Portland Press Herald

Maine's infrastructure gets a C- from civil engineers

Slightly better than the nation's average D+ grade, Maine's roads, bridges, wastewater plants are still in dire need of upgrades, according to the American Society of Civil Engineers.

BY PETER MCGUIRE | STAFF WRITER 12.03.2020 | CLICK HERE TO VIEW ONLIINE.

For the fourth time in a dozen years, Maine's public infrastructure has received a middling assessment in an independent report from the American Society of Civil Engineers.

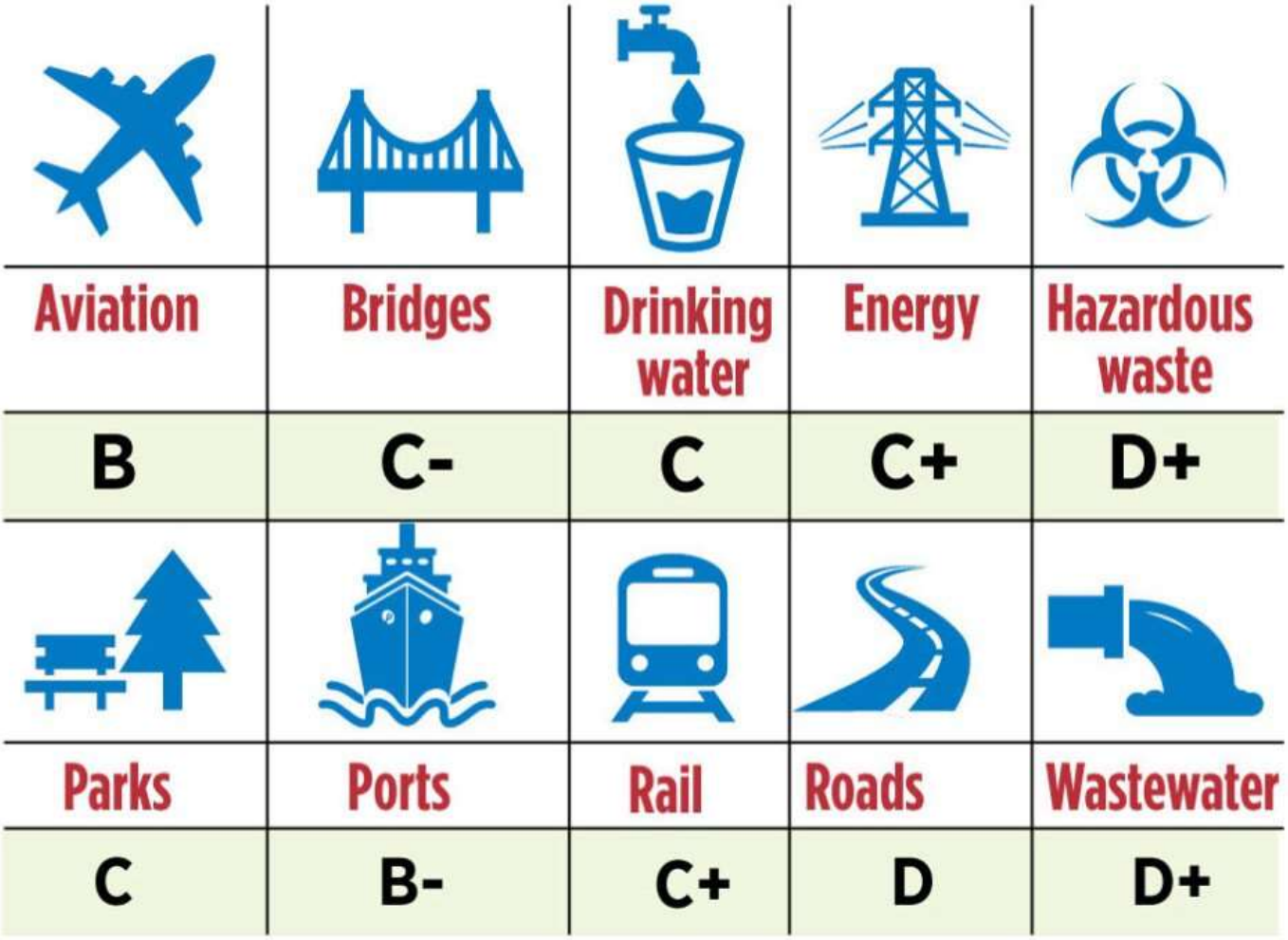
The group's Report Card for Maine's Infrastructure, produced every four years, covers 16 categories including transportation, water and sewer, education and energy infrastructure.

Overall, Maine was assigned a C- in the 2020 version, produced by dozens of volunteer members of the society's Maine chapter.

