SIGNIFICANT WASHINGTON STATE GEOGRAPHIC INFORMATION EFFORTS

2007 - 2008

INTEGRATED STATE GEOSPATIAL FRAMEWORK DATA EFFORTS

TRANSPORTATION

In May of 2007, the Washington State Department of Transportation launched the "WA-Trans" database. WA-Trans is an integrated geospatial transportation data and tools for the collection and integration of the best available data from multiple sources. Recent accomplishments include:

- The completion of the Puget Sound Pilot (5/2007) and the One-Road Pilot (9/2008) projects;
- Development of prototype software for loading data to and receiving data from the database.
- The testing of the storage and returns of data in usable GIS format; and
- The transformation of the WA-Trans database to the National Map data schema.

Major components of WA-Trans architecture include:

- *Internet Portals* – Web sites to facilitate the processes of contributing data to and receiving data from WA-Trans.
- *Translator* – Transformation software to bring data into and out of the system so data providers and users don't have to change their data formats.
- *Agreement Points*: Data points to ensure consistent connections between data providers to create "seamless" representations of the transportation features.
- *Change Detection:* Software and Processes to support data updates over time.
- *Quality Assurance/Quality Control* - Tools and processes to evaluate data to make sure it is accurate and complete before accepting it into the database.
- *Security* - Ensure authorized data providers and data users can access and manage WA-Trans data.

Further information can be found at:
http://www.wsdot.wa.gov/mapsdata/TransFramework/Pilots.htm

ORTHOIMAGERY

Orthoimagery is aerial photography that has been processed to adjust for irregularities of the earth's surface, the orientation of the camera, and other factors that distort the photo. The result is a dataset that has the features of a map. Orthoimagery is

commonly used to identify and locate features on the earth. A simple use is as a backdrop for maps.

DNR and DOT are the lead agencies concerning orthoimagery data in Washington and coordinate with federal and local governments as well as state agency Orthoimagery partners. This program has been in existence since 1973. State Orthoimage Program projects are funded by state, federal, and local agencies, tribes, and private partners. Historically, approximately 60% of the area of the state is updated on a six year cycle.

In the summer of 2006, the Washington Orthoimagery Consortium and the National Agricultural Imagery Program (NAIP) produced a statewide orthoimagery data set for the entire state of Washington. In July of 2008, the state of Washington launched a web portal that provides access to the state's 18" NAIP color orthoimagery data. The data in the portal can be accessed by state agencies through a single web access point at www.geography.wa.gov. It is anticipated that Phase II of the portal will include access to additional state imagery data. Image Portal access will be opened to include the public as the infrastructure is expanded.

In the summer of 2009, the Washington Orthoimagery Consortium and the National Agricultural Imagery Program (NAIP) proposes to produce its second statewide data set for Washington. Over the next six months the consortium will attempt to raise funds to enable the collection 18" or better color orthoimagery data.

For further information contact George Spencer at spenceg@wsdot.wa.gov or Tim Gregg at Tim.Gregg@dnr.wa.gov

PARCELS DATABASE

In October of 2006 a group of federal, state, tribal, and local government participants came together to explore whether there was interest in, and a willingness to, pursue the development and coordination of a statewide parcel framework data set that would be accessible to various participating agencies. It was determined that this project would involve the identification of a set of core attributes of interest, addressing the concerns of county parcel data producers, coordinating of licensing agreements, and building a working relationship with the county parcel custodians and key agency framework coordinators.

On July 16, 2008 the Parcels workgroup reported the completion of a significant project task, the production of an integrated and normalized geospatial database containing over three million parcel records for Washington.

Further information can be found at:
http://depts.washington.edu/wagis/projects/parcels/group/

SHARED HYDROGRAPHY

The Washington Hydrography Framework Project is the cooperative effort to define, implement, and maintain a single high resolution hydrography network for Washington State.

In September of 2007 the Interim Hydrography Research and Development Pilot Project was launched. Currently, three different sets of regulatory information result in conflicting decisions on environmental permits. This six-month research and development project brings together regulatory data on water typing, fish habitat, and water quality from the Departments of Natural Resources, Fish and Wildlife, and Ecology into a single, comprehensive source of information on an eastern and western Washington watersheds. The pilot tested the governance, data submittal, and support for the consolidation and maintenance of the data at the Department of Ecology.

The project was completed in June of 2008 and pulled the regulatory data together using the USGS/EPA National Hydrography Data (NHD) structure as its base.

