Washington's 30-year earthquake drill for the 'Big One': Order studies. Ignore them. Repeat.

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These columns supporting I-5 in Seattle are hollow and could implode in a severe earthquake, according to the state. An average 108,000 vehicles a day drive over this elevated span between Capitol Hill and Lake Union, where there's also a bike park. (Ellen M. Banner/The Seattle Times)

Washington Gov. Jay Inslee has ordered a new report on seismic danger, adding to a paper trail of recommendations that have largely been ignored for decades.

By Daniel Gilbert and Sandi Doughton
Seattle Times staff reporters

On Jan. 17, Gov. Jay Inslee strode into an auditorium in Olympia with a message for the new subcabinet he formed to help prepare the state for a catastrophic earthquake and tsunami.

"The science is clear that we have in our future a megaquake," Inslee said. "The establishment of the subcabinet is our attempt to marshal the resources of the state to have a coordinated resilience plan."

But the governor's rhetoric gave way to some familiar realities in Washington state. The subcabinet has no budget, staff or regulatory authority — and simply creating it took more than three years, internal records show. The dozen state officials assembled onstage were on loan from their day jobs. And the members are responsible for delivering just one product: a draft of their findings by July.

WAITING FOR DISASTER

Most of Washington state's seismic-safety priorities from 30 years ago remain unaddressed or incomplete. A few examples:

Schools: No mandatory seismic evaluation for schools. About 386,000 public-school students — one of every three enrolled — live in earthquake-prone areas and attend schools that were built before seismic standards were adopted statewide, according to a Seattle Times analysis.

Buildings: No state requirements or grants to retrofit buildings. At any given moment in Seattle, at least 25,800 people may be inside an old, brick building — the most vulnerable to earthquakes — that hasn't been retrofitted, according to city data.

almost $200 million retrofitting bridges since
e work. The state has just $6.7 million

Elected officials over the past three decades have repeatedly directed seismic-safety experts to produce such reports, all of which have called for action to reduce threats to public safety and the state's economy. But time and again, state politicians have largely ignored recommendations that require money or legislation to see them through, an examination by The Seattle Times has found.

As a result, Inslee's new subcabinet will be grappling with issues raised many times before, but which still pose serious risks to the state's residents.

Five government reports since 1986 have urged Washington's lawmakers to mandate seismic evaluations of public schools, where thousands of children attend classes in vulnerable buildings. Evaluations remain optional.

State seismic advisers called on the Legislature in 1991 to require that electric and water utilities analyze their earthquake weaknesses. Washington still has no authority to compel the utilities to act.

And for at least 25 years, seismic committees have advocated more retrofits for state bridges. With nearly $200 million spent on the work, funding for the program has slowed to a trickle, even as 11.3 million vehicles a day drive over almost 500 bridges flagged for strengthening.

The new subcabinet won't address upgrading schools or protecting coastal communities from tsunamis because the governor narrowed its scope to focus on improving the state's ability to respond in the immediate aftermath of a disaster.

Inslee, in an interview after his speech, said he was committed to the issue but that it would take public and legislative support to make real progress. The Legislature, he noted, is chiefly occupied with satisfying a court order to fully fund basic education for public schools.

"I expect this cabinet to produce a result, which are some proposals and some identified shortfalls that need to be fixed," he said.

Few states face the kind of catastrophic earthquakes that threaten Washington, and others are investing more to protect their communities. California leads the nation in earthquake risk and in measures to reduce it.

Oregon has moved aggressively in recent years to evaluate and reinforce school buildings and is pressing for additional seismic funds, even though its earthquake risk is 40 percent lower than Washington's, according to the Federal Emergency Management Agency.

Dave Norman, Washington's state geologist and a 27-year veteran of the Department of Natural Resources, believes that the subcabinet gives momentum to longstanding seismic goals.

"There's more interest and passion being brought to bear than I've ever seen," he said.

I've been through the Cold War era, the nuclear days, and nothing scares me like this Cascadia." - Bob Hamlin

Not everyone shares this optimism. The subcabinet, with no resources of its own, will rely on the state Emergency Management Division, an agency diminished by cuts that have brought its core operating budget down to half what it was a decade ago.

"It's a disaster," said Rep. Gael Tarleton, D-Seattle. She added that instead of spending money to blunt the impact of an earthquake, state officials won't commit funds until the damage is done. "We wait for it to happen," she said.

SEISMIC NEGLECT

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More than 400,000 Washingtonians live in 16 rural counties with emergency-management departments consisting of, at most, the equivalent of one full-time employee. Of these, more than 200,000 live in five counties along the coast that are among the most vulnerable to earthquakes and tsunamis.

"Blue-ribbon committees don't help me at all. Money helps me," said Bob Hamlin, who spent the last 17 years as the lone emergency manager for Jefferson County, which spans the Olympic Peninsula. Hamlin, 77, retired in January after a 46-year career. He believes the state isn't taking the danger of the Cascadia fault seriously enough.

