



eGIS Data Maintenance Policies & Procedures

Purpose

As a GIS Center of Excellence, a central part of the Enterprise Geographic Information Systems' (eGIS) mission is to ensure the ongoing availability and maintenance of a Geographic Information System (GIS) data repository that serves as a central hub of authoritative countywide GIS data for all eGIS Members. This guide outlines important policies and procedures to ensure the data quality and upkeep of the eGIS Repository.

It is the responsibility of all eGIS Member departments to adhere to the standards and guidelines set forth in this document.

This guide, as well as a metadata standard document, can be found on the *egismembers* shared network drive (for information on how to connect to this drive, see the FAQ section of this document).

About the eGIS Repository

The eGIS Repository provides a centralized location for all eGIS Members to access authoritative countywide GIS data. The data is sourced across county departments and eGIS Members who, in concert with the eGIS Team, play an active role in ensuring the quality of the contents of the repository.

- I. **Governance:** CIO Technology Directive TD 12-02 requires departments to maintain authoritative copies of their GIS data in the LA County eGIS Repository. Departments sign a “Geospatial Data Maintenance agreement” which provides guidelines on ensuring data in the repository is kept up to date.

The Enterprise GIS Data Committee (a subcommittee of the Enterprise GIS Steering Committee) establishes standards for the eGIS Data Repository.

- II. **Access:** All eGIS Members have access to the spatial databases in the eGIS Repository. Login and passwords are managed by the eGIS Team, and provided to each participating department. Connections to the databases are created through desktop GIS software (e.g. ArcGIS Desktop).

**Every department is given access to their own LACOUNTY SDE geodatabase (see section IV - Organization) where all end users have Editor rights with the ability to edit, update, and view any data in that database. Note – the eGIS group plans to migrate departmental data to dedicated department specific databases as part of Future Changes.

- III. **Security:** Layer security is handled through ArcSDE through managed user roles. Departments publishing data to the eGIS Repository are given “Editor” rights *only* to their data and therefore can manage and update their own data. All departments will have “Viewer” credentials to view and use data on the Repository that they do not own. Some confidential data is not available to the viewer role.

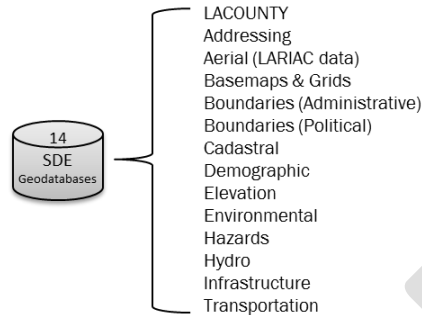
<i>User Role Credentials:</i>	<i>Given to:</i>	<i>Dataset Privileges:</i>
Creator	eGIS Team	All Admin rights
Editor	Data Owners	Edit and view



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Viewer	eGIS Members	View only
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- IV. **Organization:** The eGIS Repository is organized into 14 separate thematic geodatabases based upon Federal Geographic Data Committee (FGDC) standards –



1. **LACOUNTY** – allows departments to create and maintain data for internal applications, projects, etc. that are not categorized as authoritative datasets, and are used to share data across a single department or with other departments
2. **Addressing** – houses all Countywide Addressing Management System (CAMS) derived data
3. **Aerial** – contains digital aerial imagery acquired via the Los Angeles Region Imagery Acquisition Consortium (LARIAC)
4. **Basemaps & Grids** – contains grid system layers (e.g. US National Grid) or other data (e.g. zoning) typically used in reference maps
5. **Boundaries (Administrative)** – contains data layers that demonstrate legal or official jurisdictional areas for different institutional or departmental entities
6. **Boundaries (Political)** – contains data that show the jurisdictional boundaries across different County departments or levels of government (e.g. City vs County)
7. **Cadastral** – contains assessor parcel data, including “local roll” information
8. **Demographic** – includes 10 year Census, annual estimates of population and poverty, and population trends
9. **Elevation** – contains DEMs and bathymetry data, as well as hillshade and contour data from LARIAC
10. **Environmental** – contains County solar data and other environmentally related layers
11. **Hazards** – contains data related to natural hazards (e.g. earthquake and flood inundation)
12. **Hydro** – contain data from the National Hydrography Dataset (NHD) and other hydrographic data
13. **Infrastructure** – contains layers from the Location Management System (LMS) (such as hospitals, schools, police stations or other points of interest), DPW utility data, building outlines from LARIAC, and land type data (e.g. boundaries for parks, school boundaries, shopping centers, special event venues, etc)
14. **Transportation** – contains data from CAMS, as well as layers such as, metro and metro link, bikeways, airports, trails and evacuation routes

