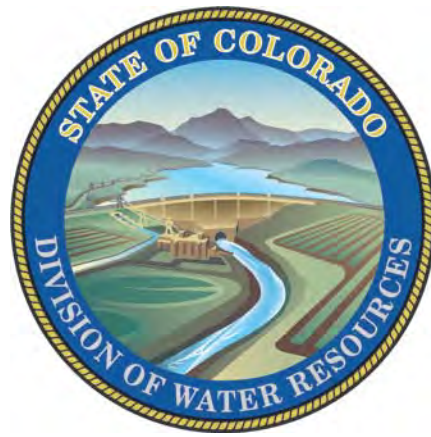


**GROUNDWATER LEVELS
in the
UPPER BIG SANDY
DESIGNATED GROUND WATER BASIN
2015**



by
Matthew A. Sares and Andrew Flor



COLORADO
Division of Water Resources
Department of Natural Resources

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Governor

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GROUNDWATER LEVELS IN THE UPPER BIG SANDY DESIGNATED BASIN 2015

This report contains the basic groundwater level data collected in the Upper Big Sandy Designated Ground Water Basin during the Spring of 2015. Tabular data are presented for the period 2005 through 2015 and graphical data show the entire water level monitoring record for each well. Acquisition and publication of this information is a cooperative effort between the Upper Big Sandy Ground Water Management District and the Colorado Division of Water Resources. The project is part of a statewide groundwater level monitoring program funded by Senate Bill 200 (1987 legislative session). This legislation directed that a portion of the fees collected for water well permit applications be used for the establishment of a program to monitor water level trends throughout the state.

With the exception of one group of wells, the wells in this report are listed by township, range, and section, beginning at the north end of the basin and proceeding south. The exception consists of five of the seven monitoring and production wells owned by the Town of Limon. The data sheets for the five monitoring wells located in the vicinity of the town have all been placed together at the back of the report. The data sheets for the town's Frasier Farms production well and the well identified as Big Sandy No. 4 are indexed by location. The maps that follow portray the designated basin boundary, mapped extent of alluvium, and trace of Big Sandy Creek and include:

- Monitoring well location map over the entire designated ground water basin
- Monitoring well locations and ID numbers in the western half of the basin
- Monitoring well locations and ID numbers in the eastern half of the basin
- Monitoring well locations and ID numbers in the Limon well field

The report contains new water level measurements for 29 wells. 2015 water level measurements were taken on March 30th and 31st. Depths to groundwater, below land surface, ranged from 6 to 53 feet, much the same as in years past. In general, wells located closer to the creek channel had shallower water levels. Water levels exceeding 30 feet were associated with wells located in the upland portions of the alluvial valley.

Overall, groundwater levels in wells measured by the Division of Water Resources were slightly higher than 2014 levels, but it should be noted that the 2014 monitoring event occurred in late May. Seasonal pumping had commenced in some areas of the basin and is likely to have affected local water levels. The water levels showed some fluctuation as compared to 2014, but only two wells fluctuated two feet or more from the previous year's measurement. Long term, 10-year trends, indicate that: 1) water levels in the reach around Limon have increased slightly (0.3-1 ft); 2) water levels in the reach between River Bend and Simla have declined the most (1-4 ft); water levels in the reach between Simla and Ramah Reservoir have declined slightly (2 ft); and water levels upstream of Ramah Reservoir have increased slightly since 2005 (0.5-1.5 ft).

Copies of this report can be purchased from the Office of the State Engineer, Records Section, 1313 Sherman St., Room 821, Denver, CO 80203, (303) 866-3581.

An electronic copy of this report, in Adobe PDF format, is available on the Division of Water Resources website

<http://water.state.co.us/groundwater/Levels/Pages/HydroGeo.aspx>.

Additionally, all groundwater level data may be accessed and exported using the tools available on the Colorado Decision Support System:

