

Questions/Answers from Webinar, “What Records Are Available to Water Researchers and Where Are They?”

Question to Division of Water Resources:

<http://cdss.state.co.us/GIS/Pages/Division3RioGrande.aspx>

These shape files contain information down to a decimal place for the number of acres irrigated on a given parcel of land on a given year. How is this calculated? Where is this data derived from? There are also crops indicated: are they determined from sight, aerial photo analysis, satellite imagery analysis, or some other kind of crop suitability model that goes unverified or verified? Finally, what is the source of the ditch company boundaries? Or did I miss that in the meta-data?

I know that may be quite specific, but generally, I would like to know or have readily available meta-data indicating the source, quality, verification status, etc. of the data. Some of the diversion structures say things like, “By sight” or “By photo” - this is the kind of thing I am looking for for other data sources. Essentially, I think it would be useful for people to know as much as possible about how or whether something is estimated or measured, and with what certainty/error.

Answer:

There are a number of task memos associated with the development of the GIS data found on our CDSS site. For example, if you're looking for information about the Rio Grande basin, those documents would be referenced under the RGDSS. Each major basin in Colorado has a "Decision Support System" developed for it with varying degrees of detail in the data generated.

Currently, our irrigated lands are developed using an NDVI analysis as to whether or not a field is irrigated. Our crop typing is done using the NASS Cropland Data Layer provided by the USDA and our Ditch Service Area boundaries are derived from a combination of provided mapping and user supplied information. This data is constantly in flux as we correct errors we find and re-post the data annually.

Since we work at the State level for GIS data development, much of the data we produce is not 'observed' but rather remotely derived from aerial photos, satellite imagery and federally produced data.