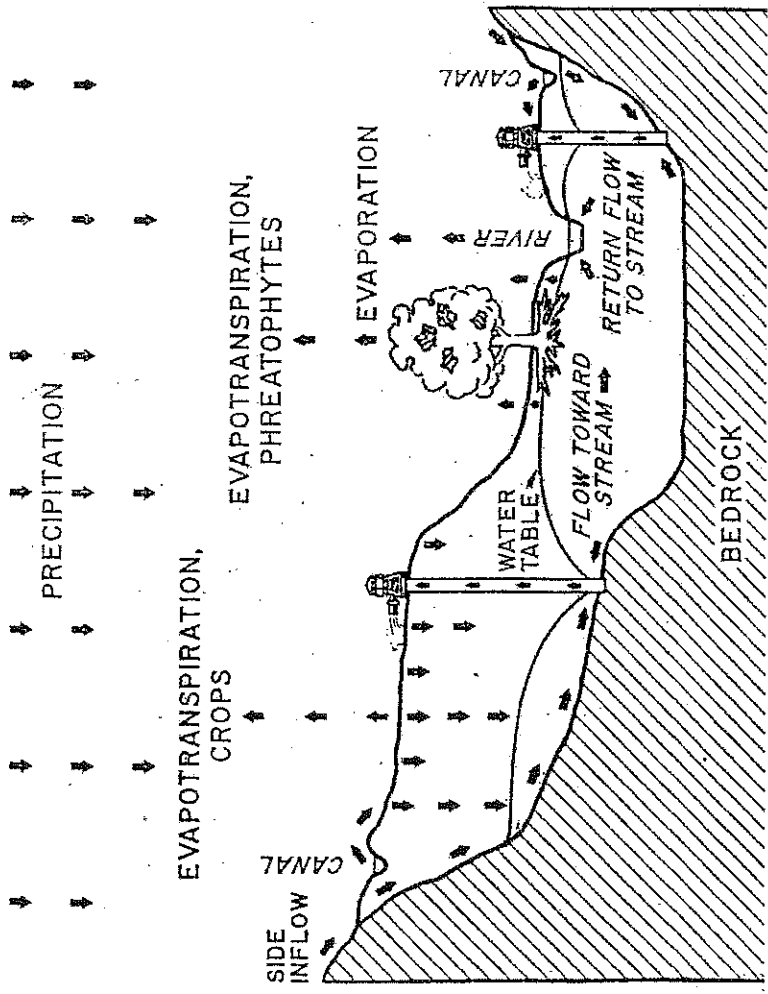


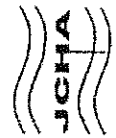
4/4/2016 Presentation to House Ag Committee
Reference HB16-1314 by Robert A. Langenbaugh

I

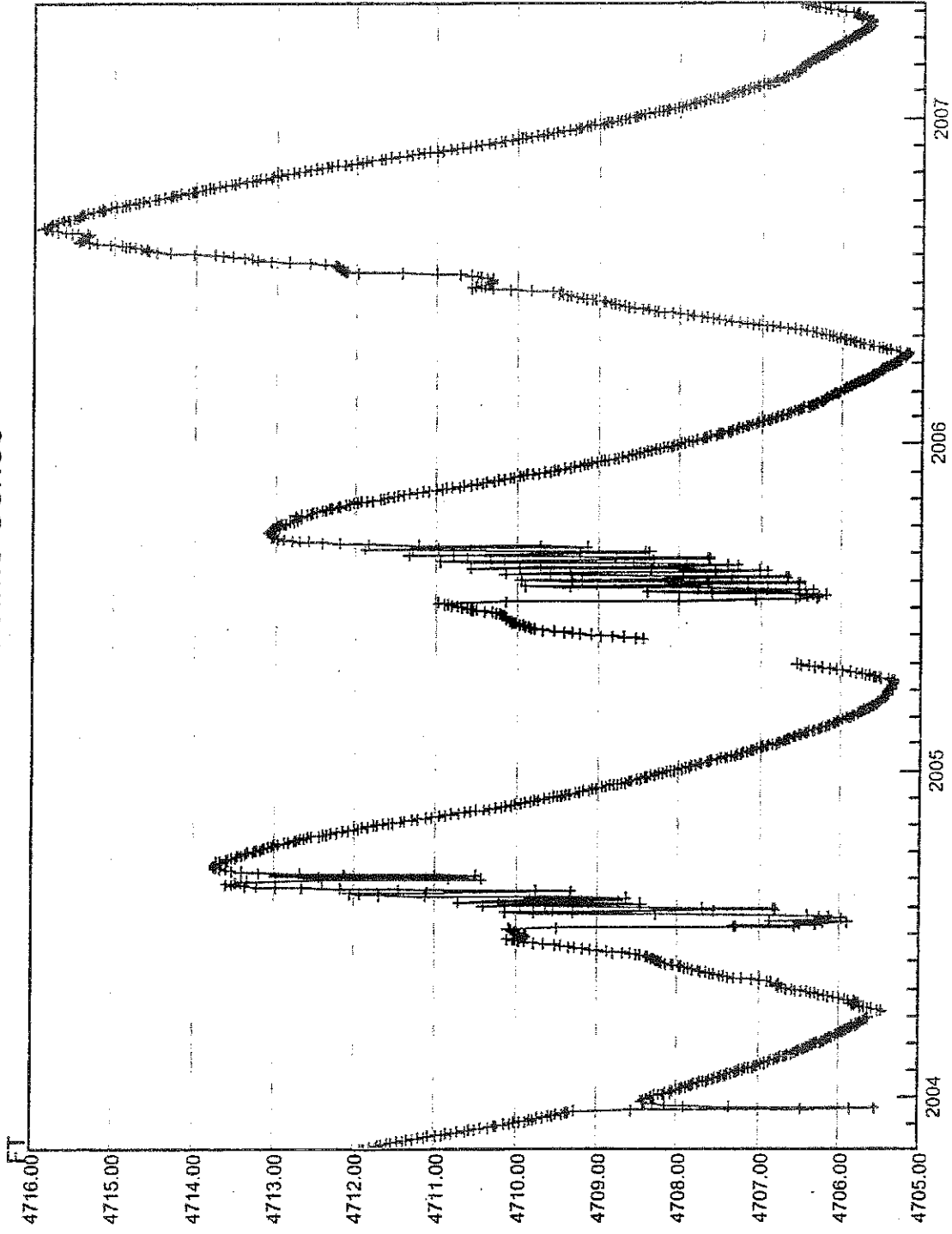
Typical X – Section Of South Platte River River Stream/Aquifer System - 2010



- Gaining River – Perennial River Flows.
- Transmountain water diversions being used to extinction.
- Conservation measures reducing stream flows.
- Phreatophytes continuing to increase.
- Over 4,000 of the 9,000 irrigation wells are totally or partially restricted from G.W. pumping.
- Over 20,000 ac-ft of water flowed to Nebraska in water year 2009 above and beyond the compact.



