

An aerial photograph of a rural landscape, likely in Newton, Massachusetts, showing a mix of green fields, brown patches, and some buildings. A bright yellow line is drawn across the image, roughly following the perimeter of a town or a specific geographic area. The text is overlaid on this image.

Spring 2014 Groundwater Surface Elevations and Rainfall

Prepared by
Newton Geo-Hydrology Consulting Services

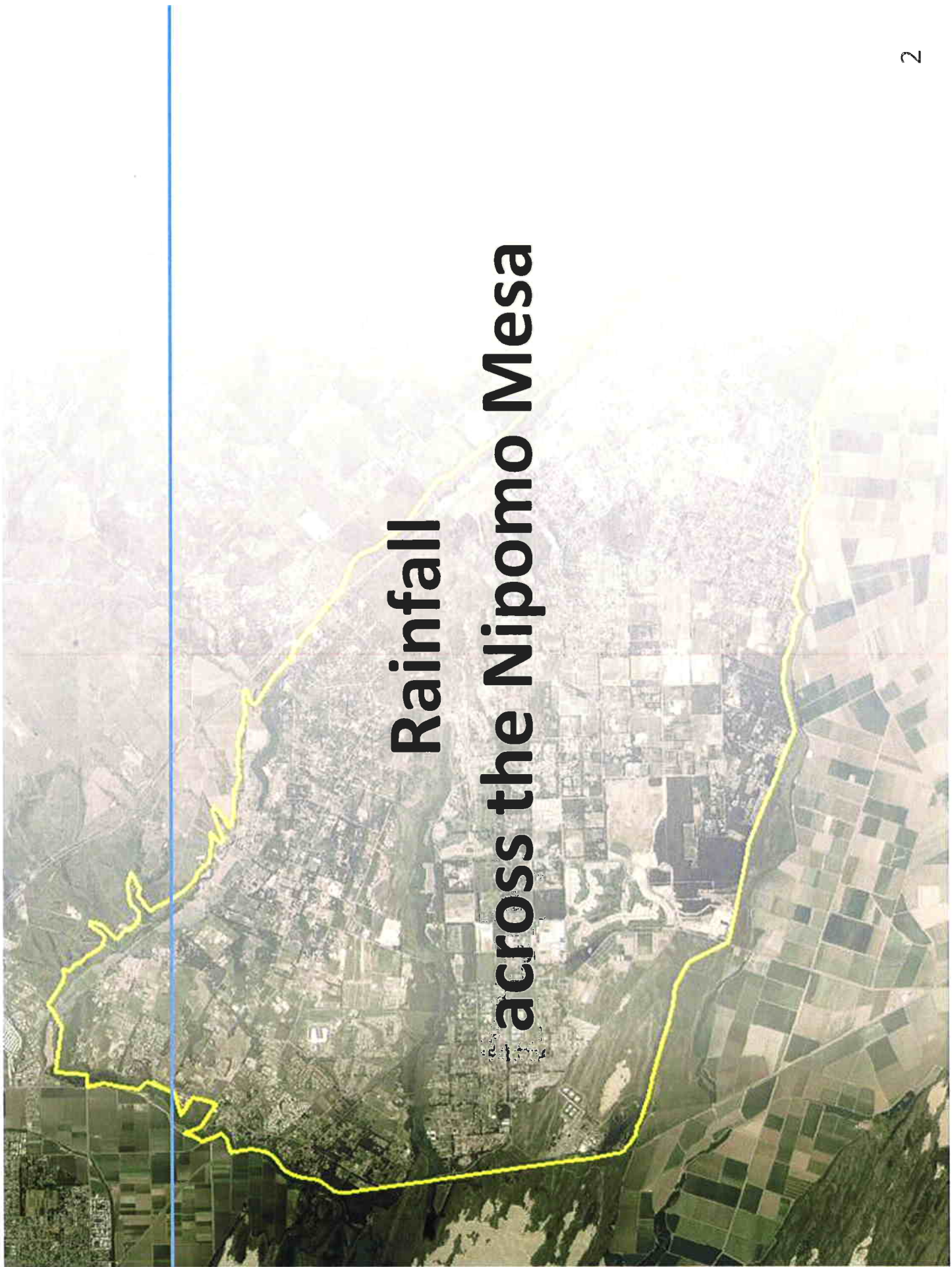
June 25, 2014

Overview

- Rainfall

- Spring 2014

- Ground Water Index



Rainfall across the Nipomo Mesa

Annual Data

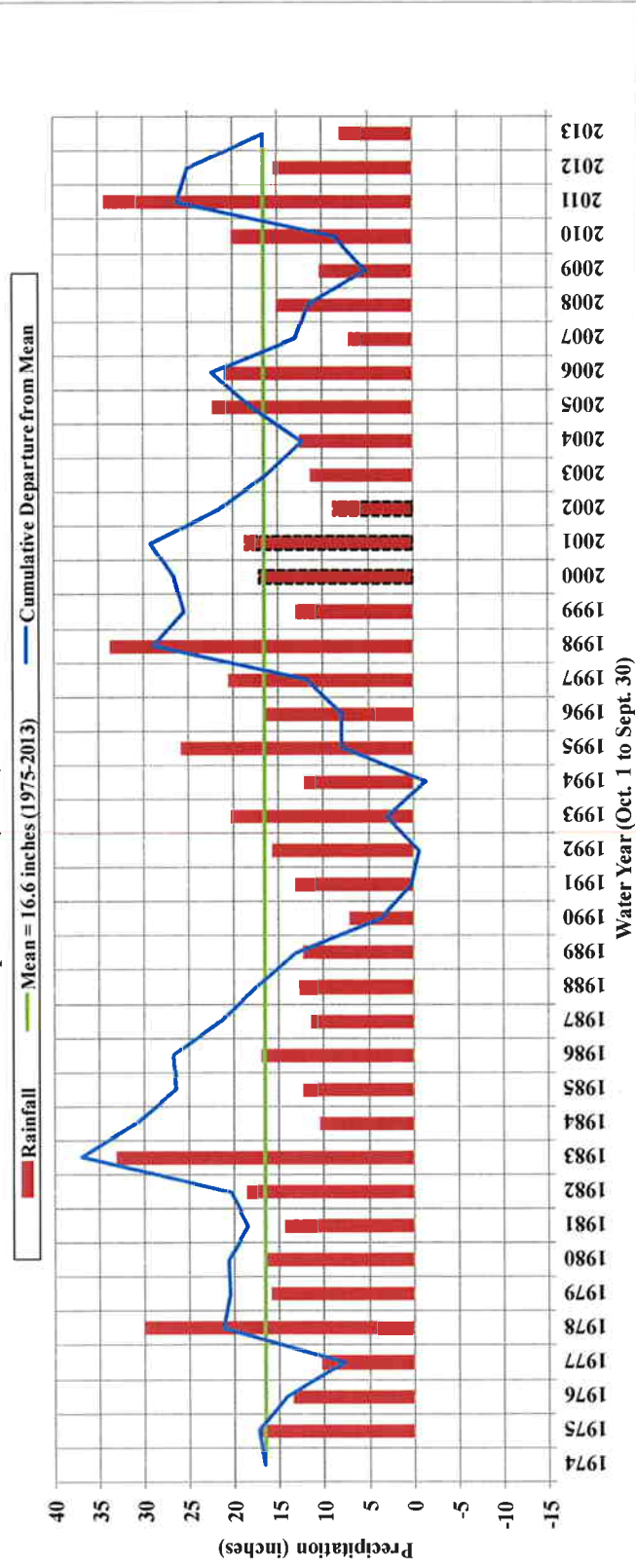
2013-2014

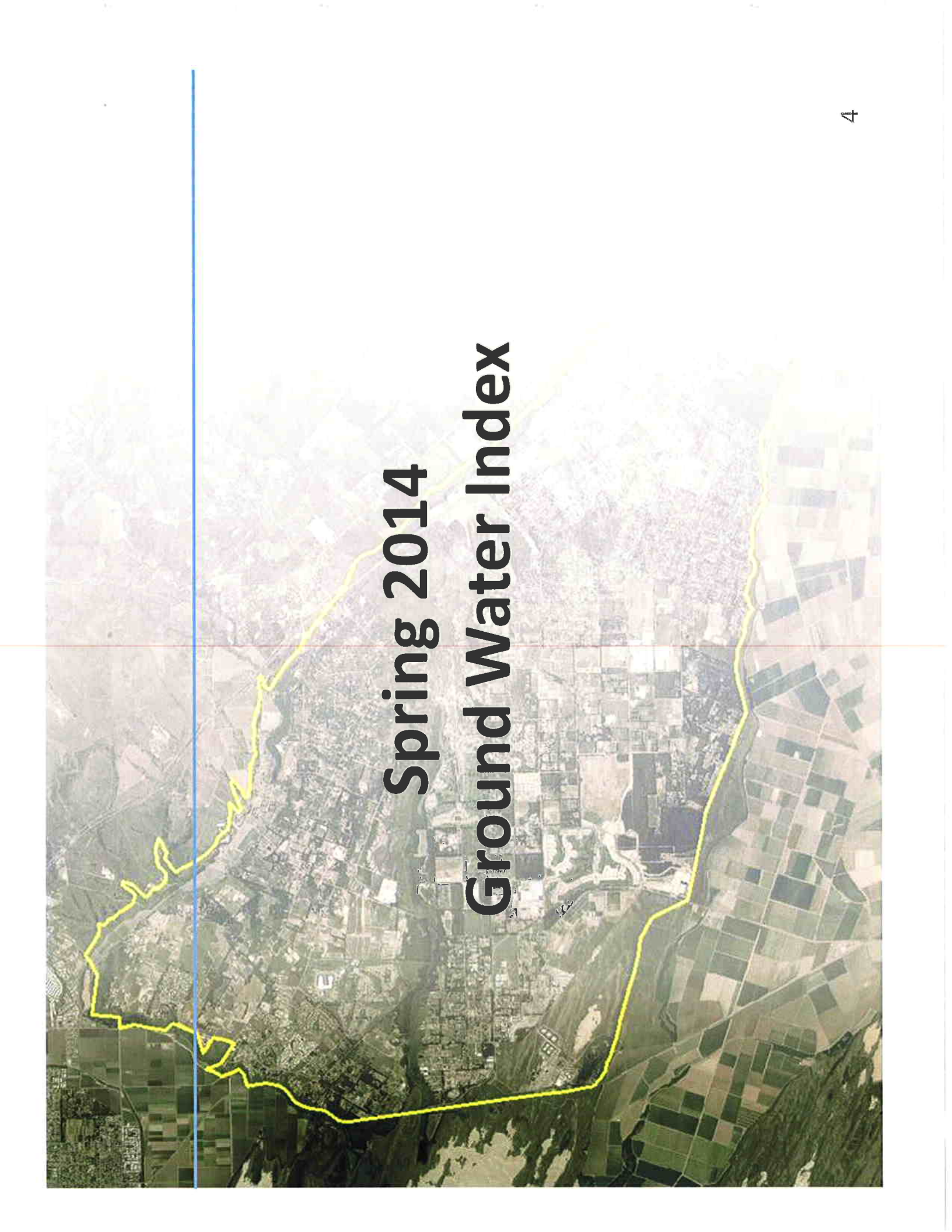
Nipomo East (728)
Currently – 5.75 in.

Nipomo South (730)
Currently – 4.65 in.

Oceano (795)
Currently – 2.92 in.

Cumulative Departure from the Mean Rainfall
Nipomo CDF (151.1)



An aerial photograph of a rural landscape, likely a farm or agricultural area. The image shows a mix of green fields, brown patches, and some buildings. A prominent yellow line outlines a specific area, possibly a water table or a boundary. A vertical blue line is drawn on the left side of the image. The text "Spring 2014 Ground Water Index" is overlaid in the center.

Spring 2014 Ground Water Index

Spring 2014 GWI

GWI

Spring and Fall
Groundwater Index
(GWI, Unitless)