<http://cdss.state.co.us/onlineTools/Pages/GroundWaterWaterLevels.aspx>

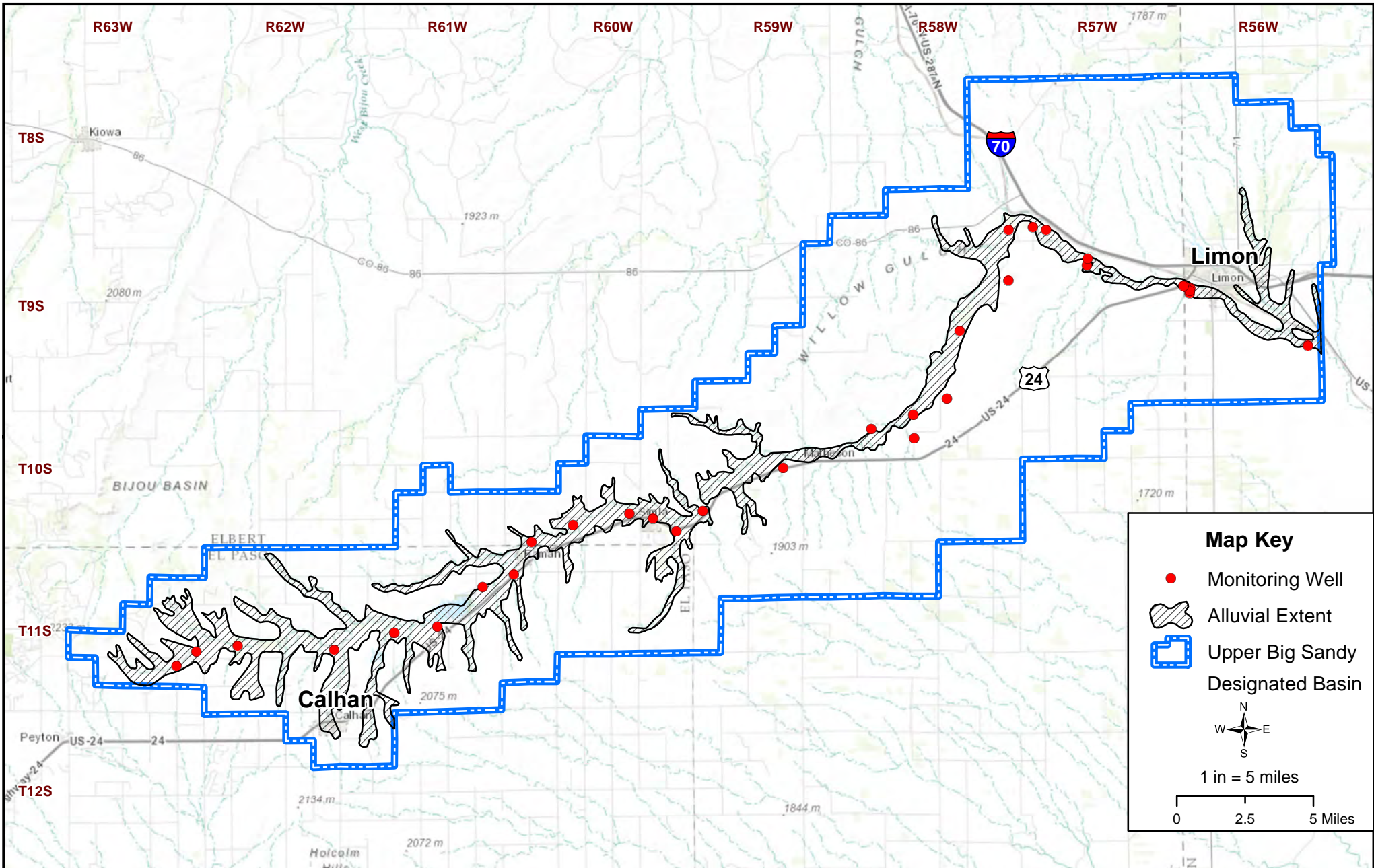
and the Colorado Information Marketplace HydroBase Bulk Data Exporter:

