



**DEPARTMENT OF ENVIRONMENT  
and NATURAL RESOURCES**

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**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT  
APPLICATION NO. 3053A-3, Brett Binger**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 3053A-3, Brett Binger, 38270 182<sup>nd</sup> Street, Tulare SD 57476.

The Chief Engineer is recommending APPROVAL of Application No. 3053A-3 because 1) the proposed diversion can be developed without unlawful impairment of existing rights, 2) the proposed use is a beneficial use and 3) it is in the public interest with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 3053A-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.
4. The original well authorized by Water Rights No. 3053-3 located in the center of the S ½ Section 19, T115N, R64W shall be plugged in accordance with Water Management Board Rules, Chapter 74:04:04.

See report on application for additional information.

  
Jeanne Goodman, Chief Engineer  
December 16, 2014

REPORT TO THE CHIEF ENGINEER  
ON  
APPLICATION NO. 3053A-3  
BRETT BINGER  
DECEMBER 8, 2014

Application No. 3053A-3 proposes to amend Water Right No. 3053-3 by transferring the acreage authorized for irrigation and the authorized point of diversion to new locations. Water Permit No. 3053-3 authorizes the diversion of water from one well located in the center of the S½ Section 19, T115N-R64W at a maximum rate of 1.88 cubic feet of water per second (cfs). The water right authorizes the irrigation of 152 acres located E½ SW¼ and W½ SE¼ Section 19; T115N-R64W. Application No. 3053A-3 proposes to authorize the relocation of the system approximately seven miles east and one and one-half miles south. The diversion point proposed by Application No. 3053A-3 is to be a well located in the approximate center of the NW¼ Section 32, T115N-R63W. Application No. 3053A-3 proposes a permit authorizing the irrigation of 130 acres located in the NW¼ Section 32, T115N-R63W. The water source for this irrigation system is the Tulare: Western Spink /Hitchcock aquifer, and no increase in the diversion rate or number of acres irrigated are requested by this application.

**AQUIFER: WESTERN SPINK/HITCHCOCK MANAGEMENT UNIT OF THE  
TULARE AQUIFER**

Based on the best information available regarding recharge to the Tulare Western Spink/Hitchcock aquifer as it compares to withdrawals from the aquifer, along with the projected water use associated with acreage currently authorized for irrigation, the Water Management Board found the Tulare Western Spink/Hitchcock aquifer is fully appropriated [In the matter of Water Permit Application Nos. 7725-3, et al., Findings of Fact, Conclusions of law and Final Decision issued December 5, 2013].

**SOUTH DAKOTA CODIFIED LAW (SDCL) 46-5-34**

SDCL 46-5-34 allows an irrigation water right to be severed from one parcel of land and simultaneously transferred to another parcel if it becomes impracticable to use all or any part of the water beneficially or economically for irrigation on the current land. In this permit application, the applicant states that the “Existing ¼ has bad Alkali land along a Ravine that runs through it and pivot has problem crossing Ravine.” The 2014 Water Management Board Irrigation Questionnaire submitted for Water Right No. 3053-3 reported that the “Pivot was damaged in severe thunderstorm...” Conversation between the applicant and Water Rights’ staff indicates that since the damaged system needed to be replaced, the time was right to relocate the system to more suitable ground for irrigation (Gronlund, 2014)

**WATER RIGHT NO. 3053-3**

Water Permit Application No. 3053-3, proposing to appropriate water from the Tulare: Western Spink/Hitchcock aquifer at a rate of 2.22 cfs to irrigate 160 acres was filed September 14, 1976. The water permit was issued on December 1, 1976, and the Water License No. 3053-3 was issued January 4, 1979.

Irrigation questionnaire data reported for Water Right No. 3053-3 from 1977 through 2014 is shown in Table 1. The average number of acres irrigated over the 38 year period was 106.05 acres and the average annual volume of water pumped under the water right was 105.48. The average irrigation application rate for the time period was 11.94 inches per acre.

