

GIS for Participatory Processes

*with Arizona stakeholders
and citizen scientists*

- *Bring them to the table;*
- *out into the field; and,*
- *fingers to keyboard!*

*Kristine Uhlman
University of Arizona
Cooperative Extension
Water Resources Research Center*



Bring them to the table.....



Wet/Dry mapping with citizen scientists



and out into the field....



ARIZONA

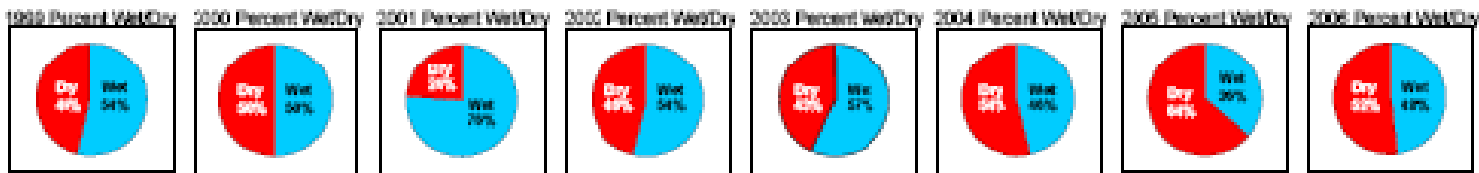
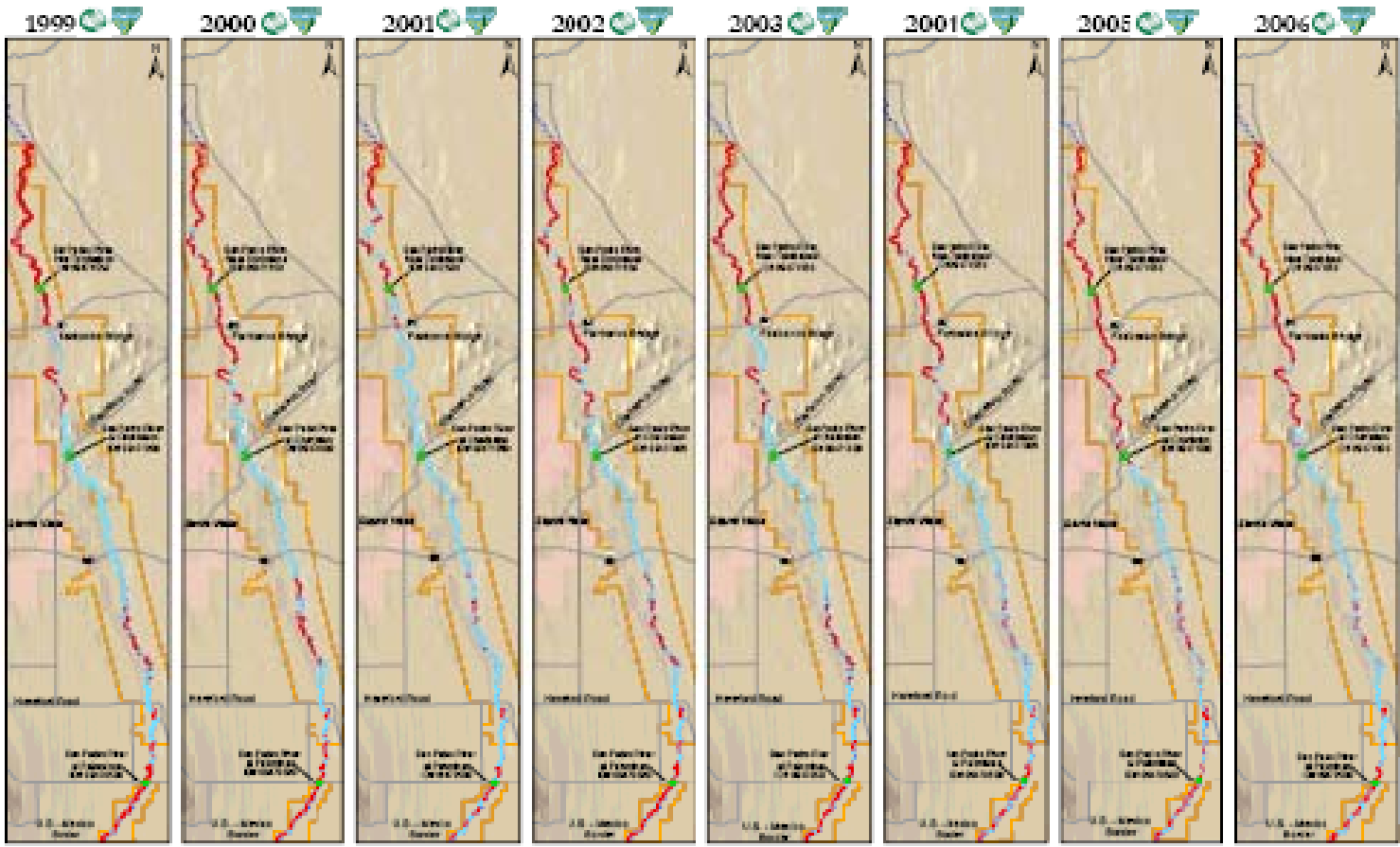
& NEMO

