

Harold Snyder
P.O. Box 926
Nipomo, CA 93444
(805) 929-2455 H

January 13, 2011

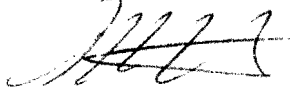
Nipomo Community Services District
148 Wilson Street
P.O. Box 326
Nipomo, CA 93444

(805) 929-1133 Phone
(805) 929-1932 Fax

Dear Michael LeBrun:

I am making a public record request for a copy of the power point presentation at the January 12, 2011 board meeting on the "Groundwater Index Presentation" Item E1 provided to the district by "Brad Newton" that that is in color.

Thank You



Harold Snyder

Hand Delivered.

RECEIVED
JAN 13 2011
NIPOMO COMMUNITY
SERVICES DISTRICT

NIPOMO COMMUNITY

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JAMES HARRISON, PRESIDENT
LARRY VIERHEILIG, VICE PRESIDENT
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SERVICES DISTRICT

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MICHAEL LEBRUN, P.E., INTERIM GENERAL MGR.
LISA BOGNUDA, ASST. GEN. MGR./FINANCE DIR.
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JON SEITZ, GENERAL COUNSEL

148 SOUTH WILSON STREET POST OFFICE BOX 326 NIPOMO, CA 93444 - 0326
(805) 929-1133 FAX (805) 929-1932 Website address: ncsd.ca.gov

January 19, 2010

Mr. Harold Snyder
P.O. Box
Nipomo, CA 93444

SUBJECT: PUBLIC DOCUMENT REQUEST

Dear Mr. Snyder,

Enclosed is a color copy of the Groundwater Index presentation made during the January 12, 2011 regular Board meeting per your January 13, 2011 public records request (Attached).

Please remit \$6.50 at your earliest convenience to cover our cost. (\$1.50 first page, \$.20 each additional page, 26 page document).

Very truly yours,

NIPOMO COMMUNITY SERVICES DISTRICT

Michael LeBrun, P.E.
Interim General Manager

Enclosures:

- Fall 2010 Groundwater Index Presentation
- January 13, 2011

T:\ADMINISTRATIVE-OFFICE\PUBLIC RECORDS REQUESTS\PUBLIC DOCUMENT REQUESTS\SNYDER\110113 GROUNDWATER PWRPOINT.DOCX

An aerial photograph of a rural landscape, likely a farm or agricultural area, with a yellow boundary line tracing a path across the fields. The text is overlaid on the image.

Fall 2010 Groundwater Surface Elevations and Rainfall 2010

Prepared by:

Wagner&Bonsignore

Consulting Civil Engineers, A Corporation

January 12, 2011

Overview

- **Estimate of Fall 2010 Groundwater Index**
- **Rainfall**

An aerial photograph of a rural landscape, likely a valley or agricultural area. A prominent yellow line traces a boundary across the terrain, starting from the top left, curving around a central area, and extending towards the bottom right. A solid blue horizontal line is drawn across the upper portion of the image. The text "Fall 2010 Groundwater Index" is overlaid in the center in a large, bold, black font.

Fall 2010 Groundwater Index

Fall 2010 GWI

GWI Estimate

Spring and Fall
Groundwater Index
(GWI)

Year	Rainfall (inches)	Spring GWI (Acre-Feet)	Number of Wells	Fall GWI (Acre-Feet)	Number of Wells	Spring to Fall Difference (Acre-Feet)
1975	17.29	99,000	54	91,000	54	8,000
1976	13.45	82,000	45	76,000	65	6,000
1977	10.23	64,000	59	54,000	63	10,000
1978	20.66	84,000	62	76,000	35	8,000

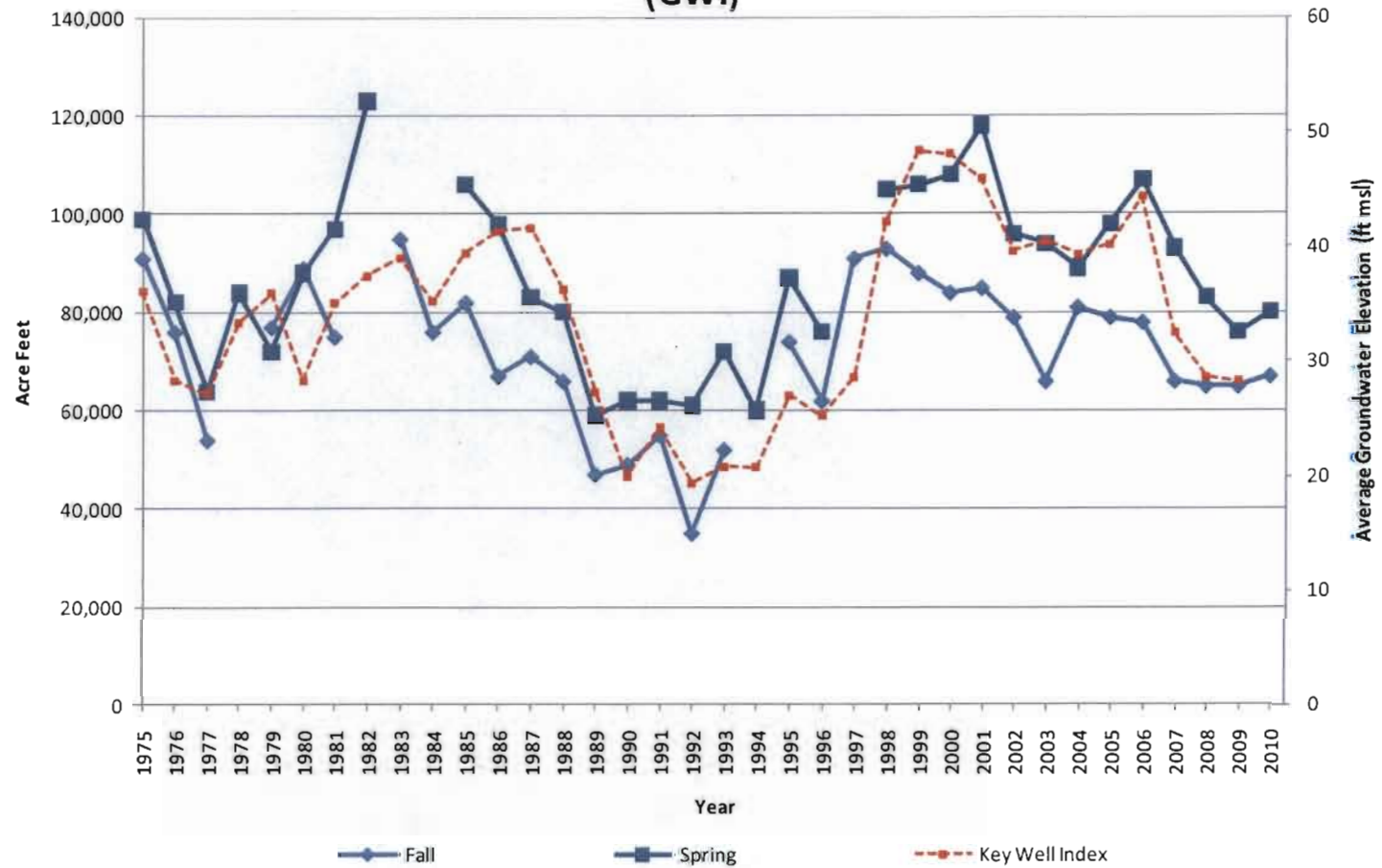
Year	Rainfall (inches)	Spring GWI (Acre-Feet)	Number of Wells	Fall GWI (Acre-Feet)	Number of Wells	Spring to Fall Difference (Acre-Feet)
2008	15.18	83,000	43	65,000	42	18,000
2009	10.31	76,000	44	65,000	43	11,000
2010	17.05	80,000	45	67,000	42	13,000