- V. **Database Contents:** In total there are over 400 spatial data layers in the eGIS Repository. A listing of these data layers can be found on the online eGIS Repository Data Tracking site (<http://egisplatform.gis.lacounty.gov/datatracking/>) or the eGIS Data Portal (see eGIS Data Portal entry below) as well as in the Excel Catalog.

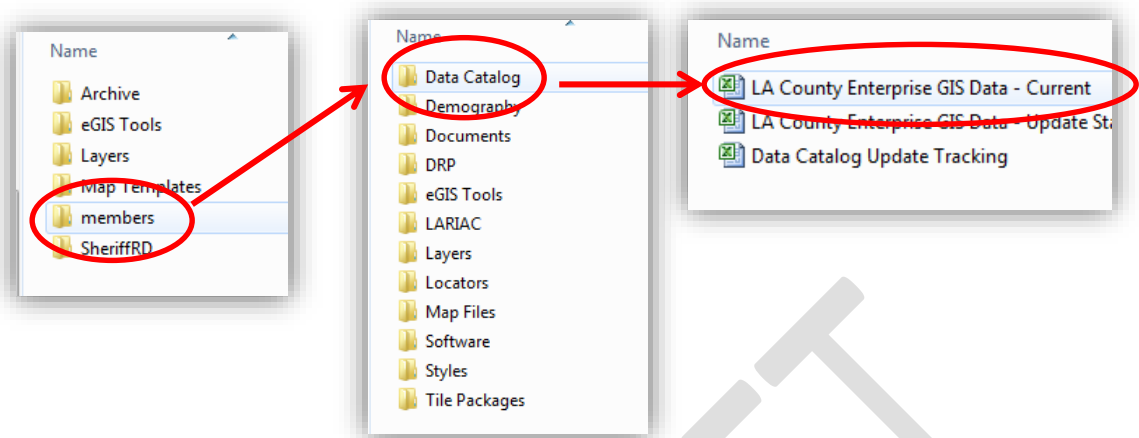


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- VI. Data Tracking & Cataloging:** Currently, data is cataloged in an excel file located on the egismembers shared network drive (see FAQ section of this document for connection details):
- VII. Data Sources:** Data in the eGIS Repository is primarily provided by participating eGIS member departments; however, it is also acquired through automated data updates via LMS or CAMS, as well as third party vendors providing aerial imagery for LARIAC. The repository also houses data from other government entities, such as US Geological Survey (USGS), Federal Emergency Management Agency (FEMA), and the State of California.
- VIII. Data Maintenance Schedule:** The following datasets follow an automatic update schedule:
- LMS – Daily (every night at 3 am)
 - Parcels – Weekly (Mondays at 1am)
 - CAMS – Weekly (Thursdays at 1am)
 - End user changes made to metadata or edits to layers are updated nightly
- IX. eGIS Repository and Database Backup:** A full backup (simple) of the 14 eGIS Repository databases runs once a week. Any updates or changes to data layers will be lost up to the last backup date (e.g. backups run every Sunday at 1am, if work is lost or errors made to a data layer on a Friday, the data can only be rolled back to the previous Sunday at 1am and therefore all work on a data layer between Sunday and Friday will be lost).
- X. eGIS Data Portal:** In addition to the eGIS Data Repository, eGIS Members can access and search for data in the eGIS Repository via an online catalog called the eGIS Data Portal (<http://egis3.lacounty.gov/dataportal/>). Here, eGIS Members can easily search for data layers and read detailed descriptions about the data, the data quality (e.g. currency, accuracy, precision, consistency), data owner and contact information, as well as when the data was last updated or added to the eGIS Data Repository. Users can also leave comments about a specific dataset, which are routed to data owners to alert them about inconsistencies, data corrections, or when other data issues arise.
- Data owners or the eGIS Team are responsible for creating and updating entries on the Data Portal.
- XI. Open Data Portal:** Departments are also encouraged to load data into the County’s Open Data Portal (<http://data.lacounty.gov>). See “Future Changes” at the bottom of this document.