<https://data.colorado.gov/Information-Sharing/DWR-Well-Water-Level/hfwh-wsgi>

or the Colorado Decision Support System MapViewer

<http://water.state.co.us/DataMaps/GISandMaps/MapViewer/Pages/FAQ.aspx>

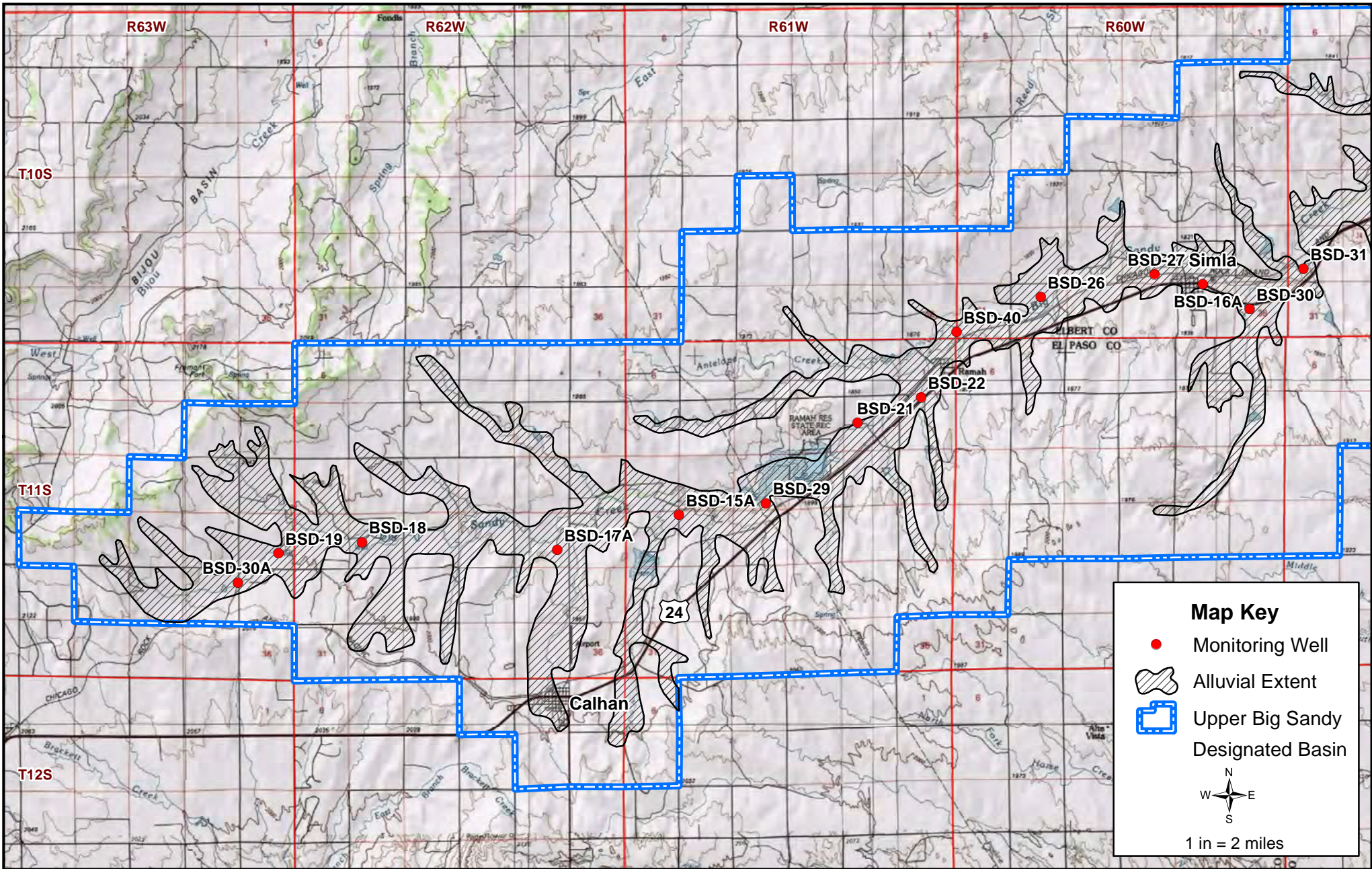
If you have any questions regarding Denver Basin groundwater and the information in this report, please contact the Groundwater Information Desk at (303) 866-3587.



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**Upper Big Sandy Designated Ground Water Basin
 Monitoring Well Locations**

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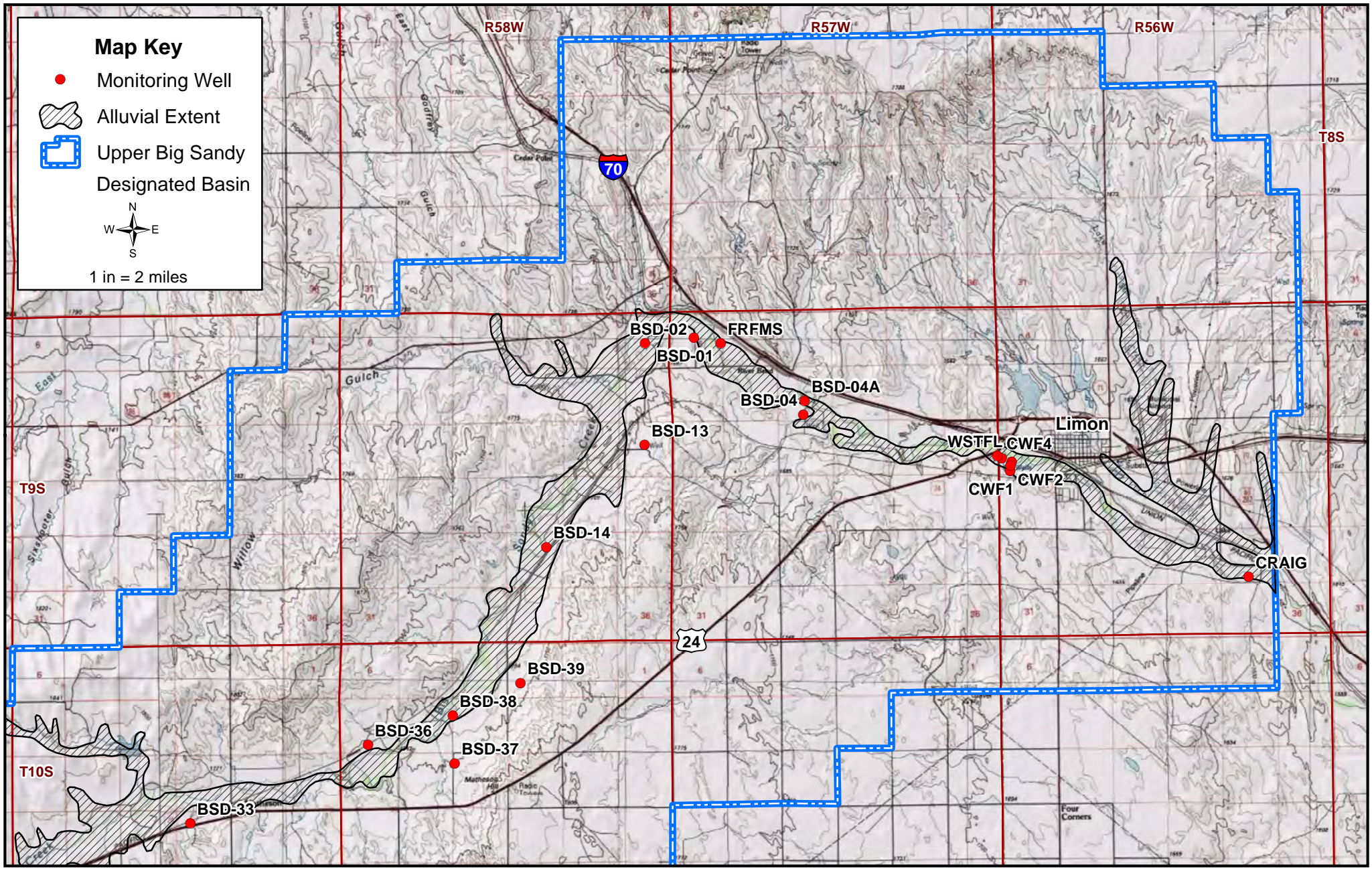


