



WEBER BASIN WATER CONSERVANCY DISTRICT

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Scott W. Paxman, PE
General Manager/CEO

June 30, 2025

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Ms. Teresa Wilhelmsen, State Engineer/Director
Utah Division of Water Rights
P.O. Box 146300
1594 West North Temple Suite 200
Salt Lake City, Utah 84114

Subject: **2024 Consumptive Per Capita Water Use – Weber Basin
Water Conservancy District**

Dear Ms. Wilhelmsen,

Please find attached the Weber Basin Water Conservancy District
(District) 2024 Per-Capita Consumptive Water Use Annual Report (Report) in
compliance with Utah Code 73-5-8.

The Report includes water use data from 38 community water systems
with populations exceeding 3,300, 22 secondary water systems, and 5
publicly owned treatment works operated by four different districts within
Davis and Weber counties.

The Report identifies the per-capita consumptive water use for **Davis
County as 151 GPCD, and 152 for Weber County, combined 151 GPCD.**

Should you have any questions please contact Jon Parry at
jparry@weberbasin.gov or 801-771-1677.

Sincerely,

Jonathan Parry, PE
Assistant General Manager

2024 WEBER BASIN WATER CONSERVANCY DISTRICT

PER CAPITA CONSUMPTIVE USE REPORT



BACKGROUND

Senate Bill 119 (SB 119), enacted by the Utah State Legislature in the 2023 session, requires the Weber Basin Water Conservancy District (WBWCD), as a designated reporting district by the Utah Division of Water Resources, to provide an annual reporting of per capita consumptive use (consumptive gallons per capita per day or GPCD_c) for each county of the first or second class within its service boundary. Per capita consumptive use is to be used by state agencies and political subdivisions to track progress in water conservation and ensure efficient public water supply management.

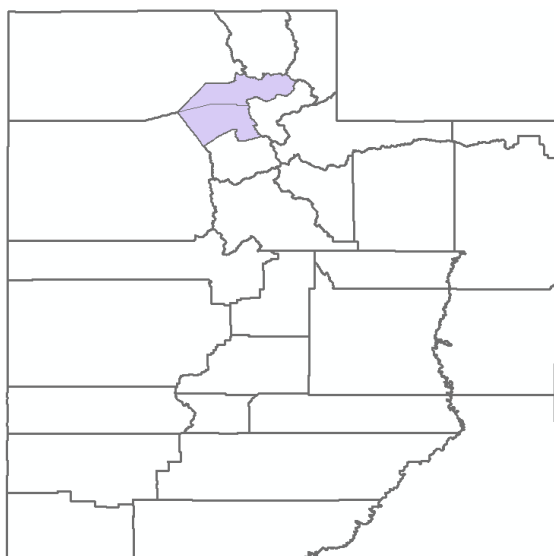


Figure 1. Utah Counties with Davis and Weber Counties highlighted.

WBWCD operates within two counties of the second class; namely, Davis and Weber counties (see Figure 1). Within these counties there are over thirty municipalities, over one hundred public water systems, and over thirty secondary water systems. Each system has its own service area boundaries resulting in unique water-use areas served through different combinations of public and secondary water systems. WBWCD collected water use data from eleven community water systems in Weber County, seventeen community water systems in Davis County, six secondary water providers in Weber County, and sixteen secondary water companies in Davis County (see Tables 1 and 2). These community water systems all serve populations of 3,300 or more in accordance with Utah Code §73-5-8.5(7)(a). WBWCD also received relevant discharge data from five publicly owned

treatment works (POTWs) operated by four different sewer districts for calculation of return flow (see Table 3).

