

## **SPDSS Memorandum Final**

**To:** Ray Alvarado and Ray Bennett  
**From:** LRE, Erin Wilson  
**Subject:** Task 3 – Identify Key Diversion Structures  
Notes from Water District 2 Meeting  
**Date:** July 19, 2004, revised May 3, 2006

### **Introduction**

This memorandum provides notes from September 25, 2003 meeting with Water District 2 Water Commissioner. Meetings are being held with Water Commissioners in each Water District in the SPDSS study area. The objectives of these meetings are 1) to develop an initial basin understanding; 2) to determine what irrigation structures should be included as “Key Structures” in future detailed modeling efforts, and 3) to determine which reservoirs and diversions warrant more detailed investigation and technical documentation. These objectives support both Task 3 – Identify Key Diversion Structures and Task 5 – Identify Key Storage Reservoirs and Develop Operating Memorandum. Information in this memorandum is believed to be accurate. However, this information should not be relied upon in any legal proceeding.

### **Approach**

Prior to the meeting, potential Key Structures for Division 2 were identified using the following procedure outlined in the SPDSS Scope of Work:

1. Identify net absolute water rights per structure. Select initial key structure cutoff value based on the 85 percent recommendation (SPDSS Feasibility Study, October 2001) for each water district.
2. Determine average annual diversion data for structures during three average hydrologic years, one year each during the 1950s, the 1970s, and the 1990s. Add additional structures to the key list that diverted an average of 1,000 acre-feet per year on the main stem during any of the representative years. Note that this step will allow the inclusion of larger diversion structures having active water rights during the earlier years of the study that were subsequently transferred to other ditches or other uses.
3. Review readily available straight-line diagrams and include additional structures as appropriate, based on water rights and location.

Table 1, provided in the Results Section of this memorandum, lists the initial list of key diversion structures, the total of their decreed water rights, the period of record of available diversion records, their average annual diversions for the period of record, and the water source. In addition, as noted in the comment line, it includes new structures added during the interviews, or structures that were removed as key and will be modeled in an aggregated fashion. Table 1 generally lists structures in upstream to downstream order. On-going Task 3 efforts include review of irrigated acreage, water rights, and diversion records. It is expected that the key structure list shown in Table 1 will be further refined during these, and model development, efforts.

The interview with the Water Commissioners and the Division Engineer was intended to determine additional structures that should be considered key based on seniority, water administration, or basin operations (including structures with supplemental reservoir water). Prior to the meeting, a brief description of the purpose and goals of the interview was provided to the Water Commissioner, Bob Stahl. The following is a summary of the meeting agenda:

1. Review straight-line diagrams for accuracy
2. Develop a list of major projects, reservoirs, and ditches in the water district, including names of knowledgeable contact people
3. Gather information on dry-up points in the river, calling rights, augmentation plans, and administration specific to the water district
4. Gather general information on the preliminary list of irrigation diversions selected to included in future detailed modeling efforts (key structures), and solicit input on their final inclusion
5. Develop information on reservoirs, such as owner entities, ditches that get reservoir deliveries, assigned delivery losses, etc.

David Ellington, Division 1, developed a preliminary straight-line diagram of Water District 2. In addition, LRE developed maps displaying reservoirs, diversion headgate locations, and canal layouts on a quad-sheet background of the water district to facilitate the discussions.

