



NOAA

National
Weather
Service

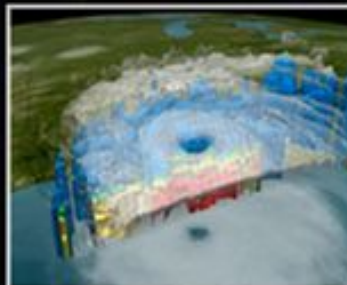
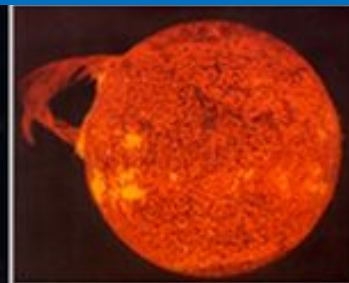
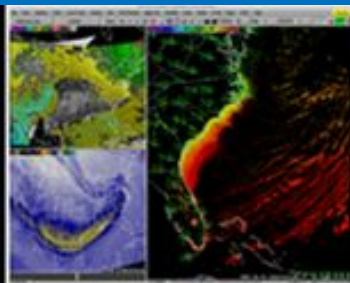
It's Not Always Sunny in SoCal

Dr. Ariel Cohen

*Meteorologist In Charge
NWS Los Angeles/Oxnard*

Dr. Robbie Munroe

*Meteorologist
NWS Los Angeles/Oxnard*



2023: Major Disaster Days



NWS [LOX] Los Angeles/Oxnard :: Preliminary/Unfiltered Local Storm Reports

Valid 01 Jan 2023 - 31 Dec 2023 type limiter: All LSR Types

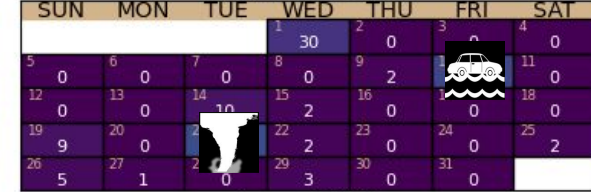
January 2023



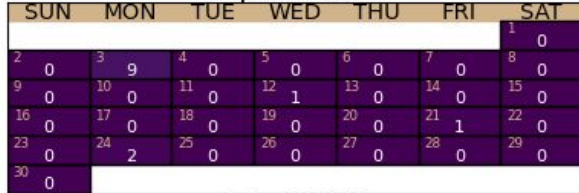
February 2023



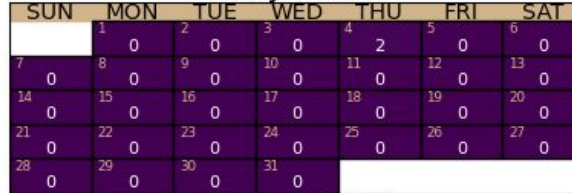
March 2023



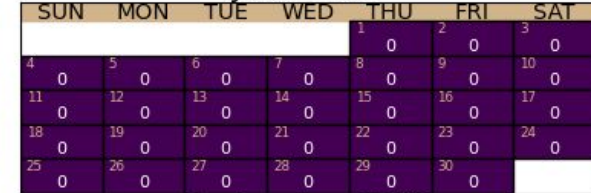
April 2023



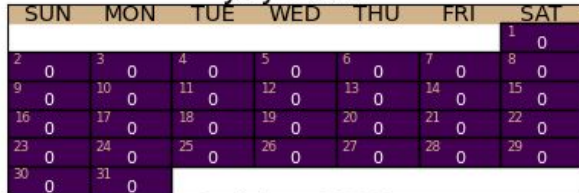
May 2023



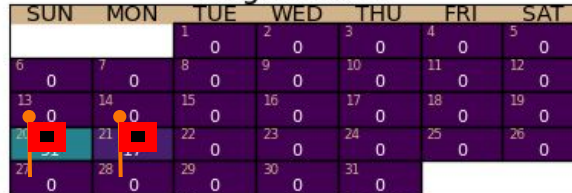
June 2023



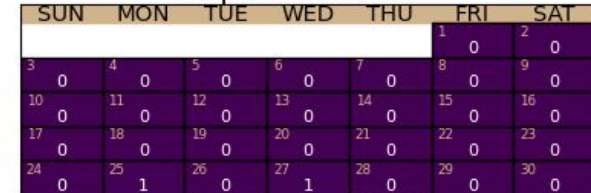
July 2023



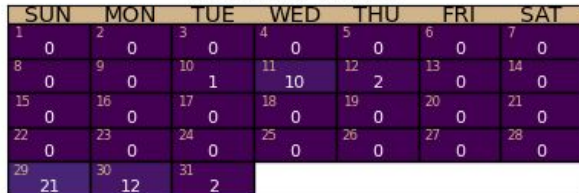
August 2023



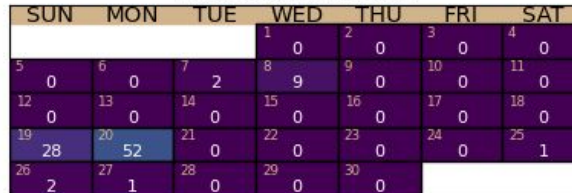
September 2023



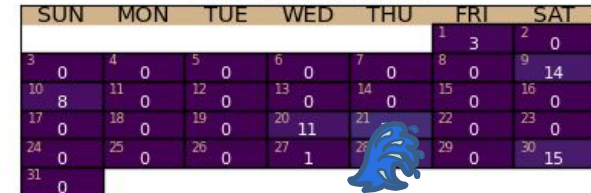
October 2023



November 2023



December 2023



Generated at 18 Aug 2024 2:14 PM CDT in 2.55s

IEM Autoplot App #234

SoCal: Complex terrain, 2nd largest population in the nation, high-profile areas, diverse structures

Prone to Disasters!



STATS!

...WETTEST BACK-TO-BACK WATER YEARS
(10/1/22-9/30/23 & 10/1/23-9/30/24)
IN DOWNTOWN LOS ANGELES (DTLA)
SINCE THE LATE 1800S (1890)!!!...

2022-2023 water year was **7th-wettest** on record, including **8th-wettest** January, **7th-wettest** March, and **wettest** August (Tropical Storm Hilary).

2023-2024 water year – Four major storm systems in February 2024, including **4th-wettest** calendar day in any February with 4.10 inches of rain.

Top five wettest back-to-back rain seasons in Downtown Los Angeles:

1. 54.10" from Oct 1888 through Sep 1890.
2. **52.46" from Oct 2022 through Mar 2024** (with 6 months left).
3. 50.86" from Oct 1977 through Sep 1979
4. 50.44" from Oct 2004 through Sep 2006
5. 50.29" from Oct 1882 through Sep 1884

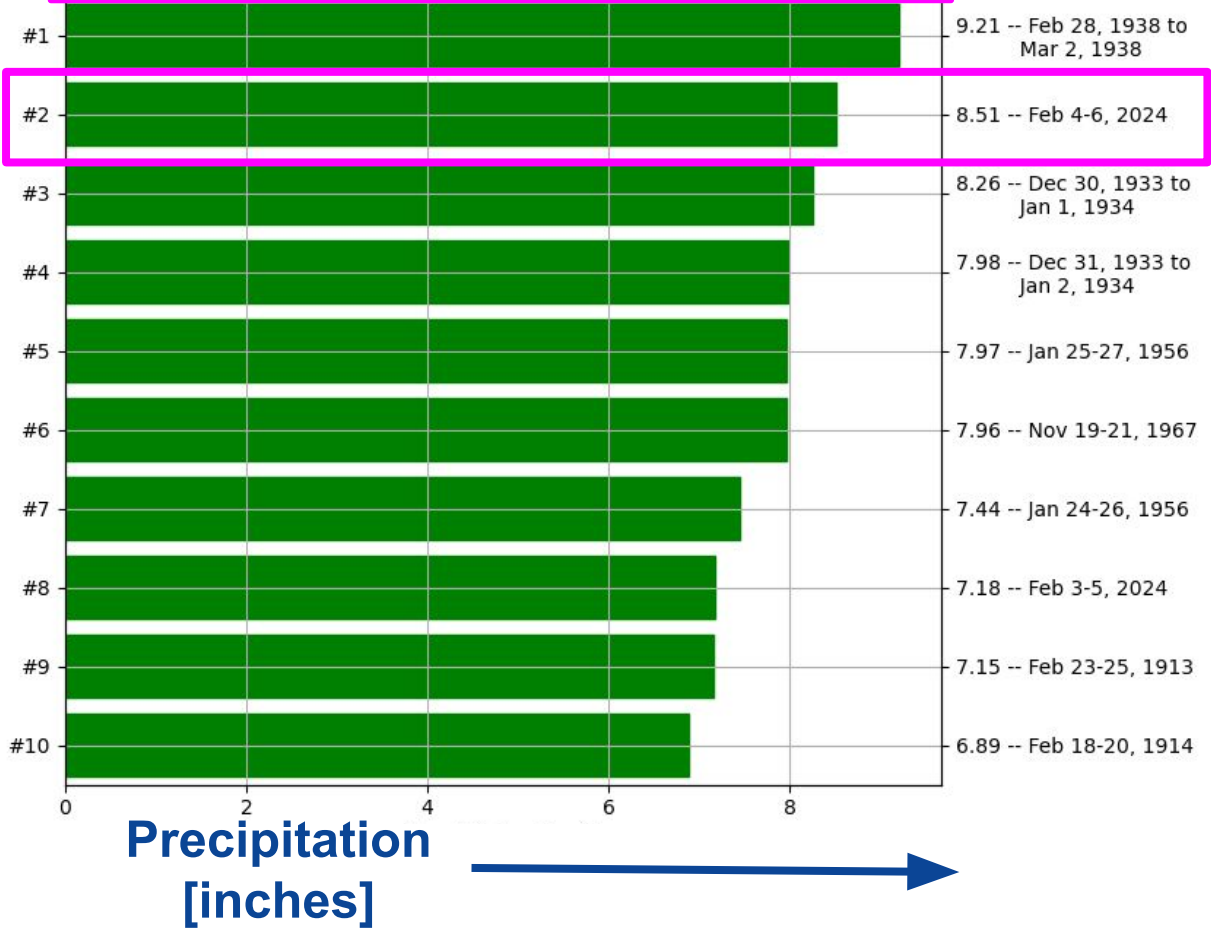
Normal 2-year precipitation in DTLA: 28.50"

Historic rainstorm brought destructive flooding and landslides early February 2024. Starting 2/4, a powerful Atmospheric River deluged Downtown LA with a 3-day rainfall total of 8.51 inches – the highest since 1938 and 2nd-highest since records began 1877!



Top 10 DTLA Precipitation Events

Ranking ↑



of Storm Reports Per Month

Counting:



NWS [LOX] Los Angeles/Oxnard

Top 10 Dates

Year

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2005							2	1	3	5	9	5	25
2006	16	3	16	5	1	1	7			1	12	21	83
2007	2		6	9	1			1	9	15	2	22	67
2008	81	8	1	2	12	1	6			12	14	31	168
2009	39	15	8	21	24		8			19	7	18	159
2010	114	4	17	21	14		26	33		12	15	49	305
2011	15	15	75	11	9		7	22	13	10	41	60	278
2012	28	8	53	2	14	6	4	25	6	12	5	6	169
2013	26	22	4	25	20	7	5	10		32	8	28	187
2014	20	24	16	31	18		4	14	44	4	18	72	265
2015	13		14	12		5	14	105	15	43	22	25	268
2016	132	22	66	15	2	22	9		1	3	10	54	336
2017	87	73	30	32	17	5		5	13	45	10	95	412
2018	50	6	31	63	15	11	4	2		10	31	7	230
2019	56	740	19	32	6	1	8		1	30	21	29	943
2020	27	80	7	19	8	12		5		39	28	74	299
2021	194	100	14		16	8		5	2	49	79	65	532
2022	149	72	26	11	55	8	1		26	8	186	70	612
2023	413	182	157	13	2			108	2	48	88	91	1104
2024	33	417	149	5	7	13							624

Month

Top 10 Dates

America/Los_Angeles

2019-02-02 669

2024-02-04 214

2023-01-09 207

2016-01-31 97

2023-08-20 91

2022-01-22 90

2024-03-14 72

2023-02-24 72

2015-08-16 69

2022-11-08 68

50%!

of Flash Flood Reports Per Month



NWS [LOX] Los Angeles/Oxnard
Local Storm Reports (LSRs): FLASH FLOOD



- Top 10 Dates**
America/Los_Angeles
- 2024-02-04 70
 - 2023-08-20 56
 - 2023-01-09 51
 - 2024-02-19 33
 - 2024-02-05 21
 - 2023-03-10 20
 - 2024-02-01 19
 - 2015-10-15 14
 - 2023-12-21 13
 - 2019-02-14 12

80%!

Month →

IEM Autoplot App #245





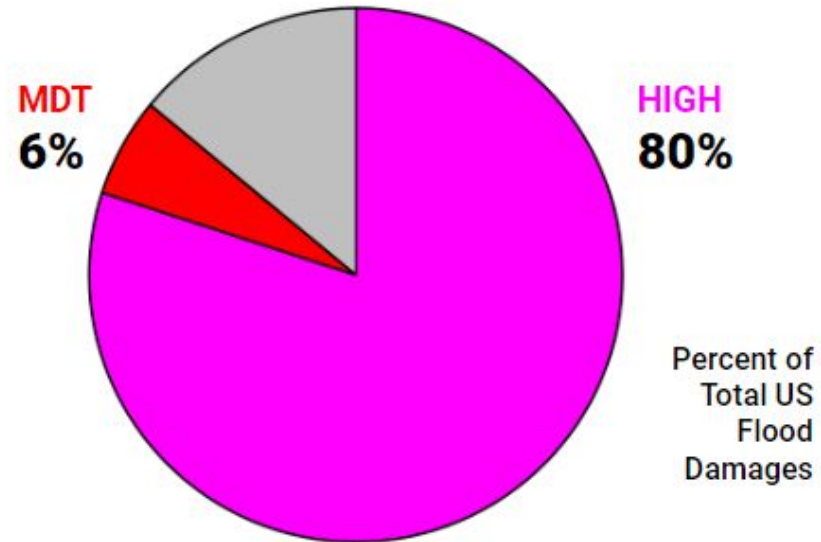
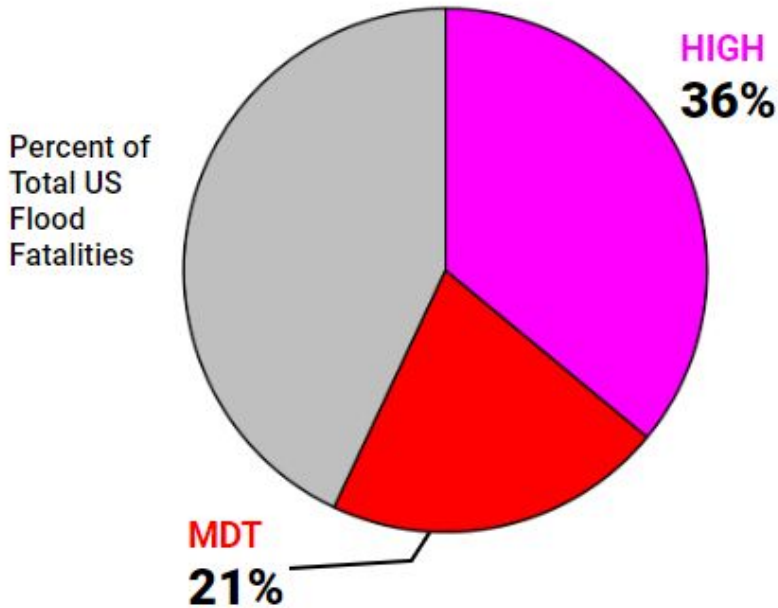
Credit: YouTube
Videos show California flooding, storm damage
CBS News

WPC High Risk Days are a BIG DEAL

High Risks are only issued by WPC on ~4% of days, but “High Risk Days” have accounted¹ for:

1/3 of ALL Flood-related Fatalities

4/5 of ALL Flood-related Damages



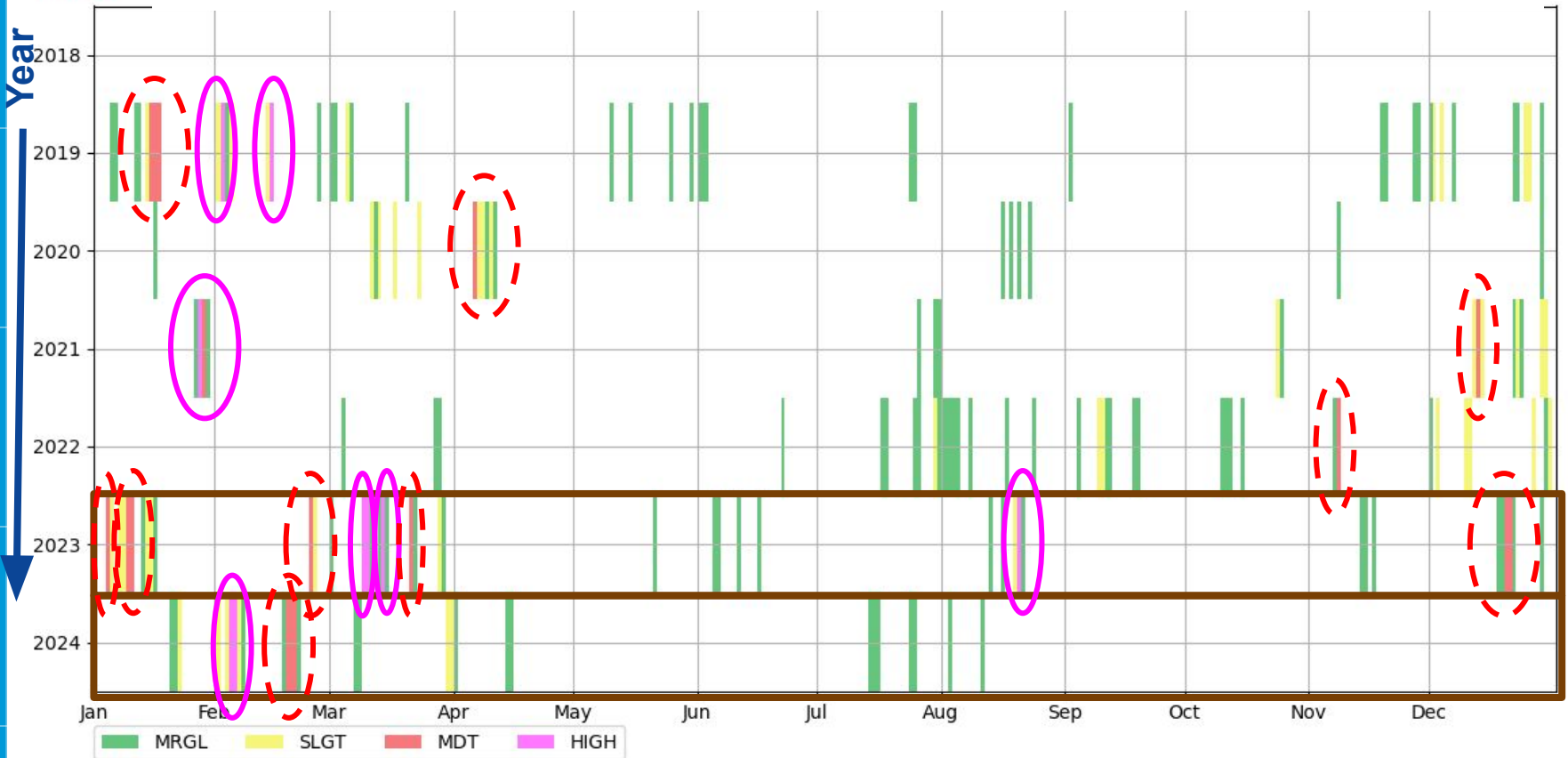
¹ From 2010 to 2022. Includes flood, flash flood, heavy rain, and debris flow Storm Data. Excludes Oso, WA landslide which occurred well after rainfall and on a sunny day.



HIGH RISKS and MODERATE RISKS (Potential Flood Disasters) from the Weather Prediction Center for **NWS LA/Oxnard Area**



Highest WPC Day 1 Excessive Rainfall Outlook for NWS Los Angeles/Oxnard [LOX]

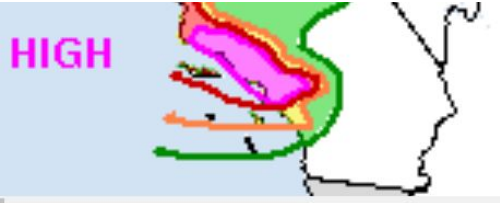


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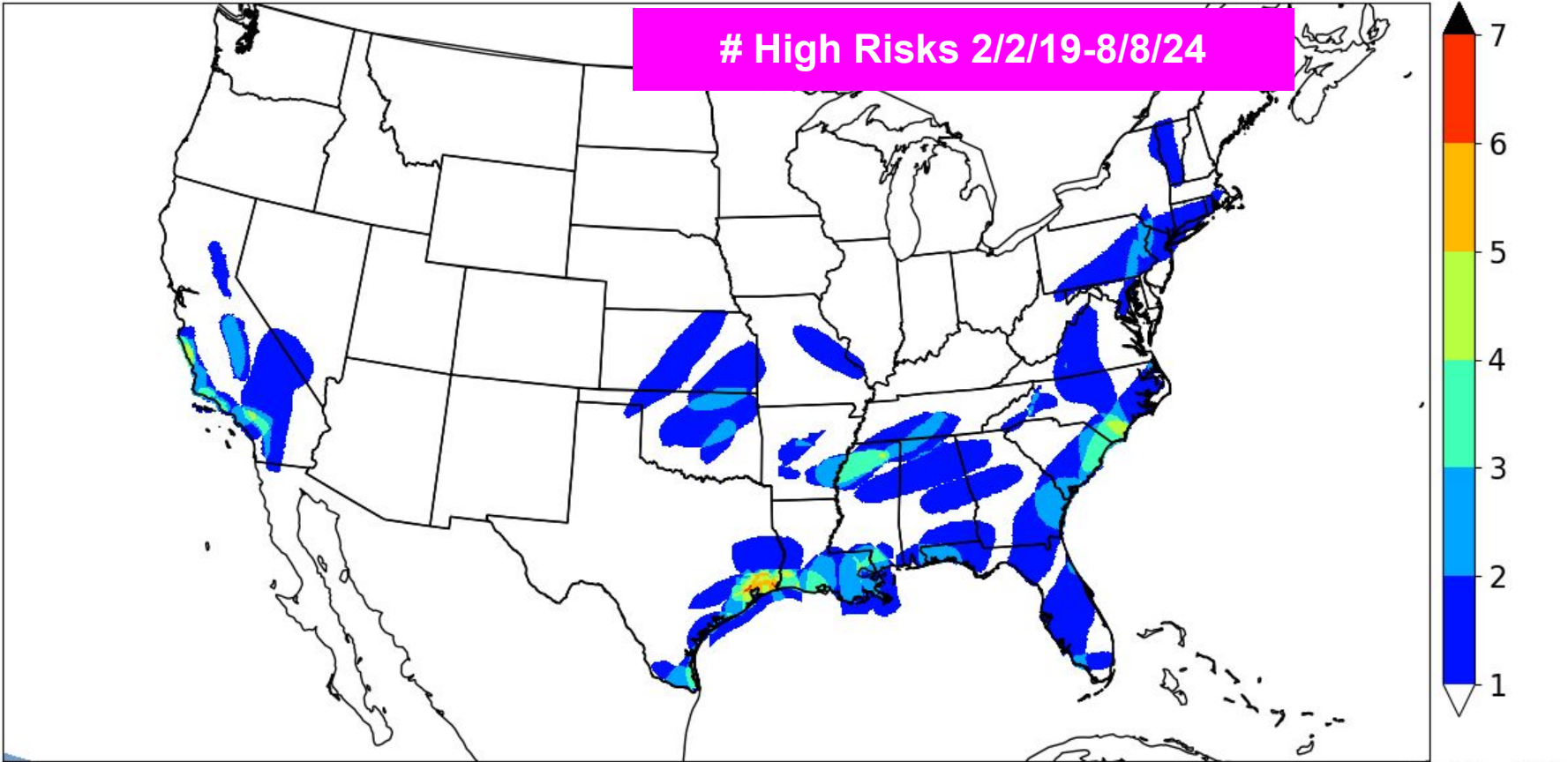
IEM Autoplot App #201



WPC **HIGH RISK** Counts Map (*Potential Flood Disasters*)



WPC Day 1 Excessive Rainfall Outlook [Entire Year] of at least Categorical High Risk
Total Number of Days, Found 58 events for CONUS between 02 Feb 2019 and 08 Aug 2024



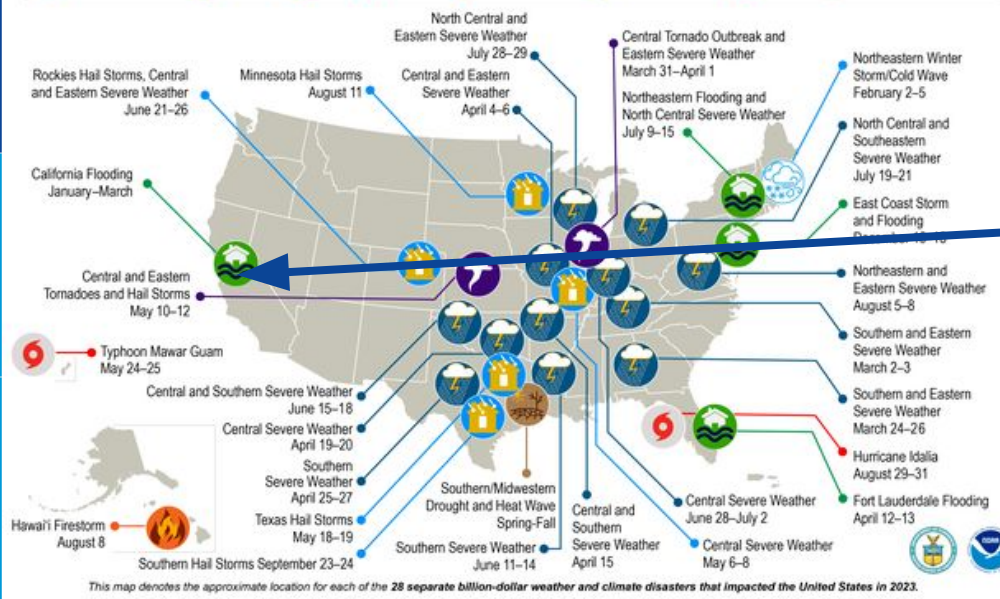
Generated at 17 Aug 2024 3:14 PM CDT in 1.51s

data units :: days
IEM Autoplot App #200



U.S. 2023 Billion-Dollar Weather and Climate Disasters

- Drought/Heat Wave
- Flooding
- Hail
- Hurricane
- Severe Weather
- Tornado Outbreak
- Wildfire
- Winter Storm/Cold Wave



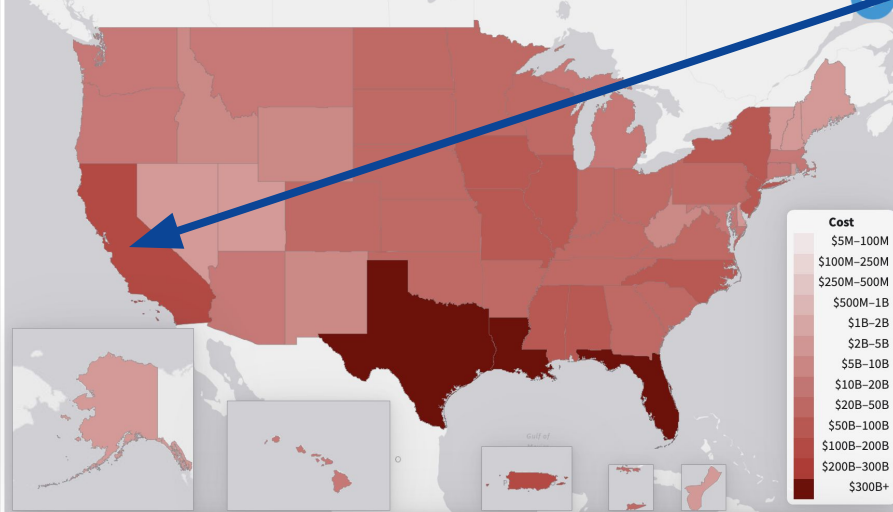
California is a Focus for Billion-Dollar Weather & Climate Disasters!