Table 1. Irrigation questionnaire data for Water Right No. 3053-3 for the period of 1977-2014 (Water Rights, 2014)

YEAR	ACRES	AC-FT/YR PUMPED	IN/AC/YR	COMMENTS
2014	0	0		pivot damaged in severe thunderstorm and did not get repaired in time to use as we had sufficient moisture
2013	132	3.54	0.32	
2012	130	233.33	21.54	
2011	0	0		sufficient moisture
2010	0	0		sufficient moisture
2009	152	45.96	3.63	
2008	130	98.88	9.13	
2007	152	134.34	10.61	
2006	130	194.44	17.95	
2005	130	113.13	10.44	
2004	130	169.70	15.66	
2003	152	173.23	13.68	
2002	130	148.49	13.71	
2001	130	289.90	26.76	
2000	130	219.22	20.24	
1999	130	74.57	6.88	
1998	80	45.96	6.89	
1997	80	11	1.65	
1996	130	194.44	17.95	
1995	0	0		
1994	129	88.37	8.22	
1993	129	21	1.95	
1992	128.5	31.2	2.91	
1991	128	181	16.97	
1990	128.2	143	13.39	
1989	130	218	20.12	
1988	135	203.9	18.12	
1987	60	19	3.80	
1986	0	0		we had to take the farm back or the Zapp's would have filed bankruptcy
1985	128	108	10.13	
1984	140	82	7.03	
1983	90	123.98	16.53	
1982	150	139.4	11.15	
1981	0	0		
1980	Not available	94.27		
1979	135	72.88	6.48	
1978	135	157.78	14.02	
1977	130	174.34	16.09	

This proposed transfer will not result in an additional appropriation from the Tulare: Western Spink/Hitchcock management unit.



Table 2. Water Permit Applications with status in the vicinity of the well site proposed by Application No. 3053A-3, (see Figure 1. for approximate locations)

PERMIT NO	NAME	PRIORITY DATE	STATUS	USE	CFS	ACRES
2278-3	JAMES FRANKENSTEIN	04/14/1975	LC	IRR	1.78	136
2422-3	JAMES FRANKENSTEIN	10/16/1975	LC	IRR	1.2	135
2428-3	LEE GATZKE	10/30/1975	IL	IRR	1.95	136
2428A-3	LEE GATZKE	10/30/1975	LC	IRR	1.78	136
2440-3	JAMES FRANKENSTEIN	09/08/1976	LC	IRR	1.33	132
2485-3	LEE GATZKE	12/19/1975	IL	IRR	1.95	138
2486-3	CLIFFORD E NOWELL	12/19/1975	LC	IRR	1.22	125
2592-3	CLAYTON KLOSS	02/26/1976	IL	IRR	2	140
2592A-3	CLAYTON KLOSS	02/26/1976	LC	IRR	1	131.2
3046-3	KENNETH NOWELL	09/14/1976	LC	IRR	1.85	130
3054-3	CHARLES I GILBERT	09/14/1976	IL	IRR	2.22	160
3054A-3	MARSHALL BROTHERS	09/14/1976	LC	IRR	1.21	85
3058-3	LEROY BROOKER	09/21/1976	CA	IRR	2.28	160
3126-3	THOMAS D GILBERT	09/28/1976	LC	IRR	1.78	136
3255-3	OSCAR INC	10/15/1976	LC	IRR	0.89	59
3261-3A	JAMES FRANKENSTEIN	10/15/1976	LC	IRR	1.44	130
3310-3	MILTON C KOPPLIN	11/08/1976	CA	IRR	2.2	160
3321-3	BROOKER FARMS	11/15/1976	IP	IRR	2.3	160
3321A-3	BROOKER FARMS	06/11/2014	PE	IRR	1.33	120
3382-3	LEE GATZKE	11/29/1976	CA	IRR	2.2	160
3383-3	LEE GATZKE	11/29/1979	CA	IRR	2.2	160
3603-3	ALLEN GATZKE	01/27/1977	LC	IRR	1.78	132
3852-3	WILLIS BOYD	03/01/1977	CA	IRR	2.2	160
3861-3	ST CLAIR	03/10/1977	LC	IRR	0.44	109
4138-3	CLIFFORD E NOWELL	09/16/1977	CA	IRR	0	80
4171-3	GORDON E BLUME	10/13/1977	CA	IRR	1.71	120
4703-3	KOESTER	04/02/1981	LC	IRR	1.11	130
4713-3	ALLEN GATZKE	03/13/1981	CA	IRR	2.26	158
4819-3	RONALD	08/27/1981	LC	IRR	1.44	121.1
4870-3	WILLIAM KOESTER	03/08/1982	CA	IRR	2.2	156
5163-3	ALLEN GATZKE	10/13/1987	LC	IRR	1.78	132
5266-3	GALEN & DEANNA	01/23/1989	LC	IRR	1.22	129
6193-3	LEE GATZKE	03/28/2000	IL	IRR	1.78	90
6200-3	OSCAR INC	05/08/2000	LC	IRR	1.89	136
6234-3	JAMES FRANKENSTEIN	10/20/2000	LC	IRR	1.45	134
6336-3	LEE GATZKE	06/21/2002	LC	IRR	1.34	136
6338-3	ALLEN GATZKE	07/12/2002	LC	IRR	3.336	264
6340-3	ALLEN GATZKE	07/12/2002	LC	IRR	1.67	132
6344-3	OSCAR INC	NA	DN	IRR	2.28	160
6345-3	OSCAR INC	NA	DN	IRR	3.42	240
6346-3	OSCAR INC	NA	DN	IRR	4.57	320
6352-3	LEE GATZKE	NA	DN	IRR	2.28	160
6353-3	LEE GATZKE	NA	DN	IRR	2.28	160
6484-3	LEE GATZKE	03/15/2004	PE	COM/LCO	0.133	0
6660-3	LEE GATZKE	NA	DN	IRR	1.89	136
6661-3	LEE GATZKE	NA	DN	IRR	1.89	136
6693-3	LEE GATZKE	NA	DN	IRR	1.89	136
6764-3	LEE GATZKE	12/19/1975	LC	IRR	3.56	272
6777-3	JEFFERY GATZKE	NA	DN	IRR	1.78	1600
6863-3	STEVE MASAT	NA	DN	IRR	1.89	135
6864-3	STEVE MASAT	NA	DN	IRR	1.89	135
6865-3	ROGER MASAT	NA	DN	IRR	1.88	135
6866-3	ROGER MASAT	NA	DN	IRR	1.88	8500
7126A-3	MARSHALL BROTHERS	09/14/1976	PE	IRR	0	45

