

Natural Hazards Mitigation Data Portal (GeoPortal 2.0)

Legislative Progress Report

December 1, 2022



Introduction

In the 2021-23 biennium, WaTech was tasked by the Legislature via a budget proviso in ESSB 5693 to develop GeoPortal 2.0 – a modern, centralized data platform that allows agencies to share geographic data critical to natural hazard mitigation. The data hosted on the system is used to evaluate such risks as tsunami hazards, sea level rise and the potential impacts to people and infrastructure. The proviso requires a progress report to the Legislature by December 1, 2022.

MISSION

The mission for the WaTech Geospatial Program is to ensure that all agencies can use and access geographic information when making business decisions.

Since work started in July 2021, WaTech has created a centralized location (GeoPortal 2.0) for storing geographic data where agencies can access information and more effectively collaborate on analytical efforts and mitigation planning. The focus has been on sharing sensitive geographic data. For example, draft landslide locations that may affect homes need to be carefully reviewed by multiple agencies before making the information public. This is the first time that agencies have had a platform to share sensitive geographic information efficiently and securely. The portal was developed on a repeatable framework that can be applied to additional state priorities including equity and social justice, low-carbon energy siting, and salmon recovery.

Project Update

This project has been guided by an engaged project steering committee comprised of representatives from the Department of Ecology, Department of Transportation, Office of the Insurance Commissioner, the Emergency Management Division at the Military Department, the University of Washington, and Washington State University. They provided feedback on the types of data they need for hazard mitigation planning, as well as the logistics for how to share that data most effectively within their own agencies.

The goal is to complement hardware and software systems within the agencies so that data sharing can be part of a standard workflow. Connecting directly to agency geographic information systems (GIS) leverages existing state investments, improving the overall adoption of the platform. The agencies serving on the steering committee – along with the Department of Natural Resources, the Department of Revenue, and the Department of Health – were on-boarded to the platform for daily work and natural hazard planning efforts. As agencies become accustomed to how it works, scaling it up for an emergency, such as a catastrophic earthquake, is much more straightforward. Experience gained in the state emergency operations center during COVID, indicated this type of platform is a needed function to respond to emergencies and hazards. As of November 1, 2022, we have the following statistics for GeoPortal 2.0:

60 **Datasets**
Available in the Portal

11 **Agencies**
Using the Portal

7 **Integrations**
With existing Agency
GIS Infrastructure

What does GeoPortal 2.0 enable the state to do now?

Since GeoPortal 2.0 was created, state agencies have used it to inform a number of important issues including:

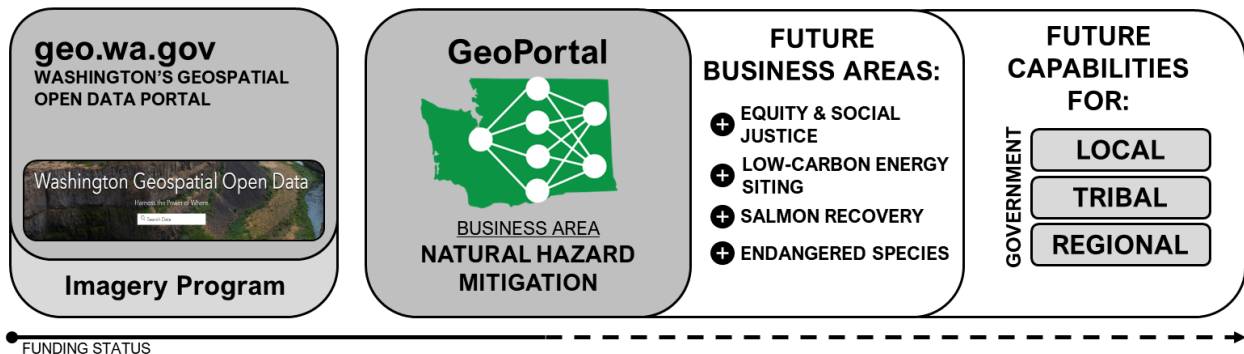
- Seismic Safety Project for Schools: The Office of the Superintendent of Public Instruction (OSPI) and the Washington State Geological Survey (WGS) collaborate to assess public schools most at-risk from earthquakes, shaking hazards and tsunamis. School location information is maintained by OSPI and then shared to WGS to perform the risk evaluation. With GeoPortal 2.0, the data and analysis can be conducted centrally with both agencies able to view progress, track information and determine next steps. This is a much more efficient process than prior to GeoPortal 2.0 when a series of spreadsheets were edited and emailed among the specialists at the respective agencies. Additionally, with the combined information (schools + risk) stored centrally on GeoPortal 2.0, this information can also be shared with the state Emergency Management Division (EMD) for school retrofit planning.
- Enhance efforts to increase funding for presidential emergency declarations in Washington: To apply for additional funding and grant opportunities during emergencies, Washington is required to develop a State Enhanced Hazard Mitigation Plan which reviews extensive geographically based data to determine how and where to best mitigate hazards. GeoPortal 2.0 not only enables centralized, authoritative data, but it allows other state agency partners to engage in reviewing the data inputs and draft analytical outputs from the outset of the plan development. This capability improves the collaboration among state agencies and allows an iterative review of planning ideas as the plan is developed and finalized for the state. The first effort is to complete this work for the tsunami hazard analyses and then continue to include all hazards into GeoPortal 2.0, embracing a geographic-first approach to hazard exposures, mitigations, and ultimately resilient communities.
- Critical Energy Corridors Risk Analysis: Our state agencies are planning for when “the big one” hits such as a Cascadia Subduction Zone earthquake. This will be a major impact around the region and utility corridors that provide gas, electricity, water, and broadband are expected to be gravely impacted. These corridors are considered sensitive data, yet vital for hazard planning. The Department of Commerce Energy Program and the Emergency Management Division at Camp Murray are sharing datasets to GeoPortal 2.0 where they can evaluate, analyze and disseminate results for “what-if” scenarios using current, centralized geographic data for these critical energy corridors.

