor to the Governor, John Butera) to discuss the project and its impact on the State of Maine and NBRC region.

*STRATEGY 4: Support the development of markets for forest product residuals*

*Maine Forest Economy Stakeholder Priorities:*

- D. Support and grow markets for low-value, underutilized wood and biomass utilizing combined heat and power (CHP) biomass plants, micro-grids, and modern thermal systems.

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*Strategy Lead Agency(s): DOE, USDA*

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AVAILABLE FEDERAL RESOURCES:✓ **U.S. Department of Energy**▪ **DOE Combined Heat and Power (CHP) Technical Assistance Program (TAP)**

EERE's supported Combined Heat and Power (CHP) Technical Assistance Program will provide operating paper mills and other industries in Maine with feasibility assessments of existing operations to install CHP technology as a strategy to lower costs through generating onsite power.

CHP experts at the U.S. DOE Northeast CHP TAP can help determine if CHP is worth a closer look for your facility, both technically and financially. The first step is talking through a series of screening questions, combined with a first-cut qualification assessment of the economic and technical viability of CHP using basic site information.

DOE will assist in evaluating whether energy costs, thermal loads, site operating hours, and other key site characteristics show potential for a good, cost-effective CHP project. If the screening and site qualification suggests good CHP potential, we recommend continuing with a more detailed feasibility analysis.

*Next Steps:*

1. Support efforts of the State Biomass Commission
  - Hold conversations with other utilities that are addressing the challenges of microgrid development in a deregulated state.
  - DOE to provide expertise and technical support on issues including distributed generation and microgrid development.
2. Develop strategy for deploying CHP technical assistance to address:
  - CHP opportunities at sawmills – Possibly through webinar series
  - Evaluate CHP integration with microgrid at specific property – Example to include the Ashland site. (A site visit will be necessary.)

*Point of Contact:* Hillary Bright, [hillary.bright@ee.doe.gov](mailto:hillary.bright@ee.doe.gov), (202) 287-6440

✓ **Northern Border Regional Commission**▪ **Economic & Infrastructure Development (EID) Investment Program**

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Somerset, Waldo, and Washington counties. Projects are eligible for up to an 80 percent matching grant (of up to \$250,000) depending on the economic distress of the counties being assisted. By statute, NBRC funds can be used as match for leveraging other federal grant funds. All grants are in the form of reimbursement for previously paid and eligible expenses, and applications are expected to be available in March 2017 on the NBRC's website ([www.nbrc.gov](http://www.nbrc.gov)). Typically, applications are due in June with ultimate decisions being made in August.

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The NBRC recently adopted Five Year Strategic Plan that prioritizes applications for funding that "reduces electric and thermal energy costs and increases," which would certainly allow for investments at UMaine for research and development. Additionally, the NBRC has supported entrepreneurship projects in New Hampshire and New York, specifically to start or enhance business incubators.

*Suggested Next Steps:* Identify an eligible applicant and summarize a scope of work for NBRC assistance. Organize a meeting between the Federal Co-Chair (Mark Scarano), or the Program Director Christine Frost, and Governor LePage's representative to the NBRC (Economic Development Advisor to the Governor, John Butera) to discuss the project and its impact on the State of Maine and NBRC region.

*STRATEGY 5. Identify training needs and prepare the workforce to meet changing requirements*

There is a need to train the existing forest products workforce for new and emerging opportunities, as well as recruit new employees as older workers retire. As mills close and the forest-based economy

*Maine Forest Economy Stakeholder Priorities:*

- G. Invest in logger and forest products workforce development to support forest economy workers and businesses.

changes, local communities should collaborate with regional organizations to identify and provide retraining programs for displaced workers as well as meet industry needs as they look to expand into new markets.

A resilient workforce is one that can better shift between jobs or industries when their core employment is threatened. Partnering with community colleges, community training programs, and workforce organizations to provide ongoing training opportunities and occupational counseling

increases the adaptability of workers. The Maine CEDS notes that, “attaining a college degree or returning to school to receive advanced education and training is important to assure that skills match the needs of desired employers. To ensure workers do not leave the area, it is crucial that there are jobs to support a well-educated, highly skilled workforce.”

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*Strategy Lead Agency(s): DOL, USDA, NBRC*

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AVAILABLE RESOURCES:

- ✓ **U.S. Department of Labor: The majority of workforce related federal funds are administered by the following State of Maine programs.**
  - **Maine Bureau of Employment Services**

The Maine Bureau of Employment Services is the State Workforce Agency (SWA) for the State of Maine that administers the many DOL programs of the publicly-funded state workforce system. These programs include the Workforce Innovation and Opportunity Act (WIOA), employment services, training programs, unemployment insurance, employment statistics and labor market and workforce information.

*Point of Contact:* Julie Rabinowitz, Director of Communication and Operations, Maine Department of Labor, 54 State House Station, Augusta, Maine 04333  
[Julie.Rabinowitz@maine.gov](mailto:Julie.Rabinowitz@maine.gov), (207) 621-5009
  - **Maine JobLink System** - <https://joblink.maine.gov>

Maine JobLink is the State’s Labor Exchange system which connects employers and jobseekers. Employers can post job opportunities and receive applications through the system. Jobseekers can post their resumes and employers can search for candidates to hire for their businesses. Jobseekers can also find information on accredited training programs available in the state.
  - **Maine Career Centers** - <http://www.mainecareercenter.gov/>

Maine Career Centers provide a variety of employment and training services at no charge for jobseekers and businesses. Jobseeker services include workshops on job search and resume writing, labor market information, job fairs, career counseling, and information about training opportunities. Business services include recruitment, hiring incentives, worker training and education assistance, and layoff assistance for affected workers. Career Centers are located in Augusta, Bangor, Brunswick, Calais, Lewiston, Machias, Portland, Presque Isle, Rockland, Skowhegan, Springvale, and Wilton.
  - **State and Local Workforce Development Boards**

State and Local Workforce Development Boards are comprised of representatives from businesses, educational providers, community based organizations, state government agencies, and elected officials. These boards create the workforce development policy at the state and local level; guiding how services are delivered at the Career Centers and in the field throughout the state. Maine has one state board and three local boards.

*Points of Contact:*

- State Workforce Development Board, 45 Commerce Drive, Augusta, ME 04330, Director: Garret Oswald, [Garret.j.oswald@maine.gov](mailto:Garret.j.oswald@maine.gov), 207-624-5087
- Northeastern Region Workforce Development Board, 26 Franklin Street, Bangor, ME 04401, Executive Director: Joanna Russell, [irussell@northeasternwdb.org](mailto:irussell@northeasternwdb.org), (207) 992-0770
- Central/Western Maine Workforce Development Board, 5 Mollison Way, Lewiston, ME 04240, Executive Director: Jeffrey Sneddon, [Jeffrey.R.Sneddon@maine.gov](mailto:Jeffrey.R.Sneddon@maine.gov), (207) 753-9011
- Coastal Counties Workforce, Inc., Fort Andross, Suite 203A, 14 Maine Street, Box 2, Brunswick, ME 04011, Executive Director: Michael Bourret, [director@coastalcounties.org](mailto:director@coastalcounties.org), (207) 725-5472

✓ **U.S. Department of Commerce, Economic Development Administration (EDA)**

▪ **Public Works and Economic Adjustment Assistance programs**

The EDA Public Works (P/W) and Economic Adjustment Assistance (EAA) programs provide funding to construct economic development infrastructure and facilities, including those for university and non-profit research and development, product commercialization and business incubation. The EAA program can also provide limited-term operational (non-construction) funding for eligible research and development, product/technology commercialization and entrepreneurial support activities.

*Eligible Recipients:* State, county and municipal governments, quasi-governmental organizations, qualified non-profit organizations and institutions of higher education.

*Next Steps:* Eligible recipient reviews the EDA Federal Funding Opportunity (FFO) for Economic Development Assistance Programs (EDAP) available through the EDA web site ([www.eda.gov](http://www.eda.gov)) to determine if the proposed project appears to be consistent with the program requirements, and contact the EDA point of contact provided below for consultation and technical assistance on the development of an application for EDA assistance if appropriate.

*Point of Contact:* Alan Brigham, EDA Economic Development Representative for Maine, 34 Timberhill Road, Windham, ME 04062, 215-316-2965, [ABrigham@eda.gov](mailto:ABrigham@eda.gov).

✓ **USDA Rural Development**

▪ **Rural Business Development Grant (RBDG)**

RBDG is a competitive grant designed to support targeted technical assistance, training and other activities leading to the development or expansion of small and emerging private businesses in rural areas that have fewer than 50 employees and less than \$1 million in gross revenues. RBDG funds must be directed for projects benefitting rural areas or towns outside the urbanized periphery of any city with a population of 50,000 or more. Programmatic activities are separated into *Enterprise* or *Opportunity* type grant activities.

*Enterprise* type grant funds must be used on projects to benefit small and emerging businesses and may include: training and technical assistance, such as project planning, business counseling/training, market research, feasibility studies, professional/technical reports, or product/service improvements; acquisition or development of land, easements, or rights of way; construction, conversion, renovation, of buildings, plants, machinery, equipment, access streets and roads, parking areas, utilities; pollution control and abatement; capitalization of revolving loan funds including funds that will make loans for start-ups and working capital; distance adult learning for job training and advancement; and rural transportation improvement.

*Opportunity* type grant funding can be used for projects such as community economic development, technology-based economic development, feasibility studies and business plans, leadership and entrepreneur training, rural business incubators, and long-term business strategic planning.

*Next Steps:* Identify an eligible applicant/owner (public body, nonprofit corporation or Native American Tribe). Identify an eligible project that supports the particular strategy in question. Work with USDA Rural Development to file an application for grant. Applications may be accepted at any time, but the final due date is typically May 1. Maine's FY16 state allocation was \$290,000.

*Point of Contact:* Cheryl Pelletier, Acting Business Programs Director  
[cheryl.pelletier@me.usda.gov](mailto:cheryl.pelletier@me.usda.gov), 207-764-4157

**STRATEGY 6: Support the redevelopment of vacant mill sites**

A number of pulp and paper mill sites are currently idle. Every effort should be made to redevelop and

**Maine Forest Economy Stakeholder Priorities:****H. Redevelop and reutilize or repurpose Maine's closed mill industrial sites.**

reutilize or repurpose these sites consistent with new market opportunities, local economic development and community goals. Utilizing these assets will create opportunities for Maine communities and businesses and contribute to a more diversified forest-based economy.

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*Strategy Lead Agency(s): EPA, USDA, EDA*

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**AVAILABLE FEDERAL RESOURCES:**✓ **Environmental Protection Agency (EPA)**▪ **EPA Brownfields**

**Area-Wide Planning (AWP) Grants:** Up to \$200,000 of direct grant funding for planning activities usually focused on a district or neighborhood in a town or city with 1 or more "Catalyst Sites." Local, county, state and tribal governments are eligible as well as Regional Planning Commissions and Community and Economic Development Corporations. Grants are offered every other year, returning in FY19. These grants can assist in planning for redevelopment for catalyst sites, such as mills.

**Assessment Grants:** Up to \$300,000 of direct grant funds available for "Community Wide Assessment" (several sites) or up to \$350,000 for "Site Specific" assessment of a single site. These grants are offered on an annual basis. Eligible entities include local, county state and tribal governments as well as Regional Planning Commissions and Community and Economic Development Corporations. These funds are helpful in identifying what contamination issues you have at a site and what the required cleanup will be.

**Targeted Brownfields Assessment Program:** A grant of services from EPA that provides up to \$200,000 for the assessment of a brownfields site by an EPA Contractor. Eligible entities include local, county, state and tribal governments as well as non-profits, regional planning commissions, and Community and Economic Development Corporations. These grants are offered on an annual basis.

**Cleanup Grants: Up to \$200,000 in direct grant funding to cleanup a brownfields site owned by the applicant.** There is a 20 percent cost share requirement. An eligible entity may apply for up three grants (three sites) in one year (\$600,000 maximum). Eligible entities include governmental entities that own property and

non-profits. These grants can contribute to the overall cleanup of a property and are offered on an annual basis.

**Cleanup Revolving Loan Fund Grants:** Up to \$1,000,000 in direct grant funding to establish and capitalize a fund for loans and grants to cleanup Brownfields sites. There is a 20 percent cost share requirement. Eligible entities include local, state and tribal governments as well as Regional Planning Commission, and Community and Economic Development Corporations. Grants are limited to \$200,000 per site. Private developers and private site owners are eligible for loans only. These loans and/or grants can contribute to the overall cleanup of brownfields sites. The grants are awarded on an annual basis.

**Job Training Grants:** Up to \$200,000 in direct grant funding to establish a job training program to train the unemployed and underemployed to attain jobs in the environmental assessment and cleanup field. Eligible entities include local, county, state and tribal governments as well as non-profit job training organizations and educational institutions. These grants are offered on an annual basis.

*Point Of Contact:* James P. Byrne; [byrne.james@epa.gov](mailto:byrne.james@epa.gov);  
(617) 918-1389

#### ✓ **USDA Rural Development**

##### ▪ **Business & Industry (B&I) Loan Guarantee**

The B&I program provides financial backing for rural businesses with commercial loan guarantees for up to 80 percent of the loan amount. Applicants work with their private-sector lender, and USDA Rural Development provides a guarantee for the loan. Eligible entities located in rural areas include for-profit businesses, nonprofits and cooperatives, federally recognized tribes, public bodies, and individuals. Funds can have many uses, including: convert, enlarge, repair, modernize, or develop business; purchase and develop land, easements, rights-of-way, buildings, or facilities; purchase equipment, machinery, supplies, or inventory; permanent working capital; refinance when new jobs will be created and other conditions are met; and acquire businesses and industries when the loan will keep the business from closing and/or save or create jobs.

*Next Steps:* Identify an eligible applicant/owner (a legally-organized entity or individual business owner). Identify an eligible project that supports the particular strategy in question Identify a lender for the project. Work with USDA Rural Development to file an application for loan guarantee. Applications may be accepted at any time, on an ongoing basis Maine's FY16 state allocation was \$11,374,000 and additional funds are usually obtainable.

*Point of Contact:* Cheryl Pelletier, [cheryl.pelletier@me.usda.gov](mailto:cheryl.pelletier@me.usda.gov) or 207-764-4157, x135

- **Rural Energy for America Program (REAP)**

REAP provides guaranteed loan financing and grant funding to agricultural producers (at least 50 percent of gross income coming from agricultural operations) and rural small businesses meeting SBA's size standards. Funding is used for renewable energy systems or to make energy efficiency improvements. Funds may be used for renewable energy systems, such as biomass (biodiesel and ethanol, anaerobic digesters, and solid fuels such as wood), geothermal for electric generation or direct use, hydropower below 30 megawatts, small and large wind generation, and small and large solar generation. Funds may also be used for the purchase, installation and construction of energy efficiency improvements, such as: high efficiency heating, ventilation and air conditioning systems (HVAC); insulation, doors, and windows; lighting upgrades; cooling or refrigeration units; and replacement of energy-inefficient equipment.

*Next Steps:* Identify an eligible applicant/owner (an agricultural producer or a rural small business). Identify an eligible project (renewable energy system or energy efficiency improvement) that supports the particular strategy in question Identify a lender for the project. Work with USDA Rural Development to file an application for loan guarantee. Applications may be accepted at any time, on an ongoing basis. Applications compete nationally and awards are made on a monthly basis. Program funding of \$200,000,000-\$300,000,000 has proven ample in past years.

*Points of Contact:* Brian Wilson, [brian.wilson@me.usda.gov](mailto:brian.wilson@me.usda.gov), 207-990-9125 or Cheryl Pelletier, [cheryl.pelletier@me.usda.gov](mailto:cheryl.pelletier@me.usda.gov), 207-764-4157, x135

- **Rural Business Development Grant (RBDG)**

RBDG is a competitive grant designed to support targeted technical assistance, training and other activities leading to the development or expansion of small and emerging private businesses in rural areas that have fewer than 50 employees and less than \$1 million in gross revenues. RBDG funds must be directed for projects benefitting rural areas or towns outside the urbanized periphery of any city with a population of 50,000 or more. Programmatic activities are separated into *Enterprise* or *Opportunity* type grant activities.

*Enterprise* type grant funds must be used on projects to benefit small and emerging businesses and may include: training and technical assistance, such as project planning, business counseling/training, market research, feasibility studies, professional/technical reports, or product/service improvements; acquisition or development of land, easements, or rights of way; construction, conversion, renovation, of buildings, plants, machinery, equipment, access streets and roads, parking areas, utilities; pollution control and abatement; capitalization of revolving

loan funds including funds that will make loans for start-ups and working capital; distance adult learning for job training and advancement; and rural transportation improvement.

*Opportunity* type grant funding can be used for projects such as community economic development, technology-based economic development, feasibility studies and business plans, leadership and entrepreneur training, rural business incubators, and long-term business strategic planning.

*Next Steps:* Identify an eligible applicant/owner (public body, nonprofit corporation or Native American Tribe). Identify an eligible project that supports the particular strategy in question. Work with USDA Rural Development to file an application for grant. Applications may be accepted at any time, but the final due date is typically May 1. Maine's FY16 state allocation was \$290,000.

*Point of Contact:* Cheryl Pelletier, Acting Business Programs Director  
[Cheryl.Pelletier@me.usda.gov](mailto:Cheryl.Pelletier@me.usda.gov), 207-764-4157

- **Water and Wastewater Loan and Grant Program**

This program provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage to households and businesses in eligible rural areas. This program assists qualified applicants that are not otherwise able to obtain commercial credit on reasonable terms. Eligible applicants include: most state and local governmental entities, private non-profits, Federally-recognized Tribes. Eligible areas include rural areas and towns with fewer than 10,000 people. Funds may be used to finance the acquisition, construction or improvement of drinking water sourcing, treatment, storage and distribution, sewer collection, transmission, treatment and disposal, solid waste collection, disposal and closure, and storm water collection, transmission and disposal.

*Next Steps:* Identify potential project and interested applicant, work with USDA Rural Development contact to assist in submitting an application, if awarded monitor progress toward successful completion.

*Point of Contact:* Robert J. Nadeau, Community Programs Director USDA Rural Development 967 Illinois Avenue, Suite 4 Bangor, Maine 04401

- **Community Facilities Loan and Grant Program**

**This program provides affordable funding to develop essential community facilities in rural areas.** Rural areas include cities, villages, townships and towns with no more than 20,000 residents. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area, and does not include private, commercial or



business undertakings. Eligible borrowers include: Public bodies, Community-based non-profit corporations, and Federally-recognized Tribes. Funds can be used to purchase, construct, and/or improve essential community facilities, purchase equipment and pay related project expenses. Provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage to households and businesses in eligible rural areas.

*Next Steps:* Identify potential project and interested applicant, work with USDA Rural Development contact to assist in submitting an application, if awarded monitor progress toward successful completion.

*Point of Contact:* Robert J. Nadeau, Community Programs Director USDA Rural Development 967 Illinois Avenue, Suite 4 Bangor, Maine 04401-2767 207-990-9121

✓ **U.S. Department of Commerce, Economic Development Administration (EDA)**

▪ **Short Term Planning Program, Local Technical Assistance, and Public Works and Economic Adjustment Assistance programs**

The EDA Short Term Planning Program provides funding to establish plans to meet specific local needs, and can include planning for the redevelopment of significant industrial and/or brownfields sites.

The EDA Local Technical Assistance Program (LTA) provides funding to conduct project that fill knowledge or data gaps necessary for further investment decision-making to address specific local needs. Typical projects include feasibility and market studies, economic impact analyses and site/location assessments, including for the redevelopment of vacant industrial sites.

The EDA Public Works (P/W) and Economic Adjustment Assistance (EAA) programs provide funding to construct economic development infrastructure and facilities, including new infrastructure required for the re-use/redevelopment of industrial sites and the renovation of vacant building for use by businesses that create and/or retain jobs and broaden the tax base.

For all programs eligible recipients are state, county and municipal governments, quasi-governmental organizations, qualified non-profit organizations and institutions of higher education.

*Next Steps:* Eligible recipient reviews the EDA FFO for the Short Term Planning and LTA programs and/or Economic Development Assistance Programs (EDAP), as appropriate available through the EDA web site ([www.eda.gov](http://www.eda.gov)), and contact the EDA point of contact provided below for consultation and technical assistance regarding the potential development of an application for EDA assistance.

*Point of Contact:* Alan Brigham, EDA Economic Development Representative for Maine, 34 Timberhill Road, Windham, ME 04062, 215-316-2965, [ABrigham@eda.gov](mailto:ABrigham@eda.gov).

✓ **Northern Border Regional Commission**

▪ **Economic & Infrastructure Development (EID) Investment Program**

The NBRC EID Investment Program provides funds to public bodies (including states), Native American Tribes, and nonprofit corporations for a myriad of uses related to direct or indirect job creation. EID funds support eligible projects in Androscoggin, Aroostook, Franklin, Hancock, Kennebec, Knox, Oxford, Penobscot, Piscataquis, Somerset, Waldo, and Washington counties. Projects are eligible for up to an 80 percent matching grant (of up to \$250,000) depending on the economic distress of the counties being assisted. By statute, NBRC funds can be used as match for leveraging other federal grant funds. All grants are in the form of reimbursement for previously paid and eligible expenses, and applications are expected to be available in March 2017 on the NBRC's website ([www.nbrc.gov](http://www.nbrc.gov)). Typically, applications are due in June with ultimate decisions being made in August.

The NBRC's process of decision-making is based on a consensus between the federal co-chair and the collective approval of the four NBRC state governors. Applications are prioritized by the states based on an objective scoring process. State economic development plans influence decision-making as does the NBRC's Five Year Strategic Plan.

The NBRC recently adopted Five Year Strategic Plan that prioritizes applications for funding that "reduces electric and thermal energy costs and increases," which would certainly allow for investments at UMaine for research and development. Additionally, the NBRC has supported entrepreneurship projects in New Hampshire and New York, specifically to start or enhance business incubators.

The NBRC recently adopted Five Year Strategic Plan that prioritizes applications for funding that "Retain, expand, and diversify business enterprise[es] that capitalizes on the region's natural, cultural, and economic assets." The NBRC has, in the past, supported funding applications that provide funding assistance for mill or plant redevelopment. In each of these cases, however, the applicant was eligible based on them being a public body or a non-profit entity. The term non-profit entity means any organization described in section 501(c) of the Internal Revenue Code of 1986 and exempt from taxation under 501(a) of that Code.

This strategy also references encouraging the co-location of manufacturing using CHP (combined heat power) system. Aside from regulatory or planning enforcement actions (which the NBRC does not have any authority), the NBRC could consider

funding innovative work plans that accomplish the goal so long as the applicant is an eligible entity.

*Next Steps:* Identify an eligible applicant and summarize a scope of work for NBRC assistance. Organize a meeting between the Federal Co-Chair (Mark Scarano), or the Program Director Christine Frost, and Governor LePage’s representative to the NBRC (Economic Development Advisor to the Governor, John Butera) to discuss the project and its impact on the State of Maine and NBRC region.

### *STRATEGY 7. Support vibrant Maine communities where people want to live, work and visit*

#### *Maine Forest Economy Stakeholder Priorities:*

##### I. Diversify and strengthen Maine’s rural economy.

Maine rural communities are seeking to diversify their economies. A group in the Millinocket region, *Our Katahdin*, is working on efforts to develop a broadband infrastructure, cultivate a business incubator, strengthen the recreational tourism capacity, including a new recreation infrastructure, and site new manufacturing facilities including but not limited to forest products, such as a CLT facility. In Bucksport, there is interest in developing smaller manufacturing opportunities to replace the closed paper mill, along with developing an arts and creative economy. In Lincoln, the community is looking to create jobs, including manufacturing, as well as capitalize on its unique water and lakes assets and position as the region’s service center.

Many towns in Maine have expressed that they do not have the staff and finances to address many of the economic challenges associated with the recent mill closures. The delivery of direct technical assistance to build capacity in communities impacted by economic decline could help these communities create more diversified economies even as the forest products industry works to recover.

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*Strategy Lead Agency(s): EPA, SBA, USDA, NBRC, Treasury*

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#### AVAILABLE FEDERAL RESOURCES:

- ✓ **EPA-USDA Sustainable Communities Planning Assistance**
  - **Cool & Connected Planning Assistance Program**  
EPA and USDA will help Millinocket and Eastport leverage broadband service to revitalize their downtowns. Through the Cool & Connected planning assistance

program, a team of experts will help the two towns develop strategies and action plans to use broadband in ways that boosts main street investment and activity. The program will draw on the best practices of small towns for combining broadband service with other assets to create neighborhoods where people want to live, work and play. Millinocket will work to leverage its broadband service and assets such as the Appalachian Trail to draw more visitors and activity to its downtown. Eastport will find ways to support more telecommuting and other activities that could support main street development. Both communities will seek to take advantage of the *Three Ring Binder*, an effort to create an open access fiber optic network extending into the most rural and disadvantaged areas of the state of Maine. Cool & Connected is one of several EPA-managed, interagency planning assistance programs that help small towns use local assets to attract investment and people, including young people, create walkable neighborhoods, and diversify their local economies.

*Point of Contact:* Matt Dalbey, Director, U.S. EPA Office of Sustainable Communities, [Dalbey.Matthew@epa.gov](mailto:Dalbey.Matthew@epa.gov)

#### ✓ **Small Business Administration**

The Maine SBA District Office is prepared to increase assistance to the forest products industry and the impacted region. The SBA delivers its primary resources through its small business lenders, technical assistance partners, and federal agencies contracting with small businesses. The SBA provides field services in Maine for the forest products industry and the impacted region from its District Office in Augusta and a satellite office in Bangor.

In Maine in FY15, the SBA approved 539 small business loans supporting more than \$109 million dollars; counseled and trained over 8,700 small businesses clients through its resource partners – Small Business Development Center, SCORE, and the Women’s Business Center; and awarded 5,521 federal small business contracts for \$1.24 billion.

The Maine SBA District Office has been working to assist and provide resources across the forest products spectrum and impacted communities, as well as respond in partnership with federal and state resources following mill closings and layoffs occurring in the industry. Services offered have ranged from participating in resource fairs, providing counseling and training, referrals, and increasing access to capital and government contracting outreach. The SBA seeks to continue and increase this work in Maine through the following opportunities.

