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Draft LPA_WRAS Maps -- Metadata

A Note about the Maps:

These maps were made by Kristin Willette, in May/June 2005, using ESRI ArcGIS 9.0. The projection is UTM Zone 13N, using a NAD 83 datum. The nominal map scale (letter size), is 1:75 000.

These maps are intended for illustrative purposes only. The datasets have been collected from a wide variety of public sources, in most cases clipped from a dataset of much larger extent, statewide or regional. Primary and base map data sources are listed below. Most was downloaded from UNM's RGIS data clearinghouse.

Paper maps in Peggy Johnson's hydrologic report (2000), and from the USGS, BLM, NMBGMR, USFS, and USDA NRCS, and other resources from UNM's CSEL MAGIC map library, were used as ancillary data sources in the production of these maps.

The resulting GIS layers have been clipped, re-projected, generalized and adjusted to fit other datasets. Errors and inaccuracies are present due to this process. The author expressly disclaims all liability regarding the accuracy or completeness of the data represented on these maps.

Study Area Location:

The watershed of Las Huertas Creek lies almost entirely within Sandoval County, New Mexico. Only the upper tip extends into Bernallillo County. The appropriate USGS 7½-minute (1:24 000) quads are: Placitas, and the northern ½ of Sandia Crest. This area falls in the Albuquerque quad of the USGS 1: 100 000 series.

An interesting discrepancy appears in the map literature, regarding the two canyons that hold the headwaters springs for Las Huertas Creek. The southernmost canyon is called "Canon Media" on older (pre-1974) USGS maps, and "Las Huertas Canyon" on newer ones. On the older maps, there is no Las Huertas Canyon, and the names Canon Media and Canon Osha are each displaced one canyon to the south. The source used here is the [1990 1:24 000 USGS Sandia Crest topographic quad map](#). Here, Las Huertas Canyon contains the unnamed spring near the Ellis Ranch and the Sandia Conference Grounds; and Media Spring is where it belongs, in Canon Media.

Extent of Study Area:

Bounding coordinates

In decimal degrees (lat/long)

West: -106.542069

East: -106.360095

North: 35.378191

South: 35.195536

In projected or local coordinates (UTM meters)

Left: 359924.852033

Right: 376184.380651

Top: 3915837.128140

Bottom: 3895811.864548

Extent of the watershed itself:

Bounding coordinates

In decimal degrees (lat/long)

West: -106.495748

East: -106.383540

North: 35.374132

South: 35.201810

In projected or local coordinates (UTM meters)

Left: 364127.365483

Right: 374058.300509

Top: 3915416.402439

Bottom: 3896443.752950

Data Sources:

Las Huertas Creek and Major divisions of the watershed: shapefiles supplied Feb 2005, in UTM NAD83, by Jennifer Nelson and Shannon Mann of the Las Placitas Association.

Other stream data: from USGS National Hydrographic dataset, published 2001, updated 2003, in decimal degrees. Downloaded from RGIS.

Elevation Data: 3/2005 download from the seamless National Elevation Dataset at ned.usgs.gov, in geographic coordinates (decimal degrees), NAD 83. 1/3 arc second (about 10 meters) raster. Original z units: meters, converted to feet.

Roads Data: from RGIS, the 2001 E911 roads data for both Sandoval and Bernalillo counties, in State Plane NAD 83, survey feet.

Public Land Survey (PLSS) Data: from RGIS, 2003 BLM statewide vector datasets, in UTM NAD 83.

Land Ownership: from RGIS, statewide BLM 2004 dataset, in UTM NAD 83. Some adjustments were made to fit this dataset to the PLSS system.

USFS Wildland-Urban Interface boundaries: downloaded from website <http://www.fs.fed.us/r3/wui/index.html>. Original projection Lambert Conformal Conic, NAD 1927. Projected to UTM using NADCON datum transformation. Some adjustments were made to fit to BLM dataset's National Forest boundaries.

Placitas Open Space (POS) boundaries: from City of Albuquerque Open Space Program, in State Plane NAD 83 survey feet. Some adjustments were made. to fit to PLSS section lines.

Hydrology data: from Reid Bandeen (Truchas Hydrological) and Peggy S. Johnson, "Phase II Hydrogeologic and Water Resource Assessment for the Placitas Development Area, Sandoval County, New Mexico" Draft Technical Report, 1999.

Precipitation: annual precipitation map adapted from Peggy Johnson, 2000.

Soils data: USDA NRCS datasets 1)soilmu_a_nm600.shp (Sandoval, etc., published on CD-ROM 2005), and 2)soilmu_a_nm656.shp (Bernalillo, etc., published on CD-ROM 14 Nov 2002). Thanks to Chrisselle at the Albuquerque office, for assistance downloading online metadata from www.nm.nrcs.usda.gov.

Geology data: Adapted from simplified statewide geology NMBMMR dataset downloaded from RGIS, nmmapdd83, originally in decimal degrees and NAD 27, and intended for use only at scales under 1:500,000.

Interpreted using the 1:24,000 geology quad maps for Bernalillo/Placitas, revised in 2000, which were originally drawn at 1:12,000; then generalized according to Peggy Johnson, 2000 and the paper NMBGMR 1:500,000 Geology map.

-- Best data for further use, because of the geographic scale and extent: the 1:48,000 geology maps included in NMBGMR Memoir 29, "Geology of the Sandia Mountains and Vicinity, New Mexico" by Vincent C. Kelley and Stuart A. Northrop (1975). This excellent map (with self-contained legend) is at an appropriate scale and level of generalization for watershed-level studies. The 1:24K series is accurate and detailed, but hard to use/interpret at this scale.

-- Thanks to Knutt Peterson at the UNM CSEL MAGIC Map Library, and Dave McCraw of the NMBGMR, for their invaluable help in understanding geology maps at different scales.

Vegetation/Land Cover data: derived from USGS ReGAP data. The original ReGAP image covering the watershed came from Teri Neville and Rayo McCollough of UNM Biology's NM Natural Heritage Program. This data was used on the "Las Huertas Creek Watershed" poster, with its original classification and colormap.

-- This map is made from a slightly different dataset, the 2004 "Provisional" digital landcover dataset for the Southwestern region, downloaded from <http://earth.gis.usu.edu/>. This is a large raster dataset with 30-meter resolution, in Albers Conical Equal-Area projection, NAD 83, partially derived from multi-season satellite imagery for 1999-2001. After download it was clipped (to the boundary of the watershed) and reprojected to a GRID file, using "nearest neighbor" resampling (to preserve Value field), then classes were combined to make a shorter, more generalized legend.

-- Note that 30m resolution ReGAP data is not intended for use at scales greater than 1:100,000, but with the help of ancillary data sources, I felt I could safely produce more general classes. Thanks are due to Tyler Albers and Steve Sebring of the USFS, for their help with the USFS TEU classification system.

For further questions, please email willette7@msn.com.