

Update the National Hydrography Database (NHD) in the Bear River Area

Introduction

Most of Idaho is in the Pacific Northwest Region, Hydrologic Unit Code (HUC) starting with 17, but the southeastern corner of Idaho is the Great Basin Region (HUC starting with 16), specifically the Bear Basin. The Bear River is one of the largest streams in North America whose waters do not reach an ocean; beginning from Utah's Uinta Mountains, flowing a total of 500 miles through three states; Utah, Wyoming, and Idaho, and ending at the Great Salt Lake – only 90 miles from headwaters to mouth. There are 5 subbasins within the Bear River Drainage. Four subbasins are in Idaho – 16010102 Central Bear, 16010201 Bear Lake, 16010202 Middle Bear, and 16010204 Lower Bear-Malad. The largest city is Preston, Idaho (pop. 5204), with a total population for all Idaho Subbasins of 17233 (2010 census). Agriculture is the largest industry and there are 50+ Irrigation companies that encompass the Bear River Area.

Idaho is part of the Bear River Compact; <http://www.bearrivercommission.org/> a framework under which the waters of the Bear River are divided, and this framework regulates how the waters of the Bear River are distributed to water users in Idaho, Wyoming, and Utah. Accurate information is needed in discussing and resolving water issues. Updated NHD would allow for an easier exchange of information and a useful data set for modeling and events. The Bear Basin is also used in water right accounting (<http://www.idwr.idaho.gov/GeographicInfo/accounting.htm>) so accurate NHD would assist in that effort as well. IDWR proposes to update areas within the Bear River basin in Idaho, using NAIP imagery historical maps and local data. With this project, additional input will be solicited from local irrigation companies and interested stakeholders.

Benefits to the USGS and the NHD Community

Updated NHD in this area is important to cities, irrigation companies, state agencies, and federal partners that manage water within this Hydrologic Unit.

Proposed Work

- Use the 2011 NAIP imagery and historical maps to revise existing NHD.
- Solicit input from local irrigation entities and local land managers for clarification on names, vertical alignment and connectivity.
- Incorporate data from local irrigation entities to update hydrography.

Deliverables

- Send new or updated names to GNIS.
- Submit updates to the USGS for inclusion into the NHD.
- Prepare a short report on the project.

Figure 1

