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U.S. Department of the Interior
U.S. Geological Survey

Scientific Investigations Map 3169
Pamphlet accompanies map

LAND COVER CLASS TYPES

Vegetated Classes

Phreatophytic Land Cover
Complete coverage of land cover classes with dominant phreatophytic vegetation. Phreatophytic coverage is derived from Shrubmap, California GAP, and Wyoming GAP datasets and equals approximately 31 million acres.

Waterbody Classes

Waterbody (includes lakes, reservoirs, swamps and marshes)

Dry Waterbody

Intermittent Waterbody

ADDITIONAL FEATURES

Great Basin Ecoregion Boundary
Study area merges the "Northern Basin and Range" and "Central Basin and Range" Level III Ecoregions established by U.S. Environmental Protection Agency.

State Boundary

Major Roadway:

US Route

Interstate

Populated Place

NAMED WATERBODY FEATURES

1 Lake Simtustus
2 Lake Billy Chinook
3 Prineville Reservoir
4 Paulina Marsh
5 Silver Lake
6 Thompson Reservoir
7 Summer Lake
8 Lake Abert
9 Drews Reservoir
10 Warner Valley Lakes and Wetlands
11 Flook Lake
12 Foster Lake
13 Harney Lake
14 Malheur Lake
15 Alvord Lake
16 Coyote Lake
17 Warm Springs Reservoir
18 Lake Owyhee
19 Antelope Reservoir
20 Lake Lowell
21 C. J. Strike Reservoir
22 Lake Walcott
23 American Falls Reservoir
24 Blackfoot Reservoir
25 Big Sage Reservoir
26 Massacre Lake
27 Moon Lake
28 Eagle Lake
29 Winnemucca Lake
30 Stampede Reservoir
31 Washoe Lake
32 Lahontan Reservoir
33 Sheckler Reservoir
34 Carson Lake
35 Toulon & Humboldt lakes
36 Rye Patch Reservoir
37 Humboldt Salt Marsh
38 Newark Lake
39 Ruby Lake
40 Franklin Lake
41 Snow Water Lake
42 Goshute Lake
43 Cutler Reservoir
44 Woodruff Narrows Reservoir
45 Sevier Bridge Reservoir
46 Bridgeport Reservoir
47 Walker Lake
48 Lake crowley
49 Columbus Salt Marsh
50 Mud Lake
51 Antelope Lake
52 Groom Lake
53 Desert Lake
54 Delamar Lake
55 Pine Valley Hardpan
56 Wah Wah Valley Hardpan
57 Minersville Reservoir
58 Piute Reservoir
59 Little Salt Lake
60 Panguitch Lake

