2003 CAP Grant
Category 3Metadata Outreach Final Report

1. **Agreement Number**: 03hQAG142
2. **Organization**: The Foundation for CSUSB
5500 University Parkway
San Bernardino, CA 92407
http://adminfin.csusb.edu/foundation/

3. Project Leader and Contact Information

The project lead on this was Dr. Mark Kumler, Professor of Geography at CSUSB during the grant period. Dr. Kumler is no longer a member of the CSUSB faculty.

4. Key Individuals

Other key individuals were Lisa Pierce, WRI's Research Associate; Dr. Joseph Lovett, Professor of Health Sciences, Professor Emeritus

5. Collaborating Organizations and Agencies.

The organizations that collaborated and assisted in this were: the San Bernardino Association of Governments (SANBAG), City of San Bernardino, City of Highland, City of Redlands, City of Colton, City of Fontana, City of Yucaipa, City of Rancho Cucamonga, Coachella Valley Association of Governments, City of Riverside, County of San Bernardino, County of Riverside, University of Redlands, (Redlands Institute), San Bernardino Valley Municipal Water District, Yucaipa Valley Water District, West Valley Water District, Western Municipal Water District, San Bernardino Valley Water Conservation District, Riverside-Corona Resource Conservation District, Southern California Association of Governments(SCAG), ESRI. Many of these organizations are members of the Southeastern California GIS Council. http://www.sbcounty.gov/scgis

6. Clearinghouse Service Web site

The Federal Geographic Data committee manages a website that supports and tracks the activity related to clearinghouses. Their site can be found at this URL link: http://registry.fgdc.gov/serverstatus/

The WRI's Metadata Explorer site is http://wri.csusb.edu/metadataexplorer

The WRI's site is noted as follows on the Federal Geographic Data Committee's webpage:

San Bernardino Regional Geospatial Data Clearinghouse, CA. USA

Short Title:	WRI
Abstract:	This Clearinghouse node serves as a centralized location for base geographic data for the area, with a strong emphasis on surface and groundwater data. This node is collaboration between the Water Resources Institute at CSUSB, various local water organizations and California State University San Bernardino.
Cost:	free
Active Status:	True
Categories:	Administrative and Political Boundaries, Elevation and Derived Products, Images and Photographs, Fresh Water Resources and Characteristics, Cadastral and Legal Land Descriptions, Facilities, Buildings, and Structures, Base Maps, Scanned Maps and Charts

http://registry.fgdc.gov - View Server Information - Microsoft Internet Explorer

Add Your Node | Browse Registry | Browse Diagnostics | Modify Your Node | International Server Status | Domestic Server Status | Canadian Server Status | Home

THE CLEARINGHOUSE REGISTRY

Federal Geographic Data Committee (FGDC)

Server Description

Title:	San Bernardino Regional Geospatial Data Clearinghouse, CA. USA
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Server Host Information

Host Name:	wri.csusb.edu
Host IP:	139.182.28.201
Port:	220
DB Name:	default
Software Implementation:	ArcIMS 4.0.1 Z39.50 Connector
Software Version:	630.474
Platform:	windows
Website WebURL:	http://wri.csusb.edu
Server Latitude:	34.1 Decimal Degrees
Server Longitude:	-117.2 Decimal Degrees
Data Coverage:	United States
Does this collection include data that covers the United States in part or full?	Yes
Collection Scope:	Regional

Predominant Geographic Extent of Data Served

Max latitude: 35

min longitude: -118.5 | max longitude: -115

min latitude: 33

Server Contact Information

Name:	Lisa Pierce
Organization:	CSUSB Water Resources Institute
Address:	5500 University Parkway
City:	San Bernardino
State:	CA
Postal Code:	92407-2397
Country:	United States
E-mail address:	E-mail :Lisa Pierce
User Support Hours:	8:00-5:00 PST M-Friday
Telephone:	909-880-7681
Fax:	909-880-7682

7. Results

This USGS CAP grant helped in the development of the San Bernardino Geospatial Node, populating of it with both data and metadata. The work related to this grant was spread over a two-year period and included two separate metadata workshops, approximately a year apart.

The two metadata workshops, held in 2003 and 2004, generated momentum in the effort to populate the Node. A number of public and private organizations attended the workshops representing, with about 50 people at each event. Attendees expressed a desire to both work with metadata and help populate the Node. This provided an opportunity for the WRI to build collaborative relationships with others in the region seeking to make their geospatial data sharing efforts more effective.

