



AMERICAN SOCIETY OF CIVIL ENGINEERS

Report Card for Maine's Infrastructure

December 6, 2012



Maine Section
American Society of Civil Engineers

Infrastructure Area		2008	Trend*	2012	2012 Report Card on Maine
Contaminated Site Remediation		D+	↑	C-	Petroleum spills still threaten drinking water supplies (primary funding source for remediation in Maine), and remediate, and redevelop sites where contamination goes into effect in 2013.
Dams		D+	↔	D+	Maine has over 1,000 registered dams of which Maine's dams are low-hazard potential, do not have a Dam Safety Program, spends much less than other states.
Energy		C+	↑	C+	The overall health of Maine's electricity infrastructure is good. Maine's electricity and renewable energy credits to the \$1.4 billion Maine Power Reliability Program, which is in the system's age.
Municipal Drinking Water		C	↑	C+	An estimated two-thirds of Maine residents are served by public water utilities. Federal and state funding for water infrastructure has been improved over the next 20 years. Federal and state funding for treatment, storage, and distribution has been improved.
Municipal Wastewater		D+	↔	D+	Maine's 2008 Clean Watersheds Needs Survey (CWNS) shows that the state's Revolving Loan Fund (CWSRF). CWSRF funding for capital projects is not sustainable. The lack of funding for wastewater treatment is a public health.
Schools (PreK-12)		C-	↔	C-	Maine schools face a \$1.7 billion capital funding gap. Over the past 12 years, some projects have been funded over the past 12 years; some projects have not.
Solid Waste		C	↓	C-	Maine's solid waste disposal rate has declined from 2008 to 2012. Maine remains below state-established goals. Despite national needs; however, changes in policies and local needs.
State Parks		B-	↓	C+	State parks are a key component of tourism. Maine has 100 state parks. There has been little capital investment made in state parks. The focus of limited funds available is primarily on maintenance.
Transportation	Airports	B-	↑	B	Over the past four years, Maine's airport system has completed terminal construction/expansion projects and new runways at the New England states in terms of federal grants.
	Bridges	D+	↑	C-	28% of Maine's bridges are deficient which is a decrease from 32% of deficient Maine bridges since 2008. However, the condition of Maine bridges to meet recently.
	Passenger Transportation	C-	↓	C-	Maine's transit ridership grew 22% from 2006 to 2012. Sustainable funding remains unidentified. Ferry service is good, but the state needs to identify viable funding sources.
	Ports & Waterways	C-	↑	C+	Maine's seaports are in good condition, and need to remain competitive, safe, and secure, especially for commercial fishing, and recreation industries. Additional funding is required to facilitate projected surges in commercial fishing, and recreation industries.
	Railroads	C	↑	C	Maine has 1,154 miles of active railroad and 1,154 miles of inactive. Customer rail sidings and interchange improved from 6% to 30% since 2008.
	Roads	D	↑	D	Thirty-eight percent of Maine's major roads have a high level of extra vehicle operating costs. Maine is the highest in the nation. Maine will not meet legislative goals for roads and bridges.
Overall Grade		C-	↑	C-	Maine's economy is built on its infrastructure. Current and forecasted funding is inadequate. Funding needs to be a higher priority. While marginal improvement was due to additional federal funds or state.
A is exceptional where all aspects of the area are in great shape.		B is good where condition is safe and reliable; there are minimal capacity issues and minimal risks.		C is mediocre; condition and capacity are adequate in general, though some risks and consequences of failure which need to be weighed when prioritizing funding. Maintenance is likely being deferred due to inadequate funding.	
D is poor; increased risk of failure will likely occur.					

Infrastructure Overview:

supplies throughout Maine, as do some landfills. MaineDEP has made adjustments to stabilize the Groundwater Fund (Maine) and to control the location of above-ground storage tanks. Policies have been established in Maine to investigate, and remediation poses a risk to the environment and human health. A new state funding source for landfill remediation and closure

of which 153 are classified as high- or significant-hazard-potential. 131 federally regulated dams are in good repair. A majority of dams generate revenues and are more than 50 years old. Half of Maine dams are the responsibility of private owners. Maine's dam program is the other Northern New England states, and is understaffed and has no enforcement division.

Electricity infrastructure has improved slightly since 2008. Maine's extensive and diverse generation mix allows Maine to be a provider of electricity in the region. Most weak transmission links and interface limitations identified in 2007 are currently being addressed by the transmission expansion program, which will be complete in early 2015. Additional maintenance and capital investments are still needed to address the

water supply served by 151 public community drinking water systems. Approximately \$1 billion in water infrastructure projects is needed for the last 10 years was approximately \$22 million leaving a potential shortfall of over \$500 million. While there are many challenges, waterage, filtration and security issues, the funding gap is significant, specifically in regard to aging distribution systems.