#### ▪ **Increased Small Business Outreach**

The SBA, along with its resource partners, will increase outreach in the region and schedule a series of small business events on important topics. The SBA regularly

hosts and organizes seminars and resource fairs that provide a “101” on starting, running and growing a business. These events include federal, state and local resources, as well as lenders, and government agencies and prime contractors engaged in government contracting. These educational and matchmaking opportunities provide valuable face-to-face “speed dating” introductions and referrals for small businesses.

▪ **Access to Capital**

The SBA will increase small business lending awareness and matchmaking between small businesses and lenders. The SBA will organize finance fairs, lender roundtables and other outreach activities in the region to increase awareness and opportunity for financing including a focus on SBA’s loan programs and community based sources. The SBA has loans available for most business purposes through three main loan programs:

- **General Small Business Loans (7(a) Loan)** – 7(a) loans can be used for many business purposes. Loan proceeds may be used to establish a new business or to assist in the acquisition, operation, or expansion of an existing business. These loans have a maximum loan amount of \$5 million. SBA does not set a minimum loan amount. The average 7(a) loan amount in fiscal year 2015 was \$371,628.
- **Real Estate & Equipment Loans (504 Loan)** – The 504/CDC program provides attractive financing for major fixed assets such as equipment or real estate. Loan amounts are determined by how funds will be used with the maximum debenture amount of \$5.5 million in some cases.
- **Microloan Program** – The Microloan program provides loans up to \$50,000 to help small businesses and certain not-for-profit childcare centers start up and expand. The average microloan is approximately \$13,000.

▪ **Government Contracting**

The U.S. government is the largest single purchaser of goods and services in the world, awarding approximately \$500 billion in contracts every year. SBA’s Office of Government Contracting & Business Development works with federal agencies to award at least 23 percent of all prime government contract dollars to small businesses and help federal agencies meet specific statutory goals for small disadvantaged businesses, women-owned small businesses (WOSB), service-disabled veteran-owned small businesses (SDVOSB), and small businesses that are located in historically underutilized business zones (HUBZone). In addition, SBA’s 8(a) Business Development Program assists eligible socially and economically disadvantaged individuals in developing and growing their businesses through one-on-one counseling, training workshops, matchmaking opportunities with federal buyers, and other management and technical guidance. In Fiscal Year 2015, 5,521 contracts for \$1.24 Billion were awarded to Maine businesses. [www.sba.gov/contracting](http://www.sba.gov/contracting)

▪ **Innovation and Investment**

The SBA, along with its partners, will increase innovation and investment awareness through the following programs:

- **Small Business Innovation Research (SBIR) Program** – The SBIR program is a highly competitive program that encourages domestic small businesses to engage in Federal Research/Research and Development (R/R&D) that has the potential for commercialization. Through a competitive awards-based program, SBIR enables small businesses to explore their technological potential and provides the incentive to profit from its commercialization. By including qualified small businesses in the nation's R&D arena, high-tech innovation is stimulated and the United States gains entrepreneurial spirit as it meets its specific research and development needs. In Maine, the SBIR Program funded six projects for \$794,856 in Fiscal Year 2015. [www.sbir.gov/about/about-sbir#sbir-program](http://www.sbir.gov/about/about-sbir#sbir-program)
  - **SBA Growth Accelerator Fund Competition** – The goal of this competition is to infuse capital to qualified accelerators and the burgeoning ecosystem in which they play, which, in turn, provides resources to boost the startup and entrepreneurship communities around them. SBA created the Growth Accelerator Fund Competition in 2014 as a way to make new connections and strengthen existing bonds within America's small business support network, bringing entrepreneurs and innovators together and connecting them with local and national resources that support small business job creation and growth. These awards deliver on a longstanding commitment at SBA to strengthen and modernize these support systems especially in parts of the country where access to capital has been a major barrier to starting a business. [www.sba.gov/offices/headquarters/ooi/spotlight](http://www.sba.gov/offices/headquarters/ooi/spotlight)
  - **Small Business Investment Company (SBIC) Program** – The SBIC Program is one of SBA's financial assistance programs. The structure of the program is unique in that SBICs are privately owned and managed investment funds, licensed and regulated by SBA, that use their own capital plus funds borrowed with an SBA guarantee to make equity and debt investments in qualifying small businesses. SBA does not invest directly into small business through the SBIC Program, but provides funding to qualified investment management firms with expertise in certain sectors or industries. In Fiscal Year 2015, the SBIC Program funded 5 deals in Maine worth \$8,550,200. [www.sba.gov/sbic/](http://www.sba.gov/sbic/)
- **Exporting**

In October 2016 the Small Business Administration announced a \$145,000 grant award to Maine International Trade Center to support export growth among Maine small businesses. The funding was awarded through SBA's competitive State Trade Expansion Program (STEP). These awards are granted to U.S. states and territories to support programs that help small businesses expand their export-related activities. This includes participation in foreign trade missions, foreign market sales trips, subscription services for access to international markets, as well as the design

of international marketing campaigns, export trade show exhibits, export training workshops and more. Eligible Maine businesses may receive up to \$8,000 in reimbursements for costs associated with these activities. STEP funds allow small businesses the opportunity to meet foreign buyers face-to-face at trade shows or on trade missions, and complement SBA's export loan guaranty programs, which can finance the working capital needed to complete export orders and in turn help finance the expansion of production facilities due to export success.

▪ **Other Grant and Contract Awards**

The SBA awards, when funds are available, additional competitive grants and/or contracts to organizations to assist with small business services. There may be opportunities for organizations from the region to apply for these opportunities in future if funds are available.

- **Clusters** – The SBA is investing in regional innovation clusters that have a geographic concentration of interconnected companies, specialized suppliers, academic institutions, service providers and associated organizations with a specific industry focus. They provide high-value, targeted connecting of small and large businesses, including networking with potential industry partners abroad. [www.sba.gov/about-sba/sba-initiatives/clusters-initiative](http://www.sba.gov/about-sba/sba-initiatives/clusters-initiative)
- **PRIME awards** – Program for Investment in Micro-Entrepreneurs (PRIME) provides assistance to various organizations. These organizations help low-income entrepreneurs who lack sufficient training and education to gain access to capital to establish and expand their small businesses. Grants Available through PRIME include:
  - **Technical Assistance Grant:** Provides training and technical assistance to disadvantaged micro-entrepreneurs
  - **Capacity Building Grant:** Provides training and capacity building services to micro-enterprise development organizations and programs to assist them in developing micro-enterprise training and services
  - **Research and Development Grant:** Aids in researching and developing the best practices in the field of micro-enterprise development and technical assistance programs for disadvantaged micro-entrepreneurs
  - **Discretionary Grant:** Conducts such other activities determined to be consistent with these purposes  
[www.sba.gov/offices/headquarters/oca/resources/11416](http://www.sba.gov/offices/headquarters/oca/resources/11416)
- **Startup In A Day Initiative** – “Start up in a Day” is a program to help make it easier and faster at the local level to start a business and navigate the local permit and licensing process. In 2015, the SBA awarded prizes to municipalities to develop systems to improve the permitting and licensing process for small businesses, and launched a pledge program for communities to implement and maintain best practices.  
[www.sba.gov/about-sba/sba-initiatives/startup-day](http://www.sba.gov/about-sba/sba-initiatives/startup-day).

*Point of Contact:* James Pineau, Senior Area Manager. U.S. Small Business Administration. M.C. Smith Federal Building, Rm 21250. Bangor, ME 04401.  
[James.Pineau@sba.gov](mailto:James.Pineau@sba.gov), 207-945-2021.

✓ **U.S. Department of Commerce, Economic Development Administration (EDA)**

▪ **Short Term Planning Program, Local Technical Assistance, and Public Works and Economic Adjustment Assistance programs**

The EDA Short Term Planning Program provides funding to establish plans to meet specific local and regional needs, and can include objectives such as increasing resiliency against natural and economic disasters, economic diversification, area/site redevelopment and business development.

The EDA Local Technical Assistance Program (LTA) provides funding to conduct project that fill knowledge or data gaps necessary for further investment decision-making to address specific local needs, and can include feasibility and market studies for new infrastructure (e.g., broadband, district heating), economic impact analyses and site/location assessments, including for the redevelopment of vacant industrial sites.

The EDA Public Works (P/W) and Economic Adjustment Assistance (EAA) programs provide funding to construct economic development infrastructure and facilities, including new infrastructure required to accommodate business growth and/or the redevelopment of industrial sites, the renovation of vacant buildings for business use, and the construction of infrastructure to increase the community's resiliency against natural disasters.

For all programs eligible recipients are state, county and municipal governments, quasi-governmental organizations, qualified non-profit organizations and institutions of higher education.

*Next Steps:* Eligible recipient reviews the EDA FFO for the Short Term Planning and LTA programs and/or Economic Development Assistance Programs (EDAP), as appropriate available through the EDA web site at [www.eda.gov](http://www.eda.gov), and contact the EDA point of contact provided below for consultation and technical assistance regarding the potential development of an application for EDA assistance.

*Point of Contact:* Alan Brigham, EDA Economic Development Representative for Maine, 34 Timberhill Road, Windham, ME 04062, 215-316-2965,  
[ABrigham@eda.gov](mailto:ABrigham@eda.gov).

✓ **Northern Border Regional Commission**

▪ **Economic & Infrastructure Development (EID) Investment Program**



The NBRC EID Investment Program provides funds to public bodies (including states), Native American Tribes, and nonprofit corporations for a myriad of uses related to direct or indirect job creation. EID funds support eligible projects in Androscoggin, Aroostook, Franklin, Hancock, Kennebec, Knox, Oxford, Penobscot, Piscataquis, Somerset, Waldo, and Washington counties. Projects are eligible for up to an 80 percent matching grant (of up to \$250,000) depending on the economic distress of the counties being assisted. By statute, NBRC funds can be used as match for leveraging other federal grant funds. All grants are in the form of reimbursement for previously paid and eligible expenses, and applications are expected to be available in March 2017 on the NBRC's website ([www.nbrc.gov](http://www.nbrc.gov)). Typically, applications are due in June with ultimate decisions being made in August.

The NBRC's process of decision-making is based on a consensus between the federal co-chair and the collective approval of the four NBRC state governors. Applications are prioritized by the states based on an objective scoring process. State economic development plans influence decision-making as does the NBRC's Five Year Strategic Plan.

The NBRC recently adopted Five Year Strategic Plan that prioritizes applications for funding that "Fosters...capacity for community economic development" and "Inform[s] and align[s] local...economic development decision making with regional data and perspectives." The project concepts in this strategy would be eligible as a result.

*Next Steps:* Identify an eligible applicant and summarize a scope of work for NBRC assistance. Organize a meeting between the Federal Co-Chair (Mark Scarano), or the Program Director Christine Frost, and Governor LePage's representative to the NBRC (Economic Development Advisor to the Governor, John Butera) to discuss the project and its impact on the State of Maine and NBRC region.

#### ✓ **USDA Rural Development**

##### ▪ **Rural Business Development Grant (RBDG)**

RBDG is a competitive grant designed to support targeted technical assistance, training and other activities leading to the development or expansion of small and emerging private businesses in rural areas that have fewer than 50 employees and less than \$1 million in gross revenues. RBDG funds must be directed for projects benefitting rural areas or towns outside the urbanized periphery of any city with a population of 50,000 or more. Programmatic activities are separated into *Enterprise* or *Opportunity* type grant activities.

*Enterprise* type grant funds must be used on projects to benefit small and emerging businesses and may include: training and technical assistance, such as project planning, business counseling/training, market research, feasibility studies,

professional/technical reports, or product/service improvements; acquisition or development of land, easements, or rights of way; construction, conversion, renovation, of buildings, plants, machinery, equipment, access streets and roads, parking areas, utilities; pollution control and abatement; capitalization of revolving loan funds including funds that will make loans for start-ups and working capital; distance adult learning for job training and advancement; and rural transportation improvement.

*Opportunity* type grant funding can be used for projects such as community economic development, technology-based economic development, feasibility studies and business plans, leadership and entrepreneur training, rural business incubators, and long-term business strategic planning.

*Next Steps:* Identify an eligible applicant/owner (public body, nonprofit corporation or Native American Tribe). Identify an eligible project that supports the particular strategy in question. Work with USDA Rural Development to file an application for grant. Applications may be accepted at any time, but the final due date is typically May 1. Maine's FY16 state allocation was \$290,000.

*Point of Contact:* Cheryl Pelletier, Acting Business Programs Director  
[Cheryl.Pelletier@me.usda.gov](mailto:Cheryl.Pelletier@me.usda.gov), 207-764-4157

- **Rural Community Development Initiative (RCDI) Grants**

This program provides funding to help non-profit housing and community development organizations support housing, community facilities, and community and economic development projects in rural areas. Eligible entities include public bodies, non-profit organizations, federally- recognized tribes. Eligible areas include any area other than (i) a city or town that has a population of greater than 50,000 inhabitants; and (ii) the urbanized area contiguous and adjacent to such city or town. Eligible entities act as intermediaries that in turn provide assistance to sub-grantees. Examples of assistance provided by intermediaries include (1) training sub-grantees to conduct home-ownership education and minority business entrepreneur education; and (2) providing technical assistance to sub-grantees on strategic plan development, accessing alternative funding sources, board training, developing successful child care facilities, creating training tools, such as videos, workbooks, and reference guides, and effective fundraising techniques. Funding availability is offered through a NOSA, in FY16 \$4 million was made available in May with an application due date in July. FY17 funding has not yet been announced.

*Next Steps:* Depending on funding availability, identify potential project and interested applicant, work with USDA Rural Development contact to assist in submitting an application, if awarded monitor progress toward successful completion.

*Point of Contact:* Robert J. Nadeau, Community Programs Director USDA Rural Development 967 Illinois Avenue, Suite 4 Bangor, Maine 04401-2767 207-990-9121

✓ **Department of Treasury**

▪ **Community Development Financial Institutions (CDFI) Fund**

- The CDFI Fund was created for the purpose of promoting economic revitalization and community development through investment in and assistance to community development financial institutions. Through various award programs, the CDFI Fund supports mission-driven financial institutions recognized for their expertise in providing service and support to low-income communities. These organizations leverage the resources awarded to them by the CDFI Fund to draw in new or increased sources of private funding. The CDFI Fund administers a range of grant, tax credit and loan programs. Eligibility and eligible use of funding varies by program.
- CDFI Program: Provides Financial Assistance and Technical Assistance awards to certified and emerging CDFIs to sustain and expand their services and to build their technical capacity.
- Bank Enterprise Award Program: Provides monetary awards to Federal Deposit Insurance Corporation insured banks for increasing their investments in low-income communities and/or in CDFIs.
- New Markets Tax Credit Program: Provides tax allocation authority to certified Community Development Entities (CDEs), enabling investors to claim tax credits against their federal income taxes. The CDEs, in turn, use the capital raised to make investments in low-income communities.
- Capacity Building Initiative: Provides organizations certified as CDFIs or trying to become CDFIs with access to free seminars, market research and analysis, tools, and one-on-one training to help them develop, diversify, and grow.
- CDFI Bond Guarantee Program: Guarantees the full amount of notes or bonds issued to support CDFIs that make investments for eligible community or economic development purposes. These bonds or notes support CDFI lending and investment by providing a source of long-term, patient capital.
- Capital Magnet Fund: Offers competitively awarded grants to finance affordable housing solutions for low-income people and low-income communities nationwide.

Financial institutions that become certified by the CDFI Fund are eligible to apply for the comprehensive services it offers—including monetary support and training to build organization capacity. There are a number of program award recipients located in or certified to serve the state of Maine. Visit [www.cdfifund.gov](http://www.cdfifund.gov) for more information.

*Point of Contact:* Tricia Kerney-Willis, Senior Advisor, CDFI Fund  
[kerney-willist@cdfi.treas.gov](mailto:kerney-willist@cdfi.treas.gov); 202-653-0421

▪ **FAME/State Small Business Credit Initiative**

On September 27, 2010, the Small Business Jobs Act of 2010 (the Act) was signed into law, creating the State Small Business Credit Initiative (SSBCI). The Act provided almost \$1.5 billion for state programs that support access to credit for small businesses and small manufacturers. Participating states are required to demonstrate a reasonable expectation that they will leverage \$10 in private lending for every \$1 in SSBCI funds.

SSBCI is an innovative program that awards funds to State agencies for lending and investing programs. SSBCI programs fall into five categories—Capital Access Programs, Loan Participation Programs, Collateral Support Programs, Loan Guarantee Programs, and Venture Capital Programs. The program allows each state to design its own small business support programs in response to local economic conditions. Maine was awarded \$13,168,350 to be received in three disbursements that are conditioned on program performance. In the past, Maine has qualified for two disbursements totaling \$8,691,110, and in December of 2016, qualified for its third disbursement of \$4,477,240. The Finance Authority of Maine (FAME) now has these funds available for lending and investing through its approved SSBCI programs.

Maine is using its award to fund two loan participation programs – the Regional Economic Development Revolving Loan Program (REDRLP) and the Economic Recovery Loan Program (ERLP) – and one venture capital program – Small Enterprise Growth Fund (SEGF). The agency that administers the SSBCI program on a day-to-day basis is FAME.

*Point of Contact:* James Clark, Outreach Manager, SSBCI  
[James.Clark2@treasury.gov](mailto:James.Clark2@treasury.gov); 202-622-2635

*STRATEGY 8: Invest in long-term community infrastructure for the future*

*Maine Forest Economy Stakeholder Priorities:*

I. Diversify and strengthen Maine’s rural economy.

Educational organizations should participate in efforts to develop and implement programs to foster digital literacy and broadband adoption. Where available, local communities should leverage available resources available to organize and conduct training among various populations, especially those that have been displaced and as a part of workforce development training.

In 2010, Maine received a \$25.4 million National Telecommunications and Information Administration (NTIA) grant for the Three Ring Binder project to create an open access fiber-optic network extending to the most rural and disadvantaged areas of the state of Maine linking the unserved and underserved areas of the state together with a modern communications network. The project proposed a 1,100-mile network passing through more than 100 communities.

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*Strategy Lead Agency(s): EDA, USDA, NBRC*

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AVAILABLE FEDERAL RESOURCES:

✓ **U.S. Department of Commerce, Economic Development Administration (EDA)**

▪ **Short Term Planning Program, Local Technical Assistance, and Public Works and Economic Adjustment Assistance programs**

Short Term Planning Program. The EDA Short Term Planning Program provides funding to establish plans to meet specific local and regional needs, and can include objectives such as increasing resiliency against natural and economic disasters, economic diversification, area/site redevelopment and business development.

**Local Technical Assistance Program.** The EDA Local Technical Assistance Program (LTA) provides funding to conduct project that fill knowledge or data gaps necessary for further investment decision-making to address specific local needs, and can include feasibility and market studies for new infrastructure (e.g., wastewater treatment systems, water lines, broadband), economic impact analyses and site/location assessments, including for the redevelopment of vacant industrial sites.

**EDA Public Works and Economic Adjustment Assistance Program.** The EDA Public Works and Economic Adjustment Assistance (EAA) programs provide funding to construct economic development infrastructure and facilities, including new infrastructure required to accommodate business growth and/or the redevelopment of industrial sites, the renovation of vacant buildings for business use, and the construction of infrastructure to increase the community's resiliency against natural disasters.

For all programs eligible recipients are state, county and municipal governments, quasi-governmental organizations, qualified non-profit organizations and institutions of higher education.

*Next Steps:* Eligible recipient reviews the EDA FFO for the Short Term Planning and Local Technical Assistance and/or EDAP, as appropriate available through the EDA web site ([www.eda.gov](http://www.eda.gov)), and contact the EDA point of contact provided below for

consultation and technical assistance regarding the potential development of an application for EDA assistance.

*Point of Contact:* Alan Brigham, EDA Economic Development Representative for Maine, 34 Timberhill Road, Windham, ME 04062, 215-316-2965, [ABrigham@eda.gov](mailto:ABrigham@eda.gov).

✓ **Northern Border Regional Commission**

▪ **Economic & Infrastructure Development (EID) Investment Program**

The NBRC EID Investment Program provides funds to public bodies (including states), Native American Tribes, and nonprofit corporations for a myriad of uses related to direct or indirect job creation. EID funds support eligible projects in Androscoggin, Aroostook, Franklin, Hancock, Kennebec, Knox, Oxford, Penobscot, Piscataquis, Somerset, Waldo, and Washington counties. Projects are eligible for up to an 80 percent matching grant (of up to \$250,000) depending on the economic distress of the counties being assisted. By statute, NBRC funds can be used as match for leveraging other federal grant funds. All grants are in the form of reimbursement for previously paid and eligible expenses, and applications are expected to be available in March 2017 on the NBRC's website ([www.nbrc.gov](http://www.nbrc.gov)). Typically, applications are due in June with ultimate decisions being made in August.

The NBRC's process of decision-making is based on a consensus between the federal co-chair and the collective approval of the four NBRC state governors. Applications are prioritized by the states based on an objective scoring process. State economic development plans influence decision-making as does the NBRC's Five Year Strategic Plan.

The NBRC recently adopted Five Year Strategic Plan that prioritizes applications for funding that "Fosters entrepreneurial leadership and capacity for community economic development" and "Inform[s] and align[s] local, state, and regional economic development decision making with regional data and perspectives." The community engagement efforts and revitalization of rural community downtowns suggestions in this strategy would be eligible as a result.

The Five Year Strategic Plan also prioritized applications for funding that supports essential community infrastructure. Indeed, according to the NBRC's authorizing statute, forty percent of NBRC's grant awards have to be allocated to infrastructure projects.

Finally, the Five Year Strategic Plan also encourages and prioritizes entrepreneurship. As such, the NBRC can support technical assistance funding and, in some cases such as revolving loan funds granted to eligible entities, financial loans to entrepreneurs and high value-added wood product manufacturing.

*Next Steps:* Identify an eligible applicant and summarize a scope of work for NBRC assistance. Organize a meeting between the Federal Co-Chair (Mark Scarano), or the Program Director Christine Frost, and Governor LePage's representative to the NBRC (Economic Development Advisor to the Governor, John Butera) to discuss the project and its impact on the State of Maine and NBRC region.

✓ **USDA Rural Development**

▪ **Business & Industry Loan Guarantee**

*Next Steps:* Identify an eligible applicant/owner (a legally-organized entity or individual business owner). Identify an eligible project that supports the particular strategy in question Identify a lender for the project. Work with USDA Rural Development to file an application for loan guarantee Applications may be accepted at any time, on an ongoing basis. Maine's FY16 state allocation was \$11,374,000 and additional funds are usually obtainable

*Point of Contact:* Cheryl Pelletier, cheryl.pelletier@me.usda.gov or 207-764-4157, x135

▪ **Rural Business Development Grant (RBDG)**

RBDG is a competitive grant designed to support targeted technical assistance, training and other activities leading to the development or expansion of small and emerging private businesses in rural areas that have fewer than 50 employees and less than \$1 million in gross revenues. RBDG funds must be directed for projects benefitting rural areas or towns outside the urbanized periphery of any city with a population of 50,000 or more. Programmatic activities are separated into *Enterprise* or *Opportunity* type grant activities.

*Enterprise* type grant funds must be used on projects to benefit small and emerging businesses and may include: training and technical assistance, such as project planning, business counseling/training, market research, feasibility studies, professional/technical reports, or product/service improvements; acquisition or development of land, easements, or rights of way; construction, conversion, renovation, of buildings, plants, machinery, equipment, access streets and roads, parking areas, utilities; pollution control and abatement; capitalization of revolving loan funds including funds that will make loans for start-ups and working capital; distance adult learning for job training and advancement; and rural transportation improvement.

*Opportunity* type grant funding can be used for projects such as community economic development, technology-based economic development, feasibility studies and business plans, leadership and entrepreneur training, rural business incubators, and long-term business strategic planning.

*Next Steps:* Identify an eligible applicant/owner (public body, nonprofit corporation or Native American Tribe). Identify an eligible project that supports the particular strategy in question. Work with USDA Rural Development to file an application for grant. Applications may be accepted at any time, but the final due date is typically May 1. Maine's FY16 state allocation was \$290,000.

*Point of Contact:* Cheryl Pelletier, Acting Business Programs Director,  
Cheryl.Pelletier@me.usda.gov, 207-764-4157

- **Broadband Loan and Community Connect Programs**

This program furnishes loans and loan guarantees to provide funds for the costs of construction, improvement, or acquisition of facilities and equipment needed to provide service at the broadband lending speed in eligible rural areas. To be eligible for a broadband loan, an applicant may be either a non-profit or for-profit organization, and must take one of the following forms: corporation; limited liability company (LLC); cooperative or mutual organization; state; or local unit of government, Indian tribe or tribal organization.

Community Connect Grant. Similar to the eligible purposes and entities for the Broadband Access Loan and Loan Guarantee Program, the Community Connect grant helps fund broadband deployment into rural communities where it is not yet economically viable for private sector providers to deliver service based on current broadband speeds.

This program helps fund broadband deployment in rural communities where it is not yet economically viable for private sector providers to deliver service. Eligible applicants include – most state and local governments, federally recognized tribes, non-profits and for-profit corporations. Eligible areas are those that lack any existing broadband speed of at least 4 Mbps downstream and 1 Mbps upstream. Eligible activities include the construction acquisition or leasing of facilities, spectrum, land or buildings used to deploy broadband service for all residential and business customers located within the proposed funded service area, critical community facilities (other requirements/restrictions may apply). Funding is available through an annual NOFA, FY17 funding has not yet been announced.

*Next Steps:* Depending on funding availability, identify potential project and interested applicant, work with USDA Rural Development contact to assist in submitting an application, if awarded monitor progress toward successful completion.

*Point of Contact:* Robert J. Nadeau, Community Programs Director USDA Rural Development 967 Illinois Avenue, Suite 4 Bangor, Maine 04401



- **Distance Learning and Telemedicine (DLT) Program**

The Distance Learning and Telemedicine program helps rural communities use the unique capabilities of telecommunications to connect to each other and to the world, overcoming the effects of remoteness and low population density. For example, this program can link teachers and medical service providers in one area to students and patients in another. Eligible applicants include most entities that provide education or health care through telecommunications, including: state and local governmental entities, federally-recognized tribes, non-profits, for-profit businesses, consortia of eligible entities. Grant funds may be used for acquisition of eligible capital assets such as audio, video and interactive video equipment, terminal and data terminal equipment, computer hardware, network components and software, and acquisition of instructional programming and technical assistance and instruction for using eligible equipment.

*Next Steps:* Depending on funding availability, identify potential project and interested applicant, work with USDA Rural Development contact to assist in submitting an application, if awarded monitor progress toward successful completion.

