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Issue 2

SPDSS

The Newsletter for the South Platte Decision Support System

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Making Engineers' Lives *Easier*

CDSS Website Gets a *New Look*

New Data Available on CDSS Website

SPDSS is Making Engineer's Lives Easier

SPDSS (South Platte Decision Support System) products have been available to consultants, agencies, and the public since 2001, and according to people that use SPDSS, it is making a big difference in how they do business. "We used to have to go down to the State Engineers Office and make copies from Microfiche, which took hours and cost a bundle," recounts Leo Eisel of Brown and Caldwell. He should know, Leo has been in the water rights business in Colorado for over 23 years. With access to the State's water resources database, HydroBase, and other Colorado Decision Support System (CDSS) tools through the CDSS website, now all it takes is a click of the mouse.

SPDSS and other CDSS tools are being used by State employees and consultants for many water resources projects, including the Coordinated Facilities Operations Study (CFOPS) in the Colorado River Basin, and the Statewide Water Supply Initiative (SWSI). Users see many benefits to using CDSS products like SPDSS and the CWCB hopes that others will find the data and information useful in the future, as more and more information will become available on the CDSS website.

When asked about the benefits of using SPDSS, users had a variety of answers within the same vein: the main benefit being that water resources data (i.e., calls, water rights, diversions, wells, irrigated acreage, GIS layers, etc.) are now at the user's fingertips. This

means no more going to the State Engineer or calling ditch companies or water commissioners to find the information.

Interface with Hydrobase

Lindsay Griffith with Brown and Caldwell says that she uses data from HydroBase on a daily basis as she models consumptive use and stream depletions for change cases and augmentation plans. In addition, the South Platte Basin Surface Water

User-Friendly SPDSS Features:

- Models and tools developed for the SPDSS can provide information on "what-if" scenarios and how changes (e.g., adding a call) can impact the entire water system. The DSS models "give you the big picture" attests Michelle Garrison of the CWCB, a frequent user of CDSS data and products.
- Forthcoming SPDSS tools will provide greater detail for more accurate modeling. "When complete, the SPDSS surface water model will be a daily model" Ms. Garrison reported, which improves on the ability to make management decisions on a daily basis, which is important in the South Platte River Basin.
- Data available through SPDSS are already being used in Water Court. Erin Wilson, a water resources engineer at Leonard Rice, has been working on the consumptive use portion of the SPDSS project. According to Ms. Wilson, the irrigated acreage data and information developed during the project are already being used in water rights change cases, substitute water supply plans, and augmentation plans throughout the South Platte River Basin.
- The SWSI project has used preliminary irrigated acreage coverage data available from the SPDSS. "Since SPDSS is still in development, we were not able to use products and information from the South Platte like we were able to in other basins with complete DSSs," explained Kelly DiNatale of CDM. "As a result, we could not be as thorough with the South Platte River Basin." The finished DSSs provided information for the SWSI project to determine irrigation water requirements, consumptive use, areas of agricultural water shortages, naturalized flow, physical flow, and legally available flow.

Technical Memoranda provide invaluable information and better understanding of typical river flow regimes, reservoir and direct flow diversion operations, and priority calls.

Ms. Griffith also notes that models and data developed during previous DSS efforts have resulted in cost-savings to clients. “The development of consumptive use estimates for the Rio Grande DSS aided Brown and Caldwell in determining the consumptive use for lands irrigated on the Baca Ranch” as part of its sale to form the Great Sand Dunes National Park.

New Data Available for SPDSS on the Website

Contractors for the SPDSS, including RTI, Leonard Rice, and CDM, have been working hard this year to develop new information and data for SPDSS.