Billion-Dollar Weather & Climate Disasters in 2023

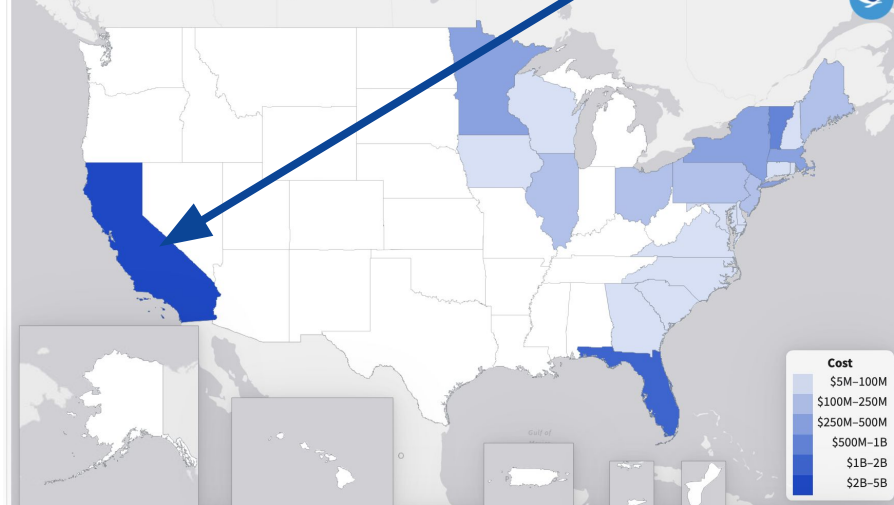
Billion-Dollar Weather and Climate Disaster Cost 1980-2024

Billion-Dollar Flooding Disaster Cost 2023-2024

1980-2024* Billion-Dollar Weather and Climate Disaster Cost (CPI-Adjusted)



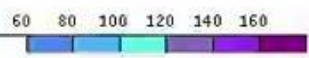
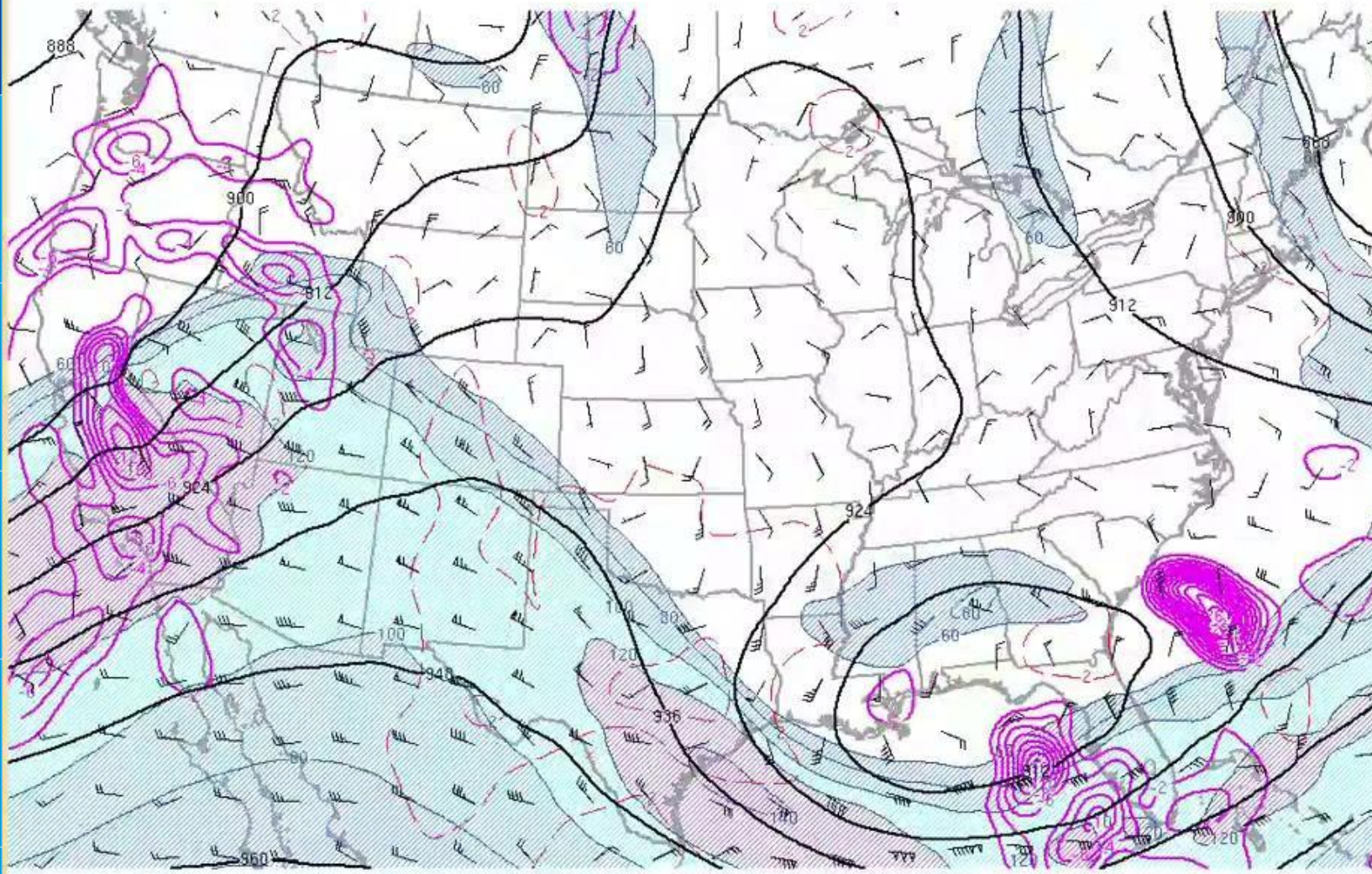
2023-2024* Billion-Dollar Flooding Disaster Cost (CPI-Adjusted)



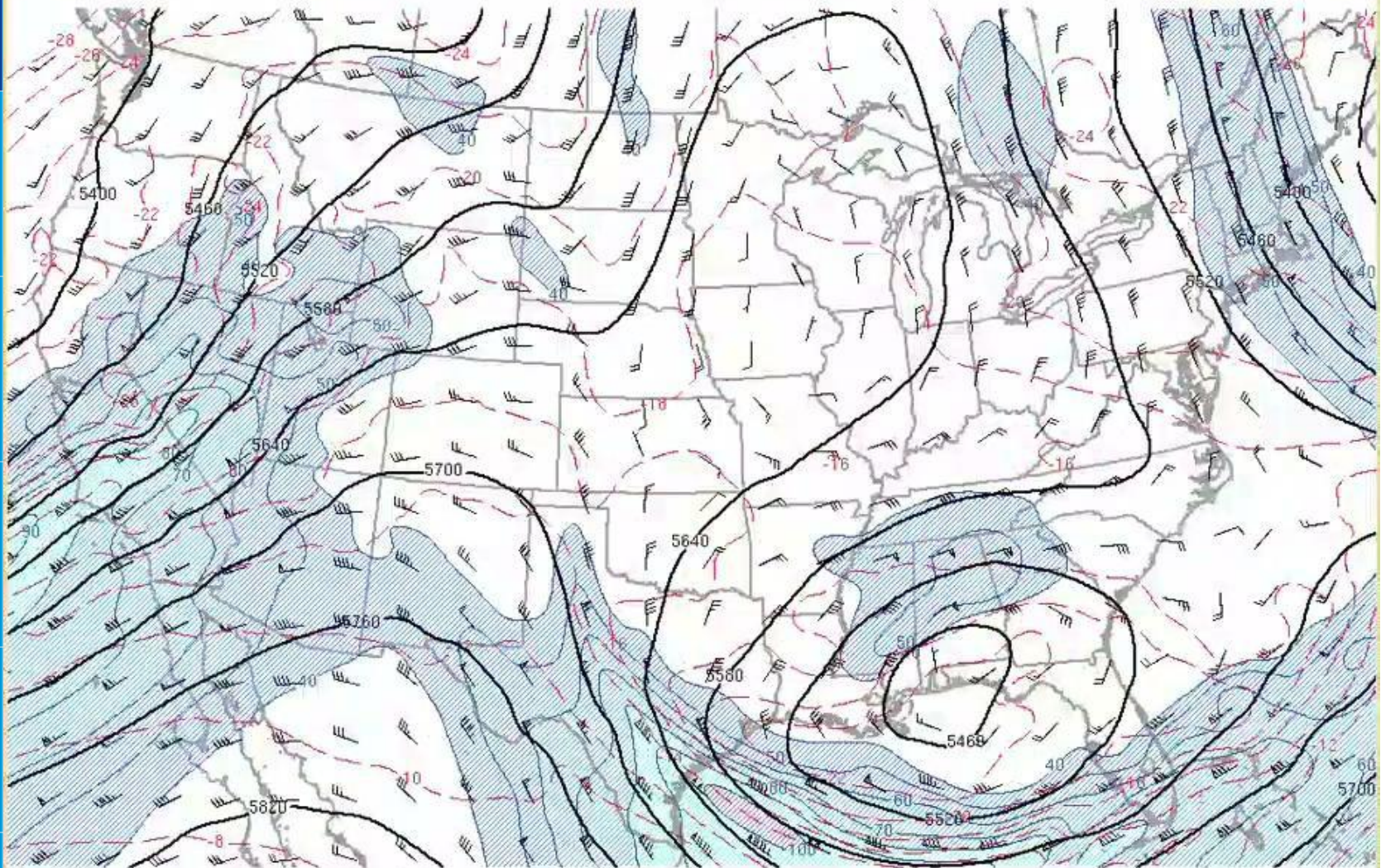
United States					
Drought:	\$360B+	Flooding:	\$200B-300B	Freeze:	\$20B-50B
Tropical Cyclone:	\$1.4T+	Wildfire:	\$100B-200B	Severe Storm:	\$500B+
		Winter Storm:	\$100B-200B	All Disasters:	\$2.7T+

United States					
Drought:	--	Flooding:	\$5B-10B	Freeze:	--
Tropical Cyclone:	--	Wildfire:	--	Winter Storm:	--
		All Disasters:	\$5B-10B		





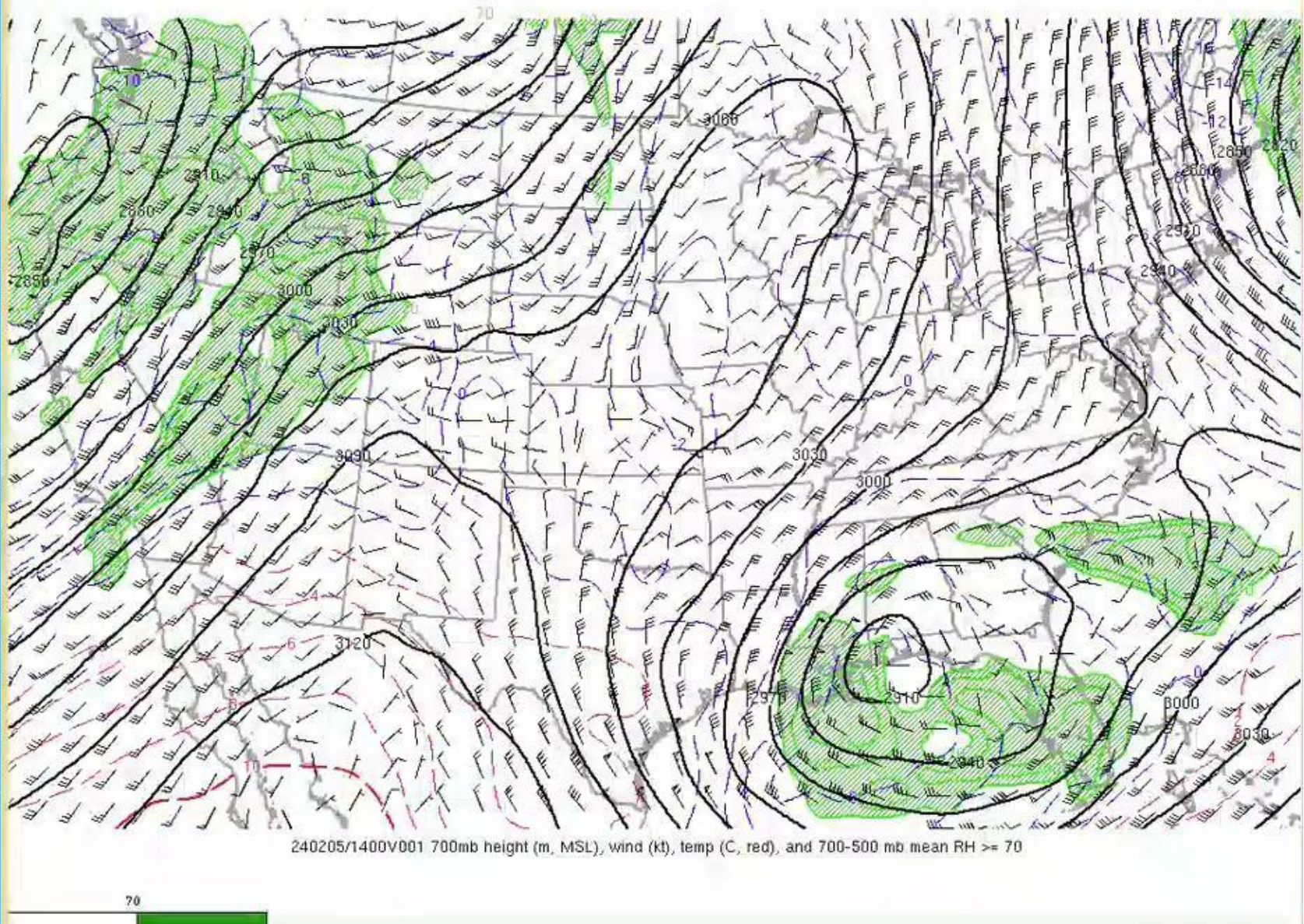
Credit: Archive National Sector SPC Hourly Mesoscale Analysis, 2/4/24-2/6/24



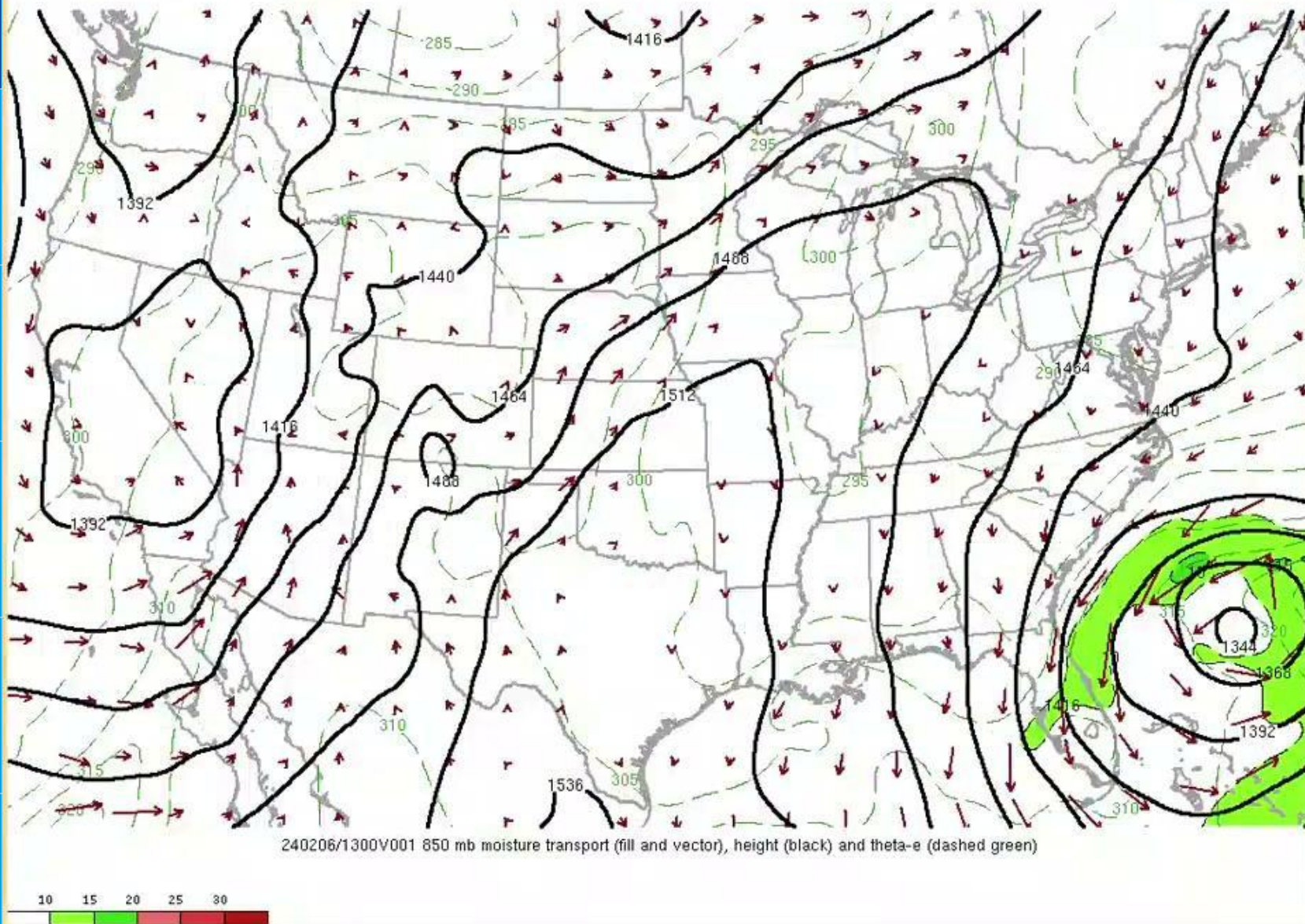
240205/1000V001 500mb height (m MSL, black), temp (C, red), and wind (kt, hatched >= 40 kt)

40 60 80 100 120 140

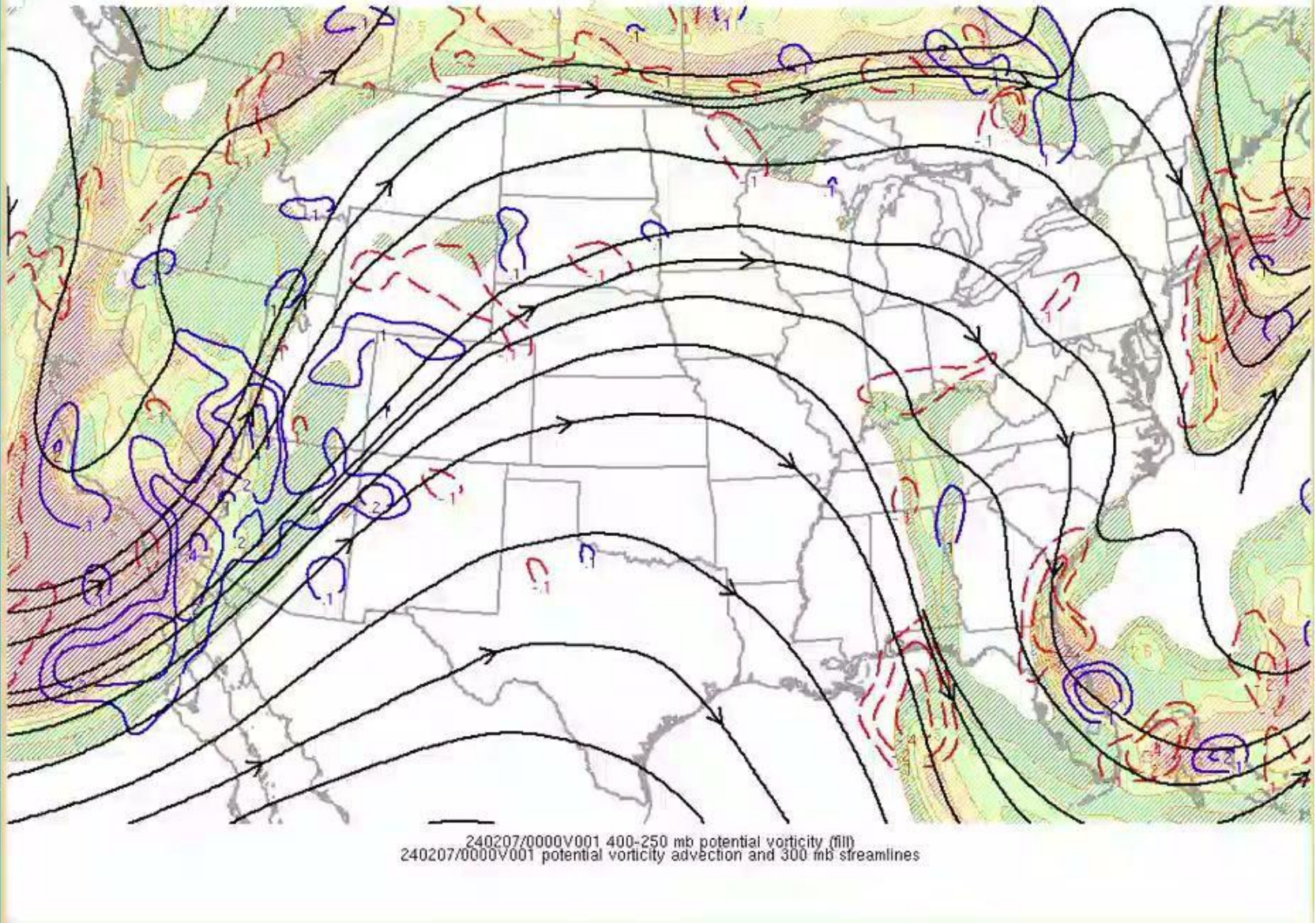
Credit: Archive National Sector SPC Hourly Mesoscale Analysis, 2/4/24-2/6/24



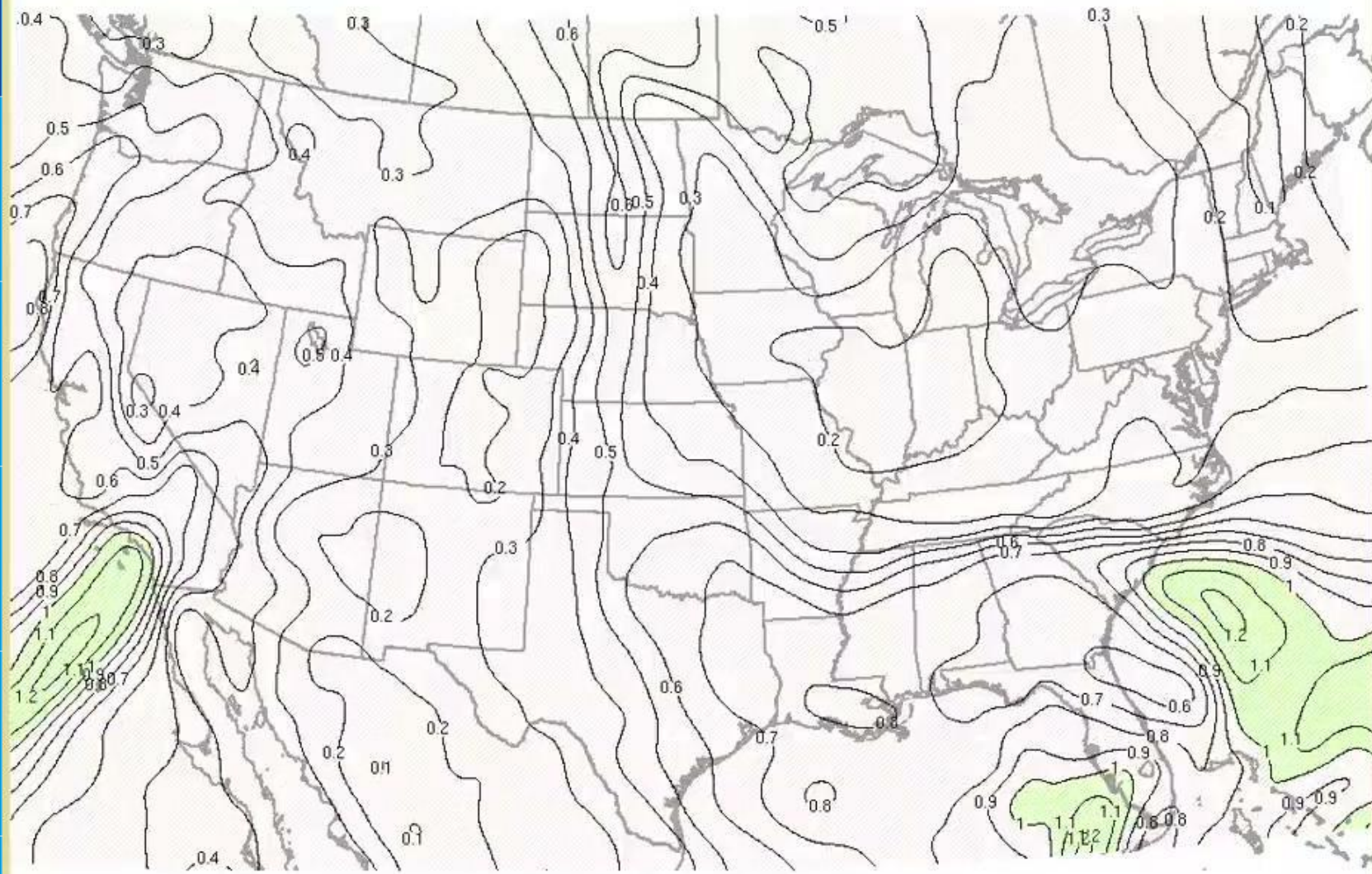
Credit: Archive National Sector SPC Hourly Mesoscale Analysis, 2/4/24-2/6/24