## **Meeting Attendance**

The meeting was held at the Division 1 offices in Greeley. The following people attended part or the entire meeting:

Jim Hall – Division 1 Engineer  
Bob Stahl – District 2 Water Commissioner  
David Ellington – Division 1  
Ray Bennett – SEO Denver  
Scott Cuthbertson – Division 1  
Erin Wilson, Leonard Rice Engineers

## Meeting Notes

We began by reviewing areas of ground water use only within the water district, then reviewing the straight-line diagram and river maps from upstream to downstream. The following was noted:

### Compacts and Agreements Affecting District 2 Administration

- Jim Hall explained the 1940 Agreement between Denver Water and the “Consolidated Ditches”, which are most of the ditches in District 2. Prior to 1940, the State did not require that Denver Water replace evaporation from Cheesman, or Antero Reservoirs. Eleven Mile had just been constructed. The Consolidated Ditches filed a suit and the resulting agreement (1940 Agreement) allowed Denver Water not to replace evaporation charges if they agreed not to re-use their transbasin water. Instead, the agreement stated that Cheesman and Antero would be administered by maintaining gage height and Eleven Mile would be administered based on equal inflow and outflow. The agreement stated that it would terminate “if any substantial part shall become impossible of performance by reason of enforceable order of governmental authority” Since the agreement, there have been two legal challenges to the agreement that have gone to the Supreme Court (Denver v. Fulton Irrigation Ditch Co and Denver v Consolidated Ditch Companies). The Supreme Court has found:
  1. The 1940 agreement had not been terminated
  2. The 1940 Agreement only applied to reuse of return flows derived from decreed water rights from Colorado River sources with appropriation dates preceding May 1, 1940, which included transmountain diversions from the Fraser and Williams Fork Diversion Project.
  3. Denver Water could not “depart substantially from its practice during the past several years of returning water originating in the South Platte basin during the irrigation season.”

### Stream Gages and General Administration

- The Denver Gage (South Platte River at Denver - 06714000) is a reliable gage.
- The Henderson gage (South Platte River at Henderson – 06720500) is historically a reliable gage.
- The South Platte River at Ft. Lupton gage (06721000) was a reliable gage, but was discontinued in 1996. The USGS has recently installed a new gage about one-half mile downstream near the Platteville Ditch.
- A suggestion was made to David Ellington to include USGS gages on the straight-line diagrams. At this time, only DWR gages or joint USGS/DWR gages are shown.
- Metro WWTP tracks water quality from their point of discharge (upstream of confluence with Clear Creek) to Platteville.
- Bob Stahl has been the District 2 water commissioner since 1992 and revised some of the accounting procedures in the first few years. There are likely variations in accounting before 1992 and after 1995, but consistent since then.
- Subirrigation likely occurs under ditches that irrigate in the bottom lands of the South Platte River. This may include Lupton Bottom Ditch, Section No. 3 Ditch, and others.

- Most acreage in District 2 is flood irrigated, with more sprinklers downstream within the district.
- More vegetables are grown in the upper portion of District 2, with corn, alfalfa, beets and wheat more prevalent in the lower portion.
- Tributary ground water is used as a supplemental water source – very few lands are irrigated with ground water only.
- The following are the only ditch systems without significant supplemental ground water use: Lupton Bottom (0200812), Meadow Island #1 (0200821), Meadow Island #2 (0200822), and the Henrylyn system under the Burlington Ditch (see below).
- A suggestion was made to David Ellington to add an owner (company) name layer to the straight-line diagrams.
- The only decreed augmentation plan at this time is the 1989 FRICo plan, which hasn't historically operated. Central Colorado Water Conservancy District (Central) and other ditch companies are in the process of developing and applying for augmentation decrees to replace well depletions. These entities have generally been operating under temporary plans.
- Central has shares in several ditches that are used under substitute supply plans to provide augment junior ground water use. These ditches include Fulton, Lupton Bottom, Platteville, Farmers Independent, and Union.
- Historically, the calls on the South Platte River generally do not affect administration on Big Dry Creek, Little Dry Creek, St. Vrain Creek, Big Thompson River, or the Cache La Poudre. Water rights on these tributaries are generally senior to mainstem water rights in Water District 2.
- The following table provides a normal year river call sequence:

**Normal Year River Call Sequence**

Winter	Generally Free River, maybe Barr Lake Storage call (in dry year, downstream reservoirs in Districts 1 and 64 may call)
Begin Irrigation Season – April to early May	Generally Free River. 1 <sup>st</sup> Call is Burlington's 1885 right or 1885 bypass to Jay Thomas or Western Ditches (adjacent Ditches)
First Week June	Generally Free River
Mid June	Burlington's 1885 calling right for a week or two Burlington's 1885 bypass right calls for a week or two
First Week July	Burlington usually shut off
July	Western 1871 right calls (Bypass to Jay Thomas or Western) Bypass from could be Fulton, Platteville, Brighton, Lupton Bottom, Evans #2 or Brantner. Note that in dry year, bypasses could be to Western 1866 right.