CALCULATIONS

Data from water providers was used in the process of calculating representative per capita consumptive use for Davis and Weber counties. This data included metered end use deliveries of treated water provided by the public water suppliers, metered source deliveries of secondary water, monthly discharge volumes from each of the publicly owned treatment work facilities, and 2023 population projections from Kem C. Gardner Policy Institute broken down into smaller geographic areas by the Wasatch Front Regional Council (WFRC) (Traffic Analysis Zones (TAZ)). Using the public water systems service area boundaries as the basic geographic areas for analysis, WBWCD extracted the total volume of treated

water, secondary water delivered, and population served. These areas were then grouped by the county in which they operate. Secondary water deliveries were proportionately distributed based on the percentage of their service areas contained within the respective public water system service area boundaries. Return flow credits for each of the areas were also determined using a weighted average based on the percentage of the service area within each of the public water system service areas. The credit for each water reclamation facility was determined using the minimum monthly effluent volume for each facility and assuming this same volume was returned for entirety of the year. This methodology helps to account for infiltration and inflow that occur within each of the systems and affect the calculation of the return flow credit. The calculation for determining consumptive per capita water use calculated using the following equation:

$$GPCD_c = \left(\frac{[\Sigma PWS + \Sigma SWS]}{\frac{POP}{365}} \right) - RF$$

Where:

GPCD_c = Consumptive Per Capita Water Use in Gallons per Capita per Day

PWS = Total Metered Treated Water Deliveries

SWS = Total Metered Source Secondary Water Deliveries within the respective PWS with loss assumptions

POP = 2023 Population based on WFRC TAZ boundaries contained within the PWS

RF = Return Flow, weighted average based on percent of the area served within the respective POTW service areas. Calculated based on the minimum monthly average discharge from the applicable POTW.

Water losses for each of the secondary water systems were estimated using smaller sample sets of metered secondary and metered treated water within the PWS service area for validation.

As more accurate data is provided in the future, WBWCD anticipates this process increasing in accuracy and is committed to collaborating with its customer agencies in accomplishing this improvement.

RESULTS

Weber County's 2024 representative per capita consumptive use was 152 gallons per capita per day;
Davis County's 2024 representative per capita consumptive use was 151 gallons per capita per day.

	Weber County	Davis County	Aggregate Data
PWS	11	17	28
Secondary Companies	6	16	21
Treated AF	31507	38342	69850
Secondary AF	34399	53998	88397
Population	251441	360820	612261
Treated GPCD	112	95	102
Secondary GPCD	122	134	129
Total GPCD	234	228	231
Return Flow Credit	82	78	79
Consumptive GPCD	152	151	151

System Name	County	Population (WFRC TAZ)
Bona Vista Water Improvement District	Weber	31,800
Bountiful City Water	Davis	37,684
Boyer Hill Military Housing	Davis	3,557
Centerville City Water System	Davis	17,851
Clearfield City	Davis	32,440
Clinton City Water	Davis	22,497
Farmington Culinary Water System	Davis	26,838
Fruit Heights City Water System (Culinary)	Davis	6,133
Hooper Water Improvement District	Weber	14,227
Kaysville City Culinary Water System	Davis	29,549
Layton City	Davis	78,995
North Ogden Municipal Water	Weber	24,541
North Salt Lake City Water System (Culinary)	Davis	20,405
Ogden City Water System	Weber	84,193
Pleasant View City Culinary Water	Weber	10,155
Riverdale City	Weber	9,304
Roy Municipal Water System	Weber	38,331
South Davis Water District (Culinary)	Davis	9,624
South Ogden City	Weber	16,879
South Weber City Culinary Water	Davis	7,564
Sunset City Water System	Davis	5,699
Syracuse City (Culinary)	Davis	34,364
Taylor-West Weber Water Improvement District	Weber	10,366
Washington Terrace City	Weber	8,814
West Bountiful City Water System	Davis	5,736
West Haven SSD	Weber	2,832
West Point Culinary Water System	Davis	9,192
Woods Cross City Water System	Davis	12,694
Total	28	612,261

Table 1. Culinary Water Systems

SECONDARY WATER SYSTEMS	COUNTY
Benchland	Davis
Bountiful Irrigation	Davis
Centerville Deuel Creek	Davis
DWCCC Clinton West Point	Davis
DWCCC Kaysville Layton	Davis
DWCCC South Weber	Davis
DWCCC West Layton	Davis
Fruit Heights	Davis
Haight's Creek	Davis
Hooper Irrigation	Weber
Layton	Davis
Mountain View	Weber
North Salt Lake City Water System (Irrigation)	Davis
Roy Water	Weber
South Davis Irri	Davis
South Ogden Con	Weber
South Weber Irrigation	Davis
South Weber WID	Davis
Syracuse	Davis
WBWCD	Davis/Weber
Weber Box Elder	Weber