Stop!

Start!

Wet/Dry Mapping of the San Pedro River

2007



Legend

- Green dot: 1999 Green Gauge
- Blue line: Wet Reach
- Red line: Dry Reach
- Orange line: San Pedro River with Damages
- Yellow outline: The San Pedro Riparian National Conservation Area (SPRNCAs) boundary

Mapping Legend
 2000 - 2001: 2000 - 2001 mapping conducted under the guidance of The Nature Conservancy and the Bureau of Land Management.
 2001 - 2006: 2001 - 2006 mapping conducted under the guidance of The Nature Conservancy, the Bureau of Land Management, the University of Arizona, and the University of Arizona IRIS Program.



A volunteer community monitoring effort. Nature Conservancy GIS data available for download at www.natureconservancy.org

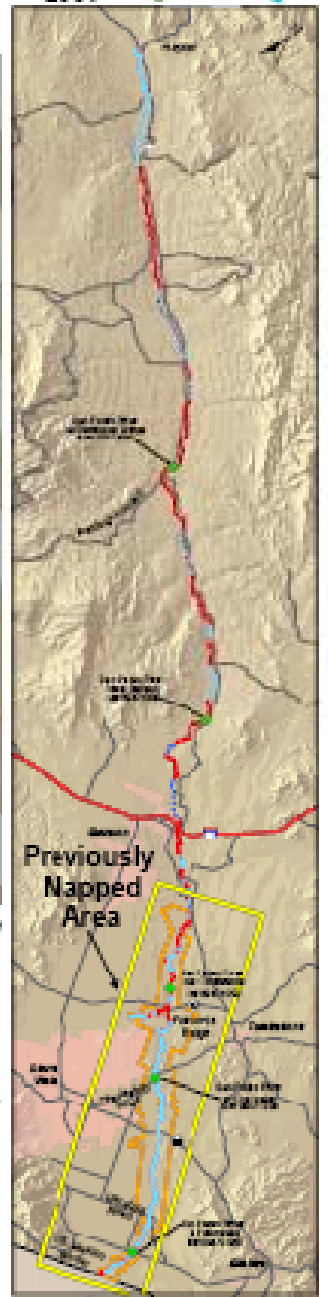
The Nature Conservancy
 Preserving the planet. One way at a time.