Well Level Time Series



—+— DSS02MLK (datum 4728.6 FT), SB00406606CC.SPDSS.WellLevel.Day (2003-11-03 to 2007-05-08)

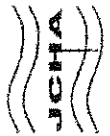
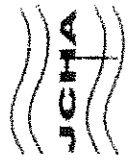
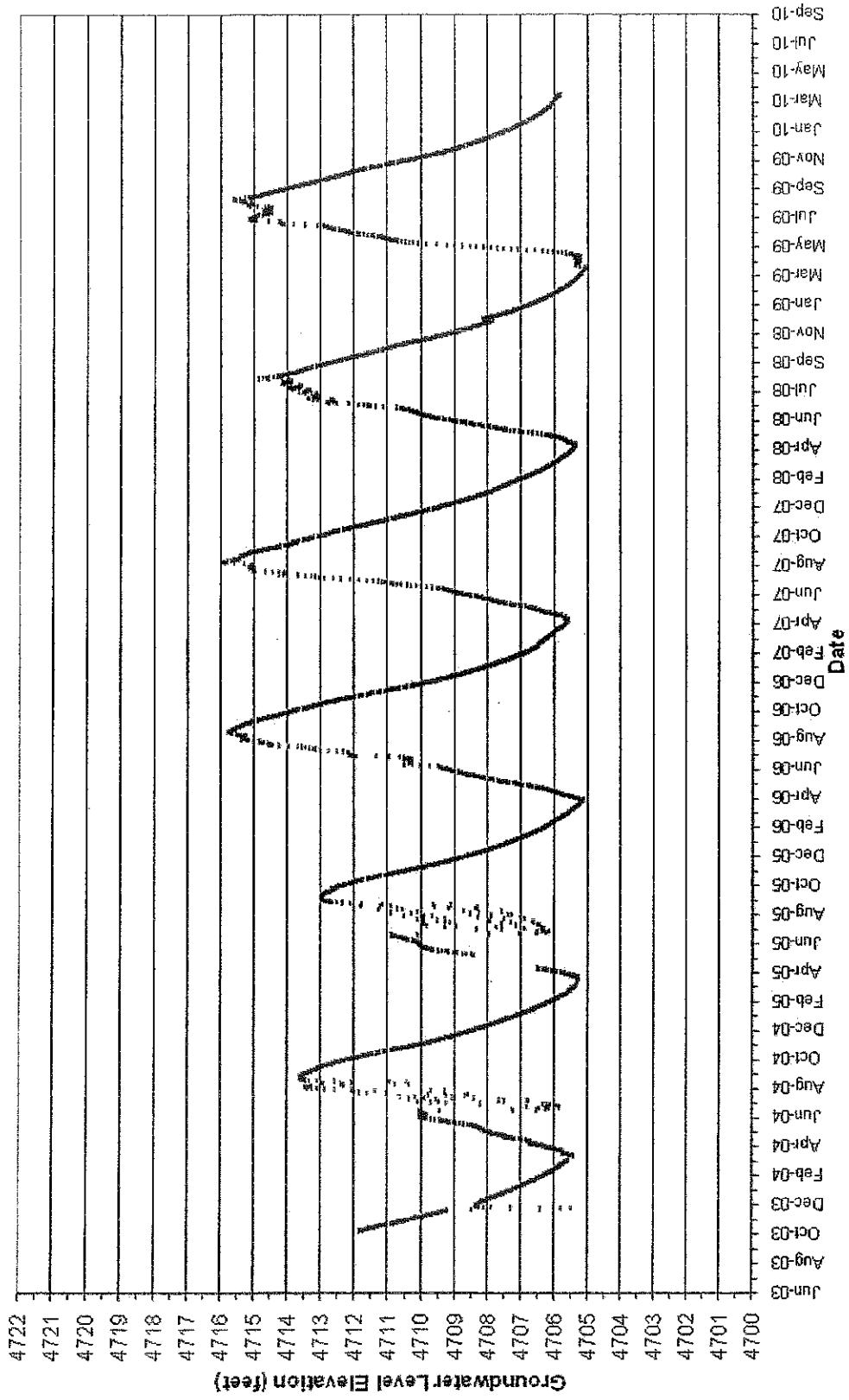


Figure D-15 - DSS02MLK



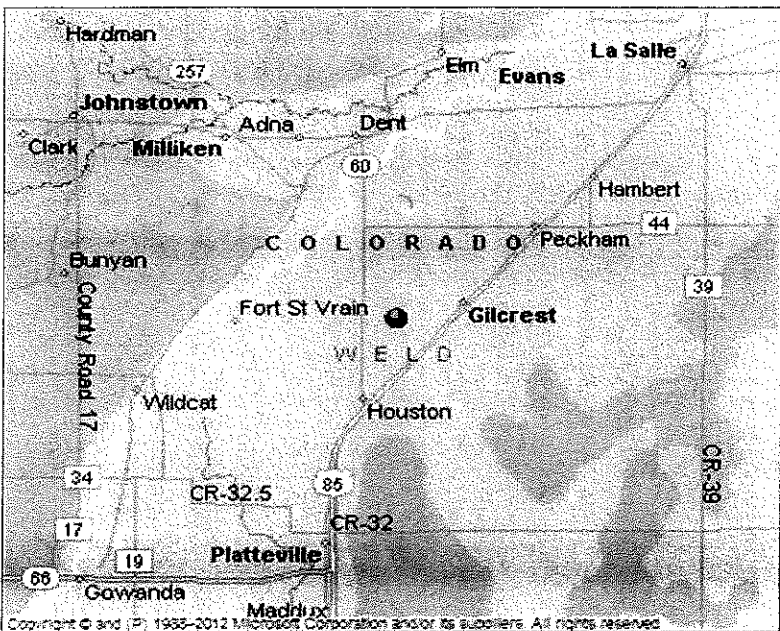
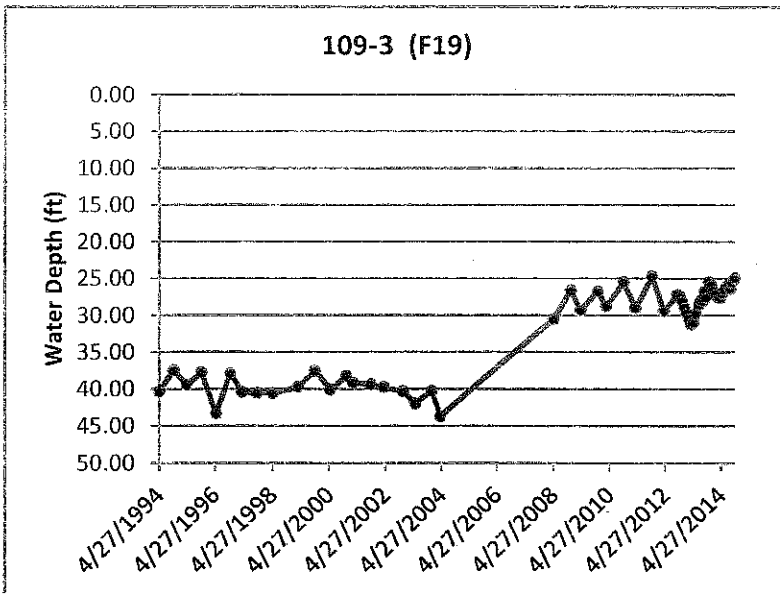
Well ID: 109-3
 Alternative ID: F19
 Source Water: South Platte Alluvial

Data Source: CCWCD
 Structure Type: Irrigation Well

UTM X UTM Y Latitude Longitude Water District County
 516982 4458639 40.27805964 -104.8002411 2 Weld

WATER LEVEL DATA

Date	Water Level
4/27/1994	40.45
11/2/1994	37.54
4/16/1995	39.55
10/30/1995	37.84
5/8/1996	43.45
11/13/1996	38.00
4/14/1997	40.50
10/15/1997	40.60
4/27/1998	40.65
3/24/1999	39.80
10/27/1999	37.62
5/11/2000	40.20
12/6/2000	38.35
3/7/2001	39.26
10/25/2001	39.46
4/2/2002	39.84
12/4/2002	40.43
5/12/2003	42.06
12/12/2003	40.35
4/9/2004	43.77
4/28/2008	30.60
12/12/2008	26.70
4/15/2009	29.40
11/25/2009	26.88
3/17/2010	28.88
11/3/2010	25.60
4/6/2011	29.10
11/8/2011	24.81
4/10/2012	29.50
10/1/2012	27.35
11/9/2012	27.54
12/6/2012	28.15
1/4/2013	29.06
2/4/2013	29.80
3/4/2013	30.55