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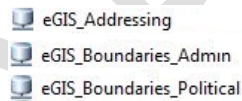


eGIS Repository Standards

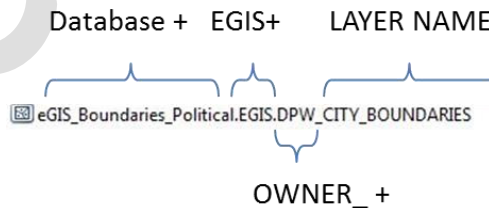
The eGIS Repository is maintained by the eGIS Team by enforcing guidelines that govern data quality and metadata standards. All eGIS Member Departments contributing data to the eGIS Repository are expected to follow these guidelines. Where these standards are not satisfactorily met, the data will be returned to data owners for proper review and completion.

I. Naming Conventions:

- a. **Databases** – are named according to the thematic contents of the data in each and preceded by “eGIS,” for instance:



- b. **Data Layers** –begin with the name of the DATABASE + EGIS+ DATA OWNER (in CAPS) + the NAME of the layer (IN CAPS), for instance:



- II. **Quality Assurance & Quality Control:** eGIS is only directly responsible for the integrity and accuracy of the layers that it maintains. It is the responsibility of participating eGIS Data Owners to review their data for logical consistency, positional accuracy, precision and completeness, as well as to supply metadata describing the condition and permitted uses for each data layer. The eGIS Team will reject data inserts or updates that would prove confusing to the general user



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community. To avoid such situations, the eGIS Team encourages all eGIS Member Departments to validate their own data maintenance and update procedures.

- III. Metadata:** eGIS roughly follows the FGDC standard and requires that all data (e.g. tables, shapefile, geodatabase feature classes, etc.) existing or loaded into the eGIS Data Repository include metadata. Because the eGIS Data Repository is a collection of data from contributing County departments, vendors and outside sources (e.g. city governments), we depend on the data owners to supply metadata for their contributed layers.

All GIS data submissions or updates shall include the following metadata elements:

- Name/Title
- Summary
- Create Date or Updated Date
- Description
- Attribute Information (a data dictionary on the fields and data types)
- Credits/Data Owner
- Contact Information
- Use Limitations
- GIS Repository Location

Please refer to the Metadata Requirements document for further details on Metadata standards. This document is in the “egismembers” shared network drive.

- IV. eGIS Data Portal:** Data uploaded to the eGIS Repository should also be listed and made available in the eGIS Data Portal with the latest metadata information. There are exceptions in cases where data has not been made public due to licensing or other restrictions.

Data Maintenance

To maintain the quality of the data in the eGIS Repository, please review and follow the guidelines below for submitting or updating data.

I. Adding New Data to the eGIS Repository

a. Requirements

- i. All data must follow the metadata standards outlined under the metadata requirements (*There are no exceptions to this requirement, any submissions without metadata will be rejected*)
- ii. All data must first have an entry in the eGIS Data Portal (*Exceptions: unless the data is not to be made public or there are sharing or licensing restrictions*)
- iii. It is recommended that your GIS data layers or feature classes be accompanied by a Layer file. This enables ease of use with the data loader tool, for use on the eGIS Data Portal, for cartographic purposes, and/or to ensure a standard symbology commonly used by your department is followed by other users.