PERMIT NO	NAME	PRIORITY DATE	STATUS	USE	CFS	ACRES
7288-3	BIXLER FARMS	NA	WI	IRR	2.22	160
7290-3	LEE GATZKE	12/15/2011	PE	IRR	1.78	135
7291-3	LEE GATZKE	12/15/2011	PE	IRR	1.78	135
7293-3	JEFFERY GATZKE	12/15/2011	PE	IRR	1.78	135
7390-3	MARSHALL BROTHERS	NA	WI	IRR	6.7	540
7620-3	OSCAR INC	01/04/2013	PE	IRR	1.94	136
7638-3	MARSHALL BROS	12/09/2012	PE	IRR	1.78	135
7721-3	TERRY WIETING	02/08/2013	PE	IRR	1.33	100
7745-3	BIXLER FARMS	NA	WI	IRR	1.78	160
7754-3	OSCAR INC	NA	DN	IRR	1.14	80
7863-3	BIXLER FARMS	NA	WI	IRR	1.78	160

LC= Water Right, IL= Incorporated into License, CA= Cancelled, IP= Incorporated into Permit, PE= Water Permit, DN= Denied, WI= Withdrawn, IRR= irrigation, COM= Commercial, LCO= Large confinement operation

Historically, well interference has not been an issue in the Tulare: Western Spink Hitchcock aquifer. The Tulare: Western Spink/Hitchcock aquifer is generally under unconfined conditions in this area. The DENR-Water Rights Program monitors six observation wells in this area, shown in Figure 2. Hydrographs for the wells are shown in Figures 3-8. The hydrographs document that drawdown from nearby irrigation wells is not significant relative to climatic effects on the water levels.