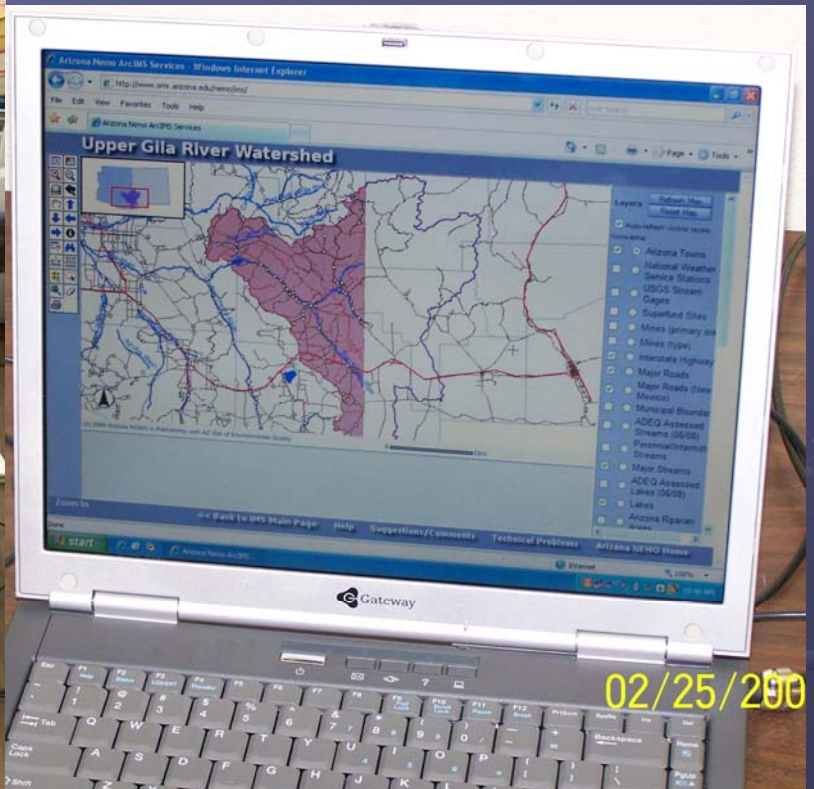
WSP
 Water Sustainability Program

2007 Percent Wet/Dry

Wet 39%
 Dry 61%

Partial funding by the University of Arizona, Technology and Research Initiative Fund (TRIF), Water Sustainability Program






*and fingers to keyboard!
with NEMO IMS mapping.....*

Arizona NEMO IMS

Internet Mapping Services Application

main page - Mozilla Firefox

http://www.snr.arizona.edu/nemo/









ARIZONA WATER: LIMITED PERENNIAL STREAM REACHES AND VULNERABILITY TO BASEFLOW LOSS DUE TO INCREASED RELIANCE ON GROUND WATER REQUIRES CAREFUL MANAGEMENT TO ASSURE THE SUSTAINABILITY OF WATER RESOURCES, COMMUNITY CHARACTER, AND LONG-TERM ECONOMIC HEALTH OF ARIZONA.

THE UNIVERSITY OF ARIZONA®

ARIZONA NEMO HOME PAGE

Welcome to Arizona NEMO!
Education and Outreach about the Connection between Land Use and Water Quality

A partnership with University of Arizona Cooperative Extension, the Water Resource Research Center, and the Arizona Department of Environmental Quality



NEWS ABOUT WATER QUALITY INFORMATION, WEBSITES, FUNDING SOURCES AND MORE...

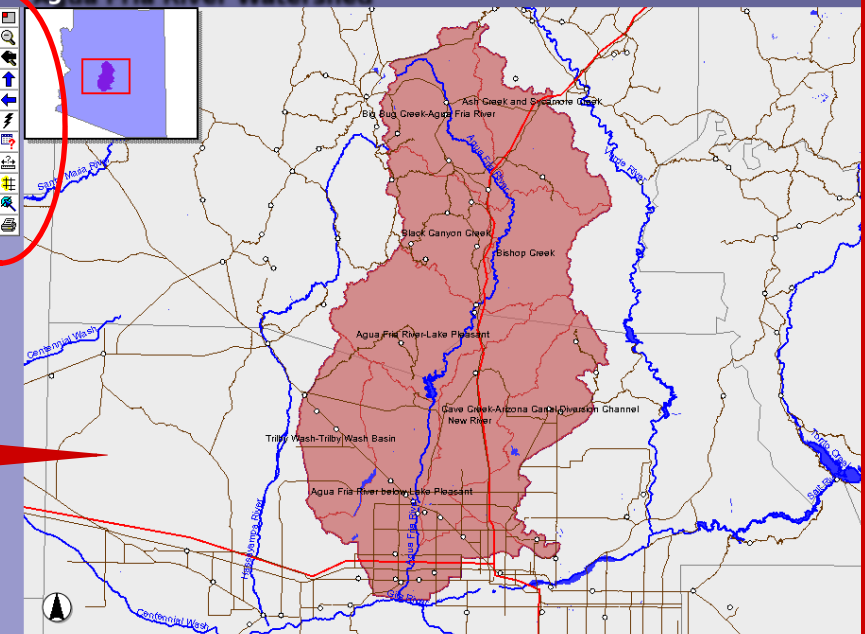
Hot Topics!
New Funding Opportunities
News
Reports
Websites
Online Newsletters
Online Tools

