

# MaineDOT Work Plan

Calendar Years 2013-2014-2015

February 2013



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0016

Paul R. LePage  
GOVERNOR

February 12, 2013

David Bernhardt  
COMMISSIONER

Members of the 126<sup>th</sup> Maine Legislature and Citizens of Maine:

The Maine Department of Transportation (MaineDOT) is pleased to present this \$1.812 billion *Work Plan for Calendar Years 2013-2014-2015*. This *Work Plan* provides projections of transportation resources and outlines MaineDOT's strategy to apply them to the planning, engineering, construction, operation and maintenance of all modes of Maine's transportation infrastructure. For the first time, we are presenting a *Work Plan* that discusses *all* MaineDOT activities and investments, and not just the capital program. While the essence of the new *Work Plan* continues to be project lists, we also provide an overview of *all* of MaineDOT's planned expenditures. These include system maintenance (e.g., plowing, ditching) and support functions. The new *Work Plan* supports MaineDOT's mission, "To responsibly provide our customers with the safest, most reliable transportation system possible, given available resources."

Additional improvements introduced in this *Work Plan* include a shift from a state fiscal year to a calendar-year cycle, and increasing the time period covered by the *Work Plan* from two to three years. The change to a calendar year better aligns the *Work Plan* with the construction season, which begins in the spring and continues into October. The calendar-year cycle also makes the *Work Plan* more user-friendly for our customers and transportation partners. Calendar Year 2013 (CY 2013) project listings contain specific details related to construction and delivery schedule. CY 2014-2015 projects are typically those that are currently in development and likely to be constructed when funding becomes available. First-year projects are "locked in" and will be constructed in that year, while the schedule for second- and third-year projects is less certain, as it is contingent on funding availability. The *Work Plan* will be updated annually, increasing our ability to make changes based on federal policy fluctuations, in infrastructure condition and in funding. This provides our customers with more confidence about project outcomes and schedules.

This *Work Plan* invests over \$1.812 billion, with \$953 million in highway and bridge capital, \$392.6 million for maintenance and operations, and \$157.8 million in multimodal capital projects. The *Work Plan* also includes \$89 million in multimodal operational funding. This *Plan* seeks to provide the highest customer return-on-investment. MaineDOT's approach is to prioritize needs, and to direct resources to where they can have the greatest customer impact, while ensuring all Maine's citizens have adequate access to the transportation system.

We at MaineDOT are committed to implementing this *Work Plan* in accordance with our core values of *Integrity*, *Competence* and *Service*. Please contact us with any questions you may have, and we will do our best to answer them. Thank you for your ongoing support, which enables us to address the needs of our customers, the users of Maine's transportation system.

Sincerely,

David Bernhardt  
Commissioner



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# **MaineDOT Work Plan**

Calendar Years 2013-2014-2015

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## I. The New Work Plan

The Maine Department of Transportation's (MaineDOT) new *Calendar Year 2013-2014-2015 Work Plan (Work Plan)* supports the department's mission, "To responsibly provide our customers with the safest, most reliable transportation system possible, given available resources." This *Work Plan* contains projections of transportation resources (federal, state, other) and MaineDOT's strategy to apply them to the planning, engineering, construction, operation and maintenance of transportation infrastructure of all modes throughout Maine. The *Work Plan* emphasizes focusing scarce transportation resources on existing critical infrastructure needs—primarily roads and bridges—to the greatest extent possible.

This *Work Plan* contains several significant improvements over prior *Capital Work Plans*. For the first time, MaineDOT is presenting a *Work Plan* that discusses all of the department's activities and investments, and not just the capital program. While the essence of this new *Work Plan* will continue to be project lists, sections IV, V and VI provide additional information about all of MaineDOT's planned expenditures. These include transportation system maintenance (e.g., plowing, ditching,) and the costs associated with MaineDOT's support functions. The intent is to increase transparency in all areas of the department's operation. The new *Work Plan* enumerates all location-specific, planned-work projects, with work descriptions and anticipated budgets.

Other improvements introduced in the new *Work Plan* include a shift from a state fiscal year to a calendar-year focus, and increasing the time period covered by the *Work Plan* from two to three years. The change to a calendar year makes the *Work Plan* more user-friendly for our customers and transportation partners. CY 2013 project listings contain specific information on project construction and delivery schedule. CY 2014-2015 projects are typically those that are currently in development, planned projects that will happen if funding assumptions in this *Work Plan* are realized. First-year projects are "locked in" and will be constructed in that year, while the schedules for second- and third-year projects are yet to be locked down. The *Work Plan* will be updated annually, increasing our ability to make adjustments based on policy changes at the federal level, changes in infrastructure condition and changes in funding. This will give our customers more confidence about project outcomes and schedule, because they know what to expect.

The link between year of *Work Plan* and degree of commitment will be reinforced by MaineDOT's financial partnerships. For instance, MaineDOT currently has a Municipal Partnership Program and is launching a similar program aimed at facilitating business growth and retention, both of which are discussed in Section III. While specific, identified, feasible projects show in the first year of the *Work Plan*, the outer years will reflect goals for various programs, based on available funding. MaineDOT also partners with Maine's four Municipal Planning Organizations, which is also discussed in Section III. As MaineDOT implements this more practical *Work Plan* approach, resource-allocation decisions, such as adding more new money to the second and third of any program, will factor in the program's ability to spend down prior funding.

Lastly, the new *Work Plan* further reflects Commissioner Bernhardt's philosophy to stretch existing funding, to measure our progress, and to focus on what our customers want, rather than on what we have done in the past. This *Work Plan* seeks to provide the highest customer return-on-investment. Our approach is to prioritize transportation needs and to direct available resources to where they can have the most benefit, while ensuring that all Maine's citizens have adequate access to the transportation system. MaineDOT's core values of Integrity, Competence and Service reflect the department's customer focus, and our commitment to build trust and accountability. These values are instrumental for Maine to truly maximize investment in the transportation system.

To meet the needs of our customers, this *Work Plan* increases emphasis on Highway Corridor Priority and Customer Service Levels by asking two simple questions:

- What is the priority of the roadway (or other transportation asset)?
- Given its priority, what level of service can customers reasonably expect?

**Highway Corridor Priority** - Intuitively, we consider our Interstate highways to be more important to the economy than smaller roads with less traffic. The Interstate must be wider, straighter, stronger, and smoother. Though every road is important to someone, most can agree that we need to use objective, understandable criteria to determine investment priority. To determine highway priority, MaineDOT uses straightforward, common-sense factors, including the economic importance of the road, federal functional classification, heavy-haul truck use, and the relative amount of relative traffic on the road. With this and other data, MaineDOT has classified all 23,457 miles of Maine public highways in six *Highway Corridor Priority (HCP)* levels.