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Upper Big Sandy Designated Ground Water Basin Monitoring Well Locations (West Portion)

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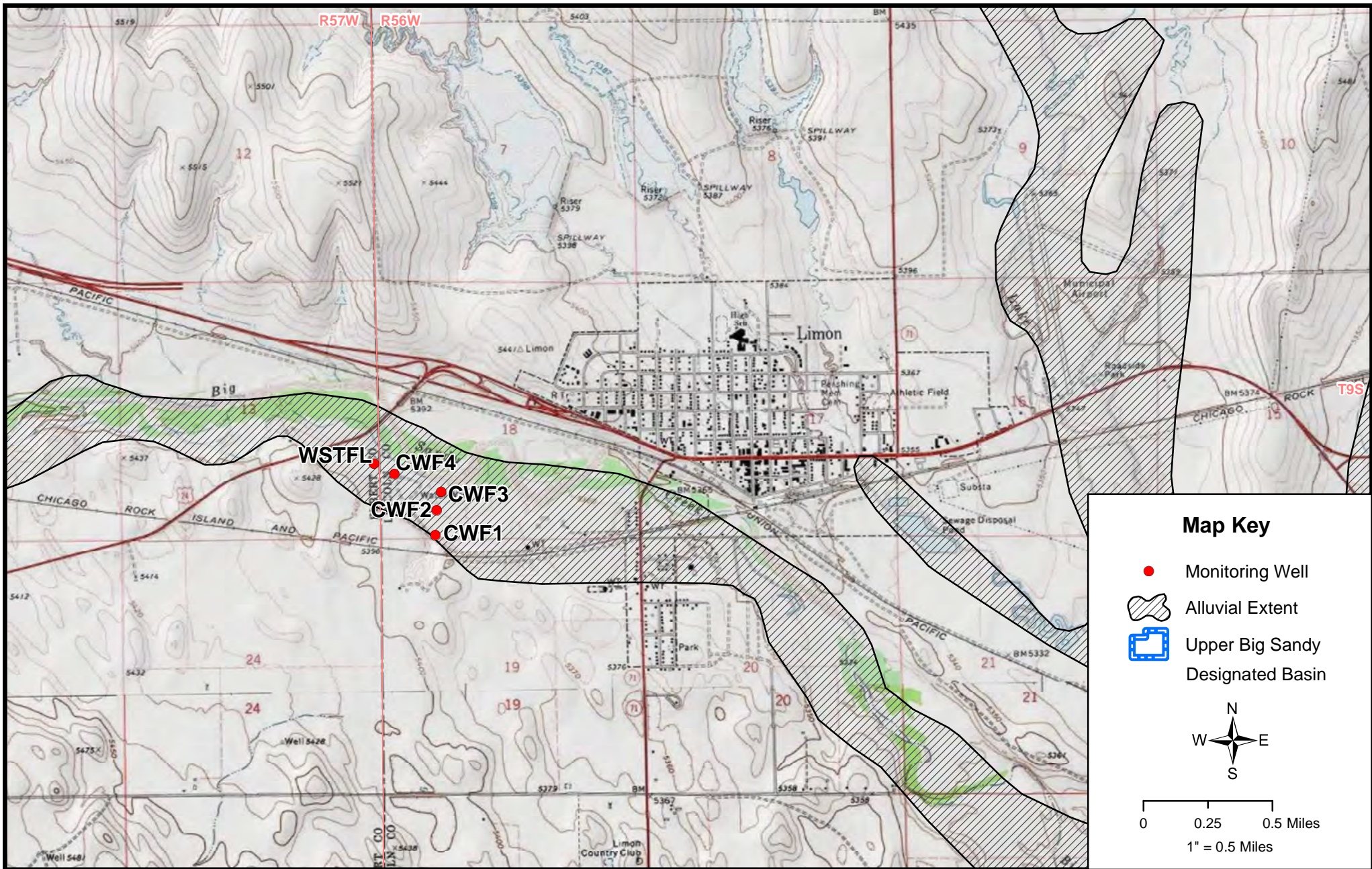


