GEOGRAPHIC DATA CONTRACT DELIVERABLES GUIDELINES
MARIN COUNTY PARKS

Geographic data should be delivered via CD-ROM, DVD, or electronic data transfer (e.g., email, fileshare, FTP, etc) and should contain the following:

- Geospatial data (shapefiles, geodatabases, CAD, rasters, etc.)
- Associated data tables or relational databases
- Summary descriptive document and basic metadata

A text document (Word and/or ASCII text file) describing the dataset should accompany any submission and provide all necessary information for understanding the submittal. At a minimum, the document should include:

- List of each file contained in the submittal
- Description of the dataset, including all spatial data, related tables and any project codes
- Version and date of the data
- Information on sensitive data issues (if any)
- Contact information for those responsible for creating the data and who have the responsibility for maintaining the master version of the data
- A short description of data themes (limited to one to two sentences for each theme)
- Linking fields (to documents, a Microsoft Access database, and/or digital photographs)

Geospatial Data

There are several ways to represent spatial data in a GIS including points, lines, polygons (vector data), or rasters/images. Appropriate representations will vary depending on the scale and goals of the contract. Prior to data collection, these issues should be addressed and resolved in the project scope in consultation with the project or data manager.

File Naming Conventions and Directory Structure

Clear and meaningful file and field names should be used that convey the nature of the data and subject represented. Names should not contain spaces or special characters, but may contain underscores.

Coordinate System

All spatial data should be geo-referenced with projection information defined in the data file that is submitted. All spatial data should use the following coordinate system:

Projection: California State Plane, Zone III
Datum: North American Datum 1983 HARN
Units: Foot

Any data submitted that does not use the coordinate system above must include a projection file.

Spatial Data Formats

Data formats should be clearly stipulated and agreed upon with contractors or cooperators before data collection and processing start.

Vector Data

Vector data should generally be supplied as ArcView shapefiles, or ESRI Geodatabases.

Raster Data

All cell-based datasets or grids should be supplied as an ArcInfo GRID, compatible with the current version of ArcGIS. Geo-referenced digital aerial photography and imagery should be supplied as 8-bit grayscale GeoTiff, 24-bit RGB GeoTiff, or tagged image file format (.TIFF) files with any associated geo-reference information included.

Source CAD drawings must have defined datum and projection information so that exported data can be read in ArcGIS. Non-geographic elements such as drawing borders, title blocks, north arrows, and detail drawings should not be included in export files.

If there are questions about choosing data formats contact the project manager or the GIS Specialist for guidance before data collection begins.

Data Collection Methods

When using GPS for data collection, the GPS unit type, model, averaging method used for static mapping (point), error correction technique (type of differential correction used), and GPS quality filters employed should be recorded in the metadata and discussed in the Descriptive Document.

When digitizing features from maps or photographs, the source, scale, date, and methods (i.e., process steps) should be recorded in the metadata and discussed in the Descriptive Document.

Attribute Data

Simple attribute data should be included as part of the ArcGIS feature attribute table. Complex attributes should be delivered in a well-structured relational database format as a Microsoft Access .MDB file using current versions of Microsoft Access. Map features and database records should share a common unique identifier or primary key that relates the map feature to the table record.

Quality Control

The Contractor should document the QA/QC procedures used to assess the data as well as report on the resulting accuracy and precision.

Metadata

Marin County Parks staff strongly encourages contractors to prepare metadata using ArcCatalog, or in a format that can be easily imported into ArcCatalog. The metadata should be located in the same directory as the data, share the same naming prefix and, when appropriate, be attached to that data. The metadata should be delivered in extensible markup language with an .XML extension.

All data submitted must be accompanied by metadata that, at a minimum, includes the following:

- Abstract - Narrative description of the data, collection methods, equipment used, source of input data, scale
- Contact information for person who collected and/or prepared the geospatial data
- Complete descriptions of all codes and all other information in the attribute fields
- Process information including how and when the data were collected, and by whom, equipment used, and any other relevant information
- Statement about any issues with the data, including any assumptions, appropriate uses, data sensitivity, or any other relevant statement about how the data should or should not be used.