- **HCP 1** roads include the Maine Turnpike, the Interstate Highway System, and key principal arterials like Route 1 in Aroostook County, Route 9 in Washington County, Route 2 west of Newport and Route 302 in Western Maine. The 1,750 miles of HCP 1 roads represent only 7% of the miles, but carry fully 41% of all vehicle miles traveled (VMT) in Maine.
- **HCP 2** roads total about 965 miles. They are non-Interstate, high-value arterial highways that represent about 4% of the total miles of road but carry 12% of overall traffic.
- **HCP 3** roads generally are the remaining arterials and most significant major-collector highways. These 1,982 miles represent only 8% of miles, but carry 17% of the traffic.
- **HCP 4** roads generally are the remainder of the major collector highways, often also on Maine's unique "State Aid" system, on which road responsibilities are shared between the state and municipalities. These 1,961 miles represent about 8% of total miles, and carry 9% of the traffic.

Combined, HCP 1-4 roads are only 28% of public road miles, but carry 79% of all the vehicle miles traveled (VMT) in Maine.

- **HCP 5** roads are 2,405 miles of minor-collector highways, almost all on the State Aid system. They represent 10% of miles, but carry only 8% of traffic.
- **HCP 6** roads are local roads and streets, and are the year-round responsibility of municipalities. Though they carry just 13% of the statewide traffic, these 14,394 miles make up 61% of the total road miles in Maine. Although this sounds like a lot, Maine

actually has the lowest percentage of local roads among New England states, and the 9<sup>th</sup>-lowest percentage in the nation. By comparison, 74% of New Hampshire roads are local.

The miles and traffic related to each HCP level are summarized in the following table.

HIGHWAY CORRIDOR PRIORITIES SUMMARY							
PRIORITY	MILES (CL)	MILES	CUMULATIVE MILES	VMT (BILLIONS)	VMT	CUMULATIVE VMT %	AVERAGE VMT / MILE (THOUSANDS)
1 - MTA	247	1%	1%	1.3	9%	9%	5,408
1 - DOT	1,503	6%	7%	4.7	32%	41%	3,094
2	965	4%	12%	1.7	12%	53%	1,759
3	1,982	8%	20%	2.4	17%	70%	1,234
4	1,961	8%	28%	1.3	9%	79%	688
5	2,405	10%	38%	1.1	8%	87%	472
6	14,394	61%	100%	1.8	13%	100%	128
TOTAL	23,457	100%		14.5	100%		

**Customer Service Levels** - MaineDOT's prioritization process relates the Highway Corridor Priority of a road to easy-to-understand *Customer Service Levels (CSL)*, using an A-through-F scale. The CSL of a roadway is determined using existing data on the safety, condition, and service of the road. The result is a consistent measure of how a road compares to other roads of the same HCP across the state.

This system of Highway Corridor Priority and Customer Services Levels provides an intuitive framework for selecting highway-improvement projects and improvements to features along our highways, including bridges, intersections, guardrail, lighting and other assets. Along with other considerations in project selection, the HCP/CSL framework helps us to focus resources on the most-needed projects, and to refine long-term capital goals and needs. The HCP/CSL system also serves a major role in allocating highway maintenance staff and resources. Additional information about HCPs/CSLs is available at <http://www.maine.gov/mdot/about/assets/hwy/>.

On the HCP/CSL foundation, the department builds a *Work Plan* that also includes local involvement. Specifically, all Maine municipalities, Metropolitan Planning Organizations, Indian Nations and Tribes, and County Commissioners (for Maine's Unorganized Territories) are asked to submit project candidates in order of their priority. This outreach was undertaken for this *Work Plan* in early 2012. MaineDOT also conducts various planning studies, as well as technical assessments (e.g., bridge inspections and pavement-condition evaluations), to identify project candidates.

During the prioritization of project candidates, MaineDOT considers several questions:

- What is the HCP, where applicable, of the candidate project?
- What is the CSL, where applicable, of the candidate project?
- Does the candidate project address a demonstrated safety issue?
- Does the candidate project represent a public-private or public-public partnership that will stretch scarce transportation resources?
- Does the candidate project relate to economic activity and job growth?
- Is the candidate able to proceed to construction within the next two years, based on potential environmental documentation and permitting?
- Does the potential project preserve an element of the existing transportation system (such as replacing a failing bridge or protecting an already-existing transportation investment)?
- Are there funds restricted to a specific project or is there a federal program that mandates certain types of investment?

MaineDOT staff continuously develops and analyzes the answers to these questions to build the department's *Work Plan*, which is now a comprehensive three-year document that will be updated annually.

## II. Financial Resources

Funding levels projected in this CY 2013-2014-2015 *Work Plan* are consistent with MaineDOT's previously approved State Fiscal Year 2013 budget, and anticipated State Fiscal Year 2014-2015 budgets as submitted to the Legislature by Governor Paul R. LePage. The federal share, approximately 44%, is based on the current federal surface transportation authorization, *MAP-21*, which became law in July 2012. Certain variances exist from the budget because the *Work Plan* includes some funding that does not go through the state budget system such as several types of federal funding, bonds and funding from the Maine Turnpike Authority. Additional explanations for changes are differences between calendar year and fiscal year, billing cycles and one-time payments. Also, please note that *Work Plan* project listings represent the entire funded value of a project, and not just construction value. For example, a project funded for construction in this *Work Plan* will also show its funding for preliminary engineering, which may also have shown in a prior *Work Plan*.

\$ in millions	State	State Bond	Federal	Other*	Total
Highway and Bridge Capital	185.0	121.0	597.0	50.0	953.0
Highway/Bridge Maintenance	377.9		14.7		392.6
Multimodal Capital	13.3	30.5	87.4	26.6	157.8
Multimodal Operations	21.1		36.8	31.1	89
Debt Service	61.7		48.4		110.1
Local Road Assistance	75.0				75.0
Administration	34.9				34.9
Total	768.9	151.5	784.3	107.7	1,812.40

While CY 2013 project funding appears secure, and CY 2013 projects are expected to move to construction this year, CY 2014-2015 projects are contingent upon the availability of future funding. CY 2014-2015 projects could move forward to construction within those years, or they could be deferred, depending on the availability of state and federal funding. If Maine government decides not to sell an existing \$51.5 million General Fund Bond or if policy makers do not provide General Obligation Bonding as approved or proposed, MaineDOT will present a CY 2014-2015-2016 *Work Plan* with significantly fewer projects than currently proposed. And, as MaineDOT continues efforts to identify cost savings, and if policy actions at the federal or state level translate to additional transportation funding, the department may be able to fund a more robust CY 2014-2015-2016 *Work Plan* in 2014.

### **III. Capital-Investment Projects**

This *Work Plan* includes \$1.1 billion in capital-investment projects (\$953 million highway/bridge and \$157.8 million multimodal). Capital projects are generally major investments with a definite beginning and end date, have a useful life of ten years or more and provide an improvement to the transportation system. Examples of capital investments include bridge replacement, highway reconstruction, construction of new sidewalks, acquisition of passenger ferry boats and major improvements to aviation or transit facilities. The majority of capital projects in this *Work Plan* have, or are undergoing engineering, and will be certified by a professional engineer licensed in the state of Maine. Most will then be constructed by private contractors, selected using a competitive bidding process.