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**Upper Big Sandy Designated Ground Water Basin
 Monitoring Well Locations (East Portion)**

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**Upper Big Sandy Designated Ground Water Basin
 Monitoring Well Locations (Limon Well Field)**

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UPPER BIG SANDY

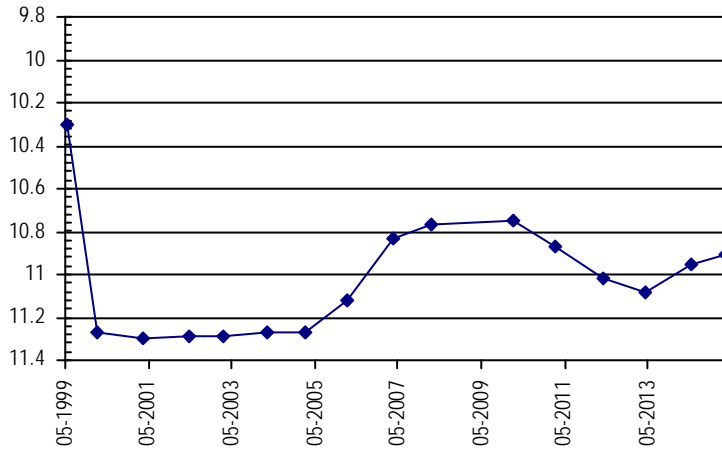
Well Name: **JOHN CRAIG** **Owner:** UPPER BIG SANDY GWMD
Permit #: 35186 - MH - **Location #:** SC00905626DCC **USGS Site ID:**
Division: 2 **Water District:** 67 **County:** LINCOLN
Location: Q160 Q40 Q10 Section **Twnshp** Range **PM** Distance from section lines:
SE SW SW 26 9 S 56 W S **From N/S line:** 150 S **From E/W line:** 2510 E
UTM Coordinates (NAD83): **Northing (UTM y)** 4343186.4 **Easting (UTM x):** 618194.4 *GPS*
Latitude/Longitude (decimal degrees): 39.229933 -103.630622

Surface Elevation (ft): 5280 **Top Perforated Interval (ft):** 20 **Base of grout (ft):** **Water Level Change**
Well depth (ft): 40 **Bottom Perforated Interval (ft):** 30 **1 year:** 0.04
Aquifer(s): QUATERNARY ALLUVIUM **5 year:** -0.16
10 year: 0.36

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
2/28/2005	11.27	5268.73	0.00
2/20/2006	11.12	5268.88	0.15
3/6/2007	10.83	5269.17	0.29
2/12/2008	10.77	5269.23	0.06
1/1/2009			
2/22/2010	10.75	5269.25	
2/24/2011	10.87	5269.13	-0.12
4/24/2012	11.02	5268.98	-0.15
4/4/2013	11.08	5268.92	-0.06
5/20/2014	10.95	5269.05	0.13
3/31/2015	10.91	5269.09	0.04

All Historic Measurements



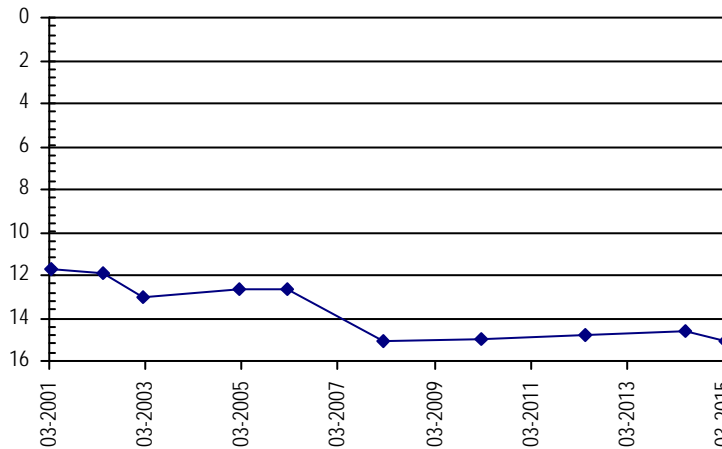
Well Name: **FRASIER FARMS** **Owner:** TOWN OF LIMON
Permit #: 21896 - FP - **Location #:** SC00905706DA **USGS Site ID:**
Division: 2 **Water District:** 67 **County:** ELBERT
Location: Q160 Q40 Q10 Section **Twnshp** Range **PM** Distance from section lines:
SE NE 6 9 S 57 W S **From N/S line:** 1950 S **From E/W line:** 70 E
UTM Coordinates (NAD83): **Northing (UTM y)** 4350014.5 **Easting (UTM x):** 602758.4 *GPS*
Latitude/Longitude (decimal degrees): 39.293413 -103.808380