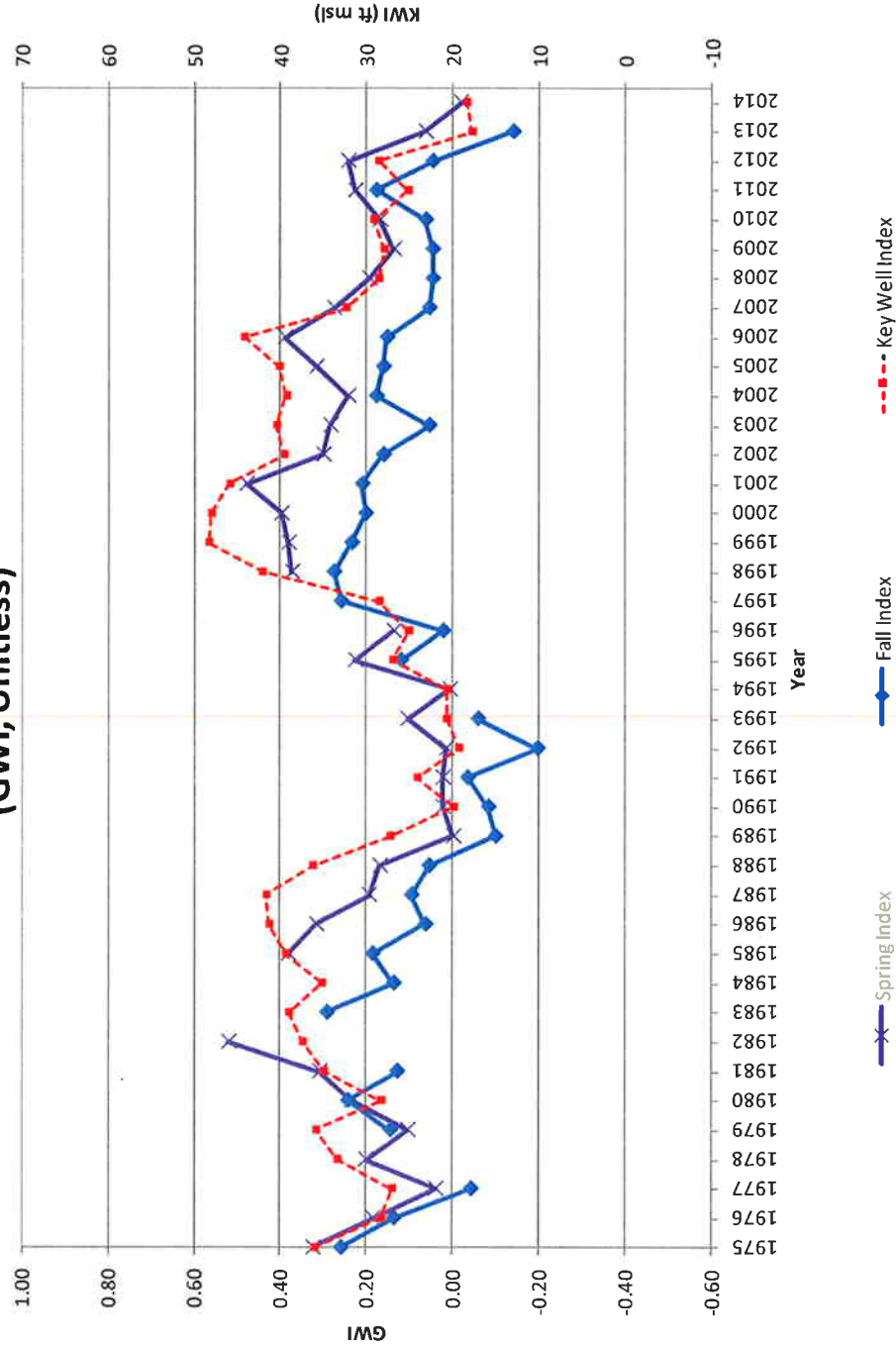
Year	Rainfall (inches)	Spring GWI	Number of Wells	Fall GWI	Number of Wells	Spring to Fall Difference
2000	21.62*	0.3984	44	0.2033	41	0.1951
2001	10.25*	0.4797	43	0.2114	35	0.2683
2002	14.47	0.3008	29	0.1626	41	0.1382
2003	11.39	0.2846	37	0.0569	42	0.2276
2004	12.57	0.2439	42	0.1789	35	0.0650
2005	22.23	0.3171	38	0.1626	39	0.1545
2006	20.83	0.3902	44	0.1545	41	0.2358
2007	7.11	0.2764	44	0.0569	42	0.2195
2008	15.18	0.1951	43	0.0488	42	0.1463
2009	10.31	0.1382	44	0.0488	43	0.0894
2010	20.07	0.1707	45	0.0650	42	0.1057
2011	34.05	0.2276	43	0.1789	43	0.0488
2012	15.35	0.2439	45	0.0488	44	0.1951
2013	8.07*	0.0650	45	(0.1382)	42	0.2033
2014	5.75*	(0.0163)	45			
1999	12.98	0.3821	56	0.2358	49	0.1463
2000	21.62*	0.3984	44	0.2033	41	0.1951
2001	10.25*	0.4797	43	0.2114	35	0.2683
2002	14.47	0.3008	29	0.1626	41	0.1382
2003	11.39	0.2846	37	0.0569	42	0.2276
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2012	15.35	0.2439	45	0.0488	44	0.1951
2013	8.07*	0.0650	45	(0.1382)	42	0.2033
2014	5.75*	(0.0163)	45			

---: Insufficient for evaluation
*: Preliminary value

Spring 2014 GWI

GWI

Spring and Fall
Groundwater Index
(GWI, Unitless)