If the water levels in the Tulare: Western Spink/Hitchcock aquifer were to decline, owners of existing wells bear the responsibility of lowering the pump inlet in the well to below the top of the aquifer, if necessary. Increased lift would decrease the pump discharge, or require a larger pump or a different type of a pump to maintain the same output.

Well interference should not be a concern for adequate domestic wells.

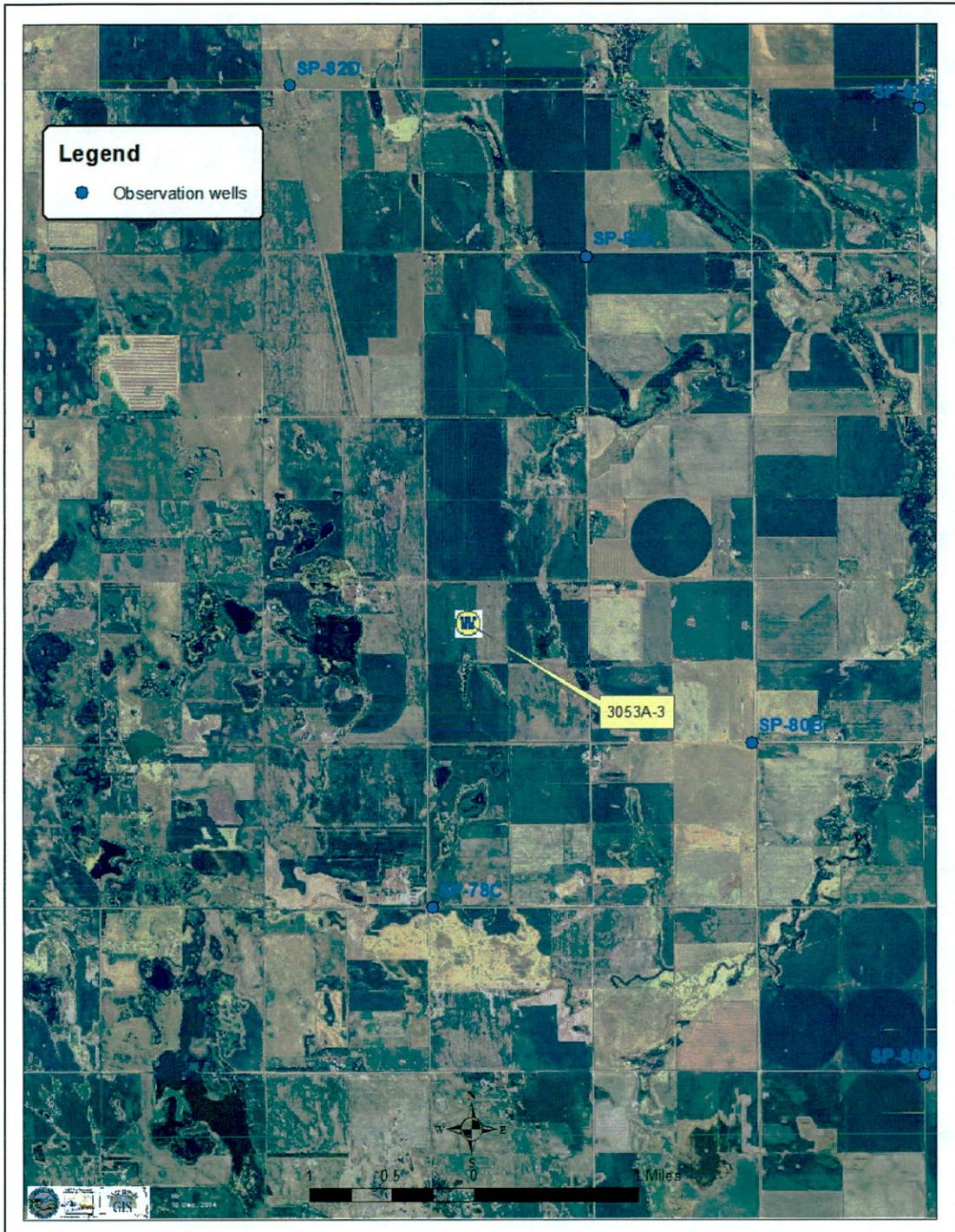


Figure 2. Location of the well site proposed by Application No. 3053A-3 and DENR Water Rights' observation wells in the vicinity.