1992	15.06	81,000	52	55,000	48	26,000
1993	20.17	72,000	54	52,000	61	20,000
1994	12.15	60,000	54	---	36	---
1995	25.47	87,000	35	74,000	52	25,000
1996	16.54	76,000	45	62,000	57	14,000
1997	20.50	---	20	91,000	48	---
1998	33.67	105,000	41	93,000	44	12,000
1999	12.98	106,000	56	88,000	49	18,000
2000	14.47	108,000	44	84,000	41	24,000
2001	18.78	118,000	43	85,000	35	33,000
2002	8.86	96,000	29	79,000	41	17,000
2003	11.39	94,000	37	66,000	42	28,000
2004	12.57	89,000	42	81,000	35	8,000
2005	22.23	98,000	38	79,000	39	19,000
2006	20.83	107,000	44	78,000	41	29,000
2007	6.96	93,000	44	66,000	42	27,000
2008	15.18	83,000	43	65,000	42	18,000
2009	10.31	76,000	44	65,000	43	11,000
2010	17.05	80,000	45	67,000	42	13,000

Fall 2010 GWI

GWI Estimate

Spring and Fall Groundwater Index (GWI)



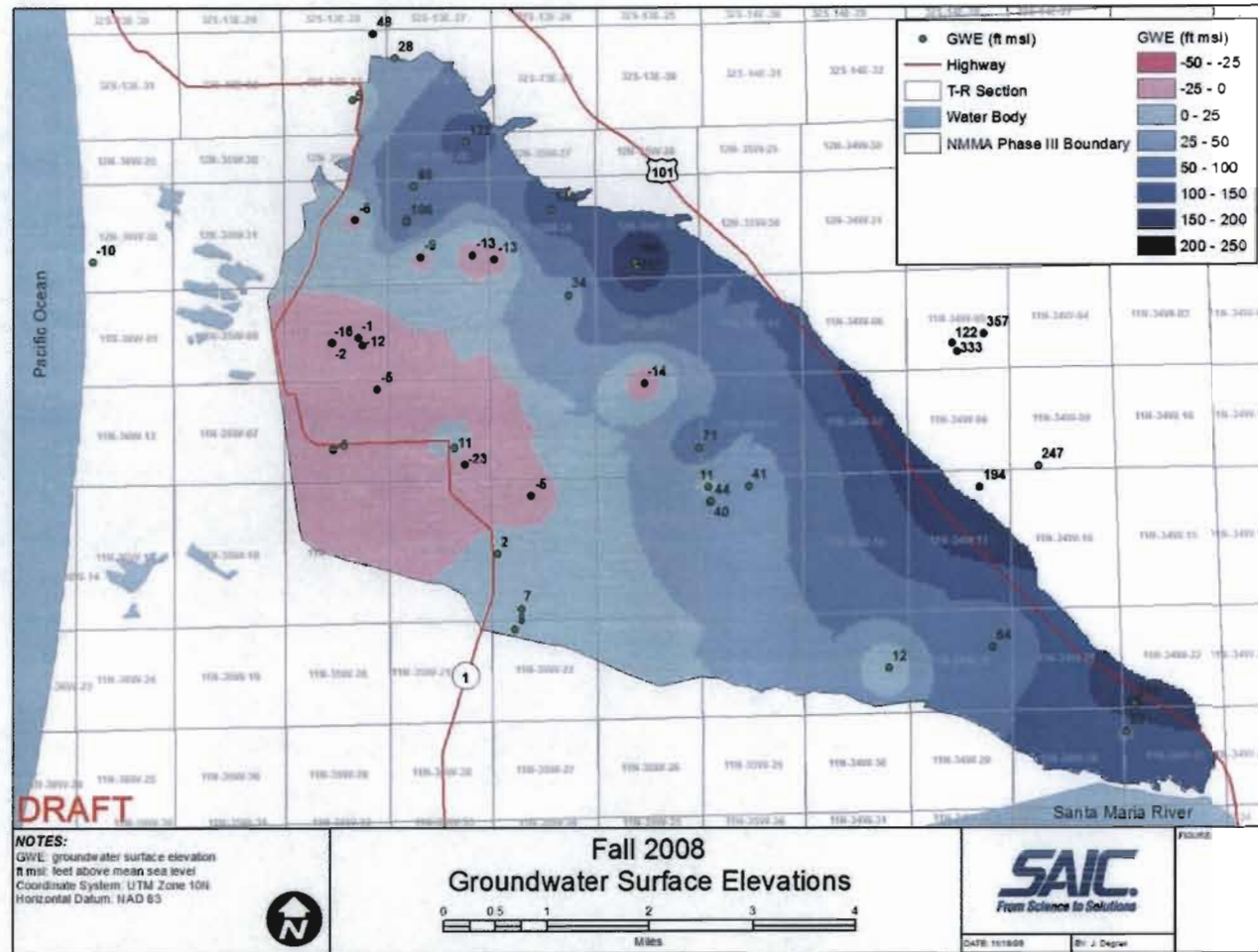
Fall 2010 GWI

Spatial Distribution

- **Groundwater surface elevations are not uniform**
- **Lowest water levels are in the central and western portion of the Nipomo Mesa**
- **Several GWE are below sea level in the western portion of the Nipomo Mesa**