Note that generally affecting calls are within the water district – downstream users are too junior or generally satisfied. If there is significant rainfall in Denver, there may be enough water in Water Districts 2 or 64 to call upstream. The ditches in Water District 1 are senior to the lower district ditches, except the 1885 Burlington call.

- The Colorado Division of Water Resources (DWR) established a series of coding principles to be used by the Water Commissioners to accurately describe diversions and uses within the Water Districts. Diversion coding for Water District 2 generally follows these basic coding conventions since the mid-1980s. Simple diversions with direct uses are typically correct from 1950 on. Prior to the mid 1980s, however, the coding for more complex diversions, including carrier ditches and exchanges, does not appear to follow the coding conventions set forth by the DWR.

## **C-BT Water and Municipal Use**

- C-BT water is delivered to the upper portion of Water District 2 through Lower Boulder Ditch (0600538, changes names to Coal Ridge Ditch -0200552), stored in Sand Hill Lake then delivered to the Evans #2 (owned by Platte Valley Irrigation Company) and Meadow Island #2 (aka Meadow Island). Sand Hill Lake is owned by Platte Valley Irrigation Company and Lupton Meadows Ditch Company.
- The City of Broomfield used C-BT water and discharges to Big Dry Creek. C-BT water cannot be reused, but Windy Gap delivered to Broomfield can be used to extinction.
- C-BT water is delivered via pipeline to Ft. Lupton and then to Hudson for municipal use.
- C-BT water can be delivered down St. Vrain Creek and down Big Thompson River. The St. Vrain natural gas power plant can get C-BT water through Goosequill Pump (see below under Jay Thomas Ditch).
- C-BT water is delivered to Evans #2, Platteville, and Meadow Island #2. When Granby is spilling, C-BT water can be brought to the eastern slope and this “non-charged” water is treated and distributed as native water as long as there is a “dry-up” point along the river. C-BT water cannot be run into Nebraska.
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## **Ditch Specific Information**

Ditches discussed in this section are generally listed in upstream to downstream order.

- **The Farmer and Gardeners Ditch** (ID 0200800) diverts upstream of the Denver gaging station (revise on straight-line diagram). The ditch is owned by Denver

Water. Denver plans to use the ditch as a physical backup to deliver water to the Cherokee Power Plant until 2006. The main source for the plant is Denver's new reuse plant. It is not clear at this time whether Denver will transfer the remaining irrigation rights for industrial use. The ditch use was changed to include industrial use about 2 years ago; however, industrial water has historically been diverted through the irrigation right. There is still some minor irrigation. Denver Water provides the measured diversions for the power plant to the commissioner and he estimates the remaining headgate diversions to be for irrigation. The power plant discharges to the South Platte downstream of the confluence with Sand Creek.