Credit: Archive National Sector SPC Hourly Mesoscale Analysis, 2/4/24-2/6/24



Credit: Archive National Sector SPC Hourly Mesoscale Analysis, 2/4/24-2/6/24

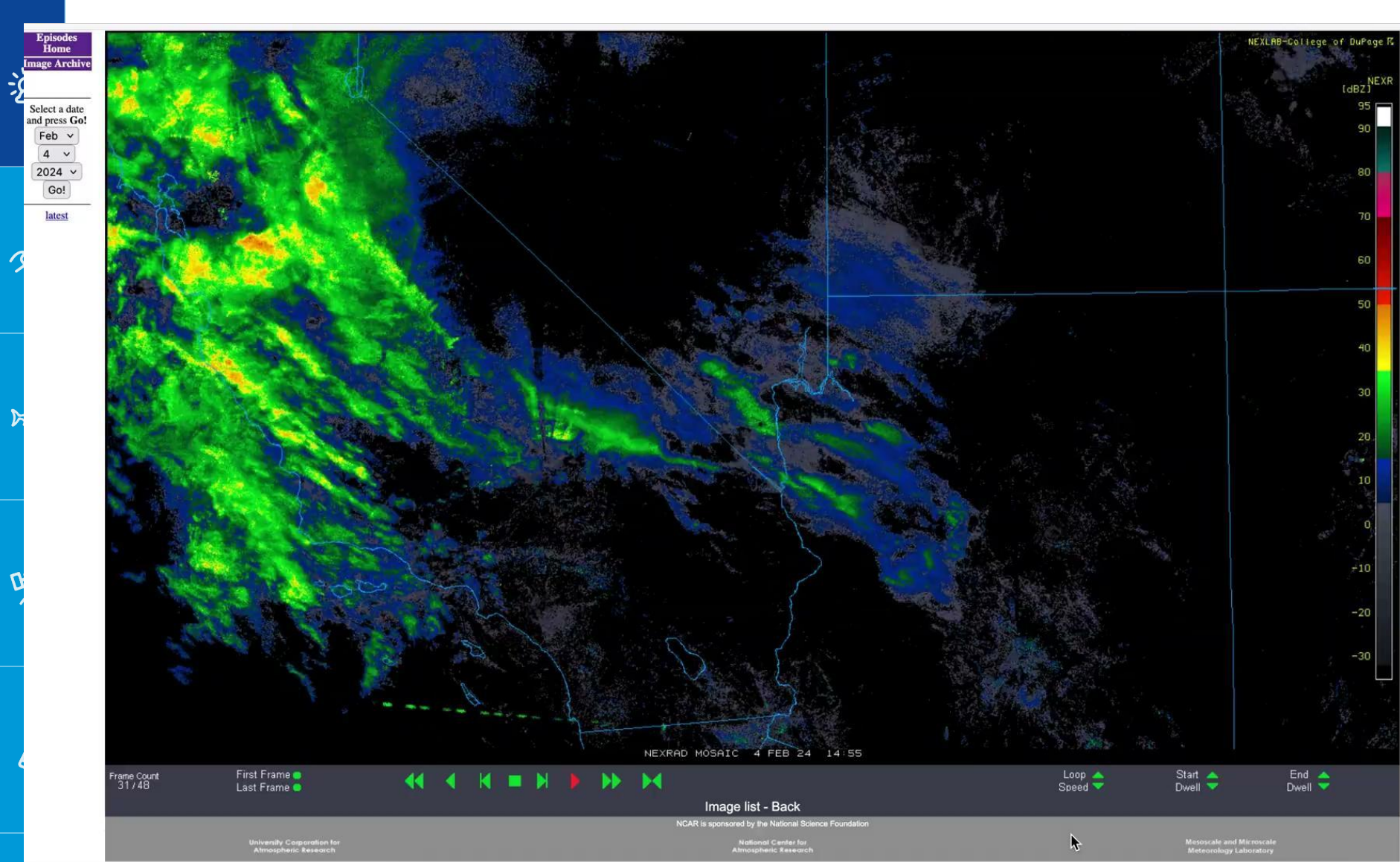


240205/1100 precipitable water (in) lowest 400 mb



Credit: Archive National Sector SPC Hourly Mesoscale Analysis, 2/4/24-2/6/24

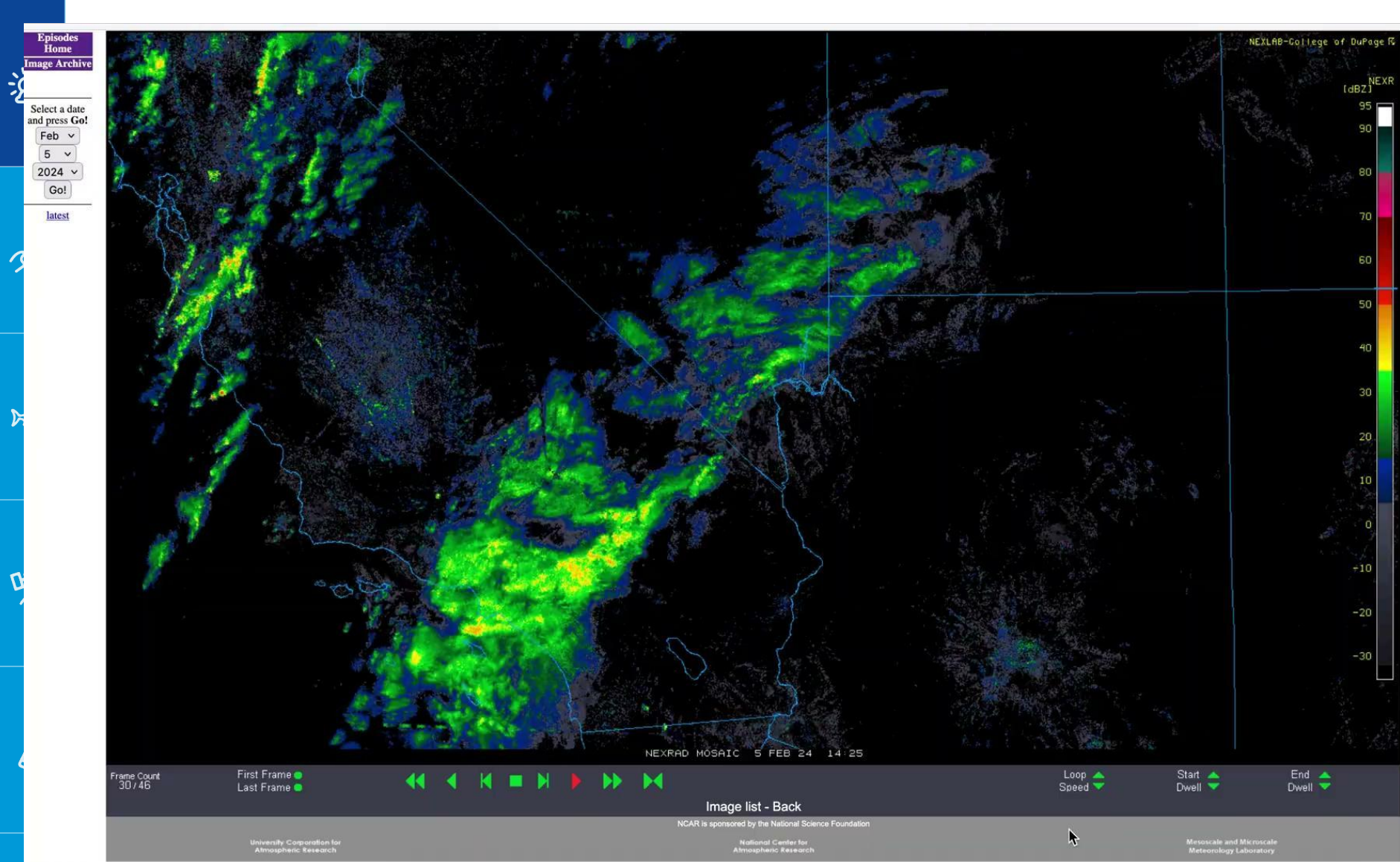




February 4, 2024

<https://www2.mmm.ucar.edu/imagearchive/>





February 5, 2024

<https://www2.mmm.ucar.edu/imagearchive/>



Select a date
and press Go!

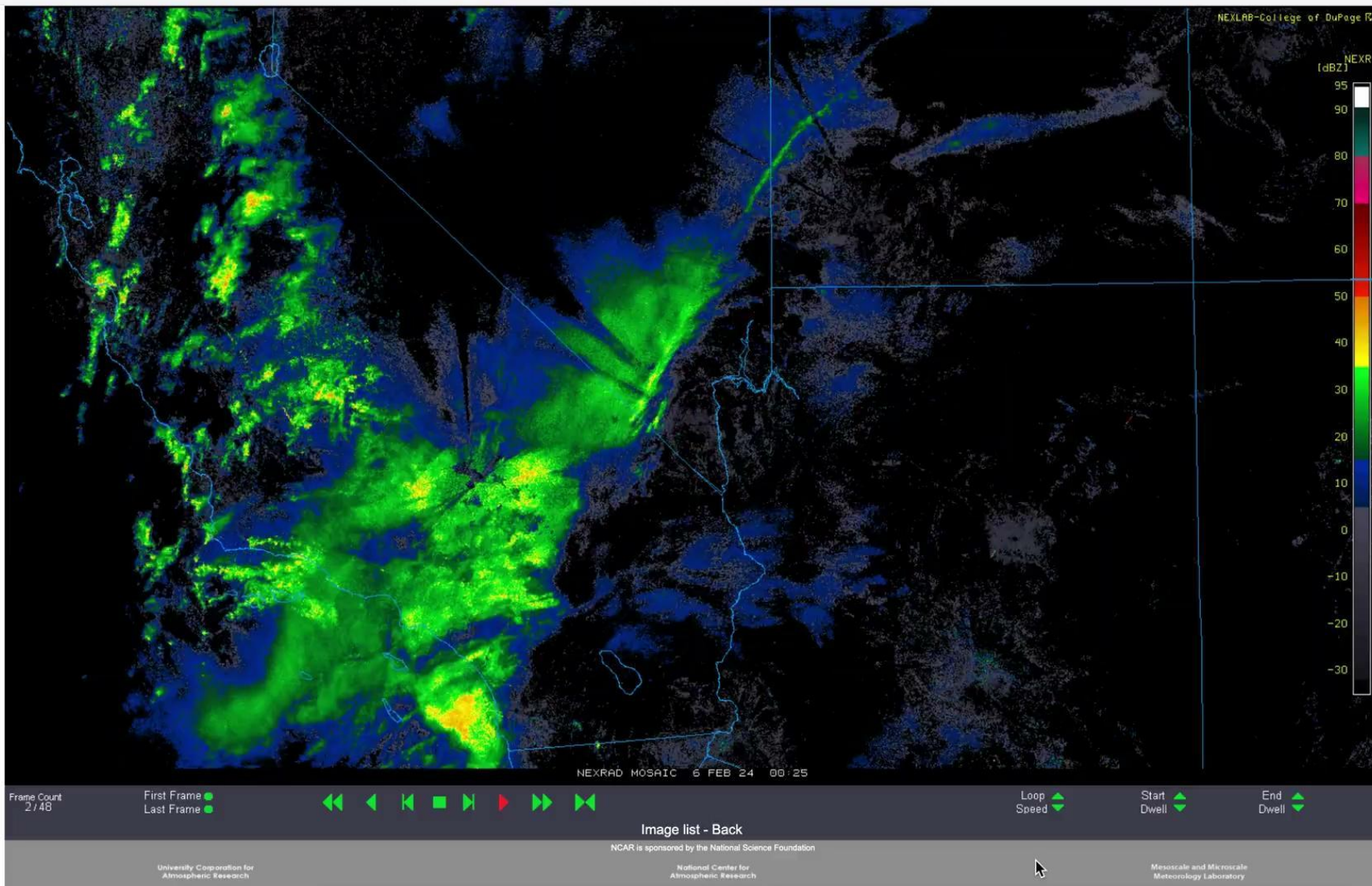
Feb

6

2024

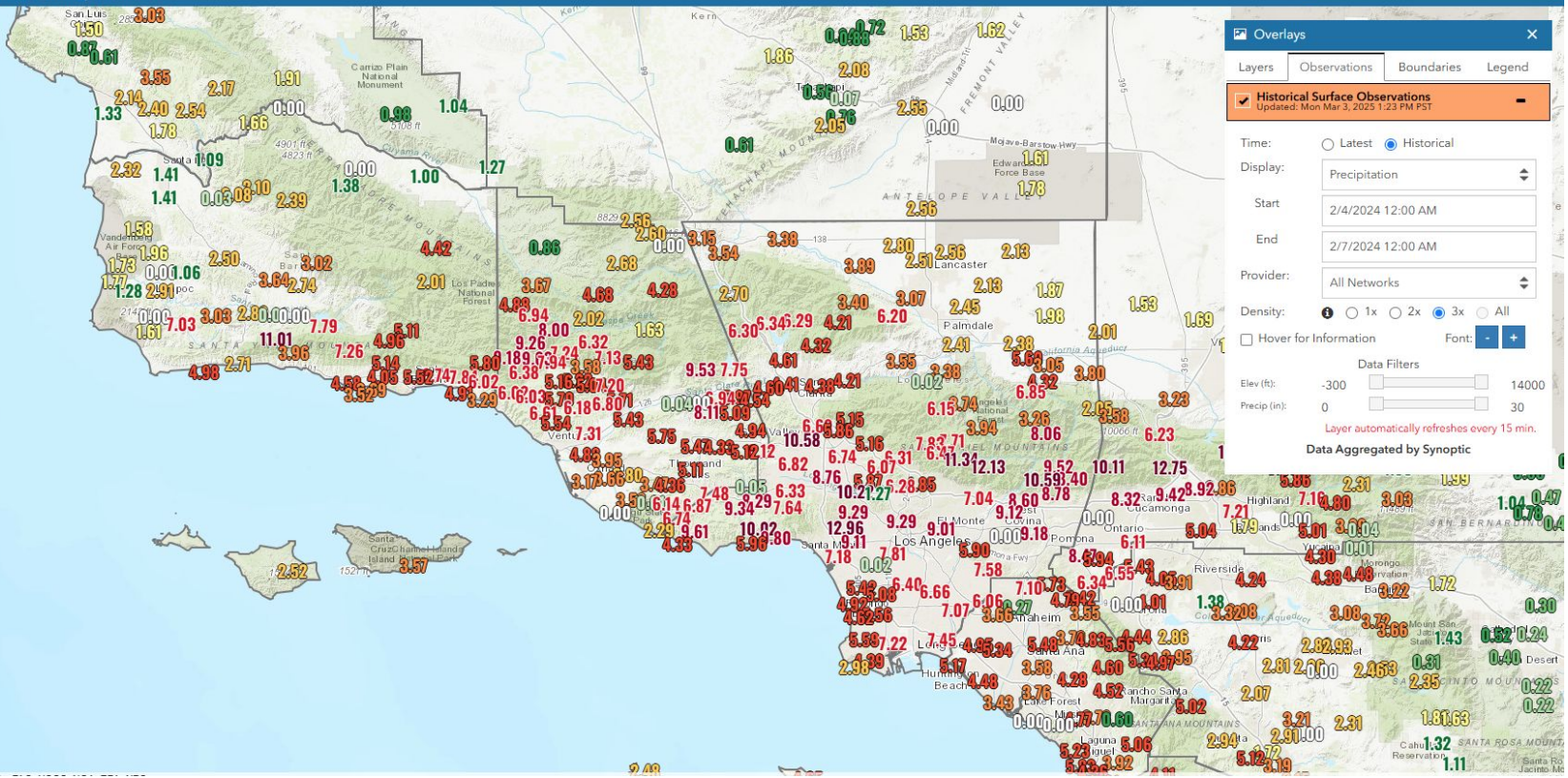
Go!

latest

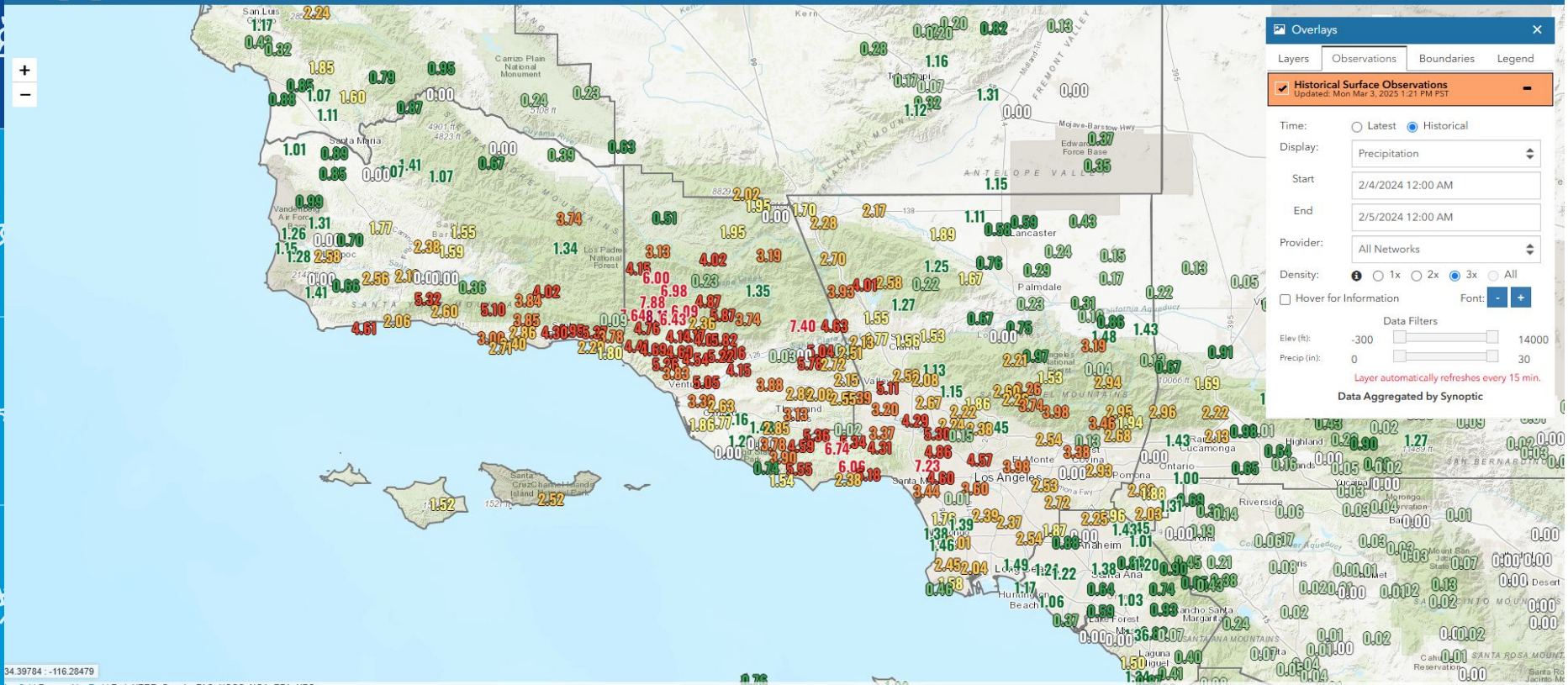


February 6, 2024

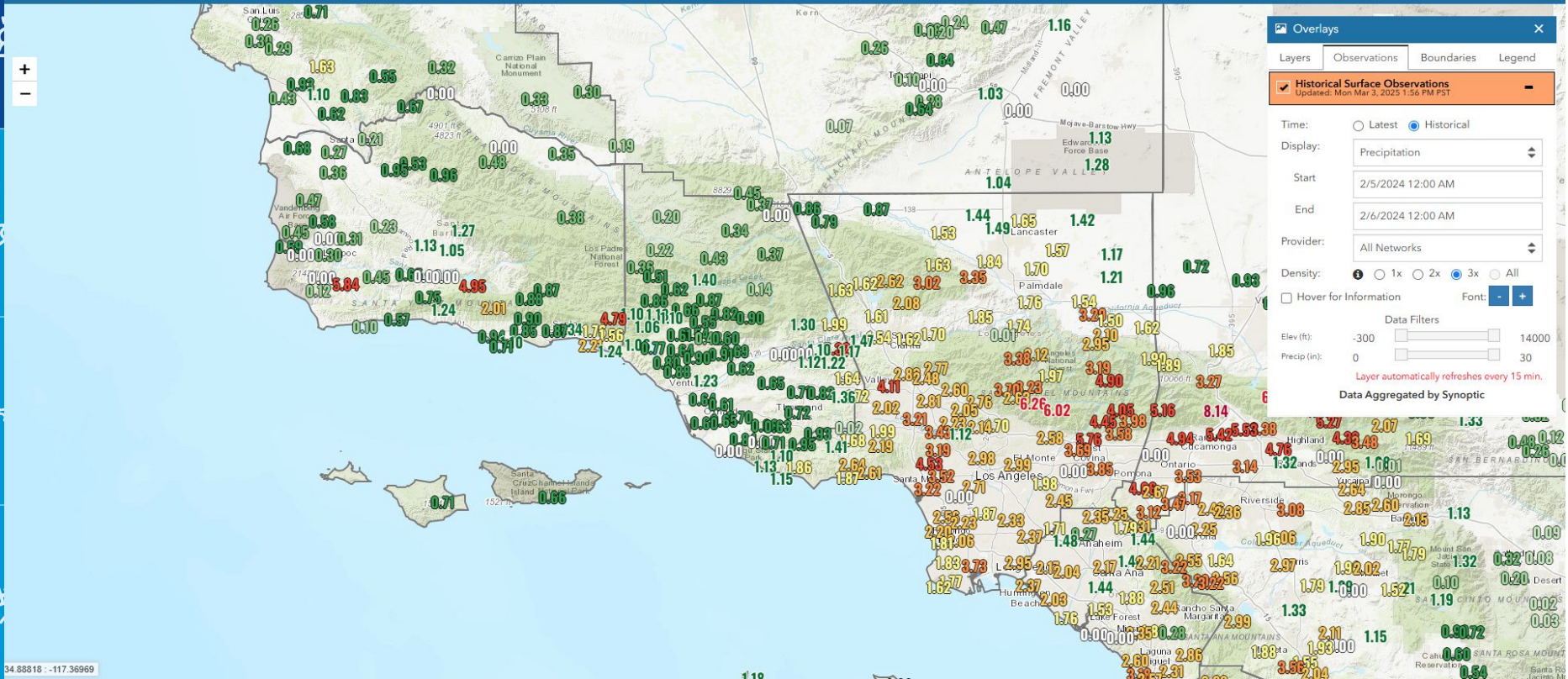
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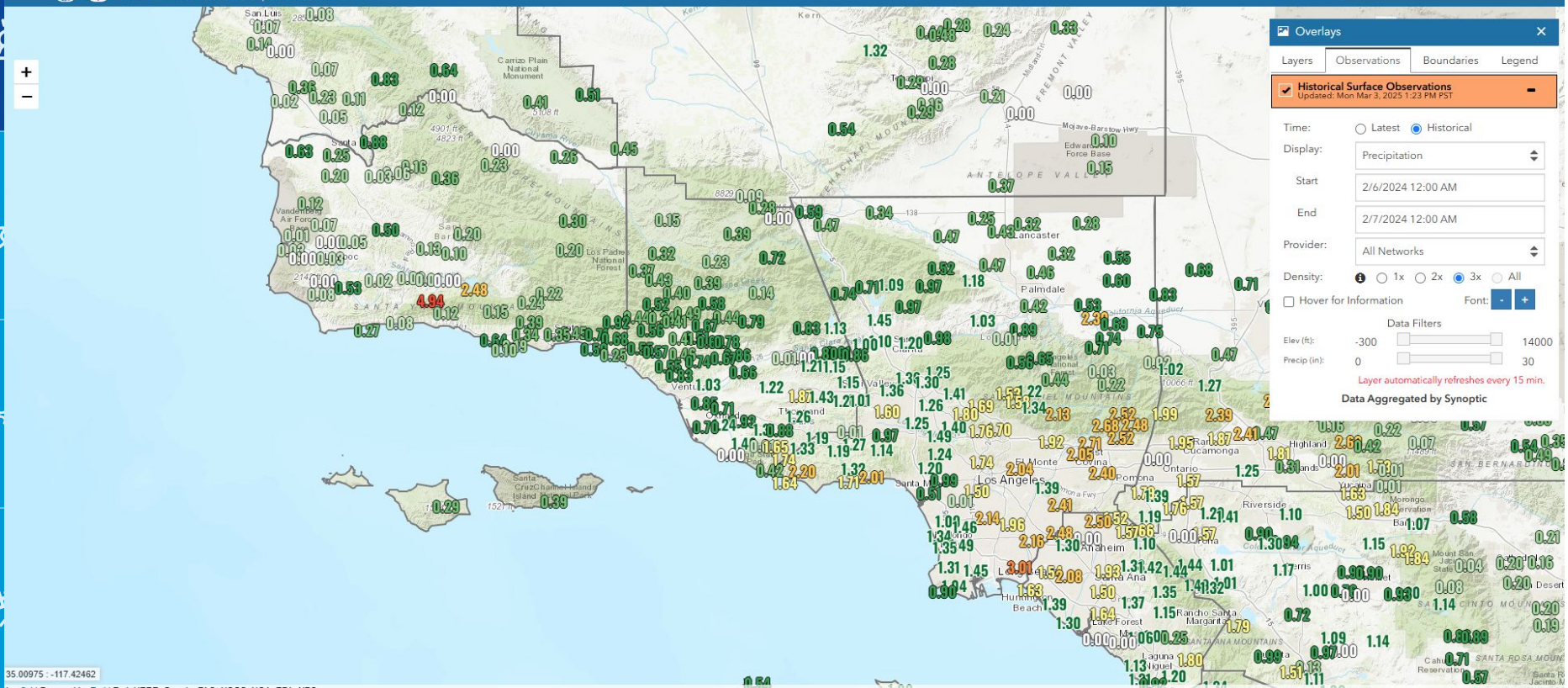
2/4/24 12AM-
2/7/24 12AM