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Well ID: 108-1

Data Source: CCWCD

Alternative ID: F16

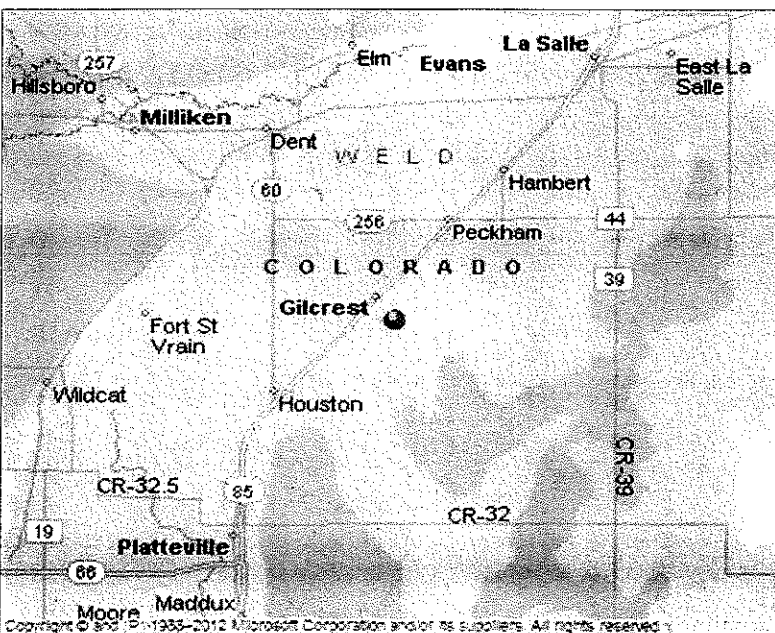
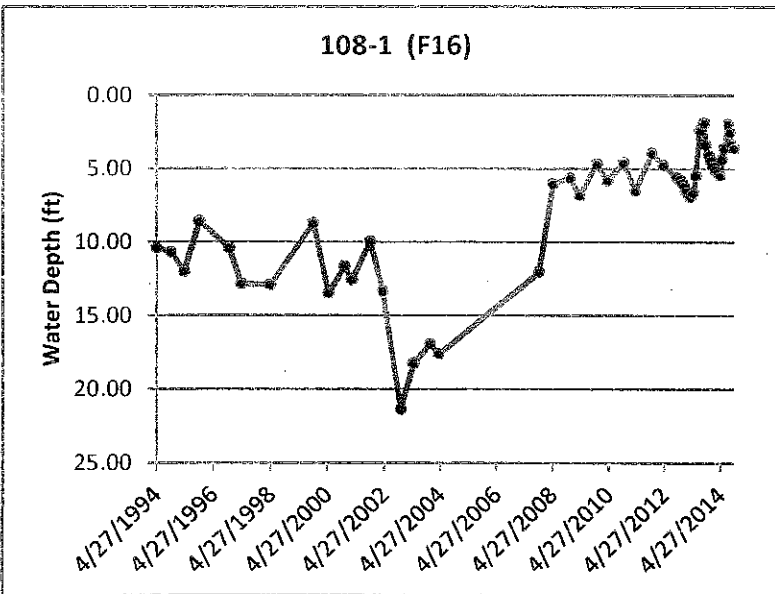
Source Water: South Platte Alluvial

Structure Type: Irrigation Well

<u>UTM X</u>	<u>UTM Y</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Water District</u>	<u>County</u>
519466	4458359	40.2754829	-104.7710306	2	Weld

WATER LEVEL DATA

Date	Water Level
4/27/1994	10.46
11/2/1994	10.74
4/25/1995	12.05
10/31/1995	8.65
11/13/1996	10.46
4/14/1997	12.90
4/17/1998	12.97
10/27/1999	8.77
5/11/2000	13.55
12/6/2000	11.70
3/7/2001	12.62
10/25/2001	10.02
4/2/2002	13.41
12/4/2002	21.40
5/12/2003	18.30
12/12/2003	17.00
4/5/2004	17.68
10/31/2007	12.10
4/28/2008	6.10
12/12/2008	5.70
4/15/2009	6.90
11/25/2009	4.75
4/8/2010	5.87
11/3/2010	4.65
4/6/2011	6.60
11/8/2011	4.01
4/10/2012	4.82
10/1/2012	5.65
11/9/2012	5.79
12/7/2012	6.00
1/4/2013	6.25
2/4/2013	6.6
3/4/2013	6.95
4/1/2013	6.95
5/3/2013	6.7



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Well ID: 25-5

Data Source: CCWCD

Alternative ID: C19

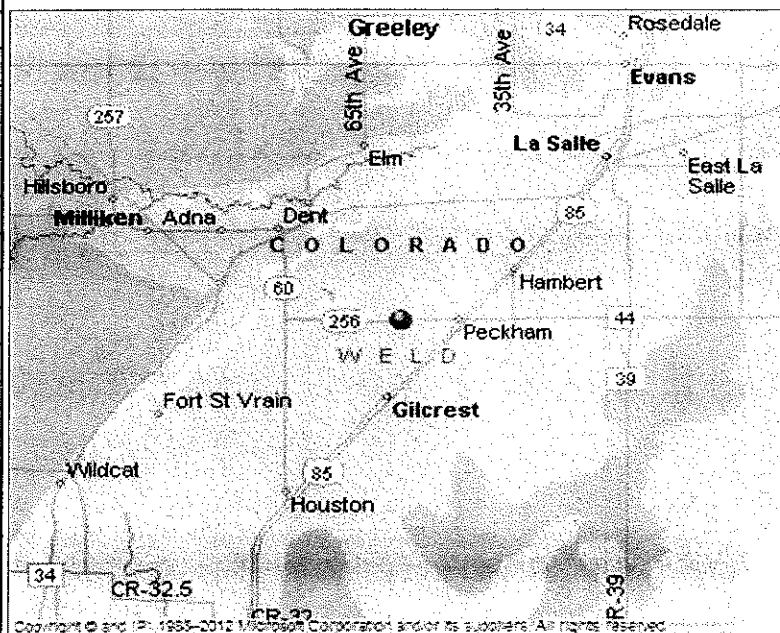
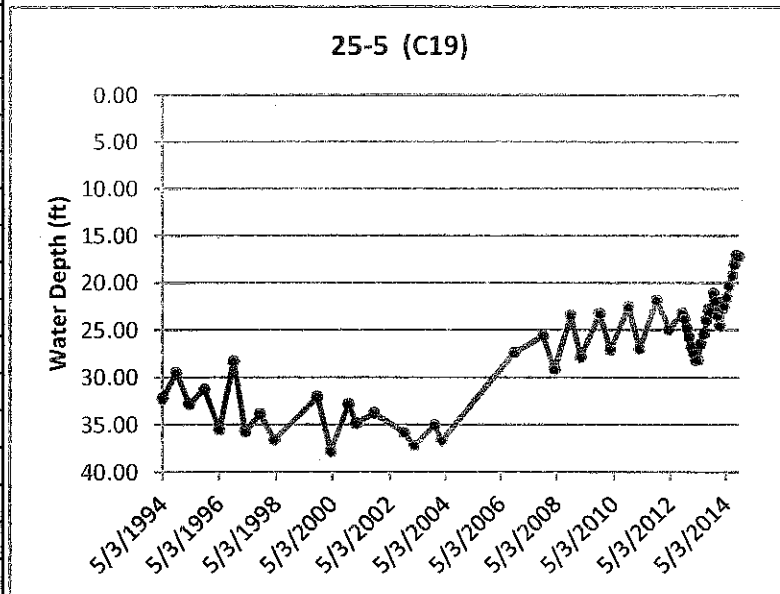
Source Water: South Platte Alluvial

Structure Type: Irrigation Well

<u>UTM X</u>	<u>UTM Y</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Water District</u>	<u>County</u>
519290	4461538	40.30412748	-104.773005	2	Weld