Surface Elevation (ft): 5490 **Top Perforated Interval (ft):** 38 **Base of grout (ft):** 10 **Water Level Change**
Well depth (ft): 58 **Bottom Perforated Interval (ft):** 58 **1 year:** -0.43
Aquifer(s): QUATERNARY ALLUVIUM **5 year:** -0.05
10 year: -2.40

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
2/28/2005	12.63	5477.37	
2/20/2006	12.66	5477.34	-0.03
3/6/2007			
2/12/2008	15.04	5474.96	
1/1/2009			
2/22/2010	14.98	5475.02	
2/24/2011			
4/24/2012	14.77	5475.23	
4/4/2013			
5/20/2014	14.60	5475.40	
3/31/2015	15.03	5474.97	-0.43

All Historic Measurements



UPPER BIG SANDY

Well Name: BSD-36

Owner: LINDA GLOVER

Permit #: 16983 - S - **Location #:** SC01005807CD

USGS Site ID:

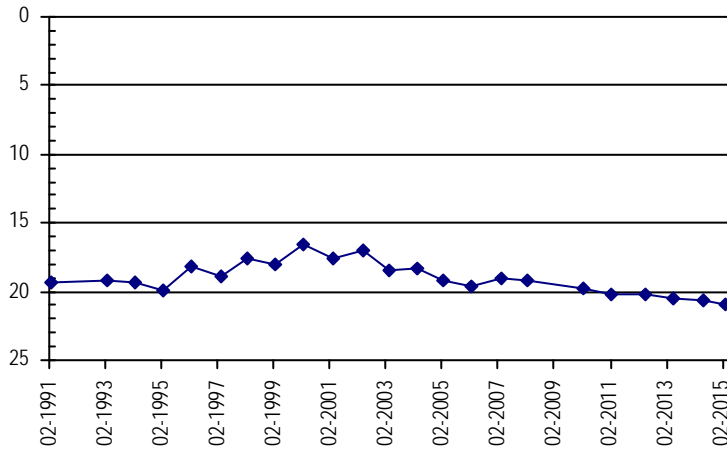
Division: 2 **Water District:** 67 **County:** ELBERT
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SW SE 7 10 S 58 W S **From N/S line:** 751 S **From E/W line:** 2687 W
UTM Coordinates (NAD83): **Northing (UTM y)** 4338276.5 **Easting (UTM x):** 592443.5 *GPS*
Latitude/Longitude (decimal degrees): 39.188823 -103.929584

Surface Elevation (ft): 5733 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 60 **Bottom Perforated Interval (ft):** **1 year:** -0.32
Aquifer(s): QUATERNARY ALLUVIUM **5 year:** -1.19
10 year: -1.73

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
2/28/2005	19.16	5713.84	-0.78
2/20/2006	19.61	5713.39	-0.45
3/5/2007	19.08	5713.92	0.53
2/13/2008	19.13	5713.87	-0.05
1/1/2009			
2/22/2010	19.70	5713.30	
2/24/2011	20.20	5712.80	-0.50
4/24/2012	20.23	5712.77	-0.03
4/3/2013	20.52	5712.48	-0.29
5/20/2014	20.57	5712.43	-0.05
3/31/2015	20.89	5712.11	-0.32

All Historic Measurements



Well Name: BSD-38

Owner: LASATER RANCH

Permit #: - - **Location #:** SC01005809BC

USGS Site ID:

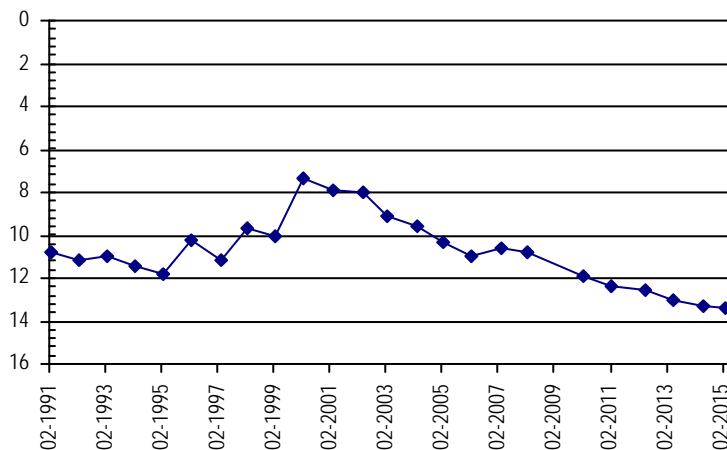
Division: 2 **Water District:** 67 **County:** ELBERT
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW SW 9 10 S 58 W S **From N/S line:** 1740 N **From E/W line:** 1 W
UTM Coordinates (NAD83): **Northing (UTM y)** 4339130.5 **Easting (UTM x):** 594923.4 *GPS*
Latitude/Longitude (decimal degrees): 39.196250 -103.900753

