



Washington State GeoPortal 2.0

Information Communications Technology Innovations



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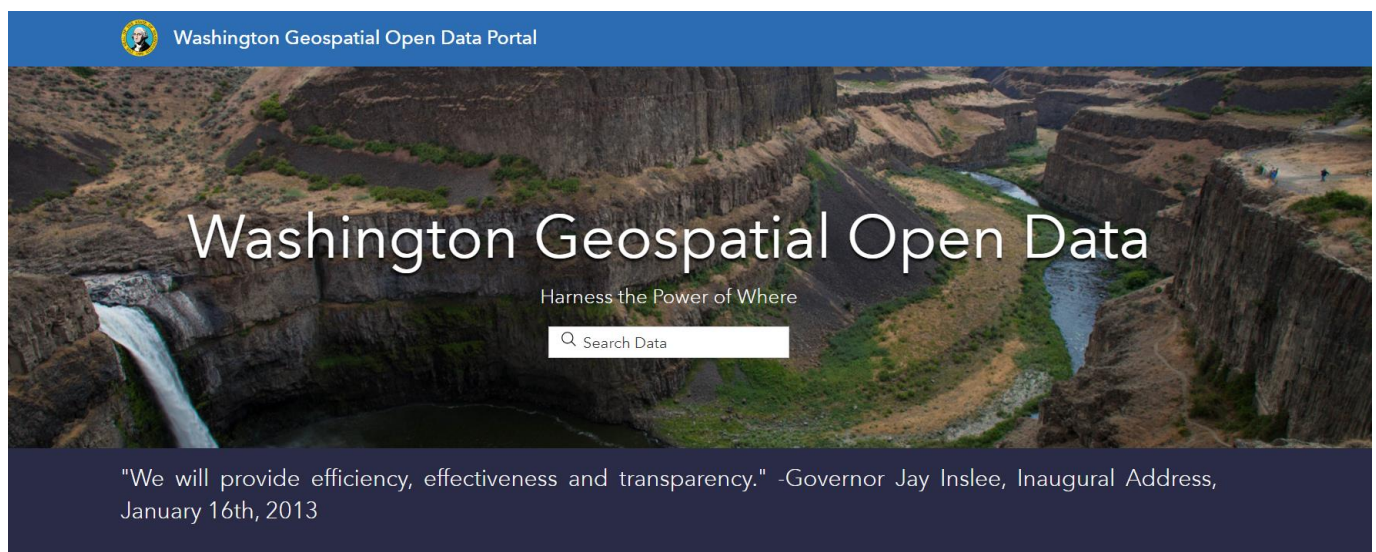
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Executive Summary

In 2021, the Washington State Legislature allocated \$724,000 to develop GeoPortal 2.0, enhancing the existing geospatial open data site (geo.wa.gov) to address gaps in managing and disseminating data related to natural hazards. GeoPortal 2.0 enables secure sharing of sensitive data (category 2 and 3), improving cross-agency data sharing, data freshness, and eliminating redundant reporting. Initially developed for natural hazard mitigation planning, it has already expanded to include sharing data on school bus stops (Category 3 data due to the location of children) between the Office of the Superintendent of Public Instruction (OSPI) and the Department of Transportation (WSDOT) to ensure correct signage and safety measures. The Department of Natural Resources (DNR) uses GeoPortal to share sensitive data with multiple state agencies to coordinate the protection of threatened and endangered habitats.


Implemented during the 21-23 biennium, the project involved expanding the existing platform, onboarding agencies, training users, and establishing a governance group to address stakeholders' needs. Partners include the Departments of Ecology, Fish & Wildlife, Health, and Transportation; the offices of the Superintendent of Public Instruction, Equity; the Puget Sound Partnership, Military Department/Emergency Management Division, and the Washington State University Climate Impacts Group. GeoPortal 2.0 significantly improves geospatial data-sharing practices, resulting in enhanced safety measures, better planning for vulnerable clients during power outages, and streamlined environmental conservation efforts. This initiative is crucial for state planning, natural hazard mitigation, climate resiliency, equity, and low-carbon energy siting.



Geo.wa.gov




Explore Washington Data & Applications



Local Geospatial Open Data in Washington State

Local government links to geospatial open data sites in Washington State.

Explore



Washington Library Locations

Geocoded layer of statewide libraries, includes regional public libraries as well as academic libraries and special collections.

Explore

Idea

GeoPortal 2.0 is a groundbreaking website, the first of its kind in the nation for state government, transforming how state agencies access and share Geographic Information System (GIS) data. Developed with cutting-edge technology, this innovative platform provides a centralized, secure, and real-time repository of GIS information, enabling informed decision-making across multiple state departments. GeoPortal 2.0 addresses the challenges of fragmented data management practices, facilitating efficient and effective collaboration among agencies. By providing a secure and standardized platform for data sharing, it has become an invaluable tool for Washington state, fostering innovation, collaboration, and improved service delivery across multiple sectors.

The portal allows agencies to securely view and share maps and geographic data for Category 2 data and Category 3 information for authorized agency employees. WaTech provides the platform and software, ensuring robust security and authentication procedures as reviewed by WaTech’s Privacy Office and Office of Cybersecurity. This secure sharing capability demonstrates an improved enterprise approach to GIS and the potential for expanding enterprise GIS data sharing in the future.