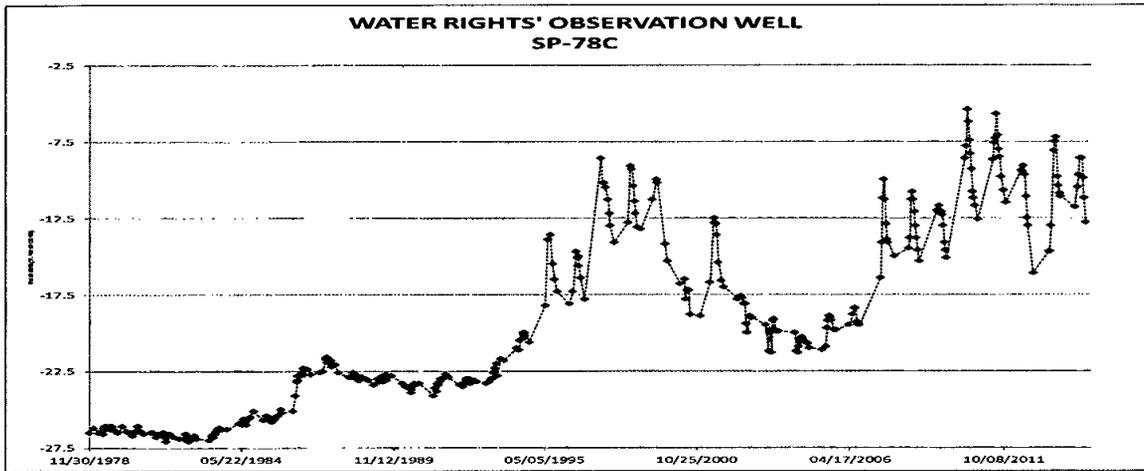


Figure 3. Hydrograph for DENR-Water Rights observation well completed into the Tulare: Western Spink/Hitchcock aquifer. See Figure 2. for location.

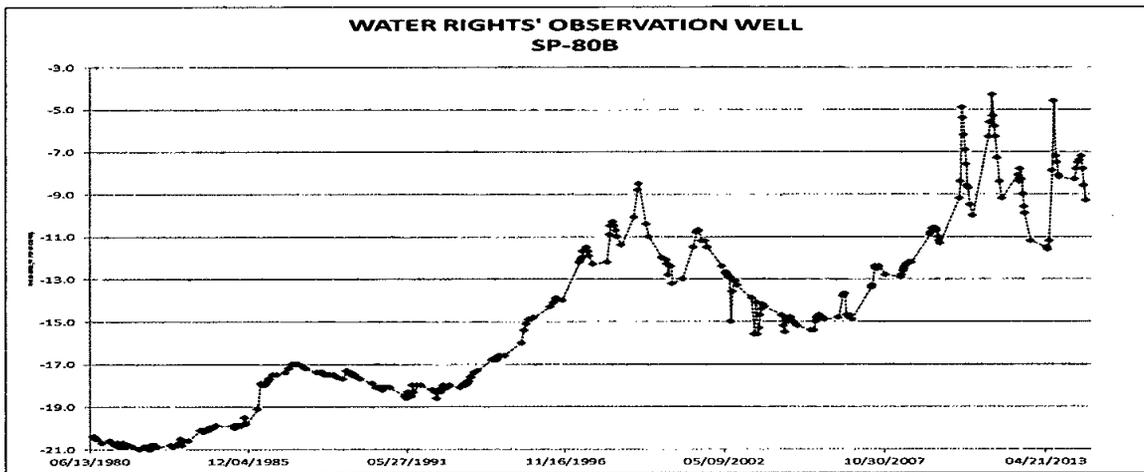


Figure 4. Hydrograph for DENR-Water Rights observation well completed into the Tulare: Western Spink/Hitchcock aquifer. See Figure 2. for location.