*Point of Contact:* Robert J. Nadeau, Community Programs Director USDA Rural Development 967 Illinois Avenue, Suite 4 Bangor, Maine 04401-2767 207-990-9121

## EXISTING EFFORTS

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Along with the work that is being done within their respective organizations, members of the EDAT Planning Committee have been working closely with state agencies and universities to begin to address economic recovery issues. The initiatives highlighted here represent several significant efforts; but this is not an exhaustive list of all the work currently being undertaken within the state.

### *State of Maine*

#### Joint Resolution

On April 14, 2016, the Maine legislature issued a joint resolution recognizing and commending the collaboration between the University of Maine Center for Research on Sustainable Forests and representatives of Maine's forest-based industry to develop and implement a strategic plan and vision for the state's forest-based economy.

#### State Biomass Commission

In 2016, the state legislature established a commission to study the economic, environmental and energy benefits of the state biomass industry. The commission was established to accomplish the following:

- Review and evaluate the economic, environmental and energy benefits of Maine's biomass resources, as well as public policy and economic proposals, to create and maintain a sustainable future for the Maine biomass industry;
- Consider the interconnection of economic markets for biomass and forest products and the energy policy of the State;
- Consider whether the environmental, economic and energy benefits of biomass support updating the State's energy policy to strengthen and increase the role that biomass and the forest products industry play throughout the State;
- Consider the costs of implementing any recommendations and the effect of leaving current policies in place; and
- Examine any other issues to further the purposes of the study.

The first meeting was held on August 2, 2016, and a report was submitted to the Joint Standing Committee on Energy, Utilities and Technology and the Joint Standing Committee on Agriculture, Conservation and Forestry on December 6, 2016.

Additional information on the Commission to Study the Economic, Environmental and Energy Benefits of the Maine Biomass Industry can be found at:

<http://www.maine.gov/legis/opla/biomassindustrystudy.htm>.



Additional information can be found on the task force website (<http://www.sprucebudwormmaine.org/>).

### District Foresters

The Maine Forest Service has 10 District Foresters who provide technical assistance and educational services to landowners, loggers, schools and educational institutions, municipalities, and other stakeholders. Field Foresters conduct educational workshops, field demonstrations, media presentations and can provide limited one-on-one contact with individual landowners. A listing of District Foresters can be found on the Maine Forest Service website ([http://www.maine.gov/dacf/mfs/policy\\_management/district\\_foresters.html](http://www.maine.gov/dacf/mfs/policy_management/district_foresters.html)).

### *State Economic Development Strategy*

While the 2015-2016 Maine Comprehensive Economic Development Strategy (CEDS) looks at economic issues impacting the entire state, it does identify issues facing its forest-based economy. The Maine CEDS identifies the challenges to the forest products industry as “foreign competition, changing market conditions (declining paper consumption), an aging workforce, high-energy costs and the impending spruce budworm migration.”

There are seven economic development districts (EDDs) in Maine, administered by various regional organizations. Each of these districts has its own CEDS. These seven regions also worked together to develop a statewide CEDS through the Mobilize Maine Cluster Development (MMCD) Initiative, which involved conducting asset mapping, developing a common CEDS template, and producing the statewide CEDS. Systematic regional asset mapping was completed in nine categories, to include natural, geographic, infrastructure, and innovation. The forest-products sector was identified as one of the state’s five priority industry clusters. One of the strategies identified in the CEDS is to develop, in conjunction with the Maine Department of Economic and Community Development, “long-term economic growth plans” for the five priority industry clusters. Many of the strategies and issues identified in the CEDS have also been identified as key by the forest-based economy sector. They are tied to six economic drivers for growth and prosperity: asset based cluster development, entrepreneurship and innovation, education and workforce development, access to capital, infrastructure and environment, and leadership.

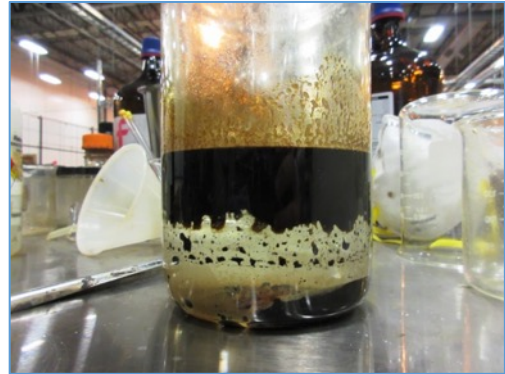
The Northern Forest Cluster is an example of cluster activity that arose as a result of the Mobilize Maine effort. Additional information on Mobilize Maine and CEDS development can be found on the Mobilize Maine website (<http://mobilizemaine.org/>).

## Research

*"It is incumbent on us to change and evolve and to prepare our population to embrace new opportunities." – Susan Hunter, President, UMaine*

Research and development play a key role in identifying new and innovative uses for the state's wood products. Examples of privately funded research and development include recent investments by Sappi and Twin Rivers.

The University of Maine (UMaine) is the only chartered research institution in the state, and its mission is to prepare the state workforce and its partners. It is the oldest continually accredited forestry program in the United States, and its forestry and environmental program is one of several areas of excellence at the university. UMaine's focus is on the research and development of bio-materials.



*Crude Oil Made from Wood (UMaine)*

- The Cooperative Forestry Research Unit conducts research on a variety of aspects of forest technology and utilizes Light Detection and Ranging (LiDAR) to map trees. Over \$0.5 million in industrial sponsored research is conducted annually.
- The Forest BioProducts Research Institute (FBRI) serves societal needs by “bringing sound science to commercial viability.” FBRI’s mission is to advance understanding of the scientific underpinnings, system behavior, and policy implications for the production of forest-based bioproducts, and to provide and promote technology validation and partnerships that will meet societal needs for materials, chemicals and fuels in an economically and ecologically sustainable manner. The institute is working on fuel conversion and upgrade projects, nanocellulose used as a monomer, and converting wood-derived sugars to bioproducts.
- The Forest BioProducts Technology Research Center maintains a 40,000 square foot space used to conduct large-scale industrial testing of research and commercial ideas. It can assist the private sector in validating new technologies.
- The Center for Research on Sustainable Forests (CRSF) was founded to “build on a rich history of leading forest research and to enhance our understanding of Maine’s forest resources in an increasingly complex world.” CRSF conducts research and informs stakeholders and industry leaders about how to “balance the wise-use of our resources while conserving our natural world for future generations.”
- The Advanced Structures and Composites Center has extensive facilities, expertise, and capabilities in areas of wood composites, wood/plastic composites, nanocellulose composites, lumber evaluation, cross-laminated timber (CLT), and wood engineering.

- The Advanced Manufacturing Center (AMC) provides capabilities for the design and manufacture of wood processing equipment, ranging from prototypes to production units.
- The School of Forest Resources is recognized as a national leader in integrating research and teaching to enhance sustainable working forests that contribute to the economic, social and cultural well-being of our citizens. The mission of the School of Forest Resources is to provide excellence in education, research and public service that promotes the understanding, efficient use and sustainable management of forest resources for the well-being of the people of Maine, the United States and the World.

## SUSTAINING THE EFFORT

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This report outlines the significant actions, past and present, that the state and local governments, industry, and academia are taking to revitalize the economy as a whole and specifically to address issues surrounding the forest-based economy. As a partner in this initiative, the federal government is working together to identify resources and strategies that may assist the region through the interagency EDAT process. Appendix B outlines the programs and technical assistance opportunities that may be utilized to support the state and industry efforts.

### *Federal Coordinating Structures*

EDA has a full time Economic Development Representative (EDR) located in Maine who has and will continue to assist the industry in formulating “brick and mortar” projects as well as data gathering and analysis and the execution of planning efforts. In addition, EDA can facilitate cross-agency coordination through its newly developed Office of Economic Development Integration (OEDI) to support, monitor, and ensure the federal government’s support to Maine’s economic revitalization efforts.<sup>8</sup>

EDA has been designated by the Office of Management and Budget (OMB) as the federal government’s official economic development integrator. In support of this role, the agency established the OEDI to facilitate direct engagement between communities and multiple federal stakeholders to collaboratively solve complex economic issues. OEDI will connect communities to economic development opportunities across the federal government by serving as an internal resource to EDA regional staff who work with the agency’s clients on a regular basis. A full-time integrator has been hired in EDA’s Philadelphia Regional Office for this purpose. He will work with other federal agencies to integrate a variety of grant programs and technical assistance opportunities to maximize federal investment in targeted areas. The integrator will work with Maine’s EDR to ensure that the program benefits committed to in this report are delivered and synchronized.

### *State-wide Coordinating Structures*

There are several industry and public-private partnerships already in existence in Maine to address issues associated with the state’s forest-based economy. These include Keeping Maine’s Forests and the EDAT Planning Committee which has now become the Maine Forest Economy Growth Initiative. There are also several groups formed by community members and industry groups, such as the group of industry stakeholders which will be formed to support and guide the forest products industry Roadmap initiative. The sector needs to identify the public-private partnership that will provide strategic insight and continued commitment to the process. This group must include both industry, government (local, state, and federal), and community representatives.

The EDAT Planning Committee engaged all interests from the forest-based economy—mill owners, loggers, truckers, sawmill operators, land owners, academia, and community leaders. Establishing a

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<sup>8</sup> Learn more about EDA’s Office of Economic Development Integration here: <https://www.eda.gov/edi/>

broader coalition of interests is necessary to address the intersecting infrastructure-related issues of energy policy, transportation (ports, rails, and roads), and telecommunications that will benefit them.

Public-private partnerships are an important aspect of economic development. Collaborating with industry leaders to improve local economic viability is important, as is engaging the business community to support economic development initiatives.

Local governments and public sector organizations recognize the needs and requirements of business and their industry partners and the effects that their actions may have on the economy. The partnership between public and private sectors and community stakeholders is essential to building and maintaining a resilient economy. By working together, communities can overcome issues such as misinformation, lack of communication, and trust, and work together to address shared issues and concerns. Similarly, developing and maintaining partnerships with transportation providers (trucking and railways), ports, and transportation authorities may result in better planning on both the supply and demand sides.

The state and region should consider establishing a charter for the group that addresses membership, goals, strategic and tactical objectives, and governance by laws. Sub committees should be created to address specific issues including policy and legislation, energy, research and development, performance metrics and benchmarking, marketing, international markets and trade, community planning and revitalization, and federal coordination.

### Monitoring and Evaluation

The goal of this report is to identify federal resources that can help Maine's forest products industry create and retain jobs, and strengthen the future of Maine's forest economy.

To ensure that economic recovery continues and that stakeholders have visibility on the results it is important to have a process in place to track the status of strategies. Supported by a grant from the EDA, the Maine Development Foundation will coordinate and track the economic recovery efforts that result from the EDAT's findings and recommendations and coordinate with EDA to track federal commitments.

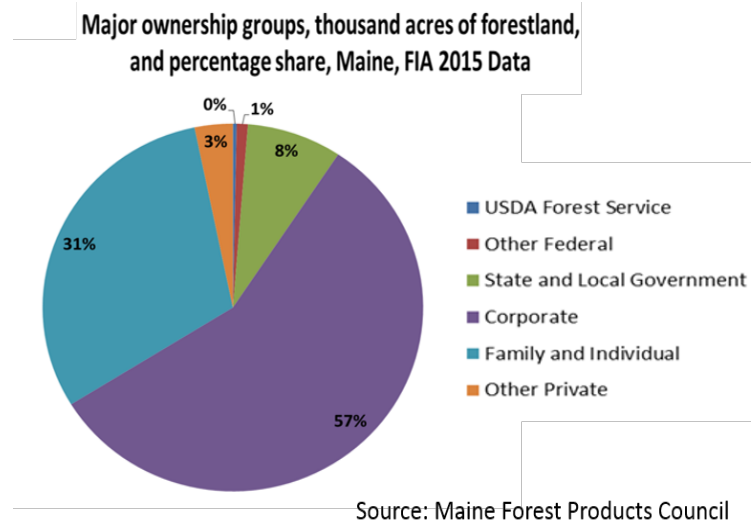


## APPENDIX A: BACKGROUND

To provide an overview of the region and the status of Maine’s forest-based economy, most of the information in this section was provided to EDAT members prior to their departure to the region. It established the groundwork for discussions around issues and revitalizing strategies.

### Overview of Industry

Maine’s forest-based industry is diverse and includes landowners, loggers, foresters, truck drivers, value-added manufacturing, and energy production. It also includes people who make their living on tourism and conservation related activities. When looking at the forest-products sector, it is important to understand the critical role it plays in the state’s economy and culture as well as for key products, facilities, workforce, and infrastructure considerations.



Nearly 89 percent of the state is forested, and 93 percent of forests are privately owned by businesses, individuals and families.<sup>9</sup> Based on a report by the Maine Forest Products Council in 2013, 56.5 percent of the state’s trees are used for pulpwood (paper).<sup>10</sup> In 2015, forest-based products were Maine’s largest export industry, with sales totaling \$740 million for wood, pulp, paper, and lumber.<sup>11</sup>

### Forest Industry Products

As of 2014, the majority of the Maine’s trees were used for pulpwood, saw logs, and biomass chips, as illustrated by Figure 3 below. Figure 4 provides an overview of the types of products developed and the current markets for those products.

<sup>9</sup> *The Economic Impact of Maine’s Forest-Based Economy 2013*. North East State Foresters Association. Accessed from [http://digitalmaine.com/cgi/viewcontent.cgi?article=1005&context=for\\_docs](http://digitalmaine.com/cgi/viewcontent.cgi?article=1005&context=for_docs)

<sup>10</sup> “Forest Products Industry Puts \$8 Billion into Maine Economy.” *MaineBiz* (September 8, 2014). Accessed from [http://www.mainebiz.biz/article/20140908/CURRENTEDITION/309049989/forest-products-industry-puts-\\$8-billion-into-maine-s-economy](http://www.mainebiz.biz/article/20140908/CURRENTEDITION/309049989/forest-products-industry-puts-$8-billion-into-maine-s-economy).

<sup>11</sup> *Measures of Growth 2016*. Maine Development Foundation. Accessed from <http://mdf.org/publications/Measures-of-Growth-2016/859/>

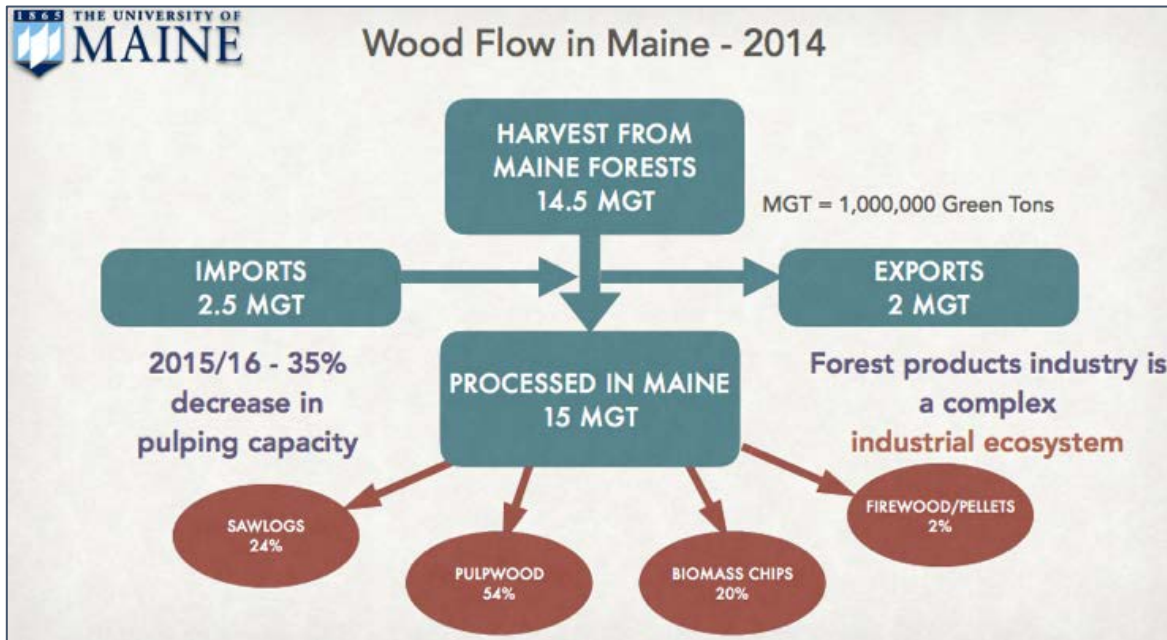


Figure 4: Wood Flow (Source: UMaine)

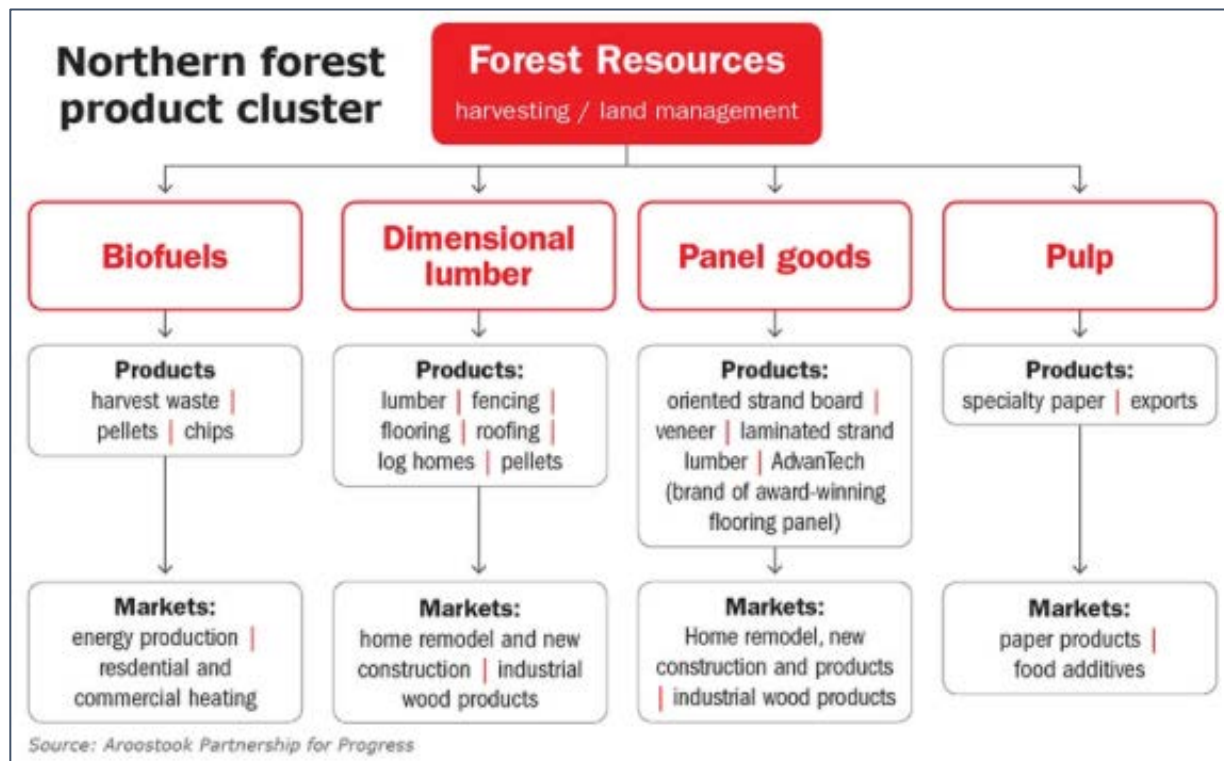


Figure 5: Overview of Forest-Related Products (Source: Aroostook Partnership for Progress)

Paper, pulpwood and articles remained Maine's number one export in 2013.<sup>12</sup> Since 2011, Maine's exports of pulp, paper and paperboard have declined, and more recently have flattened. Across the country, exports in this sector have fallen 20 percent since 2011; however, by comparison Maine's exports have declined 40 percent. Pulp, paper and paperboard mills comprised about 21.6 percent of Maine's total exports in 2010, but accounted for only 12.4 percent at the end of 2015.

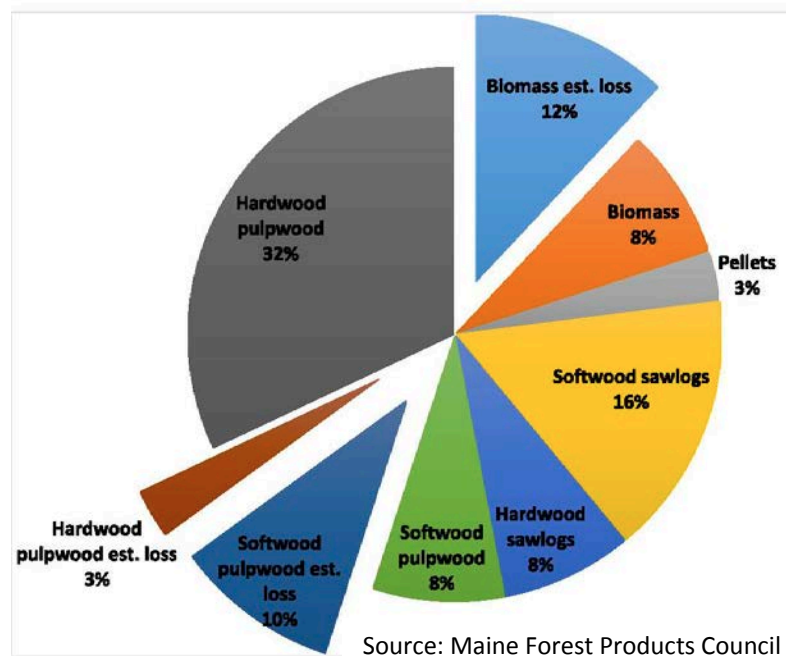


Figure 6: Maine In-State Processing by Product Expected Market Loss 2016 - PJS

### Facilities

Since 2007, global demand for printing and writing papers has declined 14.3 percent. Newspaper demand has trended down steadily, decreasing 38 percent since 2004.<sup>13</sup> This has contributed to the significant decline in paper and pulp mills over the past 15 years across Maine.<sup>14</sup> Five major mill closures have occurred over the past three years.<sup>15</sup> These closures impact the entire supply chain and the local communities surrounding each mill.

<sup>12</sup> *Forest Products as Part of Economy*. Maine Forest Products Council. Accessed from <http://maineforest.org/issues-information/sustainable-forestry-initiative/forest-products-account-for-33-percent-of-2013-exports/>.

<sup>13</sup> The Economics and Statistics Administration, Office of the Chief Economist, U.S. Department of Commerce (August 2016).

<sup>14</sup> Ibid.

<sup>15</sup> "Maine's Paper Industry, Mapped." *Bangor Daily News* (March 15, 2016). Accessed from <http://widgetsanddigits.bangordailynews.com/2016/03/15/economy/an-economic-crisis-in-maines-paper-industry-mapped/>.

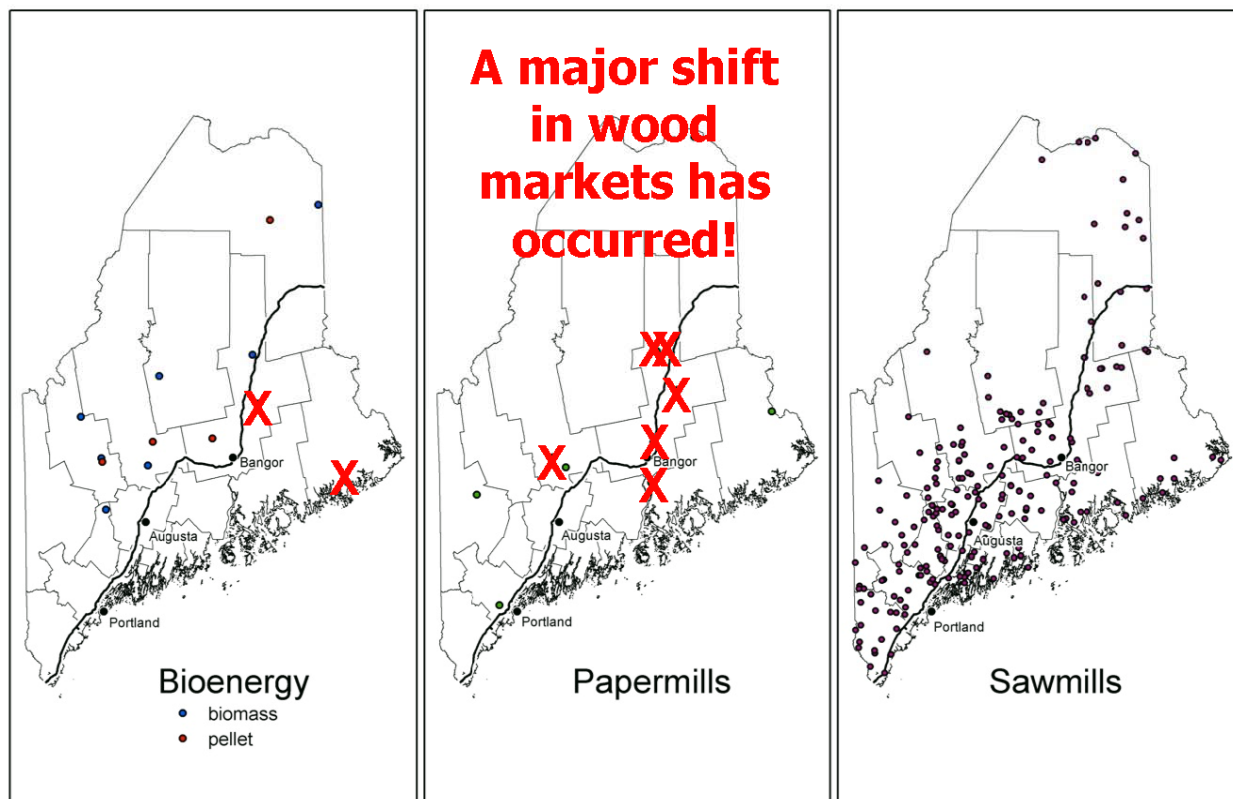


Figure 7: Status of Mills in Maine

### Workforce

*"The 18- to 44-year-old age bracket, the lifeblood of the workforce, is hovering at 30% of the total population; a level below which economists tell us our 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 either close or relocate where this population is more robust." – Maine CEDS 2015-2016*

In 2016, one out of every 24 jobs in Maine was directly or indirectly associated with the forest-based industry, (the equivalent of nearly 33,538 full- and part-time jobs). Nearly 7,000 of these jobs were associated with paper manufacturing.<sup>16</sup> Overall, the forest-based industry in Maine has an older workforce, with 62 percent of workers aged 45 and older.<sup>17</sup>

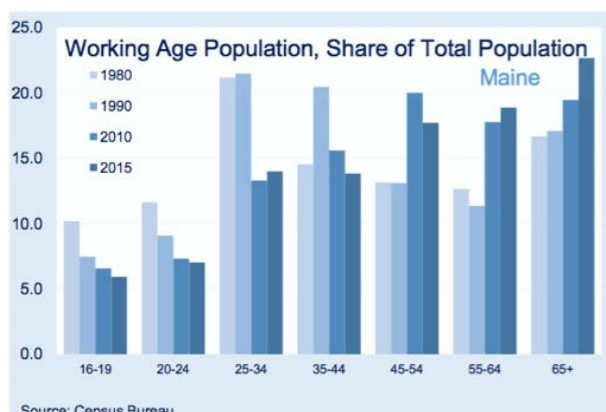


Figure 8: Maine's Aging Workforce Population

<sup>16</sup> *Maine's Forest Economy*. Maine Forest Products Council (2013). Accessed from <http://maineforest.org/wp-content/uploads/2013/09/Maines-forest-economy.pdf>.