2/4/24 12AM-
2/5/24 12AM



2/5/24 12AM-
2/6/24 12AM



Overlays

Layers | Observations | Boundaries | Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 1:23 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/6/2024 12:00 AM

End: 2/7/2024 12:00 AM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information

Font: [+] [-]

Data Filters

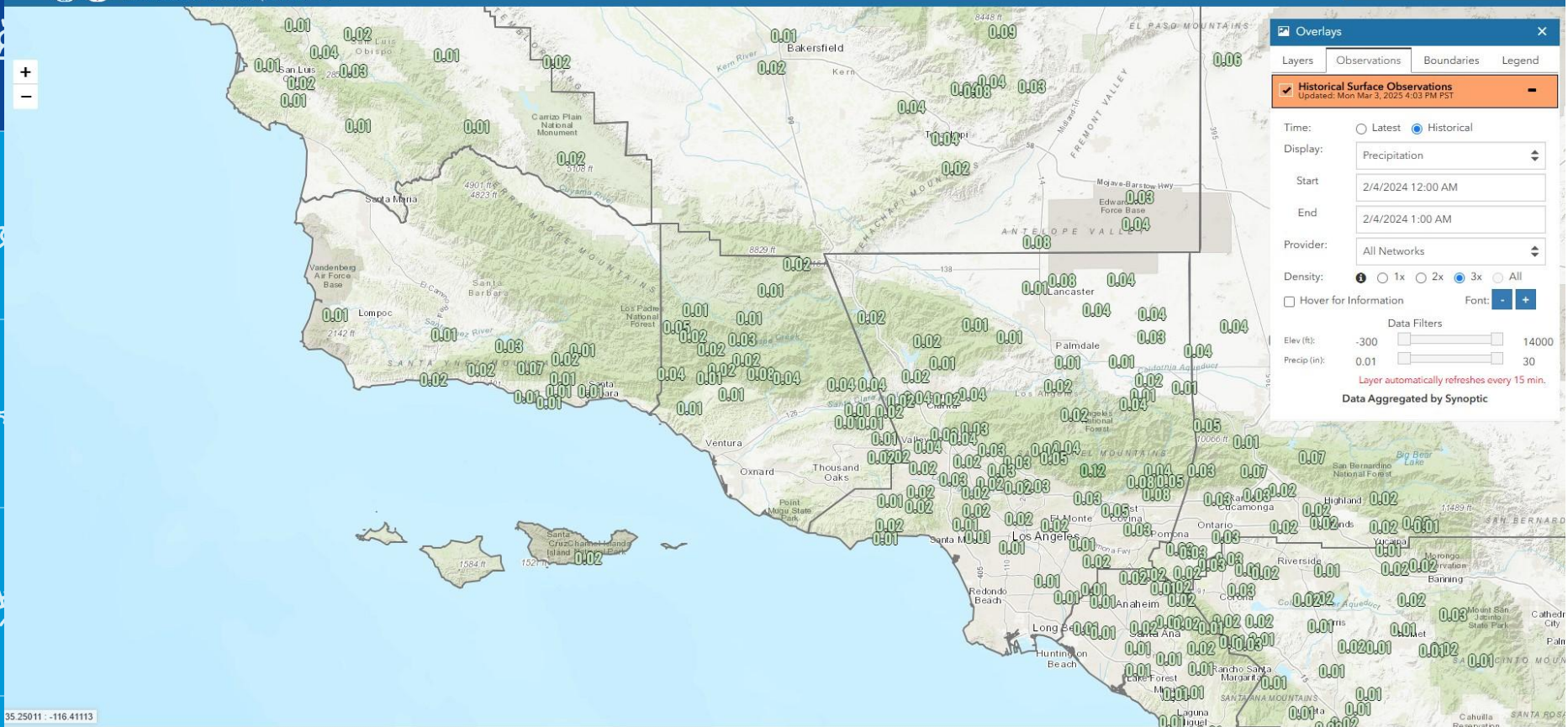
Elev (ft): -300 [] 14000

Precip (in): 0 [] 30

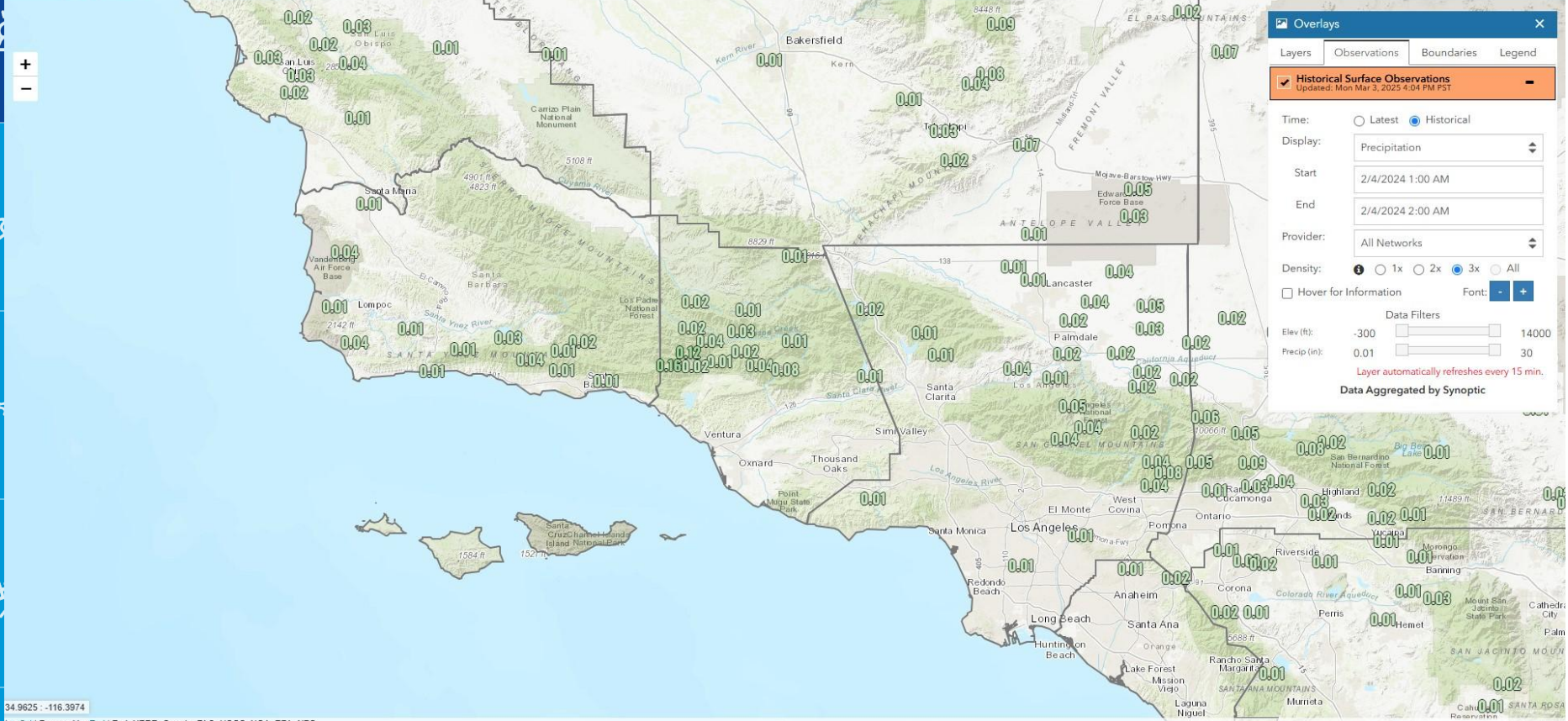
Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

2/6/24 12AM-
2/7/24 12AM



2/4/24 12AM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:04 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/4/2024 1:00 AM

End: 2/4/2024 2:00 AM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information

Font: [-] [+]

Data Filters

Elev (ft): -300 [] 14000

Precip (in): 0.01 [] 30

Layer automatically refreshes every 15 min.

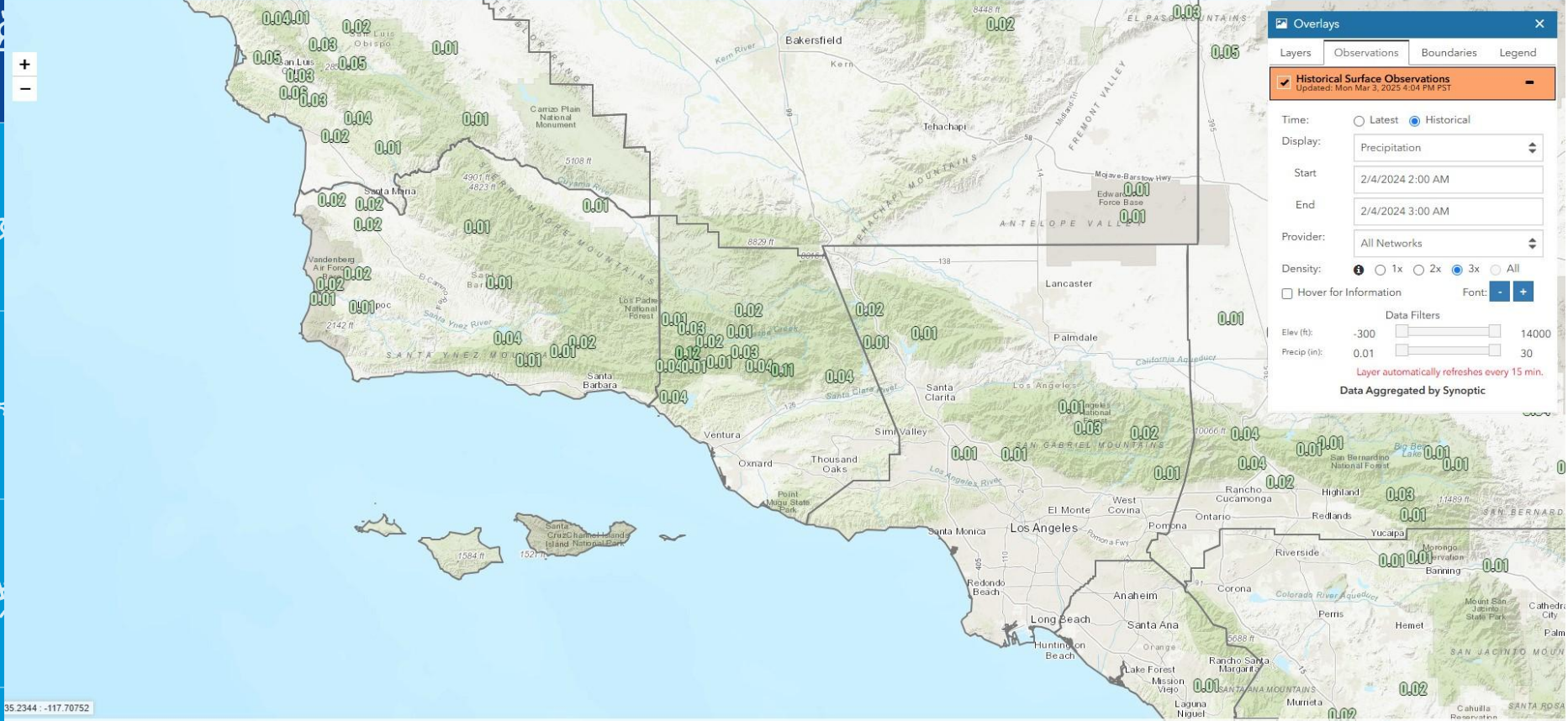
Data Aggregated by Synoptic

34.9625 -116.3974

Leaflet | Data provided by Esri | Esri | HERE | DeLorme | GeoEye | IGN | NOAA | NGA | FAO | USGS | NGA | EPA | MDC

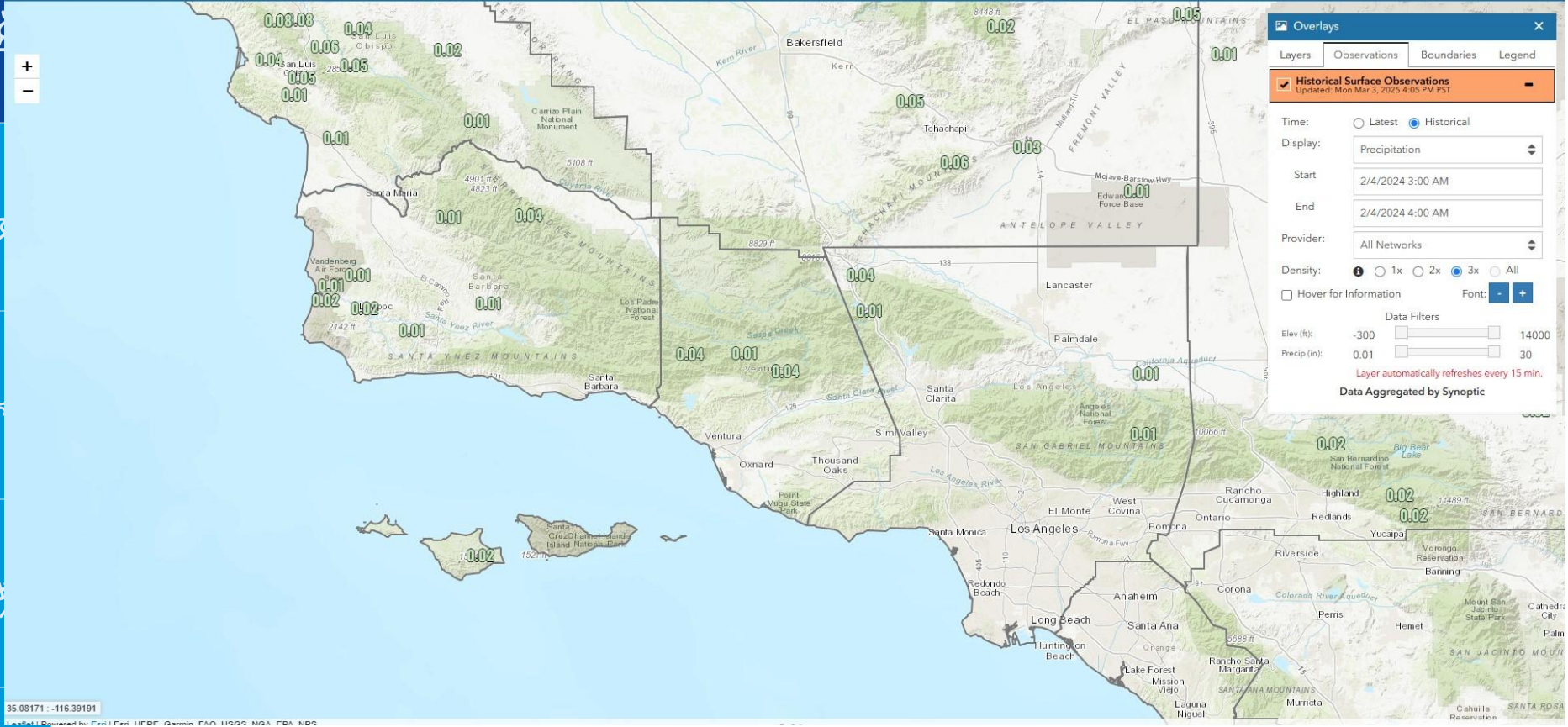
2/4/24 1AM



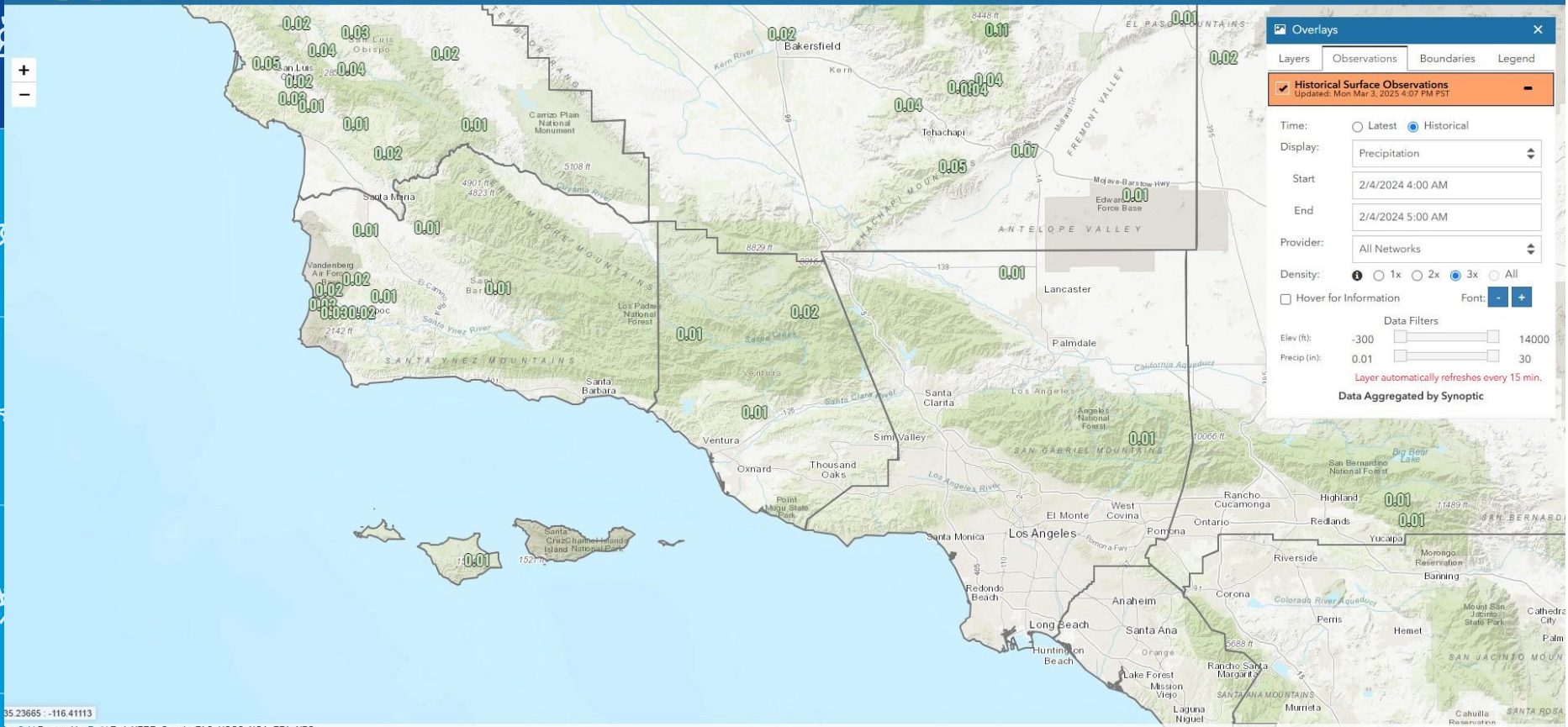


35.2344 ; -117.70752

2/4/24 2AM



2/4/24 3AM



Overlays ✕

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:07 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/4/2024 4:00 AM

End: 2/4/2024 5:00 AM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: + -

Data Filters

Elev (ft): -300 14000

Precip (in): 0.01 30

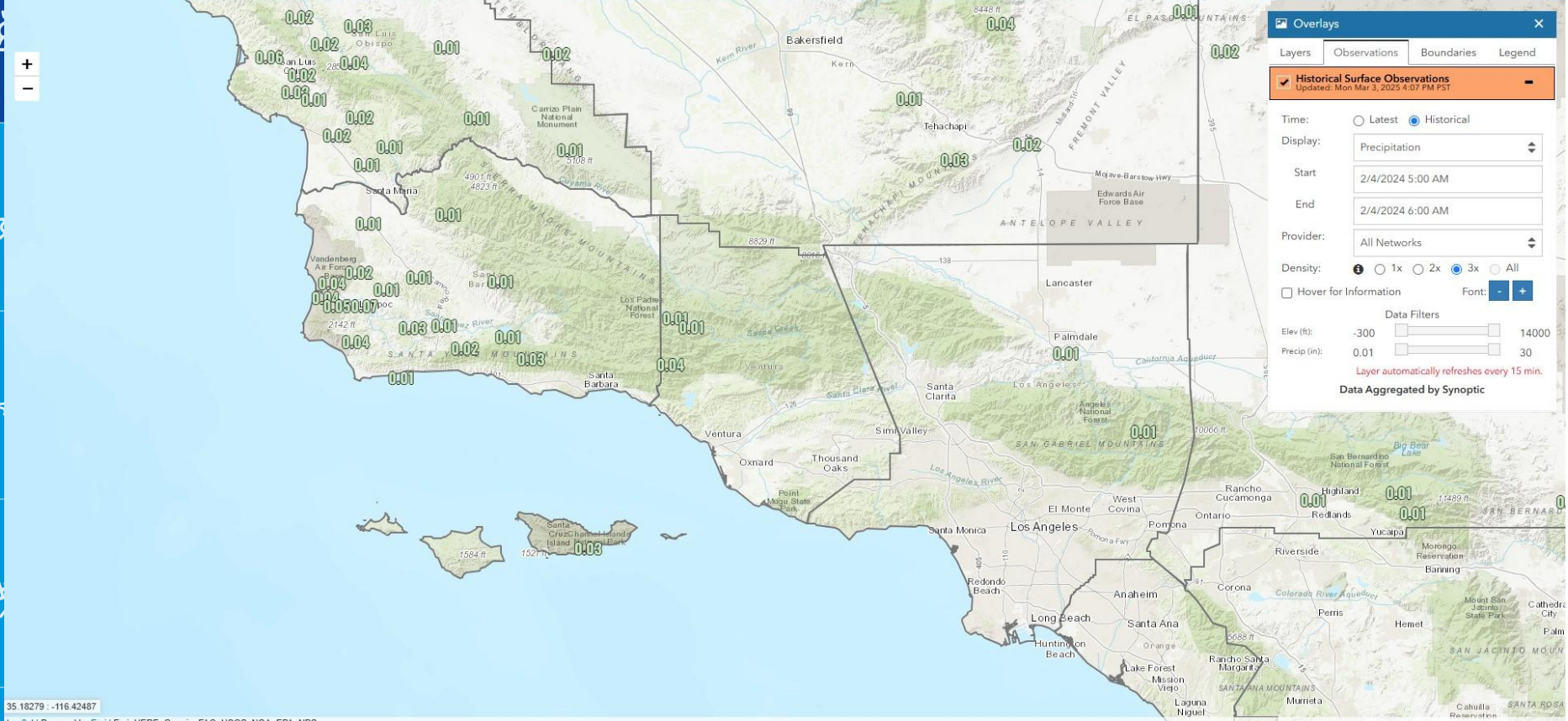
Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