"I've been through the Cold War era, the nuclear days, and nothing scares me like this Cascadia," he said.

'It was shocking'

Since the late 1980s, scientists have warned policymakers about the threat of the Cascadia Subduction Zone, a 700-mile-long offshore fault that has unleashed some of the world's most powerful earthquakes and tsunamis at intervals as short as 200 years. The most recent one occurred 317 years ago.

An end-to-end rupture of the Cascadia fault would cause the ground along much of the West Coast to convulse for up to five minutes, tearing apart pipelines, roads and buildings that haven't been strengthened. A tsunami would slam coastal communities with surges 30 feet high or more, swallowing up anyone unable to reach high ground. The death toll could exceed 10,000, according to federal estimates, and leave communities isolated and without basic needs for weeks or months.

By 2014, Washingtonians vulnerable to intense ground-shaking from a megaquake numbered 5.4 million — an increase of 1.6 million people since 1990, according to a Seattle Times analysis of census and geologic data.

But as more people settled in Washington's earthquake danger zone, the state's financial support for the Emergency Management Division has eroded. The bulk of the agency's state funding is for responding to disasters, from floods to fires. But state funding for operations — covering core programs like catastrophic planning and public education — was $1.6 million in 2016, down from $3.1 million in 2006, budget records show.

Washington's strategy for responding to a megaquake was crafted inside the division's headquarters at Camp Murray, near Joint Base Lewis-McChord. There — at a single

cubicle littered with business cards and stacked with binders of disaster plans — Jim Hutchinson spent the past six years as the only state employee dedicated solely to catastrophic planning.

Hutchinson, a Washington native, said he knew little about the Cascadia threat until it became his job to plan for it.

"Quite frankly it was shocking," said Hutchinson, a former telecom worker and National Guardsman. "It was so extreme that it takes a while for it to sink in."

Hutchinson's $71,316 salary, benefits and expenses had been paid by a federal grant. When the grant expired in 2015, the Emergency Management Division sought $178,000 in state funds to fill the void for two years. Without it, officials warned, "Statewide catastrophic planning will slow extensively."

Gov. Inslee included the money in his proposed budget, but the Legislature didn't. The request went unfulfilled.

The agency scraped together enough cash to keep Hutchinson, in part by cutting back on travel and assistance to local emergency managers, Emergency Management Division officials said. In 2016, the EMD again warned lawmakers in its budget request that the lack of funds restricted its ability to plan.

"This has the potential to result in additional fatalities to residents, delay recovery, and cost the state billions of dollars in revenue generation," the request states.

Inslee included $99,000 in his budget to cover the program for one year. Again, the Legislature declined.

Robert Ezelle, director of emergency management for Washington state, at right, speaks at the first meeting of the Resilient Washington Subcabinet in Olympia on Jan. 17. The subcabinet has no budget, staff or regulatory authority, and the

state officials assembled onstage were on loan from their day jobs. (Ellen M. Banner/The Seattle Times)

Hutchinson had been working on a plan for responding to a Cascadia megaquake but was unable to finish it in time for a drill in June that simulated the disaster. An internal analysis completed after the drill rated the state's readiness as "grossly inadequate," The Times reported in October.

Hutchinson retired in December after turning in a draft of his Cascadia plan.

EMD officials say they will hire a replacement despite financial pressures. Since 2015, agency staffers have worked four 10-hour days a week to save on energy costs.

Nevertheless, the EMD director, Robert Ezelle, is eager to work with the new subcabinet to address the gaps revealed by the recent drill.

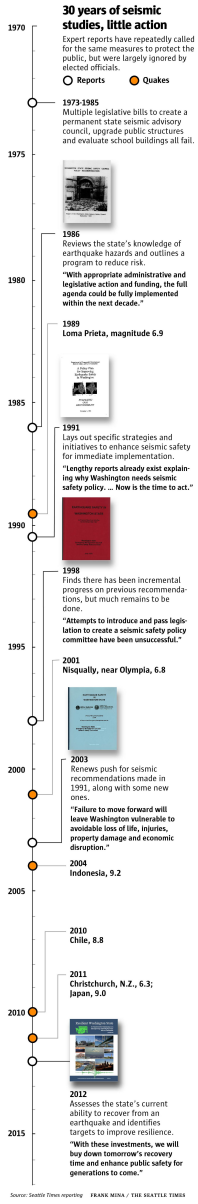
"I think we've got some good ammunition coming out of that exercise to gain traction on some of the things we really, truly as a state need to be working on," he said in December at a meeting of the Washington State Seismic Safety Committee.

It was the committee's first full meeting in three years.

A legacy of inaction

When Washington's official earthquake advisory group met in 1985, its members had watched seismic reforms fail over the previous 15 years. The reforms would fail again, they warned, without a mechanism to make them stick.