Surface Elevation (ft): 5683 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 46 **Bottom Perforated Interval (ft):** **1 year:** -0.09
Aquifer(s): QUATERNARY ALLUVIUM **5 year:** -1.49
10 year: -3.05

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
2/28/2005	10.32	5672.68	-0.75
2/20/2006	10.95	5672.05	-0.63
3/6/2007	10.61	5672.39	0.34
2/12/2008	10.81	5672.19	-0.20
1/1/2009			
2/22/2010	11.88	5671.12	
2/24/2011	12.38	5670.62	-0.50
4/24/2012	12.60	5670.40	-0.22
4/3/2013	12.99	5670.01	-0.39
5/20/2014	13.28	5669.72	-0.29
3/31/2015	13.37	5669.63	-0.09

All Historic Measurements



UPPER BIG SANDY

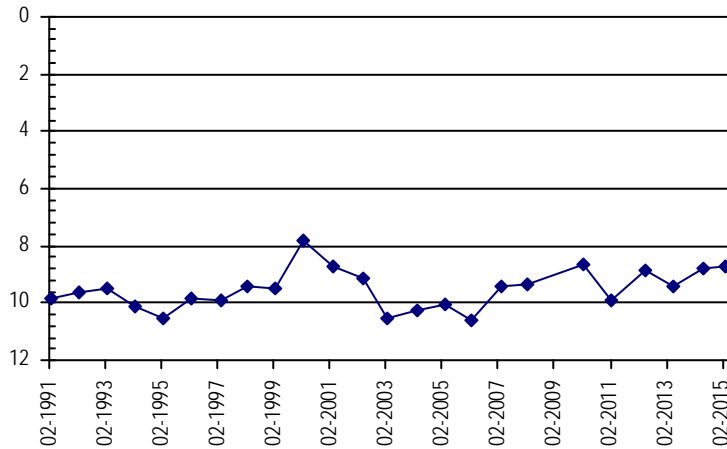
Well Name: **BSD-18** **Owner:** DENNIS KUCERIK
Permit #: 20183 - R - R **Location #:** SC01106220BC **USGS Site ID:**
Division: 2 **Water District:** 67 **County:** EL PASO
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NW SW 20 11 S 62 W S **From N/S line:** 2558 S **From E/W line:** 1246 W
UTM Coordinates (NAD83): **Northing (UTM y)** 4325484.7 **Easting (UTM x):** 555096.5 *GPS*
Latitude/Longitude (decimal degrees): 39.076732 -104.363035

Surface Elevation (ft): 6485 **Top Perforated Interval (ft):** 43 **Base of grout (ft):** **Water Level Change**
Well depth (ft): 83 **Bottom Perforated Interval (ft):** 83 **1 year:** 0.07
Aquifer(s): QUATERNARY ALLUVIUM **5 year:** -0.08
10 year: 1.36

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/1/2005	10.07	6474.93	0.21
2/21/2006	10.59	6474.41	-0.52
3/5/2007	9.44	6475.56	1.15
2/13/2008	9.34	6475.66	0.10
1/1/2009			
2/23/2010	8.63	6476.37	
2/28/2011	9.91	6475.09	-1.28
4/23/2012	8.89	6476.11	1.02
4/3/2013	9.40	6475.60	-0.51
5/19/2014	8.78	6476.22	0.62
3/30/2015	8.71	6476.29	0.07

All Historic Measurements



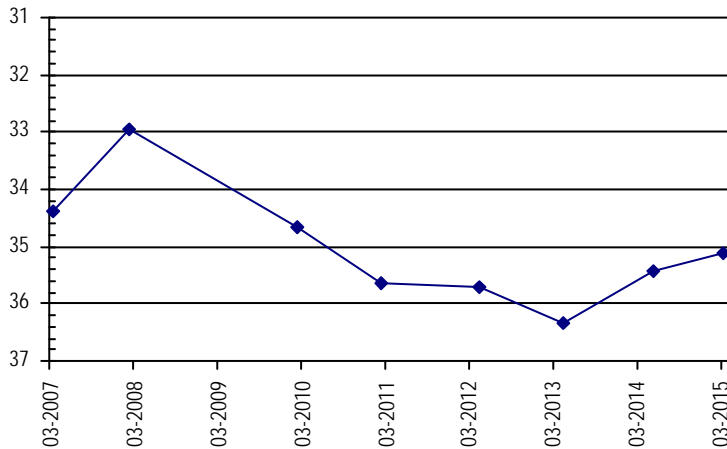
Well Name: **BSD-17A** **Owner:** MIKE & GERALD HLATKI
Permit #: - - **Location #:** SC01106223DA **USGS Site ID:**
Division: 2 **Water District:** 67 **County:** EL PASO
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SE NE 23 11 S 62 W S **From N/S line:** 1700 S **From E/W line:** 1220 E
UTM Coordinates (NAD83): **Northing (UTM y)** 4325262.0 **Easting (UTM x):** 560783.0 *GPS*
Latitude/Longitude (decimal degrees): 39.074347 -104.297319