<sup>17</sup> Ibid.

The median age of the population of Maine has increased over time to 44.5, higher than the median age for the United States (37.8 years), making it the highest among all states. Within the forest products industry, the average age is over 55.

The industry must also combat the negative perception associated with many of the forest industry jobs, which leads the younger population to avoid these jobs. Because many people may not believe in the long-term viability of the industry, youth are not entering forest-based careers. Even if there is a market for forest products, industry stakeholders worry that they may not have the workforce needed to make it viable, especially those in the logging field.

Marketing initiatives for recruitment and retention of employees are needed. While there are apprenticeship and pre-apprenticeship funding is available, many of the programs have been abbreviated because people do not want to leave their localities (training has to be brought to them) and they do not like traditional classroom programs (the majority of the time should be spent in the field). In addition, because the Fair Labor Standards Act prohibits those under the age of 18 from operating harvesting equipment, it is difficult to train high school students. While legislation has been submitted to reduce the age requirement to 16 (to match the agricultural/farming industry), training high school students remain an issue.

Maine’s decline in employment in pulp, paper and paperboard mills has been steady, following national trends. In 1990, the pulp and paper manufacturing sector accounted for approximately 17,400 jobs in Maine.<sup>18</sup> In 2015, employment in this sector averaged approximately 4,100 jobs in Maine, representing a 75 percent decline from 1990. Comparatively, national employment in pulp and paper manufacturing declined approximately 55 percent to 98,600 workers by 2015.

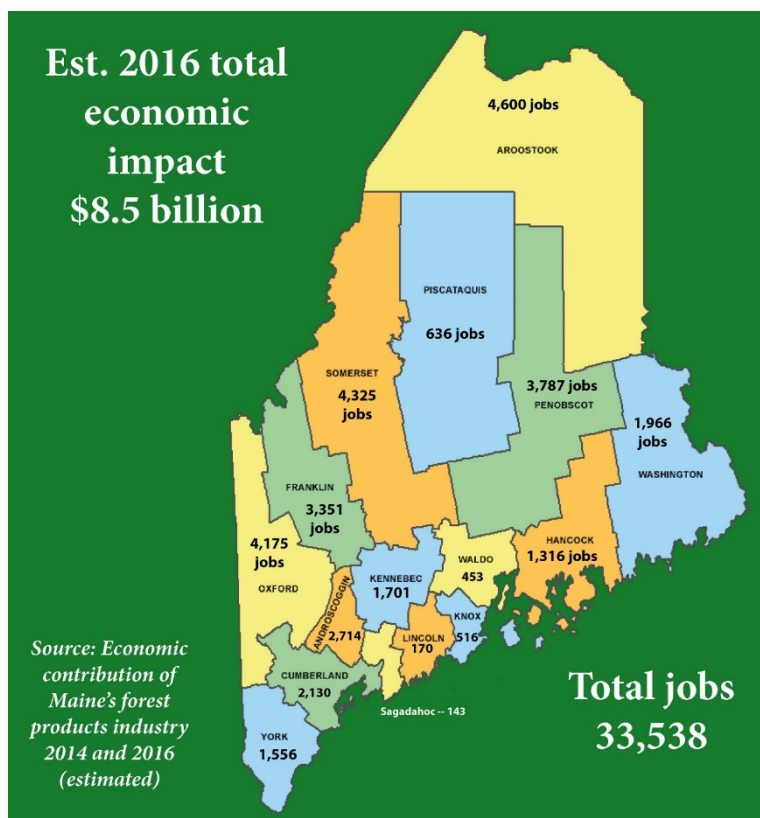


Figure 9: Forest Industry Jobs

<sup>18</sup> *The Economic Impact of Maine’s Forest-Based Economy 2013.*

### Interdependencies and Interconnectedness

*"The growing wood energy sector is found at large wood-fired power plants, medium to small sized commercial facilities using woody biomass to create heat and/or electricity and at the residential level where homeowners heat their homes with firewood or wood pellets." – Maine's Forest Economy*

All elements of the forest products industry are closely connected and interdependent. For example, the biomass market decline has had far reaching impacts, resulting in the closure of biomass mills and related negative impacts on communities and employees. The decline has also resulted in negative effects on truckers who move these products and loggers who rely on both high-value and low-value products in order to operate successfully.

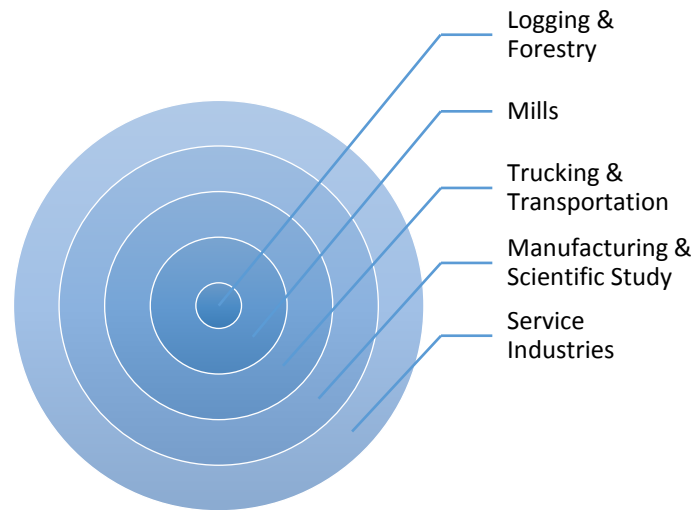


Figure 10: Examples of Industries Impacted by Forest-Based Economy

Many different sectors of the state's economy are supported by or dependent on the forest-products industry. While logging and trucking operations, sawmills, and pulp and paper mills are at the center of the sector, secondary and value-added paper and wood product manufacturing are also key industry activities. Indirect but closely related sectors include transportation, scientific and technical services, food service, administrative support services and real estate, healthcare, repair and maintenance, and other industries. For example, in 2015, there were 3,278 truck drivers working to support the forest products industry.<sup>19</sup> Because forest-product markets are interconnected, a disruption in one or two areas will reverberate through the entire value chain. According to a recent University of Maine economic impact analysis, every direct forest-products industry job is matched by 2.5 indirect jobs.<sup>20</sup>

### Infrastructure

As is common among those living along an international border, northern Maine communities (like those in western and Downeast Maine) have an important relationship with their Canadian counterparts. Wood flows in and out of Maine to Canada. In addition to roads, many parts of this area are also connected to the Canadian electric grid. Canadian companies are both competitors as well as trading partners.

<sup>19</sup> *Maine's Forest Economy.*

<sup>20</sup> *Ibid.*

Roughly half of the state is designated as unorganized territory (UT), or “an area having no local, incorporated municipal government.”<sup>21</sup> In total, UT land accounts for slightly over one half of the state, and the Maine legislature serves as its “local governing body.” As a result, there are limited public services such as roads, utilities and water. To maintain its viability, the forest-products industry has built thousands of miles of private road systems that are maintained and available for public use but that exist primarily for the movement of forest products. Some local communities have recently started to dissolve their local government in order to become part of the unorganized territory as a cost saving measure. This could further tax the area’s infrastructure.



*Figure 11: Maine's Unorganized Territory (New York Times, January 16, 2016)*

Economic recovery efforts must consider the interdependencies that exist between the physical, social, cultural, and economic elements of an area and understand the impacts that one area has on other aspects of the industry. Transportation, energy, and telecommunications/information technology are three areas that transcend all industries, particularly the Maine forest-products industry.

### *Transportation*

With the remaining pulpwood mills located in the southern part of the state, transporting wood to market has become more expensive. The average hauling distance is 100 miles, which is higher than in other states, and longer transportation routes mean increased cost, more handling, and wear and tear on vehicles and equipment. Forest sector representatives noted the need to examine trucking inefficiencies and challenges.



*Transportation is a key consideration for the forest products industry.*

Maine representatives also noted that there are excise taxes in Maine. Canada has no federal excise tax, allowing truckers to transport more wood at a lower cost. In addition, Canadian truckers can haul heavier loads, while Maine’s roads do not have the capacity to handle heavier loads. It was also noted

<sup>21</sup> Maine Dept met of Administrative & Financial Services; Maine Revenue Service.

that other states, such as Michigan, allow higher tolerance on state roads. The trucking sector is also challenged by increased costs and emission standards on diesel.

Maine's restrictions on the movement of equipment during nighttime hours is particularly challenging during winter, when daylight hours are short. The forest industry noted that it is working with the Maine Department of Transportation on a pilot project to allow the movement of empty low-beds at night. The U.S. Department of Transportation noted that it recently completed a truck sizing weight study that may inform this issue. Others noted that the U.S. Endowment for Forestry & Communities is conducting a trucking efficiency study for the southeastern United States. This may be a helpful resource for Maine.

Industry leaders are currently working with MaineDOT's Office of Freight and Business Assistance and Bureau of Planning to identify near-term, mid-range and long term actions to enhance transit times, improve access to resources and load centers, improve the reliability of transportation infrastructure and increase load limits on a targeted basis. The Department seeks recommendations to advance the competitive position of the forest products sector through capital investments and regulatory actions. Data on current and forecasted movements of raw and value added forest products will help guide their planning and decision making process.

A relatively new state law (Title 29-A, Section 2354-D) grants discretion to MaineDOT to provide waivers for over-dimension and over-weight truck loads moving on public ways. MaineDOT recently started a pilot program to move oversize empty low beds as requested by the Professional Logging Contractors of Maine and it is presently working with JD Irving and Maibec in the Ashland area on movements between the private road network and their mills on public roads. To take effect, these initiatives will likely require public road improvements and the law envisions a 50-50 public-private partnership in financing such improvements. A related topic to explore is the design of new public-private partnerships to support key private haul roads within the unorganized townships used by the forest industry that are also used by the general public for recreational access.

Maine DOT has an Industrial Rail Access Program (IRAP) which has been utilized by paper and saw mills. Presently, grant awards do not reflect an overall strategy of support for the forest products sector. MaineDOT is open to discussion on the desirability of having a more directed strategy to guide future IRAP award selection. Furthermore, the Department owns land including sites on rail in Ashland and Fort Kent that could, in concert with the IRAP initiative, support the forest products sector's use of rail. The Department could also lend support to expanded use of the recently reopened PAR intermodal facility in Waterville.

Rail car availability is another issue to be addressed. The primary concern is the availability of rail cars for moving woodchips. Chips are a low revenue generator and, therefore, railroads and shippers are reluctant to commit to owning or leasing cars with a poor return on investment. There is an opportunity



for a patient investor, like the Maine Port Authority to acquire and retrofit cars for moving chips. Rental fees would be returned to the Authority over an extended term to recover the investment and capitalize a revolving loan fund to finance additional rail investments. The statute governing the Authority allows for both port and rail financing and the Authority is experienced in this type of financing. Initial capitalization of the Authority would need to be addressed.

### Ports

Investments in port development are critical to support the export of Maine wood products. Maine currently has four deep water ports in Portland, Bucksport, Searsport and Eastport. Each has been utilized predominately to export and import kraft pulp and value-added forest products. In the past, roundwood has been shipped out of Portland, but this has not happened since the late 1990's. As pulp producing mills have left the state of Maine, the utilization of these ports for the export of forest products has depleted, except Eastport—which has seen significant growth in the export of kraft pulp from Woodland Pulp.

With increasing global demand for a diversified mix of forest products, Maine's forest resource and new manufacturing capacity (i.e. pellets) present an exceptional opportunity to export roundwood, chips, pellets, pulp and various value-added products. However, Maine's ports suffer from a lack of infrastructure which puts them at a competitive disadvantage compared to similar ports in the Canadian Maritime provinces as well the southeastern United States. Unless significant infrastructure investments are made, Maine will not be able to participate in opportunities for growth related to its ports.

While the Port of Searsport has rail access, but it extends only 1,000 feet from the dock. Searsport also has a very narrow dock and lacks the unloading capability (truck dumper) and redundant loading conveyor capacity necessary to take advantage of any opportunities for export with respect to pellets and chips. Though Searsport is the most centrally located of all of Maine's ports, it is currently one of the most unprepared.

Eastport's investments in its wood handling capability and its one loading conveyor have primed the port to eventually participate in the export of pellets and chips. To take advantage of this investment, however, Eastport requires rail infrastructure as well as a redundant conveyor loading system to load ships more efficiently in the event one system goes down during loading. Eastport is also well positioned to move biomass and MaineDOT is working with federal and state officials to complete financing arrangements to support heat treatment of wood chips to meet foreign requirements. In Searsport, which has rail service but does not have chip handling equipment, there is \$1.2 million in funding available from unspent bond funds that could help address this deficiency. An estimated \$1.5 million is needed to make chip moves viable in Searsport enabling a load a week to move out through this port. In Portland, the opportunity exists for value added products amenable to containerization to move out through two possible port facilities.

Bucksport was traditionally used for the import and export of materials and supplies for a pulp and paper facility, but since the facility's shut down in late 2014, the port of Bucksport has not been utilized to its fullest potential. Bucksport provides one of Maine's best inland port opportunities due to its unloading capability and conveyor system. It is also closely located to rail access, but the tracks are not collocated at the port.

Portland, which was a primary port for the export of kraft pulp and value-added products, has lost significant market share over the last ten years. The port does have rail access, but it lacks the appropriate loading and unloading capability to serve the export of roundwood, chips or pellets.

### Railways

Maine's fragmented rail system is dominated by individual owners, crosses many different property owners, and in many cases does not connect with ports. In addition, there is no Class 1 railroad or major carrier in Maine, which differentiates the state from the rest of the country. Beyond the infrastructure of the rails and lines, there are neither enough rail cars nor the right kind of rail cars available to move the various forest products. For example, the Passadumkeag Wood Yard site is on a rail track, but cannot send wood by train because the trains are too slow and use different rail types between different locations. It simply is not effective. If an adequate infrastructure existed, forest products could be hauled to ports by rail, which would save money. During the EDAT's visit to the Pleasant River Lumber Saw Mill, it was noted that "if we can make the rail system work, we could make the intermodal system work."

Forestry representatives expressed the need for increased collaboration between the forest and rail industries, noting the historical lack of communication and cooperation between the two industries in Maine. Great progress is being made with the Irving management of the state system in northern Maine, the question is how does Maine continue building efficiencies as traffic moves south and crosses into different management and ownership regions. During the EDAT visit, Senator King stated that his office will convene a meeting with the rail industry to help address this issue.

### *Energy*

High energy costs are considered a burden to both businesses and residents. The Maine CEDS notes that the state's "energy cost burden ... is a major constraining factor for both business growth and household stability. Since energy is the primary input to life and economic performance, our state faces a greater barrier than many regions in the U.S. The cost burden is driven by an 80 percent use of heating oil, 16 cents per kW for electricity for residential electricity, and a low household income because of an aging population on fixed incomes and lower wage jobs."

Moreover, the regulatory environment concerning sales of electricity from biomass plants and the ability of plants to sell "behind the meter" to local businesses has made the economics of energy production and consumption more difficult for the forestry industry. This is coupled with a federal tax regime in which production tax credits (PTCs) for new biomass facilities are being phased out, thus removing one of the few supports for developing the biomass energy market.<sup>22</sup> Further, many of the clean energy tax incentives that currently exist are temporary. This has led to an unstable tax policy on the clean energy side.



Former Covanta Biomass Energy Plant

### Emerging and Potential Markets

Biomass for combined heat and power (CHP), wood pellets, nanocellulose, cross-laminated timber (CLT), bio-fuel, and packaging are examples of emerging markets. Representatives from the Maine forest-products industry stressed that it is critical to increase understanding of new and emerging markets.

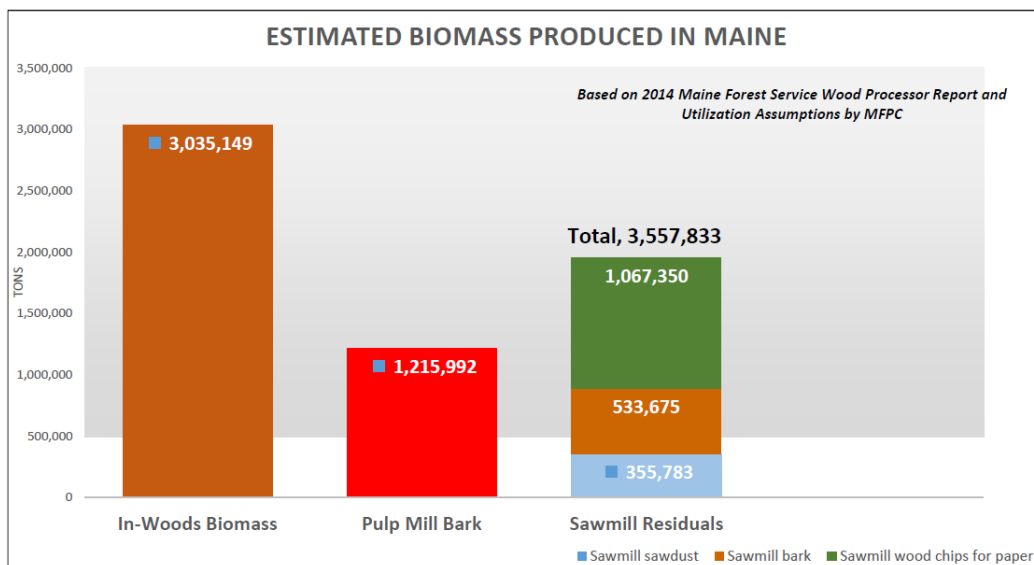


Figure 12: Estimated Biomass Production

<sup>22</sup> U.S. Department of Energy, Renewable Electricity Production Tax Credit. Accessed from: <http://energy.gov/savings/renewable-electricity-production-tax-credit-ptc>.

### *Residuals*

The entire forest-products industry depends on the existence of markets for both high-value and low-value products. Given the wood source that the solid wood industry works with (size and species), long term (and near term) strategies must include steps to stabilize the residuals associated with that production process.

When looking at potential markets, the market for residuals is critical. For example, high-value biobased materials can be made with low-quality forest residuals. In the past, biotech investors have not considered Maine due to the high-cost of our wood fiber. This isn't the case anymore. Maine has an increasing abundance of forest residuals now available at a lower cost per ton.

### *Biobased Products*

Some of the most promising (and potentially most lucrative) of higher-value products are the biobased chemicals obtained from cellulosic sugars. Maine has had success in manufacturing high-quality cellulosic sugars from woody biomass at the former Old Town Fuel & Fiber facility; the U.S. Department of Energy is ready to invest \$30 million in the construction of a demonstration-scale facility at that site.

A current federal grant to Biobased Maine from the Department of Commerce includes a task specifically intended to help existing Maine facilities manufacture cellulosic sugars from wood fiber.

The University of Maine's Nanocellulose Pilot Plant is sending samples of nanocellulose all over the world. As emerging and potential markets are identified and explored, they should be considered alongside Maine and its forest industry's benchmarking findings to help determine where Maine and its forest industry can be most competitive.

### *Combined Heat and Power (CHP)*

Maine needs combination manufacturing/energy production facilities to capture lost energy. These would serve as a dependable residual disposal option that also has potential to become a profit center over time. Producers would like to attract other businesses to co-locate at the site [an innovation hub] so that they could sell them power "behind the meter."

### *Research and Development*

There is a gap between the technological advances made by research entities like the University of Maine (UMaine) and the application of these technologies to market products. There is a need for investment in demonstration projects, catalyzation of investment into innovation, and technical assistance for bringing small projects to scale. FPInnovations, a Canadian organization that works to foster the growth and prosperity of Canada's forest sector, was raised as a best-practice example. The

organization specifically supports research and development efforts and identifies innovation solutions to address issues and expand beyond traditional markets.

Both UMaine and Sappi have technology departments advancing in the areas of nanocellulose and wood composites. While there are issues related to competition, there are opportunities to increase the level of collaboration between these departments and find ways to license and market new technologies. Sappi has approximately 50 scientists working on applied research and would like to identify opportunities to expand public-private partnerships for applied research. If a mechanism were in place that allowed for collaboration on these issues, the region could potentially establish its own “innovation hub” for forest products.”

### Impact on Communities

*“Strong forest products markets are also essential for the rural communities that rely on the forest-based economy. The livelihoods of people in Maine’s rural mill towns, in particular, are dependent on the relatively high-paying jobs that the mills offer, and the forestry jobs that supply the raw materials for the mills. If those mills cannot continually find new markets and new streams of revenue, develop new methods of production, and make critical investments in buildings and equipment, then they are at risk of closure and their rural communities are in trouble.” – Keeping Maine’s Forests (August 2013 proposal)*

While in Maine, the EDAT heard directly from community members in the towns of Bucksport, East Millinocket, Madison, Millinocket, Lincoln, and Old Town about the impacts of local mill closures on each community.

According to one recent analysis, communities where mills have closed have higher unemployment rates compared to the state as a whole. Career counselors also report that many displaced mill workers are underemployed and/or employed at a significant reduction of overall salary and benefits, while some have opted for early retirement. Other impacts of the mill closures on communities include loss of population, reduced tax valuations, total property tax levies, impacts to municipal budgets, and vacated residential properties.<sup>23</sup>

Effective and timely clean-up of the shut-down mill sites for potential reuse is critical for impacted mill communities. Currently, Maine communities and the forest-products industry are at risk of losing this long-term infrastructure for short-term economic returns as closed mills sit waiting to be repurposed for new ventures looking at mill site redevelopment.

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<sup>23</sup> Eastern Maine Development Corporation

## Bucksport

*"We're not sitting waiting to be fixed. We don't feel broken, but there are many things that could assist us so that we can move forward in a timely way so that this industrial site is still in people's mindset as an industrial site." – Participant, Bucksport Community Meeting*

When the mill in Bucksport closed, the town lost 40 percent of its tax revenue, and businesses that provided goods and services to the facility and its workers were significantly impacted. Unemployment spiked to nearly 12 percent, and many families struggled.

Bucksport is currently experiencing a degree of economic recovery. The community was helped by planning efforts undertaken by the town prior to the mill closure. In 2007, the mill comprised more than 70 percent of the community tax base. At that time the community recognized that it was too dependent on the mill and developed a plan to address this issue, including an annual budget set-aside to build up the community's reserve funds. When the mill closed, the community was able to use its reserve funds to avoid making budget cuts to police, fire, and other municipal services. While the community raised its millage rate at the time, it was able to reduce the rate last year.



*EDAT in Bucksport*

The community is currently working in partnership with American Iron & Metal (AIM), the current site owner, to redevelop the site and has received an Environmental Protection Agency (EPA) planning grant for its brownfields area. Bucksport community leaders also noted that the presence of a deep-water port, proximity to the airport, and connection to rail make its location a selling point for new opportunities and development.

## Millinocket

*"We should help each other prosper together." – Participant, Millinocket Community Meeting*

The town of Millinocket developed after the construction of the paper mill in 1898. The population grew with the influx of skilled workers to construct the mill facility, who stayed to make paper for this energized industry.

Over the years, the town's population increased and then decreased as the paper mill grew and declined, and then finally closed in 2008. Millinocket's current population is less than it was in 1920. In particular, the town has lost population between the ages of 25-44. Millinocket has seen its total valuation decline significantly and has decreased municipal spending accordingly.

The mill facilities in Millinocket are almost all demolished. Millinocket has worked closely with the railroads to retain the tracks rather than dismantle them, as rail access is a critical component for future redevelopment of the mill site.

The town is looking at alternatives to revitalize its economy, including tearing down older housing stock to improve neighboring properties in size and appearance, obtaining brownfield grants to remove blighted buildings in the downtown area, and working on expanded community development and regional collaboration.

### *East Millinocket*

The mill in East Millinocket closed in 2011, reopened, and closed again in 2014. Without the financial support of the mills, aging infrastructure is becoming more of a burden on the town, including wastewater and transportation. Other challenges include a lack of consensus and coordination regarding the disposition of the closed mill. The bankruptcy process is expected to continue into the spring, and the slow pace of the legal process makes planning for the community's future challenging. The town does not own the property and is not always included in discussions about redevelopment decisions.

### *Madison*

The town of Madison is reeling from a major mill closure in May 2016. Two-hundred out of 214 mill employees have been laid off. Fifteen years ago, the mill made up roughly 65 percent of the town valuation but makes up only 20 percent. Of the mill workers, only 60 were local. The Sappi mill is 20 miles away and is still hiring, which has helped with the local layoffs. Many of the residents have grown up in forest-products related roles, and without these jobs, they have had to diversify their skill sets.

According to a local official, the Madison Paper Industries removed its pulp grinders and published a request for proposal to demolish the mill; however, this does not extend to the hydro facility, which is currently valued at \$60 million. Madison's tax base had suffered a large tax loss in 2014, due to a revaluation, and it is anticipated that the millage rate will increase once again to compensate for the mill's closing. Still, town representatives are hopeful that the remaining hydro facility will enable them to maintain a competitive rate.

### *Lincoln*

Lincoln Pulp and Tissue represented 8 percent of the town's overall value in 2016, a percentage that had been deliberately decreased over time. The town has fund balances and will be able to withstand this economic upheaval financially. The biggest concern is the loss of 200 jobs and how to replace, at least, some of them locally to avoid excessive population out migration. Lincoln's population is projected to drop to 4,963 in 2032.