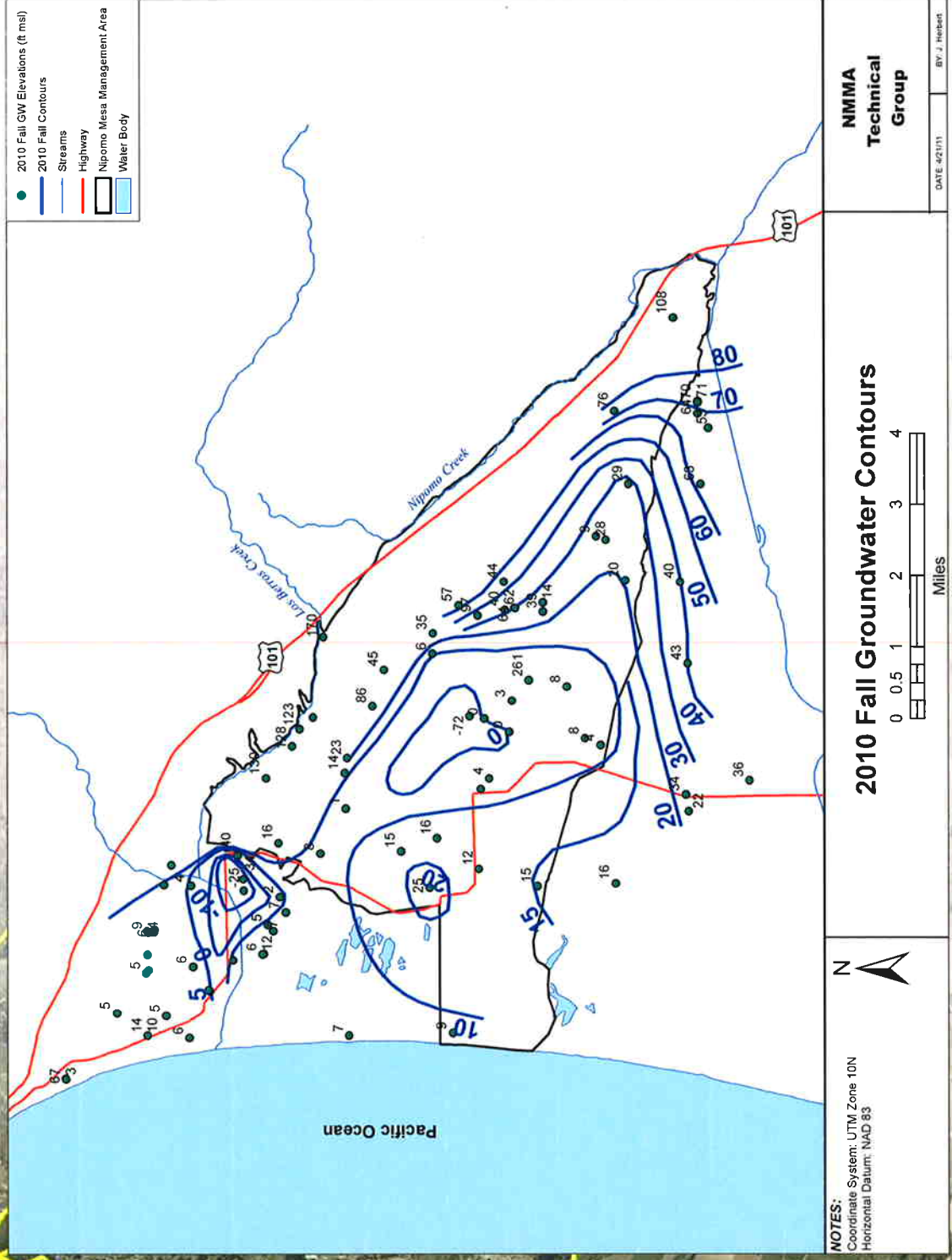


Spring 2014 GWM

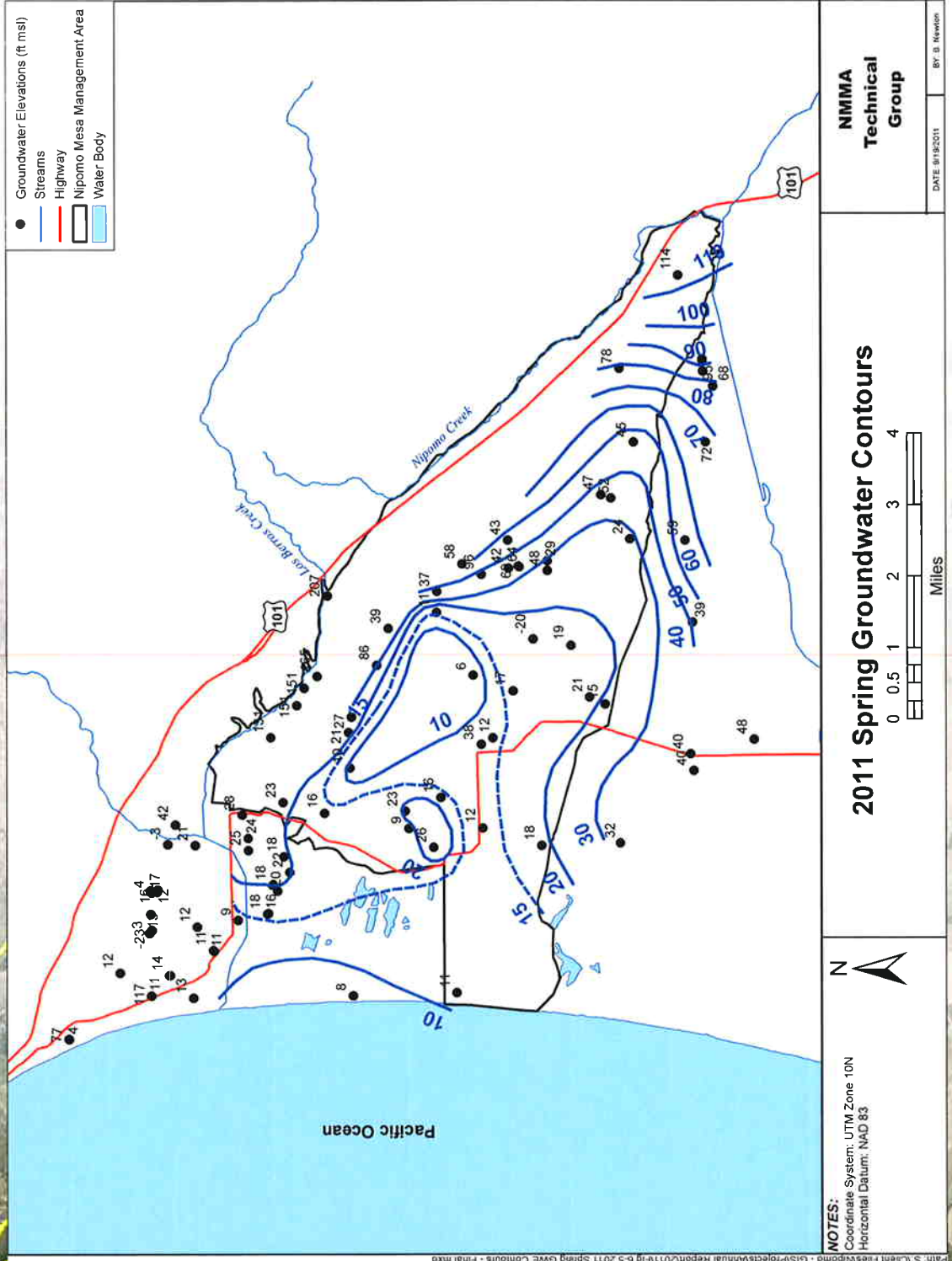
Spatial Distribution

- Groundwater surface elevations are not uniform
- Lowest water levels are in the central and western portion of the Nipomo Mesa
- GWE have declined significantly in a large area in the western portion of the Nipomo Mesa