Table 2. Secondary Water Systems

SEWER DISTRICT
Central Davis Sewer District
Central Weber Sewer Improvement District
North Davis Sewer District
South Davis Sewer District

Table 3. Water Reclamation Facilities

MAPS

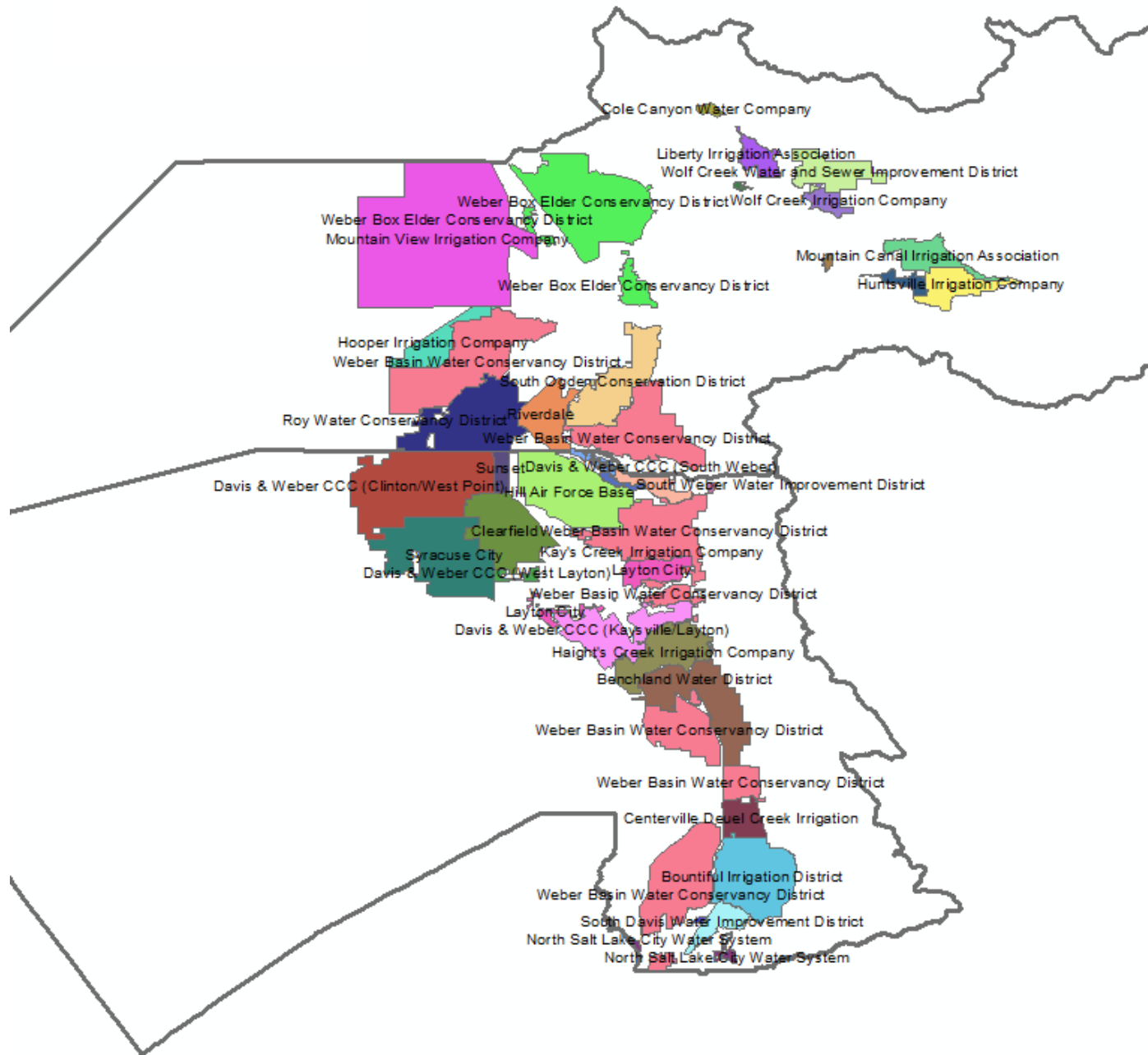


Figure 2. Secondary Water Provider Service Area Boundaries with County Boundaries