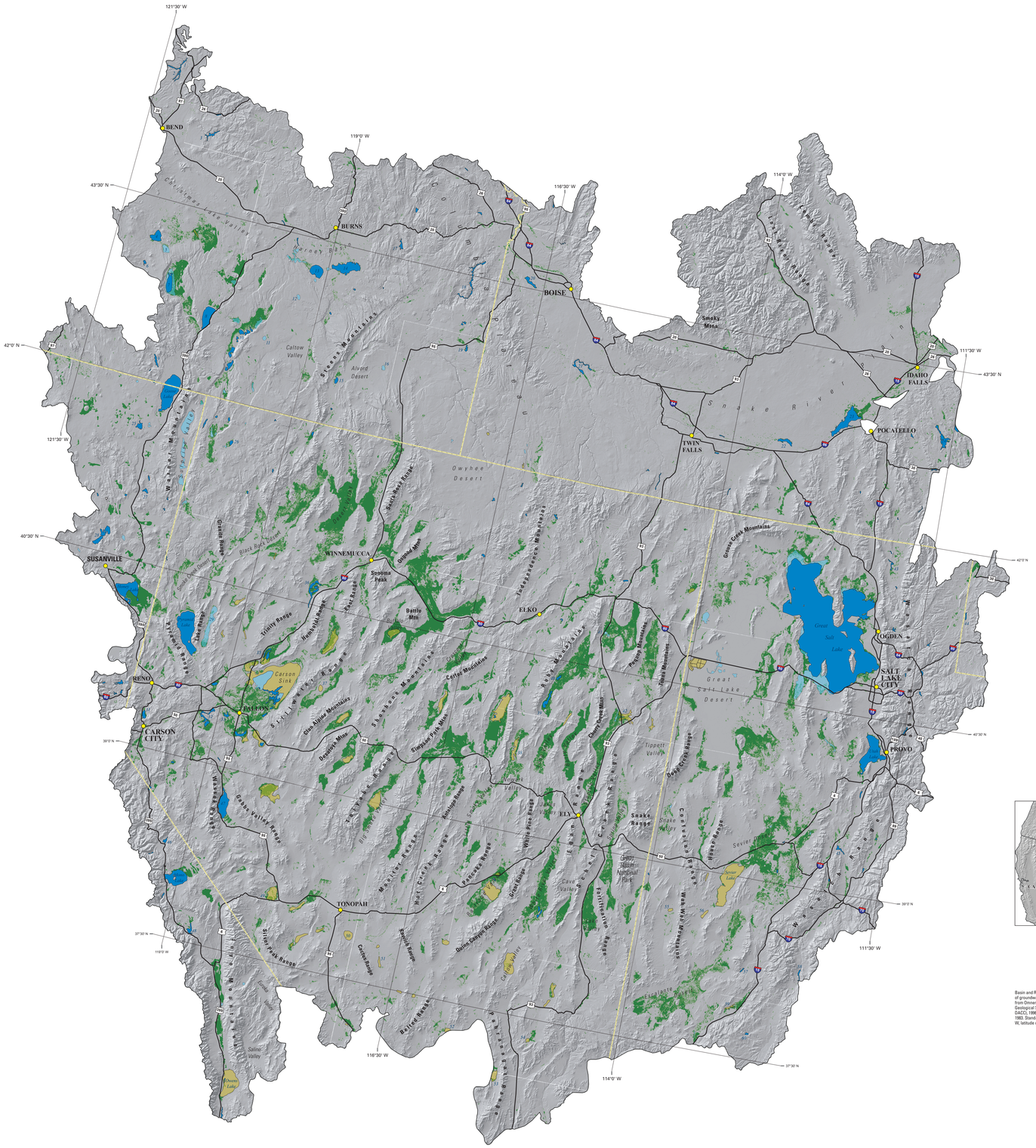

Image base from the North America Shaded Relief data derived from the GTOPO30 elevation data. GTOPO30 is a global digital elevation model (DEM) with a horizontal grid spacing of 30 arc seconds (approximately 1 km). GTOPO30 was developed through a collaborative effort led by staff at the USGS Earth Resources Observation and Science (EROS) Center. North America Shaded Relief data is also currently available at http://nationalatlas.gov/atlasftp.html.

SCALE 1:1,150 000

100 0 100 MILES

100 0 100 KILOMETERS

ALBERS EQUAL AREA PROJECTION; STANDARD PARALLELS 29½° N and 45½° N

Phreatophytic land cover of the Great Basin ecoregion was derived by assessing vegetation species composition against geomorphology, elevation, hydrology, and the Natural Resources Conservation Service's Soil Survey Geographic (SSURGO) data. The USGS 2005 Shrub Map product, which depicts a distribution of sagebrush and associated vegetation in the Columbia Basin and Southwestern Regions at a 1:100,000 scale (http://sagemap.wr.usgs.gov), was utilized as the main source for the vegetation land cover in the spatial analysis process. Additional sources of vegetation land cover data were obtained from California GAP (http://www.biogeog.ucsb.edu/projects/gap/gap_home.html) and Wyoming GAP (http://www.sdvc.uwyo.edu/wbn/gap.html). The phreatophytic land cover displayed in this product retains the same 30 m^2 pixel resolution as Shrub Map. Data used in analysis from California GAP (90 m^2 pixels) and Wyoming GAP (100 m^2 pixels) were resampled to the resolution of Shrub Map based on the large footprint of that effort in relation to the overall study area. See accompanying pamphlet for more information on methodology and discussion of results.