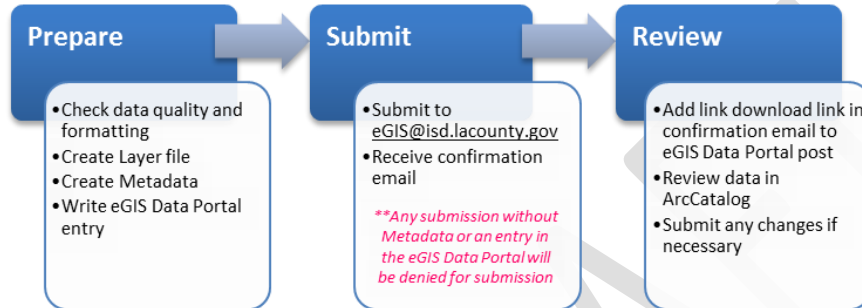
b. Process

- i. Prepare data for submission by checking the data quality, create a layer file (if necessary), create appropriate metadata following the standards listed in this guide, and create an entry for the data file in the eGIS Data Portal (*if no exceptions*).



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- ii. Submit the data with metadata and link to the Data Portal entry to the eGIS Database Managers via email (eGIS @isd.lacounty.gov) and await a confirmation email when your data has been loaded (the confirmation email will include a download link to your data) *Note: if the file is too big to send by email the Data Owners are responsible for providing an FTP service or sending the data on an external drive to the eGIS Team*
- iii. Review the data location and check your submission using ArcCatalog; communicate with the eGIS Database Managers if any changes are needed; use the download link from confirmation email to add into the eGIS Data Portal



c. Exceptions

- i. LMS – in some instances, it may be more appropriate for Data Owners to enter point locations into the Location Management System (LMS) in which case they will be notified upon receipt of data by the eGIS Team.

II. Maintaining Existing data in the eGIS Repository (general editing)

a. Requirements

- i. Update data in the Repository as changes are made in the source data.

b. Process

- i. Departmental logins enable users to update and edit data as necessary. Data can be edited directly, or changes can be copied from department data into the eGIS Repository data.

III. Changing Existing Data in the eGIS Repository (e.g. schema changes, replacements, etc.)

a. Requirements

- i. All metadata must be updated following the Metadata standards outlined under the Metadata requirements.
- ii. All entries in the eGIS Data Portal must be updated.
- iii. All updated GIS data layers or feature classes should be accompanied by an updated Layer file if necessary (*this is a recommendation*).

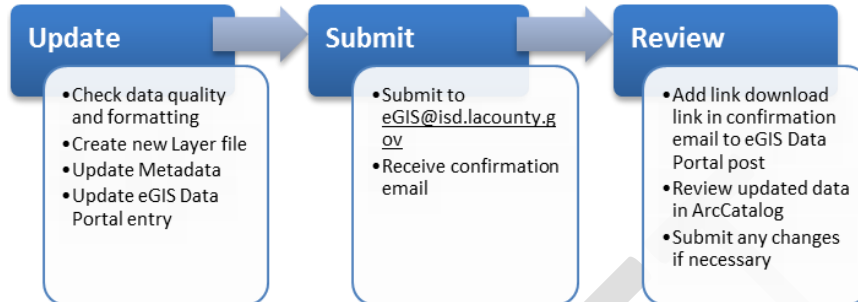
b. Process

- i. Update and review the data quality, create a new layer file and update the metadata following the standards listed in this guide; update the entry for the data file in the eGIS Data Portal
- ii. Submit the data with metadata and link to the Data Portal entry to the eGIS Database Managers via email (eGIS @isd.lacounty.gov) and await a confirmation email when your data has been loaded (the confirmation email will include a download link to your data)



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- iii. Review the data location and your submission using ArcCatalog; communicate with the eGIS Database Managers if any changes are needed; use the download link from confirmation email to update the eGIS Data Portal post



IV. Deleting Data in the eGIS Repository

All data in the eGIS Data Repository, once added, is considered under the use by the eGIS Community, and therefore should not be removed without proper notification to all members. Any database deletions shall be noticed as a change to the database schema and will follow the steps listed in *Change Control & Notifications*.