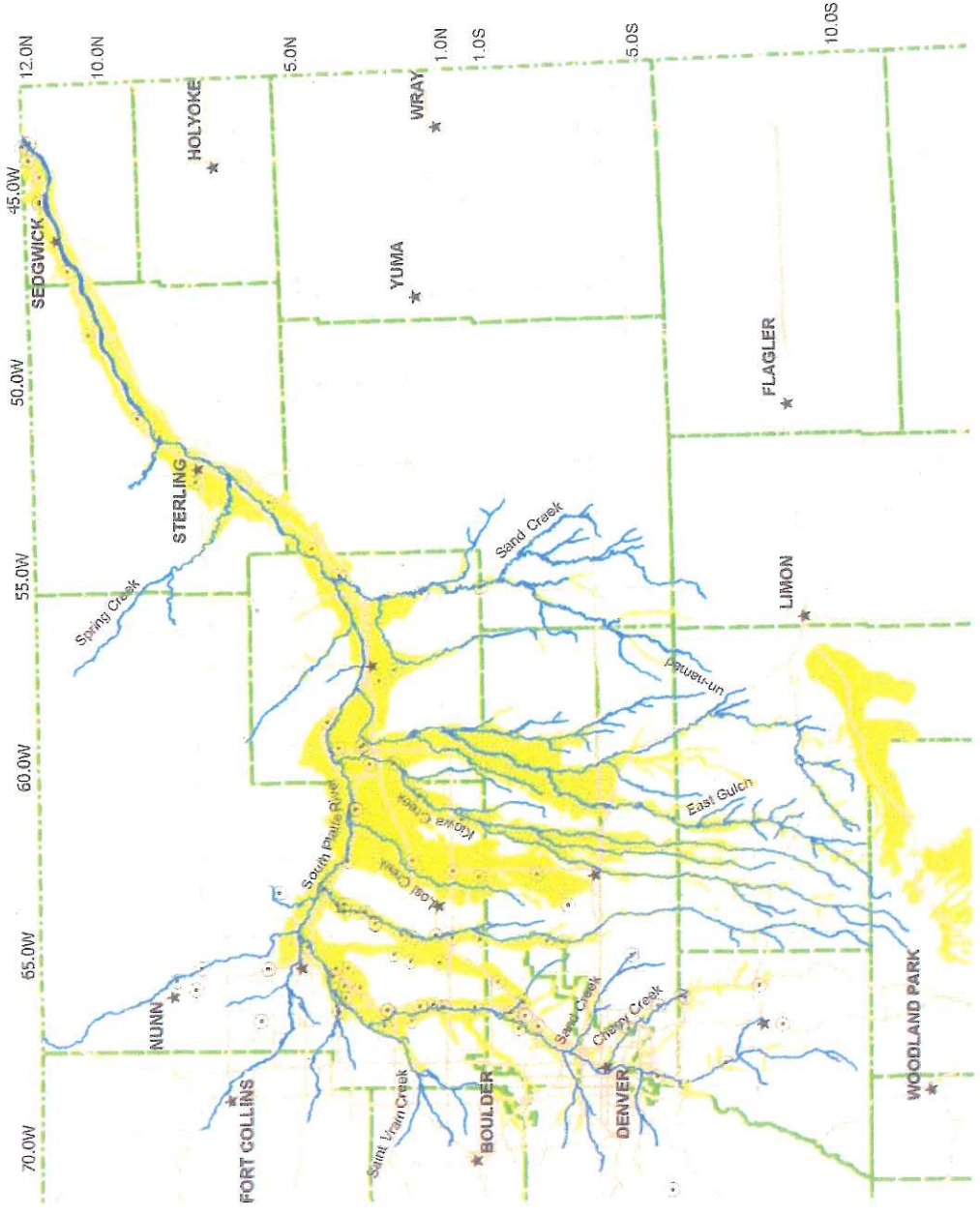
WATER LEVEL DATA

Date	Water Level
5/3/1994	32.30
11/1/1994	29.60
4/16/1995	32.88
10/30/1995	31.35
5/8/1996	35.60
11/13/1996	28.36
4/7/1997	35.82
10/10/1997	33.95
4/8/1998	36.62
10/27/1999	32.14
4/14/2000	37.85
11/30/2000	32.90
3/6/2001	34.90
10/16/2001	33.85
11/7/2002	35.89
3/14/2003	37.29
12/12/2003	35.12
3/17/2004	36.74
10/23/2006	27.49
11/8/2007	25.70
4/4/2008	29.26
11/5/2008	23.50
3/16/2009	27.95
11/3/2009	23.36
3/17/2010	27.17
11/8/2010	22.60
3/30/2011	27.10
11/7/2011	21.89
4/13/2012	25.00
10/2/2012	23.30
11/9/2012	23.91
12/7/2012	24.88
1/4/2013	25.80
2/4/2013	26.90
3/4/2013	27.60



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d:\projects\geotech\hobs_wells.mxd for 3/22/2006



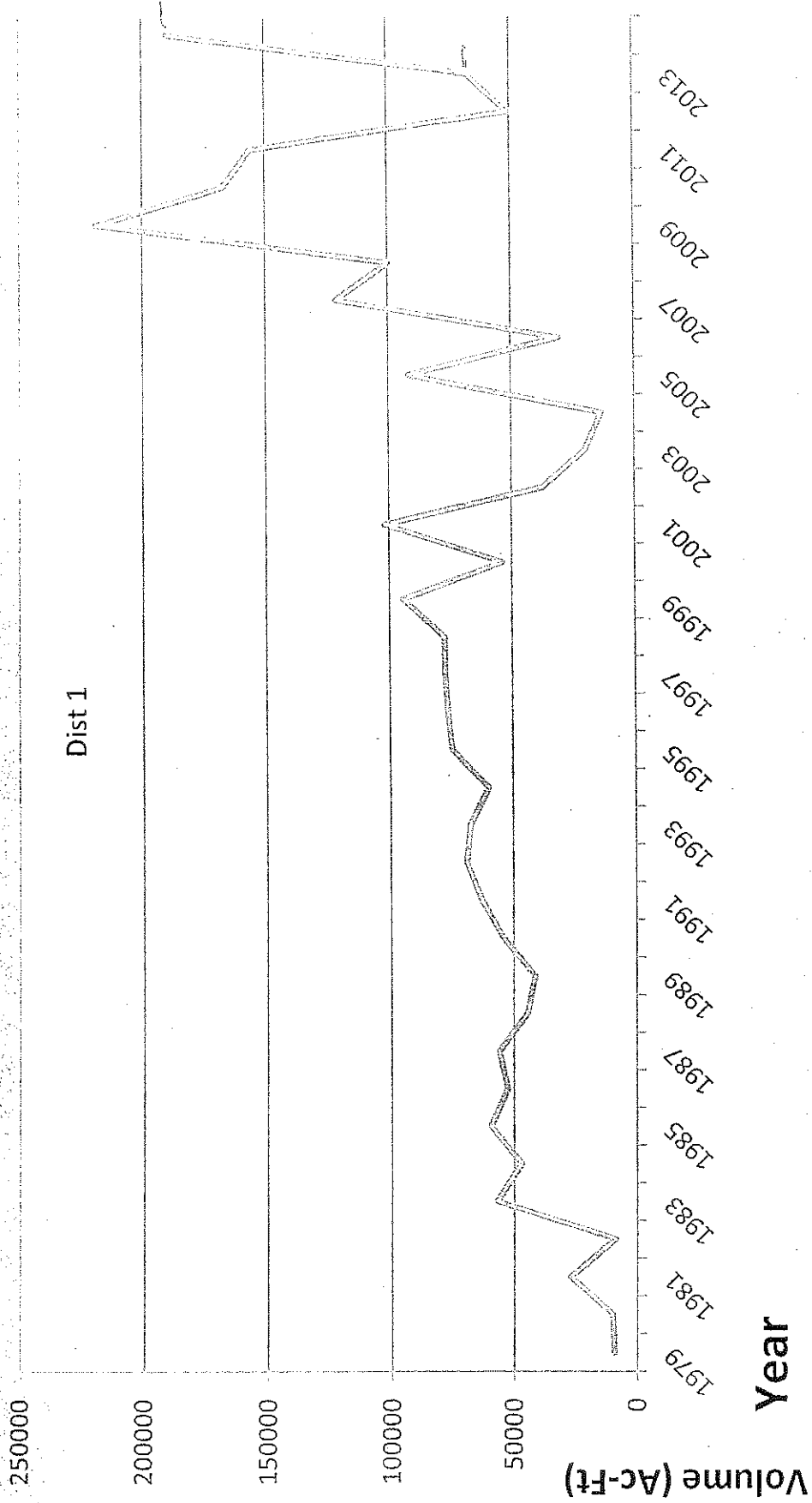
Observation Well
City
River
Highway
County
Township
Mapped and Interpreted Alluvium