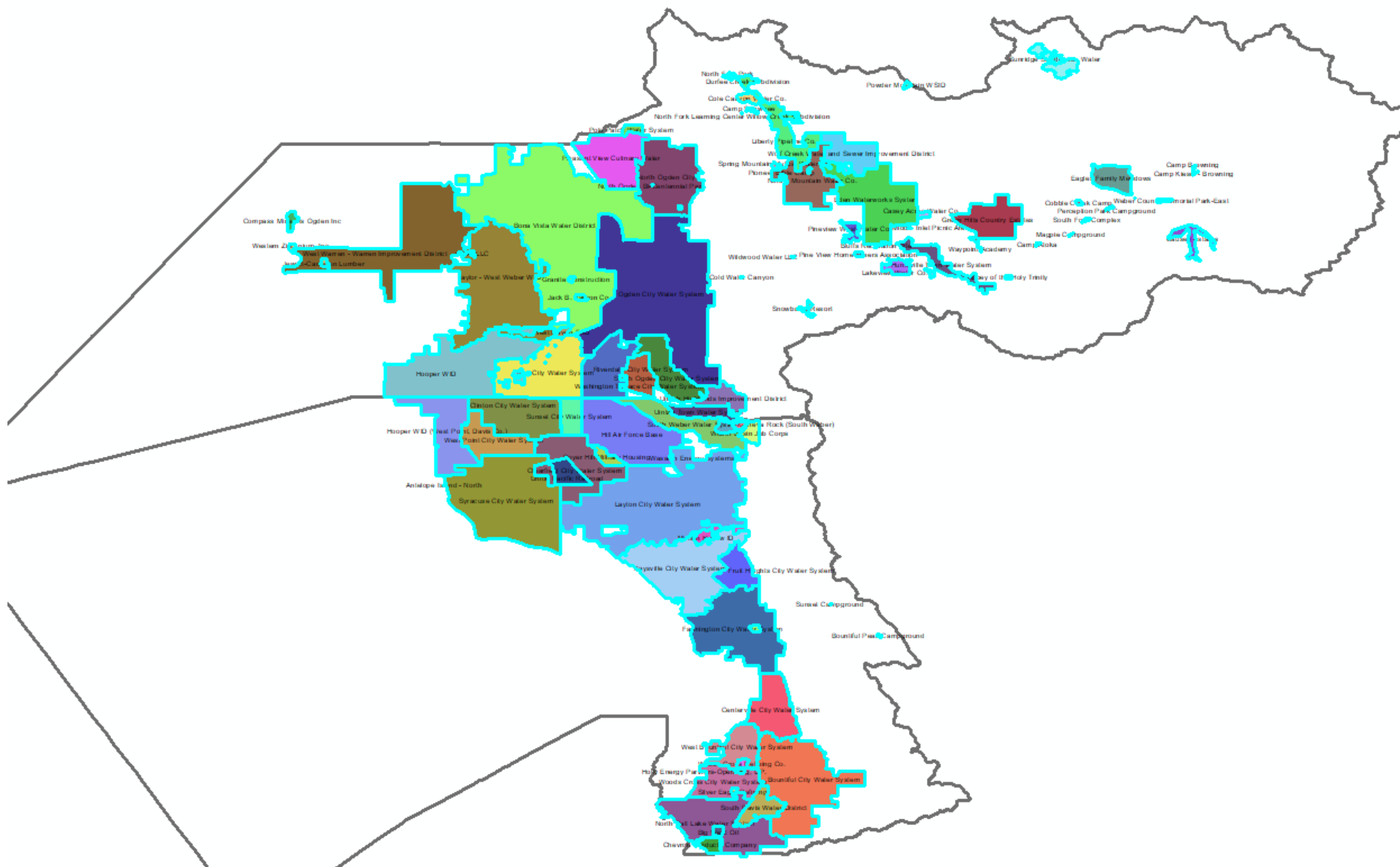


Figure 3. Community Water System Service Area Boundaries with County Boundaries