Groundwater Elevation Map

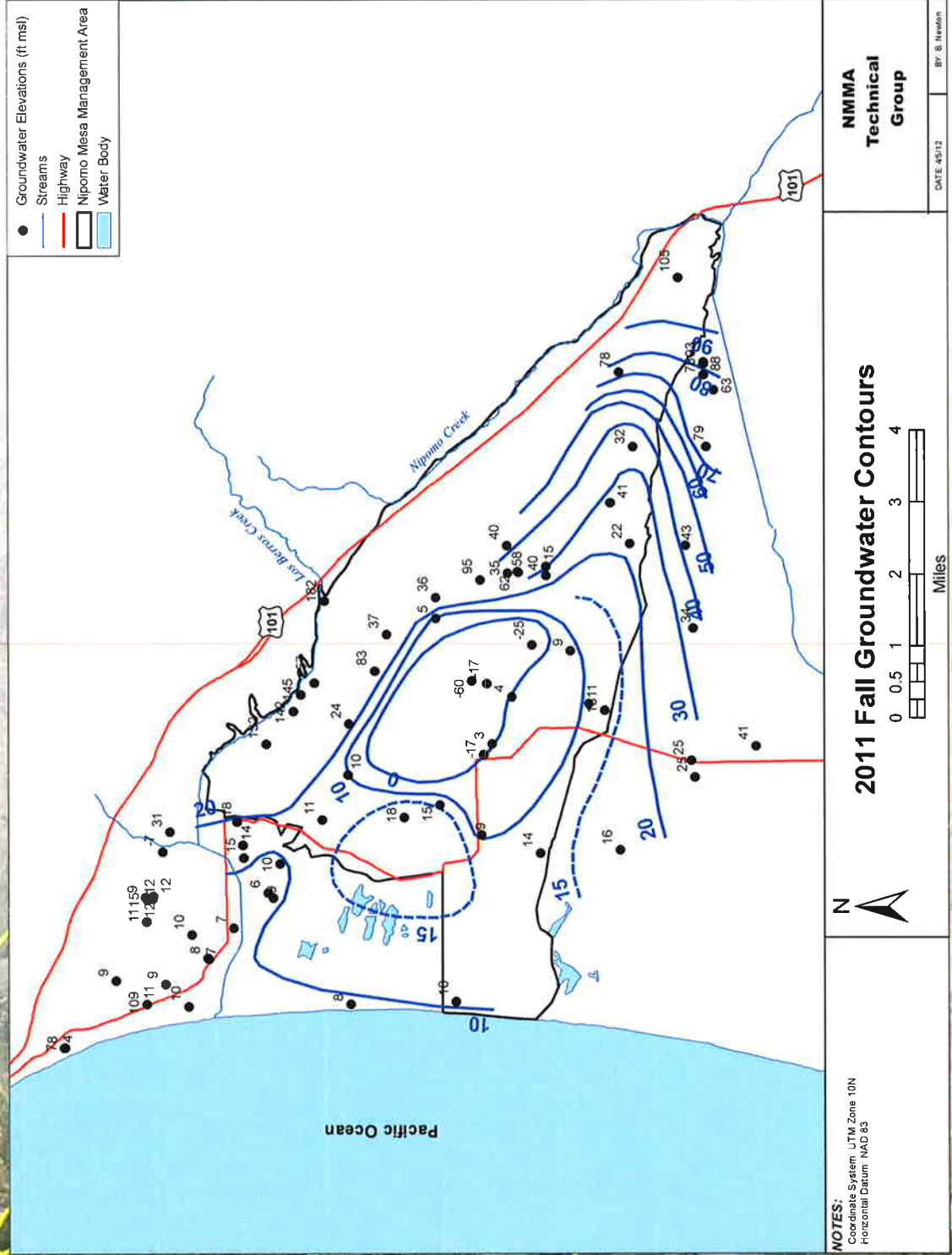


Groundwater Elevation Map



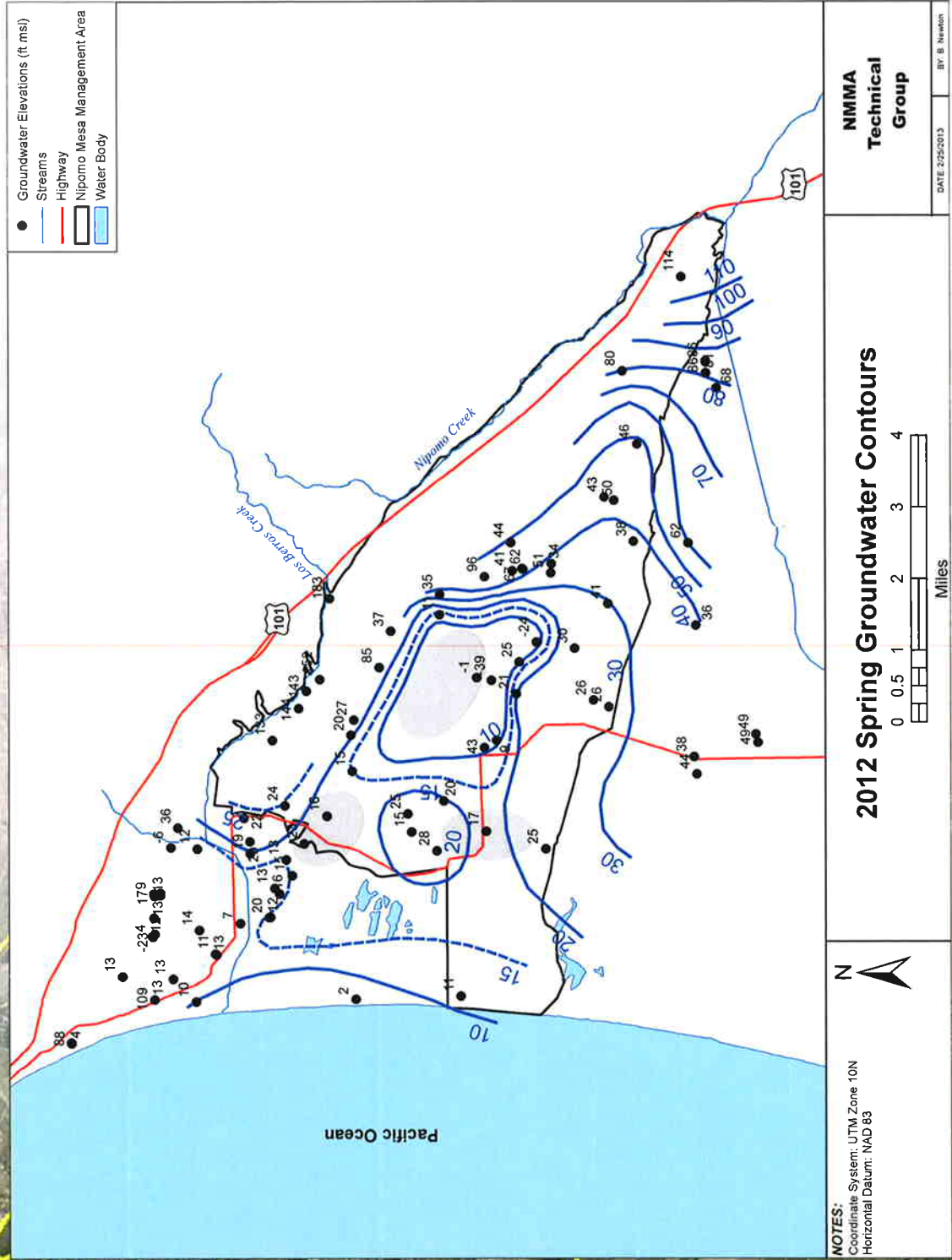
Spring 2014 GW

Groundwater Elevation Map



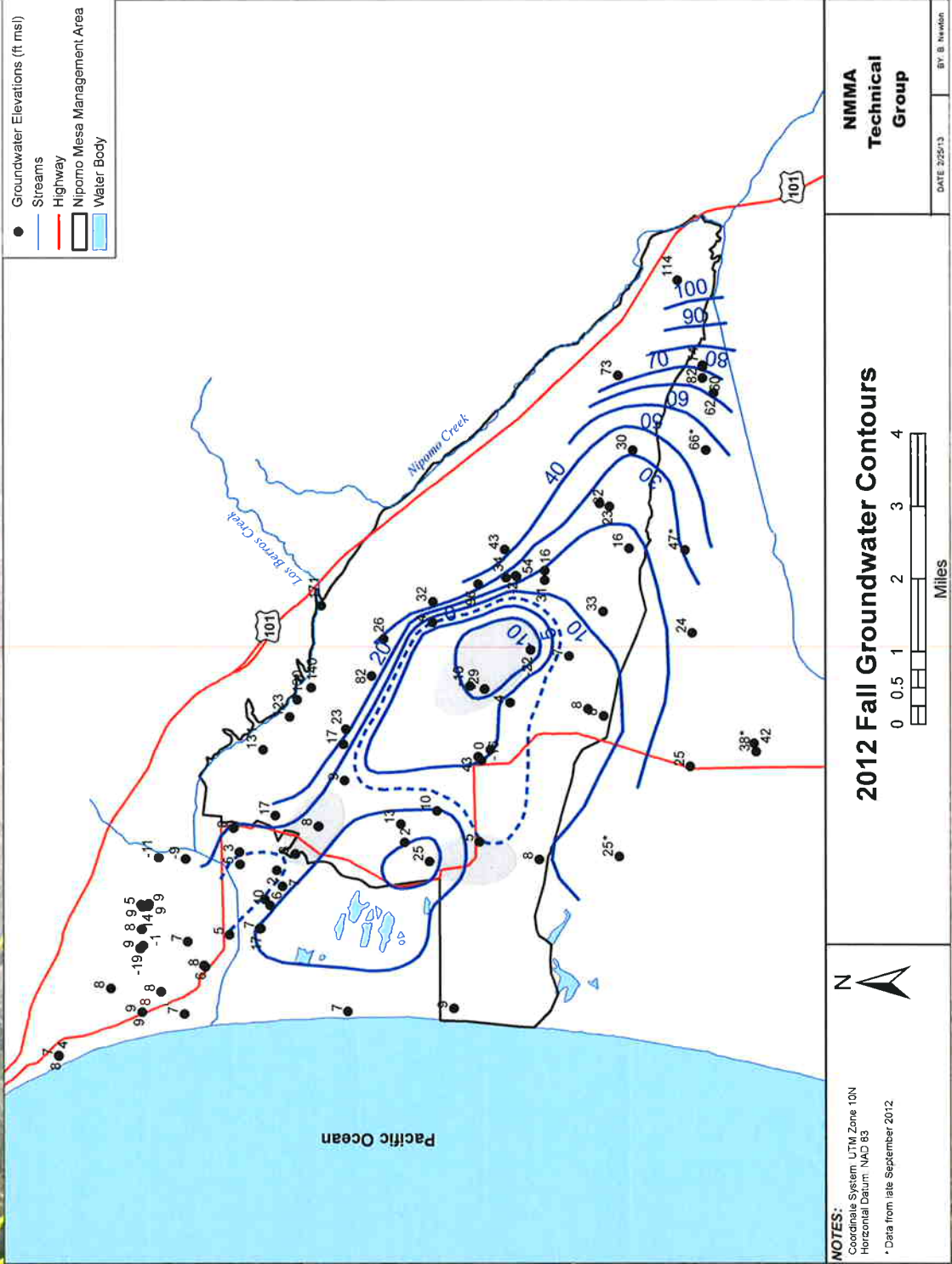
Spring 2014 GWI

Groundwater Elevation Map



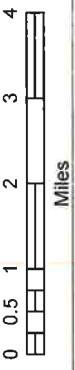
Spring 2014 GWI

Groundwater Elevation Map



NOTES:
 Coordinate System: UTM Zone 10N
 Horizontal Datum: NAD 83
 * Data from late September 2012