Lower South Platte Basin Observation Well Network

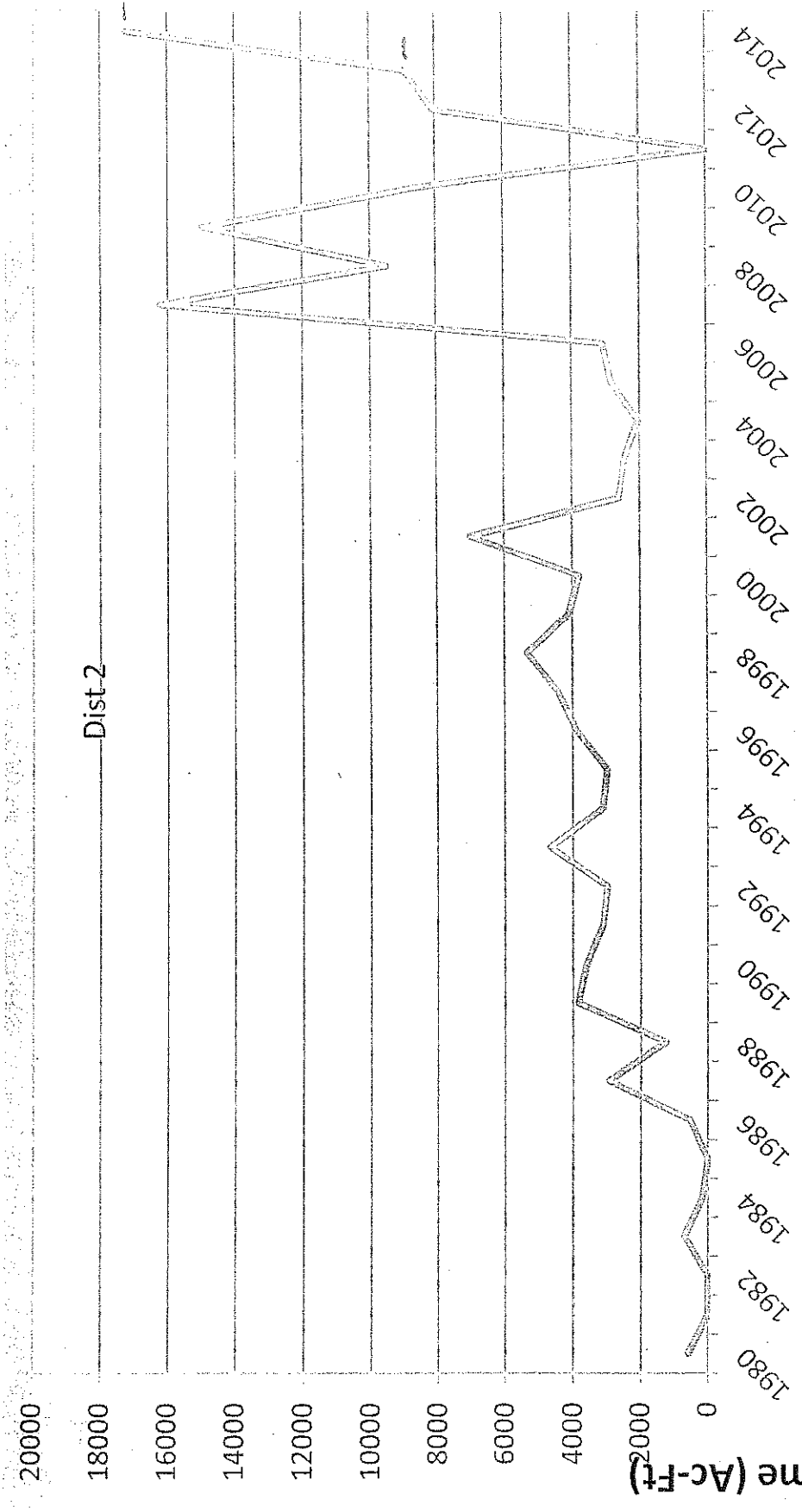
Source:
Observation Well, Colorado Division of Water Resources
Counties and Towns, Colorado Department of Local Affairs
Highways, Colorado Department of Transportation
Public Land Survey System, Toban Data Graphics



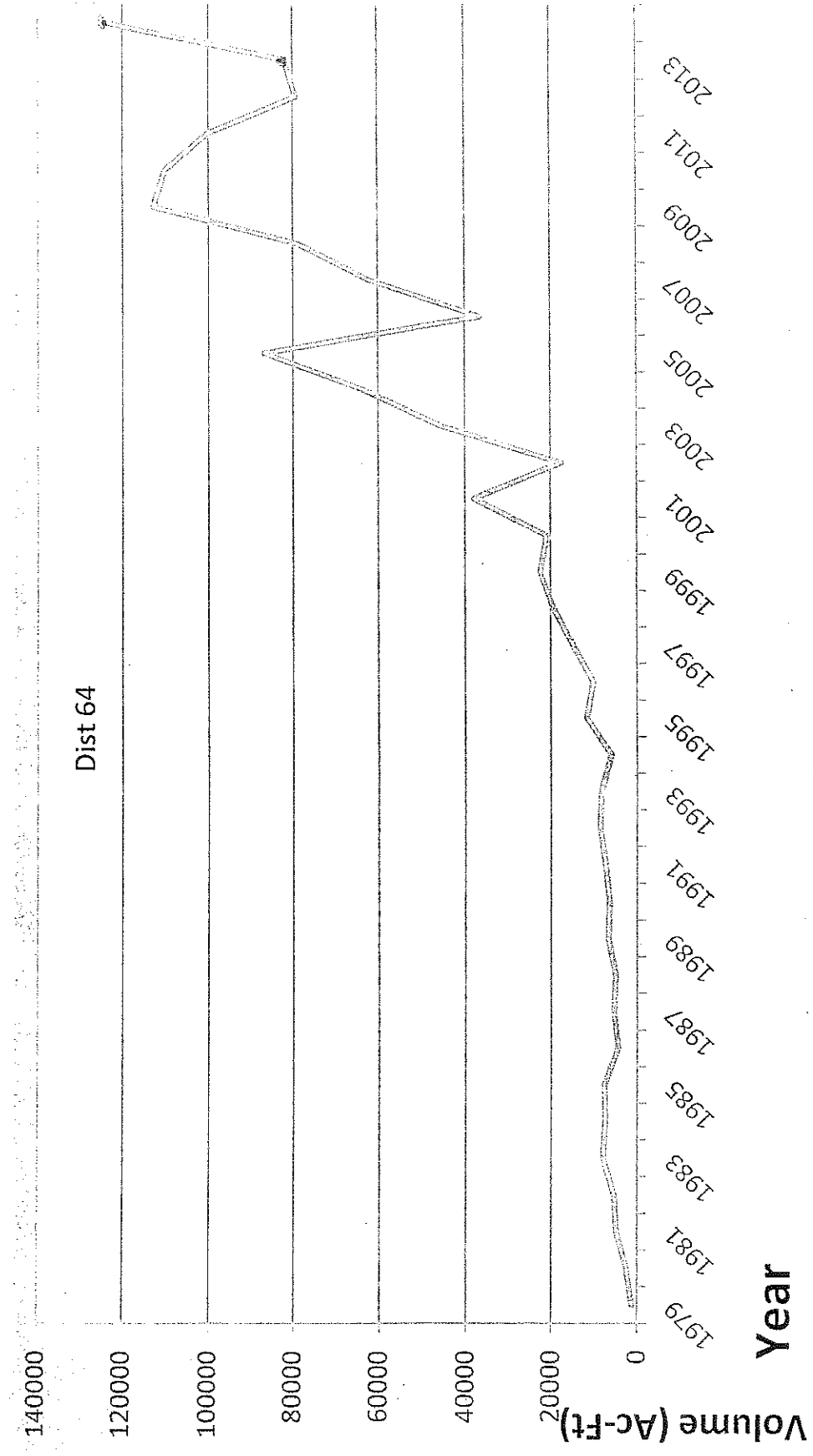
Presentation By Robert Longenbaugh, P.E.
Concerning HB 16-1314. For Colorado Legislators
State Capitol Building, March 18, 2016