Any Data Owner wishing to delete or rename a data layer (even if that data layer will be replaced with another version) must first email the eGIS Team (eGIS@isd.lacounty.gov).

a. Process

- i. Request data layer to be deleted or renamed to eGIS Team; delete or change post in the eGIS Data Portal
- ii. Notification sent to all eGIS Members
- iii. All users disconnected for a period of 5 days
- iv. Data layer(s) is/are deleted or renamed after waiting period



Change Control & Notifications

The eGIS Team is required to make changes to the eGIS Data Repository to correct problems, update software, add features, and maintain stability as needs dictate or as requested. Such changes may affect the schemas (add or delete fields, add lookup values, change relations, change field names, etc.) of certain data layers or of the overall database.

- I. **Planned Changes** – All planned, non-emergency changes shall be notified to eGIS members 5 business days before the planned outage. All changes shall be recorded at eGIS as part of a change control log.



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- II. Emergency/Unplanned Changes** – In some cases, changes must be made immediately in order to prevent more catastrophic failures. In these situations, eGIS will send notification via email as soon as possible that an outage is about to occur and why the outage is necessary. If notice cannot be given in advance then the partners will be notified soon afterwards regarding the cause of the outage.
- III. Ongoing Maintenance Notifications** – Data owners of regularly updated data will receive a notification if their data is one month past an update time (for instance, for data with quarterly updates, if a data layer is 1 month overdue for an update, the data owners will be notified and expected to provide the updated data layer).

Some data layer seldom require an update (e.g. a county boundary layer) and in such cases, notifications will only go out at the time in which an issues with a layer was detected or the eGIS Team had been notified of a replacement layer for such data.

Future Changes & Coming Amendments to eGIS Data Practices

- I. LA County Open Data Portal (LAODP)** – The County of Los Angeles has recently launched a new open data portal (run by Socrata). Some common data layers from the eGIS Repository have already been loaded onto this new portal.

At this time, the eGIS Team and eGIS Data Committee have not yet vetted a best practice or methodology for streamlining posts and updates between the LAODP and data from the eGIS Repository posted on the current eGIS Data Portal site. For now, the eGIS Team and members will continue to maintain the GIS Data Portal in parallel with the County's Open Data Portal.

For all new data loaded onto the open data portal, it is recommended that eGIS data owners provide the unique URL to the LAODP site to on the eGIS Data Portal data layer entry page. If the Open Data entry item is a link to a Esri Map Service layer (with shapefile download not being an option); then a zipped shapefile in the eGIS Data Portal is still encouraged.

- II. LACOUNTY databases** – Currently, each department has their own LACOUNTY database, with read/write access (viewer access only available to outside departments). In 2015, we will begin the process of deprecating these databases and moving eGIS member departments to their own internal databases (SDE geodatabases) for the purposes of editing, sharing or staging data.

Access to the LACOUNTY databases will be phased out slowly, and all members will be notified in advance before these databases are decommissioned.