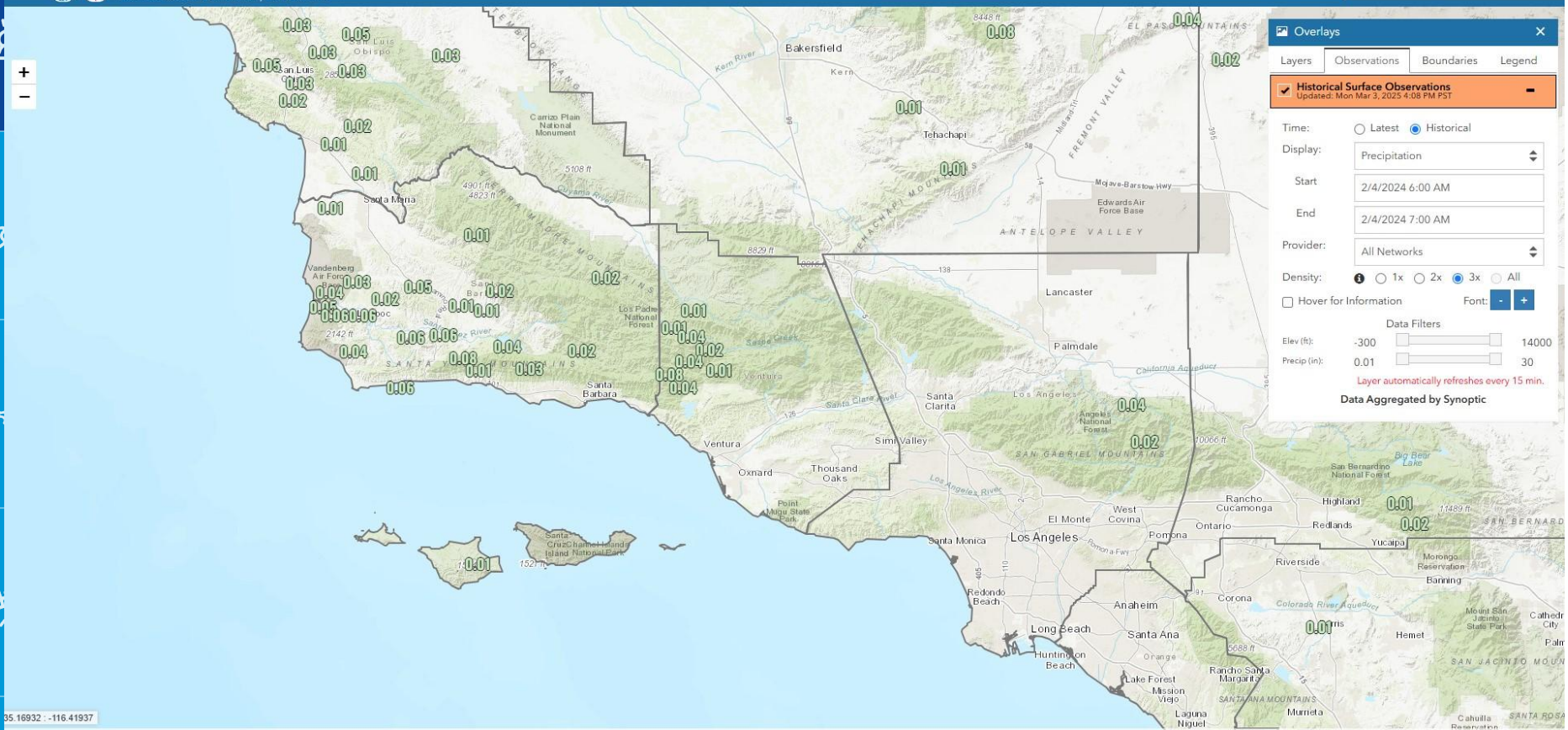
35.23665 -116.41113

Weather Data provided by Earthstar, MERRA-2, GPM, SNO, NCEP, NOAA, ERA, NCEP

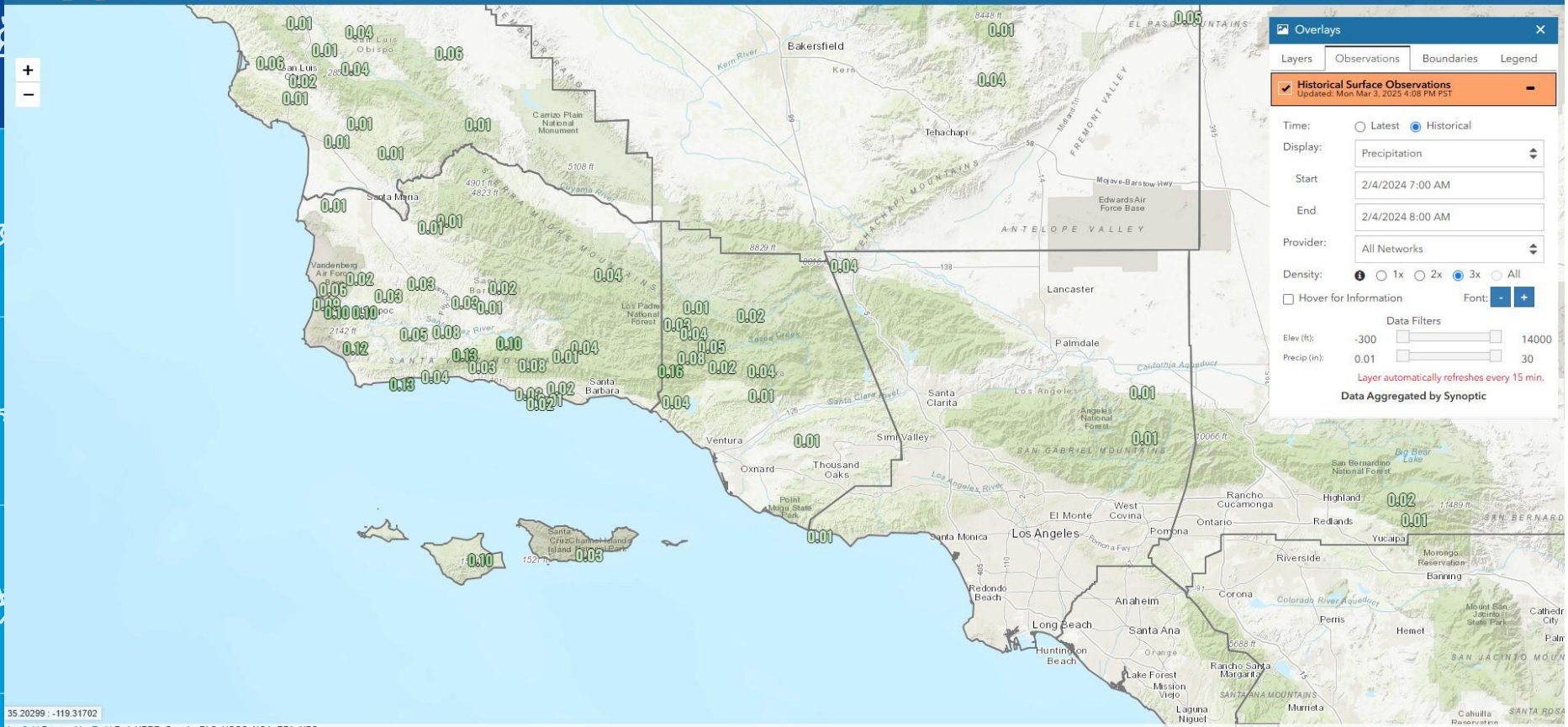
2/4/24 4AM



2/4/24 5AM

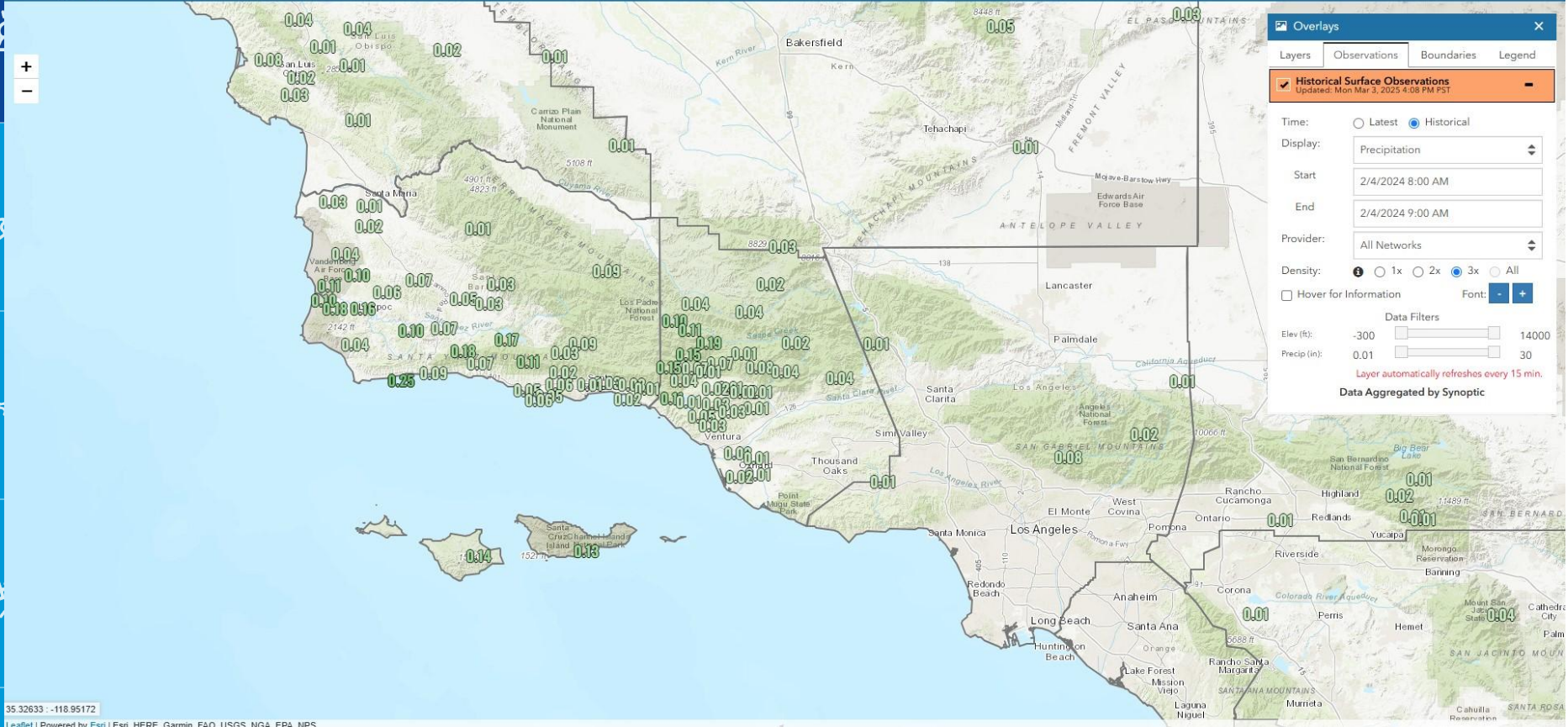


2/4/24 6AM



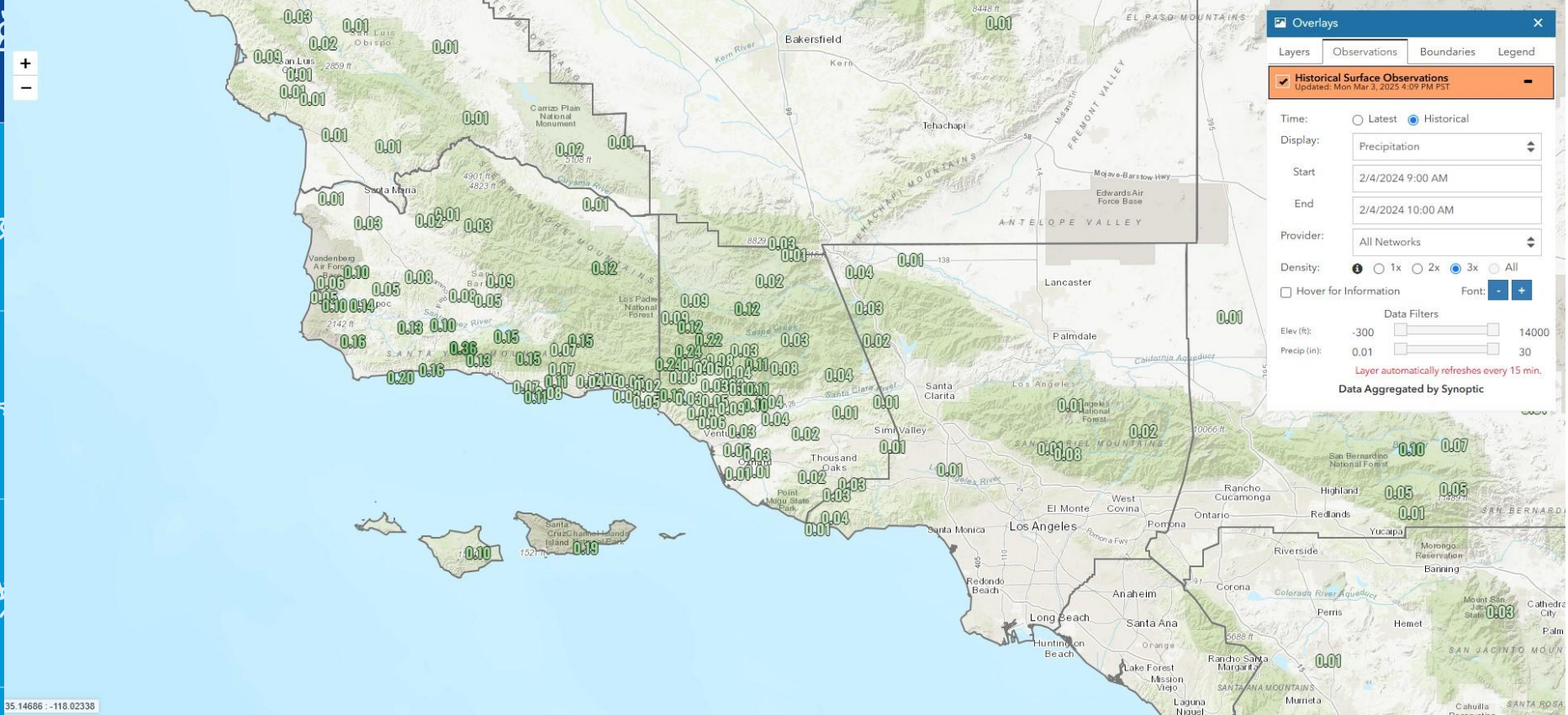
35.20299 -119.31702
Leaflet | Powered by Ferret | Ferret | HERE | Garmin | FAO | USGS | NOAA | EPA | NPS

2/4/24 7AM



35.32633 -118.95172 Leaflet | Powered by Esri | Esri HREF Garmin FAO USGS NGA FRA NPS

2/4/24 8AM



35.14686 -118.02338

Overlays X

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:09 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/4/2024 9:00 AM

End: 2/4/2024 10:00 AM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: + +

Data Filters

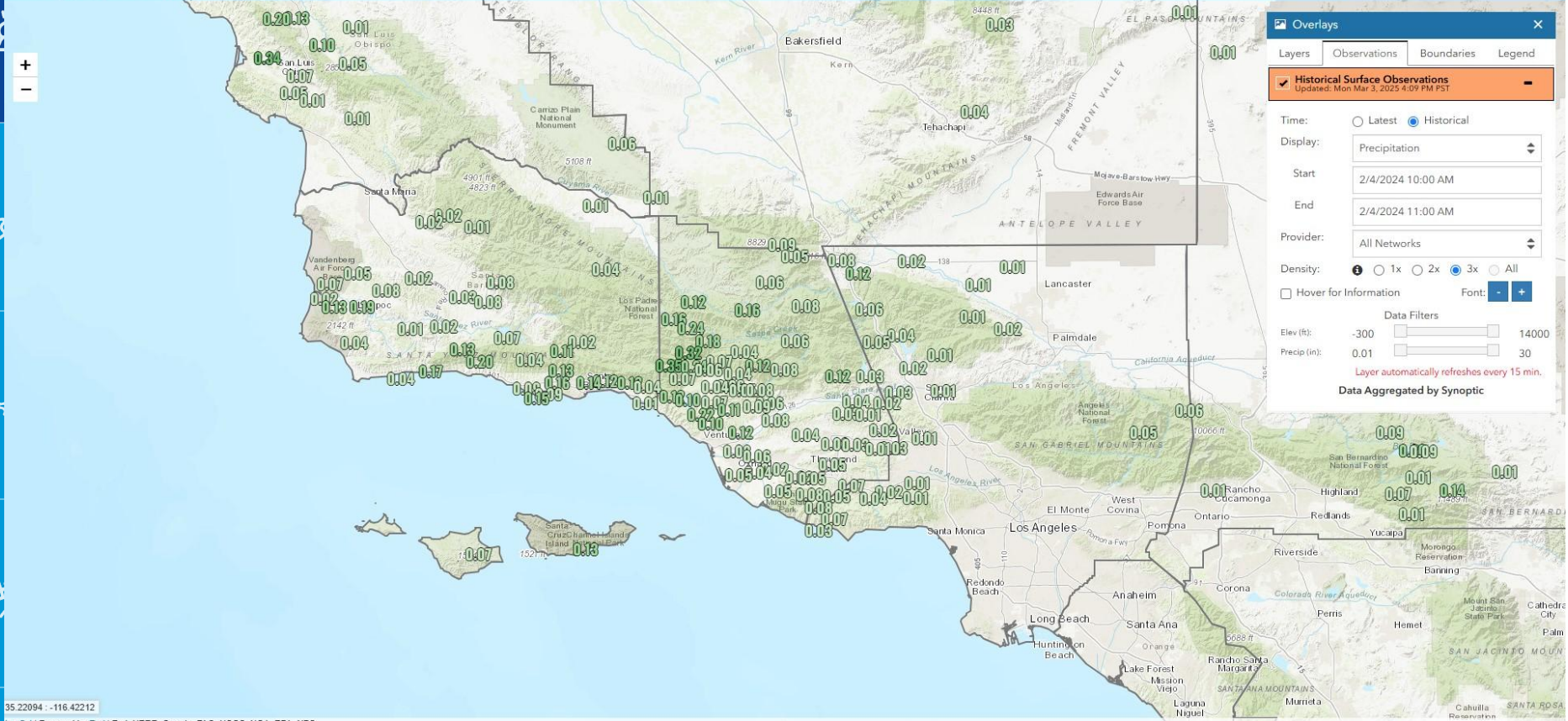
Elev (ft): -300 14000

Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

2/4/24 9AM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:09 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/4/2024 10:00 AM

End: 2/4/2024 11:00 AM

Provider: All Networks

Density: 1x 2x 3x All

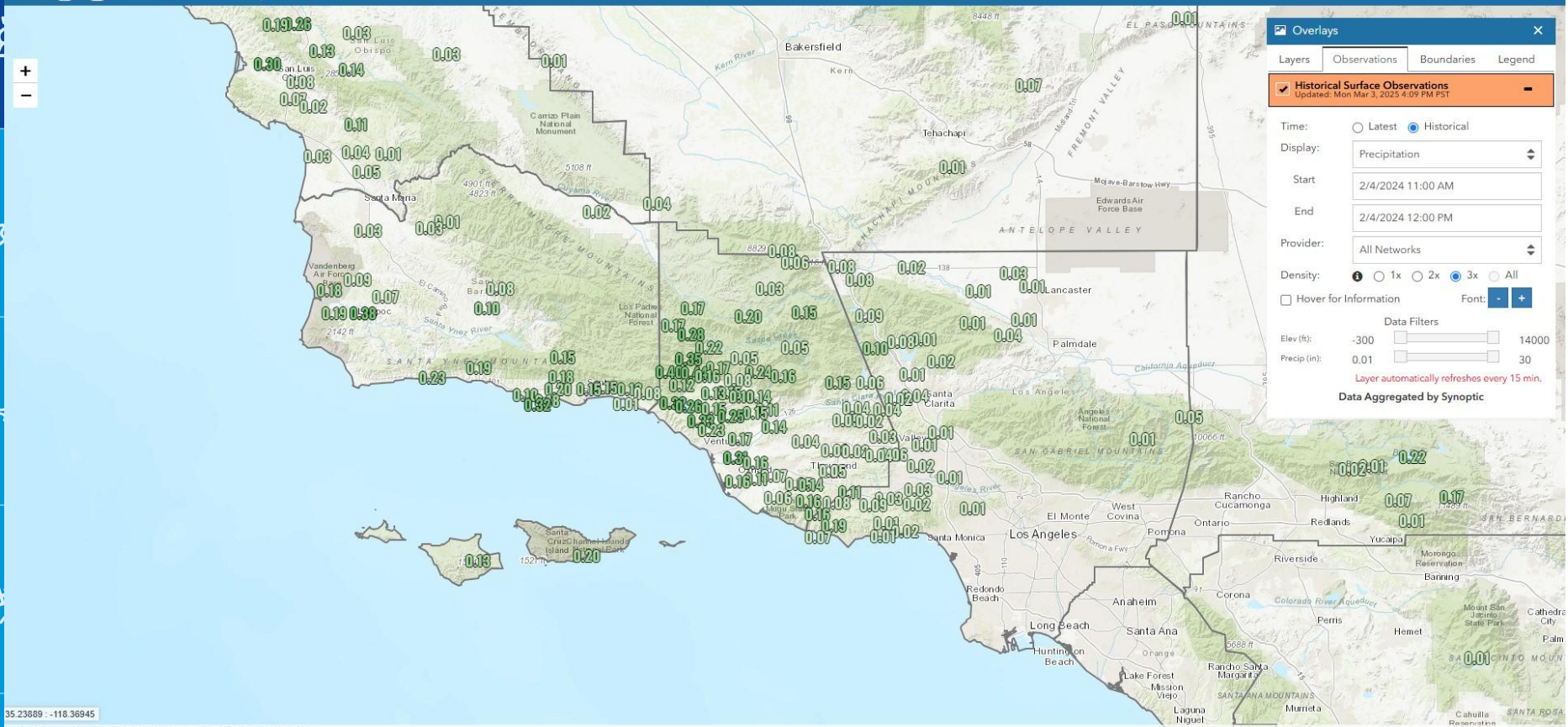
Hover for Information Font: + -

Data Filters
Elev (ft): -300 14000
Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

2/4/24 10AM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:09 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/4/2024 11:00 AM

End: 2/4/2024 12:00 PM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: + -

Data Filters

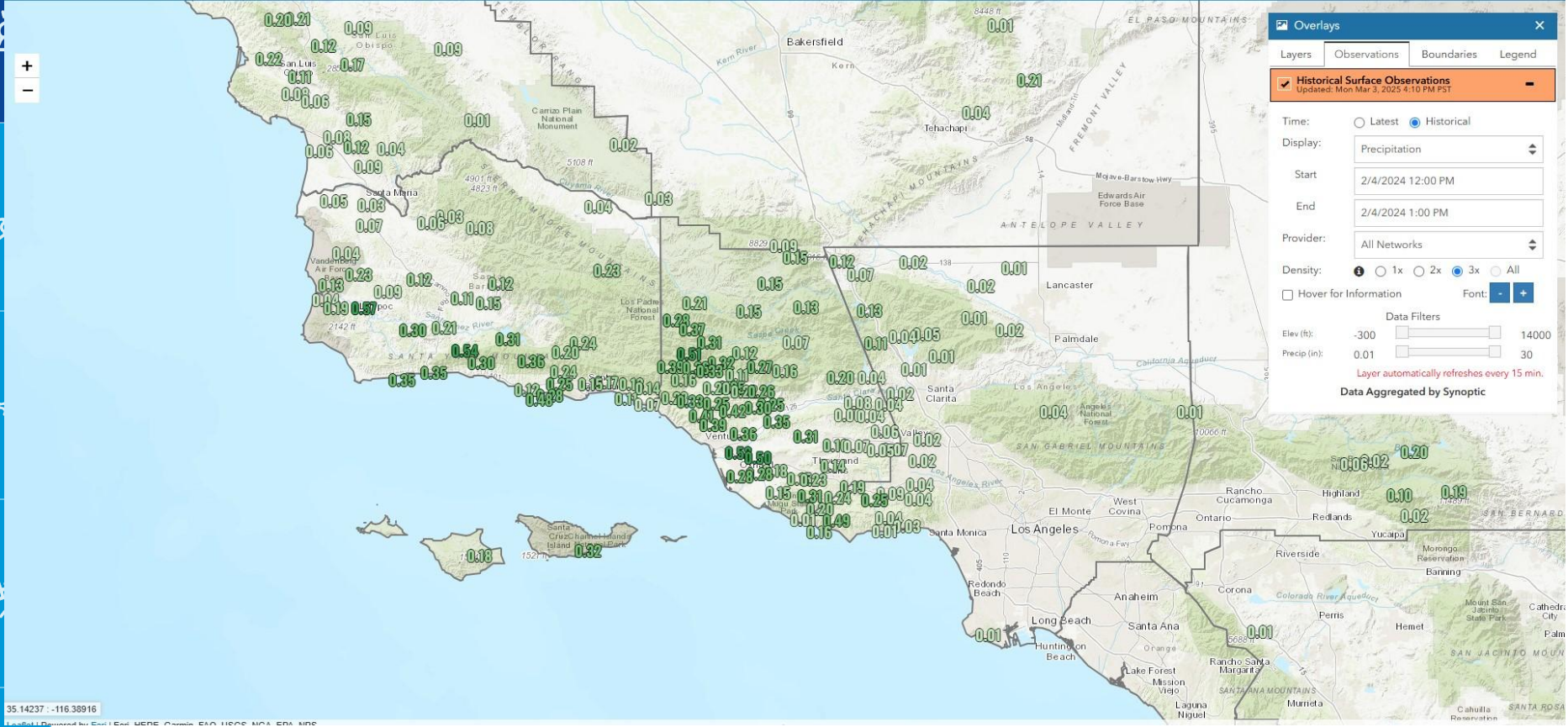
Elev (ft): -300 14000

Precip (in): 0.01 30

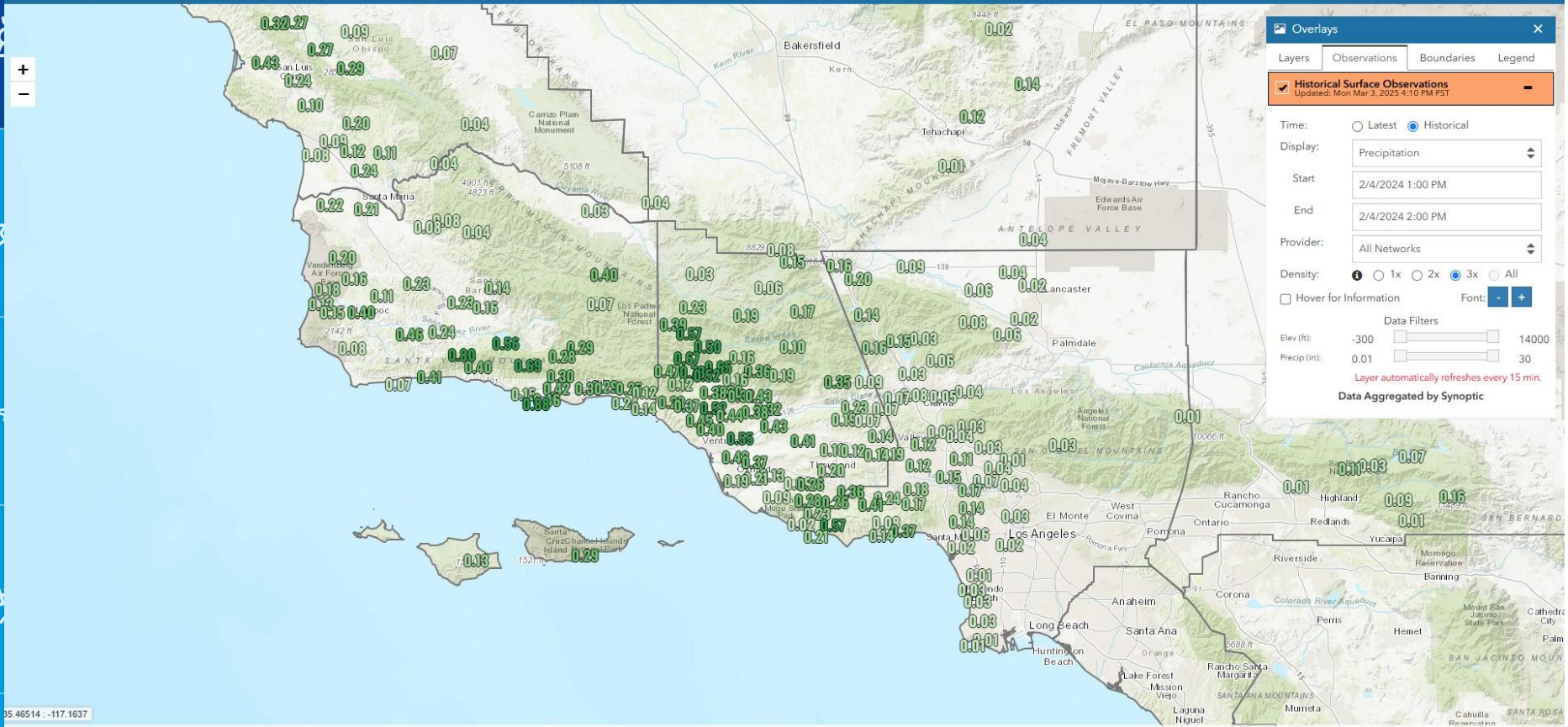
Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