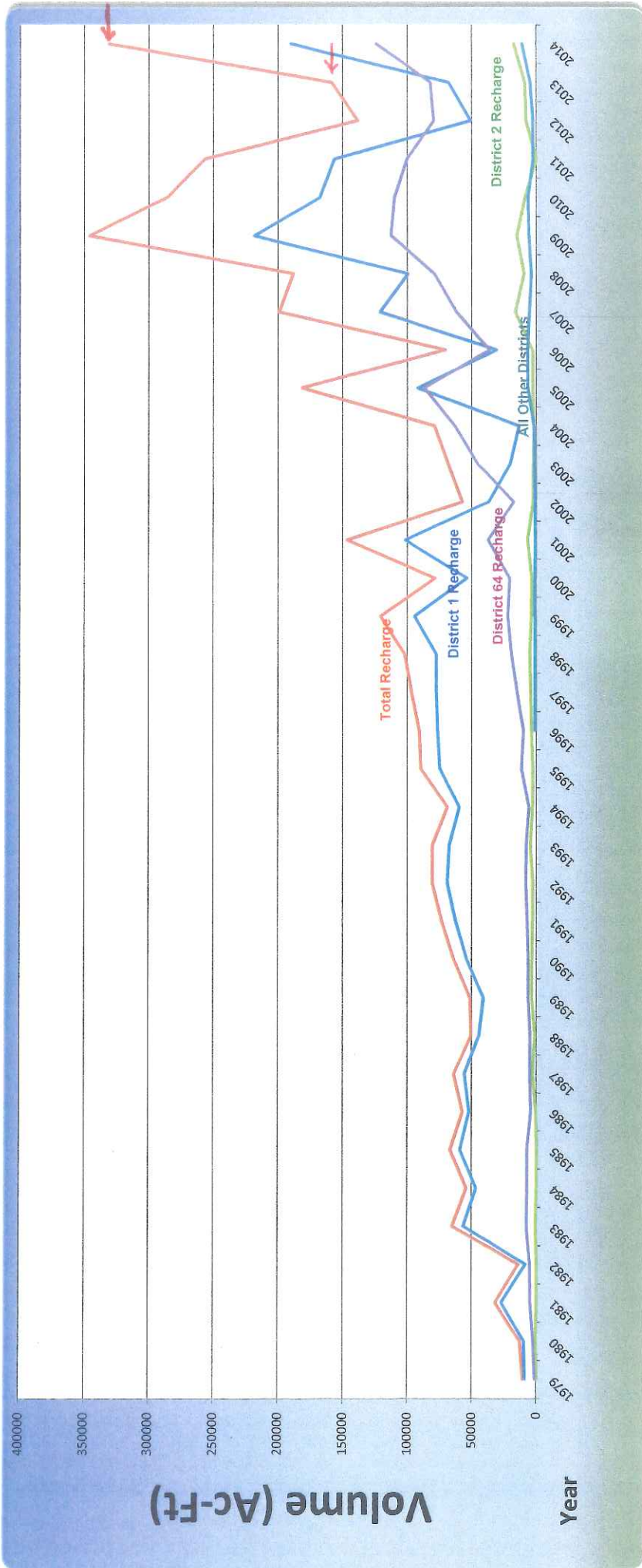
2013 66,749 Ac-Ft
 2014 189,639 Ac-Ft



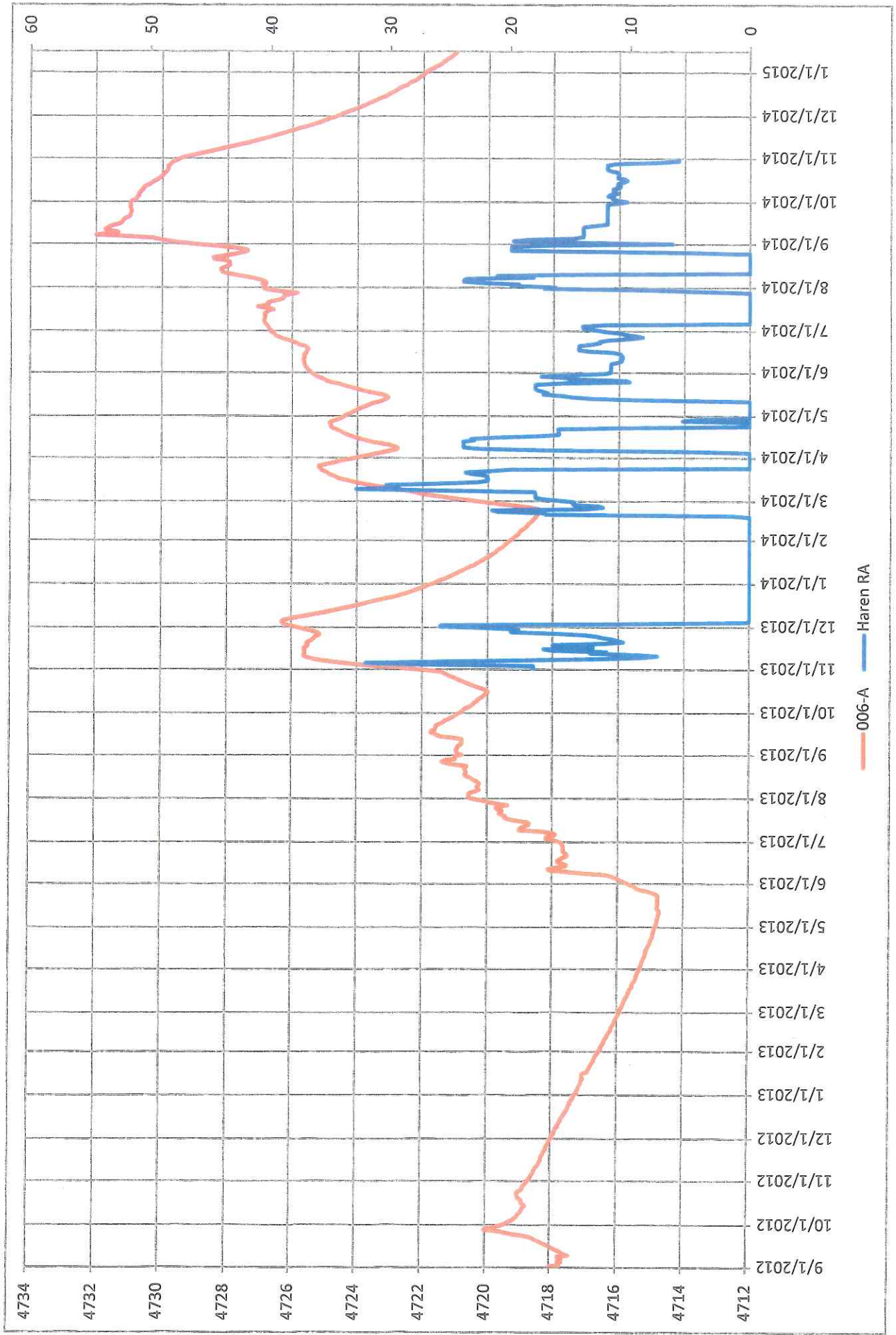
2010 8908 Ac-Ft
 2014 17210 Ac-Ft



2013 81,824 Ac-Ft
 2012 124,217 Ac-Ft
 2014 81,022 Ac-Ft
 2015 124,217 Ac-Ft



Total For WD# 1, 2, 64