- Home
- NEMO Overview
- NEMO Watershed Based Plans
- Community Watershed Groups
- Southwest Strategy
- Wet / Dry Mapping
- County and Small Watershed Maps
- Funding Sources
- Internet Map Services**
- Arizona NEMO materials
- Best Management Practices Manual
- Introduction to water quality management
- Links

Arizona Nemo Arch Services - Mozilla Firefox

http://www.snr.arizona.edu/nemo/ms/

Agua Fria River Watershed



Layers

- Auto-refresh visible layers
- Visible Active
- Arizona Towns
- USGS Stream Gages
- National Weather Service Station
- EPA Toxic Release Inventory
- Mines (primary ore)
- Mines (type)
- Major Roads
- Interstate Highway
- Perennial and Intermittent Streams
- 303D Assessed Streams
- Major Streams
- 303D Assessed Lakes
- Lakes
- Surficial Geology
- Land Ownership
- Hydrologic Units
- Average Annual Precipitation (State)
- Municipal Boundaries
- Agua Fria Watershed
- Counties
- Riparian Vegetation
- Average Annual Temperature
- Soil Type
- USGS 1:250k Topo

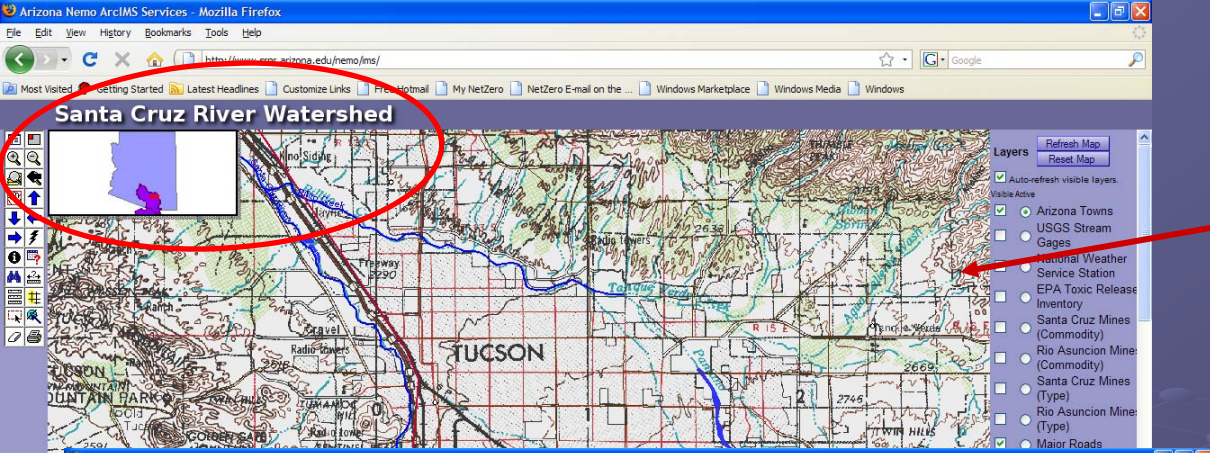
Zoom In

<< Back to IMS Main Page Help Suggestions/Comments Technical Problems Arizona NEMO Home