2/4/24 11AM

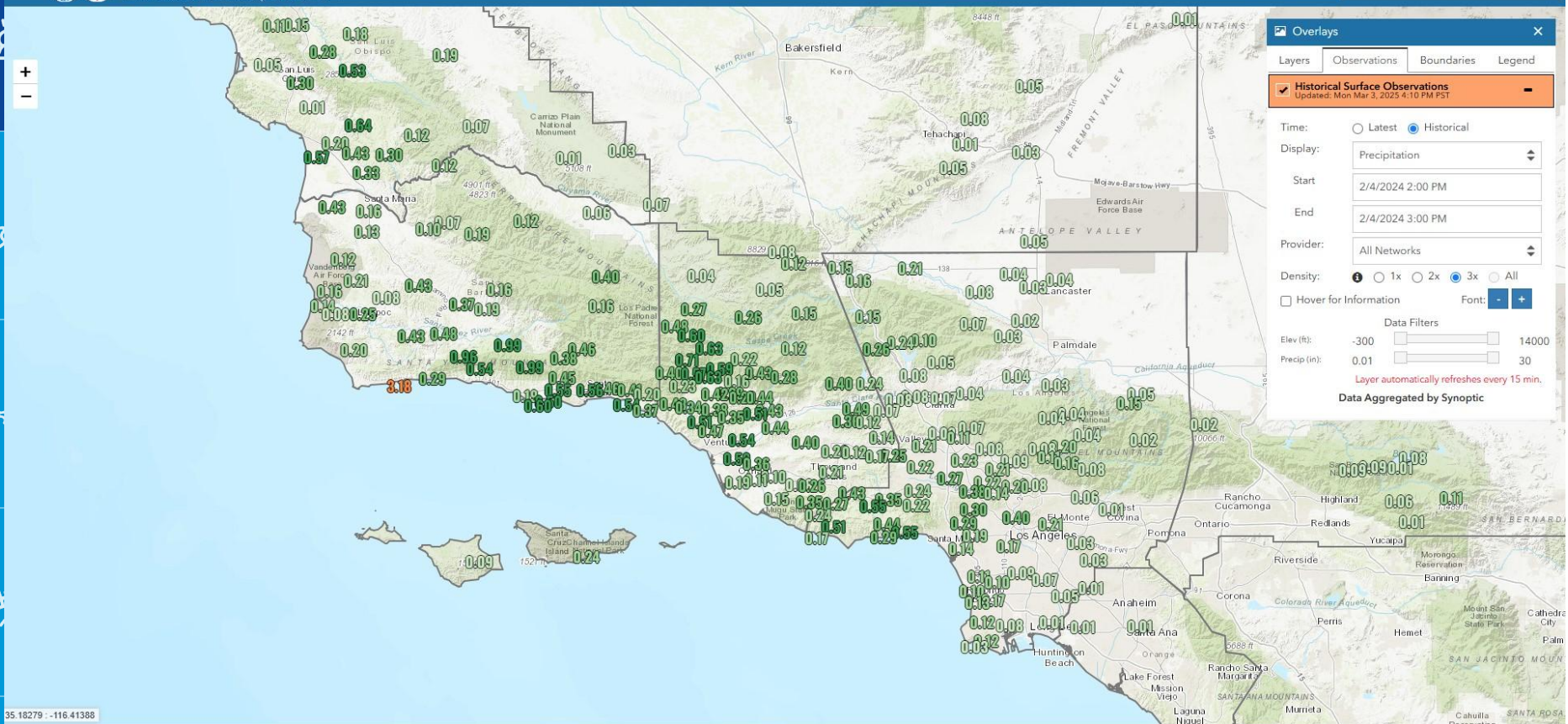


2/4/24 12PM



35.46514 -117.1637
Data provided by Earthstar, XPR, NOAA, EPA, MDP

2/4/24 1PM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:10 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/4/2024 2:00 PM

End: 2/4/2024 3:00 PM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: + +

Data Filters

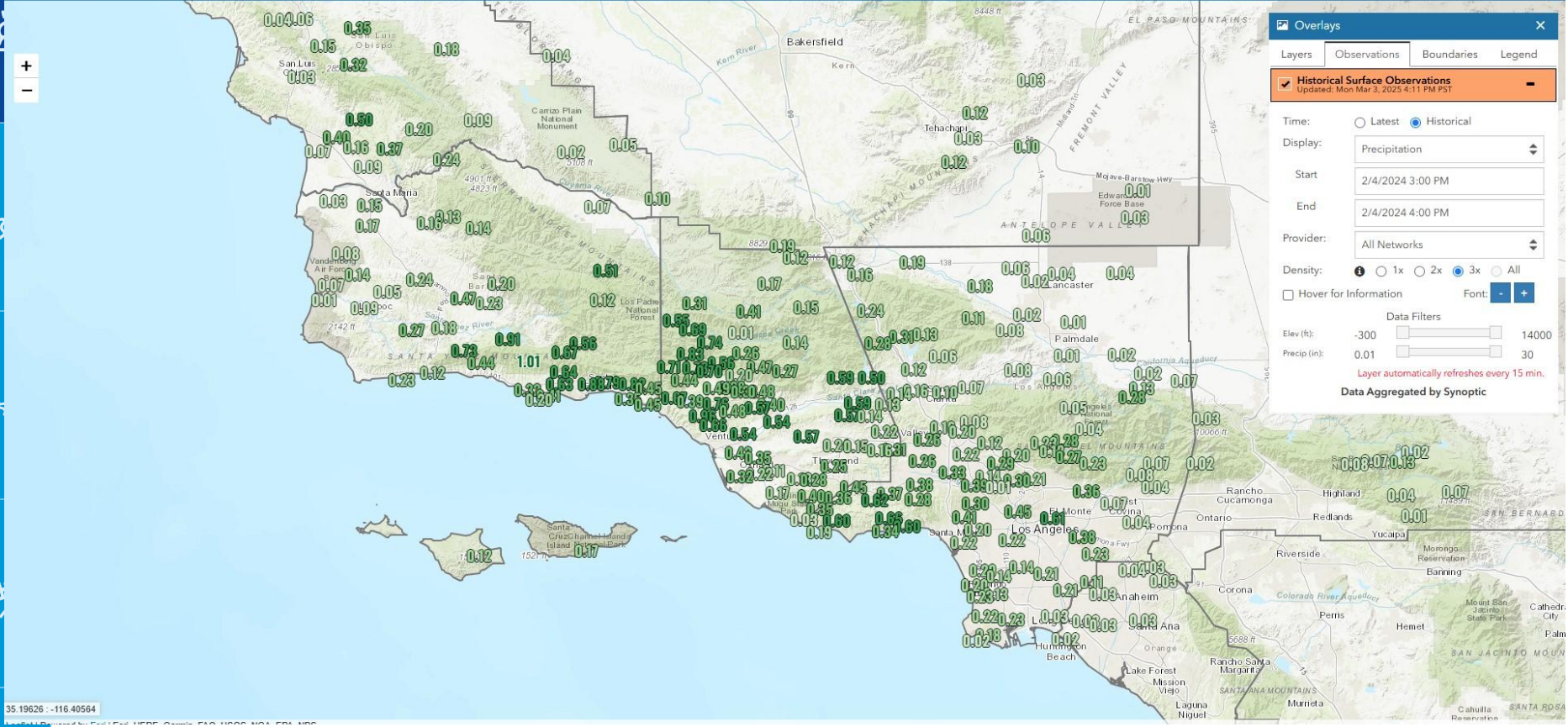
Elev (ft): -300 14000

Precip (in): 0.01 30

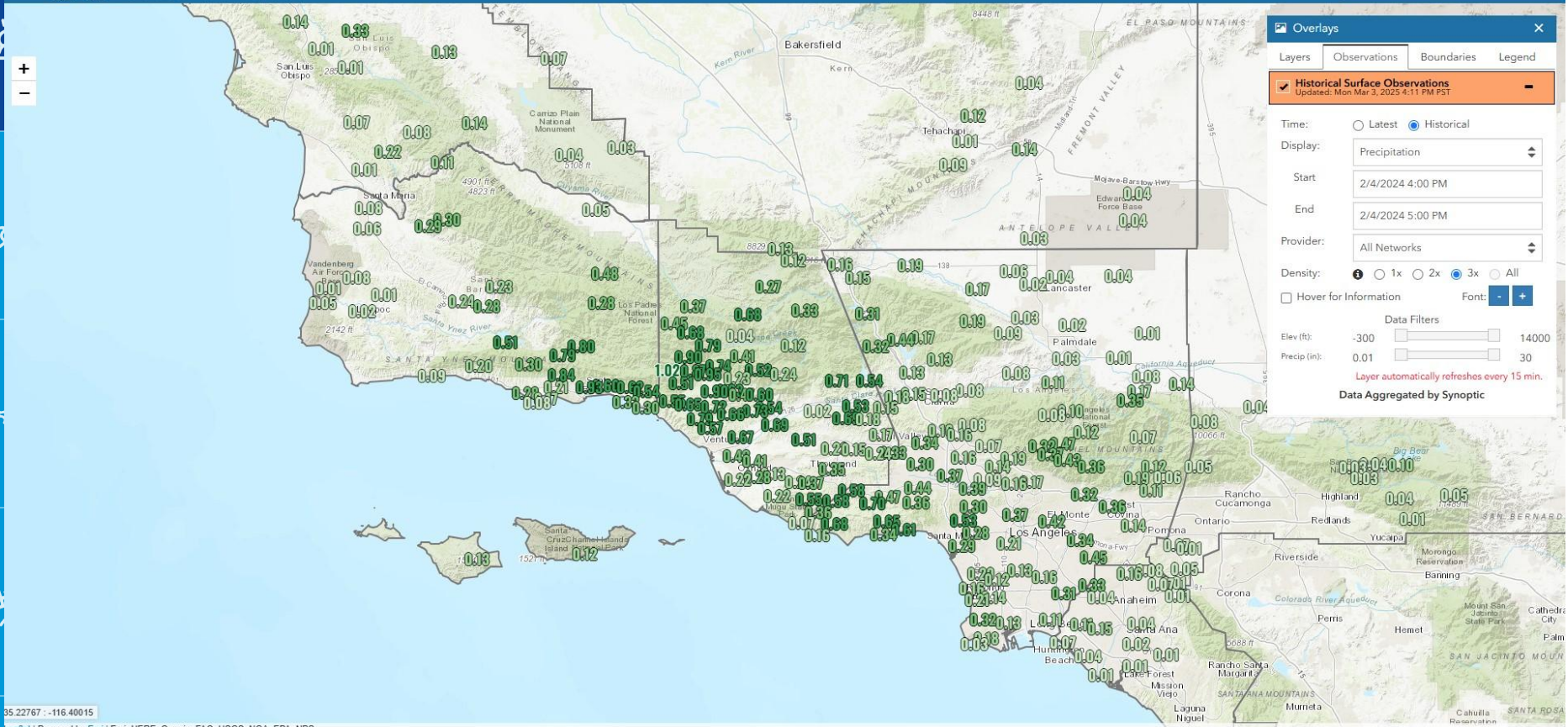
Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

2/4/24 2PM



2/4/24 3PM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:11 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/4/2024 4:00 PM

End: 2/4/2024 5:00 PM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: - +

Data Filters

Elev (ft): -300 14000

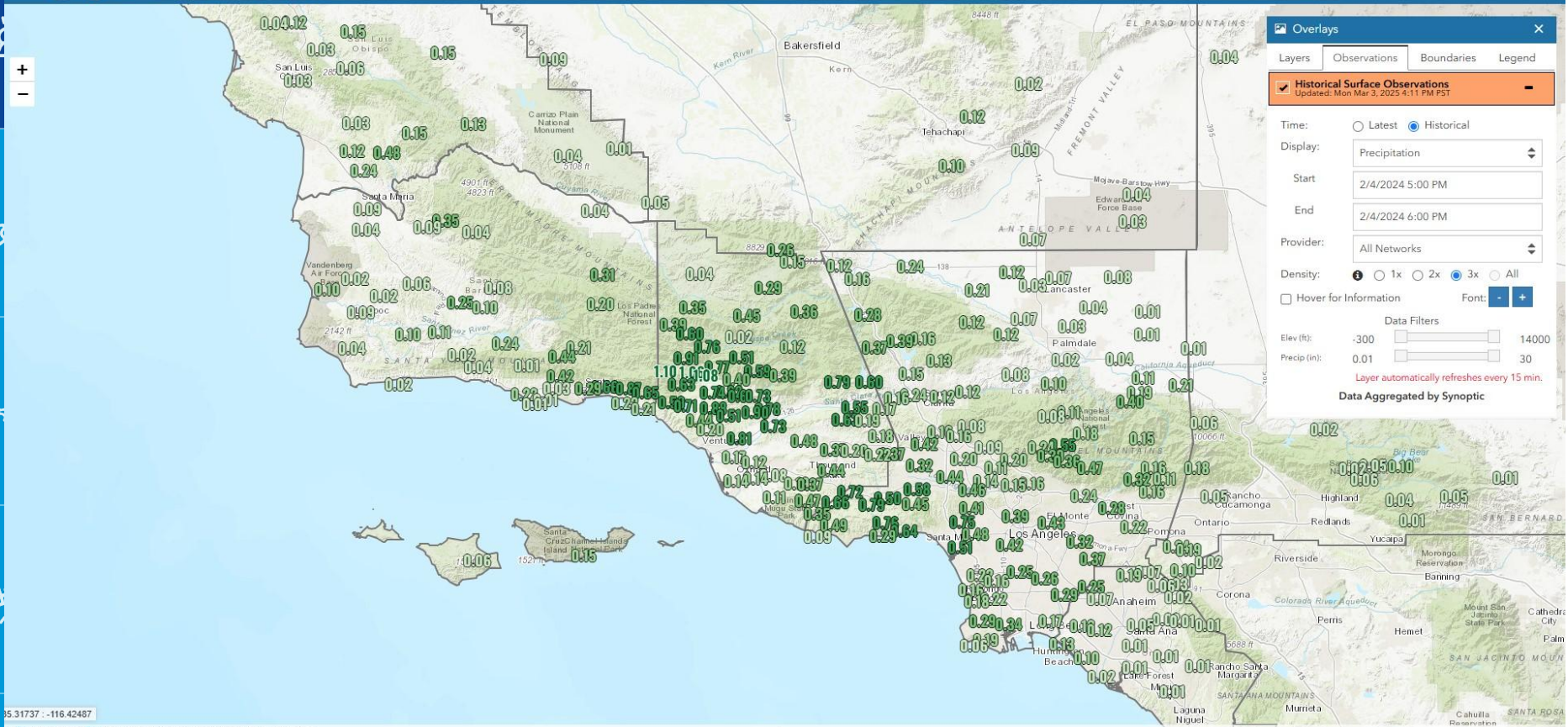
Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

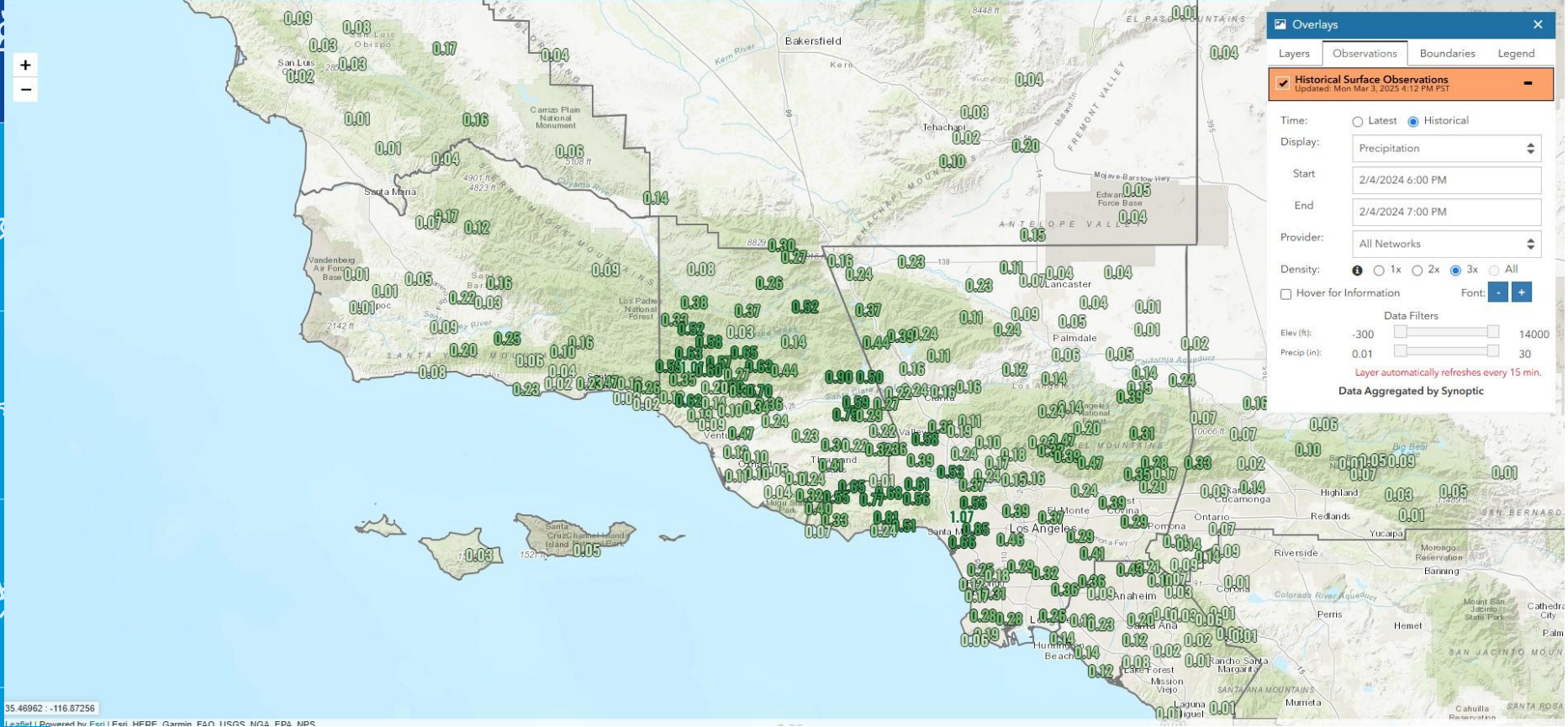
35.22767 - 116.40015
Map Data Provided by Esri | Fort HDEP | Garmin | FAO | USGS | NOAA | EPA | NPS

2/4/24 4PM



35.31737 -116.42487
Data provided by Earthstar HERE, DeLorme, Esri, IGN, IGCN, NOAA, EPA, MPO

2/4/24 5PM



Overlays ✕

Layers Observations Boundaries Legend

Historical Surface Observations
 Updated: Mon Mar 3, 2025 4:12 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/4/2024 6:00 PM

End: 2/4/2024 7:00 PM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: + -

Data Filters

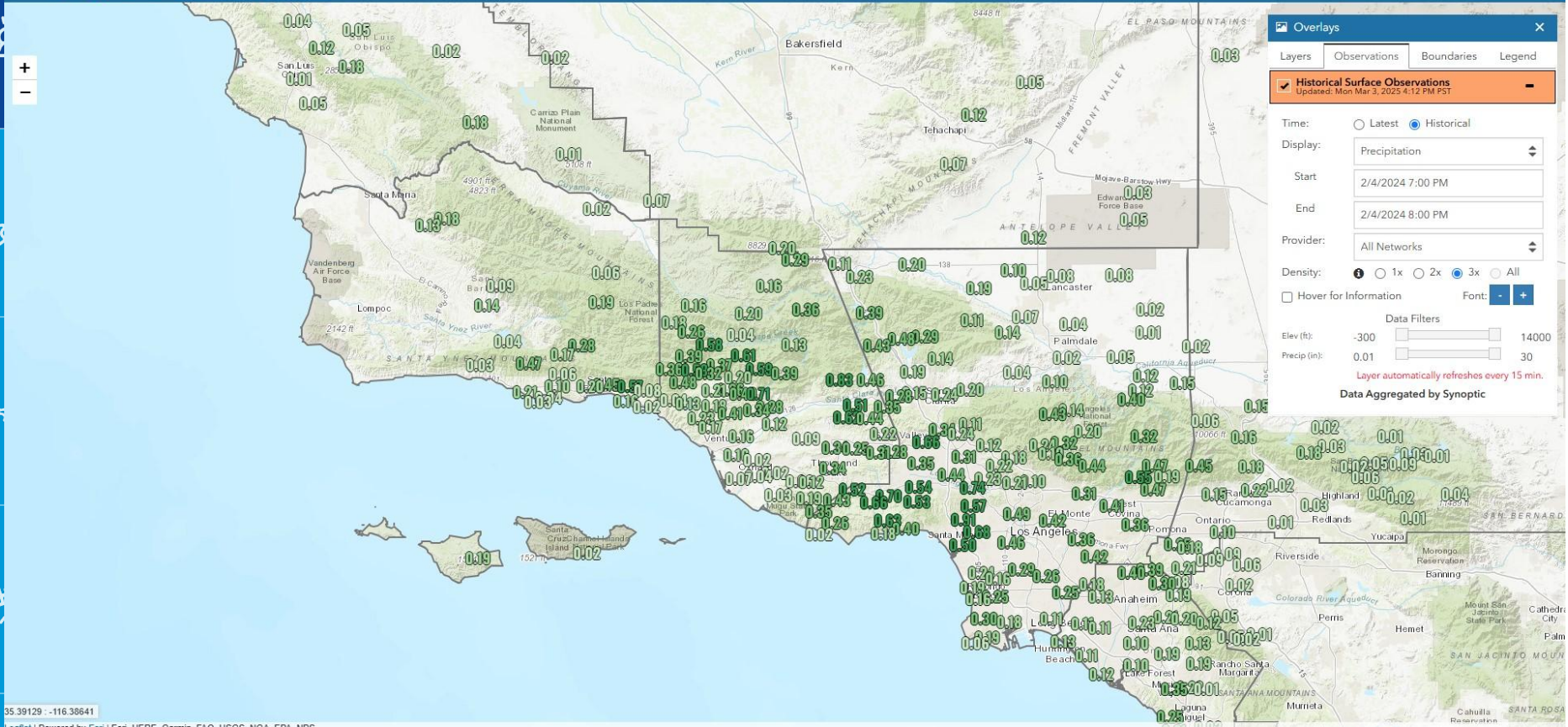
Elev (ft): -300 14000

Precip (in): 0.01 30

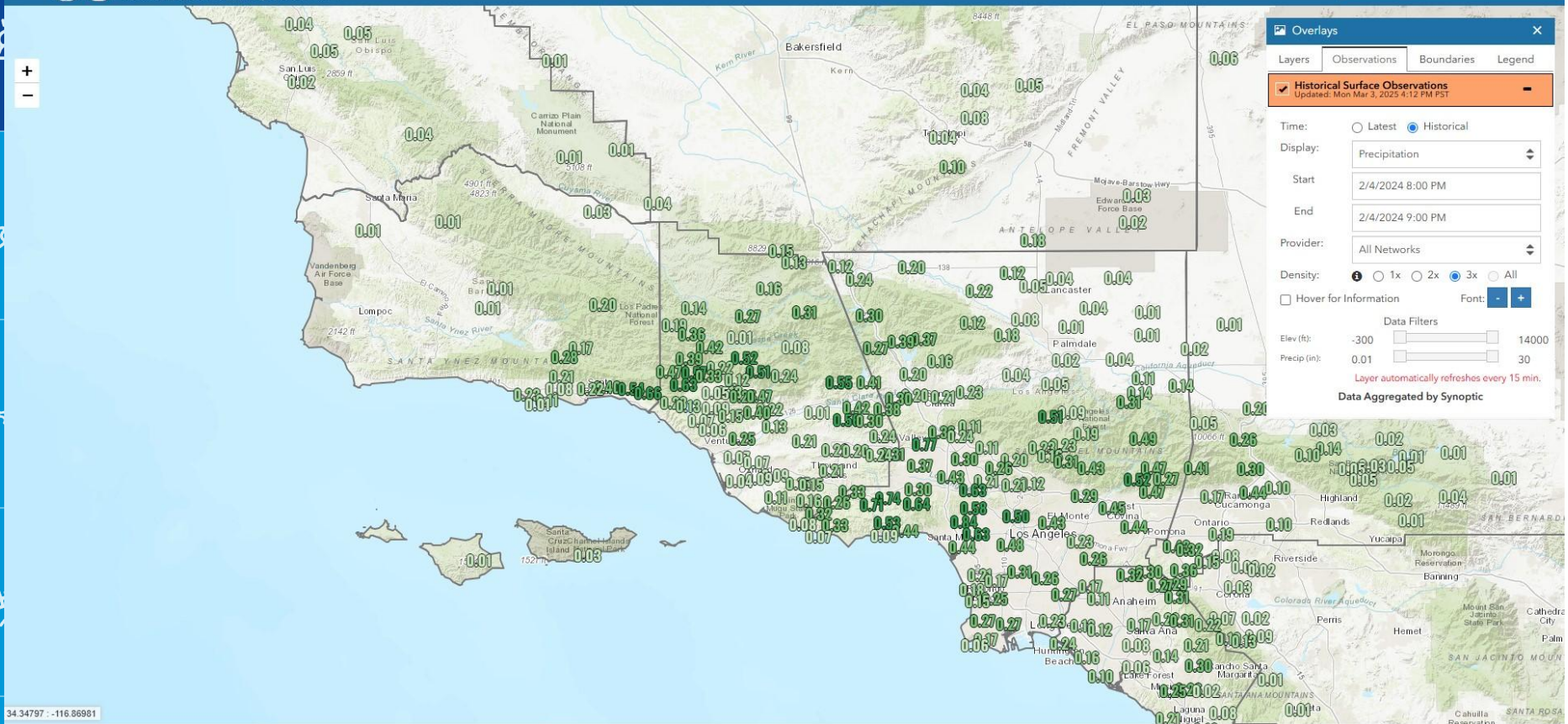
Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