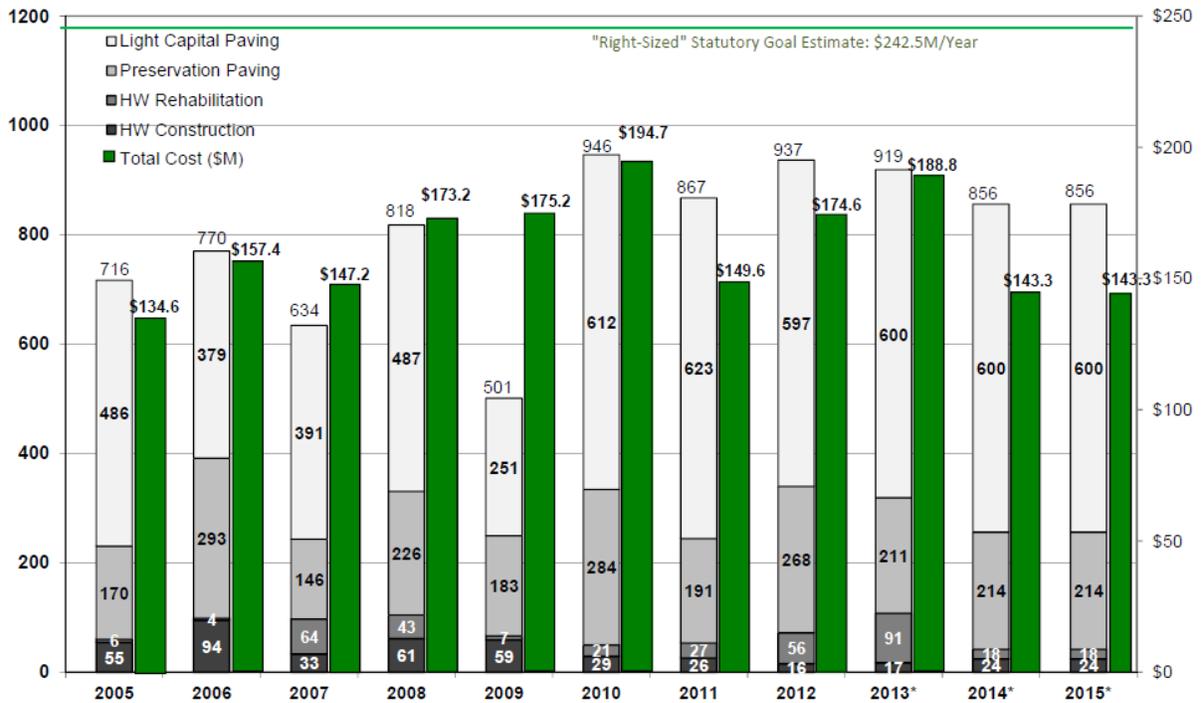
#### **Highway and Bridge Capital Investments**

Maine is a large, mostly rural state with its population spread over a large land area. Our state's diverse geography, with thousands of miles of coastline, islands, lakes, rivers and mountains, makes Maine a unique and wonderful place to live and visit, but these geographic features can also act as costly barriers to developing and maintaining a comprehensive transportation system.

**Highway Improvements** - The most extensive component of Maine's transportation system is the state's highway network. Maine's need to invest in developing, upgrading, and maintaining this infrastructure is significant, as the vast majority of people and commodities travel over highways. Highway preservation, rehabilitation paving, highway construction and reconstruction, highway safety and spot improvements, and light capital paving all fall in the general category of highway improvements.

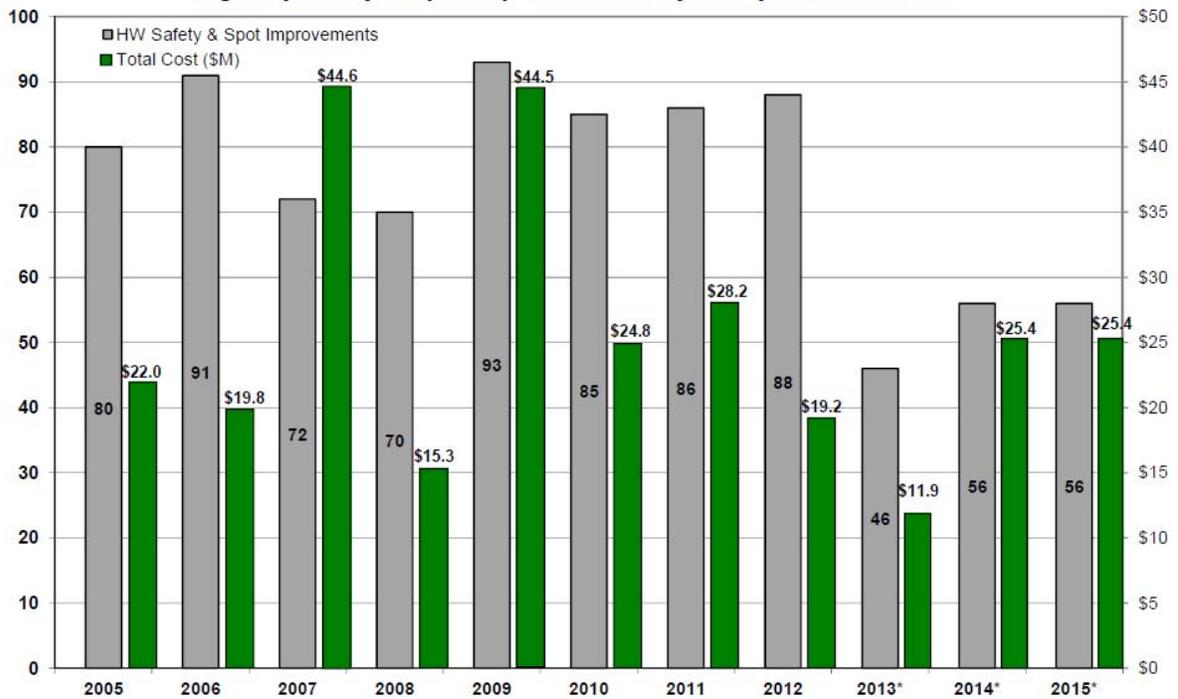
The following charts illustrates the type and number of miles of highway capital projects included in this *Work Plan* compared to highway delivery since Calendar Year 2005. They also provide the annual average investment level associated with MaineDOT's statutory investment goals under Sec. B-2. 23 MRSA §73, sub-§7:

### Miles of Highway Treatment by Calendar Year



\*Projected as of 2/7/2013

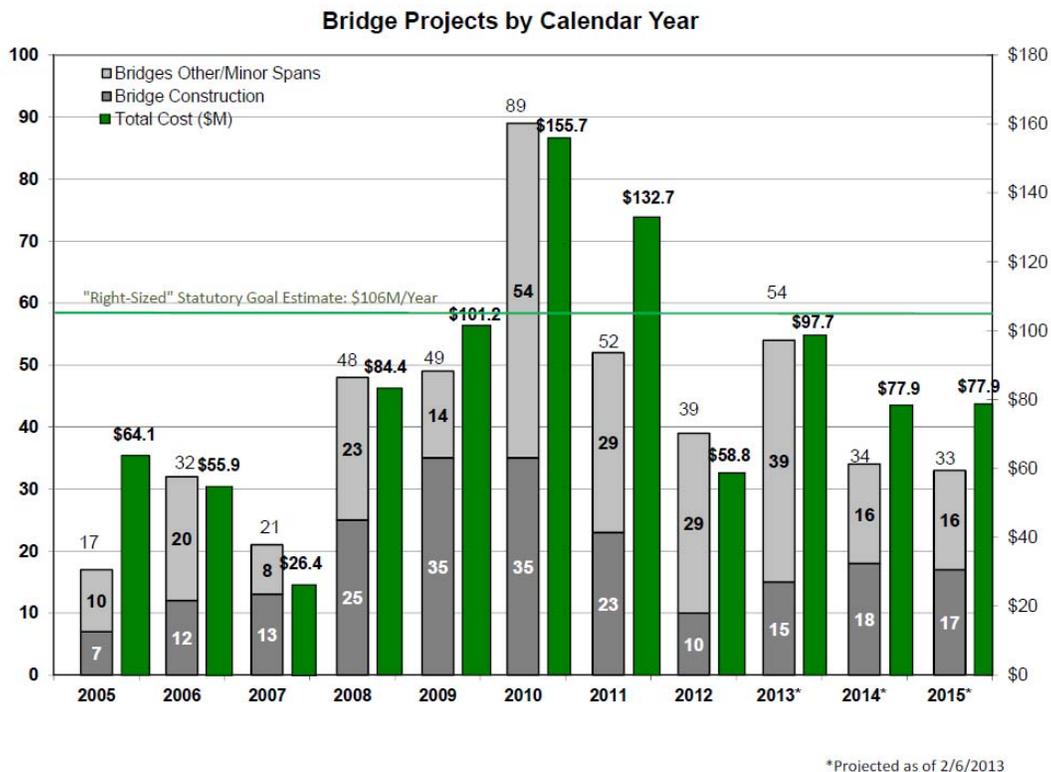
### Highway Safety & Spot Improvement Projects by Calendar Year



\*Projected as of 2/6/2013

**Bridge Improvements** - Because of Maine’s topography and numerous waterways, bridges are vital. Bridges connect dozens of communities throughout the state, and any bridge that is posted or closed represents lost productivity and inconvenience due to time-consuming detours. Improvements to bridges may also be coordinated with highway improvements to achieve cost savings and minimize traffic disruptions. MaineDOT has complete or partial responsibility for 2,728 bridges.

The following table illustrates the type and number of bridge capital projects included in this *Work Plan* compared to bridge delivery since Calendar Year 2005. It also provides the annual average investment level under Sec. B-2. 23 MRSA §73, sub-§7:



## Partnership Opportunities

MaineDOT actively collaborates with transportation partners to identify efficiencies, leverage additional resources and improve the transportation planning and project development processes. This *Work Plan* continues MaineDOT’s Municipal Partnership Program and its relationship with MaineDOT’s Metropolitan Planning Organizations (MPOs), and will also create a new Business Partnership Initiative.

**Municipal Partnership Initiative** - The Municipal Partnership Initiative (MPI) began in 2012 as a creative means to develop, fund, and build projects of municipal interest on the state

infrastructure system with MaineDOT as a partner. The MPI is a simple, flexible, and fast-moving program that responds to municipal interests, leverages economic opportunities, and improves safety, whenever possible, while ensuring the public gets good value for its tax dollars. This *Work Plan* includes \$10 million in new funding for the MPI program.

**Business Partnership Initiative** - Based on the success of the MPI, MaineDOT will provide in the coming months details regarding a Business Partnership Initiative (BPI), which is funded for \$4 million in this *Work Plan*. The BPI's goals will be to encourage new business, business expansion and business retention through partnerships in transportation investment.

**Metropolitan Planning Organizations** - Based on the U.S. Census, the Federal Highway Administration (FHWA) has designated four Metropolitan Planning Organization (MPO) planning areas in Maine, serving the Kittery, Portland, Lewiston-Auburn and Bangor metropolitan regions. MaineDOT currently partners with these organizations by providing them with an allocation of federal and state funding, with which they subsequently select projects through their local committees.

A total of \$53.4 million in federal, state and local funding is included in this *Work Plan* for projects selected by those MPOs, and will be distributed as follows:

- Kittery Area Comprehensive Transportation Study (KACTS), \$4.5 million
- Portland Area Comprehensive Transportation System (PACTS), \$26.6 million
- Androscoggin Transportation Resource Center (ATRC), \$16.3 million, and
- Bangor Area Comprehensive Transportation System (BACTS), \$6 million

## **Multimodal Capital Investments**

Given customer needs and available resources, this *Work Plan* necessarily focuses the great majority of scarce transportation funding on managing Maine's sprawling existing system of highways and bridges. However, MaineDOT also uses dedicated federal and other funds to support the development and operation of a safe, efficient, and cost-effective *multimodal* transportation system including ports, rail, aviation, public transit, ferries, and bicycle/pedestrian facilities. This *Work Plan* provides an estimated \$158 million for multimodal capital improvements. Further, additional multimodal capital investments may be possible if currently-proposed general obligation bonds yield actual funding.

**Ports and Marine Investments** - This *Work Plan* includes \$7.5 million in marine-freight investments for land-side and marine improvements to coastal public marine facilities. Projects and programs include:

- \$3 million for dredging the established commercial channel at Searsport, which serves the existing port operation at Mack Point; and for potential port development on Sears Island, which will make Maine eligible for at least \$10 million in federal matching funds
- \$2 million for material-handling equipment for the port at Mack Point to be matched by at least \$2 million from private sources
- \$1.5 million for warehousing facilities at the Port of Eastport

- \$1 million for the Small Harbor Improvement Program (SHIP), a state and local grant program focused on waterfront improvements in coastal communities to help ensure the viability of Maine’s working harbors.

**Freight Rail** - Freight rail service is an important component of the freight transportation mix in Maine, since it is particularly cost-effective when moving high-volume, low-value commodities over long distances. Freight rail provides shippers with a transportation alternative to highway transport when moving products to market and moving raw materials inbound to production facilities. This *Work Plan* provides an estimated \$2.5 million for the successful Industrial Rail Access Program (IRAP). IRAP is a minimum 50-50-share, public-private partnership program, meaning the state funds will leverage an additional \$2.5 million in private funding.

**Aviation** - This *Work Plan* also provides \$5 million in state funding to support grants for infrastructure improvements at publicly owned airports throughout the state, leveraging \$4.1 million in local funding and about \$70 million in Federal Aviation Administration funds. Projects include runway and taxiway reconstruction, safety improvements, and other enhancements to improve airport access, support economic development, and improve the safety of air services in Maine. In addition, the *Work Plan* provides limited funding for pavement preservation that will protect and extend the life of previous investments.