These types of collaborative projects are increasingly needed to address the complexities of natural hazard mitigation. GeoPortal 2.0 fully supports these types of efforts and makes them more efficient by eliminating data-sharing barriers, centralizing the platform, and securing the data with modern, WaTech-approved geospatial technologies.

What do we anticipate for the rest of the project?

We anticipate more users and supported use-cases (like the examples listed above) migrated into the platform each month. For the remainder of this project, the team is focused on assisting the intended users of the platform to integrate the data directly into existing workflows. WaTech also will look for use cases where GeoPortal 2.0 would solve an existing problem for agencies. This type of approach allowed us to add critical aquifer recharge data to GeoPortal 2.0 so that the Department of Transportation, the Department of Health, and the Department of Natural Resources could view and evaluate the data in a centralized fashion. This would not have been possible prior to Geoportal 2.0.

While the new platform has proven successful in addressing the data needs of the natural hazard mitigation community, it still leaves many other levels of government (local, regional, and tribal), and more advanced geospatial capabilities unaddressed. Throughout the current project, agencies revealed tremendous interest in using the platform for additional business areas including digital equity and social justice, low-carbon energy siting, salmon recovery, and endangered species. To address this need, additional investment is needed that builds on the successes of the GeoPortal 2.0 and increases the use for additional business areas and additional involvement from local and tribal entities.



The vision for the Geospatial Program at WaTech as it plans to build upon the success of GeoPortal 2.0 and expand it into new areas.

WaTech's vision for this project is to continue delivering value to state agencies. Improved geospatial data sharing practices will result in more accurate, streamlined data-driven service offerings to Washingtonians, eliminate redundant data storage, and modernize data management practices within the state agency GIS community. Through a more centralized approach, complex, multi-agency decision making will be streamlined to support critical initiatives. While modernizing data-sharing practices might not seem cutting edge, placing a deliberate focus on it can fuel and support the innovation needed to address the state's future challenges.

WaTech Strategic Alignment

This project is directly related to the Governor's goal of Efficient, Effective, and Accountable government which is central to the Washington Enterprise IT Strategic Plan and strengthens the WaTech Strategic Goal of Transforming Service Delivery. By providing a centralized GeoPortal 2.0 system to host, distribute, and analyze sensitive geographic data for state government, this project also positively contributes to Data Management, a future WaTech Strategic Initiative from the [2021-2023 Strategic Roadmap](#).

To learn more: Visit the [WaTech Initiatives page](#) or the Washington State Information Technology (IT) [Project Dashboard](#).

Contact

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