- **Burlington Ditch System aka O'Brian Canal (ID 0200802)**
  - The Burlington Ditch (0200802) delivers water for the Farmers Reservoir and Irrigation Company (FRICo), the Burlington Ditch Company, and the Henrylyn Irrigation District water rights. The 1921 Agreement defines the operations of the ditch and the water rights structure for the three entities. The diversion records for the Burlington Ditch (0200802) report the total through the structure under all associated water rights. For more information, see the FRICo-Barr operating memorandum developed for SPDSS.
  - Burlington Ditch headgate deliveries are measured down-ditch of the Metro WWTP discharge location.
  - Henrylyn lands are generally not co-mingled with FRICo and Burlington Ditch Company Lands – they are further east. Water delivered to the lands (included with 0200802 diversion records) was measured and also reported under the Denver Hudson Canal (0200805) until 1970 and again beginning in 1989.
  - There is an agreement between FRICo and the Henrylyn Irrigation District, termed the 1921 Agreement.
  - Barr Lake (0203837 ~35,000 af) is owned and managed by FRICo. Inflow and releases are measured by FRICo and provided to the water commissioner. Monthly reservoir contents data are maintained by the state.
  - Lands are irrigated enroute to Barr Lake off the main canals and laterals, plus Second Creek is also used to convey ditch water to lands. Lands are irrigated north of Barr Lake in the Beebe Draw area.
  - Henrylyn Irrigation District lands are east of Barr Lake and Beebe Draw. The irrigation district has storage rights in Horse Creek Reservoir (0203592 ~17,000 af), Prospect Reservoir (0203609 ~6,000 af), Olds Reservoir (0203892 ~1,100 af), and Lord Reservoir (0203902, ~4,000 af).
  - Burlington system has water rights to divert from Sand Creek, but can't physically divert water there. Burlington also has rights to divert from First, Second, and Third Creeks - all three creeks terminate in the ditch. There is only significant water from these creeks during rainfall events, when there is unlikely to be a call on the South Platte. The amount of water captured from these creeks is not measured.
  - South Adams County and Thornton take water out of the Little Burlington Ditch lateral for municipal use. Their diversions are reported with the Burlington Ditch headgate diversions under a separate use code.

- Much of the return flows from Burlington lands terminate in Milton Lake (0203876 ~27,000 af), also owned by FRICo. The storage decree specifically allows for delivery through the Burlington Ditch, although there is not a decree for return flows.
  - FRICo has initiated the process to change the designated uses for storage water in Barr Lake.
  - The Burlington 11-20-85 direct flow right for 350 cfs often controls South Platte diversions.
  - There is a significant amount of ground water use under the Burlington system. Ground water is used as a supplemental source in some areas and as the only water source on many lands in the Beebe Draw area. There is not significant ground water use on Henrylyn lands.
  - Burlington's ground water use is generally covered under augmentation plans through the Central Colorado Water Conservancy District (Central) and previously through GASP.
  - Burlington also diverts water from FRICo's storage in upstream Wellington Reservoir (800392) on Buffalo Creek, and Altura Reservoir (8002828), also known as Duck Reservoir, on Geneva Creek.
- **Gardeners Ditch** (ID 0200806) diverted until 1996 (based on available HydroBase diversion records). The 4 cfs right is being transferred to public service for direct use or exchange at the Cherokee Power Plant.
  - **Metro WWTP** tracks water quality in the South Platte from their point of discharge to Platteville. During the irrigation season, they generally discharge to the South Platte below the Burlington Ditch headgate (0200802). When Burlington Ditch is diverting to store in Barr Lake, Metro can pump their discharge directly into Burlington Ditch. The amount of discharge into the South Platte and Burlington Ditch is measured. The Metro WWTP was moved in the early 1970s from above Burlington Ditch headgate to its current location below Burlington Ditch. The agreement to include pumps to Burlington Ditch was the result of a law suite filed because of the relocation (Metro vs FRICo).
  - **Fulton Ditch** (ID 0200808) was historically used for irrigation, but significant shares in the ditch are now used for well augmentation by the City of Brighton, South Adams County, and Central. The river return points for augmentation are gaged. About half of the shares are currently used for irrigation of crops and for parks and recreation areas within the City of Brighton. Much of the crop irrigation is supplemented with ground water. Several entities will divert water for storage in gravel pits, exchange, and augmentation through the Fulton Ditch in the future.
  - **Brantner Ditch** (ID 0200809) is generally used for irrigation. Northglenn owns shares for augmentation that are gaged and returned to Big Dry Creek. The reported ditch diversions equal measured headgate and Northglenn returns.