**Transit** - Maine’s local transit providers own and operate more than 400 transit vehicles, with a combined a replacement value of more than \$50 million. Though title to these vehicles now resides with Maine’s local and regional transit providers, MaineDOT oversees procurement and proper management of the state fleet, ensuring compliance with federal requirements and thus, continued eligibility for federal transit funding. Over 100 of these vehicles have reached or exceeded their useful lives and yet, are still in service. In addition, demand for transit and transit ridership has been increasing with demographic changes and as the cost of fuel increases.

**Bicycle and Pedestrian Facilities** - The new *Work Plan* also provides \$10.4 million for projects and initiatives that promote bicycle and pedestrian safety including sidewalk construction, highway bicycle lanes, and the federally funded Safe Routes to School Program.

## **IV. Highway/Bridge Maintenance and Operations**

Maine’s highway and bridge system is the backbone of the Maine economy, and is a critical asset for all citizens and businesses. The vast majority of people and goods in Maine, including about 87% of all freight, moves over the state’s 23,400 miles of public roads. It would cost tens of billions of dollars to replace our highway and bridge network today. While more attention is often given to multi-million-dollar highway reconstruction projects or the opening of new highways, the routine maintenance and operations activities summarized below are some of MaineDOT’s most cost-effective investments.

While an approximate annual budget figure is provided with each category, actual expenditures are directly related to the environment and infrastructure conditions. For example, the frequency and duration of snowstorms dictate how much money is spent on winter maintenance. Likewise, events like hurricanes, floods, and sink-holes may also change priorities and budgeted amounts.

MaineDOT continues to aggressively manage its maintenance budget to achieve cost savings wherever possible. Over the past five years, MaineDOT has been able to reallocate almost \$7.9 million from its maintenance program to capital projects. While almost 75% of MaineDOT employees are line workers within the Bureau of Maintenance and Operations, the department still contracts out a variety of equipment and services. These efforts are typically much smaller than capital projects, and have a lesser degree of federal process requirements, consequently affording opportunities for smaller Maine contractors that may be more favorable for them than the larger, federal capital projects.

**Winter Maintenance** - Winter Maintenance includes all activities associated with snow-and-ice control, and monitoring highways for hazardous conditions cause by winter weather. These activities are essential to keeping Maine's highways safe and its economy moving. MaineDOT is responsible for providing snow-and-ice control on 8,350 lane-miles of highway. MaineDOT utilizes Highway Corridor Priorities (HCPs) as the primary basis for determining the extent of snow-and-ice control services on given highways. The level of service associated with each HCP defines the average plow-route lengths, cycle times, and target travel-speeds during a winter event. Over CY 2013 through 2015, MaineDOT anticipates an approximate annual need of \$32.7 million for snow-and ice control. In the past three years, we averaged 1.6 million lane-miles of plowing and ice control, requiring the processing and transportation of 835,000 cubic yards of anti-icing and de-icing materials.

**Drainage Maintenance** - If water reaches a highway's base during freeze-and-thaw cycles, the highway will quickly deteriorate, regardless of the most recent paving. Drainage activities are focused on removing water from the highway structure and represent the single most essential strategy for extending the longevity of the road. These activities include all forms of ditching, drainage maintenance, and installation and replacement of pipes. MaineDOT anticipates spending an annual sum of approximately \$18.8 million over CY 2013 through 2015 to ditch approximately 850 miles, repair or replace approximately 2,200 drainage structures, and clean roughly 10,000 additional structures. In the past three years, the department's annual average output has included 704 miles of ditch restoration with excavators and graders, and repair or cleaning of 22,000 drainage structures such as catch basins, culverts and sluices.

**Crew Operations** - Crew Operations includes work planning, preparation, management, and documentation across numerous maintenance activities. This work is analogous to a blend of preliminary engineering and construction engineering for capital projects, and it accounts for roughly 40 percent of this category's cost. The remainder of this category is comprised of several activities relating to the equipment for and material support of numerous projects across the entire annual program. This includes transporting equipment, producing and stockpiling materials, equipment standby, and some aspects of equipment service and repair. MaineDOT anticipates spending an annual sum of approximately \$18.3 million over CY 2013 through 2015 to support crew operations.

**Custodial Maintenance** - Custodial Maintenance includes activities aimed at keeping transportation assets operational and in good repair to ensure that their service life is maximized. Patrolling and inspecting of the highways for debris and defects is one of the primary activities, along with sweeping, cleaning and washing of bridges, and all aspects of vegetation management. These activities are essential for maximizing the life cycle of the assets, and

minimizing future maintenance and capital costs. MaineDOT anticipates that approximately \$13.25 million will be required annually for custodial maintenance over CY 2013 through 2015. Over the past three years, the department's annual average output has included 194 shoulder-miles of brush control, 11,000 shoulder-miles of sweeping, mowing, and litter control, and 1,000 bridges cleaned and washed.

**Surface and Base Maintenance** - Many of MaineDOT's lower-HCP corridors have never been constructed with proper drainage and sufficient base-gravel materials to sustain heavy loads year-round. In addition, Maine's seasonal freeze-and-thaw cycles and occasional extreme weather events routinely create localized defects that require regular attention. Therefore, MaineDOT's Bureau of Maintenance and Operations budget includes a number of work activities to address potholes, rutting, and delamination of the pavement surface. The work in this category also includes the grading of shoulders and gravel roads, trucking and placing hot-mix asphalt, and sealing cracks. Based on current funding levels and the typical system-wide surface and base issues experienced in an average year, MaineDOT anticipates spending approximately \$9.9 million annually over CY 2013 through 2015. Over the past three years, our annual average output has included the placement of 18,000 tons of cold patch, 3,700 miles of rebuilt or graded gravel shoulders, and the preparation and edge back-up of 600 miles of Light Capital Paving.

**Operational and Safety Maintenance** - Operational and safety maintenance primarily relates to traffic control, delineation and protection of the traveling public. These activities include signage, traffic signal maintenance, highway lighting, striping, and the installation and maintenance of guardrail and crash cushions. Based on projected available funding, MaineDOT anticipates spending approximately \$9.8 million annually over CY 2013 through 2015. Over the past three years, our annual average output has included 22,000 miles of roadway striping, 4.2 acres of painted pavement legend (arrows, stop lines, etc.), 59,000 linear feet of guardrail or fencing installed or maintained, and 31,000 signs installed, reset or repaired.

**Bridge and Structural Maintenance** - Bridge and Structural Maintenance includes investments to prevent or repair routine problems and to extend a bridge's useful life until capital funding becomes available for a replacement. Examples of bridge and structural maintenance include but are not limited to bridge deck repair, deck sealing, cleaning and resealing joints, structure repair and spot painting. MaineDOT is responsible for over 2,900 bridges and minor spans. Based on available projected resources, MaineDOT anticipates that approximately \$8.7 million will be required annually for bridge and structural maintenance over CY 2013 through 2015. Over the past three years, our annual average output included repairing or replacing various elements on 540 separate bridges, including 85,000 square feet of wearing surface, 1,400 linear feet of main support members and 1,800 linear feet of joint replacement.