Surface Elevation (ft): 6355 **Top Perforated Interval (ft):** **Base of grout (ft):** **Water Level Change**
Well depth (ft): 80 **Bottom Perforated Interval (ft):** **1 year:** 0.30
Aquifer(s): QUATERNARY ALLUVIUM **5 year:** -0.46
10 year:

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/6/2007	34.37	6320.63	
2/12/2008	32.97	6322.03	1.40
1/1/2009			
2/23/2010	34.67	6320.33	
2/28/2011	35.63	6319.37	-0.96
4/23/2012	35.70	6319.30	-0.07
4/3/2013	36.33	6318.67	-0.63
5/19/2014	35.43	6319.57	0.90
3/30/2015	35.13	6319.87	0.30

All Historic Measurements



UPPER BIG SANDY

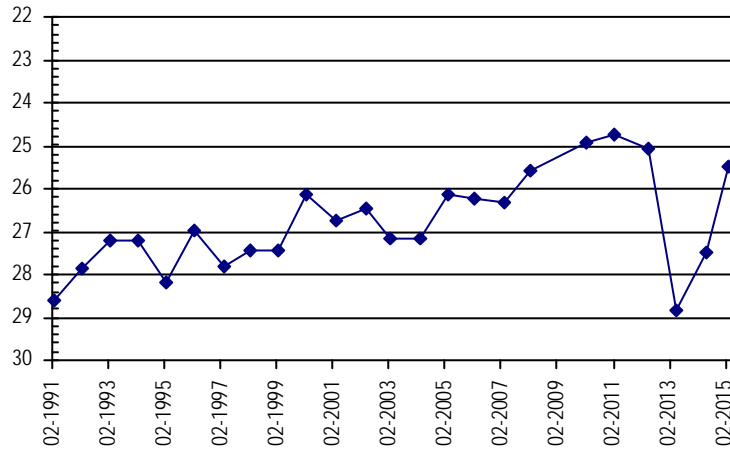
Well Name: **BSD-19** **Owner:** WAYNE TURNER
Permit #: 13038 - F - **Location #:** SC01106324DB **USGS Site ID:**
Division: 2 **Water District:** 67 **County:** EL PASO
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 SE NW 24 11 S 63 W S **From N/S line:** 1609 S **From E/W line:** 1531 E
UTM Coordinates (NAD83): **Northing (UTM y)** 4325163.8 **Easting (UTM x):** 552662.5 *GPS*
Latitude/Longitude (decimal degrees): 39.073990 -104.391197

Surface Elevation (ft): 6575 **Top Perforated Interval (ft):** 36 **Base of grout (ft):** 12 **Water Level Change**
Well depth (ft): 104 **Bottom Perforated Interval (ft):** 104 **1 year:** 1.99
Aquifer(s): QUATERNARY ALLUVIUM **5 year:** -0.59
10 year: 0.61

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/1/2005	26.12	6548.88	1.03
2/21/2006	26.23	6548.77	-0.11
3/5/2007	26.34	6548.66	-0.11
2/13/2008	25.59	6549.41	0.75
1/1/2009			
2/23/2010	24.92	6550.08	
2/28/2011	24.73	6550.27	0.19
4/23/2012	25.05	6549.95	-0.32
4/3/2013	28.83	6546.17	-3.78
5/19/2014	27.50	6547.50	1.33
3/30/2015	25.51	6549.49	1.99

All Historic Measurements



Well Name: **BSD-30A** **Owner:** UPPER BIG SANDY GWMD
Permit #: 37089 - M - **Location #:** SC01106326AD **USGS Site ID:**
Division: 2 **Water District:** 67 **County:** EL PASO
Location: Q160 Q40 Q10 Section Twnshp Range PM Distance from section lines:
 NE SE 26 11 S 63 W S **From N/S line:** 1250 N **From E/W line:** 75 E
UTM Coordinates (NAD83): **Northing (UTM y)** 4324313.8 **Easting (UTM x):** 551486.5 *GPS*
Latitude/Longitude (decimal degrees): 39.066401 -104.404856

Surface Elevation (ft): 6625 **Top Perforated Interval (ft):** 64 **Base of grout (ft):** 21 **Water Level Change**
Well depth (ft): 95 **Bottom Perforated Interval (ft):** 95 **1 year:** -0.40
Aquifer(s): QUATERNARY ALLUVIUM **5 year:** -1.72
10 year: -0.61

Measurements from last 10 years

Date	Depth to WL (ft)	Elev of WL (ft)	Change (ft)
3/1/2005	43.49	6581.51	1.46
2/21/2006	43.52	6581.48	-0.03
3/5/2007	43.79	6581.21	-0.27
2/12/2008	43.39	6581.61	0.40
1/1/2009			
2/23/2010	42.38	6582.62	
2/28/2011	43.04	6581.96	-0.66
4/23/2012	43.55	6581.45	-0.51
4/3/2013	44.90	6580.10	-1.35
5/19/2014	43.70	6581.30	1.20
3/30/2015	44.10	6580.90	-0.40

All Historic Measurements