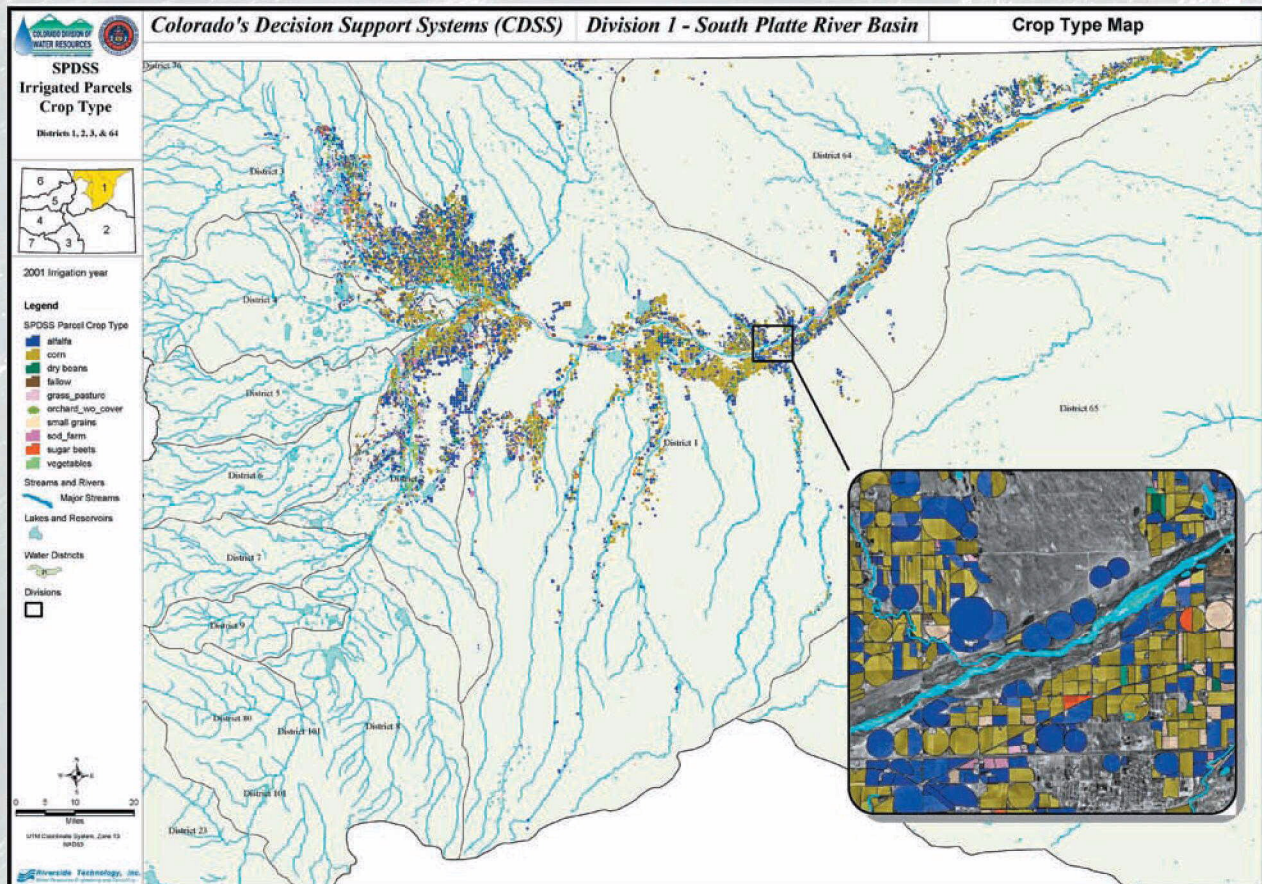
Many new technical documents and datasets are now available on the CDSS website.

Water districts are happy to have such a resource to use. “When people call with questions, the water districts can point them to the technical memos on the web to get the answers,” Erin Wilson of Leonard Rice points out, “It saves the water districts a lot of time.”

Available information for SPDSS is being updated on a regular basis.

CDSS Website Gets a New Look

The current Colorado Decision Support System (CDSS) website is functional, but may not be as user friendly as some would like. “When it was first implemented, it worked well. Now we have added two new basins so it is harder to navigate through



New GIS layers are being developed for SPDSS. This map shows irrigated parcels by crop type in the South Platte River Basin.

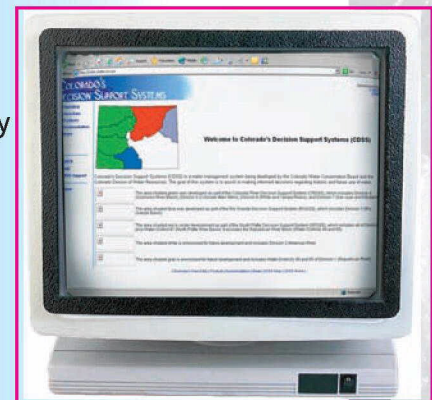
the site” says Ray Alvarado, CWCB’s SPDSS Project Manager. The website contains a wealth of information for the general public and for agencies and consultants in the water rights field. The purpose of the CDSS website is to serve as a data and information warehouse and reporting mechanism for the public, the CWCB Board, and CWCB’s constituency. The site lets people know what the CDSS is, why DSSs are being developed for basins across Colorado, the progress of CDSS development, and provides the products that are available for each DSS.

Brown and Caldwell is working with representatives from CWCB and the State Engineers Office (SEO) to identify the desired “look and feel” of the website and to determine what works and what doesn’t on the current website. The redesigned site will be more user friendly, allowing the user to access data and information for each DSS by basin or by type of product. CWCB and SEO personnel are also hoping that the new site will be easier to maintain, to conserve money and time that is in short supply these days. You can expect to see the improved site in early 2005.

Products currently available on the CDSS website:

- Previous estimates of consumptive use
- Division 1 GIS data layers (cities, counties, townships, districts, divisions, HUC, highways, lakes, rivers, reservoirs, location of Public Land Survey system corners, land use, soils, diversions, decreed wells, permitted wells over 50 gpm, precipitation, solar radiation, temperature, evapotranspiration, gaging stations, natural flow stations, instream minimum flow)
- Statewide GIS data for transbasin structures and transbasin stations
- Denver Basin Region and Lower South Platte Alluvium Region well construction and testing
- Denver Basin Region and Lower South Platte Alluvium Region aquifer configuration data
- Denver Basin Region and Lower South Platte Alluvium Region aquifer property data
- Denver Basin Region and Lower South Platte Alluvium Region water level data

For more information regarding SPDSS, previously developed CDSS products, or upcoming activities, visit the CDSS website:



<http://cdss.state.co.us>