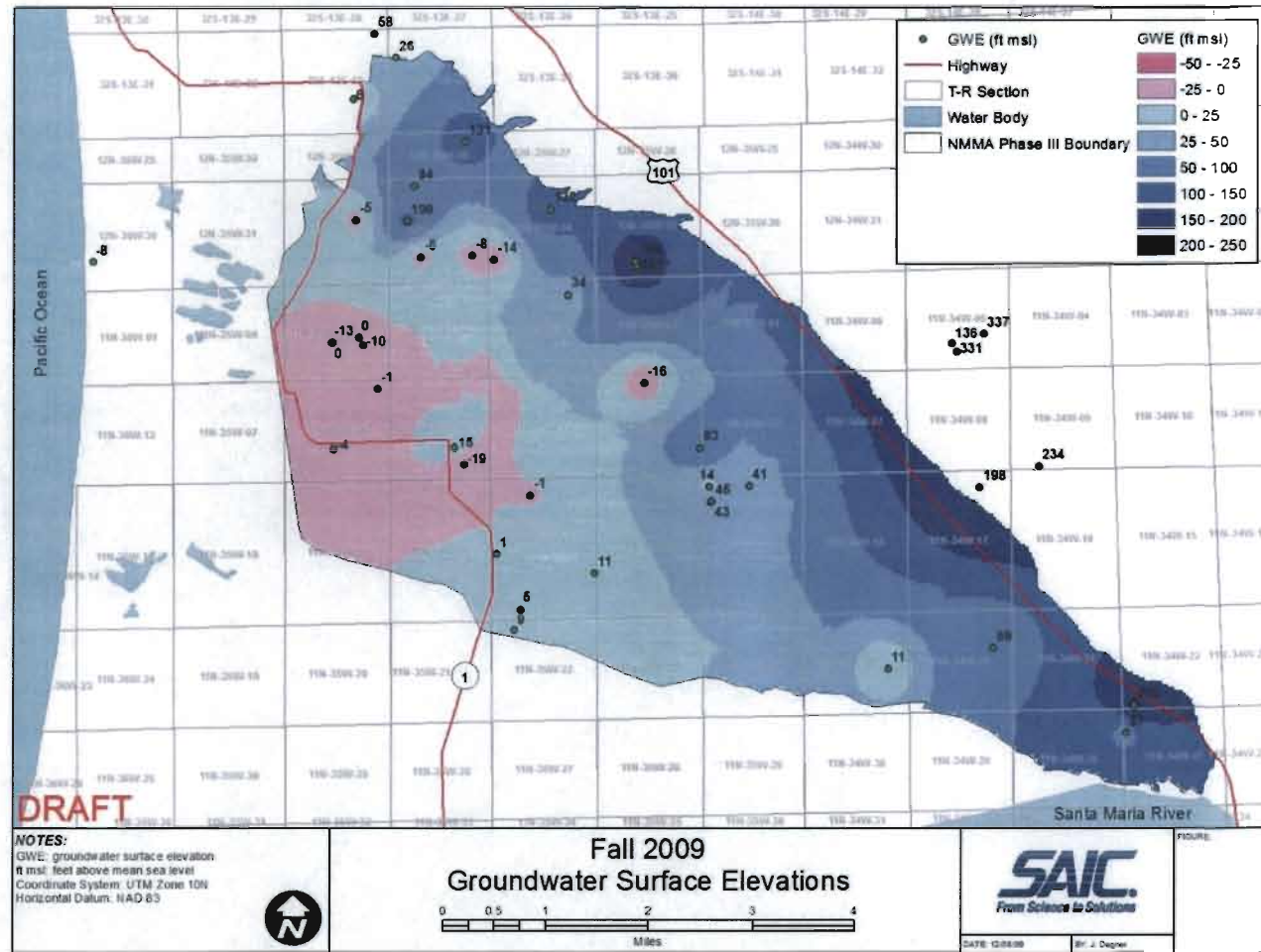
Fall 2010 GWI

Groundwater Surface Elevation Map



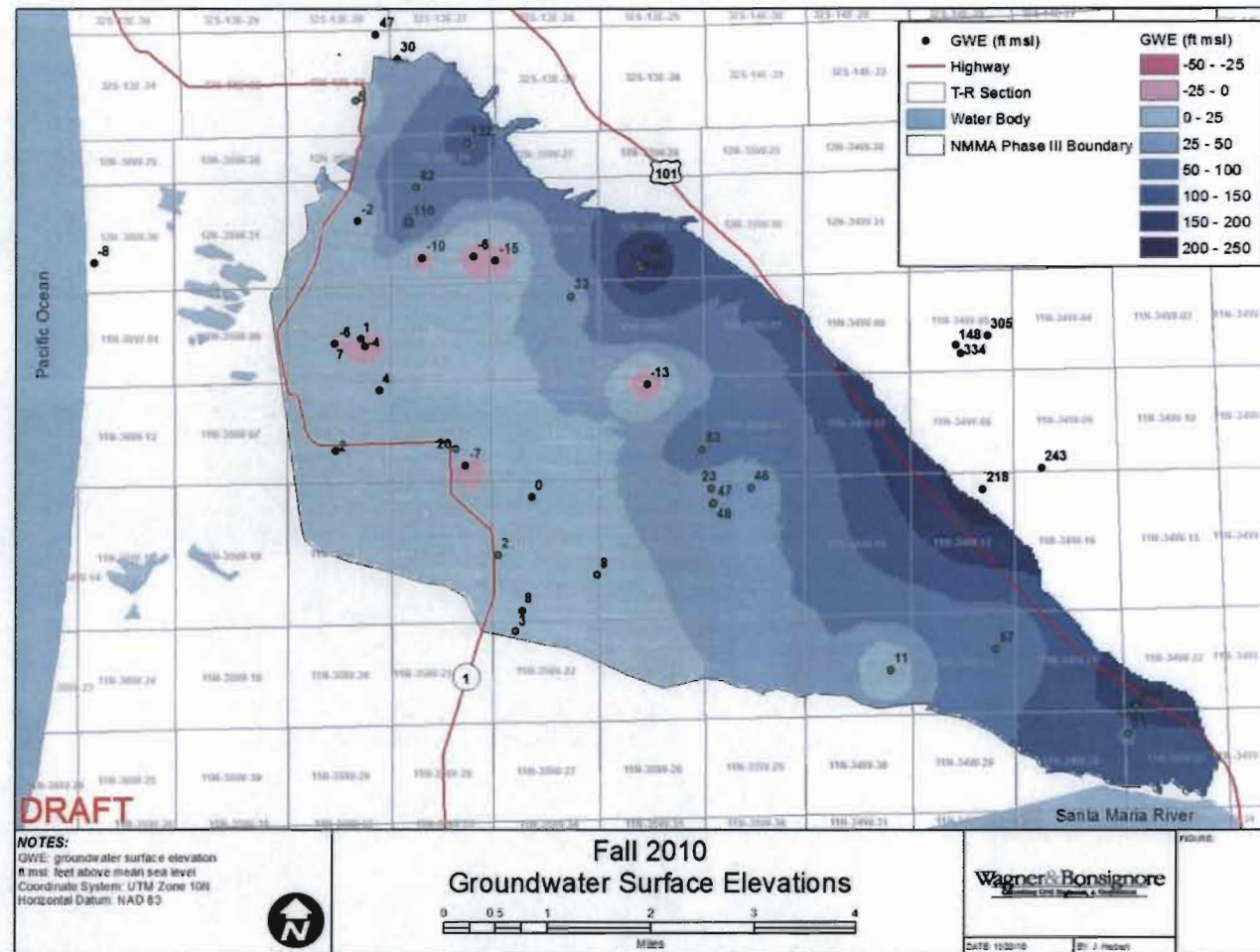
Fall 2010 GWI

Groundwater Surface Elevation Map



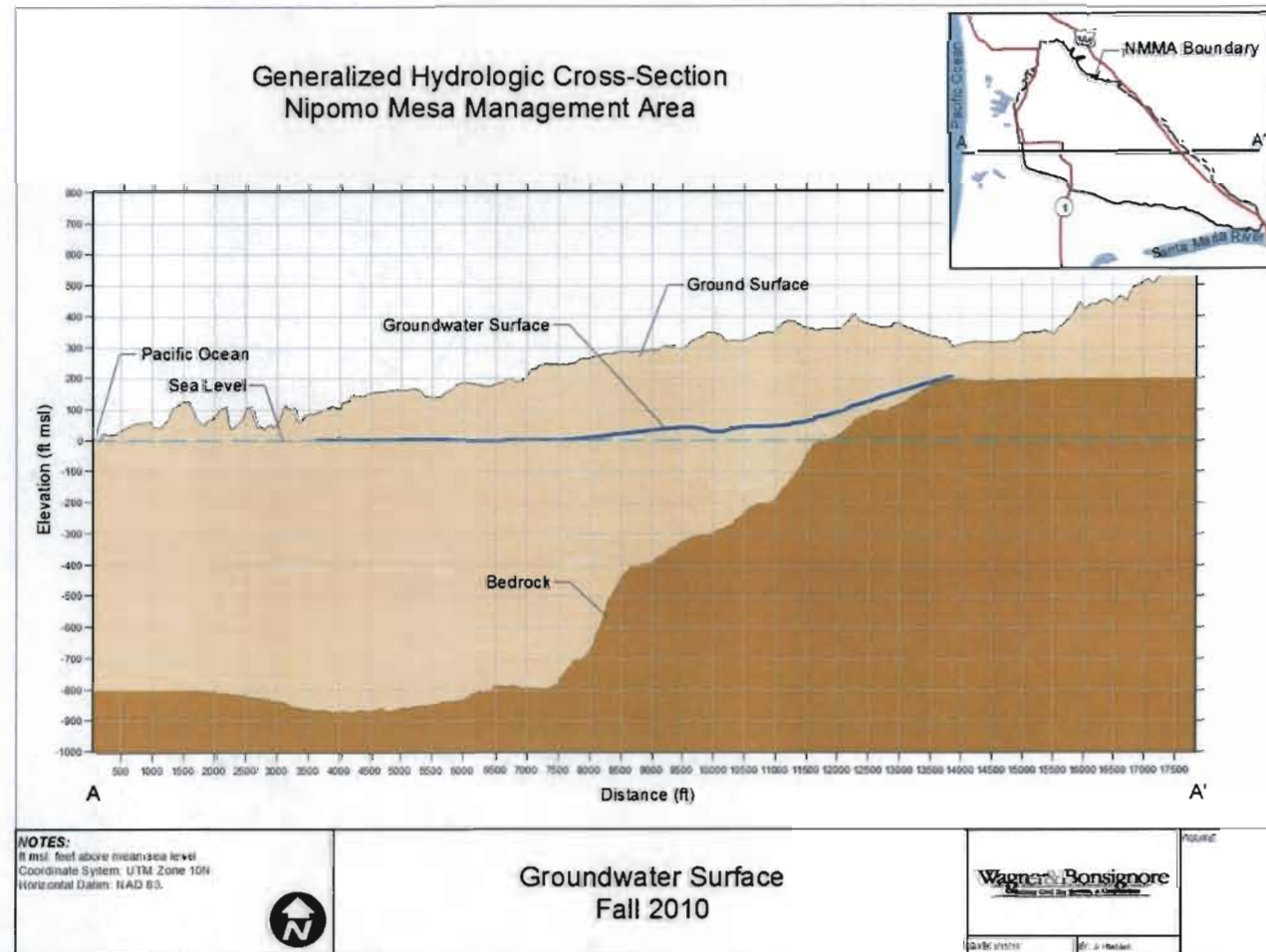
Fall 2010 GWI

Groundwater Surface Elevation Map



Fall 2010 GWI

Groundwater Cross-Section



An aerial photograph of the Nipomo Mesa area. A yellow line outlines a specific region, and a blue horizontal line is drawn across the top. The text "Rainfall across the Nipomo Mesa" is centered over the image.

Rainfall across the Nipomo Mesa

Rainfall

Annual Data

Water Year	Mehlschau (38)	Nipomo CDF (151.1)
1990-1991	16.47	13.18
