SALT LAKE COUNTY
COUNTYWIDE POLICY ON
STANDARDS FOR GEOGRAPHIC INFORMATION SYSTEM

Purpose

This document provides standards for the creation and maintenance of geospatial data for the use of Salt Lake County offices and departments to create a high quality, well-documented Geographic Information System (GIS) that integrates across Salt Lake County data sources. These standards are created under the auspices of the GIS Steering Committee established by Chapter 2.46 of the Salt Lake County Code of Ordinances, 2001, and amended by Ordinance 1619A.

Scope & Compliance

The scope of this policy applies to all county users, contributors and contractors to GIS. Because Salt Lake County does not have a centralized GIS office, agencies are encouraged to work collaboratively to maximize GIS resources and for the good of the county as a whole.

1. New GIS users will participate in an orientation and training explaining the county GIS policies as directed by the GIS Steering Committee.
2. GIS users shall be familiar with the GIS Steering Committee ordinance Chapter 2.46 and this policy.

Policy

1.0 Dataset Types

A GIS database consists of geographic datasets that are made up of points, lines, polygons, tables and imagery. Salt Lake County uses data created by vendors under the direction of Salt Lake County as well as various internal and external entities.

1.1 Base Dataset -- Salt Lake County uses as a base reference layer, the survey control, which is maintain by the Salt Lake County Surveyor. This base layer includes, but is not limited to, the sections laid out by the original Public Land Survey System (PLSS) survey.

1.2 Primary Source Datasets -- Are datasets created by Salt Lake County that have a direct or indirect tie to the base dataset.

1.3 Derived Datasets – Are created from existing datasets to create a new dataset. These datasets can be from internal or external datasets.

1.4 External Datasets --Salt Lake County may be required by law to use datasets created by outside agencies, such as US Census Bureau data and US Congressional Districts. Salt Lake County may not meet the specific requirements of an external data creator except where required by law.

1.5 Imagery – Aerial Imagery used for building Countywide GIS data shall be the rectified imagery approved by the Salt Lake County Surveyor. Other aerial imagery and remotely sensed data for Countywide GIS shall be reviewed by the Surveyor for accuracy and compliance with County policy.

2.0 Data Security

2.1 Some GIS data created contains information that is sensitive or confidential in nature. This data must be identified by the data creator as being sensitive or confidential. Access to sensitive and confidential data must be limited to those who have legitimate business reason for access. Procedures for ensuring limiting access to sensitive and secure data are necessary.

2.2 Access to GIS data that is created by an office or department will, by default, be available only to the creating entity. The data creator may request that others be given access to the data.

2.3 Changes to GIS data must be vetted and approved through the County's GIS change management process to assess impact on other agencies. The change management process is established by the GIS Steering Committee. Once approved, the office or department that created the data may make the approved modification.

3.0 Data Sharing

No county agency shall distribute data that is created by another agency. This is not intended to prohibit the production of maps that use data created by another internal agency but is intended to allow the creating agency control over the distribution of geographic and attribute data created by that agency.

3.1 Internal

As requested by the data creators a repository of GIS data, for use by Salt Lake County agencies, will be maintained by Information Services using appropriate technology. Data must not include protected information as defined by agency requirements. The data in the shared repository will be read-only and changes will only be accepted from the creating agency.

3.2 External

Salt Lake County will comply with the Government Records Access Management Act (GRAMA) and Health Insurance Portability and Accountability Act (HIPAA) when distributing data outside of Salt Lake County.

3.2.1 The agency that creates GIS data is responsible for setting the conditions under which the data may be distributed. This includes fees and the data format that is used. Each agency shall present proposed fees to the GIS Steering Committee for consideration and recommendation.

3.2.2 If an outside party, contracted by a Salt Lake County agency to perform geographic work, requires access to the county data, that data is subject to distribution restrictions. The contract must include provisions that restrict the contractor from using that data for any purpose outside of the scope and duration of contract.

3.2.3 Salt Lake County may share data with municipalities and other public entities through agreement or contract. Such data sharing does not remove the requirement that the creating entity retains final authority over data distribution.

3.2.4 In the case of data acquired from some outside vendor or agency, any redistribution requests will be referred to the third-party creator.

3.2.5 When a Salt Lake County agency contracts with a vendor, consultant, or establishes an interlocal agreement with another entity, the agreement or contract must require adherence to the standards as set forth in this policy.

4.0 Data Standards

Best practice is to document methods used when creating data.

