

## Idaho Technology Authority (ITA)

### **ENTERPRISE STANDARDS – S4000 INFORMATION AND DATA**

**Category: S4250 – ENTERPRISE GEOGRAPHIC INFORMATION SYSTEM (GIS) DATA SHARING STANDARDS**

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#### **I. DEFINITIONS**

1. GIS – Geographic information systems which comprise the hardware, software, network, data, and human resources involved in creating, maintaining, managing, and distributing data, information, and knowledge about spatial objects and their relative positions.
2. Spatial Data – Digital information that identifies the geographic location of features and boundaries that are usually stored as coordinates and topology that can be mapped or used for comparative spatial analysis.

#### **II. PRINCIPLES**

The decision to release spatial data to any state agency which adheres to adequate security and privacy guidelines should be guided by three principles:

1. The State of Idaho owns the data that its employees have created or aggregated to the extent that a property interest in the data exists and rests with the State of Idaho.
2. Idaho adheres to a statewide policy of open government, and should release data and records to other state agencies unless prohibited by statutory or appropriate regulatory authority, or disallowed by third-party data stewards when their data is

combined with data created or aggregated by state employees. Additionally, even when there is a statutory or regulatory barrier preventing value added data sharing, the impacted state agencies should propose solutions to addressing these barriers.

3. To ensure the use of the most reliable and up-to-date information effort should be made to use datasets created and published by, or on behalf of, the data steward tasked with the creation and maintenance of a given dataset.

### **III. RATIONALE**

The purpose of this standard is to encourage sharing and integration of compatible geospatial data between state agencies. All data shared among state agencies shall adhere to the set of basic data format standards outlined in this document. Note that this data standard does not preclude state agencies from sharing their data in other formats, in addition to the data formats listed in [Section IV](#) (Approved Data Format Standard[s]). In order to ensure the compatibility and utility of shared data, it is required that all data be shared in prescribed formats. Much of this data may also be shared with the public as appropriate.

### **IV. APPROVED DATA FORMAT STANDARD(S)**

The data format standards below are based on data formats that are commonly used GIS software by state agencies to view, create, analyze and share geospatial data. Preference should be given to online mapping services.

Esri Map and Image Services are the preferred vector and raster data sharing formats because they can be easily kept up-to-date by the data stewards while also being readily accessible to state agencies and the public at all times.

#### **A. Acceptable Vector Data Formats**

1. Esri Map Service
2. Enterprise or File geodatabase
3. Shapefile

#### **B. Acceptable Raster Data Formats**

1. Esri Image Service (preferred)
2. TIFF or GeoTIFF
3. Erdas Imagine (\*.IMG) format
4. JPEG or PNG

#### **C. Light Detection and Ranging (LiDAR) Data Formats**

1. Raw and classified point clouds should be delivered in a current version of LAS file format.

## **V. DATA DELIVERY**

It is recommended that publicly available Map and Image Services be registered with ArcGIS Online (AGOL, the State Enterprise Account:

<http://idaho.maps.arcgis.com/home/index.html> ) and made available via the Statewide INSIDE Idaho Geospatial Clearinghouse, in addition to the standard formats.

## **VI. JUSTIFICATION**

Map Services hosted by the data steward allows for an increased ease of data sharing while allowing the data steward to control their data and keep it up-to-date. This ensures that state agencies and the public have access to the most current data.

Map Services are preferred, but alternatively, the Geodatabase or Shapefiles make the data available in a format that is easy to consume by state agencies and the public.

This standard provides the direction to create a cooperative culture among state agencies that encourages responsible sharing of data through recommended data formats.

## **VII. NOTIFICATIONS**

It is highly recommended that state agencies create listserv notifications and have their data listed on INSIDE Idaho when new or updated spatial datasets become available.

State agencies should work together to notify one another as to what data is available. The GIS community, through the Idaho Geospatial Council–Executive Committee (IGC-EC), should work together to determine the best method to accomplish this, such as the open data portals, listserv notifications and other methods yet to be determined.

## **VIII. EMERGING TRENDS AND ARCHITECTURAL DIRECTIONS**

It is expected that Map Services available via cloud resources will continue to grow. State agencies should assess the spatial data they hold and move towards making more spatial data available via map services.

## **IX. PROCEDURE REFERENCES**

ITA Policy [P1070](#) (Geographic Information Systems)

ITA Standard [S4210](#) (Single Zone Coordinate System for GIS Data)

ITA Standard [S4220](#) (Geospatial Metadata)

ITA Guideline [G320](#) (Geographic Metadata Guidelines)

## **X. REVIEW CYCLE**

Standard to be reviewed annually by the IGC-EC.

## **XI. EXEMPTION PROCESS**

Exemptions to this standard can be requested per ITA Policy [P1010](#) (Information Technology Policies, Standards and Guidelines Framework [*Section V. Exemption Process*]). Requests for exemption will be reviewed by the IGC-EC.

## **XII. CONTACT INFORMATION**

For more information, contact the ITA Staff at (208) 332-1876.

## **REVISION HISTORY**

Effective Date: February 4, 2016