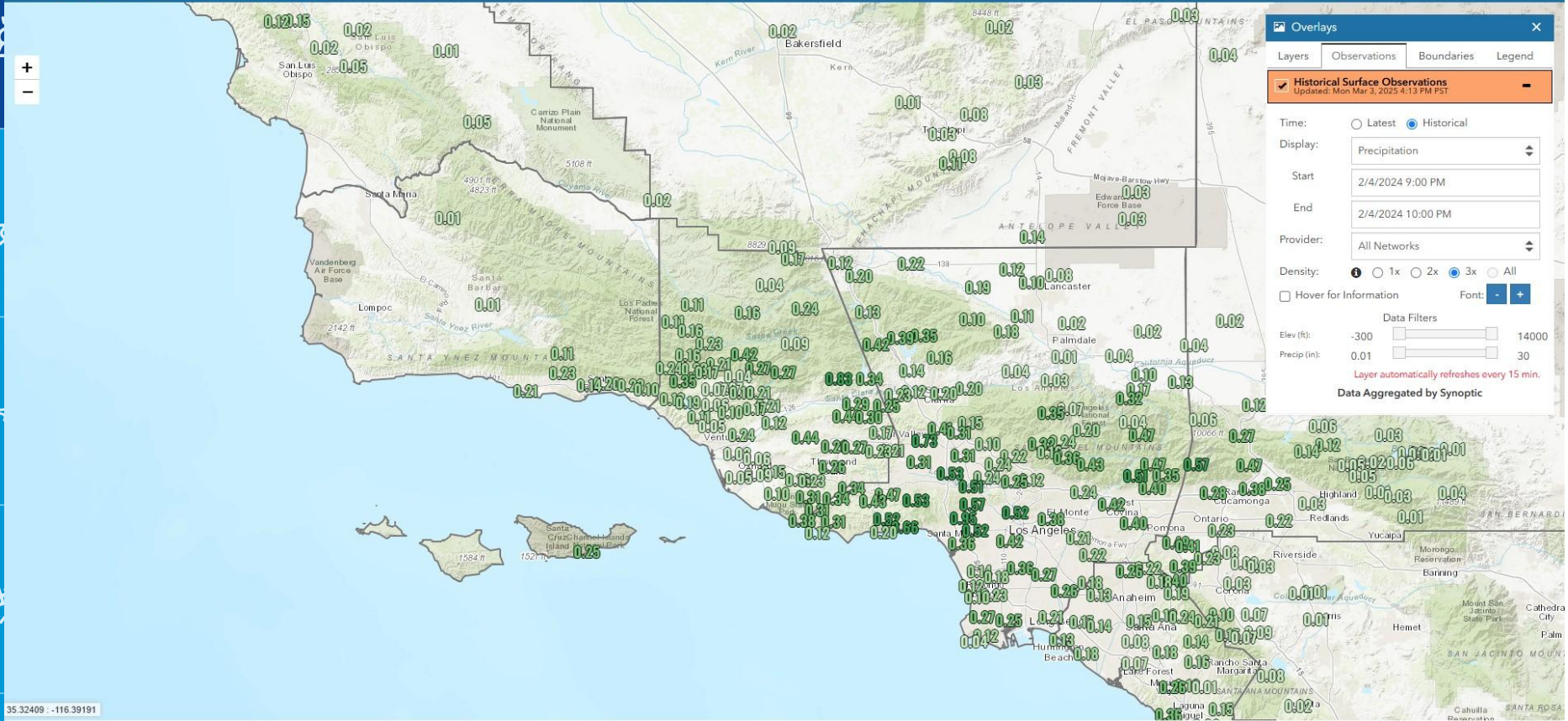
2/4/24 6PM



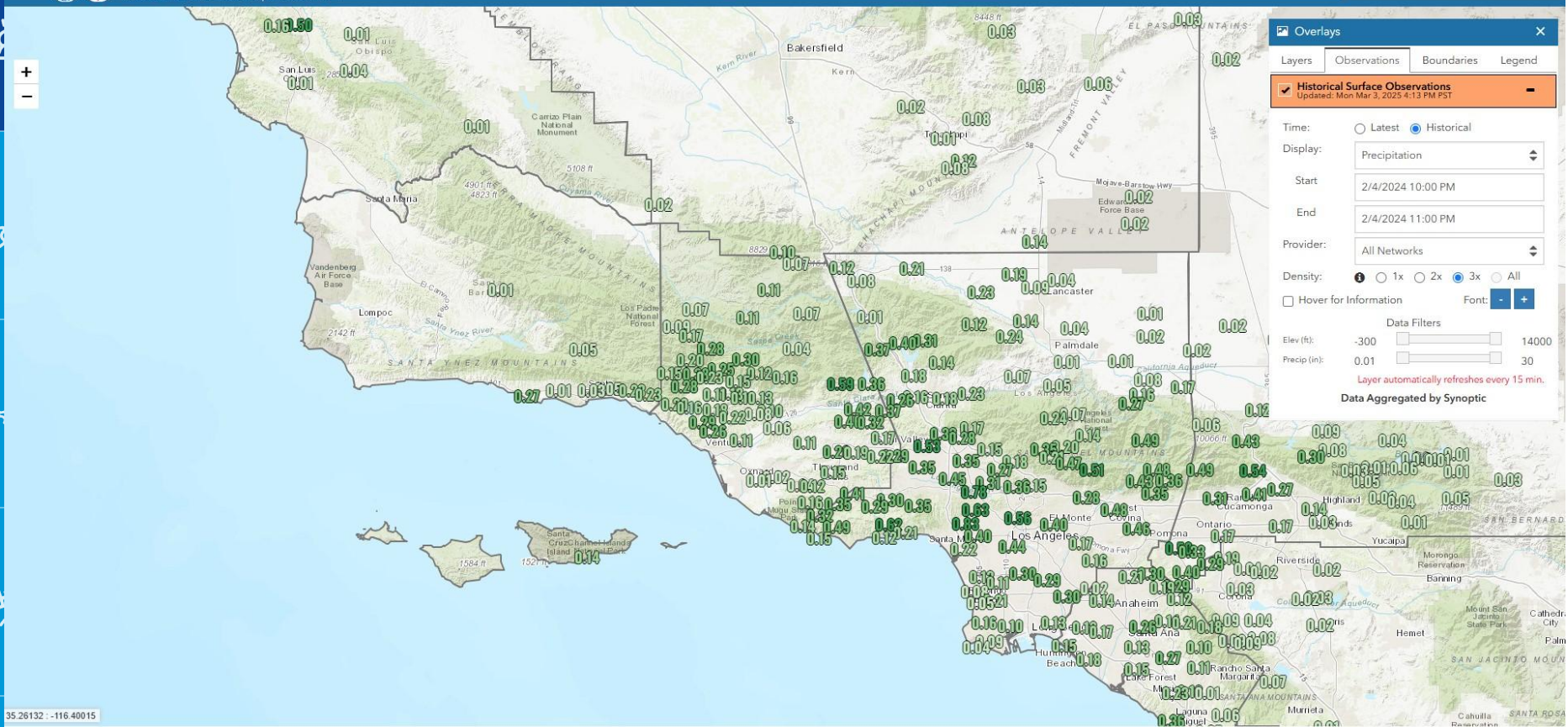
2/4/24 7PM



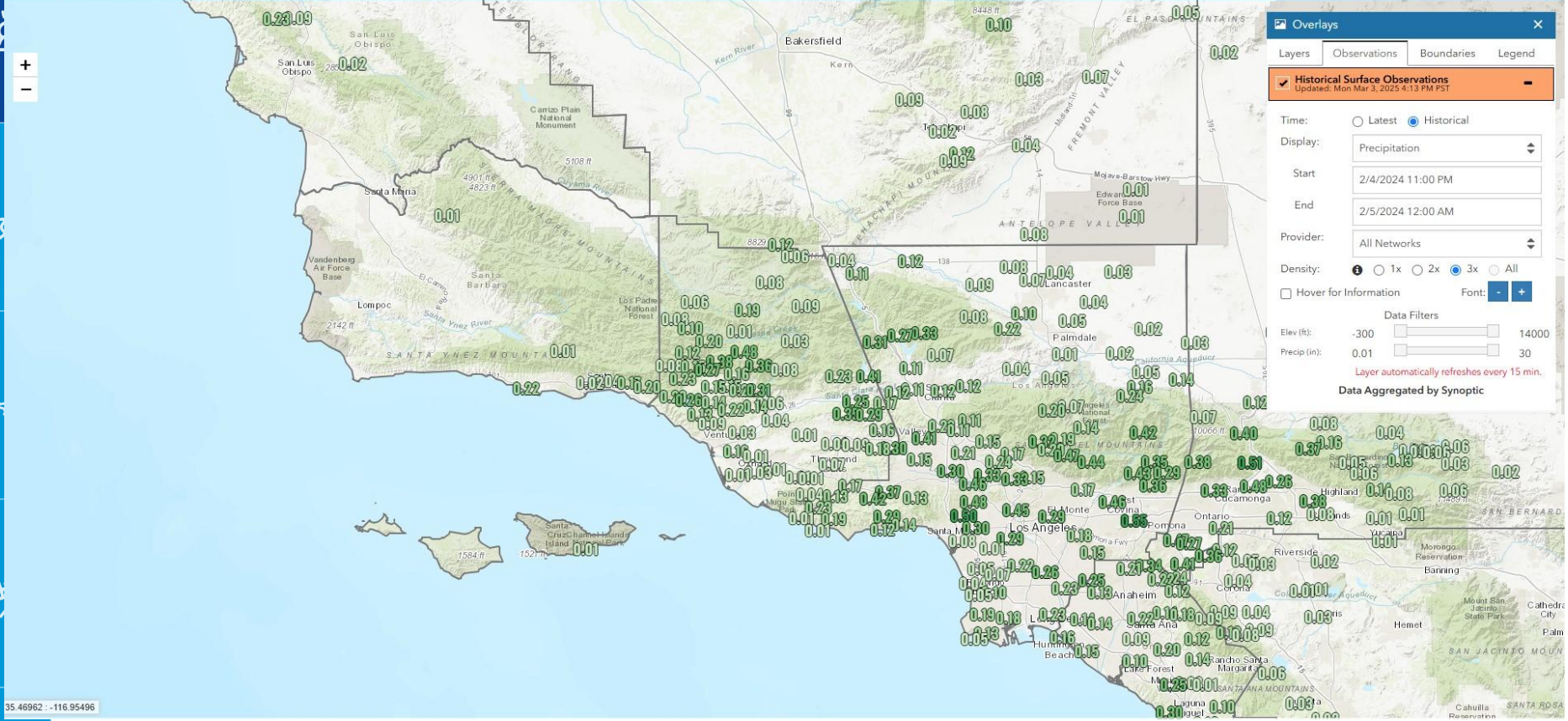
2/4/24 8PM



2/4/24 9PM



2/4/24 10PM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:13 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/4/2024 11:00 PM

End: 2/5/2024 12:00 AM

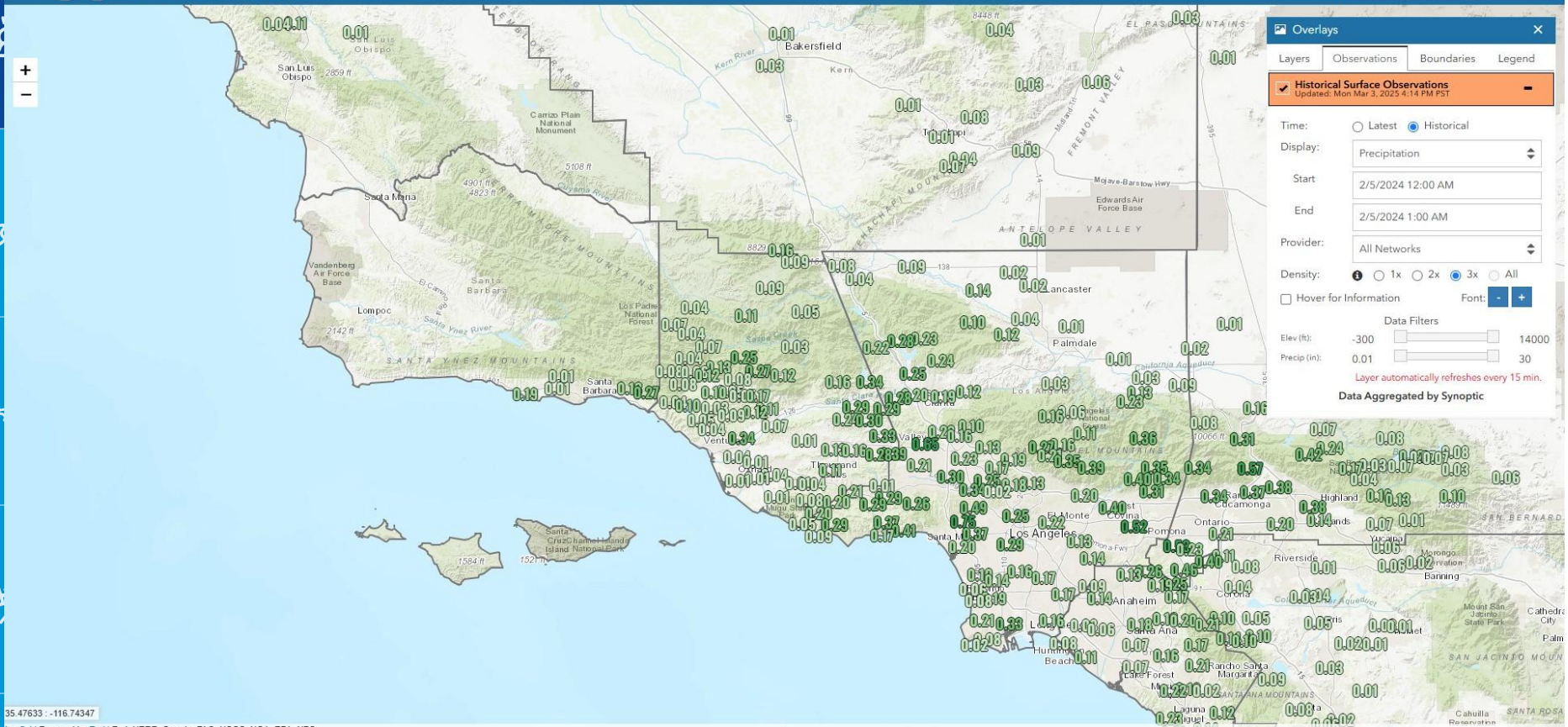
Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: +

Data Filters
Elev (ft): -300 14000
Precip (in): 0.01 30
Layer automatically refreshes every 15 min.
Data Aggregated by Synoptic

2/4/24 11PM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:14 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/5/2024 12:00 AM

End: 2/5/2024 1:00 AM

Provider: All Networks

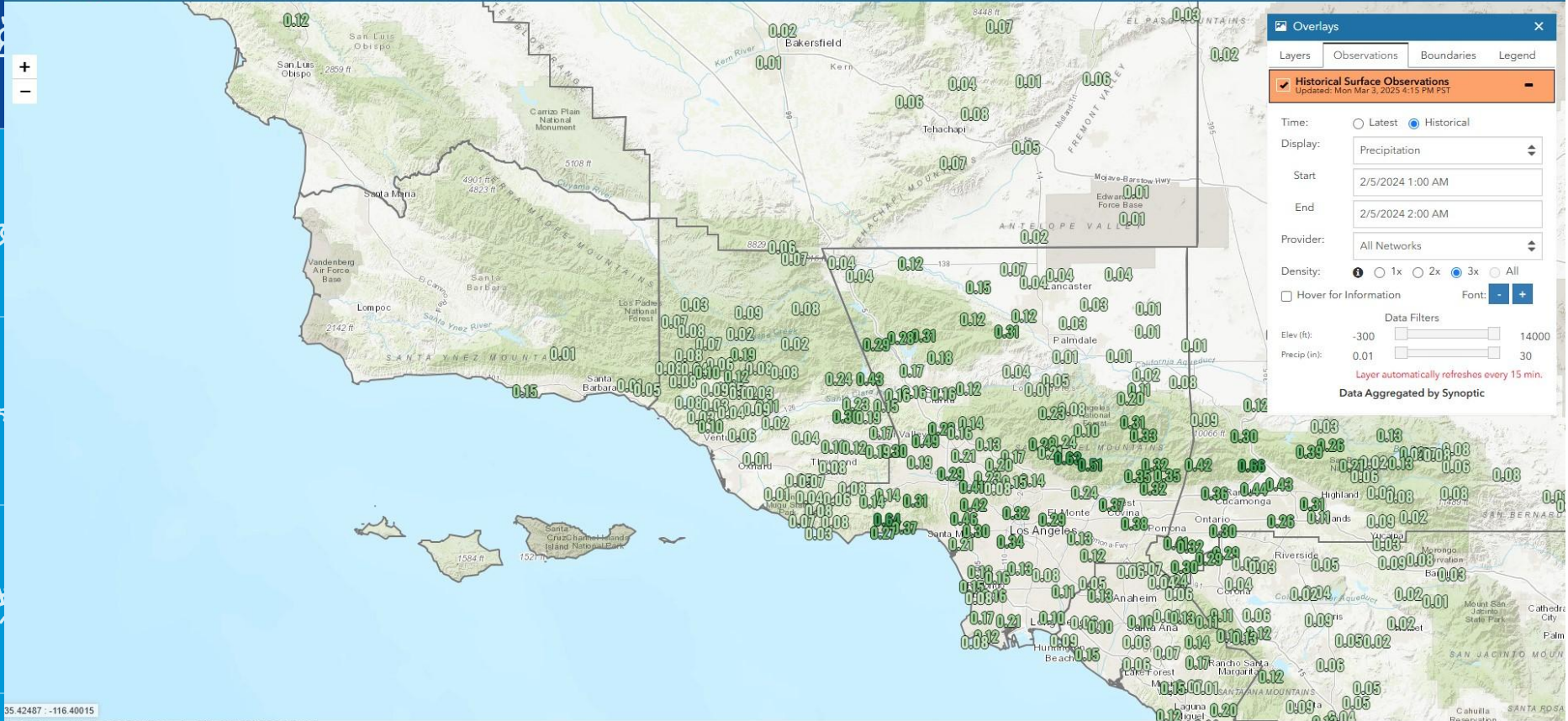
Density: 1x 2x 3x All

Hover for Information Font: +

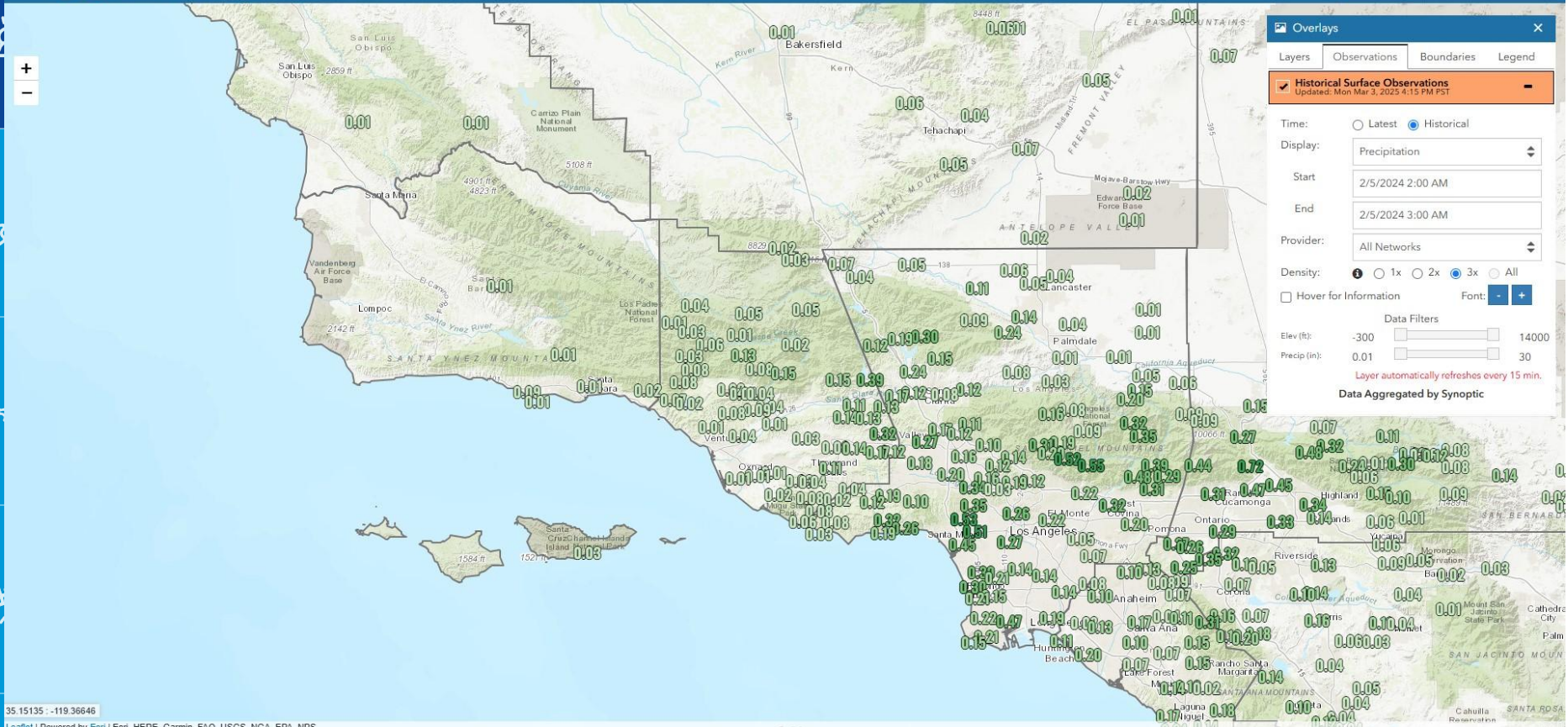
Data Filters
Elev (ft): -300 14000
Precip (in): 0.01 30
Layer automatically refreshes every 15 min.
Data Aggregated by Synoptic

2/5/24 12AM

35.47633 -116.74347
Leaflet | Data provided by Earth-Data, NCEP, GPM, SNO, IAGOS, MDA, ERA-Interim



2/5/24 1AM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:15 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/5/2024 2:00 AM

End: 2/5/2024 3:00 AM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: - +

Data Filters

Elev (ft): -300 14000

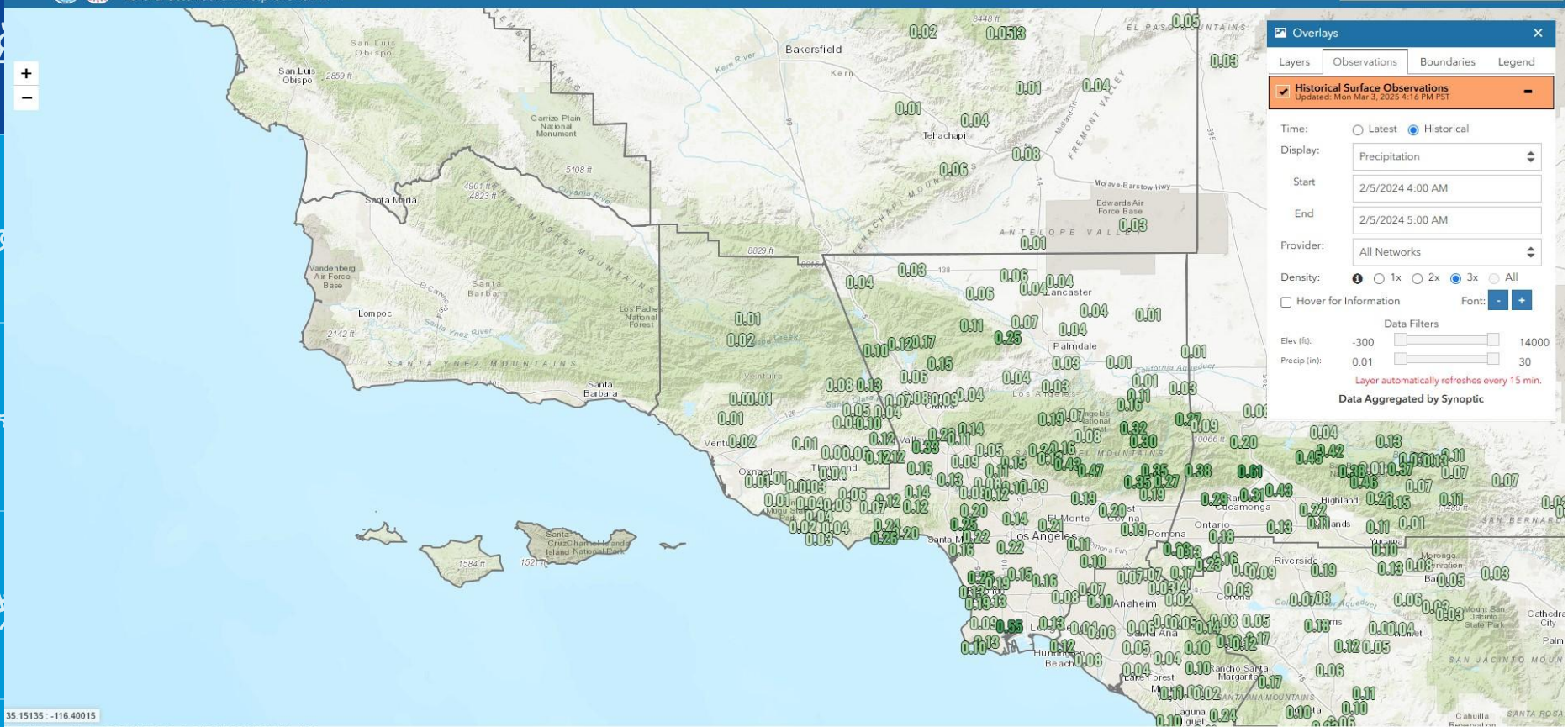
Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

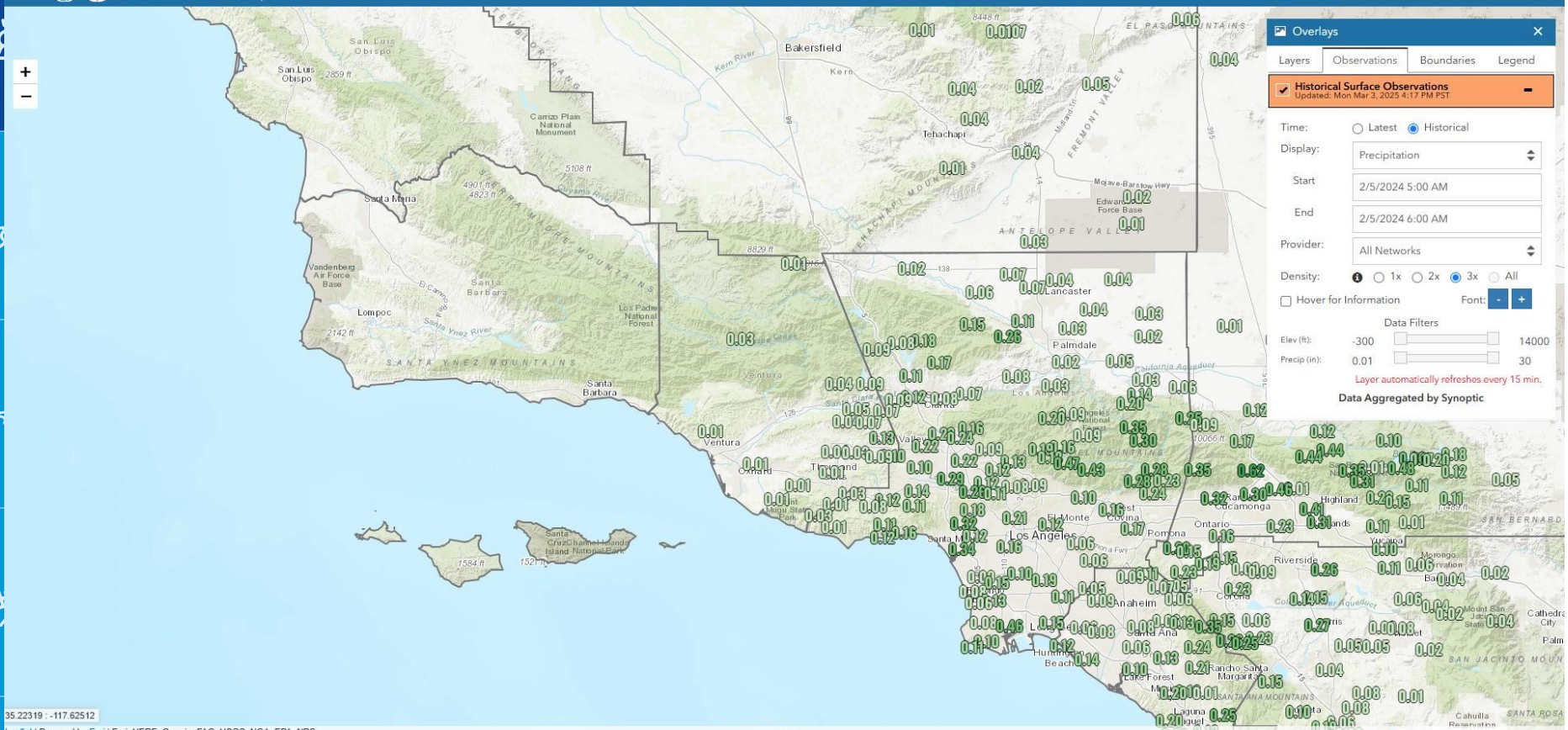
Data Aggregated by Synoptic

35.15135 -119.36646
Leaflet | Data by OpenStreetMap contributors, Imagery © Mapbox