1991-1992	18.02	15.66
1992-1993	22.2	20.17
1993-1994	13.87	12.15
1994-1995	31.47	25.87
1995-1996	18.57	16.54
1996-1997	23.38	20.5
1997-1998	39.05	33.67
1998-1999	15.53	12.98
1999-2000	19.93	
2000-2001	21.62	
2001-2002	10.25	
2002-2003	16.95	11.39
2003-2004	13.35	12.57
2004-2005	25.81	22.23
2005-2006	26.52	20.83
2006-2007	8.22	7.11
2007-2008	15.8	15.18
2008-2009	12.15	10.31
2009-2010	21.82	20.07
Period of Record Average	16.7	15.5

2010-2011

Oceano (795)
Currently – 14.96 in.

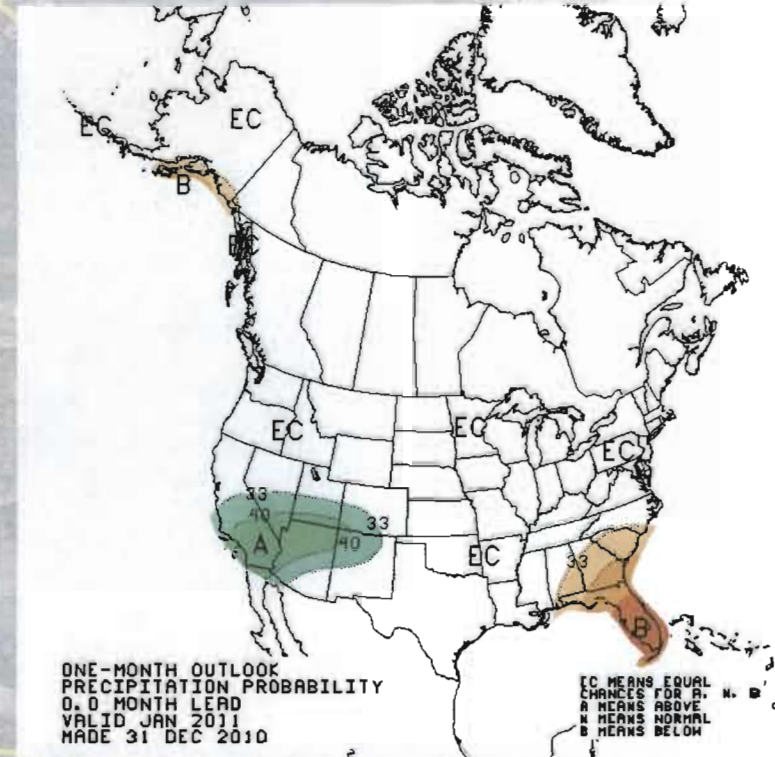
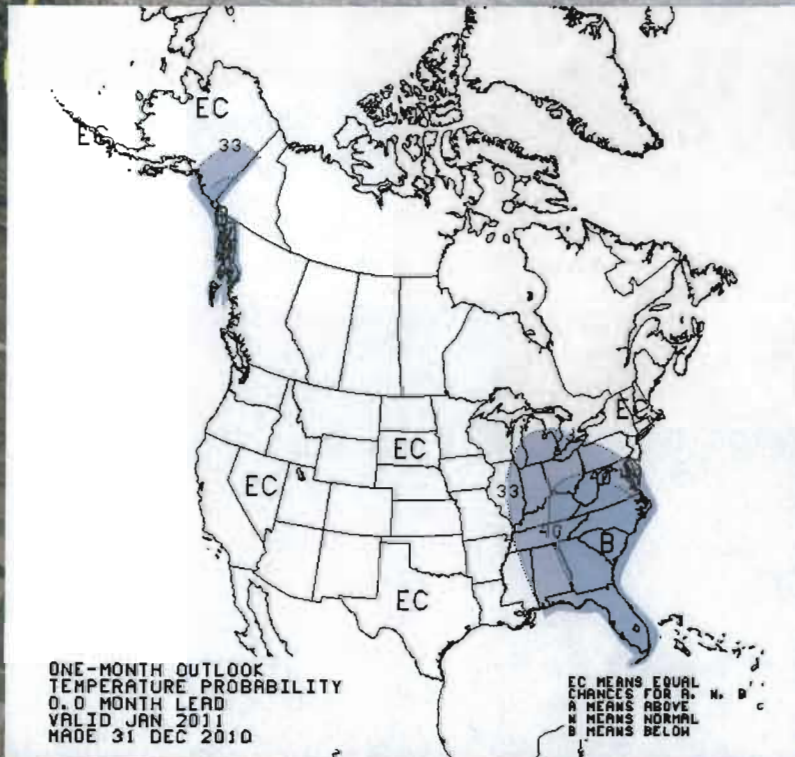
Nipomo South (730)
Currently – 16.57 in.

Nipomo East (728)
Currently – 18.3 in.