Wastewater infrastructure listed an estimated wastewater infrastructure need of \$1 billion. The primary source of funding is the Clean Water State revolving loan fund, which is stressed and projected to decrease in coming years. As a whole, the wastewater industry business model of funding for infrastructure investment and proper maintenance adversely affects Maine's ability to protect the public

health and safety funding gap based on current state funding programs. Less than half of priority health and safety project requests have been funded. Many schools have had repeated requests. School consolidation has resulted in closure of some deficient schools.

Waste management since 2008; however, per-capita waste generation remains higher than the national rate. Recycling is stagnant and there is no new landfill capacity and closures of a commercial landfill and an incinerator, capacity exists to meet short term disposal needs. Long term planning and investment are necessary to ensure that new disposal capacity is developed in a timely manner.

Parks and Recreation Maine's number one industry. The condition of the infrastructure of Maine's 48 state park facilities is adequate. However, since 2008 to help reduce maintenance backlogs, enhance the level of service and gain greater economic impact. The state has spent over \$30 million in health and safety improvements and there continues to be over \$30 million in needed improvement projects.

Airport infrastructure Maine has experienced a number of high profile improvements including twelve runway rehabilitation projects, two major runway/taxiway/apron rehabilitations, obstruction removal and other safety enhancements. Although Maine ranks last among states in grant expenditures per airport, the state's airport infrastructure is in good condition and has improved modestly.

Transportation infrastructure slightly worse than the national average of 24%. Recent bridge funding initiatives facilitated a 6% reduction in the number of bridges in poor condition, the expiration of those initiatives coupled with reduced funding threatens to erode this progress. Continuing to improve transportation infrastructure adopted performance goals will require increasing MaineDOT bridge funding to \$106 million annually.

Public Transportation to 2010. However, only 46% of transit vehicles are in good condition. Passenger rail continues to expand, yet long-term funding for services provide primary transportation to island communities and have seen marked improvements with facilities and funding for vessel replacements to maintain service levels.

Ports and Harbors more than \$30 million has been invested in capital improvements since 2008. Continued investments are still needed to improve infrastructure in areas of dredging and maintaining unhindered access to Searsport and Portland Harbor. Long-term investments are needed to improve infrastructure for commercialized traffic. Maine should continue to promote enhancements to ports and harbors serving its viable cruise, commer-

cial and industrial traffic. Several intermodal facilities, primarily serving the pulp and paper industry. Recent capital projects included track repairs, bridge and building improvements. Rail infrastructure in Maine has improved slightly and MaineDOT's ownership of active railroad in Maine rose from

100% to 50%. Road conditions have only fair to unacceptable conditions. Due to poor conditions, Maine motorists spend an average of \$299 per year in out-of-pocket expenses, the highest of all New England states in miles of highway under state jurisdiction and the lowest for funding per mile. MaineDOT estimates that \$150 million per year gap in funding is resolved.

Infrastructure The health, safety and welfare of our citizens are directly tied to the quality of our infrastructure. Infrastructure is inadequate to meet current and future needs. If Maine is to grow economically, investment into infrastructure infrastructure improvements over all were made in Maine from 2008 to 2012, a significant portion of that increase in infrastructure spending is state bonding. Obtaining the necessary additional funding is not likely and action is needed.

Infrastructure condition and capacity are concerning with a high risk of failure, condition and/or capacity are concerning with a negative impact on economic activity.

***Trend:** The trend arrow signifies movement in a positive, neutral or negative direction. In some cases, there was improvement but not enough to change the grade.



**2012 Report Card
FOR MAINE'S
Infrastructure**

The maintenance and improvement of Maine's infrastructure is vital to our economy, health, safety, security and to the environment. The Maine Section of the American Society of Civil Engineers (Maine Section ASCE) represents over 750 civil engineering professionals who live and work in the State of Maine. As a public service to the residents of Maine, a team of engineers and industry experts volunteered hundreds of hours in both 2008 and 2012 to review public records and provide an overview of infrastructure in Maine. The 19 lead authors in 2012 have a combined 460 years of experience. The first report was published in December 2008. This 2012 report card provides an update in order to determine progress or decline in each infrastructure area since 2008.

The Maine Section ASCE analyzed the following fundamental components of each infrastructure area:

- Existing conditions,
- Capacity,
- Operations & maintenance or deferred maintenance,
- Public safety & security,
- Risk and consequences of failure, and
- Current and projected levels of funding.

As with the national report cards produced by ASCE, the purpose of this state report card is to raise public awareness of the importance of a modern and well-maintained infrastructure.

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