The town of Lincoln serves as a service center for its region as well as the Katahdin region and has a vibrant commercial and banking district. The town has a \$1.3 million tax increment financing (TIF) dedicated to economic development and a very involved economic development group that has done excellent work recently. In addition, the town is centered on 13 lakes with one lake bordering Main Street. Lincoln would like to capitalize on its recreational assets and its role as a bedroom community to the greater Bangor region.

## Economic Diversification

*"We 'intentionally evolve' to remain relevant and profitable down the road." – Participant, Sappi Paper Mill Visit*

### *Additional Sectors for Development*

With the decline of the pulp and paper market and mill closures, there is a need for communities to diversify their local economies, even while the forest industry addresses the issue of commercialization of other markets and the advanced uses of biomass. Both activities should be addressed concurrently, working together to strengthen and support forest products for the future while also increasing community resiliency through diversification.

Communities that have lost their original or primary economic drivers typically have other assets that can be built upon to set the foundation for a diversified economy. Many small towns across that nation have gone through strategic planning exercises to identify assets that offer the best opportunities for growth and to develop strategies to support them. Assets might include natural beauty and outdoor recreation, historic downtowns and previously used buildings, individual entrepreneurs or a cluster of similar start-up industries, arts and cultural institutions, or colleges and universities. While no magic bullet or set process will work universally, successful tactics for economic diversification often include: building on ongoing investment(s), engaging all members of the community to plan for the future, encouraging cooperation within the community and across the region, supporting a clean and healthy environment, and taking advantage of catalytic funding from all sectors.

Many of Maine's communities are highly dependent on the forest-products industry. As noted above, when a mill closes, these areas are hit with higher rates of unemployment and a loss of tax revenue. Those communities that considered the loss of a mill in their planning efforts fared much better during subsequent closures. During the EDAT meetings, there were several economic sectors that were identified as potential areas for development, most notably tourism and recreation. A number of barriers to tourism were identified, including infrastructure issues (i.e., broadband and transportation which also negatively impact the forest products industry), lack of marketing and the need for financial investments, downtown revitalization, enhanced amenities, and improved access.



### *Redevelopment of Mill Sites*

With several closed mill sites not being used, there are opportunities to leverage existing permits and infrastructure to create new business and to salvage equipment before it is sold. To do this, however, communities and businesses require more transparency, dialogue and financing. With older populations and diminishing tax revenue, many communities cannot take on the liability of owning a mill. In some communities, new public-private partnerships have emerged to pursue ownership and the redevelopment of mill sites. Another challenge to redevelopment is the lack of communication between the mill owners and community representatives. If communities do not know the disposition of the mills or the future plans of mill owners, they cannot move forward with community initiatives.

In Bucksport, community leaders and current mill owners are collaborating about future opportunities for the closed mill site; however, community members in Millinocket noted that the town has not received any information or insight from the property owner about future plans or the disposition of the mill site. Redevelopment of mill sites should be closely integrated with community strategic and economic development planning efforts.

### *Telecommunications/Information Technology*

*"Broadband serves as a key engine of economic growth and opportunity." - Annual Report on the Activities of the ConnectME Authority (2014)*

The need to expand broadband infrastructure transcends the forest-products industry and impacts businesses across all economic sectors. This was a common theme throughout all of the EDAT meetings and site visits in Maine. Considered part of an area's basic infrastructure, broadband infrastructure was one of three issues (along with railroad and downtown corridor repairs) identified as critical to attract businesses and tourists to the region. In January 2015, the ConnectME Authority set a standard for Maine's high-speed internet/broadband speeds at 10 Mbps, but only 10 percent of the state's service is currently available at this speed, leaving rural communities even further behind their urban counterparts. The Maine CEDS notes that, "the Maine media has reported quite aggressively that Maine ranks 49th out of the 50 American states for the quality of its broadband services, thus putting the state at a serious economic disadvantage."

## APPENDIX B: RESOURCES

There are a number of resources that may be used in support of the strategies recommended by the EDAT and that may benefit Maine and its forest-based economy. The table below summarizes the resources identified in this section and the strategies they may support. Descriptions of each resource follow.

### Recommended Strategies

<b>Strategy 1</b>	Develop an industry-wide strategic plan to assess future demand for wood products and Maine's wood supply now and in the future
<b>Strategy 2</b>	Conduct a transportation analysis to determine where infrastructure improvements are necessary to increase profitability for the forest products value chain
<b>Strategy 3</b>	Invest in the development and commercialization of new forest products
<b>Strategy 4</b>	Support the development of markets for forest product residuals
<b>Strategy 5</b>	Identify training needs and prepare the workforce to meet changing requirements
<b>Strategy 6</b>	Support the redevelopment of vacant mill sites
<b>Strategy 7</b>	Support vibrant Maine communities where people want to live, work and visit
<b>Strategy 8</b>	Invest in long-term community infrastructure for the future

### Available Resources by Strategy

Resource	1	2	3	4	5	6	7	8
<b>DOE: Advanced Composites Manufacturing Innovation Partnership (IACMI)</b>			X					
<b>DOE: Agricultural Technology Innovation Partnership</b>			X					
<b>DOE: Combined Heat and Power (CHP) Technical Assistance Program</b>				X				
<b>DOE: Small Business Voucher (SBV) Program</b>			X					
<b>DOT: Supplemental Discretionary Grants for National Surface Transport System</b>		X						
<b>EDA: Local Technical Assistance Grant</b>	X							
<b>EDA: Public Works and Economic Adjustment Assistance</b>					X	X	X	X
<b>EDA: Short Term Planning Program</b>	X					X	X	X
<b>EPA Brownfields: Area-Wide Planning (AWP) Grants</b>						X		
<b>EPA Brownfields: Assessment Grants</b>						X		
<b>EPA Brownfields: Cleanup Grants</b>						X		
<b>EPA Brownfields: Cleanup Revolving Loan Fund Grants</b>						X		
<b>EPA Brownfields: Job Training Grants</b>						X		
<b>EPA: Brownfields: Targeted Brownfields Assessment Program</b>					X			
<b>EPA-USDA: Sustainable Communities Planning Assistance</b>							X	
<b>Finance Authority of Maine (FAME)/State Small Business Credit Initiative</b>							X	
<b>Maine Bureau of Employment Services</b>					X			
<b>Maine Career Centers</b>					X			
<b>Maine JobLink System</b>					X			

Resource	1	2	3	4	5	6	7	8
<b>MPUC: Community-Based Renewable Energy Program</b>								
<b>Northern Border Regional Commission</b>	X	X	X	X	X	X	X	X
<b>Regional Economic Development Revolving Loan Program/FAME</b>	X							
<b>SBA: Grant and Loan Assistance</b>							X	
<b>State and Local Workforce Development Boards</b>					X			
<b>Treasury CDFI Fund</b>							X	
<b>USDA: Agricultural Research Service (ARS)</b>			X					
<b>USDA Forest Service: Forest Inventory and Analysis National Program</b>	X							
<b>USDA Forest Service/Forest Products Laboratory</b>			X					
<b>USDA Rural Development: Broadband Loan and Community Connect Programs</b>								X
<b>USDA Rural Development: Business &amp; Industry Loan Guarantee</b>		X				X		X
<b>USDA Rural Development: Community Facilities Loan and Grant Program</b>						X		
<b>USDA Rural Development: Distance Learning and Telemedicine (DLT) Program</b>								X
<b>USDA Rural Development: Rural Community Development Initiative (RCDI)</b>		X						
<b>USDA Rural Development: Rural Business Development Grant (RBDG)</b>	X	X	X	X	X	X	X	X
<b>USDA Rural Development: Rural Energy for American Program</b>						X		
<b>USDA Rural Development: Water and Wastewater Loan and Grant Program</b>						X		

## Federal

Across the federal team, there are programs and resources that provide planning support, technical assistance, grant resources, and other expertise that can be brought to bear to help address some of the needs and opportunities identified during the EDAT deployment.

### *U.S. Department of Commerce*

#### Economic Development Administration (EDA)

EDA has an Economic Development Representative (EDR) based in Portland, Maine, who works closely with local officials to develop grant applications for EDA funding that is responsive to the needs of distressed communities. Currently, there are projects totaling \$3 million under consideration in the state. EDA also fosters strong relationships with other federal agencies at both the headquarters and regional level, particularly through its Economic Development Integrator (EDI) Initiative. In this spirit, the EDA Philadelphia Regional Office's EDI will reach out to the Department of Labor's Region I Office to discuss workforce development opportunities for Maine.

On July 24, 2016, ahead of the EDAT deployment, EDA announced five new grants totaling \$4.4 million.

- **Maine Development Foundation.** This investment will support, coordinate and track long-term economic recovery efforts that result from findings and recommendations made by the August 2016 Maine Forest Economy Economic Development Assessment Team. The Maine Development Foundation and the Maine Economic Growth Council publishes the annual Measures of Growth which benchmarks and tracks Maine's economic performance in 25 key areas, and is very well suited for coordinating, tracking and reporting on the numerous and disparate activities that will be involved in the forest economy recovery effort at all levels.
- **Bio-Based Maine.** EDA will invest \$519,930 as part of a \$856,549 project to Bio-Based Maine, in partnership with the University of Maine, to develop a road map to advance biobased manufacturing, marketing Maine's biobased assets to investors in new technologies and processes, and providing technical assistance to Maine forest products manufacturers and users in the implementation of new biobased technologies. It is anticipated that the cost analysis, technology assessment and market research component of the project could place one or more mills into the production of cellulosic sugars, with 195 or more jobs created.
- **City of Bangor, Maine.** This investment will support the further expansion of C&L Aerospace which is engaged totally refurbishing commercial turboprop and jet aircraft, and supplying parts and repair services to certain models of aircraft worldwide. As a result of this investment, C&L Aerospace expects to create at least 50 new jobs.
- **Bangor Target Area Development Corp.** This investment will make interior upgrades within the Target Technology Center to create wet laboratory and supporting space to the Twin Rivers Paper Company and the Cerahelix Corp. Twin Rivers operates one of Maine's six remaining paper mills (located in Madawaska), which is successfully competing in the paper packaging market, and is relocating its research and development operation from Montreal, Canada to Orono, Maine to be closer to the mill and have better access to the University of Maine's Forest Bioproducts Research Institute. While Twin Rivers will only be on-shoring a few research jobs, the implications and potential impacts of this move are significant, including the retention of 500 paper mill jobs in Madawaska.
- **Central Maine Community College.** This investment will expand CMCC's Precision Machining Technology laboratory by 8,600 square feet to accommodate increasing demand for skills training by enrolled students and businesses. CMCC's Precision Machining Technology Center is the largest such facility in the Northeast, and currently operates on a 24/7 basis to accommodate the increasing demands of enrolled students and businesses which use the facility for employee training, product development, and access to specialized equipment not available within their workplaces.

In addition to assistance already provided to the state, there are other grant programs offered by EDA that could provide needed assistance to the Maine forest-based economy.

- **Economic Adjustment Assistance:** Assists state and local interests in designing and implementing strategies to adjust or bring about change to an economy. The program focuses on areas that have experienced or are under threat of serious structural damage to the underlying economic base. Under Economic Adjustment, EDA administers its [Revolving Loan Fund \(RLF\) Program](#), which supplies small businesses and entrepreneurs with the gap financing needed to start or expand their business.
- **Partnership Planning:** Funding from this program supports local organizations (Economic Development Districts, Indian Tribes, and other eligible areas) with long-term planning efforts. [The Comprehensive Economic Development Strategy \(CEDS\) Content Guidelines](#), provides suggestions, tools, and resources for developing comprehensive economic development strategies.
- **Economic Development Recovery and Resiliency Planning: *Planning Program and Local Technical Assistance Program*.** This program helps support planning organizations, including District Organizations, Indian Tribes, and other eligible recipients, with short-term and State Planning investments designed to guide the eventual creation and retention of higher-skill, higher-wage jobs, particularly for the unemployed and underemployed in economically distressed regions. The technical assistance program strengthens the capacity of local or state organizations, institutions of higher education, and other eligible recipients to undertake and promote effective economic development programs through projects such as feasibility analyses and impact studies. For both Planning and Technical Assistance awards, the minimum EDA investment rate is 50 percent, and the maximum allowable EDA investment rate generally may not exceed 80 percent. See 13 C.F.R. § 301.4(b)(3) and (4).

National Institute of Standards and Technology: Manufacturing Extension Partnership Program  
The National Institute of Standards and Technology's Hollings Manufacturing Extension Partnership (MEP) works with small and mid-sized U.S. manufacturers to help them create and retain jobs, increase profits, and save time and money. The nationwide network provides a variety of services, from innovation strategies to process improvements to green manufacturing. MEP also works with partners at the state and federal levels on programs that put manufacturers in position to develop new customers, expand into new markets, and create new products.

MEP field staff serve as trusted business advisors focused on solving manufacturers' challenges and identifying opportunities for growth. As a program of the U.S. Department of Commerce, MEP offers its clients a wealth of unique and effective resources centered on five critical areas: technology acceleration, supplier development, sustainability, workforce, and continuous improvement.

### International Trade Administration

The International Trade Administration (ITA) works to strengthen the competitiveness of U.S. industry and help organizations compete at home and abroad. SelectUSA offers credible, unbiased data and analytics and strategic counseling services to help companies better understand domestic and global markets and economic development organizations attract investment. Investment specialists provide industry overviews and help companies find and interpret information pertaining to the economy, investment trends, consumers, workforce, supply chains, and available federal resources. SelectUSA also provides assistance to companies and industry in navigating the U.S. regulatory environment and help them to address issues or questions involving federal regulations.

### *U.S. Department of Agriculture*

USDA has special programs for working across regions and communities to provide funding for projects both in and outside of the forest industry, such as recreation, the food economy and downtown revitalization. USDA Rural Development offers over fifty financial assistance programs for a variety of rural applications. In particular, programs that are part of the Rural Business Service, the Rural Utilities Service, and the Rural Housing Service within Rural Development may be applicable.

### Rural Business Service

- **USDA Business & Industry Loan Guarantee Program (B&I).** The B&I program provides financial backing for rural businesses with commercial loan guarantees for up to 80 percent of the loan amount. Applicants work with their private-sector lender and USDA Rural Development provides a guarantee for the loan. Eligible entities located in rural areas include for-profit businesses, nonprofits and cooperatives, federally recognized tribes, public bodies, and individuals. Funds can have many uses, including: convert, enlarge, repair, modernize, or develop business; purchase and develop land, easements, rights-of-way, buildings, or facilities; purchase equipment, machinery, supplies, or inventory; permanent working capital; refinance when new jobs will be created and other conditions are met; and acquire businesses and industries when the loan will keep the business from closing and/or save or create jobs.
- **USDA Rural Energy for America Program (REAP).** REAP provides guaranteed loan financing and grant funding to agricultural producers (at least 50 percent of gross income coming from agricultural operations) and rural small businesses meeting SBA's size standards. Funding is used for renewable energy systems or to make energy efficiency improvements. Funds may be used for renewable energy systems, such as biomass (biodiesel and ethanol, anaerobic digesters, and solid fuels such as wood), geothermal for electric generation or direct use, hydropower below 30 megawatts, small and large wind generation, and small and large solar generation. Funds may also be used for the purchase, installation and construction of energy efficiency improvements, such as: high efficiency heating ventilation and air conditioning systems (HVAC); insulation, doors, and windows; lighting upgrades; cooling or refrigeration units; and replacement of energy-inefficient equipment.

- **USDA Rural Business Development Grant (RBDG).** RBDG is a competitive grant designed to support targeted technical assistance, training and other activities leading to the development or expansion of small and emerging private businesses in rural areas that have fewer than 50 employees and less than \$1 million in gross revenues. RBDG funds must be directed for projects benefitting rural areas or towns outside the urbanized periphery of any city with a population of 50,000 or more. Programmatic activities are separated into *Enterprise* or *Opportunity* type grant activities.

*Enterprise* type grant funds must be used on projects to benefit small and emerging businesses and may include: training and technical assistance, such as project planning, business counseling/training, market research, feasibility studies, professional/technical reports, or product/service improvements; acquisition or development of land, easements, or rights of way; construction, conversion, renovation, of buildings, plants, machinery, equipment, access streets and roads, parking areas, utilities; pollution control and abatement; capitalization of revolving loan funds including funds that will make loans for start-ups and working capital; distance adult learning for job training and advancement; and rural transportation improvement.

*Opportunity* type grant funding can be used for projects such as community economic development, technology-based economic development, feasibility studies and business plans, leadership and entrepreneur training, rural business incubators, and long-term business strategic planning.

- **USDA Advanced Biofuel Payment Program.** This grant program supports and ensures an expanding production of advanced biofuels by paying advanced biofuel producers for finished advanced biofuel products. Any entity that produces and sells advanced biofuel (a fuel that is derived from renewable biomass, other than corn kernel starch) is generally eligible to apply. Payments are made quarterly based upon the actual quantity of eligible advanced biofuel produced during previous periods.
- **USDA Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program.** This program assists in the development, construction, and retrofitting of new and emerging technologies for the development of Advanced Biofuels, Renewable Chemicals, and Biobased Product Manufacturing by providing loan guarantees for up to \$250 million.
- **USDA Intermediary Relending Program (IRP).** Rural Development will lend an intermediary low interest funds to create a revolving loan fund. Intermediaries will then make loans to individuals, public or private organizations, or other legal entities in rural communities. Loans to recipients can be for up to 75 percent of the total cost of the project with a cap of \$250,000. Eligible loan purposes include, but are not limited to acquisition, construction, equipment purchase, start-up costs, and working capital.
- **USDA Rural Microentrepreneur Assistance Program (RMAP).** Rural Development will lend microenterprise development organizations (MDO) low interest funds to create a revolving loan fund. MDO's will then make loans to businesses, with 10 or fewer full

time employees, that are located in rural communities. Loans to recipients can be for up to 75 percent of the total cost of the project. Eligible loan purposes include, but are not limited to working capital, debt refinancing, purchasing equipment, supplies, and real estate. MDO's are also eligible for grants on an annual basis to provide technical assistance.

### Rural Housing Service

- **USDA Community Facilities Direct Loan and Grant Program.** This program provides affordable funding to develop essential community facilities in rural areas. Rural areas include cities, villages, townships and towns with no more than 20,000 residents. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area, and does not include private, commercial or business undertakings. Eligible borrowers include public bodies, community-based non-profit corporations, and federally recognized tribes. Funds can be used to purchase, construct, and/or improve essential community facilities, purchase equipment, and pay related project expenses. Provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage to households and businesses in eligible rural areas.

### Rural Utilities Service

- **Rural Broadband Access Loan and Loan Guarantee Program (Broadband Loan Program).** This program furnishes loans and loan guarantees to provide funds for the costs of construction, improvement, or acquisition of facilities and equipment needed to provide service at the broadband lending speed in eligible rural areas. To be eligible for a broadband loan, an applicant may be either a non-profit or for-profit organization, and must take one of the following forms: corporation; limited liability company (LLC); cooperative or mutual organization; state; or local unit of government, Indian tribe or tribal organization.
- **Community Connect Grant.** Similar to the eligible purposes and entities for the Broadband Access Loan and Loan Guarantee Program, the Community Connect grant helps fund broadband deployment into rural communities where it is not yet economically viable for private sector providers to deliver service based on current broadband speeds.
- **Distance Learning and Telemedicine.** The Distance Learning and Telemedicine program helps rural communities use the unique capabilities of telecommunications to connect to each other and to the world, overcoming the effects of remoteness and low population density. For example, this program can link teachers and medical service providers in one area to students and patients in another. Eligible applicants include most entities that provide education or health care through telecommunications,



including: state and local governmental entities, federally-recognized tribes, non-profits, for-profit businesses, or consortia of eligible entities. Grant funds may be used for acquisition of eligible capital assets such as audio, video and interactive video equipment; terminal and data terminal equipment; computer hardware, network components and software; and the acquisition of instructional programming and technical assistance and instruction for using eligible equipment.

- **Rural CDI.** This program provides funding to help non-profit housing and community development organizations support housing, community facilities, and community and economic development projects in rural areas. Eligible entities include public bodies, non-profit organizations, and federally recognized tribes. Eligible areas include any area other than (i) a city or town that has a population of greater than 50,000 inhabitants; and (ii) the urbanized area contiguous and adjacent to such city or town. Eligible entities act as intermediaries that in turn provide assistance to sub-grantees. Examples of assistance provided by intermediaries include (1) training sub-grantees to conduct home-ownership education and minority business entrepreneur education; and (2) providing technical assistance to sub-grantees on strategic plan development; accessing alternative funding sources; board training; developing successful child care facilities; creating training tools such as videos, workbooks, and reference guides; and effective fundraising techniques.
- **Water and Wastewater Loans and Grants.** Provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage to households and businesses in eligible rural areas. This program assists qualified applicants that are not otherwise able to obtain commercial credit on reasonable terms. Eligible applicants include: most state and local governmental entities, private non-profits, federally recognized tribes. Eligible areas include rural areas and towns with fewer than 10,000 people. Funds may be used to finance the acquisition, construction or improvement of drinking water sourcing, treatment, storage and distribution; sewer collection, transmission, treatment and disposal; solid waste collection, disposal and closure; and storm water collection, transmission and disposal.

#### U.S. Forest Service

The U.S. Forest Service offers a number of programs to support Maine's forest-products industry.

- **Forest Inventory and Analysis Program.** The Forest Inventory and Analysis (FIA) Program of the U.S. Forest Service provides the information needed to assess America's forests. The program projects how forests are likely to appear 10 to 50 years from now. This enables users to evaluate whether current forest management practices are sustainable in the long run and to assess whether current policies will allow the next generation to enjoy America's forests as we do today. FIA reports on status and trends in forest area and location; in the species, size, and health of trees; in total tree growth, mortality, and removals by harvest; in wood production and utilization rates by various products; and in forest land ownership.

The Northern Research Station Forest Inventory and Analysis Unit (NRS-FIA), headquartered in Newtown Square, Pennsylvania, is responsible for providing detailed forest resource information on the nature, condition, and use of the forests in 24 states in the Northeast and Midwest. FIA efforts are underway in Maine and additional modeling support will be available to assist the state as the need for advanced spatial analyses are developed in partnership with the University of Maine and the Maine Forest Service.

- **Wood Innovation Grants.** The Northeastern Area State and Private Forestry unit has provided Wood Innovation Grants to the State of Maine during FY 2016. \$130,170 was awarded for biomass conversion efforts and \$250,000 for strengthening and expanding Maine wood markets. These grants are in place and ready for immediate implementation through the office of the Maine State Forester.
- **State and Private Forestry Funding to State.** In FY 2016, the Forest Service provided over \$5.8 million in the Forest Health Management, Cooperative Fire Protection, Forest Stewardship, Forest Legacy, Urban and Community Forestry and State Fire Assistance to the State of Maine.
- **State and Private Forestry Competitive Grants.** The Northeastern Area State and Private Forestry unit provides annual opportunities to compete for funding. The current fiscal year Landscape Scale Restoration Competitive Request for Proposals is a significant way that the Northeastern Area is helping State Forestry agencies achieve priorities as documented in their respective state forest action plans while at the same time meeting regional and national priorities of the U.S. Forest Service. Organizations interested in working on priority issues should familiarize themselves with their state forest action plan(s), and consult with their State Forester(s) or appropriate staff on proposal development. Not all proposals will be forwarded to the Forest Service for consideration, so early coordination with state foresters will be essential.

The Fiscal Year (FY) 2017 Landscape Scale Restoration Competitive Process for the Northeastern Area State and Private Forestry (NA S&PF) is consistent with the ***FY2017 Landscape Scale Restoration Competitive Process National Guidance (04/27/2015)***. Landscape Scale Restoration (LSR) grants are intended to *“shape and influence forest land use on a scale and in a way that optimizes public benefits from trees and forests for both current and future generations.”* The competitive approach is intended to demonstrate that federal funds are being spent on projects that address priorities as described by the State and Private Forestry national themes and identified in each State’s Forest Action Plan.

- **State and Private Forestry – Wood Education and Resource Center.** The Wood Education and Resource Center (WERC), located in Princeton, WV, is a USDA Forest Service facility with offices, training facilities, and a rough mill. The WERC mission is to facilitate interaction and information exchange with the forest-products industry to enhance opportunities for sustained forest products production in the eastern

hardwood forest region of the United States. The WERC supports managerial and technical innovation to keep businesses competitive. It provides state-of-the-art training, technology transfer, networking opportunities, applied research, and information and sharing.

WERC serves the primary and secondary hardwood manufacturing industries located in the 35 [states](#) of the eastern hardwood [forest region](#).

WERC's primary goals are to improve the knowledge, skills, and capacity of the forest industry management and workforce; increase communication, cooperation, and collaborative problem solving within the forest-products industry; improve efficiency in forest product manufacturing and wood utilization; and promote the sustainable utilization of woody biomass for energy and value-added products.

**WERC – Wood to Energy (W2E) Grants** - W2E grants are for projects focused on engineering services necessary for final design, cost analysis and permitting process for wood energy systems. The W2E projects focus on utilizing woody biomass generated from National Forest Service system lands and other forestlands. Projects must use commercially proven wood energy systems to produce thermal, electrical, liquid, or gaseous energy. The goals of the W2E grant program include:

- Promote projects that target and help remove economic and market barriers to using woody biomass for renewable energy.
- Assist projects that produce renewable energy from woody biomass while protecting the public interest.
- Reduce the public's cost for forest restoration by increasing the value of biomass and other forest products generated from hazardous fuels reduction and forest health activities.
- Create incentives and/or encourage business investments that use woody biomass from our Nation's forest lands for renewable energy projects.
- **Forest Products Laboratory (FPL).** Over the last 5 years, the FPL has made a number of significant investments specifically related to cellulosic nano fibers development. The University of Maine (Orono) received \$1.5 million for an upgrade of their pilot plant for making cellulose nano-materials. The investment was specifically for a Masuco grinder and a spray dryer. Additionally, over \$875,000 was provided for a number of modifications and projects related to nanocellulose production and utilization in other products. Annually, there is another \$1 million in funding coming from USDA to support this effort. The FPL also has a full-time research scientist based at the University of Maine providing direct support to research in the area of nano materials.
- **Northern Research Station.** During FY 2016, the Northern Research Station provided over \$1.4 million in cooperative agreements to the University of Maine and the Maine Forest Service. Grants to the University of Maine on biomass, experimental forest research, carbon and climate change were funded at \$726,000. Over \$700,000 was

provided to the Maine Forest Service to support the FIA collection for Maine's Statewide Resource inventory.