- **Brighton Ditch** (ID 0200810) is generally used for irrigation. There are two decreed recharge areas and gravel pit storage decrees under the Brighton Ditch.
- **Upper McCanne Ditch** (ID 0200868) is decreed as non-tributary seep water. It has the same WDID as the **McCanne** Ditch, whose river headgate no longer exists. The ditch is leased by Central for augmentation water. It is measured before being discharged into the South Platte.
- **Lupton Shortline Ditch** (ID 0200811) is abandoned.
- **Lupton Bottom Ditch** (ID 0200812) is used for irrigation. The headgate is located on the South Platte upstream of the confluence with Big Dry Creek, and Big Dry Creek is used to convey the ditch for a short period. The diversions are gaged on the ditch after Big Dry Creek. Slate Ditch (0200885) diverts from Little Dry Creek and 6 cfs of their total 12 cfs water rights are decreed as not-tributary. Lupton Bottom owns shares in Slate Ditch. Slate Ditch can release water directly into the down-ditch portion of Lupton Bottom's ditch by exchange when they are diverting greater than 6 cfs. This release is measured. In the near future, water will be delivered to gravel pits under this ditch. As noted above, Central has shares that are used for augmentation.
- **Platteville Ditch** (ID 0200813) is mostly used for irrigation. As noted above, Central has shares that are used for augmentation.
- **Meadow Island #1, aka Side Hill Ditch** (ID 0200821) is used mostly for irrigation, with some augmentation recharge. It diverts upstream of Little Dry Creek and uses Little Dry Creek for conveyance for a short length. The diversions are gaged on the ditch after Little Dry Creek.
- **Evans No. 2, aka English, aka Platte Valley Supply Canal** (ID 0200817) is owned by the Platte Valley Irrigation Company and FRICo. It is the primary feeder to Milton Lake (0203876 ~27,000 af). Lands irrigated under the Evans No. 2 rights are prior to Milton Lake. Lands irrigated under Platte Valley Irrigation Company's direct and storage rights are served by Gilmore Ditch. Direct water passes through Milton Lake and into Gilmore Ditch (measured at reservoir release). Seepage water from Milton Lake and return flows from irrigation under Gilmore Ditch flow into Lower Latham Reservoir (0203858 ~6,000 af) through the Morrison Seep Ditch (0200932).
- **Meadow Island #2, aka Meadow Island** (ID 0200822) is used for irrigation. A 1925 agreement limits the ditch to 40 cfs total on the senior two water rights, which are jointly decreed for 57.83 cfs. The **Beeman Ditch** (ID 0200819) has a shared headgate with Meadows Island No. 2 Ditch and in 1903 they obtained 10 of the 90 shares of Meadow Island No. 2. There has been some disagreement between the two ditch companies with regard to how the 1925 agreement affects each party. The Division 1 position, which is reflected in their administration of the ditches water rights, is as follows:



1. Beeman gets at least 6.42 cfs when the senior right is in priority and another 0.92 cfs when the junior right is in priority (in accordance with the 1905 Court order telling the Division how to administer Beeman's claim of 1/9<sup>th</sup> of the decreed volume without respect to Meadow Island #2)
  2. The total volume being diverted by the joint headgate is 40 cfs when the Consolidated Ditch Companies rights are unsatisfied by the call on the river; and,
  3. Beeman may, when the Meadow Island #2 does not immediately need the water, use all of the 40 cfs diverted in Item 2 above, not just the 6.42 cfs and/or 0.92 cfs awarded by the 1905 decree.
- **Buckers Ditch** (ID 0200823) no longer exists. The water rights have not been abandoned or transferred. There are no diversion records in HydroBase.
  - **Farmers Independent Ditch** (ID 0200824) is mostly used for irrigation. As noted above, Central has share that are used for augmentation.
  - **Hewes Cook aka Western Ditch aka Western Mutual** (ID 0200825) or the Jay Thomas Ditch can control the river upstream all the way to South Park and affect junior diversions downstream. The senior ditches are close in proximity and both have senior water rights. Which ditch is the calling right is mostly a function of size – the Western Ditches senior rights are considerably larger than the Jay Thomas Ditch. According to Jim Hall, this location splits the entire river into two pieces and causes the most significant dry-up point on the river. Monfort own shares in the Western Ditch and their returns for augmentation are measured. The call records historically show a bypass to Jay Thomas Ditch, but as the Jay Thomas Ditch has changed use, the call records will more frequently show a bypass to the Western Ditch.
  - **Jay Thomas Ditch** (ID 0200826) is changing the use to “all” and will be using historic rights to augment the St. Vrain natural gas power plant. All lands have been dried-up as of 2002. Note that the power plant also can get C-BT water from Goosequill Pumpstation on St. Vrain Creek. Tailwater from the power plant returns to St. Vrain Creek. The call records historically show a bypass to Jay Thomas Ditch. As the Jay Thomas Ditch has changed use and can generally be satisfied by seepage past the Western Ditch headgate, the call records will more frequently show a bypass to the Western Ditch.
  - **Big Bend Ditch** (ID 0200827) no longer exists. The water rights have been transferred to wells and to the Union Ditch (0200828)
  - **Union Ditch** (ID 0200828) is used mostly for irrigation and as a carrier to Lower Latham Reservoir (0203858 ~5,500 af) under an agreement with the Lower Latham Ditch Company. All lands served by direct Union ditch rights are between the river headgate and Lower Latham Reservoir. Water stored in Lower Latham Reservoir is released through an outlet ditch directly into Lower Latham Ditch. As noted above,

Lower Latham Reservoir has a junior right to fill from the Morrison Seep Ditch, which generally runs 8 to 10 cfs year-round. This generally keeps the reservoir full, and Union Ditch is only used to top it off. As noted above, Central has shares that are used for augmentation.

- **Section No 3 Ditch aka Godfrey bottom** (ID 0200830) is used for irrigation.
- **Lower Latham Ditch** (ID 0200834) is used for irrigation. As noted above under the Union Ditch discussion, Lower Latham can both divert direct water plus use water stored in Lower Latham Reservoir. In addition, they can use water from Union Reservoir (0503905 ~20,000 af) via St. Vrain Creek to augment out-of-priority diversions.
- **Patterson Ditch** (ID 0200836) is used for irrigation.
- **Highland or Plum Ditch** (ID 0200837) was purchased by Lower Latham Ditch Company and the acreage has been dried up. Lower Latham continues to divert water through the Highland Ditch headgate, and then returns it to the river to meet augmentation requirements.

### **Ditch Specific Information – Big Dry Creek**

- Big Dry Creek is administered by District 2, and ditches are often shut down due to internal calls. The 1885 Burlington Bypass call goes up Big Dry Creek. Most of the diversions are not recorded.
- Bull Canal diverts Standley Lake water from Big Dry Creek but does not have a direct right decree.
- Whipple Ditch (0200871) uses Bull Canal to carry its direct right and FRICo-Standley Lake water.
- Northglenn discharges their WWTP into Bull Reservoir in exchange for Standley Lake Water.
- Both the Broomfield and Westminster WWTPs discharge into Big Dry Creek. Both discharge locations are measured.
- German Ditch (0200827), Big Dry Creek Ditch aka Thompson Ditch (0200873), and Yoxall Ditch (0200874) generally divert for irrigation early in the season. They all have Standley Lake shares and have recorded diversions.