4.1 Projection and Coordinate System – When changing between projection and coordinate systems confirm shifting does not occur.

All data created by Salt Lake County will use the following:
Desktop Applications:
    Datum: NAD83
    Projection: State Plane
    Zone: Utah Central
    Linear Unit: US Foot

Cached layers:
    Datum: D_WGS_1984
    Projection: Mercator_Auxillary_Sphere
    Linear Unit: Meter

Dynamic layers (same as Desktop Applications):
Datum: NAD83
Projection: State Plane
Zone: Utah Central
Linear Unit: US Foot

4.2 When creating maps or map products the data creator, publisher, and date of publication must be identified and acknowledged with the following statement:

Map created by [your Org] in conjunction with the offices of the Salt Lake

County, Assessor, Clerk, Council, Mayor, Recorder, and Surveyor

4.3 Geographic Feature Requirements -- Geographic data, that are more than temporary, requires properly named attributes that describe the feature. All geographic features must be created from and referenced to the most accurate source data. Intended use of the data must be included in the metadata.

4.3.1 Points should represent a single feature or location.

4.3.2 Lines must not overlap except where there is specific need for accurate data representation. Lines represent a network and at intersections the lines must be snapped to a node. Lines must be created with the minimum number of vertices. Vertices should not be stacked.

4.3.3 Polygons, when applicable, must not have gaps and/or overlaps if the features represent contiguous areas.

4.3.4 Attributes

4.3.4.1 Each geographic feature must have a unique ID and name. Other attributes will be added to meet the requirements of the feature set. All attribute data must be character or strings unless it is a date, Boolean, or a numeric field that is used for a calculation.

4.3.4.2 Attribute field names must meet established standards. Attribute field names must have descriptive names that may help interpret the purpose of the field. When possible, domains shall be used for attributes that have a definable set of values.

4.3.5 Metadata -- Metadata must be maintained for every dataset created by Salt Lake County. The minimum requirements are:

Data creator: agency
Date of creation:
Dates of modification:
Description of dataset:
Method of creation, including source and reference materials:
Current projection and coordinate system
Original projection and coordinate system if different from current

Additional metadata requirements may be added as needed. Agencies are encouraged to maintain more than the minimum metadata. Note: *currently IS-GIS is working on developing a metadata workflow based on the ISO 19139 standard. See: http://desktop.arcgis.com/en/arcmap/10.5/manage-data/metadata/metadata-standards-and-styles.htm*

4.3.6 Web-based GIS Technologies and Services

4.3.6.1 Maps and layers to the assorted web-based (cloud) GIS technologies must meet the same data standards and sharing requirements as outlined in Sections 3.0 and 4.0. Currently the technologies are ArcGIS Online (AGOL) and Portal.

4.3.6.2 AGOL and Portal items must have a Salt Lake County standard thumbnail, description, and informative tags.

4.3.6.3 Prior to the creation of any new dataset or new web service, it must be confirmed that the dataset or web service has not previously been created and cannot be utilized by views or queries from the original dataset.

5.0 Data Archiving Requirements

5.1 Salt Lake County recognizes the long-term value of geospatial data and the need to establish retention and disposition standards, guidelines and procedures for storage, management and access. GIS resources and capabilities must be addressed in identifying what data must be preserved, how readily available it is, and how it will be managed over time.

5.2 The GIS Steering Committee may establish criteria to determine which datasets, maps, projects, imagery and/or outputs should be archived; how frequently they must be archived; identify industry standards that must be followed regarding metadata; establish retention and disposition procedures; ensure ongoing training in archival requirements; and promote use of the County's geospatial resources.

5.3 The GIS archiving procedures should identify data accessioning information including data authenticity; establish file naming conventions; address security issues, hardware and software considerations. The procedures should include a retention schedule that identifies the datasets to be preserved, including retention periods and any restrictions of access. Data custody issues should address metadata documentation, media migration and data conversion, preservation copies, disaster planning, vital records identification and off-site storage issues.

6.0 Exceptions and Proposed Policy Changes

6.1 Exceptions and proposed changes to this policy must be presented to the GIS Steering Committee for consideration prior to going before the County Council.

APPROVED and ADOPTED this _____ day of July, 2019.

SALT LAKE COUNTY COUNCIL

Richard Snelgrove, Chair

ATTEST:

Sherrie Swensen, County Clerk
APPROVED AS TO FORM:

District Attorney's Office   Date