

Preliminary Investigation D:

Vegetation Mapping

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The Los Angeles & San Gabriel Rivers Watershed Council agreed to support the vegetation mapping effort by contributing the time of staff senior ecologist, Ellen Mackey. The Arroyo Seco vegetation mapping efforts are part of the overall effort to map riparian corridors and remaining vegetation in Los Angeles County. Due to the unique nature and scope of this endeavor, representatives from the California Department of Fish and Game (CDFG) are part of the mapping team. Todd Keeler-Wolf, Vegetation Ecologist, Natural Heritage Division, CDFG, and Paul Veisze, GIS Coordinator, CDFG are integral members of the overall mapping project to help ensure consistency with state mapping efforts.

During Phase 1 for the Arroyo Seco Project, we completed a number of tasks, including:

- Coordinated meetings with various agencies to assess the present amount of data available;
- Discovered historic aerial photos from 1928, 1953 and 1973;
- Mapping decisions including minimum mapping unit, mapping scale, classification system;
- Acquired aerial photography for the countywide effort; and
- Conducted reconnaissance level surveys and data collection.

We conducted meetings with personnel from different divisions within the U.S. Forest Service, City of Pasadena, CDFG, L.A. County Public Works, Metropolitan Water District of Southern California, and the Lower Los Angeles and San Gabriel Rivers and Mountains Conservancy. These meetings were primarily focused on acquiring of existing information and seeking opportunities for partnerships.

During a meeting with Public Works personnel, an invaluable source of information was discovered; original aerial photos and photo mosaic of the entire county from 1928, 1953, and 1973. These photos show a time series of increased channelization along the double watershed of the LA and San Gabriel Rivers.

Many competing classification systems exist but we needed a system that offered consistency in terminology and plant community descriptions across county and state lines. The vegetation classification system we propose to use is detailed in *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995). These descriptions are consistent with the national vegetation mapping classification.

GIS considerations include projection selection and financial support for digitizing the maps. Projection choices include Albers, State Plane, and UTM. Each has advantages and disadvantages that were assessed.

Practical considerations include the source of financial support for the mapping effort, as mapping may proceed but without digitizing the effort does not result in a GIS map. Digitizing results in a map that can be incorporated in the database for land use and conservation analysis.

We acquired several sets of aerial photographs for the vegetation mapping effort. One set of photographs encompasses the Arroyo Seco stream corridor. The second set encompasses all of L.A. County. We are just now assessing the photographs for use in this project.

In addition to coordination and information gathering activities, Ms. Mackey conducted reconnaissance level field surveys across the San Gabriel Mountain canyons, collected initial GPS data points, and recorded preliminary vegetation descriptions. These data will serve as the basis for more detailed data acquisition during the vegetation mapping.

The next phase includes extensive fieldwork to map vegetation units and apply vegetation names according to the state classification system.

References

Sawyer, John and Todd Keeler-Wolf. 1995 *A Manual of California Vegetation*. California Native Plant Society. Sacramento, California. 471 pgs.