### **Key Reservoirs and Key Diversions in Water District 2**

More detailed information should be developed and included in the Basin Information Report for the following canals and reservoirs:

- Burlington System (includes Barr Lake and Henrylyn Reservoirs)
- Evans #2 (includes Milton Lake)
- Lower Latham Ditch (includes Lower Latham Reservoir)
- Fulton Ditch (includes Denver Water's changes)

**Table 1**

Structure	Name	Total Decree (cfs)	Diversion Records Period	Average Annual Div (af)	Diversion Source	Comment	Key
0200800	FARMERS GARDNERS DITCH	24	1949 - 2001	6628	SOUTH PLATTE RIVER		yes
0200802	BURLINGTON D RIVER HG	4150.9	1949 - 2001	81999	SOUTH PLATTE RIVER	Carrier to FRICo-Barr Division, Henryln Irrigation District, and Little Burlington	yes
0200803	REITHMAN DITCH		1951 - 1982	615	SOUTH PLATTE RIVER	Water Taken through Burlington	no
0200804	O BRIAN DITCH		1949 - 1970	27261	SOUTH PLATTE RIVER	Water Taken through Burlington	no
0200805	DENVER-HUDSON CNL		1957 - 1970	38290	SOUTH PLATTE RIVER	Water Taken through Burlington - Henrylyn Irrigation District	Yes
0200807	DUGGAN DITCH		1949 - 1956	3090	SOUTH PLATTE RIVER	Water Taken through Burlington	no
0200915	LITTLE BURLINGTON CANAL				SOUTH PLATTE RIVER	Water Taken through Burlington	yes
0203876	BARR RESERVOIR				SOUTH PLATTE RIVER	Water Taken through Burlington - ID assigned to FRICo Barr Division lands	yes
0200806	GARDNERS DITCH	4	1950 - 1998	912	SOUTH PLATTE RIVER	Transferred in 1996	yes
0200808	FULTON DITCH	204.18	1949 - 2001	27738	SOUTH PLATTE RIVER		yes
0200809	BRANTNER DITCH	111.18	1949 - 2001	15900	SOUTH PLATTE RIVER		yes
0200810	BRIGHTON DITCH	46.8	1949 - 2001	9459	SOUTH PLATTE RIVER		yes
0200868	MCCANNE DITCH	44	1963 - 1977	1111	SOUTH PLATTE RIVER	DOW augmentation	no
0200812	LUPTON BOTTOM DITCH	150.57	1949 - 2001	18611	SOUTH PLATTE RIVER		yes
0200813	PLATTEVILLE DITCH	147.38	1949 - 2001	19275	SOUTH PLATTE RIVER		yes
0200821	MEADOW ISLAND 1 DITCH	121.03	1949 - 2001	5757	SOUTH PLATTE RIVER	aka Side Hill Ditch	yes
0200814	ELWOOD DITCH		1949 - 1957	1825	SOUTH PLATTE RIVER	Abandoned - not transferred	no
0200818	PLATTE VALLEY CANAL		1965 - 1970	19163	SOUTH PLATTE RIVER		MS 0200817
0200817	EVANS NO 2 DITCH	903.02	1949 - 2001	41899	SOUTH PLATTE RIVER	aka Platte Valley Canal; English	yes
0200822	MEADOW ISLAND DITCH	199.16	1949 - 2001	10483	SOUTH PLATTE RIVER	ID includes lands and diversions under Beeman D (no 0200819)	yes

