

B. Data Collection

The data collection process was divided into three types: documents, geographic information system (GIS) map layers, and mailing list. The process of data collection and the results are described below for each type.

Mailing List

The Mailing List data collection began with contacting known interested parties. Many of these contacts recommended additional people that would be interested in the study. At each stakeholder and public meeting, participants recommended additional stakeholders and community members that would be interested in the study. Each contact was added to an address database. The current mailing lists of North East Trees and Arroyo Seco Foundation were also added to the address database. Please refer to the discussion of Public Outreach beginning on page 14 for more information.

Documents

Document data collection consisted of searching library databases, Internet databases and search engines, and drawing on the project team's prior experience and knowledge of resources, together with resources made available by professional colleagues. Library and Internet databases were searched with keywords (i.e. Arroyo Seco, Water Quality, Flood Management, Habitat, Recreation, Los Angeles, Pasadena, South Pasadena, Angeles National Forest). The team also solicited input from Los Angeles County Public Works and all other agencies that are advising the study (Agency Technical Review Committee). The project team's knowledge was especially helpful in identifying recent, ongoing, and planned studies and/or master plans that lie within the Arroyo Seco Watershed.

More than five hundred basic documents have been compiled into a single, comprehensive database and reference binder. From this comprehensive list of sources, the team has identified the critical resources for habitat, recreation, flood management, and water resources (Appendix D: Essential Bibliography). The technical studies and planning process will be primarily based on analysis of these critical resources. Additional research of the comprehensive list of sources will be completed as the project team refines the watershed analysis.

In addition to their inclusion in the reference binder, the Critical Resources were added to a searchable Microsoft Access® database, with separate records for each critical resource. The bibliography database is available online at www.arroyoseco.org. The Critical Resource Bibliography database was developed using several descriptive criteria (Table 3: Critical Resource Bibliography).

Table 3: Critical Resource Bibliography	
Field	Description
Title	Title of Resource
Topic	Topics = Cultural, Historical, Parks, Flood, Trees & Plants, Stream Restoration, Recreation
Type	Type = book, article, report, web site, graphic, map
Author	Author of document

Table 3: Critical Resource Bibliography	
Field	Description
Date	Date of Publication
ISBN#	International Standard Book Number
Location/Source	Location of Resource (e.g.: UC Berkeley)
Dewey	Library classification number
Publisher/Agency	Publisher of document or agency sponsoring report
Keywords	Suggested keywords are found on spreadsheet
Pages	Number of pages in document
Entered By	Initials of the Project Team member that entered document
Date Entered	Date of entry on spreadsheet
Abstract	Brief description of the document
Notes	This is a memo field containing any relevant comments about the content of the document or its possible usefulness for ASWRFS.

Geographic Information Systems (GIS) Data

The process of collecting GIS map layers began with an inventory of data previously collected by the project team. Immediately available were GIS layers from the Mountains Recreation and Conservation Authority (MRCA) and Environmental Systems Research Institute (ESRI). Next, the team conducted a search of USGS information on the Internet, and downloaded critical map layers. The final method of obtaining data was to request data from reviewing agencies (Agency Technical Review Committee). Significant map layers were obtained from the United States Forest Service (USFS)/Angeles National Forest, including a wealth of habitat information. LACDPW shared digital orthographic photographs and valuable GIS layers relating to drainage, storm sewers, and soils. Map data layers were also obtained from the Southern California Association of Governments (SCAG), including information regarding transportation networks

As Phase II proceeds, the project team may find that useful map layers are missing. If this situation occurs, the project team will begin working with the cities of Los Angeles and Pasadena to obtain needed map layers, although these layers will not cover the entire watershed. The City of South Pasadena does not maintain a GIS database.

Digital orthographic photographs and complementary CAD data were obtained from Los Angeles County Department of Public Works. These data will be particularly useful as the team creates and refines the Final *ASWRFS* Plan. Digital orthographic photographs were also obtained from the USFS/Angeles National Forest. A digital aerial photograph of the watershed, dated July 2000, was purchased from Eagle Aerial.

In a manner similar to the bibliography process, the available GIS data was first compiled into a comprehensive list, and critical map layers were identified (Table 4: Critical Map Layers).

Table 4: Critical Map Layers (GIS) as of 3/01	
Subject	Source
Land Use	Mountains Recreation & Conservation Authority (MRCA)
Topo lines - 10' CI	MRCA
Roads – local	MRCA
Roads – Arterials	MRCA
Roads – Freeways	MRCA
Parks	MRCA
Rivers, Streams - Mtn. washes included	MRCA
Streams - Minor	MRCA
Reservoirs & Lakes	MRCA
Digital Elevation Model- 30m	USGS
Digital Ortho Photographs	Los Angeles County Department of Public Works (LACDPW)
CAD base, rectified to Digital Ortho Photographs	LACDPW
Watershed Management Areas	LACDPW
Collection Points for LA River WMA	LACDPW
County-maintained Storm Drains	LACDPW
Dams	LACDPW
Spreading Grounds	LACDPW
Soils	LACDPW
Aerial photo of watershed – 7/2/00	Eagle Aerial
Vegetation Communities	United States Forest Service (USFS)
ANF Boundary	USFS
Soil Types	USFS
Fire locations - polygons. Goes outside ANF boundary	USFS
Stickleback Fish habitat, 100' buffer	USFS
Plant Sightings – points	USFS
Power Lines - above ground	USFS
Wildlife Sightings – points	USFS
Precipitation (annual)	Teale
Park 'n' Ride Lots	Southern California Assn. of Governments (SCAG)
Electrical Vehicle charging stations	SCAG

Table 4: Critical Map Layers (GIS) as of 3/01	
Subject	Source
Metrolink stations	SCAG
Landfills	SCAG
Census Tracts w/ associated demographic information: Tract - The census tract identification number. Area - Area of county in square miles based on Albers Equal Area Projection. Pop1990 - The population of the county in 1990 based on the US Census. Pop1997 - The population of the county in 1997 estimated by Claritas. Total population and households Population by race and ethnicity Population by age Population by marital status Composition of households Housing unit information	Environmental Systems Research Institute, Inc. (ESRI)
Congressional Districts	ESRI
Buildings -Geographic Names Information System - points	ESRI
Cemeteries - GNIS - points	ESRI
Churches - GNIS - points	ESRI
Golf courses - GNIS - points	ESRI
Hospitals - GNIS - points	ESRI
Locales - GNIS - points- shopping ctrs, other stuff	ESRI
Subdivisions - GNIS - points	ESRI
Schools - GNIS - points	ESRI
Mountain summits - GNIS - points	ESRI
Large Area Landmarks	ESRI
Parks – National	ESRI
National Transportation Atlas Railroads	ESRI
Recreation Areas	ESRI
Retail Centers	ESRI

A variety of printed maps were also obtained for the study. The printed maps include United States Geological Survey (USGS) topographic maps and USGS geology maps. We expect to obtain several maps from the City of South Pasadena, including information on City boundaries, City of South Pasadena-owned land, and drainage. Maps from La Cañada Flintridge and/or Altadena will be obtained as needed.