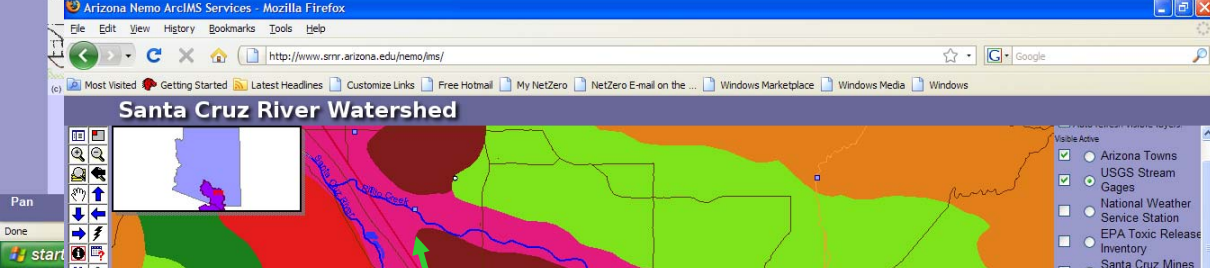
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tool bar

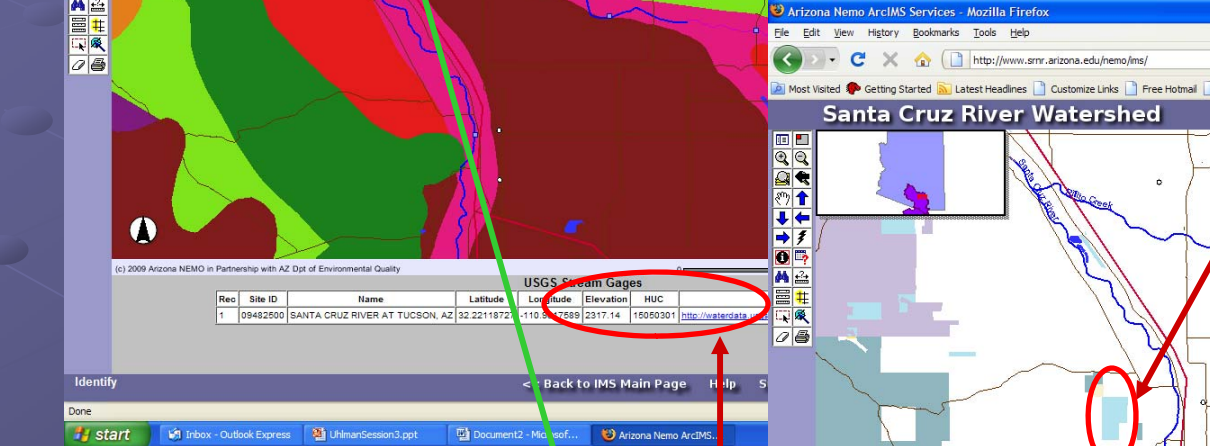
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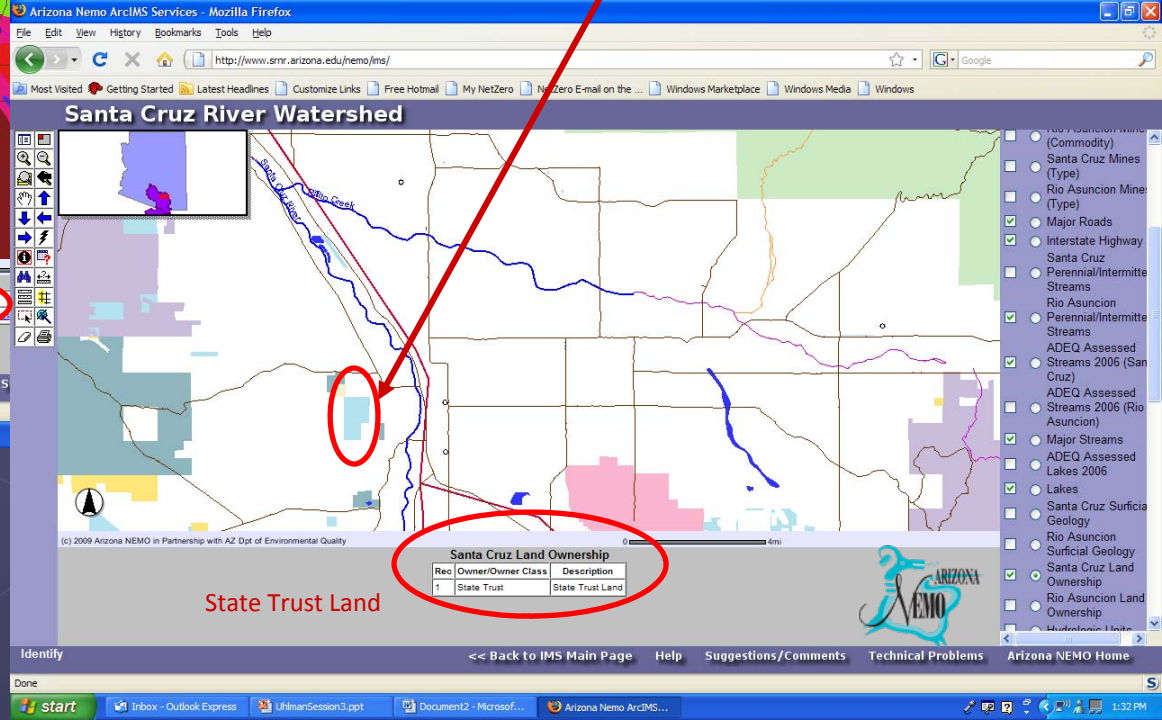
USGS Topographic Map