Rainfall

One Month Outlook

Jan 2011 - REVISED

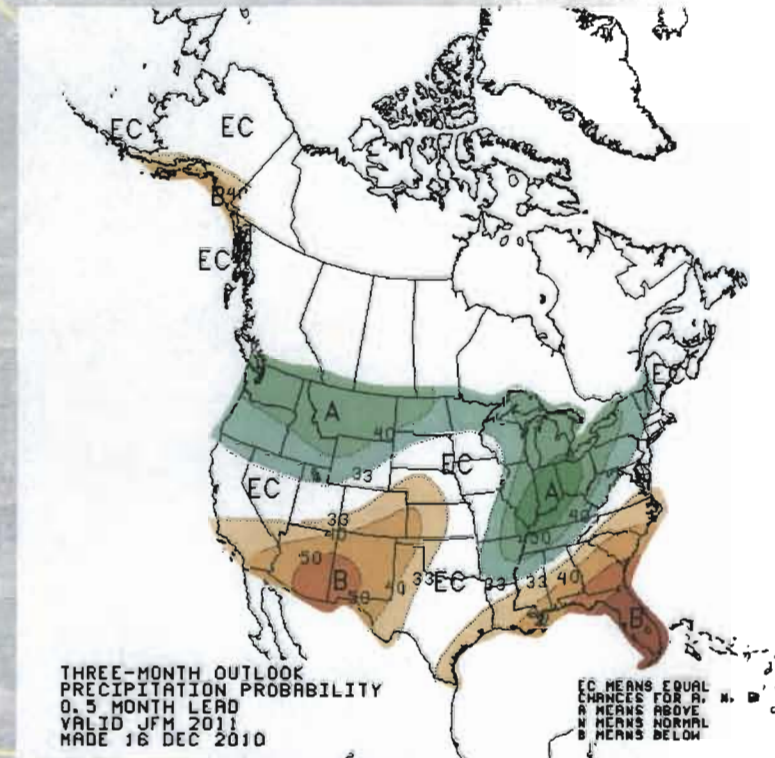
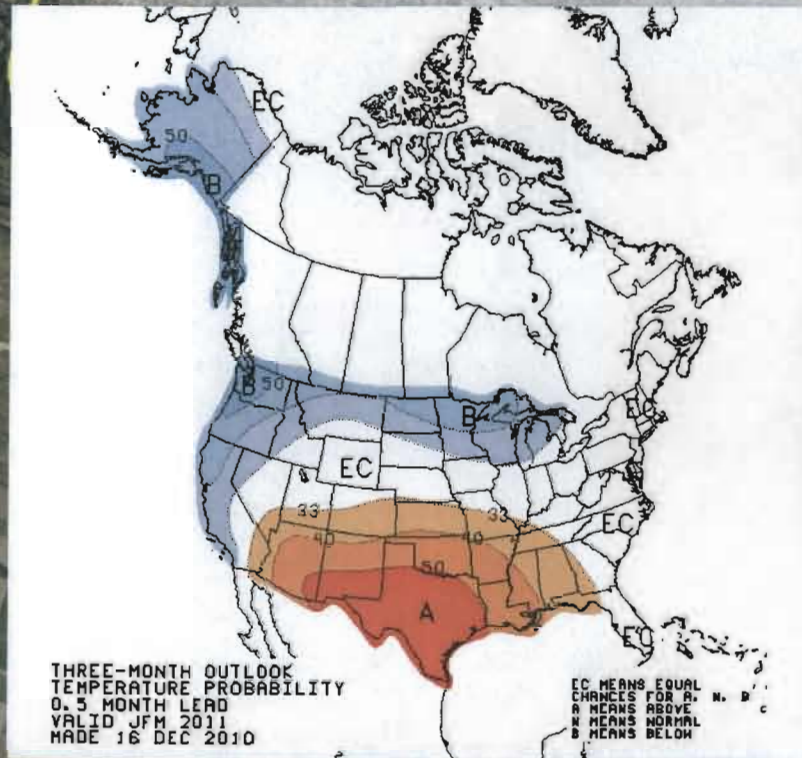


http://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead14/index.php

Rainfall

Three Month Outlooks

Jan-Feb-Mar 2011

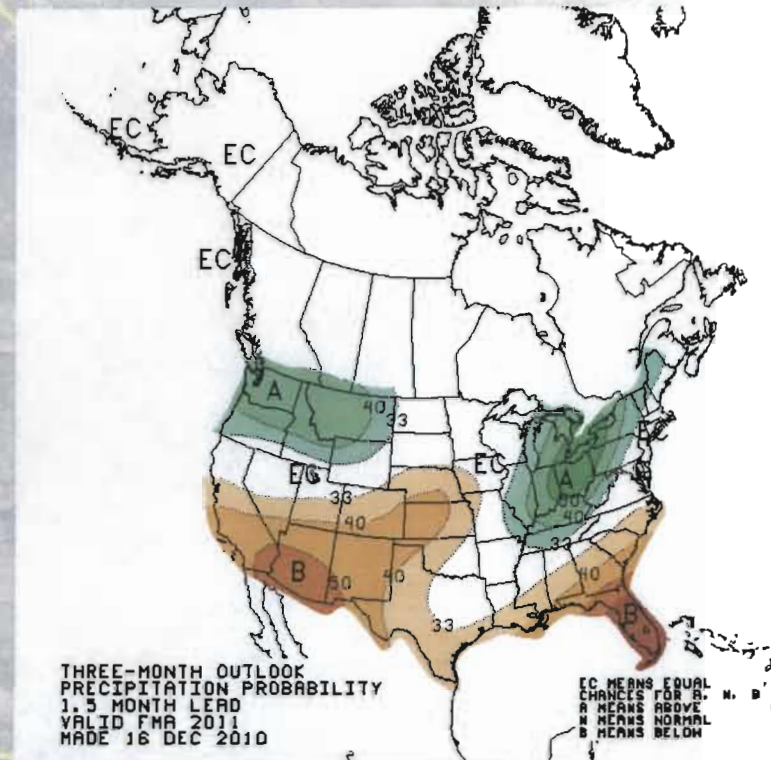
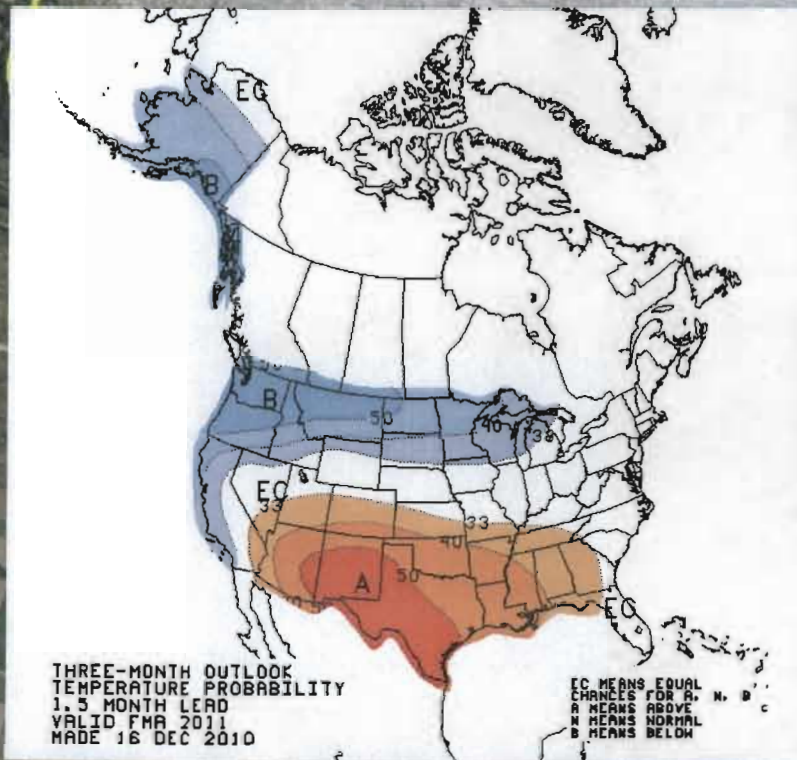