The WRI's clearinghouse node has approximately 400 metadata instances including both WRI related citations, the historical aerial images in the form of the Rowe Collection, and other historic documents that have been used in various local water history efforts. The node also serves other regional datasets from collaborators including some of the water agencies.

8. Project Narrative

Summarize project activities, including its accomplishments, successes, strengths and weaknesses, further challenges and next steps. If appropriate describe the coordination process and how and if the project activities may continue in the future.

The Water Resources Institute (WRI) at California State University San Bernardino (CSUSB) was established in 1999 in recognition that water is one of the most precious resources in the region. With the mission of making water an area of distinction at CSUSB, the WRI set out to build partnerships to support the Inland Empire communities it serves.

Since that time, the WRI has established itself as a regionally prominent institution. It serves as a regional hub for academics, students, political leaders, public policy makers, water professionals, businesses and environmental groups to get the latest water resource information and come together to exchange views

The WRI is currently staffed with a Director, Susan Lien Longville, three full time employees and student interns. Priorities are set by two governing boards-- the Faculty Council and the community Advisory Board. The WRI was initially created with a key donation of historical water documents from the Rowe Family. This collection is used for historical research about area water rights and historical water project development. The WRI historian/archivist manages more than 20,000 maps, books and original water history engineering documents. The historian/archivist also supports original research needs in local water topics and collects oral histories from local water dignitaries in an effort to document their legacy to the Inland Empire.

In 2003, the WRI began to develop its digital archiving efforts using geospatial decision support tools in order to make the historical and recent archives more accessible. This system incorporates traditional library cataloging tools, geographic internet mapping tools, geospatial clearinghouse tools, and map-based archival search capabilities.

A key element to the WRI's Geospatial efforts includes a **Geospatial Metadata Clearinghouse** node for sharing geospatial metadata about water and watershed related layers and images for the Santa Ana watershed and surrounding region. The Metadata service contains approx. 550 geospatial metadata instances which include a variety of types of geospatial representation, plus over 200 raster imagery instances representing WRI's archive of historic aerial imagery covering much of the Santa Ana Watershed. This Clearinghouse node serves as a centralized location for base geographic data for the area, with a strong emphasis on water and watershed related datasets. This node is collaboration between the Water Resources Institute at CSUSB, various local government agencies and water organizations and California State University San Bernardino. The project accomplished a number of goals that it was set out to achieve. 1) Increase awareness of why geospatial metadata is an important component to any GIS effort. 2) Increase use and creation of metadata within the region. 3) Increase understanding about the merits of minimal metadata standards and how meeting those standards using template building methods offers efficient means to meet FGDC and ISO standards. 4) Increased dialog between many organizations using similar datasets, especially in regards some of the State of California GIS layers (http://gis.ca.gov) and how their metadata can be best used and added to the downloaded datasets.

Creative means for getting the message across

Using the Metadata Duck:
One of the successes has been the use of the Don't Duck Metadata message. Using the FGDC Duck Whistles and the following song, gave people a fun way to talk about a dry subject. Colleagues still remember the staff for their metadata duck song. (Which is as follows and is sung to the music of Rubber Ducky song) – This song has even gone international with international scholars using it in their training efforts.

Metadata Ducky –you're the one (Quack Quack)
You make data so much fun! (Quack Quack)
Metadata Ducky, you're my very best friend it's true.

Everyday when I make my way, to my database.
I find a little fellow,
Who's cute and yellow and ducky,
Metadata duck ducky.

Metadata Ducky – you're all mine (Quack Quack)
When I use you data's fine (Quack Quack)
Metadata Ducky, you're my very best friend it's true.
(Created at FGDC Train the Trainers training in 2003 Denver- L. Pierce)

Coordination efforts included using the existing organization network that existed with the Southeastern California GIS Council (SECGIS). This group of geospatial professionals had been meeting prior and had agreed to offer letters of support for this effort.
Some of the challenges included limitations in Information Technology support at the level that would improve the efficiency of the metadata service, including the challenge

of hardware constraints that were not forthcoming at the onset of the project.

Since the end of the grant period, the mechanisms for metadata creation, the increased use in metadata within the region; and the growth in state and national data resources have changed the methods and data portal options. Thus, the WRI future efforts may focus on uploading to other County or State portals as they come on-line.

9. Comments on CAP Program

Summarize what you see as the strengths of the funding program, and its weaknesses. What would you suggest to improve the program?

The CAP program certainly has increased its efforts to improve the funding mechanisms, amounts and sharing tools. Changing due dates for grant applications would merit consideration.