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FAQ

The following are some frequently asked questions (FAQs) on the eGIS Data Repository. For any other questions not discussed below or in this document, please contact the eGIS Team:
eGIS@isd.lacounty.gov

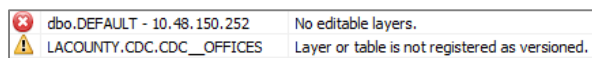
- I. How do I access the eGIS Data Repository?**
All eGIS Members have access to the spatial databases in the eGIS Repository. Login and passwords are managed by the eGIS Team, and provided to each participating department. Connections to the databases are created through desktop GIS software (e.g. ArcGIS Desktop).
- II. Who do I contact for support or for issues connecting to the GIS Data Repository?**
Email the eGIS Team: eGIS@isd.lacounty.gov
- III. Who owns or maintains the data?**
You can easily determine data ownership by the looking at the naming convention in the file name – the data owner’s department always precedes the name of the data layer (e.g. in the data layer called “DRP_CITY_BOUNDARY” the data owner is DRP – Department of Regional Planning).
- IV. How do I know what is in the eGIS Repository?**
End users have several methods for searching and reviewing what is in the eGIS Data Repository: 1) Search and look for data on the eGIS Data Portal (<http://egis3.lacounty.gov/dataportal>), or 2) look through all the SDE geodatabases in ArcCatalog, or 3) Look within the Enterprise GIS Tracking System (requires a password)
- V. Do you offer trainings on working with eGIS Data?**
Yes, the eGIS Team will begin offering online workshops on our data policies, procedures, and accessing eGIS data via the repository in 2015. Please email eGIS@isd.lacounty.gov for info.
- VI. Where can I find information about metadata standards or how to update metadata on the eGIS Repository?**
Please refer to the eGIS Metadata Standards document located in the Data Maintenance folder on the *egismembers* shared network drive
- VII. I’m the data owner -- how do I report data discrepancies or errors?**
Email the eGIS Team: eGIS@isd.lacounty.gov
- VIII. I’m not the data owner – how do I report data discrepancies or errors?**
Please reach out to the data owner’s department (see FAQ #3) and inform them of the issue. If you are unsure who to contact, email the eGIS Team: eGIS@isd.lacounty.gov or find the entry in the Data Portal (if one exists) and provide a comment about that data layer (comments go directly to data owners from entries on the Data Portal)



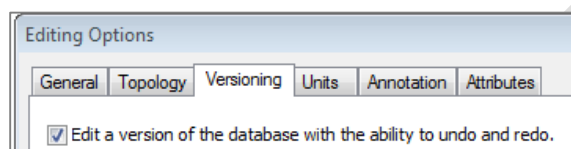
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IX. I'm the data owner, but I can't seem to edit my data/I get an error message when I try to edit my data?

Because data in the repository if not versioned, you need to uncheck "Edit a version of the database..." box under Editing Options (go to Editor toolbar dropdown > Options > Versioning tab > uncheck



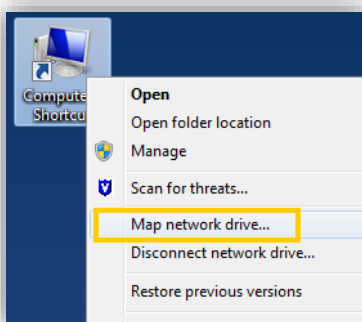
(Error Message)



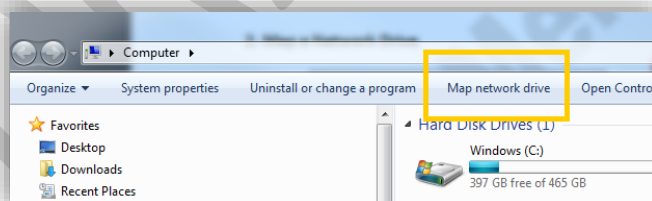
(Uncheck this box)

X. How do I connect to the *egismembers* shared network drive?

- i. Right-click on your Computer icon on your desktop and select Map Network Drive, or open Computer from Windows Explorer and double-click on Map Network Drive



OR



- ii. In the Map Network Drive dialogue box, choose an available drive letter that is not taken. In this example, the Y Drive will be used.

In the Folder section, type in:
\\159.83.112.39\gis01\$\members

Make sure the two check boxes are checked at the bottom.

- iii. Click Finish and enter the following credentials:
User Name: egismember
Password: 3gism3mb3r_10!