In the 2021 legislative session, the Washington State Legislature allocated \$724,000 to develop the Natural Hazards Mitigation Data Portal to fill gaps in managing and disseminating data related to natural hazards. GeoPortal 2.0 enhances the existing geospatial open data site (geo.wa.gov) by enabling the secure sharing of sensitive data (category 2 and 3), addressing significant issues such



as cross-agency data sharing, data freshness, and redundant reporting, thereby facilitating more effective data analysis and natural hazard mitigation strategies.

GeoPortal 2.0 aims to continue the state's successful efforts to centralize data sharing on a common platform. Initially developed for natural hazard mitigation planning, it has expanded to include sharing data on school bus stops between the Office of the Superintendent of Public Instruction (OSPI) and the Department of Transportation (WSDOT) to ensure correct signage and safety measures. The Department of Natural Resources (DNR) uses GeoPortal to share sensitive data with multiple state agencies to coordinate the protection of threatened and endangered habitats.

Centralizing large datasets, such as statewide 6-inch imagery, high-resolution land cover data, and elevation data, has typically been done on the GeoPortal platform. These large datasets necessitate cloud hosting for scalable, analytical capabilities. GeoPortal 2.0 is vital for real-time decision-making in various scenarios, such as planning school bus routes and coordinating power outages to protect medically dependent residents. By providing timely and accurate data, the platform enhances operational efficiency and supports the state's mission to safeguard public health and safety.

Previously, GIS data sharing involved cumbersome processes like physical media distribution or fragmented cloud storage, leading to delays and data discrepancies. GeoPortal 2.0 eliminates these challenges by offering immediate, synchronized updates, ensuring all agencies work with the latest information. For example, the DNR can now instantly share critical habitat data with the Department of Fish and Wildlife, Parks, Transportation, and others, streamlining environmental conservation efforts and resource management.

GeoPortal 2.0 stands out by consolidating multiple agencies' needs into a single, integrated system, a feat not achieved by any other state. This enterprise-level solution showcases Washington's leadership in GIS technology and data-driven decision-making, setting a new standard for public sector innovation. With GeoPortal 2.0, Washington state agencies can now access GIS data effortlessly, making informed decisions that positively impact communities and the environment. This initiative addresses the need for a centralized, efficient, and secure platform for sharing sensitive and authoritative geographic information to support state planning, natural hazard mitigation, climate resiliency, equity, and low-carbon energy siting.

This project addresses several state and national mandates including:

- [NASCIO State CIO Top Ten Priorities](#) – Data & Information Management and Digital Government/Digital Services
- [Washington State Enterprise IT Strategic Plan:](#)
 - **Goal #1: Create a Government Experience that Leaves No Community Behind** – Through a connected government that emphasizes service delivery and the experience of those we serve, we can achieve equitable outcomes across our communities.



- **Goal #2 – Better Data, Better Decisions, Better Government, Better Washington** – Use data and insights to improve the experience of those we serve, prioritize service improvements, drive strategic decisions, and improve transparency.
- **Goal #3: Innovative Technology Solutions Create a Better Washington** – Prioritize solutions emphasizing access, technology, and innovation to address systemic societal challenges and align our decision-making for those we serve.

Implementation

This platform focuses on natural hazard mitigation and other critical initiatives, ensuring that all levels of government use consistent and authoritative geographic information. The implementation involved expanding the existing GeoPortal platform to include additional topic areas requested by various agencies such as the Department of Natural Resources (DNR), Department of Fish & Wildlife (DFW), Department of Transportation (WSDOT), Department of Health (DOH), Department of Ecology (ECY), the Office of Superintendent of Public Instruction (OSPI) and more.

Key steps in the implementation included:

- Creating infrastructure for additional business areas to be added to the platform.
- Onboarding agencies and training users.
- Establishing an active governance group to discuss priorities and ensure the platform meets the needs of all stakeholders.

Partners

The GeoPortal 2.0 project collaborates with various state agencies and external partners, including:

- Department of Ecology (ECY).
- Department of Fish and Wildlife (DFW).
- Department of Health (DOH).
- Department of Transportation (WSDOT).
- Office of Superintendent of Public Instruction (OSPI).
- Office of Equity (Equity).
- Puget Sound Partnership (PSP).
- Military Department/Emergency Management Division.
- Washington State University Climate Impacts Group.

Impact

The GeoPortal 2.0 has significantly improved geospatial data sharing practices among state agencies, resulting in more accurate and streamlined data-driven service offerings.

Notable impacts include:

- **WSDOT and OSPI collaboration:** WSDOT uses bus stop data from OSPI to ensure appropriate road signage for bus stops on state highways, enhancing safety for children and the driving public.
- **DSHS and The Department of Commerce (COM) collaboration:** DSHS uses power outage information from the Office of Energy to plan protections for vulnerable clients who require energy for life-saving equipment.



This map shows bus stops along the state route 169 - which are reviewed for proper signage.

Results and Metrics

The GeoPortal 2.0 project tracks several key performance metrics:

- **Agency Usage:** 23 agencies are using the portal to share or consume data for their business operations.
- **Dataset Sharing:** 280 datasets are shared on GeoPortal 2.0, and over 700 datasets on the open data site.
- **Active Governance:** A governance group meets monthly to discuss and set priorities, ensuring the platform's relevance and responsiveness to user needs.
- **Real-World Applications:**
 - WSDOT and OSPI: Enhanced road signage safety for school bus stops.
 - DSHS and COM: Improved planning for vulnerable clients during power outages and wildfires.