### *U.S. Department of Energy (DOE)*

The Department of Energy (DOE) has several programs through which it can provide technical assistance and new market product counsel. These programs are executed through the Office of Energy Efficiency and Renewable Energy (EERE), the Oak Ridge National Laboratory, and the newly created Jobs Strategy Council. Among the specific services DOE can offer this effort are:

- **The Small Business Voucher (SBV) Program:** This program allows small businesses to request technical support from DOE's national labs using vouchers. In turn, labs help address technical problems, test and validate technologies, develop and test unique materials, conduct modeling and analyses, prototyping, provide advanced technology for hardware and software applications, scale up technologies and processes, develop engineering designs, conduct field-testing, and conduct analyses to understand the market value of a product. This program, which is administered by EERE, provides up to \$20 million in vouchers to small businesses seeking technical expertise in clean technology development and commercialization. Contributing national labs are the Oak Ridge National Laboratory, Pacific Northwest National Laboratory, Lawrence Berkley National Laboratory, Sandia National Laboratory, and the National Renewable Energy Laboratory.

*As entrepreneurs in Maine continue thinking about the future of their wood resources, the SBV program can assist in advancing those business ventures. DOE can also provide workshops on EERE's financial assistance programs.*

- **The Advanced Composites Manufacturing Innovation Partnership (IACMI):** The Advanced Composites Manufacturing Innovation Partnership (IACMI) is a partnership of industries, universities, national laboratories, and federal, state and local governments who share resources and co-invest in innovative research to accelerate development and commercial deployment of advanced fiber reinforced polymer composites. The University of Maine is invited to join the IACMI network, which will work to introduce composite forest products to new markets.

*IACMI has a powerful network and could bring end-users into the game. For example, the introduction of cellulose fiber reinforced polymer composites for automotive and emerging applications would catalyze the commercialization of new technologies and helps developing supply chain along the different industries.*

*In addition, the ORNL proposes a stronger collaboration platform between UMaine and the lab. University Maine colleagues will visit ORNL Manufacturing Demonstration Facility and IACMI in October 2016. ORNL can work with key stakeholders to organize a workshop on market and technology opportunities on non-timber forest products including residual material utilization on high value added products.*

- **Industrial Assessment Centers (IAC):** EERE’s supported Industrial Assessment Centers (IAC) will work with the paper industry in Maine and other small and medium sized manufacturers to provide energy audits identifying energy saving cost reductions. Typically, IAC assessments have provided participating manufacturers with specific energy savings recommendations with the potential for up to 8 percent energy reduction strategies and affordable payback ratios.

*Through the IAC Center at University of Massachusetts, DOE can work with interested manufacturers to provide energy savings recommendations which can help to provide a competitive advantage.*

- **Combined Heat and Power (CHP) Technical Assistance Program (TAP):** EERE’s supported Combined Heat and Power (CHP) Technical Assistance Program will provide operating paper mills and other industries in Maine with feasibility assessments of existing operations to install CHP technology as a strategy to lower costs through generating onsite power.

*CHP experts at the U.S. DOE Northeast CHP TAP can help determine if CHP is worth a closer look for your facility, both technically and financially. The first step is talking through a series of screening questions, combined with a first-cut qualification assessment of the economic and technical viability of CHP at your site, using basic site information.*

*DOE will assist in evaluating whether energy costs, thermal loads, site operating hours, and other key site characteristics show potential for a good, cost-effective CHP project. If the screening and site qualification suggests good CHP potential, we recommend continuing with a more detailed feasibility analysis.*

- **Agricultural Technology Innovation Partnership (ATIP):** The Biomass Research and Development Board, co-led by DOE and USDA, is developing an interagency collaboration to enable a Bioeconomy Initiative. The goal of the Bioeconomy Initiative is to develop and implement innovative approaches to remove barriers to expanding the sustainable use of America’s abundant biomass resources, while maximizing economic, social, and environmental outcomes.

DOE and USDA asked the ATIP Foundation—a consortium of state economic development organizations—to develop and co-host with a coordinating entity, a series of regional Bioeconomy Forums to garner input from a broad range of stakeholders on the Challenges & Opportunities to help shape a “multiyear implementation plan.”

*The ATIP North East Bioeconomy Forum is planned for October 18, 2016, in Orono, ME, at the University of Maine. This provides a key opportunity to shape the future of the bioeconomy in the state.*

## *Environmental Protection Agency (EPA)*

### Office of Sustainable Communities

The EPA's Office of Sustainable Communities provides voluntary technical assistance to help communities grow in ways that protect human health and the environment. Communities selected to OSC programs receive a professionally facilitated on-site workshop and customized action plan. The interagency nature of the assistance allows local leadership to provide direct feedback to federal staff about local circumstances and funding requests. EPA, as a signatory of the Office of Management and Budget's Memorandum of Agreement (MOA) between 16 federal agencies, will continue to expand and explore interagency partnerships required to improve environmental outcomes through economic development.

- **Building Blocks for Sustainable Communities:** One- to two-day targeted technical assistance to give communities tools to implement smart growth development approaches. Eligible applicants are tribal, county, and local governments, and nonprofit organizations that have the support of the local government on whose behalf they are applying.
- **Cool & Connected** (Co-sponsored by EPA, USDA, Appalachian Regional Commission): Technical assistance that helps rural communities use broadband service to revitalize main streets and promote economic development. Any community representative can apply.
- **Governors' Institute on Community Design:** Technical assistance to help governors enable their states develop in an environmentally sound, economically sustainable way. States are eligible to apply.
- **Local Foods, Local Places** (Co-sponsored by EPA, USDA, DOT, CDC, Appalachian Regional Commission, Delta Regional Authority): Helps communities develop and implement action plans that promote local foods and downtown revitalization. Representatives of communities anywhere in the United States are eligible to apply. This program builds on the Livable Communities in Appalachia Program, which offered technical assistance to help small towns and rural communities in Appalachia revitalize their traditional downtowns to boost the local economy and improve quality of life.

Unity, Maine received technical assistance (October 15-16, 2015) to create a more connected, walkable community; better market the community's agricultural character; and create a local food system that serves all residents.

### Brownfields Program

EPA offers competitive grant programs to support brownfield redevelopment. Representatives from these programs are available to meet with community leaders regarding redevelopment of old mill or other industry-related sites to discuss their needs. EPA provides funding for the assessment and cleanup of brownfields through several grant programs.

- **Competitive Grants to Municipalities, States, Counties, and Regional Planning Agencies, Councils of Governments, and Not-for-Profits** (cleanup only): EPA provides grants annually, on a competitive basis, for site assessment, site-specific cleanups, and to capitalize revolving loan funds for the cleanup of brownfield sites. Grants are awarded on a competitive basis and, depending on the program, can be applied for on specific sites or on a community-wide basis. Additionally, EPA offers Area Wide Planning Grants every other year, on a competitive basis to assist communities in developing redevelopment plans for a “Brownfields District or Neighborhood.” Depending on the program, grant amounts range from \$200,000 to \$1,000,000.
- **Maine Department of Environment Protection (MEDEP) Brownfields Program:** The MEDEP receives grant funding from EPA for voluntary cleanup program enhancement, and staffing and to conduct site assessment, remediation, and clean-up activities at brownfield sites, which are selected based on eligibility, community need and redevelopment potential.

#### *U.S. Department of Labor (DOL)*

DOL has been providing transition grants to closing mill workers for 15 years. DOL’s workforce development funds are provided to and administered by the state.

#### Employment and Training Administration (ETA)

The Employment and Training Administration (ETA) provides formula and discretionary grant funding for workforce development and training programs nationwide. Information about these programs is provided under the headings below.

- **Workforce Innovation and Opportunity Act (WIOA) Grant Funds: Adult, Dislocated Workers and Youth:** The Workforce Innovation and Opportunity Act (WIOA) will help job seekers and workers access employment, education, training, and support services to succeed in the labor market and match employers with skilled workers they need to compete in the global economy. Congress passed WIOA, the first legislative reform of the public workforce system in more than 15 years, by a wide bipartisan majority. In doing so, Congress reaffirmed the role of the American Job Center (AJC) system, a cornerstone of the public workforce investment system, and brought together and enhanced several key employment, education and training programs. In recent years, over 20 million people annually have turned to these programs to obtain good jobs and a pathway to the middle class. WIOA continues to advance services to these job seekers and employers. <https://www.doleta.gov/WIOA/Docs/WIOA-Factsheet.pdf>
- **Trade Adjustment Assistance (TAA) Grant Funds:** The Trade Adjustment Assistance (TAA) Program is a federal program, established under the Trade Act of 1974, that provides aid to workers who lose their jobs or whose hours of work and wages are

reduced as a result of increased imports. The TAA program offers a variety of benefits and reemployment services to help unemployed workers prepare for and obtain suitable employment. Workers may be eligible for training, job search and relocation allowances, income support, and other reemployment services.

A petition for TAA may be filed by a group of three or more workers, their union, or other duly authorized representative.

<https://www.dol.gov/general/topic/training/tradeact>

- **National Dislocated Worker Grants (NDWG):** NDWGs formerly known as National Emergency Grants (NEGs), are discretionary grants awarded by the Secretary of Labor, under Section 170 of WIOA. DWGs provide resources to states and other eligible applicants to respond to large, unexpected layoff events causing significant job losses. This funding is intended to temporarily expand capacity to serve dislocated workers, including military service members, and meet the increased demand for WIOA employment and training services, with a purpose to reemploy laid off workers and enhance their employability and earnings. Disaster DWGs provide funding to create temporary employment opportunities to assist with clean-up and recovery efforts, when an area impacted by disaster is declared eligible for public assistance by the Federal Emergency Management Agency (FEMA) or otherwise recognized by a Federal agency with authority or jurisdiction over Federal response to the emergency or disaster.  
[https://www.doleta.gov/National%20Dislocated%20Worker%20Grants/eta\\_default.cfm](https://www.doleta.gov/National%20Dislocated%20Worker%20Grants/eta_default.cfm)

*Current NDWGs:*

- **1/1/2014- ME 53 Lincoln Paper and Tissue Dual Enrollment National Emergency Grant (NEG) – \$554,534:** The Lincoln Paper and Tissue NEG is managed by the Northeastern Region (formerly Tri-County Local Workforce Investment Area), partner with the Maine Department of Labor and Eastern Maine Development Corporation (EMDC) to provide training and employment services to 172 dislocated workers from the Lincoln Paper and Tissue, LLC. The grant allows for workers to access services such as resume writing, labor market information which identified on-demand industries and occupation within the local workforce area, supportive services and other partner services as needed. Training services are funded through the Trade Adjustment Act (TAA). This grant ends on December 31, 2017.
- **7/1/2014 – ME 54 Job Driven (JD) NEG – \$4,850,000:** Maine’s JD NEG brings together a collaborative group of partners – MDOL Employment Services and Unemployment Compensation Bureaus, Eastern and Central Maine Community Colleges, Adult Education System, Plumbers and Pipefitters Union, local workforce investment boards and employers to serve both employers, and the long term unemployed individuals (including veterans and new Mainers). The funds will help facilitate a customized training approach to build and expand upon successful industry partnerships and reconnect the long term unemployed as well as the new Mainers cohort. The JD NEG has been operational for seven quarters and projects that a total of 432 individuals will be served throughout the state’s AJC system. Through



- quarter ending March 31, 2016, 383 participants were enrolled with a 55 percent expenditure rate which is below the projected 77 percent rate. MDOL anticipates a no cost extension modification request. This is a statewide NDWG. The grant ends June 30, 2017.
- **7/1/2014- ME 55 Great Northern Paper (GNP) Dual Enrollment NEG – \$621,112:** The GNP NEG has provided employment and training services to dislocated workers of the Great Northern Paper Company in Millinocket, Maine. The Northeastern Region local workforce board administers the grant, now in its seventh quarter of operations. The grant funds will enable 262 unemployment individuals to access workforce services such as resume writing, interviewing skills, access to job fairs, LMI, on-demand industry and occupations local area information, supportive services and other partner programs as necessary. TAA funds are used for training opportunities. This grant expires December 31, 2017.
  - **7/1/2015 – ME 56 Sector Partnership (SP) NDWG – \$688,384.00:** MDOL’s SP NDWG is focused on reemployment of dislocated workers in demand occupations across the Healthcare, IT and Advanced Manufacturing industries throughout the state. MDOL is partnering with the four local workforce development areas, service providers and employers to advance and complement WIOA dislocated worker services. MDOL’s goal is to serve a total of 385 dislocated workers, of which 197 will enroll in OJTs and 287 in training programs. Through quarter ending March 31, 2016, MDOL has expended 5 percent of the total grant award. The grant expires June 30, 2017. This is a statewide grant.
  - **10/1/2016 – ME 57 Reemployment and System Integration (RSI) NDWG - \$1,100,000:** This grant is to support high quality service delivery and improve employment outcomes for dislocated workers, including those who are also unemployment insurance claimants or long-term unemployed, through investment in integrated technology solutions that support connectivity across programs and services provided to dislocated workers.

#### Bureau of Apprenticeship and Training

This office oversees the National Apprenticeship System and provides technical assistance to business, industry, labor organizations, and state agencies in developing and implementing high quality training and education programs.

- **Trade Adjustment Community College Career Training (TAACCCT)**
  - **10/1/2012 – Kennebec Valley Community College - \$2,500,000:** The project entitled, “Growing Maine,” is serving the education and training needs of Central Maine businesses engaged in agriculture related industries.
  - **10/1/2013 – Central Maine Community College - \$13,072,735:** The project, *Maine is IT!*, is designed to address the critically growing need for skilled information technology workers across many industries. The project proposal was a statewide consortium of all seven of Maine’s community colleges in strategic partnership with

employers, workforce development agencies, industry associations, and other institutions of higher education. It will build and strengthen innovation education models that will meet the needs of Maine's TAA-eligible workers, un/under-employed adults, and employers.

- **10/1/2014 – Kennebec Valley Community College** - \$2,499,972: The project KVCC will implement education and training strategies which lead to employment for TAA-eligible and other dislocated workers and adult learners in Construction (NAICS 23) – specifically Sustainable Design/Build - and Health Care/Social Assistance (NAICS 62) – specifically Medical Assisting and Mental Health.
- **Youth Build (YB)**
  - **7/1/2012 – Learning Works (Youth Build Bayside)** - \$975,000: YB Bayside is designed to achieve the established DOL performance goals which include recruitment, placement, certification attainment for industry recognized certificates and or GED, numeracy/literacy gains; retention; and recidivism. Construction skills are the focus on the training side of the program design however the grantee has been exploring all options in Portland based on available Labor Market Information.
- **Veterans Program:**
  - Veterans Programs in the State of Maine are awarded by Veterans' Employment and Training Service (VETS). VETS Director for Maine works collaboratively with ETA FPO for Maine in oversight of grant activities. VETS Director is also responsible for compliance of the Uniformed Services Employment and Reemployment Rights Act (USERRA) and Veterans' Preference for federal hiring in Maine.
- **Jobs for Veterans State Grant (JVSG)** – \$1,022,017 FY16 (modified)/ \$846,711 FY17 (estimated): MDOL delivers the JVSG program with 10 Disabled Veterans Outreach Program (DVOP) Specialists and 6 Local Veterans' Employment Representative (LVER) positions throughout the state. The DVOP Specialists directly serve veterans who have been identified as having significant barriers to employment. LVERs focus on business outreach and job development.

MDOL, with several other partners to include the VA, Maine Bureau of Veterans Services, and Employer Support of the Guard and Reserve, will launch their second Maine Hire-A-Vet Campaign in September 2016. Last year the goal was 100 employers with 100 veterans hired in 100 days. The campaign was a tremendous success with 135 employers signing on while hiring 269 Veterans.

- **Homeless Veterans Reintegration Program (HVRP)**
  - **7/1/2016 – Veterans Inc., Lewiston, ME** – \$200,000: Veterans Inc. has been awarded their fourth year of funding for the HVRP grant, serving homeless veterans in the state, with a focus in Portland, Lewiston-Auburn and Augusta.

- **7/1/2016 – Easter Seals Maine, Portland, ME – \$200,000:** Easter Seals Maine has been awarded their first year of funding for the HVRP grant, serving homeless veterans in the state, with a focus in York and Cumberland counties.
- **Penobscot Job Corps Center, Bangor, ME.** The operator provides services to a total of 273 students estimated as 134 residential male students, 130 residential female students, four nonresidential male students, and five nonresidential female students. The center is also responsible for providing Post-Center Career Transition Services annually for 293 Graduates and 122 Former Enrollees. The center offers the following Career Technical Training: Clinical Medical Assistant, Facilities Maintenance, Nurses Assistant/Home Health Aide, Culinary Arts, Advanced Culinary Arts, Welding, and Carpentry, and Advanced Career Training for 20 students with their community college cohort.
- **Loring Job Corps Center, Limestone, ME.** The operator provides services for 301 students: 181 residential male students; 110 residential female students; five nonresidential males; and five nonresidential females. Post-center career transition services are provided for 321 Graduates and 140 Former Enrollees.

The following Career Technical Trades are offered at the Loring Center: Auto Repair; Medical Administrative Assistant; Nurse Assistant/Home Health Aide; Culinary Arts; Carpentry, Pre-Apprentice; Cement Masonry, Pre-Apprentice; Electrical, Pre-Apprentice; Painting, Pre-Apprentice; Heavy Truck Driving, Tractor-Trailer; and Advanced Career Training (ACT) at local community college(s). Loring recently added an Advanced Trade – Computer Networking/CISCO.

### *Northern Border Regional Commission (NBRC)*

Created by the US Congress in 2008, the Northern Border Regional Commission (NBRC) is a federal-state partnership whose mission is to help alleviate economic distress throughout the northern counties of Maine, New Hampshire, Vermont, and New York. Thanks to annual Congressional appropriations, the NBRC partnership has awarded, in its short history, \$21.2 million to 116 public and nonprofit recipients. General priorities for the Commission include:

- infrastructure improvement,
- business and entrepreneurial development, and
- local capacity and knowledge to carry out economic development programs.

Currently, NBRC provides flexible funding through its Economic & Infrastructure Development (EID) grant program. Projects in Maine are eligible for up to an 80 percent matching grant in Androscoggin, Aroostook, Franklin, Hancock, Kennebec, Knox, Oxford, Penobscot, Piscataquis, Somerset, Waldo, and Washington counties. The annual IED program provides a maximum award of \$250,000 and, thanks to Congressional authorization, these funds can be used as a match for other federal funds. Eligible activities that can benefit from the EID program include:

- transportation, basic public, and telecommunications infrastructure,
- business and workforce development,
- basic health care,
- tourism and recreation, and
- renewable and alternative energy.

Grants are approved by the federal government's representative to the NBRC and state governors based on the prioritization of applications by each state. Recent investments by the NBRC in Maine include:

- \$250,000 to Central Maine Community College (Auburn) to renovate and expand the precision manufacturing lab at CMCC. This business and workforce development project will support the retention and/or expansion of regional precision manufacturing companies by providing skills training to new and incumbent workers.
- \$250,000 to the Eastern Slope Regional Airport (Fryeburg) to assist in the construction of a new aircraft hangar to attract new seasonal visitors and outside investors.
- \$250,000 to the City of Presque Isle to construct interior improvements to a municipally owned property that will be occupied by, Acme Monaco, a corporation that is retaining and creating jobs as a result of the improvements.
- \$250,000 to the City of Ellsworth for infrastructure that will increase the availability of high-speed internet service along the City's main thoroughfare.

### *U.S. Small Business Administration (SBA)*

The Maine SBA District Office is prepared to increase assistance to the forest-products industry and the impacted region. The SBA delivers its primary resources through its small business lenders, technical assistance partners, and federal agencies contracting with small businesses. The SBA provides field services in Maine for the forest-products industry and the impacted region from its District Office in Augusta and a satellite office in Bangor.

In Maine in Fiscal Year 2015, the SBA approved 539 small business loans supporting more than \$109 million dollars; counseled and trained over 8,700 small businesses clients through its resource partners – Small Business Development Center, SCORE, and the Women's Business Center; and awarded 5,521 federal small business contracts for \$1.24 billion.

The Maine SBA District Office has been working to assist and provide resources across the forest-products spectrum and impacted communities, as well as respond in partnership with federal and state resources following mill closings and layoffs occurring in the industry. Services offered have ranged from participating in resource fairs, providing counseling and training, referrals, and increasing access to

capital and government contracting outreach. The SBA seeks to continue and increase this work in Maine through the following opportunities.

#### Increased Small Business Outreach

The SBA, along with its resource partners, will increase outreach in the region and schedule a series of small business events on important topics. The SBA regularly hosts and organizes seminars and resource fairs that provide a “101” on starting, running and growing a business. These events include federal, state and local resources, as well as lenders, and government agencies and prime contractors engaged in government contracting. These educational and matchmaking opportunities provide valuable face-to-face “speed dating” introductions and referrals for small businesses.

#### Access to Capital

The SBA will increase small business lending awareness and matchmaking between small businesses and lenders. The SBA will organize finance fairs, lender roundtables and other outreach activities in the region to increase awareness and opportunity for financing including a focus on SBA’s loan programs and community based sources. The SBA has loans available for most business purposes through three main loan programs:

- **General Small Business Loans (7(a) Loan):** 7(a) loans can be used for many business purposes. Loan proceeds may be used to establish a new business or to assist in the acquisition, operation, or expansion of an existing business. These loans have a maximum loan amount of \$5 million. SBA does not set a minimum loan amount. The average 7(a) loan amount in fiscal year 2015 was \$371,628.
- **Real Estate & Equipment Loans (504 Loan):** The 504/CDC program provides attractive financing for major fixed assets such as equipment or real estate. Loan amounts are determined by how funds will be used with the maximum debenture amount of \$5.5 million in some cases.
- **Microloan Program:** The Microloan program provides loans up to \$50,000 to help small businesses and certain not-for-profit childcare centers start up and expand. The average microloan is approximately \$13,000.

#### Government Contracting

The U.S. government is the largest single purchaser of goods and services in the world, awarding approximately \$500 billion in contracts every year. SBA’s Office of Government Contracting & Business Development works with federal agencies to award at least 23 percent of all prime government contract dollars to small businesses and help federal agencies meet specific statutory goals for [small disadvantaged businesses](#), [women-owned small businesses \(WOSB\)](#), [service-disabled veteran-owned small businesses \(SDVOSB\)](#), and small businesses that are located in [historically underutilized business zones \(HUBZone\)](#). In addition, SBA’s [8\(a\) Business Development Program](#) assists eligible socially and economically disadvantaged individuals in developing and growing their businesses through one-on-one

counseling, training workshops, matchmaking opportunities with federal buyers, and other management and technical guidance. In FY 2015, 5,521 contracts for \$1.24 Billion were awarded to Maine businesses. [www.sba.gov/contracting](http://www.sba.gov/contracting)

#### Increased Collaboration and Strategic Network Planning

To increase the effective delivery of small business opportunities in the region, the SBA is prepared to increase collaborative efforts with local trade organizations, chambers, municipalities, resources partners and economic development officials. Meetings will be held to determine to how to best facilitate services and referral networks for small business and entrepreneurs in the region. This effort will result in increased program delivery.

#### Innovation and Investment

The SBA, along with its partners, will increase innovation and investment awareness through the following programs:

- **Small Business Innovation Research (SBIR) Program:** The SBIR program is a highly competitive program that encourages domestic small businesses to engage in Federal Research/Research and Development (R/R&D) that has the potential for commercialization. Through a competitive awards-based program, SBIR enables small businesses to explore their technological potential and provides the incentive to profit from its commercialization. By including qualified small businesses in the nation's R&D arena, high-tech innovation is stimulated and the United States gains entrepreneurial spirit as it meets its specific research and development needs. In Maine, the SBIR Program funded six projects for \$794,856 in FY15. [www.sbir.gov/about/about-sbir#sbir-program](http://www.sbir.gov/about/about-sbir#sbir-program)
- **SBA Growth Accelerator Fund Competition:** The goal of this competition is to infuse capital to qualified accelerators and the burgeoning ecosystem in which they play, which, in turn, provides resources to boost the startup and entrepreneurship communities around them. SBA created the Growth Accelerator Fund Competition in 2014 as a way to make new connections and strengthen existing bonds within America's small business support network, bringing entrepreneurs and innovators together and connecting them with local and national resources that support small business job creation and growth. These awards deliver on a longstanding commitment at SBA to strengthen and modernize these support systems especially in parts of the country where access to capital has been a major barrier to starting a business. [www.sba.gov/offices/headquarters/ooi/spotlight](http://www.sba.gov/offices/headquarters/ooi/spotlight)
- **Small Business Investment Company (SBIC) Program:** The SBIC Program is one of SBA's financial assistance programs. The structure of the program is unique in that SBICs are privately owned and managed investment funds, licensed and regulated by SBA, that use their own capital plus funds borrowed with an SBA guarantee to make equity and debt investments in qualifying small businesses. SBA does not invest directly into small

business through the SBIC Program, but provides funding to qualified investment management firms with expertise in certain sectors or industries. In FY15, the SBIC Program funded five deals in Maine worth \$8,550,200. [www.sba.gov/sbic/](http://www.sba.gov/sbic/)

### Exporting

The SBA will work with the Maine International Trade Center (MITC) to increase awareness and market opportunities for exporting and export financing. The SBA recently awarded the State of Maine, through MITC, the State Trade Expansion Program (STEP) award which is designed to increase the number of small business exporters and their export sales. [www.sba.gov/managing-business/exporting/step](http://www.sba.gov/managing-business/exporting/step)

### Other Grant and Contract Awards

The SBA awards, when funds are available, additional competitive grants and/or contracts to organizations to assist with small business services. There may be opportunities for organizations from the region to apply for these opportunities in future if funds are available.