http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1

Rainfall

Three Month Outlooks

Feb-Mar-Apr 2011

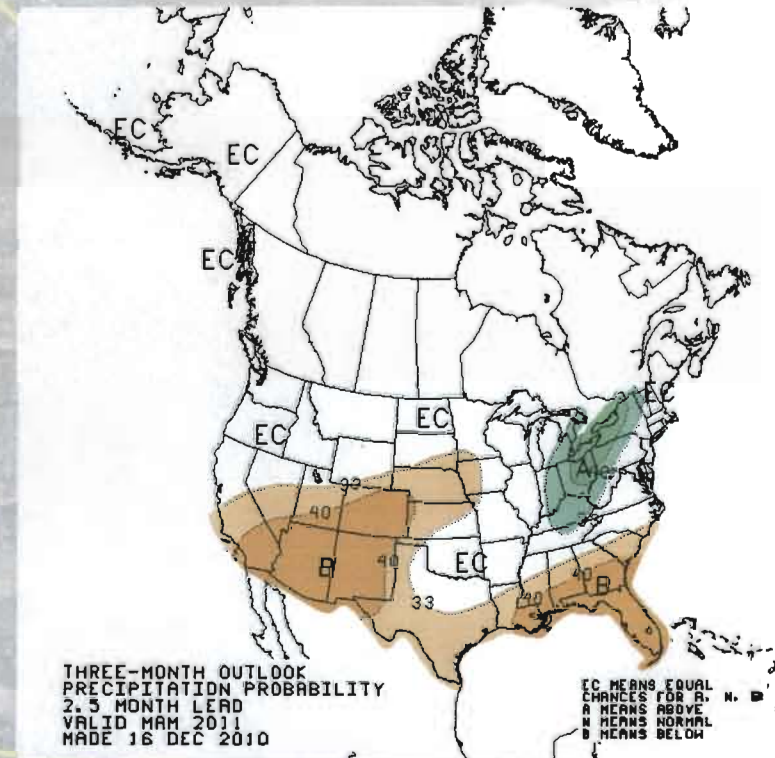
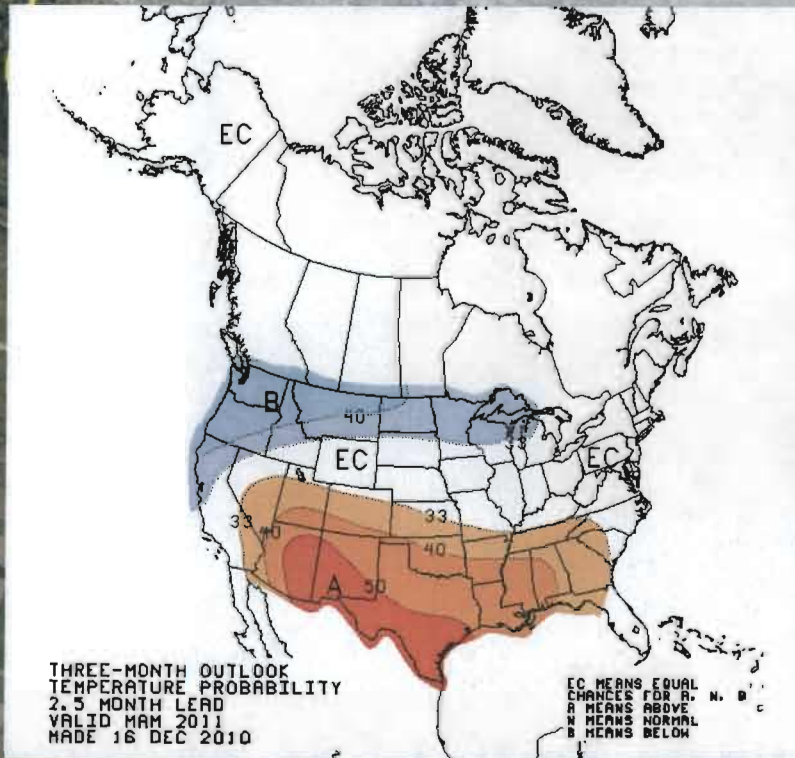


http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=2

Rainfall

Three Month Outlooks

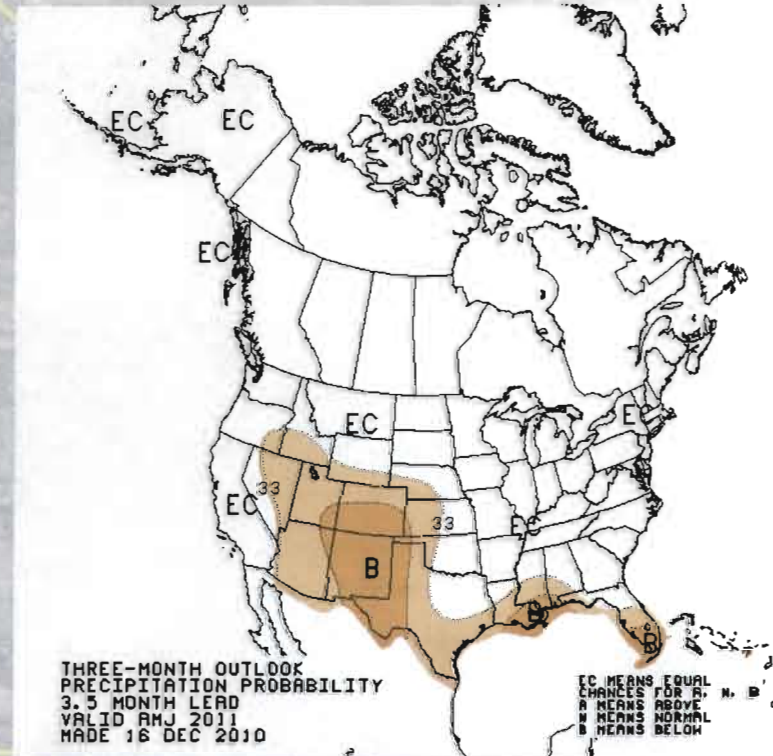
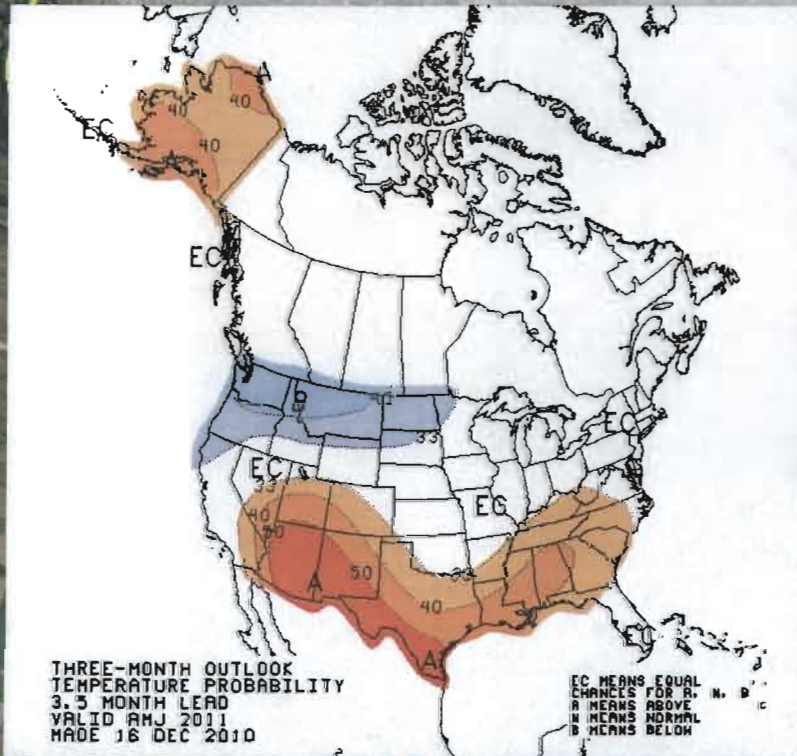
Mar-Apr-May 2011



