Washington State

Multiple Tsunami, Earthquake and Volcano Hazards, and a Narrow Alert Window for a Wide Geographic Area Present Unique Challenges for Washington State EMs

The likelihood that a major tsunami will one day strike the coast of Washington State has often been described as a "ticking time bomb." Now add to that the fact that there are five active volcanoes within the state's borders. Then consider the potential for other natural hazards such as flooding and wildland fires along with the ever-present danger of man-made disasters including hazmat spills, nuclear accidents and dam failures, and it's easy to understand why Washington's need for effective public alerting and mass notification capabilities stack up as among the most critical anywhere in North America.

"The likelihood that a major tsunami will one day strike the coast of Washington State has often been described as a 'ticking time bomb'".

CASE STUDY

FEDERAL SIGNAL
Safety and Security Systems

Advancing security and well-being.

2645 Federal Signal Drive, University Park, IL 60484 708.534.4756 Fax: 708.534.4874 alertnotification.com

How Do You Notify Citizens Along a 157-mile Long Shoreline That a 500-mph Wave is Headed Their Way? Short Answer: Very Quickly.

At its closest point off Washington's Pacific shoreline, just 23 miles, the Cascadia Subduction Zone represents a very real and immediate threat to anyone living on or near the coast. A significant underwater earthquake along the Juan de Fuca plate could generate a tsunami wave capable of speeds up to 500 mph, thereby allowing people as little as a few minutes to move to the safety of higher ground. While that is probably the worst case scenario it does indicate the scope of the problem and the urgency for rapid response regardless of where an underwater earthquake occurs along Washington's coastline.

Modulator Siren

The need to expedite public warnings throughout the state immediately following detection of an earthquake or tsunami is quite literally a life or death priority.

In addition to generating pre-recorded or live voice announcements across the state in the event of a major earthquake or following notification by the Pacific Tsunami Warning Center, Washington State required a system that could be activated locally as well as from a central control station, while also accommodating the region's extremely rugged and hilly terrain. In addition to meeting all specified criteria, Federal Signal was able to serve in the capacity as a single vendor for all aspects of the project--from design through installation and system optimization.

The Cascadia Subduction zone represents a very real and immediate threat to anyone living on or near the coast.

Key features of the Washington State project include:

- An electronic siren system employing 60 sirens capable of providing both pre-recorded messages and live public address announcements.
- Washinington State's All Hazards Broadcast (AHAB) System is capable of being controlled from the centralized Emergency Operations Center (EOC); additionally, individual town sirens can be activated by the local emergency management team.
- Design and construction of a satellite control system, including sourcing of the satellite provider, set up of the satellite monitoring station at their command center, and integration of the satellite into the statewide emergency management system.
- UHF radio is employed to provide a backup activation system.
- Integration of the tsunami and lahar systems.
- Comprehensive user training for all aspects of the system.

Federal Signal's broad based experience in the engineering, integration and installation of large-scale emergency warning and notification systems is supported by the industry's most advanced product technology in outdoor sirens and public address speakers. This enabled us to meet Washington State's provision that required turnkey service ranging from system design and integration, to sound mapping and integration of satellite control capabilities, to transporting, positioning and installing siren poles, to overseeing all on-site electrical construction.

Washington State required a system that could be activated locally as well as from a central control station, while also accommodating the region's extremely rugged and hilly terrain.

Federal Signal Alerting and Notification Systems is a recognized leader and innovator in the industry, we have developed our expansive product line through working closely with our customers and partners using a collaborative product develpment approach. Designed for interoperability of devices, high-performance and prolonged use, our products offers state-of-the-art features with quality you can rely on today and tomorrow.

From mass notification systems, to interoperable communications, to wireless broadband networks, to emergency operations center solutions, to integrated high-speed digital video and analytics solutions, to campus notification and alerting solutions, to weather station alerting, and much more. Federal Signal Alerting and Notification Systems is helping make the world safer, and your community a more secure place every day. For more information please visit www.alertnotification.com

FEDERAL SIGNAL
Safety and Security Systems

Advancing security and well-being.

2645 Federal Signal Drive, University Park, IL 60484 708.534.4756 Fax: 708.534.4874 alertnotification.com