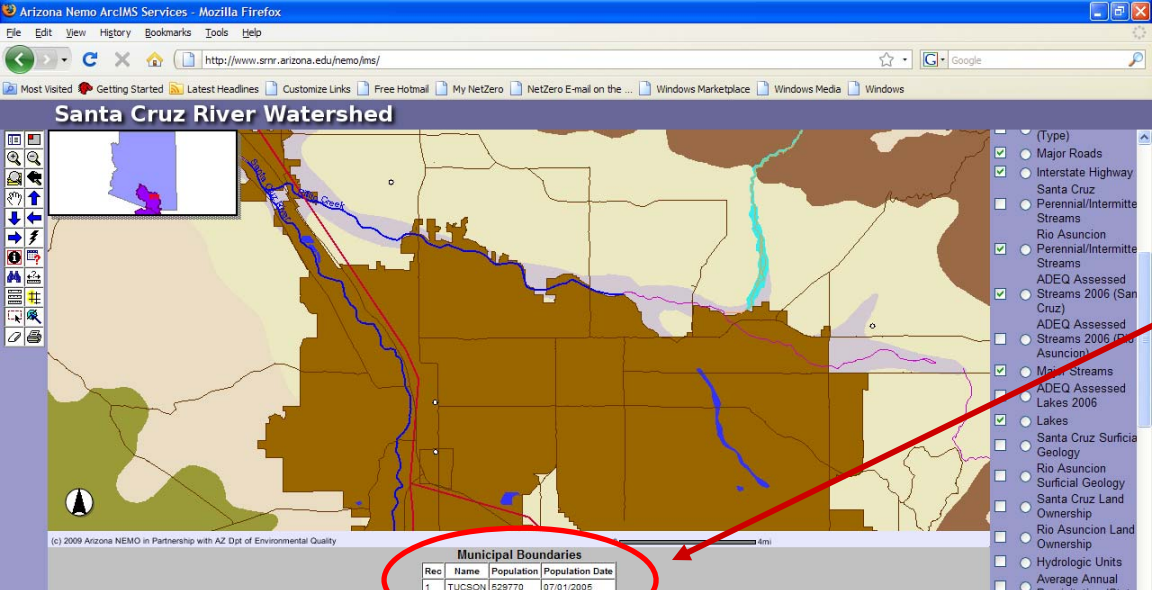
Land Ownership / Management



Geology and USGS Gage Stations w/ link to hydrograph

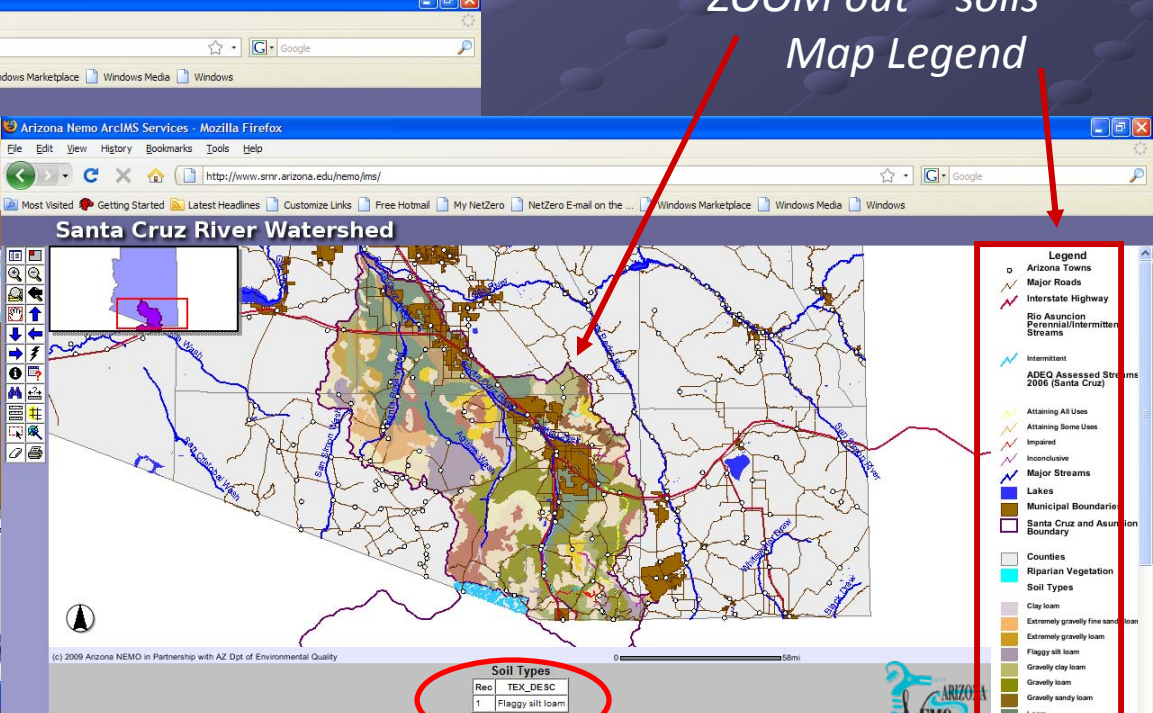