**Buildings and Lot Maintenance** - MaineDOT owns over 600 buildings, which range in size from small crew-quarters buildings to Region Offices. The department also owns over 100 building lots. These facilities serve as the base for offices, material stockpiles and equipment. Over the past several years, MaineDOT has worked to consolidate and optimize crew locations based on seasonal workloads (winter versus summer maintenance) and to optimize crew response time to winter and emergency events. Building and lot maintenance expenditures include modifications to facilities to handle crew and equipment changes, utility and heating costs, and general maintenance items such as roofing, siding, and the construction of additions or

new buildings. MaineDOT anticipates that approximately \$8.5 million will be required for building and lot maintenance annually over CY 2013 through 2015.

**Employee Education and Training** - Employee Education and Training is essential to ensuring that work is done safely and efficiently, and is the foundation of a competent and efficient workforce. Approximately 40% of the training provided for the MaineDOT work force is mandatory in order to meet state and federal standards for environmental and safety training. MaineDOT recently completed and implemented a new worker-classification system, reducing classifications from seven rigid specialties with seniority-based promotions, down to three flexible, merit-based job classifications. Now the Bureau of Maintenance and Operations is better able to adjust the work force as seasons change and priorities shift. Advancement is merit-based and designed to build an employee culture of professionalism, pride and willingness to mentor new and/or less-experienced workers. Results of the reclassification impacted nearly 900 crew employees, which allowed 35 FTE positions to be eliminated. Based on estimated resources, MaineDOT anticipates the need to spend \$5.1 million annually on Employee Education and Training over CY 2013 through 2015. This budget amount represents over 3% of the Bureau of Maintenance and Operations budget, and includes all aspects of developing and providing training.

**Data Collection and Processing** - Data Collection and Processing encompasses the activities used in transportation system planning and maintenance. All direct costs for collection, analysis, and reporting of traffic data, and any and all work associated with conducting traffic studies in support of the department's operations is captured under this grouping. Much of this data collection and analysis is federally mandated and federally funded. It also supports MaineDOT's utilization of HCPs and CSLs in decision-making, with particular attention to developing regional spending allocations. Based on estimated resources, MaineDOT anticipates spending \$1.1 million annually during CY 2013 through 2015. Over the past three years, the department's annual output has included 9,100 highway asset inspections, 190 underwater inspections and 800 dry bridge inspections.

**Infrastructure Inspections and Inventory** - As described in the earlier discussion of HCPs and CSLs, MaineDOT applies a common-sense, data-driven approach to investment decisions. Although some data, such as traffic counts, pavement condition, and travel speeds may be systematically collected utilizing various technologies, other types of data require periodic inspections. These inspections may require highly specialized equipment to reach isolated areas, or even underwater components, of transportation assets. MaineDOT anticipates the need to spend \$.62 million annually during CY 2013 through 2015 on infrastructure inspections and inventory.

**System Operations** - System Operations includes a diverse list of activities that keep our transportation system and corridors operating efficiently. They include various forms of statewide permitting, operation of moveable bridges, traffic engineering, and emergency response. MaineDOT anticipates that \$4.1 million will be required annually over CY 2013 through 2015.

**Highway and Bridge Maintenance-Level Projects** - While the majority of the investments above are either demand-response actions or systematic, such as striping every highway every year, this *Work Plan* includes almost \$24.6 million in highway and bridge location-specific maintenance projects. The primary difference between *capital* and *maintenance* projects in this

*Work Plan* is that Capital Projects typically have a much longer useful life and higher per-unit (mile, bridge) cost than maintenance activities. The maintenance projects identified for this *Work Plan* will occur in CY 2013 as summarized in the table below. MaineDOT will provide a list of CY 2014 location-specific projects when this *Work Plan* is updated next year. Please note that these activities may either be contracted out or accomplished by MaineDOT staff.

	<b>Miles/Projects</b>	<b>Total Cost</b>
<b>Surface and Base Maintenance</b>	28 Miles	\$ 493,333
<b>Drainage Maintenance</b>	860 Miles	\$ 10,640,680
<b>Custodial Maintenance</b>	15 Miles	\$ 100,356
<b>Light Capital Paving Support Activities</b>	611 Miles	\$ 4,286,868
<b>Highway Rehabilitation Support Activities</b>	39 Miles	\$ 3,755,198
<b>Bridge and Structural Maintenance</b>	44 Projects	\$ 5,253,603
<b>Department Building and Lot Maintenance</b>	6 Projects	\$ 117,000
		\$ 24,647,038

## V. Multimodal Operations

MaineDOT's Multimodal Support includes its support for the *Downeaster* Passenger Rail, Maine's Transit Network, Ferry Service Operations, and statewide commuter service.

**Rail Operations** - Maine's *Downeaster* conducts five daily round trips from Portland to Boston. In 2012, the *Downeaster* extended service from Portland to Brunswick and added two daily round trips. Federal law currently allows FHWA Congestion Mitigation and Air Quality (CMAQ) resources to fund rail operating costs in addition to projects such as intersection mobility improvements, variable message signs, and park and ride facilities. This *Work Plan* provides \$29.6 million in funding as follows:

- \$23.7 million in CMAQ Federal Highway Administration Funding to be transferred to the Federal Transit Administration
- \$5.9 million from the state Multimodal Passenger Rail Account

**Transit Operations** - As referenced in MaineDOT's 2011 Biennial Operation's Plan, Maine has 20 transit providers through the state providing coordinated service to everyone, including commuters, tourists, the elderly and individuals with disabilities. These services enhance employment and recreational options for residents and visitors alike providing a viable transportation alternative as gas prices increase. The biennial transit operations *Work Plan* provides \$73 million in funding as follows:

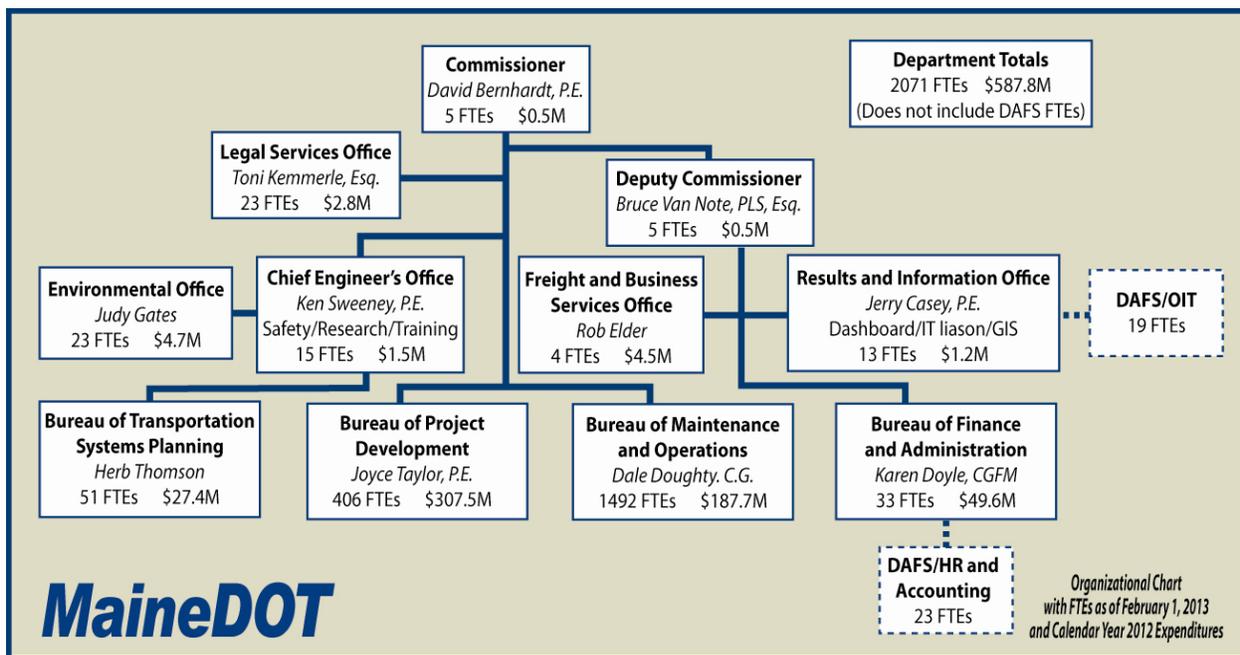
- \$47 million in capital/operation/administrative funding from the Federal Transit Administration
- \$20.5 million in local matching funds
- \$5.6 million in funding from the state Multimodal Transit Account