Even as the group urges more investment to deal with a backlog of hundreds of millions of dollars, some infrastructure priorities are shifting to meet greenhouse gas reduction goals and climate change mitigation outlined in a new action plan from Maine's Climate Council.

Maine's infrastructure grades

Most categories reviewed by the American Society of Civil Engineers were given a mediocre or near-failing grade in its 2020 report card.



SOURCE: © 2020 ASCE's Infrastructure Report Card

STAFF GRAPHIC | MICHAEL FISHER

"Unfortunately, despite being essential to our lives and economy, we have allowed our infrastructure to languish," said Daniel Bouchard, president of the American Society of Civil Engineers Maine Chapter.

"We hope state policymakers look at the report and take it into account," he said. "It really all comes down to funding, and the investment in Maine's infrastructure."

Just two of the categories analyzed in the report – airports and ports – received a B rating, meaning the infrastructure is generally good but will require more investment. Ports and airports in Maine have received substantial federal and state investment in recent years.

Most of the categories – bridges, drinking water systems, energy, levees, parks, rail, schools, solid waste disposal and storm water drainage were graded in the C range. That means the network is mediocre. It is largely in fair to good condition, but shows general signs of deterioration.

Bridges in particular have been an issue for the state for decades. About 13 percent of Maine's 2,460 bridges spanning 20 feet or more are structurally deficient, far above the New England average of 8 percent and the 7 percent national average, according to a 2019 assessment.

Energy production has improved in Maine with new renewable power projects such as wind farms and a reduction of natural gas generation, but the state's power lines and power stations are in trouble, Bouchard said.

"Maine's transmission and distribution network is starting to reach the end of its useful life, (and) combined with extreme weather events is leading to widespread and prolonged power outages," Bouchard said.

Roads, dams, hazardous waste sites, public transit and wastewater systems all received grades in the D range, meaning they are in below standard condition, and at risk of failure with many elements reaching the end of their service life.

Maine's ranking is slightly better than the D+ national average assigned by the engineers society. The state report is not directly comparable to other New England states because it measures different variables and is produced in different years.

The state's roads and bridges were of similar condition to those in Vermont and New Hampshire, according to the most recent scorecards from those states.

Maine's sprawling, underfunded network of state and local roads has been in bad shape for years. Maine roads received a D grade in all four report cards since 2008.

"To be honest with you, we should be very concerned with any of our infrastructure that is graded a C or lower, because that just shows how precarious the situation is," said Irv Smith, president of the Maine Better Transportation Association, in a statement.

"So we hope that the new Maine Legislature is listening, that they read this report and that its members take its findings to heart and step up investment in transportation."

The budget for highway and bridge repair and construction is presently $233 million a year below what is needed, according to the Maine Department of Transportation. The state has not raised the 30 cent gas tax since 2011, despite soaring construction costs. State government has instead relied on borrowing hundreds of millions of dollars and relying on uncertain federal funding to pay for highway improvements, said DOT Commissioner Bruce Van Note.

"The years of chronic underfunding is clear to anyone who reads this report and drives on our roads, especially in the spring," Van Note said at the news conference.

"We are cutting it too close," he said of the highway budget. "None of us went to engineering school to manage assets this way. The Maine Department of Transportation is an efficient engine, but it is constantly at risk of running out of fuel."

Funding priorities are becoming more complicated as state government moves ahead with a four-year action plan in its effort to reduce greenhouse gas emissions by 45 percent in the next 10 years.

Transportation makes up more than half the state's CO2 emissions. The climate plan to reduce miles traveled by conventional fossil fuel vehicles includes putting tens of thousands of electric cars on the roads, improving public transit, increasing fuel efficiency and encouraging development that helps reduce driving.

Ultimately, those goals will take funding, Joyce Taylor, chief engineer at the Maine DOT and co-chair of the transportation working group on the Maine Climate Council, said in an interview.

"We did not come to a place where we could all agree on funding options, but what we could agree on is these kind of climate initiatives have to be part of what we talk about when we talk about funding," Taylor said. "Electric vehicles need safe roads and bridges too, that is the challenge."

Climate change brings different infrastructure challenges for the department. It builds a 4-foot sea-level rise into its coastal bridges and has greatly widened culverts to avoid washouts as extreme weather becomes more common, Taylor said.

Now the department is starting a vulnerability assessment to find out what communities could be at risk of being cut off if a bridge or road is destroyed in particularly intense storms.

"Typically, as a department we say 'we have to look at that bridge or pave that road,' " Taylor said. "Now we have to look at the system and how it works, how it is going to perform with sea level rise and more extreme weather events."