Rainfall

Three Month Outlooks

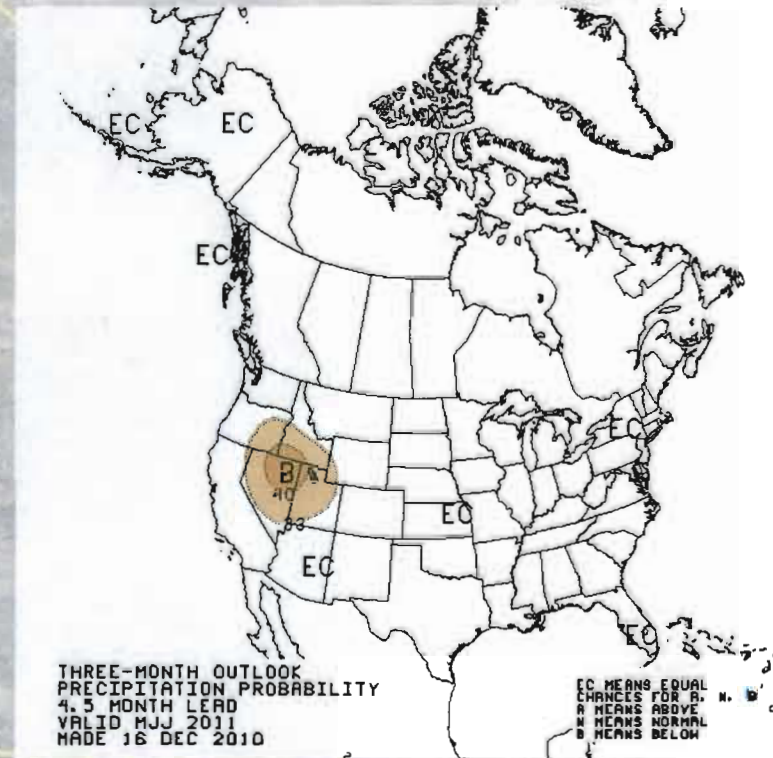
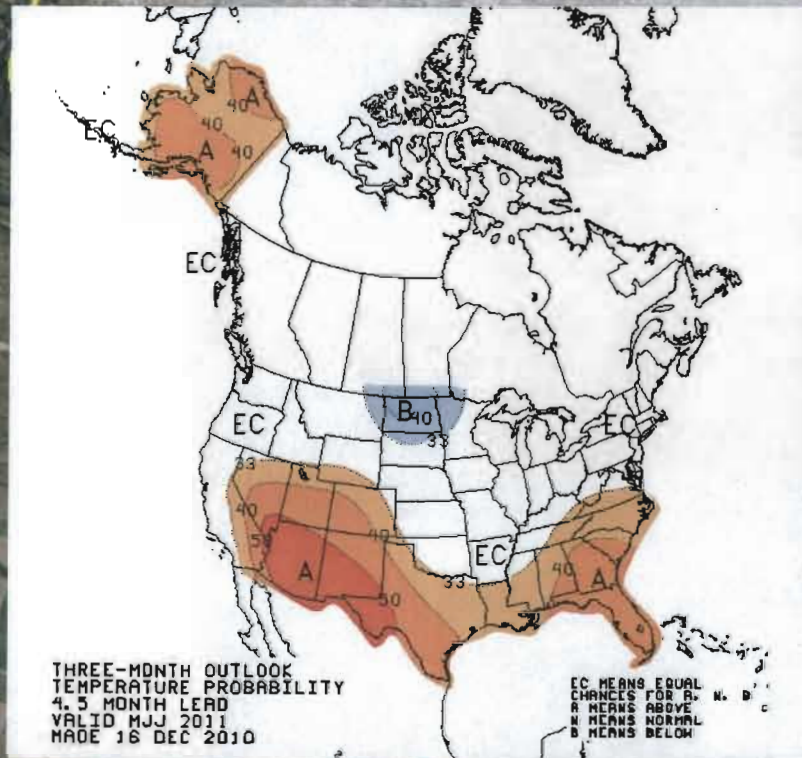
Apr-May-Jun 2011



Rainfall

Three Month Outlooks

May-Jun-Jul 2011



http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=5

30-Day Outlook

January 2011

- LA NINA conditions continue
- Climate Prediction Center forecast calls for above average precipitation (>3.3 in.) over Southern California in January
- 10 day weather models (GFSx 500 mb/SL Pres) suggest high-pressure to build off our coast after mid-week cold front passes (no rain)

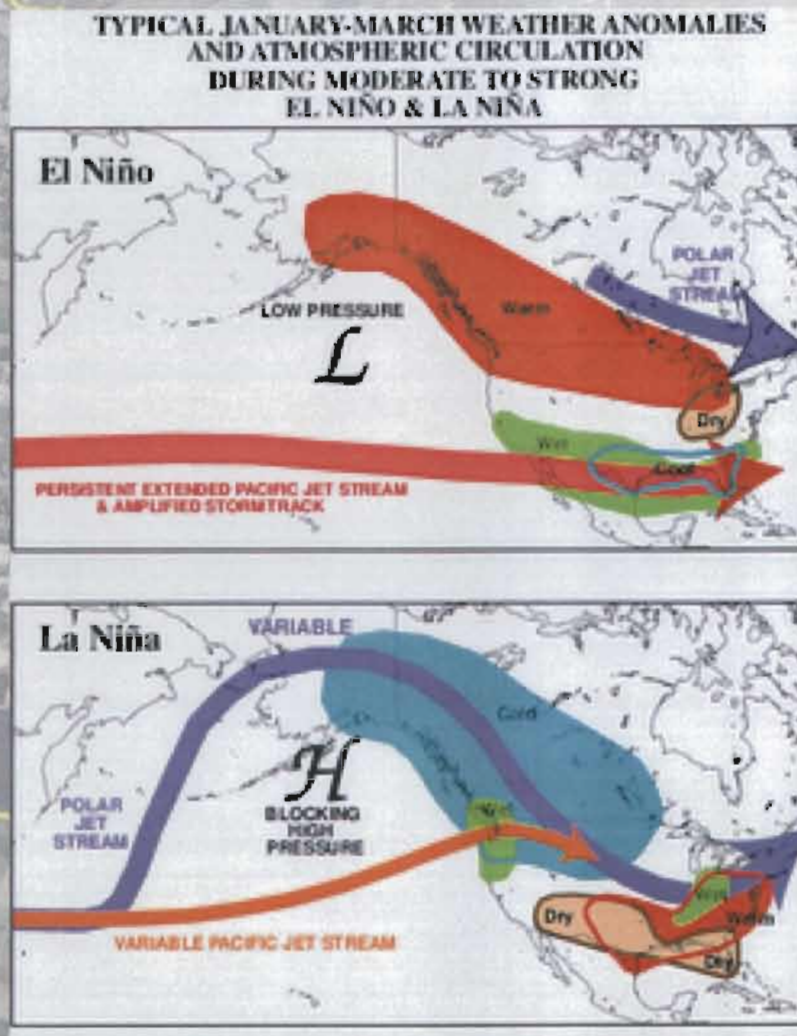
An aerial photograph of a rural landscape, possibly a valley or agricultural area, with a yellow boundary line tracing a path across the terrain. A blue horizontal line is drawn across the upper portion of the image. The text "ENSO" and "El Niño Southern Oscillation" is overlaid in the center.