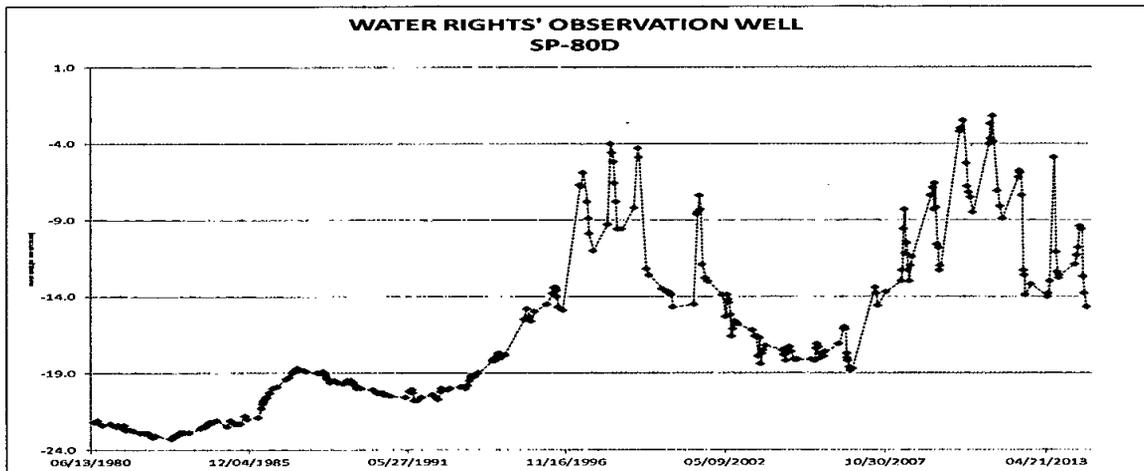


Figure 5. Hydrograph for DENR-Water Rights observation well completed into the Tulare: Western Spink/Hitchcock aquifer. See Figure 2. for location.

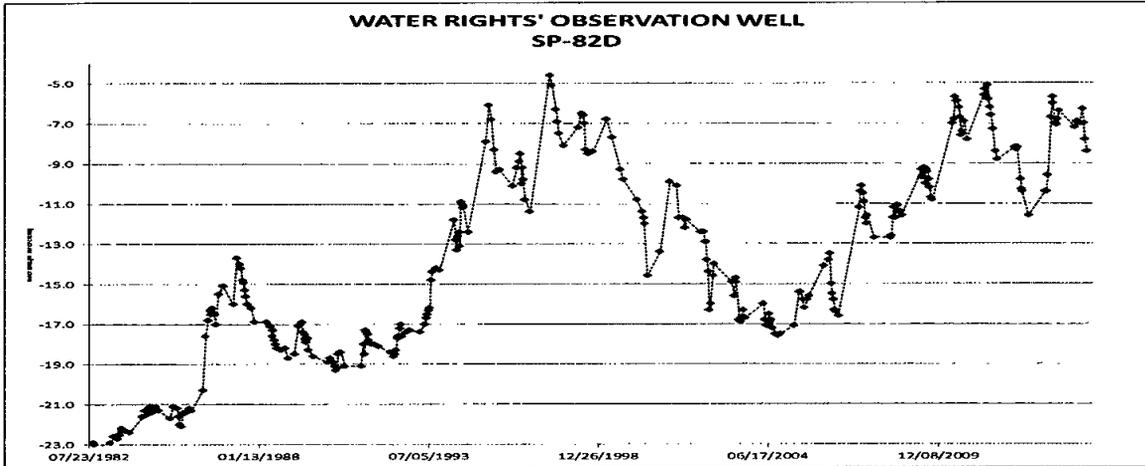


Figure 6. Hydrograph for DENR-Water Rights observation well completed into the Tulare: Western Spink/Hitchcock aquifer. See Figure 2. for location.