Land-cover classes included in analysis (listed by source):

- Shrub Map Land-cover
  - Inter-Mountain Basins Greasewood Wash
  - North American Warm Desert Wash
  - Inter-Mountain Basins Big Sagebrush Shrubland
  - Sonora-Mojave Desert Mixed Salt Desert Shrub
  - Inter-Mountain Basins Greasewood Flat
  - North American Warm Desert Riparian Mesquite Bosque
  - North American Arid West Emergent Marsh
  - Mediterranean Californian Alkali Marsh
  - Temperate Pacific Freshwater Emergent Marsh
  - Riparian
  - Invasive Southwest Riparian Woodland Shrubland
- California GAP Land-cover
  - Great Basin Mixed Scrub
  - Big Sagebrush Scrub
  - Rabbitbrush Scrub
  - Desert Greasewood Scrub
  - Alkali Meadow
  - Great Basin Wet Meadow
  - Modoc-Great Basin Cottonwood-Willow Riparian Forest
  - Modoc-Great Basin Riparian Scrub
  - Wyoming GAP Land-cover
- Wyoming Big Sagebrush
  - Greasewood Fans and Flats
  - Forest-dominated Riparian
  - Shrub-dominated Riparian

Geomorphic features were identified from a landform data set created by the USGS Rocky Mountain Geographic Science Center (Denver, CO), which utilizes the MoRAP method of automated landform extraction from elevation data (Cress and others, 2009).

Hydrographic, transportation, State boundary, and populated places data displayed on map available at http://nationalatlas.gov/atlasftp.html.

Image base from the North America Shaded Relief data derived from the GTOPO30 elevation data. GTOPO30 is a global digital elevation model (DEM) with a horizontal grid spacing of 30 arc seconds (approximately 1 km). GTOPO30 was developed through a collaborative effort led by staff at the USGS Earth Resources Observation and Science (EROS) Center. North America Shaded Relief data is also currently available at http://nationalatlas.gov/atlasftp.html.

Other information sources:

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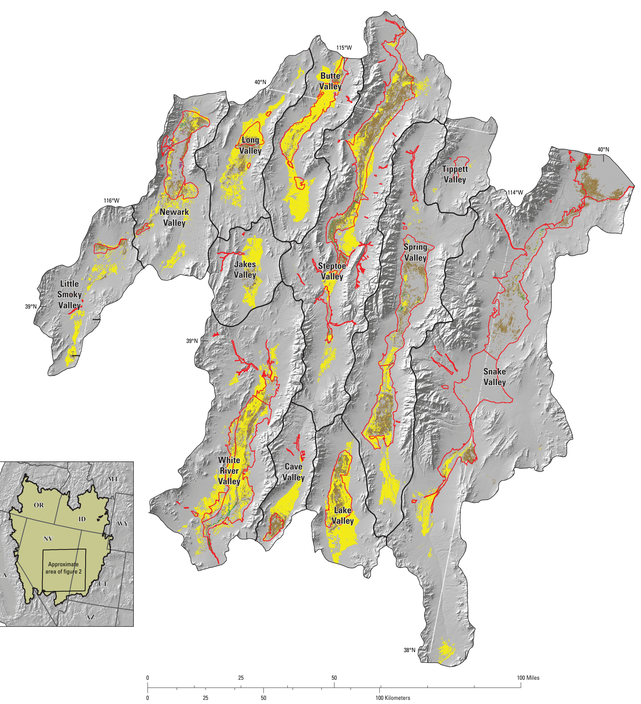

Basin and Range Carbonate Aquifer System Study (BARCASS) potential areas of groundwater discharge from Smith and others, 2007. Great Basin study area from Omernick, 1987. Shaded-relief base from GTOPO30 data sets from the U.S. Geological Survey EROS Data Center Distributed Active Archive Center (EDC DAAC), 1996. Albers Equal-Area Conic projection, North American Datum of 1983. Standard parallels 29°30'00" and 45°30'00", central meridian, 96°00'00" W, latitude of origin 23°00'00".

EXPLANATION

- Basin and Range Carbonate Aquifer System Study Boundary
- Basin and Range Carbonate Aquifer System Study Potential Areas of Groundwater Discharge
- Inter-Mountain Basins Greasewood Wash
- North American Warm Desert Wash
- Inter-Mountain Basins Big Sagebrush Shrubland
- Inter-Mountain Basins Greasewood Flat
- North American Arid West Emergent Marsh
- Riparian

Figure 2. Areal comparison between Great Basin Integrated Management Phreatophyte Map and Basin and Range Carbonate Aquifer System Study Potential Areas of Ground Water Discharge Nevada and Utah. For more detail, enlarge view.

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Phreatophytic Land-Cover Map of the Northern and Central Great Basin Ecoregion: California, Idaho, Nevada, Utah, Oregon, and Wyoming

By
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2011

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Digital files available at http://pubs.usgs.gov/sim/3169/

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