- **Clusters** – The SBA is investing in regional innovation clusters that have a geographic concentration of interconnected companies, specialized suppliers, academic institutions, service providers and associated organizations with a specific industry focus. They provide high-value, targeted connecting of small and large businesses, including networking with potential industry partners abroad. [www.sba.gov/about-sba/sba-initiatives/clusters-initiative](http://www.sba.gov/about-sba/sba-initiatives/clusters-initiative)
- **PRIME awards** – Program for Investment in Micro-Entrepreneurs (PRIME) provides assistance to various organizations. These organizations help low-income entrepreneurs who lack sufficient training and education to gain access to capital to establish and expand their small businesses. Grants Available through PRIME include:
  - Technical Assistance Grant: Provides training and technical assistance to disadvantaged micro-entrepreneurs
  - Capacity Building Grant: Provides training and capacity building services to micro-enterprise development organizations and programs to assist them in developing micro-enterprise training and services
  - Research and Development Grant: Aids in researching and developing the best practices in the field of micro-enterprise development and technical assistance programs for disadvantaged micro-entrepreneurs
  - Discretionary Grant: Conducts such other activities determined to be consistent with these purposes [www.sba.gov/offices/headquarters/oca/resources/11416](http://www.sba.gov/offices/headquarters/oca/resources/11416)
  - Startup In A Day Initiative – “Start up in a Day” is a program to help make it easier and faster at the local level to start a business and navigate the local permit and licensing process. In 2015, the SBA awarded prizes to municipalities to develop systems to improve the permitting and licensing process for small businesses, and

launched a pledge program for communities to implement and maintain best practices. [www.sba.gov/about-sba/sba-initiatives/startup-day](http://www.sba.gov/about-sba/sba-initiatives/startup-day).

### *U.S. Department of Transportation (DOT)*

There are two principal discretionary grant programs for transportation infrastructure in the Department of Transportation (DOT). These include TIGER and FASTLANE. (The list of proposed awards and awards under both programs is noted below).

#### Transportation Investment Generating Economic Recovery (TIGER) Grants

The highly competitive TIGER grant program supports innovative projects, including multi-modal and multi-jurisdictional projects, which are difficult to fund through traditional federal programs. The TIGER program was originally funded by the American Recovery and Reinvestment Act of 2009 (ARRA or Recovery Act). Since 2009, there have been a total of eight TIGER offerings, including one round in the Recovery Act. In each offering, Maine has been awarded a grant to improve or modernize its transportation infrastructure. Over this period, Maine's ports and railroad infrastructure received \$50.5 million in grants to improve or modernize its transportation infrastructure. Highway bridge replacement projects received \$51.5 million. TIGER grants also leverage other funding sources to maximize the available dollars going to these infrastructure investments. In sum, TIGER total project cost were \$91.9 million of which TIGER funded 55 percent. In subsequent DOT appropriations since the Recovery Act, Congress provided funding to continue these discretionary grants.

#### TIGER Awards

- **Replacement of Beals Island Bridge** (TIGER VIII – Grant Funding: \$10,525,000). The project will replace an existing 22-foot wide structurally deficient bridge with a 28-foot wide bridge connecting the city of Jonesport to Beals Island. The new bridge will provide two 10-foot lanes with 4-foot shoulders. The project aligns with the department's selection criteria related to safety and state of good repair. The widening of the bridge allows for safer passage for pedestrians and bicyclists, as well as a reduction in response time for emergency vehicles. The project improves the state of good repair by replacing a 58-year old bridge and establishes an operating plan to maximize the new bridge's service life.
- **Maine Regional Railways Project** (TIGER VII – Grant Funding: \$20,000,000; Project Cost: \$37,348,516). This TIGER grant will provide funding to rehabilitate approximately 380 miles of track throughout Maine, removing long-standing bottlenecks and creating faster and more reliable freight service. Led by Maine DOT, the project is backed by a partnership of the Maine Northern Railway, Central Maine and Quebec Railway, Eastern Maine Railway, and Pan Am Railways. Project upgrades include new rail, ties, and surfacing, upgraded road crossings, and the construction of additional yard tracks and more efficient configurations.



Leveraging the investment that Maine DOT and USDOT made in the Aroostook County Railroad Preservation and Rehabilitation Project in a 2010 TIGER grant, this project extends the investment to the rail infrastructure on the north and eastern side of Maine. The project will result in timetable speeds of no lower than 25 mph throughout the network and the elimination of numerous bottlenecks that have long plagued traffic in this region.

- **Sarah Mildred Long Bridge Project** (TIGER VI – Grant Funding: \$25,000,000; Project Cost: \$158,500,000). This TIGER grant will fund the rail components of the Sarah Mildred Long Bridge replacement over the Piscataqua River. The Sarah Mildred Long Bridge, a lift bridge connecting Maine and New Hampshire, currently handles both highway and rail traffic and is being replaced after 74 years. The replacement bridge will feature an integrated rail-highway deck for the lift span, maintaining rail access for the Portsmouth Naval Station.

*Highlights:* reduces the need for bridge lifts by 64 percent, reducing disruptions to both highway and marine traffic; provides redundancy for freight movement between Maine and New Hampshire in the event of closure of the I-95 bridge; improves environmental outcomes by reducing vehicle delays and idling times by 68 percent.

Rail access is a critical need of Portsmouth Naval Station (PNS), as this is the only viable mode of transportation allowed by the U.S. Navy for PNS to transport spent nuclear fuel from its servicing of U.S. Navy submarines. The TIGER investment will ensure this access continues. The new bridge will also dramatically improve safe access to navigation on the river through increased horizontal and vertical clearances.

- **Eastport Breakwater Replacement** (TIGER V – Grant Funding: \$6,000,000; Project Cost: \$11,000,000). TIGER funds will replace the dilapidated breakwater at the Port of Eastport and two of its pier sections, which serve as important economic anchors of the local and regional community. In addition to restoring the deteriorating infrastructure, this Fix-it-First project will increase berthing space to enable larger commercial and recreational vessels to service Eastport. The breakwater serves as an overflow facility for nearby Estes Head as cargo activity and bulk tonnage shipped through the port slowly increased in the past decade. This project will provide infrastructure improvements to facilitate continued export growth in the region.

*Highlights:* replaces the 50-year-old breakwater and extends it 100 feet to increase berthing space for large cargo vessels and U.S. Navy ships; sustains competitive fishing and export activities associated with the breakwater, including pulp and paper, and retains current integration with summer tourism and festival activities that involve considerable cross-border economic activity; and supports the preservation of both the local and regional community as a gathering point for both trade and tourism.

The Eastport Breakwater Replacement will help preserve the working waterfront culture of Southeast Maine, while strengthening port infrastructure and ensuring the long-term

safety of its users. By replacing and enlarging the Breakwater, Eastport is increasing the Breakwater's functionality and looking to attract new customers to facilitate regional economic development. Preserving the Breakwater as an alternative to loading bulk cargo at Estes Head will support these goals as well as increase exports at adjacent ports.

- **Martin Memorial Bridge Replacement** (TIGER IV – Grant Funding: \$5,202,700; Project Cost: \$8,671,200). TIGER funds will replace the structurally deficient Martin Memorial Bridge running over the Androscoggin River on route 232 in Richmond, Maine. The current bridge, built in 1955, has a capacity of 26 tons, well below the state requirement of 45 tons. This prevents large trucks from using it, requiring a detour of 10-12 miles to cross the river. The area is an important trade link for lumber and paper, and the bridge is essential for the economic vitality of the region. Additionally, TIGER funds will support the inclusion of bike lanes on the new bridge, which is on the Maine bicycle system but does not currently have them.

*Highlights:* realigns the curve of the bridge to improve safety for all users; increases safety, transit options, and bicycle & pedestrian access by adding three feet shoulders; and keeps residents connected to services and commercial centers through bridge maintenance.

This project will eliminate a lengthy detour for trucks and replace a structurally deficient bridge with one that is in line with state requirements. As a result, it will also reduce greenhouse gas emissions and improve environmental sustainability. The TIGER grant leverages a 40 percent local match in rural and economically distressed areas. Replacing this bridge will improve livability for residents and boost the economic vitality of the region.

- **Kennebec Bridge Replacement** (TIGER III – Grant Funding: \$10,810,000; Project Cost: \$24,900,000). The Maine Department of Transportation will reconstruct the Kennebec Bridge, which carries State Route 197 over the Kennebec River between Richmond and Dresden. The project will bring the roadway corridor back to a state of good repair with the construction of a new long-lasting, high-level fixed span bridge to replace the current swing span bridge. The new design will accommodate car and truck traffic as well as bicycles and pedestrians.

*Highlights:* provides reliable access and regional mobility for highway and marine traffic; enhances access for non-drivers and persons with disabilities and enhances safety for bicyclists and pedestrians; and improves load capacity and design to reduce accidents and injuries.

The project will replace the existing 80-year-old bridge, eliminating the need to address several deficiencies, including vertical clearance, structural fractures, and insufficient load capacity. The project will ensure that residents of Richmond and Dresden have continued accessibility and mobility, and the new bridge will allow for Americans with

Disability Act (ADA) compliant travel lanes for pedestrian and bicycle use. Additionally, the project will ensure that the Kennebec River remains navigable for marine traffic, including U.S. Coast Guard icebreakers that maintain access during the winter.

- **Aroostook Rail Preservation** (TIGER II – Grant Funding: \$10,546,436; Project Cost: \$29,646,436). The Aroostook rail preservation project will restore the rail routes serving Northern Maine by replacing railroad ties and rail sections, and by clearing drainage ditches. The project will rehabilitate 230 miles of rail in Northern Maine constructed more than 100 years ago, which was allowed to fall into disrepair by a previous rail owner-operator. The improvements funded by this TIGER II grant will improve the flow of forest products and other exports from Maine.

*Highlights:* re-establishes vital rail link to meet regional and national goods movement needs; increases competitiveness of American forest products in global markets; and encourages development of new industry in economically distressed region.

The preservation of the Aroostook County rail lines will help maintain the economy of Northern Maine, specifically forest products, pulp, and paper, of which about 31 percent is exported. Maintaining these lines will allow Maine to continue providing service to a number of mills and other factories which rely on the rail line to ship their products competitively. It will also enhance livability for the residents of Aroostook County by keeping truck loads off the roads.

- **Revitalizing Maine's Ports** (TIGER I – Grant Funding: \$14,000,000; Project Cost: \$14,000,000). The project advances Maine's Three-Port Strategy, a long-term strategy developed in 1978 to concentrate state investments in deep-water port facilities. TIGER funds will help the Port of Portland to upgrade the wharf and upland storage facility at the International Marine Terminal Facility; the Port of Searsport to invest in innovative new equipment, including a heavy-lift mobile harbor crane; and the Port of Eastport to invest in storage space and conveyor equipment.

*Highlights:* allows Maine's ports to diversify revenue sources and help stabilize the economy; positions Maine's ports to move wind turbines and other "green" freight; and Searsport and Eastport are in economically distressed areas.

TIGER funds will help Maine's ports improve capacity in targeted markets, including value-added forest products, emerging wind energy industry, bulk and break-bulk and containers, as part of a strategy to diversify business lines. This project will considerably improve the economic competitiveness of the State of Maine and the region, while creating jobs and business activity for people living in economically distressed areas in Coastal Maine.

### Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) Grants

The Department of Transportation of Transportation surface transportation reauthorization, titled Fixing America's Surface Transportation Act (FAST Act), established the Nationally Significant Freight and Highway Projects (NSFHP) program to provide federal financial assistance to projects of national or regional significance. Congress authorized the program at \$4.5 billion for fiscal years 2016 through 2020, including \$800 million for FY 2016 to be awarded by the Secretary of Transportation. Under the FASTLANE grant program name, the Maine Intermodal Port Productivity Project is a grant recipient for the first offering. Like TIGER, FASTLANE leverages other funding sources to maximize the dollars going to these infrastructure investments. FASTLANE is focused on freight projects, where TIGER is open to surface transportation projects, including transit and passenger rail. While both are competitive grant programs, the pool of TIGER applicants is much larger and more diverse. During the FY16 round of this program, 18 projects were selected from 212 applications.

FAST Act also established the National Surface Transportation and Innovative Finance Bureau. The Bureau was set up in July. As the Bureau begins its operations, communications between the Bureau and the State of Maine should be established to determine other programs and opportunities that might be available to Maine within DOT.

#### FASTLANE Awards

- **Maine Intermodal Port Productivity Project.** The Maine Department of Transportation will be awarded \$7,719,173 towards a \$15,438,347 project to provide infrastructure improvements, equipment, and technology investments for the Port of Portland. Currently, cargo is offloaded at Canadian ports and transshipped to the U.S. via truck, causing highway congestion. Improvements to the Port of Portland consist of: 1) removing existing maintenance facility and infill of the wharf; 2) installing new mobile harbor crane and other cargo handling equipment; 3) constructing a highway and rail crossing upgrade; and 4) building a terminal operations and maintenance center. We estimate approximately \$7,719,173 of this project will count toward the \$500 million limit for freight rail, port, and intermodal projects, as established in 23 U.S.C. 117(d)(2).

By addressing the capacity and infrastructure needs at the Port of Portland, the project will improve freight mobility and relieve highway congestion between Portland and Canadian Ports. Containers brought directly to Portland for U.S. consumption will minimize interstate highway miles and reduce congestion at border crossings. This project will reduce traffic on I-95, highway maintenance requirements, and possible truck-crash related injuries. Capacity and state of good repair improvements for the railroads at the port and the rail line serving the port allow for expansion of intermodal service by rail.

### *U.S. Department of Treasury*

#### State Small Business Credit Initiative (SSBCI)

On September 27, 2010, President Obama signed into law the Small Business Jobs Act of 2010 (the Act), which created the State Small Business Credit Initiative (SSBCI). The Act provided almost \$1.5 billion for state programs that support access to credit for small businesses and small manufacturers. Participating states are required to demonstrate a reasonable expectation that they will leverage \$10 in private lending for every \$1 in SSBCI funds.

SSBCI is an innovative program that awards funds to State agencies for lending and investing programs. SSBCI programs fall into five categories: Capital Access Programs, Loan Participation Programs, Collateral Support Programs, Loan Guarantee Programs, and Venture Capital Programs. The program allows each State to design its own small business support programs in response to local economic conditions. Maine was awarded \$13,168,350 to be received in three disbursements that are conditioned on program performance. To date Maine has qualified for two disbursements totaling \$8,691,110 and just in December of 2016 qualified for its third disbursement of \$4,477,240. FAME now has these funds available for lending and investing through its approved SSBCI programs

Maine is using its award to fund two loan participation programs – the Regional Economic Development Revolving Loan Program (REDRLP) and the Economic Recovery Loan Program (ERLP) – and one venture capital program – Small Enterprise Growth Fund (SEGF). The agency that administers the SSBCI program on a day-to-day basis is the Finance Authority of Maine (FAME).

#### Community Development Financial Institutions Fund (CDFI Fund)

The CDFI Fund was created for the purpose of promoting economic revitalization and community development through investment in and assistance to community development financial institutions. Through various award programs, the CDFI Fund supports mission-driven financial institutions recognized for their expertise in providing service and support to low-income communities. These organizations leverage the resources awarded to them by the CDFI Fund to draw in new or increased sources of private funding. The CDFI Fund administers a range of grant, tax credit and loan programs. Eligibility and eligible use of funding varies by program.

- **CDFI Program:** Provides Financial Assistance and Technical Assistance awards to certified and emerging CDFIs to sustain and expand their services and to build their technical capacity.
- **Native Initiatives:** Includes the Native American CDFI Assistance Program, which provides Financial Assistance and Technical Assistance awards to CDFIs serving Native communities to sustain and expand their services; build their technical capacity; and provide training opportunities for Native CDFIs available as part of the CDFI Fund's Capacity Building Initiative.

- **Bank Enterprise Award Program:** Provides monetary awards to Federal Deposit Insurance Corporation insured banks for increasing their investments in low-income communities and/or in CDFIs.
- **New Markets Tax Credit Program:** Provides tax allocation authority to certified Community Development Entities (CDEs), enabling investors to claim tax credits against their federal income taxes. The CDEs, in turn, use the capital raised to make investments in low-income communities.
- **Capacity Building Initiative:** Provides organizations certified as CDFIs or trying to become CDFIs with access to free seminars, market research and analysis, tools, and one-on-one training to help them develop, diversify, and grow.
- **CDFI Bond Guarantee Program:** Guarantees the full amount of notes or bonds issued to support CDFIs that make investments for eligible community or economic development purposes. These bonds or notes support CDFI lending and investment by providing a source of long-term, patient capital.
- **Capital Magnet Fund:** Offers competitively awarded grants to finance affordable housing solutions for low-income people and low-income communities nationwide.

Financial institutions that become certified by the CDFI Fund are eligible to apply for the comprehensive services it offers—including monetary support and training to build organization capacity. There are a number of program award recipients located in or certified to serve the state of Maine. Visit [www.cdfifund.gov](http://www.cdfifund.gov) for more information.

### *Partnership for Sustainable Communities (PSC)*

The Partnership for Sustainable Communities (PSC) is a joint effort by U.S. Department of Housing and Urban Development (HUD), U.S. Department of Transportation (DOT), and the U.S. Environmental Protection Agency (EPA) to coordinate federal housing, transportation, water, and other infrastructure investments to make neighborhoods more prosperous, allow people to live closer to jobs, save households time and money, and reduce pollution. The partnership agencies incorporate six principles of livability into federal funding programs, policies, and future legislative proposals. The Partnership agencies and USDA also provide programs targeted to rural communities. These programs are available to promote economic competitiveness, protect healthy environments, and enhance quality of life.

### Rural Development

- **Rural Business Cooperative Service (RBS).** In partnership with EPA, DOT, ARC, and DRA, USDA invites the Maine communities to apply for the Local Foods, Local Places Technical Support Program. These workshops help communities learn how to develop a regional food system to spear head economic development, healthy eating, and support for local farmers. Applications will reopen in the fall of 2016, with training to be administered in early 2017. USDA is working with EPA to give preference to Maine applicants.

- **Rural Utilities Service (RUS).** In partnership with EPA and ARC, we invite the Maine communities to apply for the Cool & Connected Planning Assistance program offered by EPA, and largely funded by USDA. Five Maine communities applied in the past, although they were not selected. A new round will shortly open, and we will offer preference to Maine applicants. The planning assistance program helps rural communities use broadband to revitalize small-town main streets. Applications will reopen in the fall of 2016, with technical assistance to be administered in early 2017. USDA is working with EPA to identify ways to ensure that between two and four communities in Maine receive assistance.

### *Industry, Associations, and Non-Profit Organizations*

#### U.S. Endowment for Forestry & Communities, Inc.

The U.S. Endowment for Forestry & Communities is a not-for-profit corporation established September 21, 2006, at the request of the governments of the United States and Canada in accordance with the terms of the Softwood Lumber Agreement (SLA) between the two countries. The Endowment is one of three entities designated to share in a one-time infusion of funds to support "meritorious initiatives" in the U.S. It has been endowed with \$200 million under the terms of the SLA.

## APPENDIX C: INDUSTRY AND COMMUNITY PRIORITIES

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### Maine Forest Economy Growth Initiative

# Recommendations to Strengthen and Diversify Maine's Forest Industry and Rural Economies



December 2016



**MAINE DEVELOPMENT FOUNDATION**



The forest products industry has a long and proud heritage in Maine, and remains a significant economic driver in the state's economy. In 2016, the total economic impact of the forest products industry is still estimated at \$8.5 billion, and 33,538 total jobs.

At the same time, rapid marketplace changes have led to the recent closure of six pulp and paper mills and two biomass electric facilities and related declines in forest manufacturing and harvesting. The result is that Maine has lost 50 percent of its softwood pulp market in the last two years. Between 2014 and 2016, the total economic impact of the forest products industry fell from \$9.8 billion to \$8.5 billion, and more than 5,000 jobs were lost. Rural Maine communities where mills have closed are experiencing high unemployment rates, loss of population, and significant basic infrastructure challenges.<sup>24</sup>

#### Forest Products Industry<sup>25</sup>

	2011	2014	2016
Total Economic Impact	\$8.5 billion	\$9.8 billion	\$8.5 billion
Total Jobs	38,789	38,956	33,538

In this environment of rapid change, the Maine forest products industry is looking to strengthen and diversify to ensure the success of the forest economy in the future and strengthen economic opportunities in rural communities across the state. **The global forest products industry is changing, and if Maine adapts quickly and strategically, we can maintain our leading role in a global forest economy.**

In the spring of 2016, members of the forest products industry, affected communities, and other stakeholders came together to develop shared strategies to strengthen and diversify Maine's forest industry and rural economies.

*We envision a thriving and diverse forest products industry  
that provides good jobs in vibrant rural Maine communities.*

Together, the priorities outlined in this report are intended to achieve the following goals:

<sup>24</sup> Source: Eastern Maine Development Corporation

<sup>25</sup> Source: University of Maine, "Economic Contributions of Maine's Forest Products Industry 2014 and 2016 (estimated)"

- Goal 1. Sustain Maine’s existing forest products businesses
- Goal 2. Attract capital investments and develop greater economic prosperity in the forest products sector across the State for both existing and new businesses
- Goal 3. Support the revitalization of Maine’s rural communities as places where people want to live, work and visit

Over the next three years, we recommend the following priorities:

- A. Conduct a global market assessment to assess future demand for Maine wood products.
- B. Conduct a statewide wood supply analysis to attract new markets.
- C. Conduct a transportation analysis to determine where infrastructure improvements are necessary to increase profitability for the forest products value chain.
- D. Support and grow markets for low-value, underutilized wood and biomass utilizing Combined Heat and Power (CHP) biomass plants, micro-grids, and modern thermal systems.
- E. Invest in the research, development, and commercialization of emerging wood technologies such as forest bioproducts as an opportunity for the utilization of low value fiber.
- F. Support small landowners who want to grow and harvest more wood.
- G. Invest in logger and forest products workforce development.
- H. Redevelop and reutilize or repurpose Maine’s closed mill industrial sites.
- I. Diversify and strengthen Maine’s rural economy.

Success will be measured by the following outcomes:

- 1. Employment: Sustain and create job opportunities in the forest products industry
- 2. Diversification: Invest in new value-added forest products
- 3. Exports: Increase value-added forest products exports
- 4. Income: Increase per capita personal income in Maine’s rural communities



## **Recommendations to Strengthen and Diversify Maine's Forest Industry and Rural Economies**

The recent loss of softwood markets has created an urgent need to create new markets for Maine's softwood pulp and biomass. Maine's forest products industry is deeply interconnected, and sustainably managing Maine's commercial forest requires customers for all the materials being harvested: hard wood and soft wood, saw logs and pulp wood, biomass and residuals. Competitive markets for softwood pulp and biomass support the critical mass needed to efficiently harvest, transport, and process all these materials.

The following priorities will create economic opportunity for existing companies as well as new and emerging investments. Together, we can sustain and create forest economy jobs in rural Maine.

### **Priority A. Conduct a global market assessment to assess future demand for Maine wood products.**

Maine forest industries need to better understand emerging and potential markets for forest products, and match that with Maine's forest resource on both short term and long term time horizons (Priority B). A better understanding of global markets will create opportunities for new and expanded forest products businesses, a more diversified forest economy, high value exports, and increased jobs and wages.

#### **Actions:**

- a. Hire a leading international forestry consulting firm with specialized expertise in global wood markets and trends. This firm will identify the current and emerging global forest products markets where Maine is likely to be most competitive.

#### Goals of the project:

- Determine the markets where Maine is competitive.
  - Determine what value added products Maine should manufacture based upon its forest inventory and future growth curves.
- b. Include a competitive analysis benchmarking study comparing Maine to other forest industry states, provinces and countries (e.g. wood fiber availability and cost, cost of energy, workforce development, environmental review and permitting, taxation, transportation, and state economic development incentives.) Maine forest industries, including solid wood, paper and biomass energy, need better benchmarking to understand how we fare in particular categories compared to other states and

countries. We need to know what causes forest industries in Maine to be less competitive and not attract investment relative to other regions of the country. This study will build on previous benchmarking efforts and identify the necessary changes to make Maine forest products more competitive.

- c. Conduct a Strengths, Opportunities, Aspirations and Results (SOAR) analysis of forest sectors, communities, and capital investors in Maine.
- d. Hire a consultant to write a professional marketing plan to attract potential businesses considering investments in the forest industry. Aggressively market Maine's competitive strengths in an effort to attract investment in the forest industry. The plan should include, at a minimum: forest resource information; labor force demographics, potential development sites prospectus; Maine's competitive advantages and a listing of business incentives, based on the benchmarking study and forest modeling analysis. Create a system to connect promising business opportunities in existing forest products markets to industry networks, information, and resources, to keep the marketing plan current.

Priority B. Conduct a statewide wood supply analysis to attract new markets.

Model Maine's forest growth and harvest levels, by species, grade and geography. This should be an ongoing collaborative effort and responsibility of the Maine Forest Service and the University of Maine and be periodically updated. Action 1 data (below) will be very important to the goals set forth in Priority A and should be conducted simultaneously.

**Actions:**

- a. Conduct and regularly (every 3-5 years) update a statewide analysis that identifies the availability of wood fiber, including:
  1. A forest resource assessment to provide a point in time estimate of the availability of wood fiber for commercial harvest, with estimates of annual levels of growth and removals
  2. An analysis of a landowner survey to assess the willingness of Maine private landowners to harvest timber
  3. An analysis of Maine's logging capacity and equipment mix
  4. Projections of future wood supply.
- b. Produce a spatially-explicit analysis and map of the wood availability by species and dimension over the next several decades using new and emerging remotely sensed data (e.g., LiDAR). This work is an extension of modeling conducted for the spruce budworm project. This technology needs to be in the public domain and available for updating and informing public policy.

1. This analysis would model forest outcomes under a range of market scenarios and project subsequent wood supplies.
2. Produce regional yield curves for spatially explicit modeling.
3. This level of analysis will provide a state-of-the-art understanding about Maine's current and future wood inventory for providing various forest product markets, both in U.S. and Canada.
4. A final report from this second phase will provide maps and projections of wood supplies for specific woodsheds where forest products manufacturing are and will take place in the state.

The pending Spruce Budworm Outbreak will exacerbate the softwood market problem. The modeling effort described here should include this and other forest trends. The recent action plan developed by collaborative industry, University of Maine and Maine Forest Service effort (available at <http://www.sprucebudwormmaine.org/>) relies on a strategy of ensuring markets for spruce and fir low grade wood.

**Priority C. Conduct a transportation analysis to determine where infrastructure improvements are necessary to increase profitability for the forest products value chain.**

The loss of wood consuming mills in the Penobscot River Valley has changed wood transportation patterns in Maine. New travel corridors are developing that need prioritization for upgrades and capital improvements.