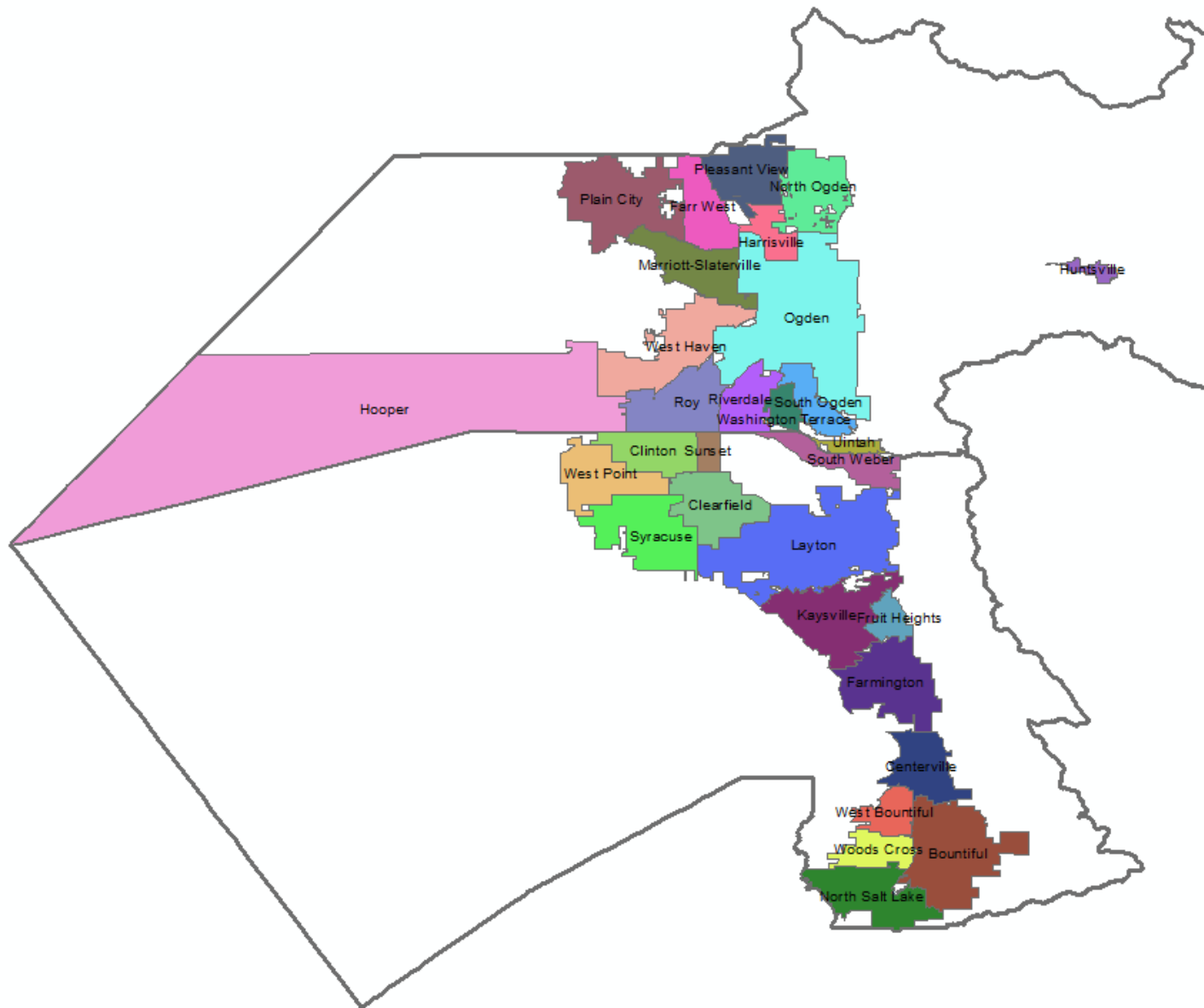


Figure 4. Municipality Service Area Boundaries with County Boundaries