Structure	Name	Total Decree (cfs)	Diversion Records Period	Average Annual Div (af)	Diversion Source	Comment	Key
0200823	BUCKERS DITCH	121.87			SOUTH PLATTE RIVER	Not used, not transferred	no
0200824	FARMERS INDEPENDENT D	181	1949 - 2001	16266	SOUTH PLATTE RIVER		yes
0200825	HEWES COOK DITCH	185	1949 - 2001	19780	SOUTH PLATTE RIVER	aka Western Ditch	yes
0200826	JAY THOMAS DITCH	18	1949 - 2001	2678	SOUTH PLATTE RIVER		yes
0200827	BIG BEND DITCH	3.48	1949 - 1969	1020	SOUTH PLATTE RIVER	WR transferred to Union Ditch and wells	no
0200828	UNION DITCH	737.03	1949 - 2001	29034	SOUTH PLATTE RIVER		yes
0200830	SECTION NO 3 DITCH	57.71	1949 - 2001	8460	SOUTH PLATTE RIVER		yes
0200834	LOWER LATHAM DITCH	321.73	1949 - 2001	39400	SOUTH PLATTE RIVER		yes
0200836	PATTERSON DITCH	19.92	1949 - 2001	4466	SOUTH PLATTE RIVER		yes
0200837	HIGHLAND DITCH	24.4	1949 - 2001	3576	SOUTH PLATTE RIVER	aka Plum Ditch	yes
0200840	BURLINGTON DITCH	250			SAND CREEK	Model with Burlington Carrier 0200802	no
0200860	BURLINGTON DITCH 1ST	50			FIRST CREEK	Model with Burlington Carrier 0200802	no
0200865	BURLINGTON DITCH 2ND	250			SECOND CREEK	Model with Burlington Carrier 0200802	no
0200866	BURLINGTON DITCH 3RD	250			THIRD CREEK	Model with Burlington Carrier 0200802	no
0200871	WHIPPLE DITCH	5.99	1982 - 2001	4236	BIG DRY CREEK		yes
0200872	GERMAN DITCH	85.99	1955 - 2001	1350	BIG DRY CREEK	Storage in Several Reservoirs	yes
0200873	BIG DRY CREEK DITCH	36.66	1950 - 2005	668	BIG DRY CREEK		yes
0200874	YOXALL DITCH	16.8	1950 - 2005	281	BIG DRY CREEK		yes
0200552	COAL RIDGE DITCH		1997 - 1999	5855	Waste and Seep	Becomes Lower Bolder Ditch. Delivers water to Sand Hill Lake	no
0200885	SLATE DITCH	24	1951 - 2001	1551	LITTLE DRY CREEK	key if tributary is modeled	no

Structure	Name	Total Decree (cfs)	Diversion Records Period	Average Annual Div (af)	Diversion Source	Comment	Key
0200886	UNION DITCH FDR NO 1	85.99	1969 - 2001	1555	SEEPAGE	same acreage as Union	MS 0200828
0200889	WALTER ROBERTS DITCH	24	1971 - 1973	1150	ASHCROFT DRAW		no
0200896	REITHMAN D(CEMETERY)		1995 - 2001	101	SOUTH PLATTE RIVER	Irrigated Riverside Cemetery	no
0200902	HENRYLYN IRR DITCH	100			SOUTH PLATTE RIVER	Use ID 0200805	no
0200918	BOWLES CNL		1996 - 2001	1765	BEEBE DRAW		no
0200922	GOOSEQUILL PUMP STATION	17.51	1996 - 2001	1533	ST VRAIN CREEK	Industrial - Power Plant	yes
0200923	JAY THOMAS PUMP STATION	11.83	1995 - 2001	451	SOUTH PLATTE RIVER	Model with 0200922	MS 0200922
0200965	HENRYLYN SAND CR DIVR	100			SAND CREEK	Model with 0200805	MS 0200805
0200991	STANDLEY/WESTMINSTER PL1		1995 - 1998	6304	CLEAR CREEK	Carrier to Westminster Demand Node	yes
0200992	STANDLEY/WESTMINSTER PL2		1995 - 2001	14923	CLEAR CREEK	Model with 0200991	no
0200993	STANDLEY/NORTHGLENN PL		1995 - 1999		CLEAR CREEK	Carrier from Thornton PL to Northglenn Demand Node	yes
0200994	STANDLEY/THORNTON PL		1995 - 1999		CLEAR CREEK	Carrier to Thornton Demand Node	yes
0200995	STANDLEY 48" PL		1996 - 2001	17531	CLEAR CREEK	Thornton/Northglenn Pipeline	no