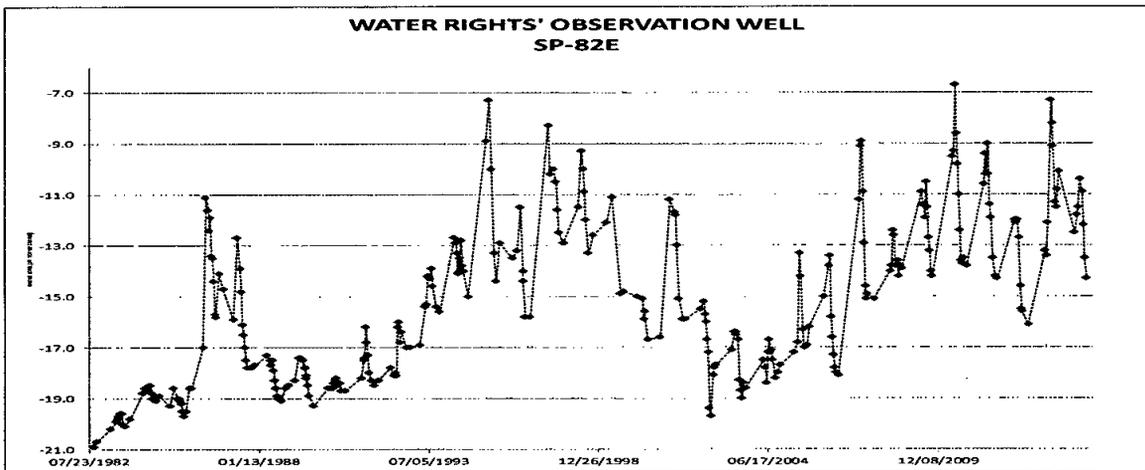


Figure 7. Hydrograph for DENR-Water Rights observation well completed into the Tulare: Western Spink/Hitchcock aquifer. See Figure 2. for location.

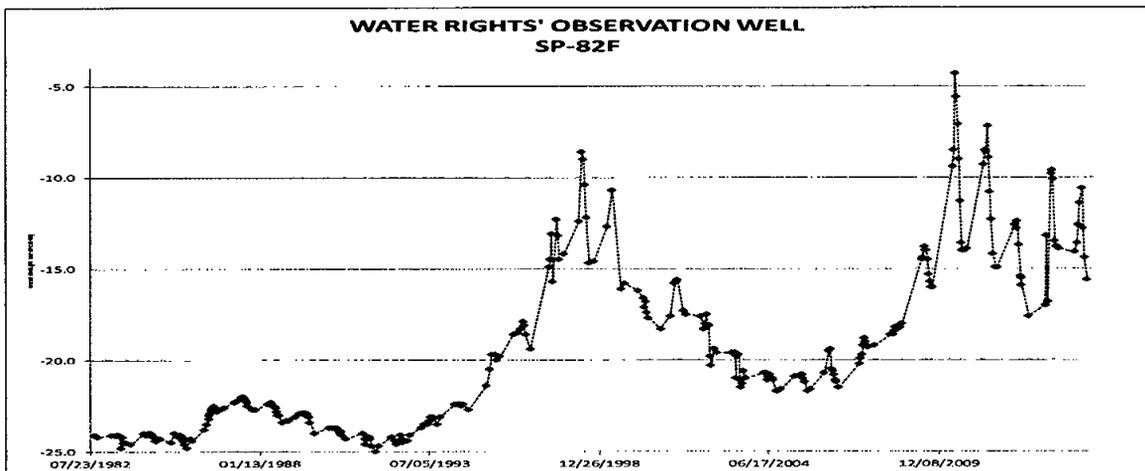


Figure 8. Hydrograph for DENR-Water Rights observation well completed into the Tulare: Western Spink/Hitchcock aquifer. See Figure 2. for location.

**CONCLUSIONS:**

1. SDCL 46-5-34 provides authority to sever an irrigation right from one parcel of land and simultaneously transfer it to another parcel.
2. The Tulare: Western Spink Hitchcock aquifer was determined to be fully appropriated from 2008 to 2012 and from 2013 to present.
3. The availability of unappropriated water is not a consideration required in SDCL 46-5-34.
4. Diversions from the well site proposed by this application are not expected to adversely impact existing water rights.



Ken Buhler  
SD DENR-Water Rights Program

**REFERENCES:**

Gronlund, E.S., "Water Rights Program-DENR Conversation File Documentation, November 20, 2014 phone conversation with Brett Binger

Water Rights, 2014a, Irrigation Questionnaire Report Database, SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501

Water Rights, 2014b, Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2014c, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2014d, Water Well Completion Report Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.