Further information can be found at:
http://www.ecy.wa.gov/services/gis/projects/sharedhydro/wahyfw24k.htm

GEODETIC CONTROL

The Washington State Reference Network (WSRN) is a regional cooperative of Global Positioning System (GPS) reference stations and data that enables cost-saving solutions for public and private sectors in the fields of surveying, mapping, and other high accuracy location technology needs. GPS Data Files from a network of Continuously Operating Reference Stations (CORS) are available for download with real-time services available through partnerships, memberships, and subscriptions. The WSRN serves as an integral part of the states modernization of the Spatial Reference System in Washington.

On-going funding for Height Modernization in Washington is provided by National Oceanic and Atmospheric Administration (NOAA) and National Geodetic Survey (NGS) grants. The states existing geodetic control network is in need of updating, so this funding will help in accomplishing some of this task.

Further information can be found at:
http://www.wsrn.org/ and at www.washington3d.org

GEOGRAPHIC INFORMATION TECHNOLOGY (GIT) ENTERPRISE ARCHITECTURE (EA)

ESTABLISHED CONCEPTUAL ARCHITECTURE

The GIT Enterprise Architecture (EA) Initiative was created as a decision making framework for identifying the GIT components that state agencies want to manage and fund as state enterprise assets.

The objectives of the GIT EA effort included:

- Facilitating a single enterprise view of GIT data for policy makers, business partners and citizens;
- Increasing state agencies' capacity to fully support informed public policy and decision making and;
- Helping resolve environmental, transportation, public safety, and other multi-jurisdictional problems; and
- Address the multiple objectives of the 2005 ISB/GIT Strategic Plan.

The GIT EA Conceptual Architecture was adopted by the stakeholders on the following dates:

- ISB/Geographic Information Technology Committee (December 6, 2005)
- ISB/Enterprise Architecture Committee (December 21, 2005)
- Information Services Board (January 12, 2006)

Further information can be found at:
http://wagic.wa.gov/GITEA/default.htm

GEOGRAPHIC INFORMATION TECHNOLOGY (GIS) STANDARDS

ESTABLISHED STATE STANDARDS

The following state GIS standards have been adopted by the state Information Services Board (ISB).

- **Geographic Information Technology Policy and Standards Process** - document describes the iterative process for developing and maintaining GIT/GIS policy and standards.
- **Standard for Metadata** - describes the standard for geo-dataset documentation.
- **Standard for Horizontal Datum and Coordinate System** - describes the standard for datum and coordinate system.

Further information can be found at:
http://wagic.wa.gov/GITEA/GITEA%20Conceptual%20Architecture.htm

WASHINGTON STATE FEDERAL GEOGRAPHIC DATA STANDARDS (FGDC) METADATA ENTRY GATEWAY

STATE CLEARINGHOUSE

Established in 1998 through partnerships between state agencies and the University of Washington, management of the clearinghouse transferred to the University Libraries in 2006. The Clearinghouse began contributing metadata to the national search portal (http://geodata.gov) via a digital harvesting technique in 2007. Improvements to the clearinghouse interface were also implemented in 2007 by directing users to the geodata.gov site. Updating and expanding the metadata content for the clearinghouse are planned and will be based upon an investigation into easier methods for contributing metadata by the agencies creating the data.

Further information can be found at:
http://geodata.gov

GEOSPATIAL GOVERNANCE EFFORTS

WASHINGTON STATE GEOGRAPHIC INFORMATION COUNCIL (WAGIC)

The Washington State Geographic Information Council (WAGIC) is the states' multi-jurisdiction technical advisory group. State agency GIS managers who participate in WAGIC serve as staff to the ISB Committee on Geographic Information Technology.

On June 12, 2008, WAGIC conducted its fifth users retreat when some twenty-five GIS practitioners from federal, state, local government and higher education participated. The primary objective was to renew its connection's with the GIS user community and to gain a better understanding on how WAGIC can better support the states GIS users now and into the future. Some resulting action items and priority recommendations from that meeting included:

- Organizational commitment of resources to WAGIC and a commitment to strengthen membership;
- WAGIC will undertake the update of its charter and 2004 strategic plan and the creation of a business plan.

WAGIC will complete its *50 States Initiative Plan* during 2008-2009. The 50 States Initiative outlines the way governments will work together to build the National Spatial Data Infrastructure (NSDI).

Further information can be found at:
http://wagic.wa.gov/

Information Services Board's (ISB) Geographic Information Technology (GIT) Council

The ISB's Committee on GIT represents the strategic interest of a coordinated, enterprise approach to utilizing geographic information technology and provides leadership for implementation of cost effective, collaboratively developed spatial data management solutions.

Further information can be found at:
http://isb.wa.gov/committees/wagic/index.aspx