**Ferry Service Operations** - The Maine State Ferry Service (MSFS) provides transportation between the mainland and the islands of Islesboro, North Haven, Swan’s Island, Vinalhaven, Frenchboro and Matinicus. Ferry service is provided for about 2,553 year-round residents (2010 Census) plus a substantial number of summer residents and visitors.

This *Work Plan* provides \$29.3 million in operations funding of which approximately 50% comes from user fees and approximately 50% is derived from the Highway Fund.

**GOMaine Operations** - GOMaine is Maine’s statewide commuter service, providing access to healthy, economical and eco-friendly options for commuting to and from work, as an alternative to the single-passenger vehicle. GOMaine assists commuters across Maine find practical commuting modes that save money, energy, and vehicle wear-and-tear, like carpools, vanpools, transit and bicycling. It is anticipated the Maine Turnpike Authority will be administrating the continued operation of GOMaine.

## VI. Organizational Overview and Expenditures



MaineDOT is organized around four main bureaus that mirror the department’s production flow: the Bureau of Transportation Systems Planning, the Bureau of Project Development, the Bureau of Maintenance and Operations, and Bureau of Finance and Administration. The department is headed by a small Executive Office staff comprised of the Commissioner, Deputy Commissioner and Chief Engineer. Other small but essential work units exist to ensure that all legal, strategic and management goals are met.

The MaineDOT organizational chart below provides a perspective of department activities in terms of personnel and funding. The charts shows the number of full-time equivalent (FTE)

positions associated with each work unit as of February 1, 2013 as well as a snapshot of expenditures associated with that work unit for CY 2012, which are discussed in more detail below. The numbers are in an ongoing state of change. The proposed *Fiscal Year* 2014-2015 state budget includes more elimination of vacant positions, and expenditures can vary widely year to year, depending on funding, project billing cycles and one-time payments. However, the chart provides a broad perspective of funding use and employees' location in the organization.

### **MaineDOT Executive Office**

MaineDOT's Executive Office leads all critical MaineDOT functions to promote a sense of accountability and customer focus. It includes MaineDOT's Commissioner, Deputy Commissioner and Chief Engineer.

### **Chief Engineer's Office**

The Chief Engineer's Office provides direction to MaineDOT staff through setting statewide transportation engineering standards and polices, ensuring that MaineDOT's engineered products are safe and cost-effective, and expanding engineering excellence through innovation, research and calculated risk-taking.

### **Bureau of Transportation Systems Planning**

MaineDOT has shifted its planning emphasis in recent years, enabling planning to be accomplished with reduced staff by prioritizing and eliminating work of lesser value, that is not fiscally viable or that can be done by the private sector. Examples include termination of the Gateway 1 planning study and the Wiscasset Bypass project, transition of the GOMaine Vanpool Program to the private sector, and working with federal regulators to consider that the only alternatives evaluated during planning initiatives are fiscally viable.

MaineDOT's current planning program emphasizes development of customer-oriented policies, plans and programs to best meet Maine's transportation needs, given available resources. Major activities include:

- Coordinating the development, resource allocation, project selection and publication of MaineDOT's annual *Work Plan*
- Preparing federally mandated reports, plans, public-involvement activities and programs to ensure the continued eligibility for federal transportation program funding
- Planning, coordinating and managing transit operations across the state
- Leading individual, site-specific major investment studies

In addition to MaineDOT staff costs, the \$27.4 million in planning expenditures includes \$11.3 million in transit operating grants, \$4.7 million in improvements and administration at the Augusta State Airport and \$3.5 for Metropolitan Planning Organizations and Regional Planning Organizations.

### **Bureau of Project Development**

MaineDOT's Bureau of Project Development has made great improvements in recent years to achieve trust through reliable schedules, and has promoted economic growth by putting

transportation resources into the economy quickly. For example, MaineDOT maintains a calendar-year advertise plan on the department website to inform customers and the transportation industry which projects will advertise for construction and when they will advertise. This practice publicly provides the basis for on-time-delivery performance measures. The Bureau of Project Development has also responded to unpredictable transportation funding levels by establishing a staffing plan and consultant-use strategy, enabling MaineDOT to quickly increase the volume of project delivery, if and when additional funding become available.

The Bureau of Project development is charged with the timely and efficient delivery of MaineDOT's capital program. Major activities of this bureau include:

- Managing development of the department's capital program from the approval of funding to construction completion for all highway, bridge and multimodal capital projects
- Oversight of the contracting of construction projects, federal documentation, prequalification of contractors and payment of contractors
- Federally mandated materials testing, sampling and analysis, independent quality-assurance testing, reporting of incentive and disincentive payments
- Engineering, boundary survey, and property acquisition and management necessary to conduct MaineDOT's capital program while ensuring consistent and fair application of these policies with state and federal regulations

The \$307.5 million in Project Development expenditures noted above includes \$244.5 million in contractor payments, \$29.6 million in consultant payments and \$4.5 million in payments for right-of way acquisition.

### **Bureau of Maintenance and Operations**

MaineDOT's Bureau of Maintenance and Operations has a track record of efficiency and cost-saving improvements over the past several years. These include but are not limited to working with other states to achieve cost savings through combined bidding efforts, optimizing the make-up and location of MaineDOT's equipment and vehicles, and a major reclassification of staff. For instance, this bureau's improvements included reducing seven relatively static, specialized job classifications to three multi-dimensional cross-trained classifications, enabling the bureau to eliminate positions while remaining more flexible to meet customer needs.