The group looked to California, where a government commission focused solely on seismic safety had its own budget and staff. Washington's experts advocated for the Legislature to create such a commission.



"The legacy of state-level inaction with respect to seismic safety in Washington state clearly demonstrates the need to significantly enhance the capability of existing agencies," the Seismic Safety Council wrote in a 1986 report requested by Gov. Booth Gardner. "An effective risk reduction strategy cannot be carried out by part-time state personnel and advisory committees."

Yet for the last 30 years, that is how Washington state officials have operated.

In 1991, the state's seismic advisers delivered another report to the Legislature that called for a range of safeguards, including school-building evaluations, financial incentives to retrofit vulnerable structures and upgrades to transportation and energy networks. They warned that without action, "There will be deaths, injuries and disruptions that could and should have been prevented."

Washington's earthquake advisers were unable to win support for a commission like California's, which employs a structural engineer, a geologist and a legislative

director, among others. Instead, Washington in 1996 created a seismic safety committee made up of state employees and other experts who volunteered their time.

In 1998, the committee gave the Legislature an update on the incremental progress made on past recommendations like retrofitting bridges and mapping hazardous regions.

But a committee survey found that a quarter of a million students attended class in seismically weak buildings and that a statewide inventory of such buildings "does not exist." The group also noted that there was no government policy to encourage seismic retrofits and no plan to evaluate utilities.

In 2001, the Nisqually earthquake caused about $2 billion in damage, putting an exclamation point on the committee's warnings.

"School buildings represent a substantial life safety and injury risk to children in this state," the committee wrote in a 2003 report that again called for an inventory of structurally weak schools. It proposed criteria for retrofitting incentives, recommended a more aggressive program of bridge strengthening and mandatory seismic assessments for utilities.

By 2008, when Gov. Chris Gregoire asked the committee to identify gaps in earthquake preparations, its members were disillusioned. After more than two decades, they noted that the only substantial recommendation implemented was adopting modern building codes.

"A committed group of volunteers has done its best to advise the governor," they wrote. "They have done so without funding or enabling legislation. Their reports have been minimized."

'What is needed to get the ball rolling?'

Washington's seismic committee won federal funds in 2010 to draft another seismic-safety analysis, inspired by a San Francisco initiative to become more resilient against earthquakes.

Called "Resilient Washington," the initiative resulted in a 2012 report that estimated how long it would take to restore the state's power, water and transportation systems to use. It laid out 10 areas for improving seismic safety, including schools, utilities, insurance and critical infrastructure.

In August 2013, John Schelling, then the state's lead earthquake-hazards expert, emailed Ezelle, his boss at the Emergency Management Division, to suggest that the governor create a subcabinet to implement the seismic measures. Ezelle agreed.

A year went by with no executive order. Then another.

Major General Bret Daugherty, Ezelle's boss and the head of the state's National Guard, expressed his frustration in a Dec. 1, 2015, email to Inslee's chief of staff.

"Can we please discuss what is needed to get the ball rolling on the Resilient Washington subcabinet?" Daugherty wrote. Attached to his missive were staffers' notes about an inquiry from The Times on seismic-safety progress.

It took almost another year for Inslee to issue his directive authorizing a subcabinet.

Meanwhile, state officials have made no progress on 70 percent of the recommendations in Resilient Washington, according to an EMD internal assessment. And much of what has been achieved was thanks to federal funds, such as a seismic hazard survey for 17 of the state's 295 school districts, and local funds, like construction of a tsunami-resistant shelter in the Ocosta School District.

A catastrophic earthquake would be the costliest, and potentially deadliest, natural disaster in US history." - Emergency Management Division report

Oregon started its own resilience plan after Washington but has moved faster to act on the recommendations. The Legislature in 2015 created a new position, the state resilience officer, with a two-year, $652,000 budget. The veteran emergency manager hired for the job reports directly to the governor.

"The whole idea is to have somebody that operates at the highest level of government to basically hold the Legislature accountable for making progress on the resilience plan," said Jay Wilson, chair of Oregon's Seismic Safety Policy Advisory Commission.

Oregon also has prioritized seismic safety in public schools, identifying 1,100 buildings at high risk and making more than $200 million available for retrofits. Gov. Kate Brown is seeking another $200 million for strengthening schools and buildings that house first-responders, in addition to $32 million in bonds to reinforce water systems.

In Washington, the top item on the Emergency Management Division's budget wish list is $100,000 a year through 2021 to pay for a staffer to support the subcabinet's work. Its second priority is a two-year, $1.5 million public-education campaign urging Washingtonians to prepare for surviving up to two weeks on their own.

"A catastrophic earthquake would be the costliest, and potentially deadliest, natural disaster in US history," EMD wrote in its request. "Washington currently lacks even the most rudimentary state framework to support long-term community and statewide recovery."

Jim Mullen, who ran the Emergency Management Division for eight years before stepping down in 2013, said he is dismayed by how the crisis of the day has always