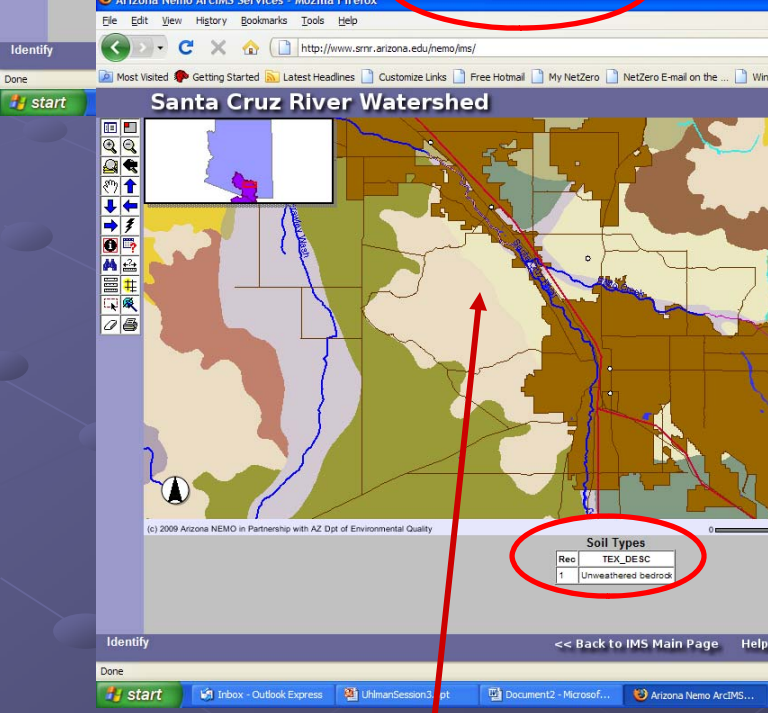


State Trust Land



Municipal boundaries with
Population over soils
Tucson 529,770 [07/01/05]

ZOOM out – soils
Map Legend



ZOOM out – soils



Thank You!