 2013 157,501 Ac-ft
 2014 331,096 Ac-ft



4734

4732

4730

4728

4726

4724

4722

4720

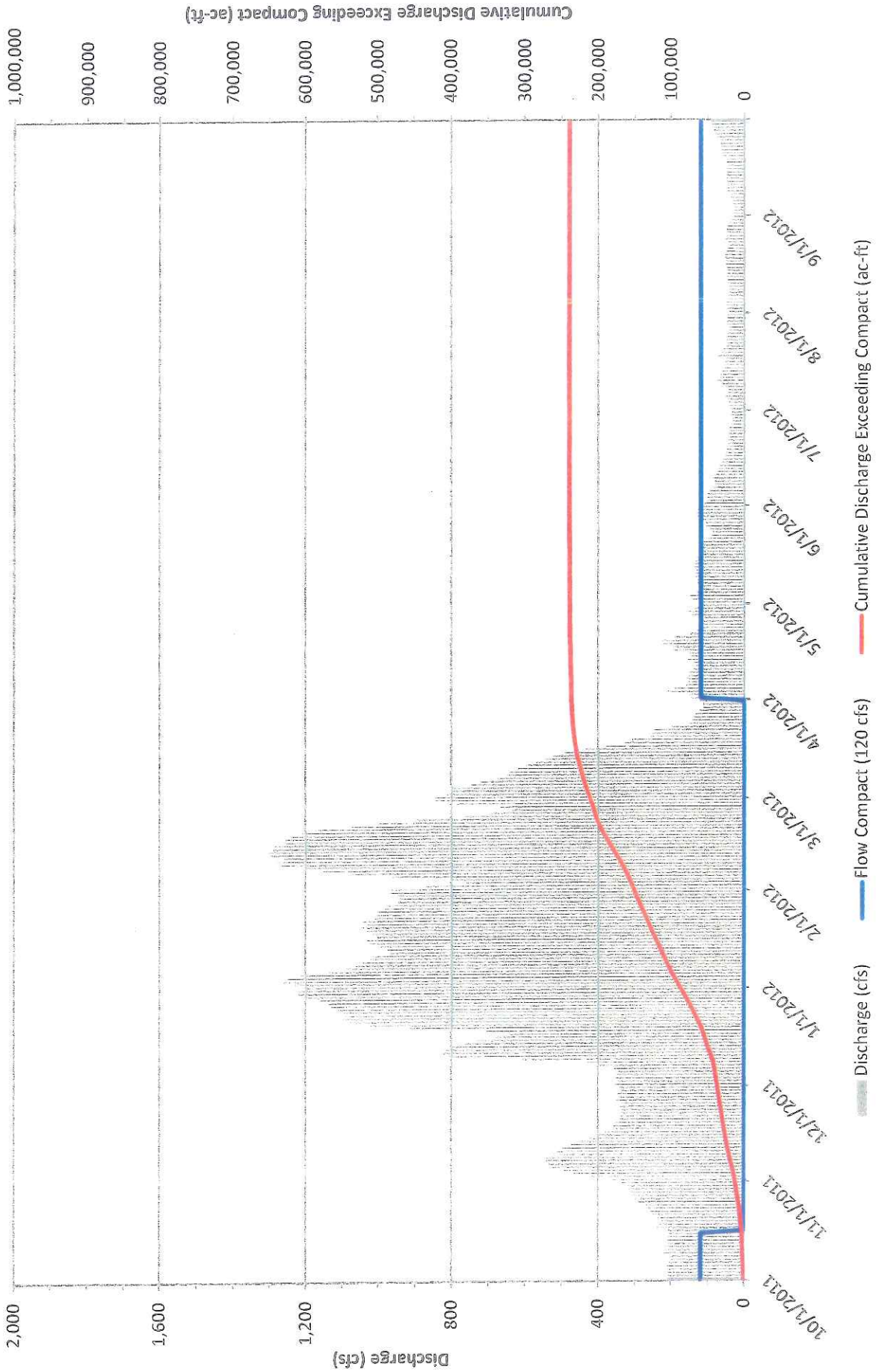
4718

4716

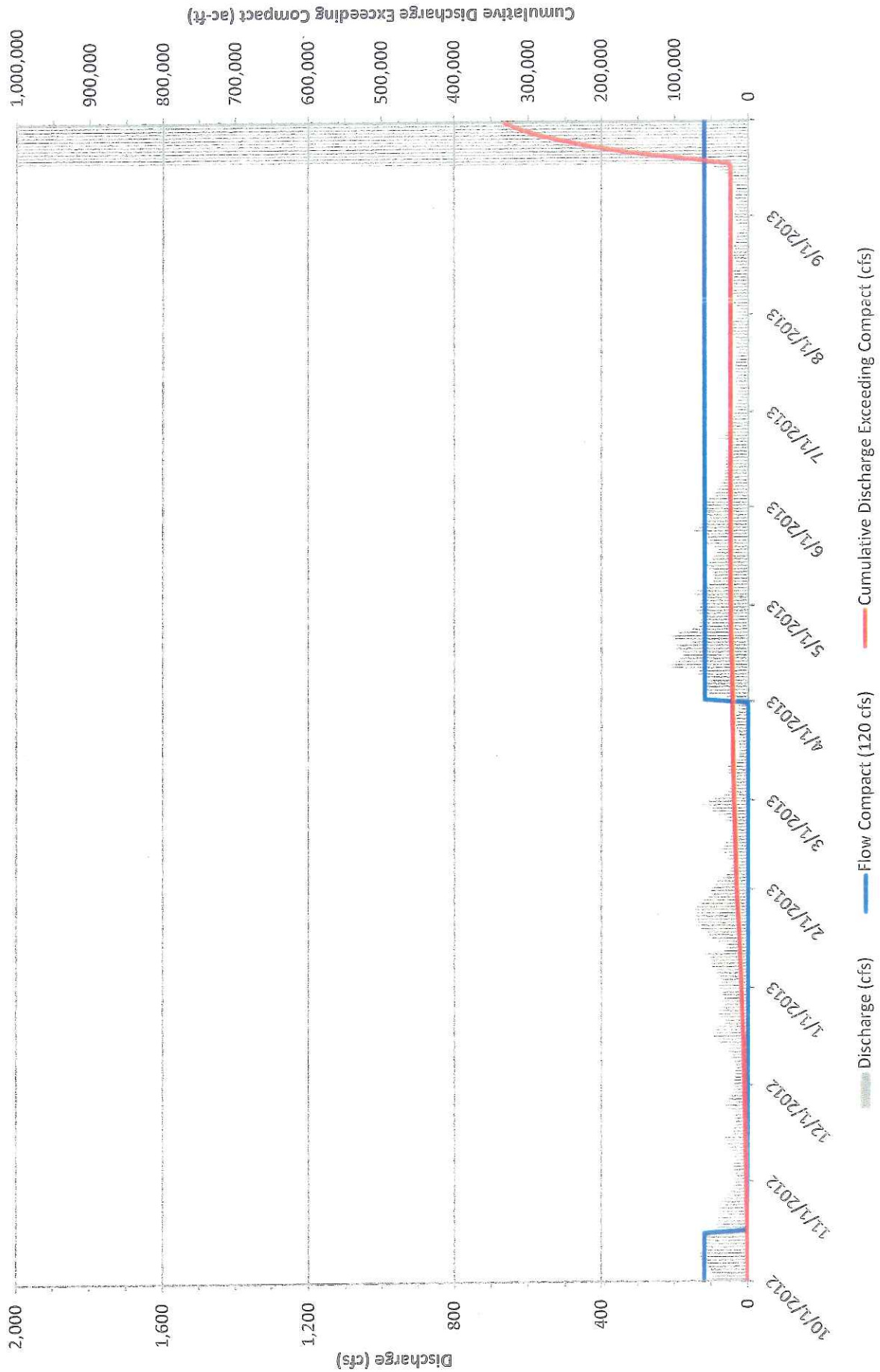
4714

4712

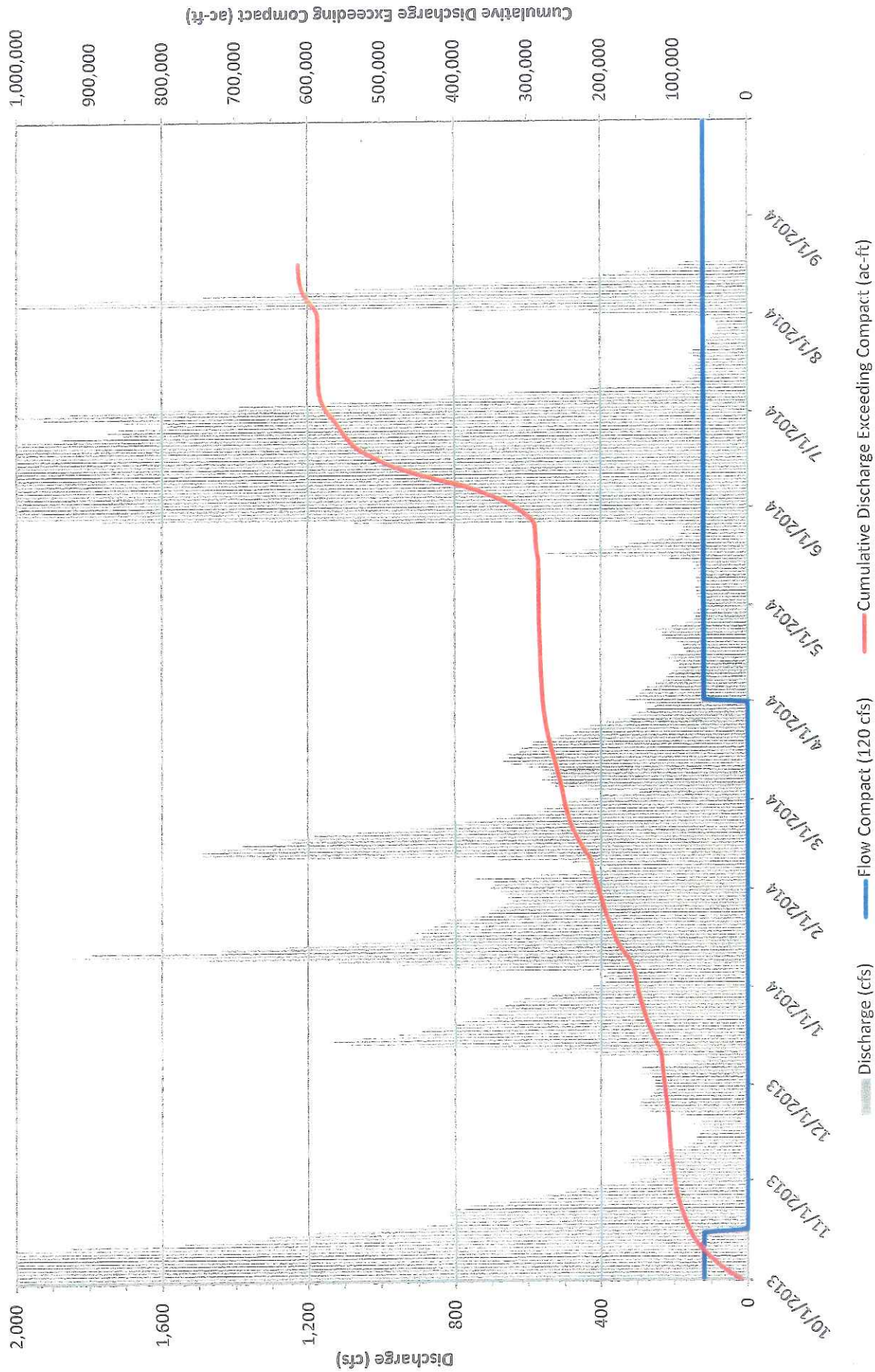
Julesburg Gauge 2012 Water Year