**Actions:**

- a. Inventory and Analyze Existing Transportation Infrastructure. Work with industry and Maine DOT to assess changing travel patterns and strategizing capital improvements that will significantly lower wood transportation costs by road, rail and sea. Outline new wood flow demands on current system and interface with Maine DOT.
  1. Roads/Bridges: Develop a list of priority trucking routes that need capital improvements to increase wood trucking efficiencies. Identify specific road/bridge projects that will significantly lower transportation costs.
  2. Railroad: Continue to work with New England railroad interests to determine how to devise a more predictable and dependable freight service.
  3. Sea Ports: In conjunction with market benchmarking, analyze current infrastructure at Maine ports (Bucksport, Eastport, Portland, and Searsport) and compare to what is needed to prepare for opportunities to export value-added forest products.

- b. Identify trucking efficiencies. Work with landowners, consuming mills, and trucking/logging contractors to determine wood flow and hauling efficiencies that might be gained through trucking dispatch and backhauling. Reduce hauling distances and increase backhauling capability to reduce cost and increase profitability.
  1. Develop a comprehensive list of wood supply and flow.
  2. Identify best practices for trucking efficiency.
  3. Identify opportunities to reduce hauling distances.
  4. Determine if there is an opportunity for backhauling.

**Priority D. Support and grow markets for low-value, underutilized wood and biomass utilizing Combined Heat and Power (CHP) biomass plants, micro-grids, and modern thermal systems.**

As described earlier, the sectors of Maine's forest products industry are interdependent. Markets for low value wood and residuals, particularly from logging operations and sawmills, are critical to continued profitability for landowners, loggers, and manufacturing facilities.

Biomass electric energy interests in Maine would benefit from an inventory of federal resources to support CHP platform conversions, best practices related to micro-grid applications and technical assistance for project implementation. A similar exercise would also benefit the creation of new scalable CHP facilities and modern wood heating applications. Programs to encourage development of thermal and electrical energy campuses that are part of a micro-grid system are part of an important overall strategy for Maine.

Modern thermal heating applications represent important growth opportunities in the forest products economy and a critical opportunity to retain energy dollars in the state economy.

**Actions:**

- a. United States Department of Agriculture (USDA) and Department of Energy (DOE) resources and experience are an important opportunity for Maine interests in developing a holistic biomass energy plan to promote CHP platforms, modern wood heat installations, and micro-grid options. Development of relationships with federal agency subject matter experts will be key, including Oak Ridge National Lab (ORNL).
- b. Federal staff should also conduct site visits and offer CHP/modern wood heat workshops to provide access to expertise, best practices, and potential funding opportunities.

- c. Provide technical and financial assistance to entities seeking to convert to wood heat to build demand for local wood pellets, chips, and wood heating appliances.
- d. Work with federal, state and regional partners to build demand for local renewable biomass heating products.



**Priority E. Invest in the research, development and commercialization of emerging wood technologies such as forest bioproducts as an opportunity for the utilization of low value fiber.**

Maine needs to manufacture value-added wood products here, including existing and commercially demonstrated products as well as new and developing products. Consider all possible new technologies, including those that have already been commercialized or are being used successfully at facilities around the world. Commercial feasibility including realistic time to commercialization should be a deciding factor. This effort should be informed by Priority A and Priority B. The manufacturing of new wood products in Maine will provide opportunities for new and expanded forest products businesses, a more diversified forest economy, high value exports, and increased jobs and wages.

**Actions:**

- a. Assess whether there are viable technologies available globally that could be installed at the pilot scale (or larger) in the short-term (within 24 months).
- b. Develop matrix of existing (or planned) projects across the U.S. that involve converting woody biomass into value-added biomaterials, organized by federal agency involvement (USDA, DOE) and which loan or loan guarantee program was used to finance the project (and dollar amount).
- c. Augment and accelerate current efforts to develop and commercialize biofuels, such as the BioFuels initiative at Forest Bioproducts Research Institute at the University of Maine (FBRI), which recently received \$4.3 million funding through the Department of Defense (DOD).
- d. Support FBRI and other efforts to develop extractive sugars and polymers capacity in Maine recognizing that this effort is linked to the ability to connect to an active pulp digester and recovery loop, similar to the Old Town mill.
- e. Continue to support nanocellulose (cellulose nanofibers, or CNF) research and development at the University of Maine and through development of public private partnerships. Recent meetings to explore research synergies with the Oak Ridge National Laboratory are very important to Maine's success.
- f. Cross Laminated Timber (CLT) research at the University of Maine is linked to several potential manufacturing facilities seeking east coast locations. Immediately form a collaboration of appropriate parties to promote the siting of a CLT facility in Maine and identify recommendations to incentivize wider use of CLT and possible demonstration projects.

- g. Integrate Biobased Maine's trade association project to market Maine biobased assets into overall forest product industry marketing efforts with the goal of making connections between producers and users of these materials.
- h. With the establishment of the University of Maine as an Economic Development Administration (EDA) University Center, consider funding an extension team with: a) manufacturing and b) forest business experience to act as liaison between industry and university research community, to increase business commercialization capacity, and to help product scale-up and monetize relevant research. It's important to maintain University of Maine research efforts and create strong linkage between forest inventory, global market analysis, and research.
- i. Establish a demonstration project in Maine by 2020 that brokers a private/public partnership for production and sale of products into the bioeconomy.

**Priority F. Support small landowners who want to grow and harvest more wood.**

There are only 10 public foresters to assist 86,000 small woodland owners owning at least 10 acres. Only 25 percent of all small family woodland owners' harvesting involves professional forester involvement or advice. Maine needs to assist small woodland owners in this downturn in markets or they will either not harvest at all, causing problems for existing mills including the entire sawmill industry, or they will high-grade the forest due to lack of markets, which comes with its own problems long term for the industry. This priority is critical to ensuring Maine's wood supply for the long-term.

**Actions:**

1. Identify the most efficient ways of encouraging small woodland owners to responsibly manage their land by reviewing options used in other places and identify which of those options (or new ones the consultant identifies) would work in Maine. Include recommended changes (or temporary variances) to federal and state programs, such as the rules related to cost share programs aimed at small woodland owners. That flexibility could be a test that could be applied in other parts of the country where the forest industry is under duress.

**Priority G. Invest in logger and forest products workforce development to support forest economy workers and businesses.**

**Actions:**

- a. Ensure a diverse, well-trained logger workforce equipped to meet market and landowner needs. Address barriers to entry into the marketplace for loggers of all sizes.

- b. Modern secondary/high school logging equipment training simulators are needed to prepare the workforce to meet modern demands.
- c. Coordinate retraining resources for individuals who lost their jobs as part of the changes in the forest industry, including retraining for new jobs as the forest products industry evolves.
- d. Ensure there is a future workforce development pathway for the entire forest products value chain. Summarize and catalogue training needs for existing and emerging forest products businesses to ensure workforce development system is prepared to provide targeted training to meet industry needs both now and in the future.

Priority H. Redevelop and reutilize or repurpose Maine's closed mill industrial sites.

A number of pulp and paper mill sites are currently idle. Every effort should be made to redevelop and reutilize or repurpose these sites consistent with new market opportunities, local economic development, and community goals. Utilizing these assets will create opportunities for Maine communities and businesses and contribute to a more diversified forest economy.

**Actions:**

- a. Conduct an asset analysis for each site, including mapping existing infrastructure (natural gas, wastewater treatment, water supply) and identifying permits, to support the redevelopment and repurposing of the sites.
- b. Support locally-driven community and regional engagement efforts to plan for and realize the community's vision for the future, including but not limited to the former mill sites. Cultivate local leadership for and during those processes.

For example, support local community planning efforts such as the Orton Heart and Soul initiative in Bucksport, Our Katahdin and Making Headway initiatives in the Katahdin region, and the efforts of private investors and the University of Maine and/or the City of Old Town, as well as the economic development committee in the Town of Lincoln.

- c. Establish capacity through a State or regional redevelopment authority to assist with the redevelopment of industrial mill sites in affected Maine communities including for example, expanding the capacity and use of brownfields funding to enable effective and timely clean-up of the former mill sites for potential reuse.

- d. Where appropriate, encouraging the co-location of manufacturing using CHP systems which can utilize steam or waste heat from an energy or power plant and send low pressure steam to the co-located user(s).

**Priority I. Diversify and strengthen Maine's rural economy.**

The forest products industry will continue to be an anchor industry for Maine's economy. But it is critical that Maine's rural communities develop greater economic diversity. Diversification into other industries creates deeper economies which are less susceptible to wholesale community failures. Rather than a large savior project, Maine's rural communities need a series of successes across industries and communities.

Small businesses and entrepreneurs represent important sources of creativity and economic diversification. They also provide critical opportunities for new job creation and economic growth.

Many of the region's communities have declined to a point where aging infrastructure, housing stock, school, hospitals and downtowns make it difficult to retain businesses, working age adults, and families. Assistance is needed to plan for and invest in strengthening community cores, including mitigating the loss of population and maintaining community infrastructure. Local leaders need resources and skills to build business and community capacity.

Tourism and recreation represent important growth sectors in some parts of rural Maine— including the Katahdin, Lincoln Lakes and Moosehead areas. The past several years have seen growing local interest, organization, and investment in destination development as an economic and job creation strategy in high amenity areas. Tourism stakeholders are increasingly committed to working with the forest products industry to minimize conflicts with recreationists and explore long-term access and incentive systems.

Affordable, reliable, and high-speed broadband access is a prerequisite for any business in the 21<sup>st</sup> century. Along with training in basic digital literacy, broadband is also fundamental to the overall quality of life for current and potential new residents. Building on current efforts, communities need additional support for planning to build out "the last mile" from the existing 3-ring binder; incentives to encourage/leverage private and municipal investment in physical broadband infrastructure such as hot spots, wireless, cable/fiber; and digital literacy training for local residents and businesses.

**Actions:**

- a. Provide small business assistance including business planning, technical assistance, and financial assistance to local entrepreneurs, including high value-added wood product manufacturers.

- b. Invest in community infrastructure to diversify local/regional economies, and support entrepreneurial people. Provide municipal and business leaders financial and technical assistance needed to upgrade basic community infrastructure to support local economic development goals; advance downtown revitalization; improve housing stock; and enhance business development sites and community facilities to support the retention and attraction of new businesses and residents.
- c. Expand broadband infrastructure and digital literacy. Support community broadband planning initiatives to identify what is needed and what assets exist to build on, and provide incentives and other strategies to increase access to affordable broadband services in rural areas.
- d. Support rural destination tourism development.
  - a. Create a Rural Destination Development Road Map in conjunction with the Maine Office of Tourism Rural Destination Area program, tourism stakeholders, and the forest products industry to guide business and community investment in targeted high potential recreation and tourism areas
  - b. Create a Community Destination Training program to build local business, non-profit, and community capacity for strategic tourism development
  - c. Invest in purpose-built recreation infrastructure and downtown/Main Street improvements to ensure high quality experiences across a full spectrum of rural destination tourism activities.

## Maine Forest Economy Growth Initiative

### Co-Chairs:

*Patrick Strauch, Maine Forest Products Council*

*Yellow Light Breen, Maine Development Foundation*

### Members:

*Donna Cassese, Maine Pulp & Paper Association/SAPPI Fine Papers*

*Tom Doak, Small Woodland Owners Association of Maine*

*Dana Doran, Professional Logging Contractors (PLC) of Maine*

*Steve Schley, Pingree Associates*

*Charlotte Mace, Biobased Maine*

*Stephen Shaler, University of Maine*

*Jake Ward, University of Maine*

*Peggy Daigle, former Town Manager/Consultant*

*Andy Hamilton, Eaton Peabody, Attorneys at Law*

*Charlie Spies, CEI Capital Management*

## APPENDIX D: EDAT MEMBERS

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### EDAT Planning Committee

- Yellow Light Breen, President & CEO, Maine Development Foundation
- Donna Cassese, Managing Director, Wood Resource Strategy Sappi / Chairman, Maine Pulp & Paper Association
- Peggy Daigle, Town Manager / Executive Manager, Bangor Target Area Development Corp.
- Thomas C. Doak, Executive Director, Small Woodland Owners Association of Maine
- Dana Doran, Executive Director, Professional Logging Contractors of Maine
- Andy Hamilton, Shareholder, Eaton Peabody
- Charlotte Mace, Executive Director, Biobased Maine
- Stephen W. Schley, President, Pingree Associate Inc.
- Dr. Steven Shaler, Director and Professor, School of Forest Resources, University of Maine
- Charles J. Spies III, CEO, CEI Capital Management LLC
- Patrick Strauch, Executive Director, Maine Forest Products Council
- James S. Ward IV, Vice President, Office of Innovation and Economic Development, University of Maine

### Federal EDAT Members

- Cristina Bernardo, Senior Advisor, Rural Business-Cooperative Services, U.S. Department of Agriculture
- Alan Brigham, Economic Development Representative, Economic Development Administration
- Hillary Bright, Economic Development Specialist, Job Strategy Council, U.S. Department of Energy
- Jim Byrne, Program Lead, Cleanup and State Funding, New England – Region 1, Environmental Protection Agency
- James Clark, Outreach Manager, SSBCI, U.S. Department of Treasury
- Linda Cruz-Carnall, Regional Director, Philadelphia Regional Office, Economic Development Administration
- Matthew Dalbey, Director of the Office of Sustainable Communities, Environmental Protection Agency
- Tom Elson, Associate Director for Strategic Partnerships, Economic Development Administration



- Matt S. Erskine, U.S. Deputy Assistant Secretary for Commerce for Economic Development and Chief Operating Officer, Economic Development Administration
- Tony L. Ferguson, Station Director, Northern Research Station and Forest Product Laboratories, U.S. Department of Agriculture Forest Service
- Seth Goodall, Regional Administrator, U.S. Small Business Administration
- Scott Greene, Chief, Rail Freight Policy Division, Federal Railroad Administration, U.S. Department of Transportation
- Beka Kosanovic, Co-Director, Northeast CHP Technical Assistance Partnership, U.S. Department of Energy
- Jonathan Male, Director, Bioenergy Technologies Office, U.S. Department of Energy
- Virginia Manuel, Rural Development State Director, U.S. Department of Agriculture
- Matthew Nelson, Chief of Staff, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy
- Holly O'Brien, Regional Administrator for Employment and Training, U.S. Department of Labor
- Doug O'Brien, Senior Policy Advisor for Rural Affairs, White House Domestic Policy Council
- Soydan Ozcan, Scientist, Oak Ridge National Laboratory
- Breelyn Pete, Director, Office of External Affairs, Economic Development Administration
- Mark Scarano, Federal Co-Chair, Northern Border Regional Commission
- Thomas Stevens, Area Director, Rural Development, U.S. Department of Agriculture
- Matt Suchodolski, Economic Development Integrator, Philadelphia Regional Office, U.S. Economic Development Administration

#### [Consultants/Subject Matter Experts](#)

- Mary Curry-Ledbetter, Analyst, J&M Global Solutions
- Geoff Huntington, Director of Strategic Initiatives, Oregon State University College of Forestry
- Gil Jamieson, Chief Operating Officer, J&M Global Solutions
- Michelle McQueeney, President, J&M Global Solutions
- Jeremy Stone, Senior Consultant, J&M Global Solutions / Executive Director, Recovery and Relief Services, Inc.

## APPENDIX E: AGENDA

### MAINE DEVELOPMENT FOUNDATION



#### Overview: Maine Forest Economy EDAT Site Visit

August 17 – 19, 2016

Note: Locations and topics may change without notice.

*Due to the nature of the working sessions and venue limitations, working sessions are by invitation only except as indicated.*

Location	Topics Addressed
Day 1 - Opening Session	
Orono <i>Session open to interested parties</i>	Overview of industry, region, market factors that have led to recent economic disruption, and priority list of industry and community opportunities for growth and revitalization
Orono	<i>Press Availability</i>
Days 1 -3	
Bucksport	Small landowner insights; Discussion of global markets and capital investment & Biomass energy and market for residuals; Roundtable discussion of community perspectives on site redevelopment; Roundtable discussion of regional perspectives on economic development
Dover-Foxcroft	Sawmill tour and discussion about interconnectedness of Maine forest products markets
Millinocket area	Roundtable discussion of economic development efforts by local and regional groups in N. Penobscot & Aroostook
Old Town	Roundtable discussions about (1) R&D and new product development and the Maine bioproducts industry; and (2) mill complex repurposing opportunities and brownfield site development options
Orono	Introduction to UMaine research support for the industry; Roundtable discussion of top 6 issues from industry perspective; and Roadmap to future markets & competitiveness
Passadumkeag & West Enfield	Discussions about wood transportation issues, biomass energy and market for residuals
Skowhegan	Tour of state of the art paper mill and roundtable discussion of global markets and capital investment, R&D, and new products
Day 3 - Debrief	
Bangor	Final debrief by Federal EDAT team and Maine planning committee members about issues and opportunities presented
Bangor	<i>Press Availability – Details TBA</i>

## APPENDIX F: LETTER SENT TO SECRETARY PRITZKER REQUESTING EDAT

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United States Senate  
WASHINGTON, DC 20510

March 14, 2016

The Honorable Penny Pritzker  
Secretary  
U.S. Department of Commerce  
1401 Constitution Avenue, NW  
Washington, DC 20230

Dear Secretary Pritzker:

We are writing to call on the U.S Department of Commerce to establish and lead an integrated, multi-agency Economic Development Assessment Team (EDAT) focused on Maine's forest based economy. Over the past several years, the pulp and paper industry and communities that support this sector have experienced significant economic hardship as a result of a series of mill closures that have led to the loss of thousands of forest and manufacturing jobs. As these rural communities have repeatedly told us, they are in the midst of an economic crisis of unprecedented magnitude, creating a situation requiring urgent action, heightened focus and new federal economic and workforce development resources.

Maine is home to vast forest and natural resources and a skilled workforce that has harvested, hauled, and processed wood from Maine's forests for generations. Unfortunately, due largely to dramatic changes in the pulp and paper markets, what was once a prosperous and robust industrial sector that provided a strong economic backbone in many rural areas is today facing a serious downturn and rapid decline. In recent years the situation has significantly worsened in Maine, where we have seen the closures of six major mills in the last eight years, four of those in the last two years.

The once thriving rural communities that once were the homes to these mills are today hurting. For example, the communities in the Katahdin and Lincoln area where the forest products industry provided good paying jobs spanning generations, and brought prosperity to a region once considered one of the most prosperous in the state, today are struggling after the closing of three major mills. The same situation is true in western and eastern Maine which has also experienced a similar decline in the forest products industry. If you came to listen to the people in these rural communities, which we encourage you to do, you would hear that they are facing serious economic challenges: significant jobs losses, decreasing property values, deteriorating infrastructure, lack of access to high-speed broadband, and a growing migration of people leaving the area.

In response to the severity of the challenges facing Maine's forest economy, we urge the Commerce Department to form an Economic Development Assessment Team with active on the ground involvement of multiple, relevant federal agencies including the Economic Development Administration, U.S. Department of Agriculture and the Forest Service, Department of Energy, Small Business Administration, and others. This collaboration should bring together local, state and federal stakeholders, all working together to identify existing assets and new resources, to

perform a gap analysis, to develop strategies that support economic development, and to increase economic diversification. This multi-agency effort in the region should focus on:


- Listening to local leaders, business owners, and economic development stakeholders;
- Conducting an inventory and analysis of industry assets in the impacted region, and an assessment of the impact of the decline in the forest based economy;
- Identifying economic challenges, opportunities, and resources that will strengthen and diversify existing forest and community assets;
- Supporting new enterprise and innovation in forest products, bio-based energy development and entrepreneurs working to create jobs ;
- Sharing federal agency resources and best practices of economic development, applicable to rural communities impacted by decline of industry;
- Strengthening the region's skilled workforce and workforce training efforts; and
- Developing strategies with local stakeholders to support bottom-up economic development that improves local infrastructure, the digital economy, and strengthens the long term economic vitality of these impacted areas.

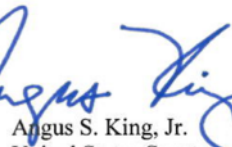
Our hope is that this effort will help set the stage for the affected regions in the state to shape their own economic future by strengthening existing assets and support new innovation and ideas that create jobs and support our rural communities. The lessons learned from this multi-agency targeted effort could be used as a model for rural economies across the country that have been impacted by the decline in industry.

The Department of Commerce has a proven record of leadership in responding to economic and natural disasters, working with federal, state, and local partners to help rebuild and strengthen the economic infrastructure in the affected communities where people have historically relied on local industry for good jobs and economic prosperity. This record includes comprehensive responses in regions negatively impacted by the downturn in the coal industry, the collapse of fisheries, and the Deepwater Horizon spill. Through these efforts, communities have been able to isolate their most important needs, assess and utilize the resources available, and receive advice and assistance from technical experts on best practices.

We appreciate your careful consideration of the productive and positive role the U.S. Department of Commerce could play in helping strengthen Maine's forest economy, building stronger rural economies and helping diversify the economic future of these impacted regions. Please notify Adam Lachman (Senator King) at (202) 224-5344 and Olivia Kurtz (Senator Collins) at (202) 224-2523 if you have any questions or concerns. We look forward to hearing from you about how the Commerce Department can lead a multiagency effort to support and strengthen the future of rural communities in Maine.

Sincerely,

  
Susan M. Collins  
United States Senator

  
Angus S. King, Jr.  
United States Senator

## APPENDIX G: ACRONYMS

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<i>AIM</i>	<i>American Iron &amp; Metal</i>
<i>AMC</i>	<i>Advanced Manufacturing Center</i>
<i>ARS</i>	<i>Agricultural Research Service</i>
<i>ATIP</i>	<i>Advanced Technological Innovation Partnership</i>
<i>AWP</i>	<i>Area-Wide Planning</i>
<i>CDFI</i>	<i>Community Development Financial Institutions</i>
<i>CEDS</i>	<i>Comprehensive Economic Development Strategy</i>
<i>CHP</i>	<i>Combined Heat and Power</i>
<i>CLT</i>	<i>Cross-Laminated Timber</i>
<i>CRSF</i>	<i>Center for Research on Sustainable Forests</i>
<i>DLT</i>	<i>Distance Learning and Telemedicine</i>
<i>DOE</i>	<i>U.S. Department of Energy</i>
<i>DOL</i>	<i>U.S. Department of Labor</i>
<i>DOT</i>	<i>U.S. Department of Transportation</i>
<i>EAA</i>	<i>Economic Adjustment Assistance</i>
<i>EDA</i>	<i>U.S. Economic Development Administration</i>
<i>EDAT</i>	<i>Economic Development Assessment Team</i>
<i>EDD</i>	<i>Economic Development District</i>
<i>EDI</i>	<i>Economic Development Integrator</i>
<i>EDR</i>	<i>Economic Development Representative</i>
<i>EIA</i>	<i>U.S. Energy Information Administration</i>
<i>EID</i>	<i>Economic &amp; Infrastructure Development</i>
<i>EPA</i>	<i>Environmental Protection Agency</i>
<i>ETA</i>	<i>Employment and Training Administration</i>
<i>ERLP</i>	<i>Economic Recovery Loan Program</i>
<i>FAME</i>	<i>Finance Authority of Maine</i>
<i>FASTLANE</i>	<i>Fostering Advancement in Shipping and Transportation</i>
<i>FBRI</i>	<i>Forest BioProducts Research Institute</i>
<i>FIA</i>	<i>Forest Inventory and Analysis Program</i>
<i>FPL</i>	<i>Forest Products Laboratory</i>

<i>HUBZone</i>	<i>Historically Underutilized Business Zones</i>
<i>HUD</i>	<i>U.S. Department of Housing and Urban Development</i>
<i>HVAC</i>	<i>Heating, Ventilation and Air Conditioning</i>
<i>IACMI</i>	<i>Advanced Composites Manufacturing Innovation Partnership</i>
<i>ITA</i>	<i>International Trade Administration</i>
<i>LTA</i>	<i>Local Technical Assistance Program</i>
<i>MDF</i>	<i>Maine Development Foundation</i>
<i>MEDEP</i>	<i>Maine Department of Environmental Protection</i>
<i>MMCD</i>	<i>Mobilize Maine Cluster Development</i>
<i>MOA</i>	<i>Memorandum of Agreement</i>
<i>MPUC</i>	<i>Maine Public Utilities Commission</i>
<i>NBRC</i>	<i>Northern Border Regional Commission</i>
<i>NDRF</i>	<i>National Disaster Recovery Framework</i>
<i>NIST</i>	<i>National Institute of Standards and Technology</i>
<i>NOFA</i>	<i>Notice of Funding Availability</i>
<i>NOSA</i>	<i>Notice of Solicitation of Applications</i>
<i>NRS</i>	<i>Northern Research Station</i>
<i>NTIA</i>	<i>National Telecommunications and Information Administration</i>
<i>OEDI</i>	<i>Office of Economic Development Integration</i>
<i>ORNL</i>	<i>Oak Ridge National Laboratory</i>
<i>PRIME</i>	<i>Program for Investment in Micro-Entrepreneurs</i>
<i>PSC</i>	<i>Partnership for Sustainable Communities</i>
<i>PTC</i>	<i>Production Tax Credit</i>
<i>RBDG</i>	<i>Rural Business Development Grant</i>
<i>RCDI</i>	<i>Rural Community Development Initiative</i>
<i>REAP</i>	<i>Rural Energy for America Program</i>
<i>RLF</i>	<i>Revolving Loan Fund</i>
<i>RUS</i>	<i>Rural Utilities Service</i>
<i>SBA</i>	<i>U.S. Small Business Administration</i>
<i>SBIC</i>	<i>Small Business Investment Company</i>
<i>SBIR</i>	<i>Small Business Innovation Research</i>

<i>SBV</i>	<i>Small Business Voucher</i>
<i>SDVOSB</i>	<i>Service-disabled Veteran-Owned Small Businesses</i>
<i>SEGF</i>	<i>Small Enterprise Growth Fund</i>
<i>SLA</i>	<i>Softwood Lumber Agreement</i>
<i>SSBCI</i>	<i>State Small Business Credit Initiative</i>
<i>STEP</i>	<i>State Trade Expansion Program</i>
<i>SWA</i>	<i>State Workforce Agency</i>
<i>TAP</i>	<i>Technical Assistance Program</i>
<i>TIF</i>	<i>Tax Increment Financing</i>
<i>TIGER</i>	<i>Transportation Investment Generating Economic Recovery</i>
<i>UMaine</i>	<i>University of Maine</i>
<i>USDA</i>	<i>U.S. Department of Agriculture</i>
<i>UT</i>	<i>Unorganized Territory</i>
<i>WIOA</i>	<i>Workforce Innovation and Opportunity Act</i>
<i>WOSB</i>	<i>Women-Owned Small Businesses</i>