ENSO

El Niño Southern Oscillation

Fall 2010 GWI

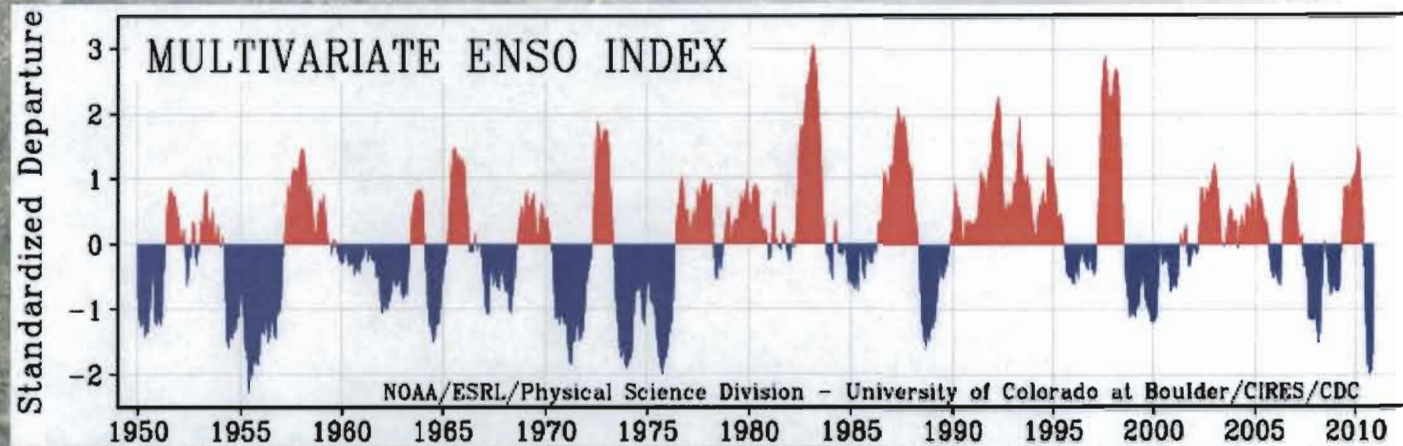
El Niño – La Niña



http://en.wikipedia.org/wiki/Effects_of_the_El_Ni%C3%B1o-Southern_Oscillation_in_the_United_States#cite_note-5

Fall 2010 GWI

ENSO Index

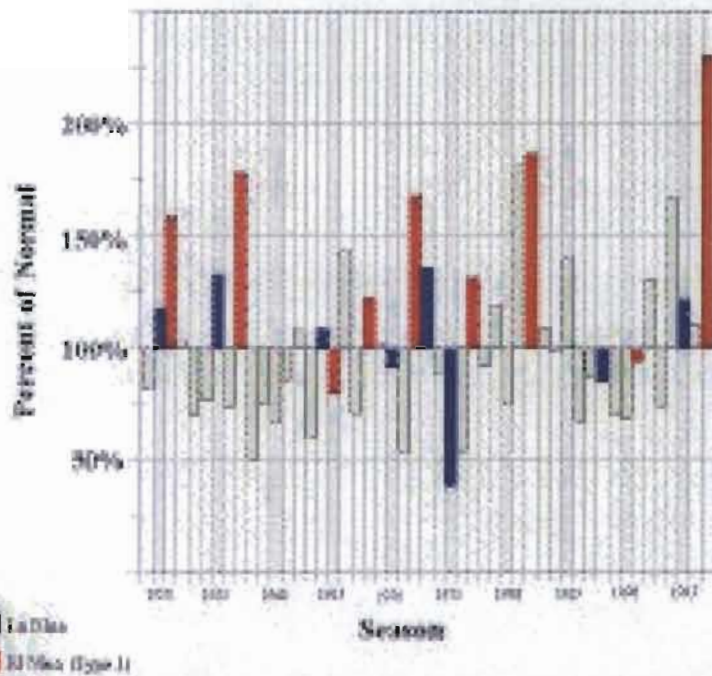


Multivariate ENSO Index (MEI) is based on the six main observed variables over the tropical Pacific. These six variables are: sea-level pressure (P), zonal (U) and meridional (V) components of the surface wind, sea surface temperature (S), surface air temperature (A), and total cloudiness fraction of the sky (C).

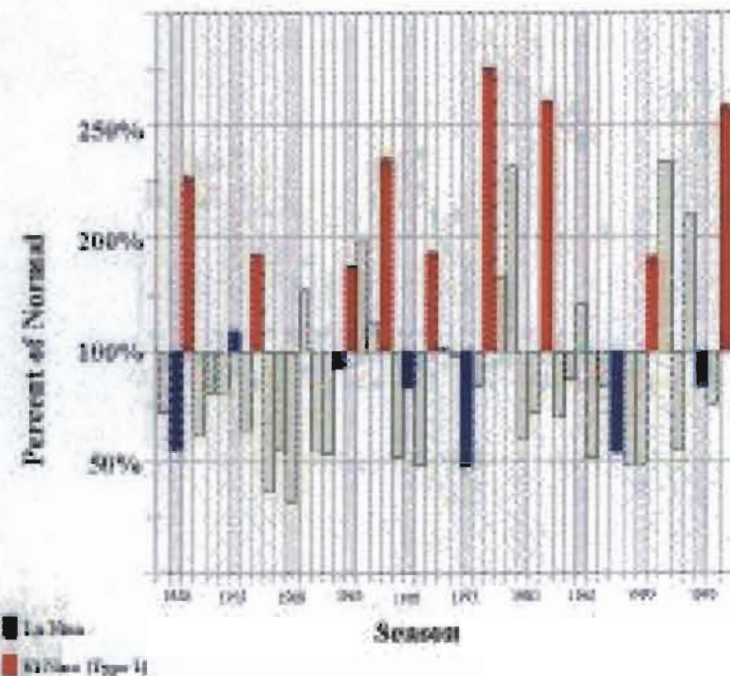
<http://www.esrl.noaa.gov/psd/people/klaus.wolter/MEI/>

ENSO Rainfall Patterns

San Francisco Rainfall



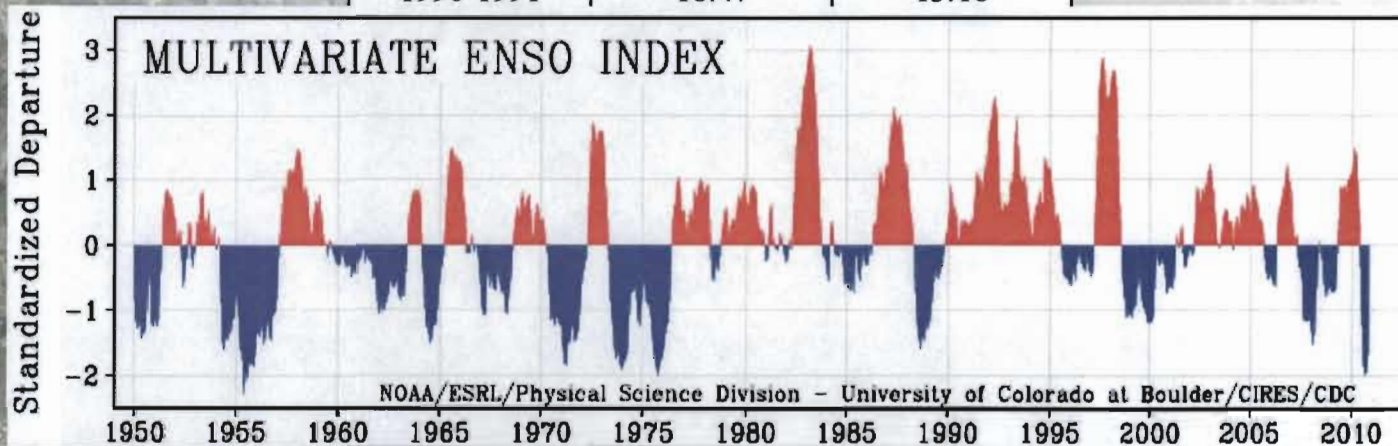
Los Angeles Rainfall



Rainfall

ENSO Rainfall Patterns

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QUESTIONS?

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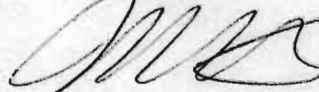
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