Julesburg Gauge 2013 Water Year

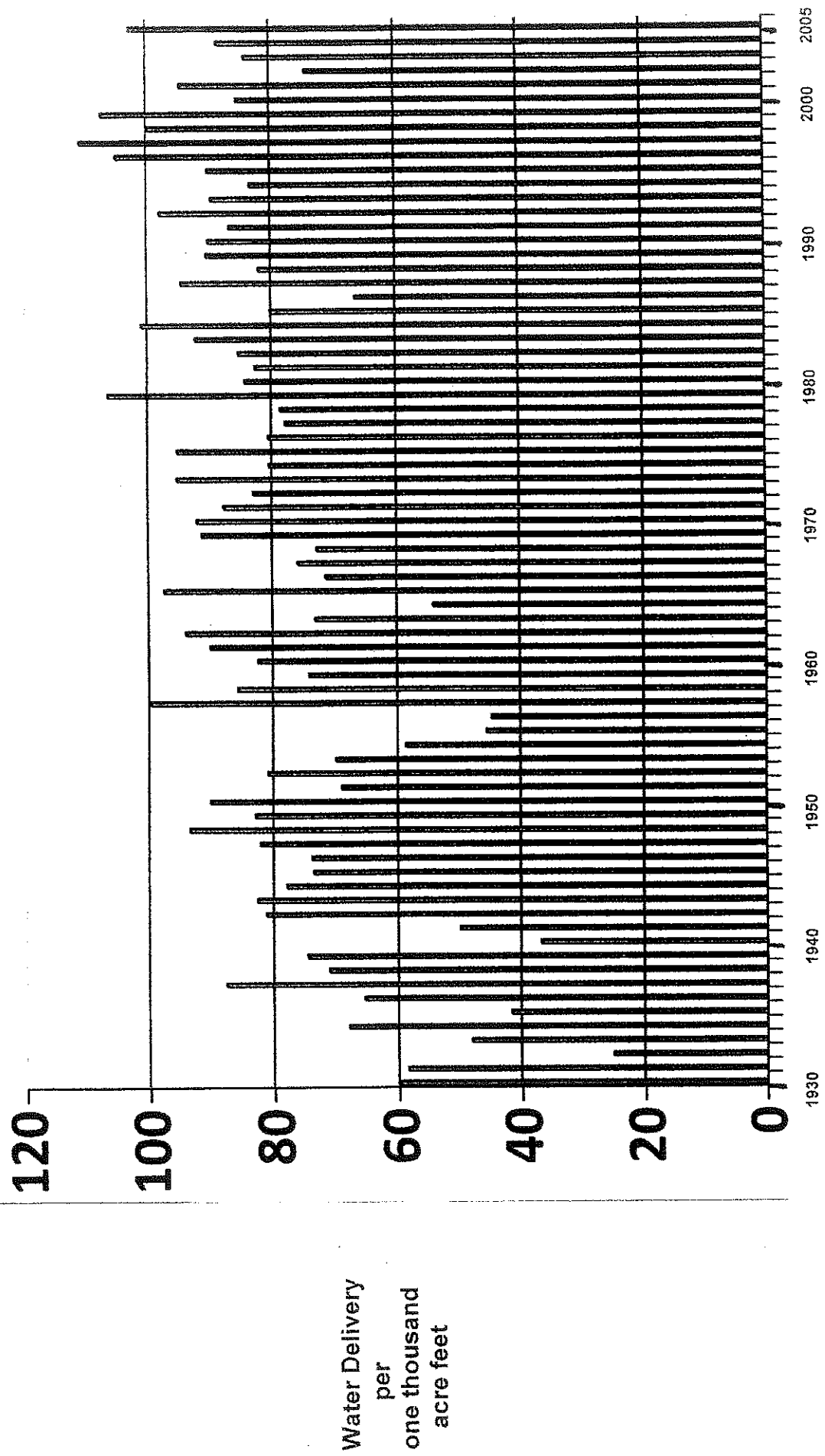


Julesburg Gauge 2014 Water Year (Provisional Data)



from Gene Reardon
2/10/2005

NORTH STERLING IRRIGATION DISTRICT WATER SUPPLY AND DELIVERY RECORDS



Annual Deliveries 1930 - 2005