The bureau is responsible for the following major activities:

- Winter snow-and-ice control, keeping highways safe and the economy moving
- Drainage maintenance, prolonging the longevity of highways by keeping water from the highway structure
- Custodial maintenance such as patrolling and inspecting highways, highway sweeping, bridge washing and other activities that maximize the life-cycle of assets,
- Operational and safety maintenance related to traffic control, lane striping, traffic-signal maintenance, highway lighting and guardrail
- System operations, including diverse activities that range from permitting to ferry service operations to emergency response at crash sites

The \$187.7 million in Maintenance and Operations expenditures shown above includes but is not limited to \$144.3 million for highway and bridge maintenance, \$35 million on vehicles and

equipment; \$23 million on materials such as sand, salt and culverts; \$13.6 million on traffic operations such as fixing or maintaining traffic signals; and \$9.9 million in contracted services. It also provided \$24 million to municipalities in local road assistance payments and \$9.5 million in ferry operations.

### **Bureau of Finance and Administration**

MaineDOT's Bureau of Finance and Administration has maintained its support of the department's production units, despite regulatory and policy changes that have added to the complexity of transportation funding. In recent years, the federal surface transportation program has evolved through several phases— from being a relatively simple program, to increased project-specific funding, to multiple competitive programs, and now to a significantly reformulated highway and transit program. On the state side, recent changes include creation of multimodal transportation accounts. Through this changing landscape, the Bureau of Finance and Administration has adapted to the department's needs, utilizing a cash-flow model that has enabled the department to put transportation funds quickly into the Maine economy.

This bureau is responsible for MaineDOT's capital resource management functions, consultant contract procurement and auditing compliance. The bureau's major activities include:

- Financial analysis, management and reporting for all MaineDOT accounts
- External legislative and executive financial reports, as required
- Management of MaineDOT's debt obligations
- External audit for federal and state compliance
- Liaison with the state Department of Administrative and Financial Services for human resource administration and financial processing

The \$49.6 million in Bureau of Finance and Administration expenditures noted above includes \$36.5 million for bond interest and principal payments and \$8 million to the Department of Administrative and Financial Services for human resources and information technology support.

### **Environmental Office**

The Environmental Office Supports capital project delivery and maintenance activities by assuring that MaineDOT activities comply with state and federal environmental laws and regulations, in the most efficient and effective way possible.

### **Results and Information Office**

The Results and Information Office seeks to continuously improve MaineDOT business processes that reflect systematic agency management, measures of organizational performance and information systems that support all MaineDOT organizational units.

### **Freight and Business Services Office**

The Freight and Business Services Office directs the Maine Port Authority and related efforts to keep businesses in Maine, expand opportunities for existing businesses and attract new business.

## **Legal Services Office**

The Legal Services Office provides Chief Counsel and other legal services including management of federally required Civil Rights activities.

## **VII. Summary**

MaineDOT's *Calendar Year 2013-2014-2015 Work Plan* will keep Maine moving by investing over \$1.8 billion in the Maine economy with a minimum of \$1.1 billion anticipated to support private sector jobs. MaineDOT will continue to maximize efforts as we implement this *Plan* to provide the highest customer return-on-investment. This *Plan* directs resources to where they can have the greatest customer impact, while ensuring all Maine's citizens have adequate access to the transportation system. We are committed to implementing this *Work Plan* in accordance with our core values of *Integrity*, *Competence* and *Service*. MaineDOT will issue an update to this *Work Plan* in early Calendar Year 2014 to reflect any changes in policy, funding or priorities associated with economic opportunities or changes in infrastructure condition. Please contact us with any questions you have and we will do our best to answer any them.

## **VIII. Project Lists**

The following glossary provides a reader's guide to different types of work shown in the project lists. The projects provided are generally the location specific planned work discussed in Sections III, IV and V. Projects are generally listed alphabetically by county with Calendar Year 2013 projects lightly shaded and Calendar Year 2014-2015 projects shown with a white background. Since some projects are in multiple municipalities, an index is provided at the end of this *Work Plan*.

# Glossary

Term	Definition
<b>Americans with Disabilities Act (ADA)</b>	The Americans with Disabilities Act prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, government services, public accommodations, commercial facilities and transportation.
<b>Airport Master Plan</b>	An airport master plan is a comprehensive study of an airport that describes the short, medium and long term development plans to meet future aviation demand.
<b>Apron</b>	The area of an airport intended to accommodate the loading and unloading of passengers and cargo, and the refueling, servicing, and parking of aircraft.
<b>Asphalt Escalator</b>	Payment adjustment for Hot Mix Asphalt material based on current asphalt prices.
<b>Automatic vehicle location (AVL)</b>	Automatic vehicle location is a means of determining the location of a vehicle and transmitting that information to a receiver, allowing transit agencies to determine location of transit vehicles, wait times, and other information.
<b>BIG</b>	Boating Infrastructure Grants
<b>Bridge</b>	A span length of at least 20 feet, in accordance with Federal law.
<b>Bridge Deck</b>	The portion of the bridge that provides direct support for vehicular and pedestrian traffic.
<b>Bridge Scour Countermeasures</b>	Techniques employed to mitigate the effects of sediment scour and other hydraulic stress on bridge structures.
<b>Bridge Substructure</b>	The parts of a bridge that are below the bottom of the girders. Pilings, shafts, spread footings, and columns may be part of the substructure.
<b>Bridge Superstructure</b>	The parts of a bridge that are above the bottom of the girders. Girders, bridge deck, and bridge railing are parts of the superstructure.
<b>Catch Basin</b>	A reservoir for collecting surface drainage or runoff.
<b>Congestion Mitigation Air Quality (CMAQ)</b>	A source of Federal-aid funding for transportation improvements designed to improve air quality and mitigate congestion.
<b>Cold Storage Building</b>	A building facility used to store salt and sand materials for use in maintaining a roadway facility in winter.
<b>Crack Sealing</b>	Roadway or runway surface crack sealing treatments, to prevent surface damage from freeze thaw cycles.
<b>Culvert</b>	Any pipe or other structure under a roadway that has a span of less than 10 feet or multiple pipes or other structures with a combined opening of less than 80 square feet in area.
<b>Customer Service Level (CSL)</b>	A measure of how a road compares to other roads of the same priority across the state based on safety, condition and service.
<b>Debt Service</b>	The series of payments of interest and principal required on a debt over a given period of time.
<b>Easement</b>	A certain right to use the real property of another without possessing it.
<b>Enhanced Project Scoping</b>	A planning process intended to manage future risk by detailing the basic need, possible impacts, roadway design matters, potential cost, and stakeholder issues of proposed projects.
<b>FAA</b>	Federal Aviation Administration.
<b>Feasibility Study</b>	An analysis and evaluation of a proposed action which is based on extensive investigation and research to determine order-of-magnitude costs and benefits for the proposed action.
<b>FHWA</b>	Federal Highway Administration
<b>Finger Floats</b>	Floating parallel docks for use as a boat slip.
<b>FRA</b>	Federal Rail Administration
<b>FTA</b>	Federal Transit Administration
<b>FTA 5303</b>	Funding provided by FTA for metropolitan transportation planning.
<b>FTA 5304</b>	Funding provided by FTA for statewide and nonmetropolitan transportation planning.