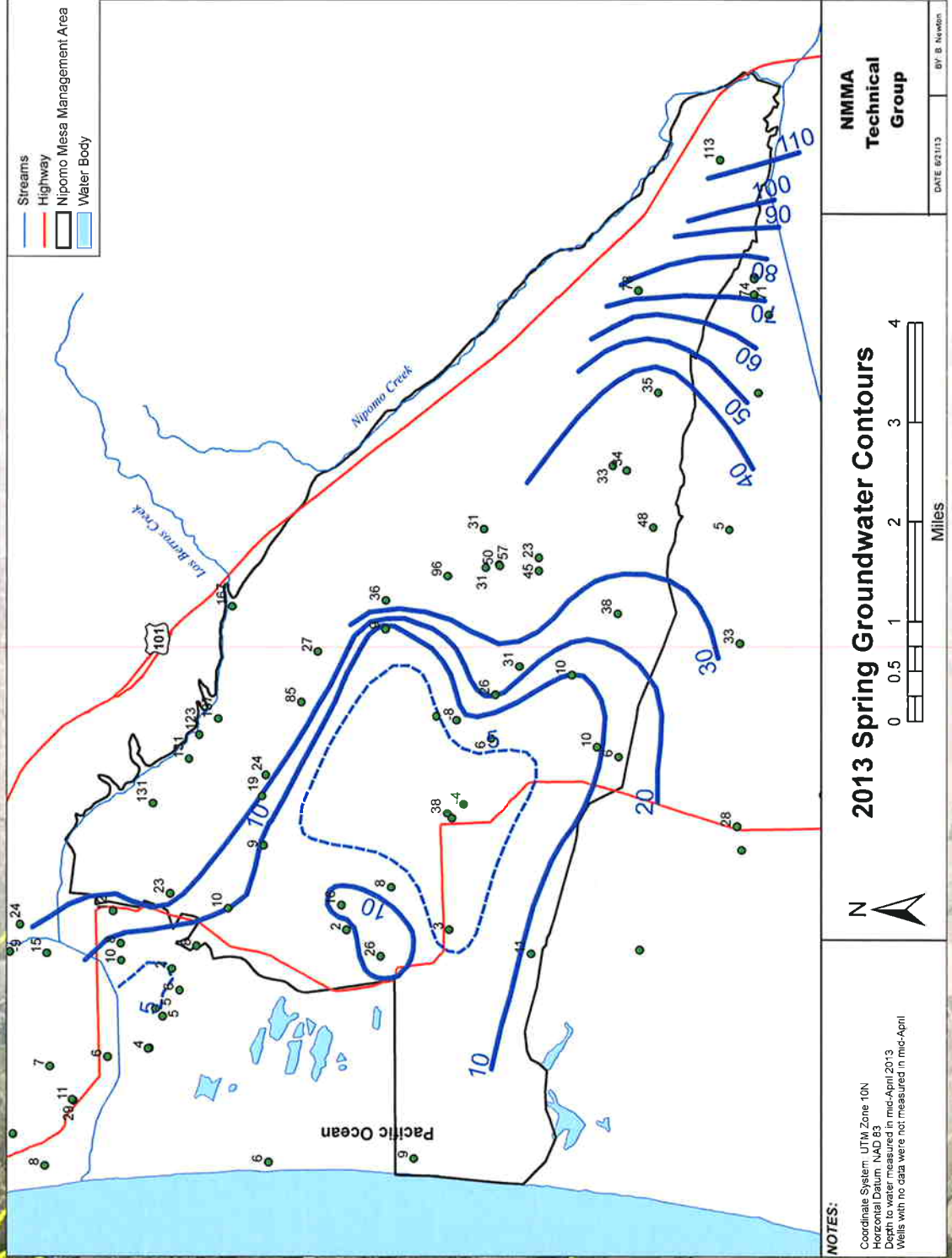
2012 Fall Groundwater Contours



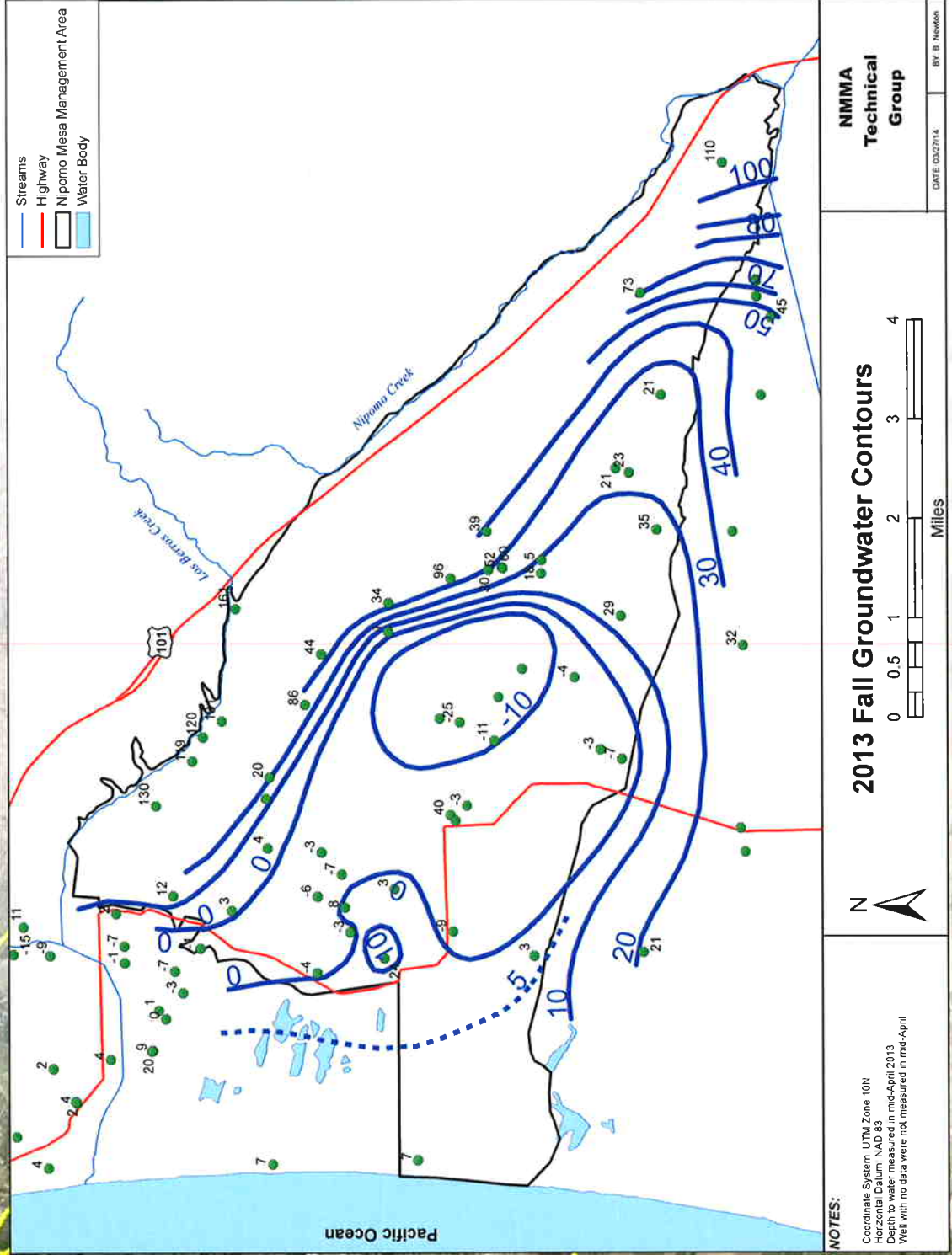
**NMMA
 Technical
 Group**

DATE 2/25/13
 BY: B. Irwin

Groundwater Elevation Map

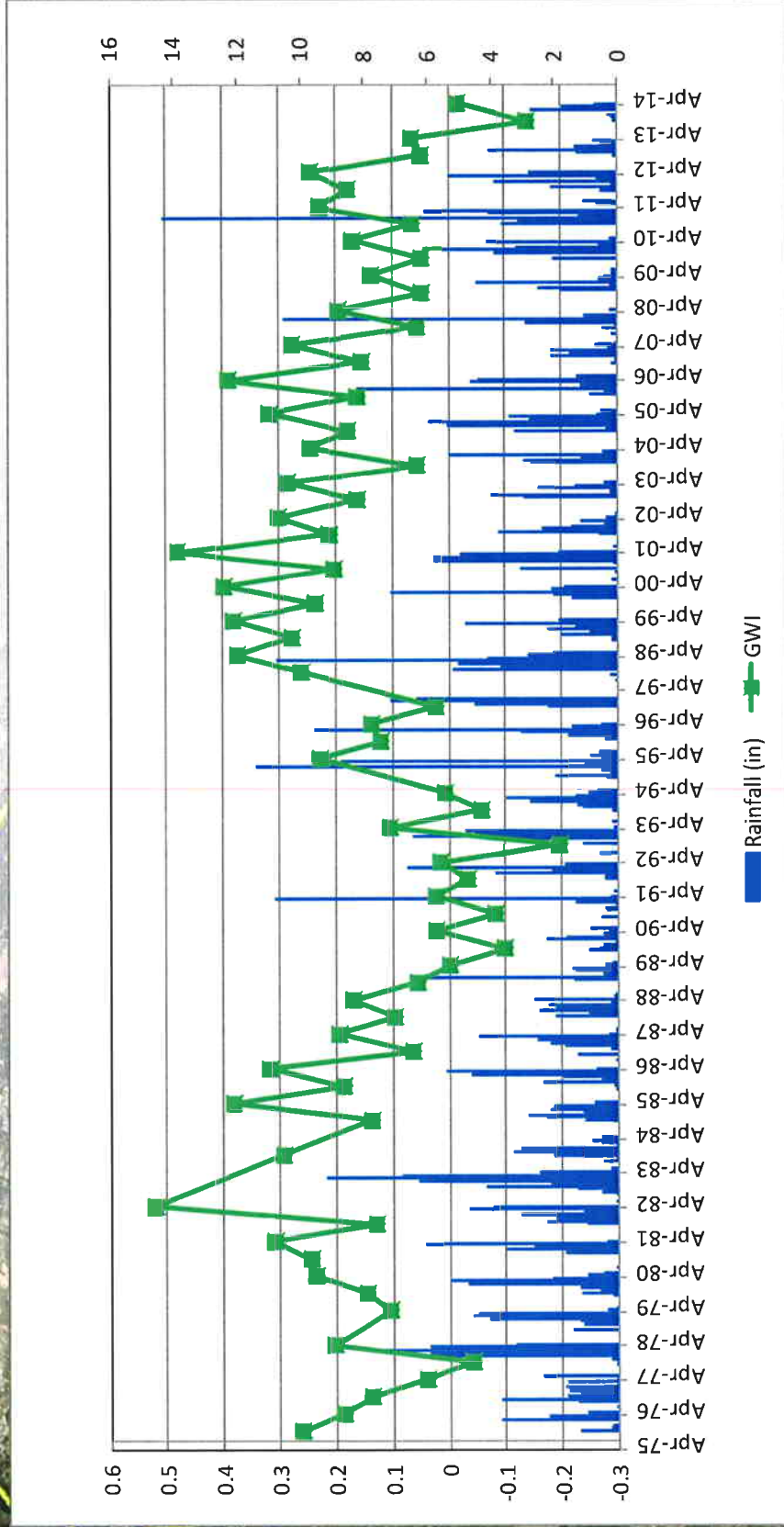


Groundwater Elevation Map



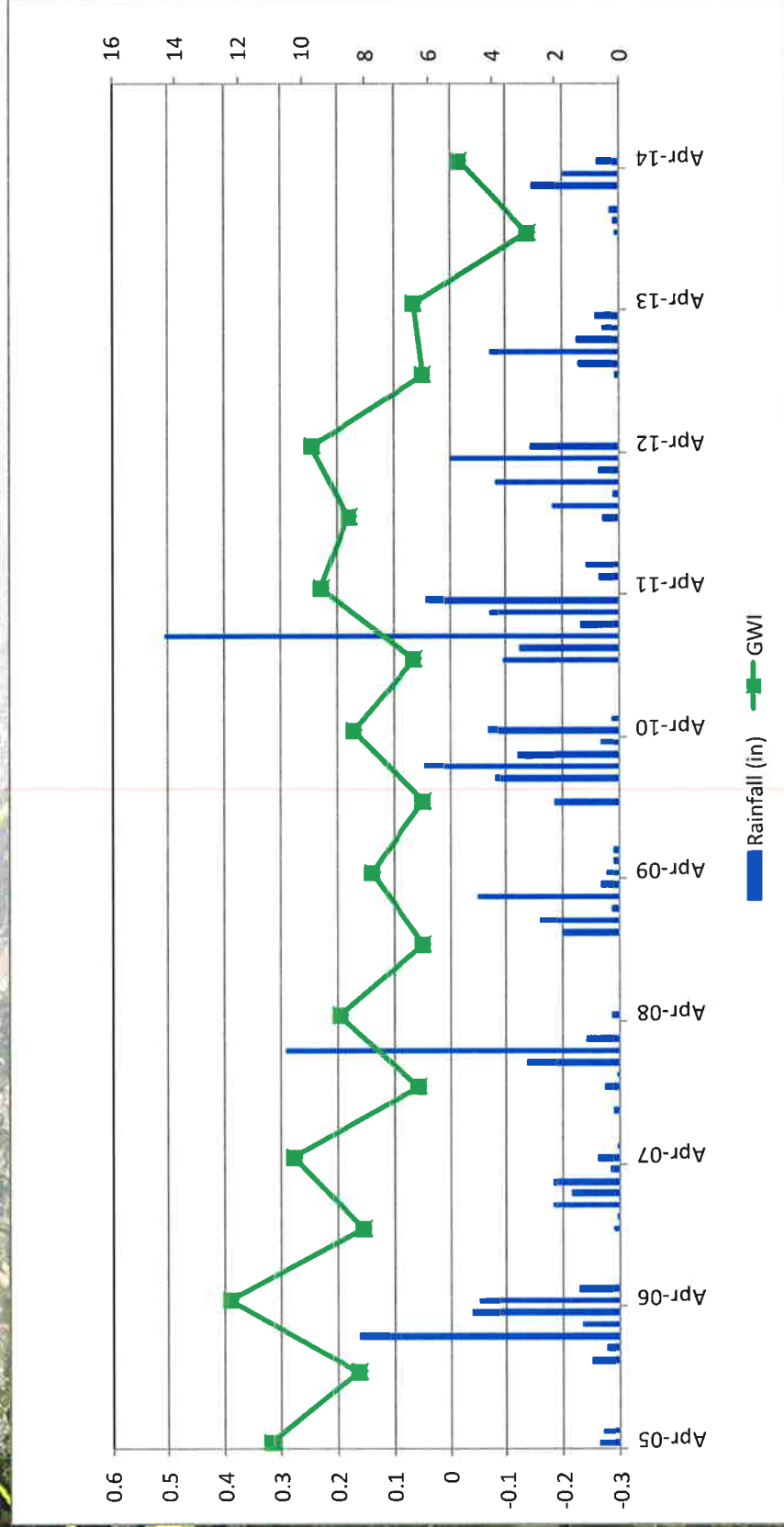
Spring 2014 GWI

When it rains matters!



Spring 2014 GWI

When it rains matters!



An aerial photograph of a rural landscape, likely a valley or river valley. The terrain is a mix of green fields, brownish-tan agricultural plots, and some buildings. A prominent yellow line traces a boundary or path across the landscape, starting from the bottom left, curving around the center, and extending towards the top right. A vertical blue line is positioned on the left side of the image. The text "QUESTIONS?" is overlaid in the center of the image.

QUESTIONS?