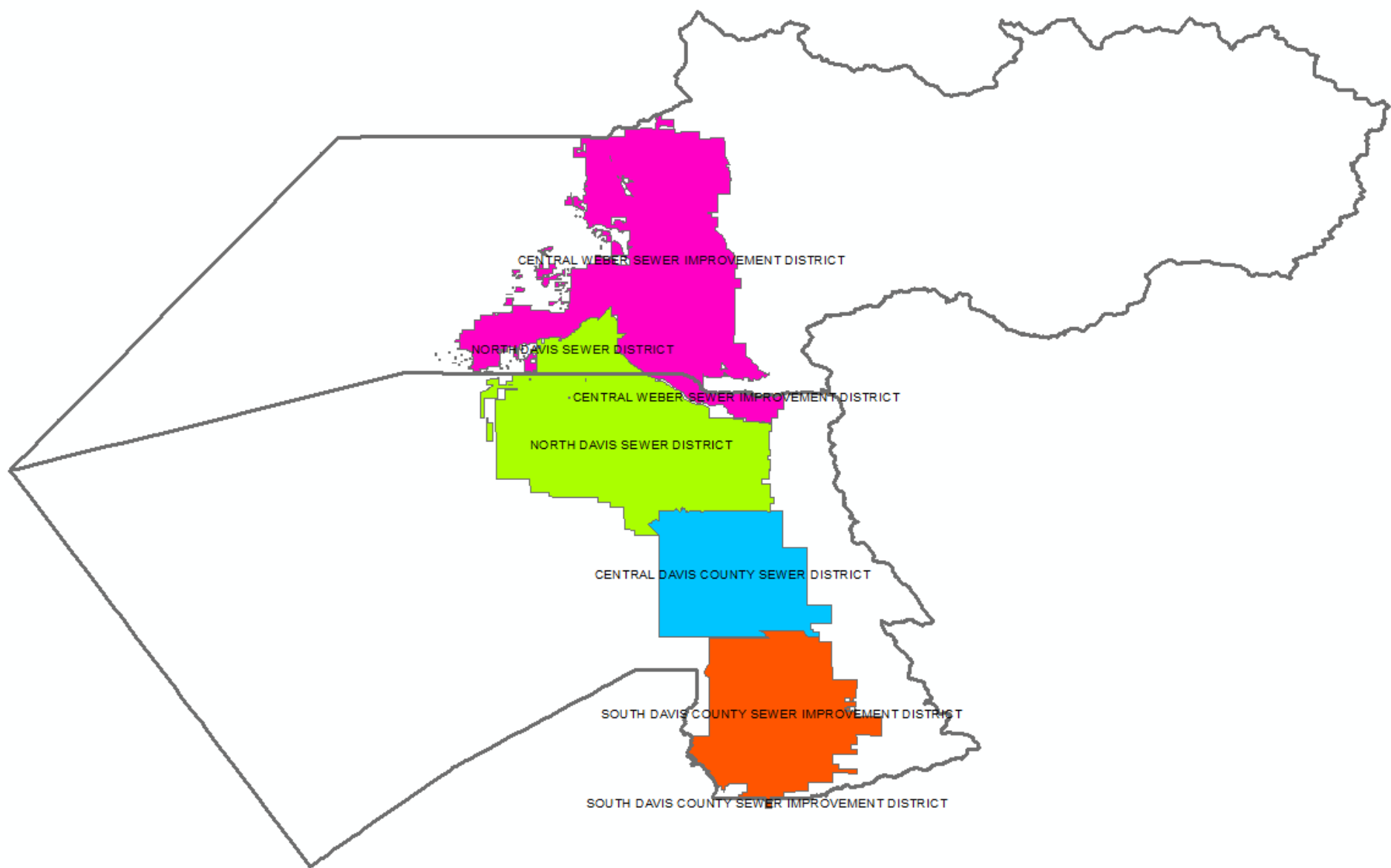


Figure 5. Sewer District Service Area Boundaries with County Boundaries