2/5/24 2AM

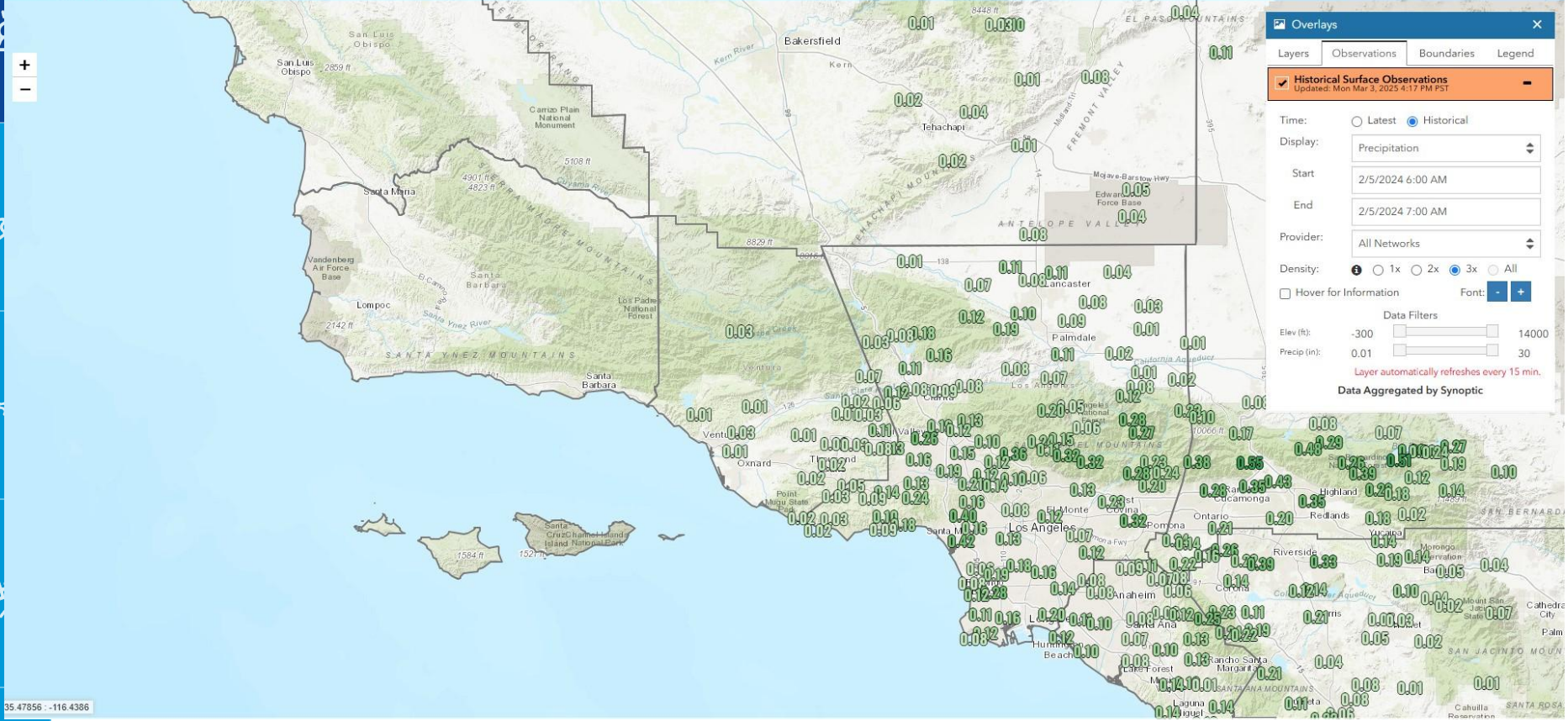


2/5/24 4AM

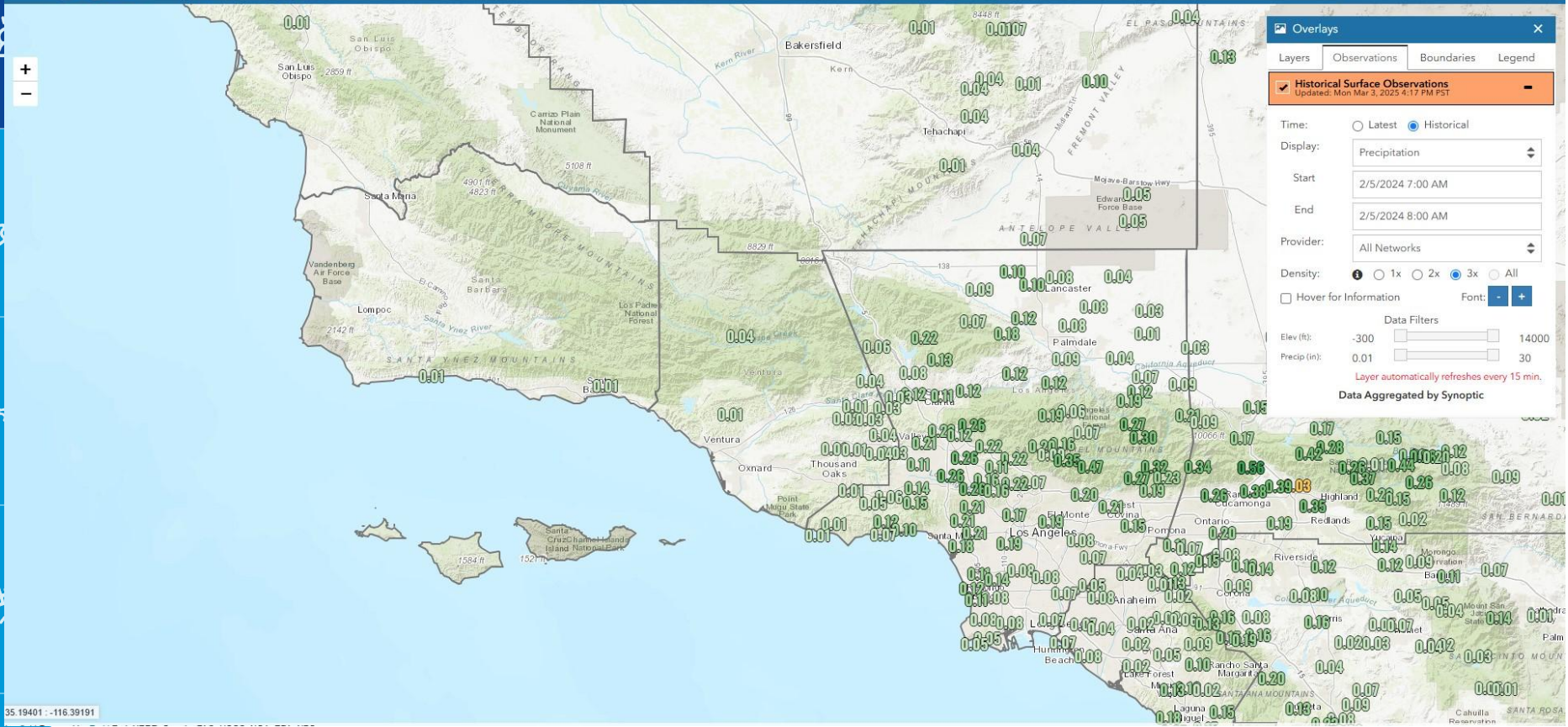


35.22319 -117.62512 Leaflet | Powered by Ferret Ferret HREF: Garmin F&O USGS NGA FPA NPS

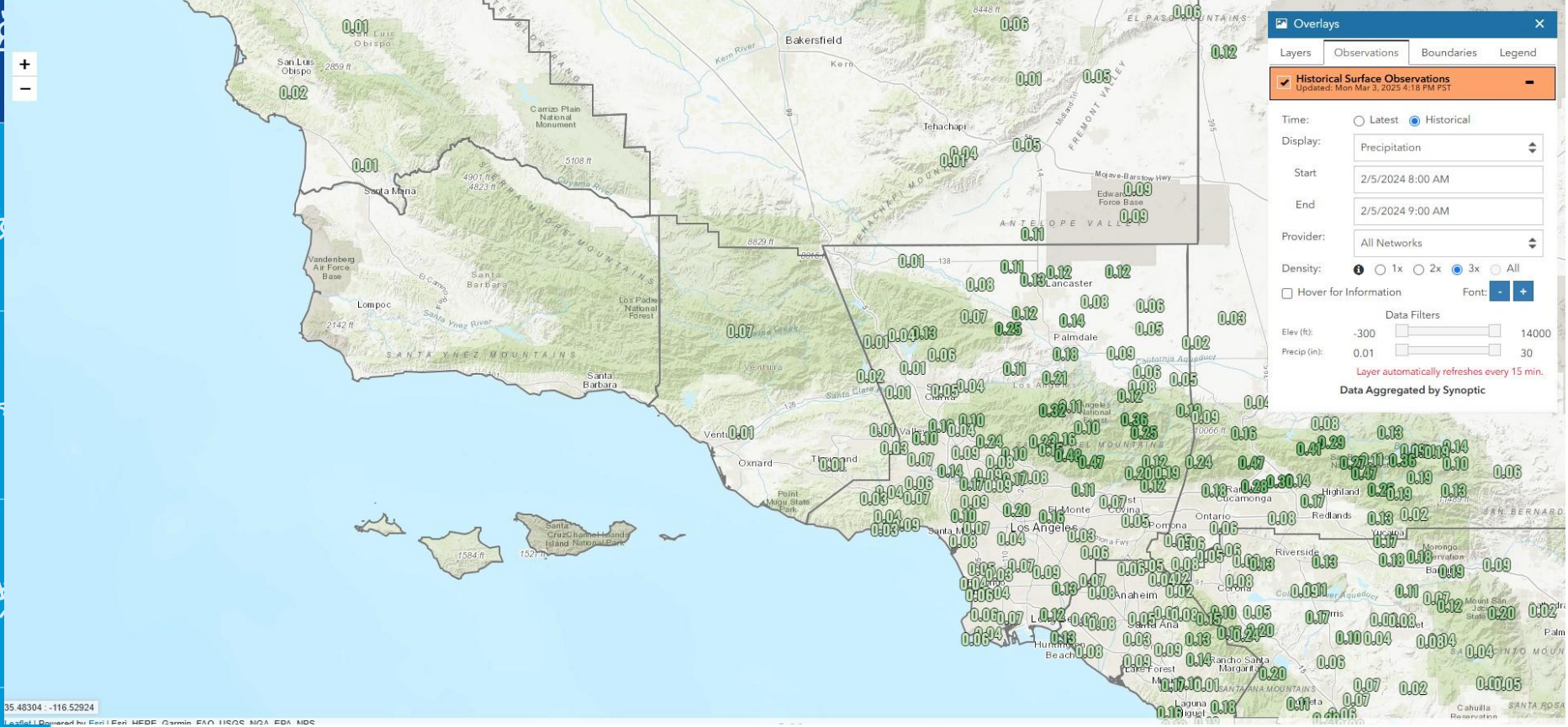
2/5/24 5AM



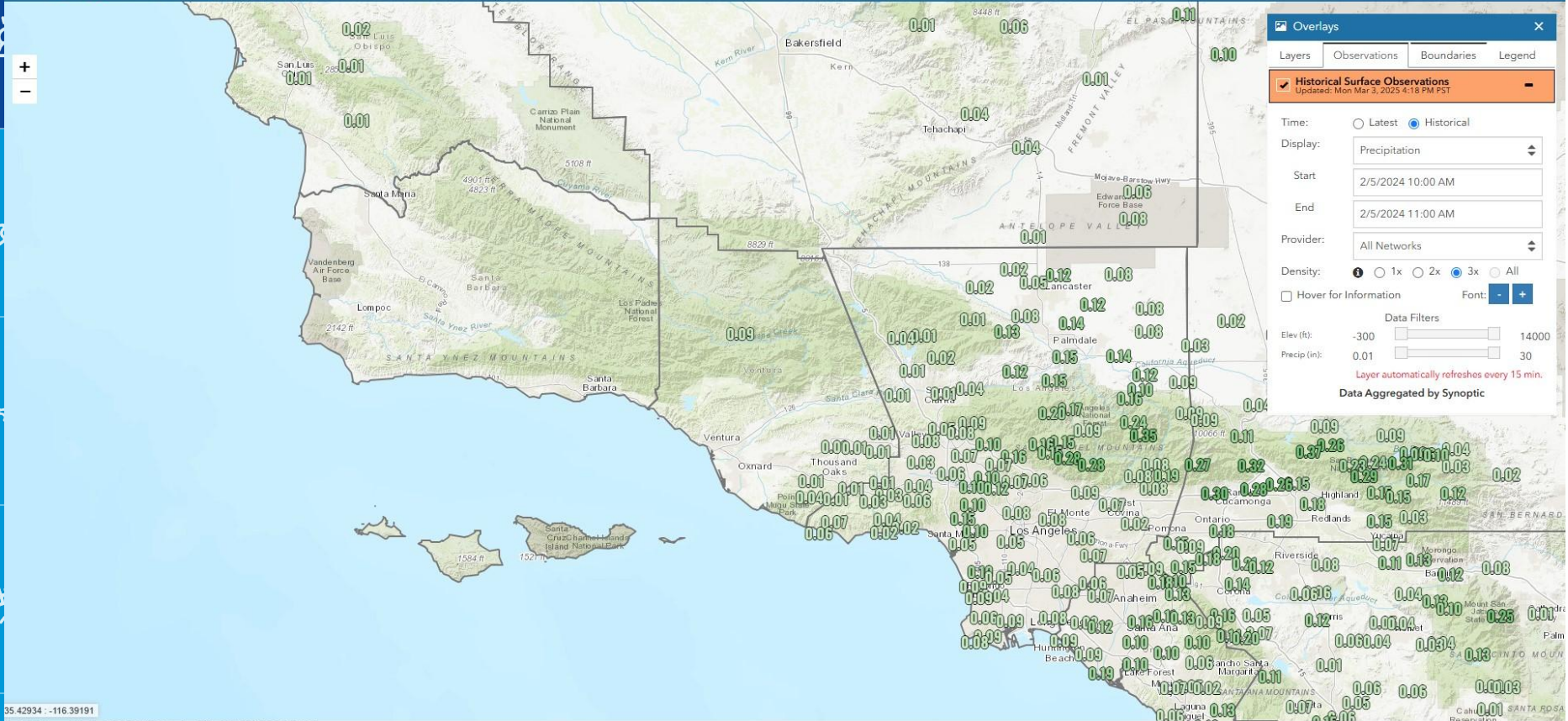
2/5/24 6AM



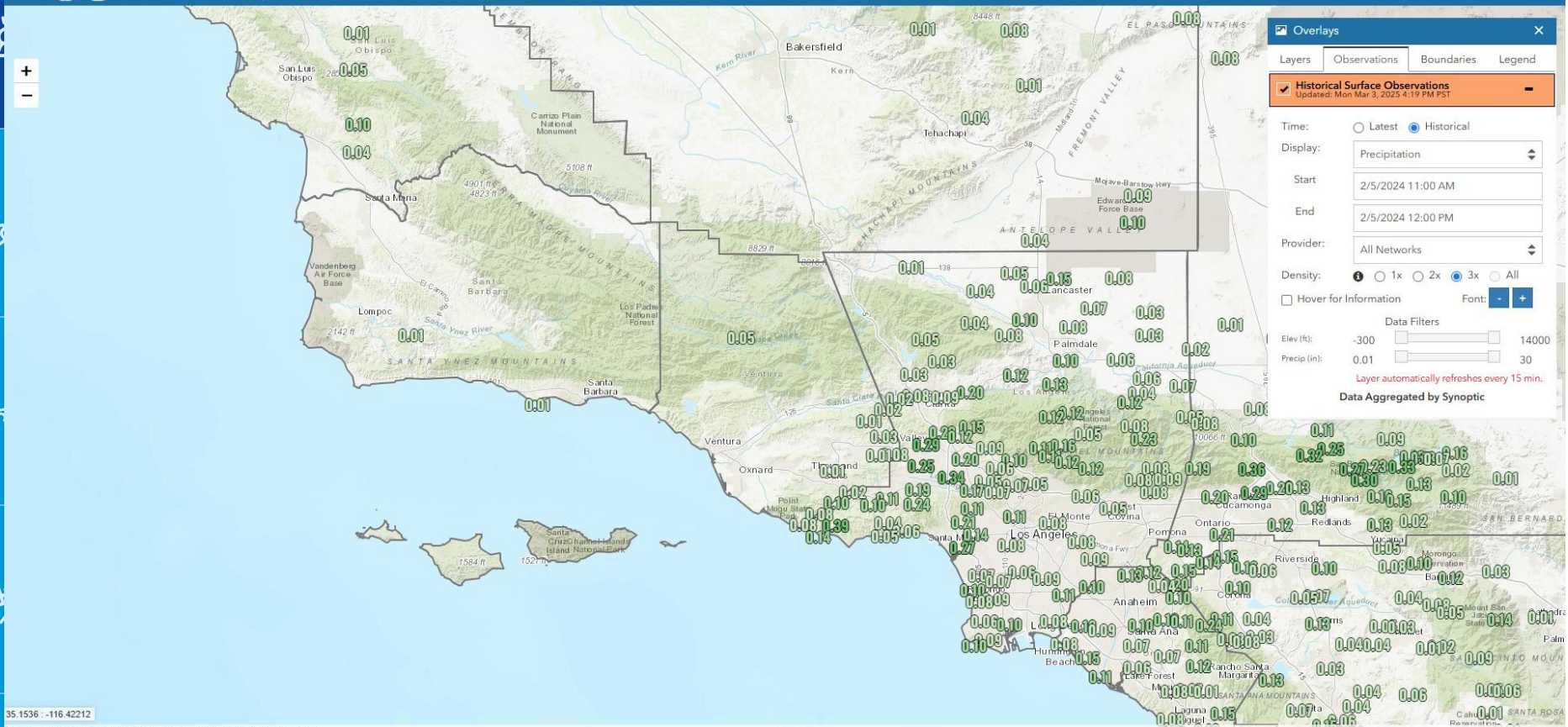
2/5/24 7AM



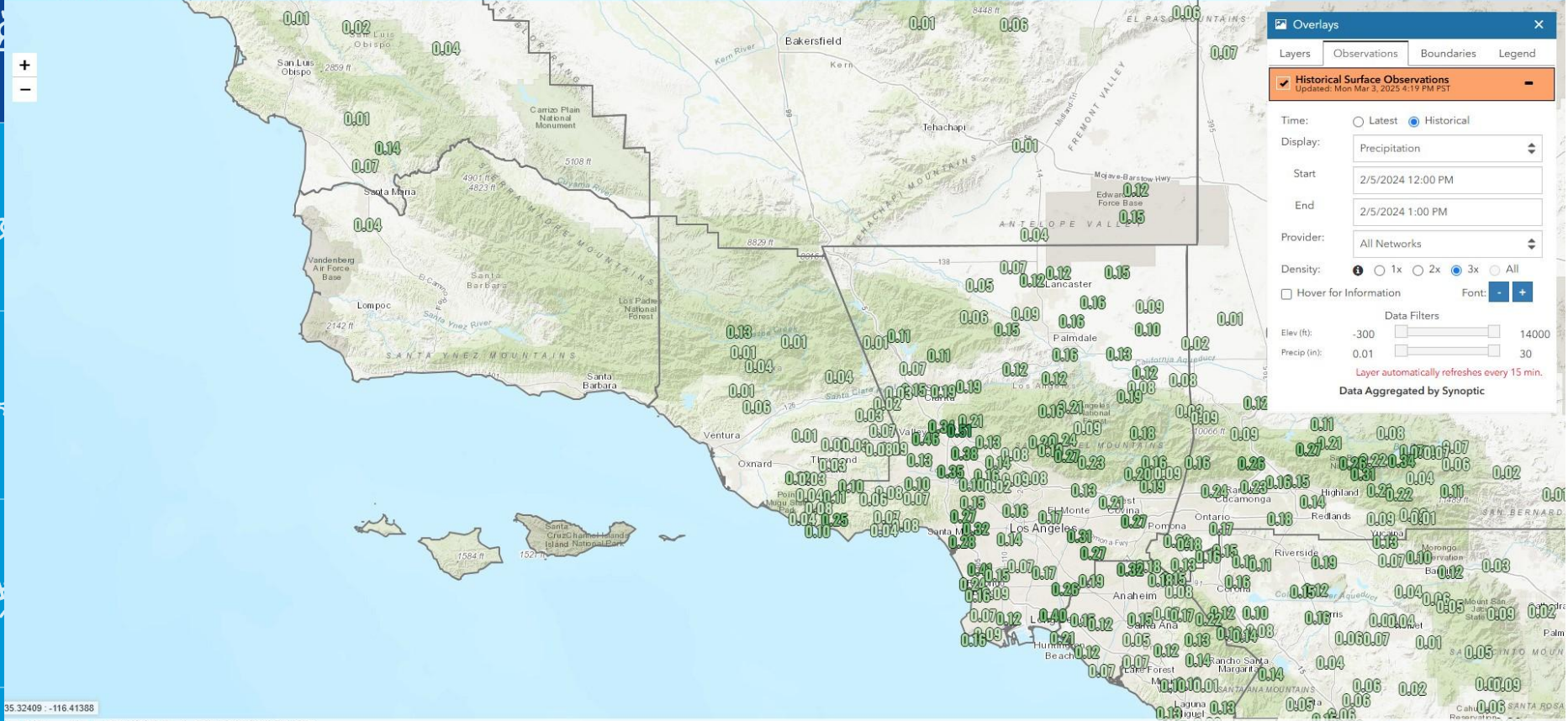
2/5/24 8AM



2/5/24 10AM

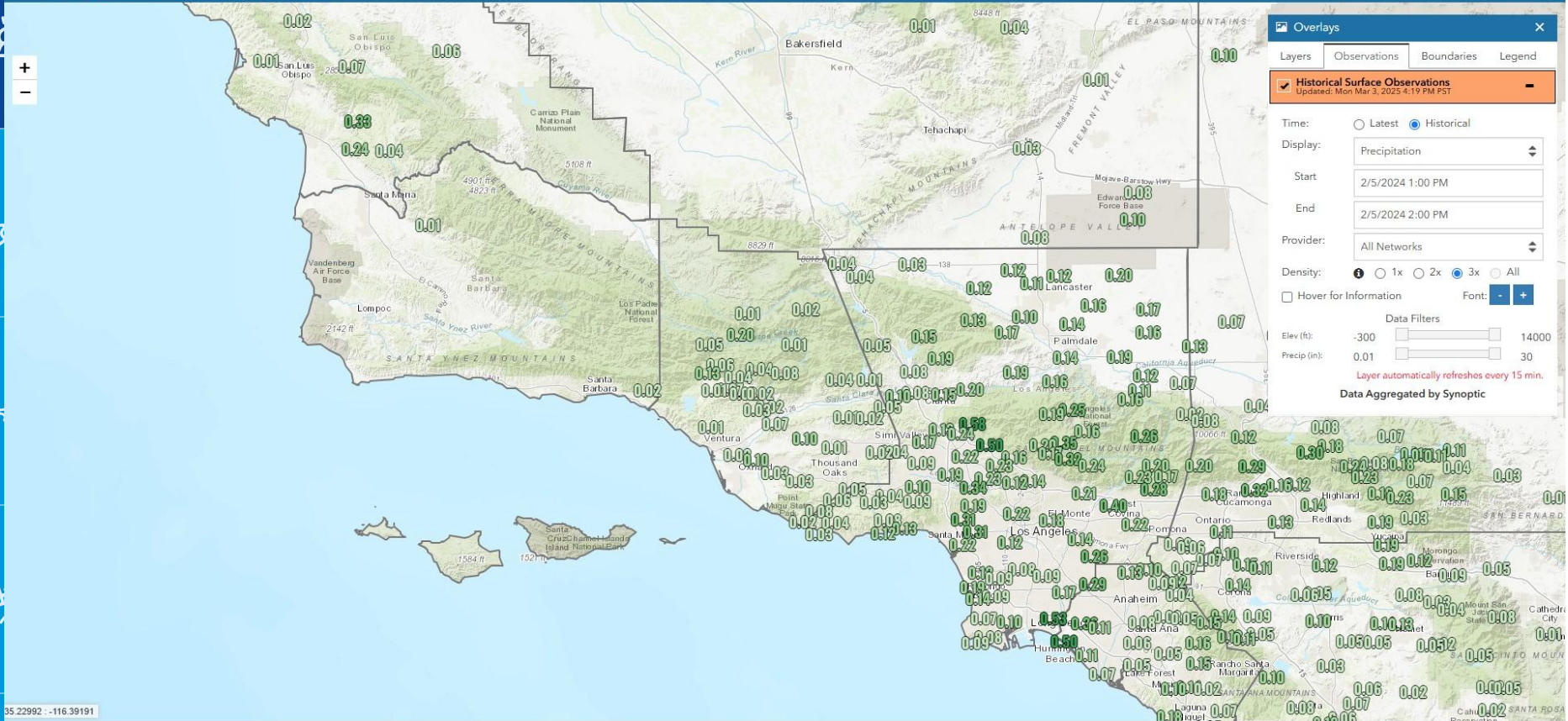


2/5/24 11AM



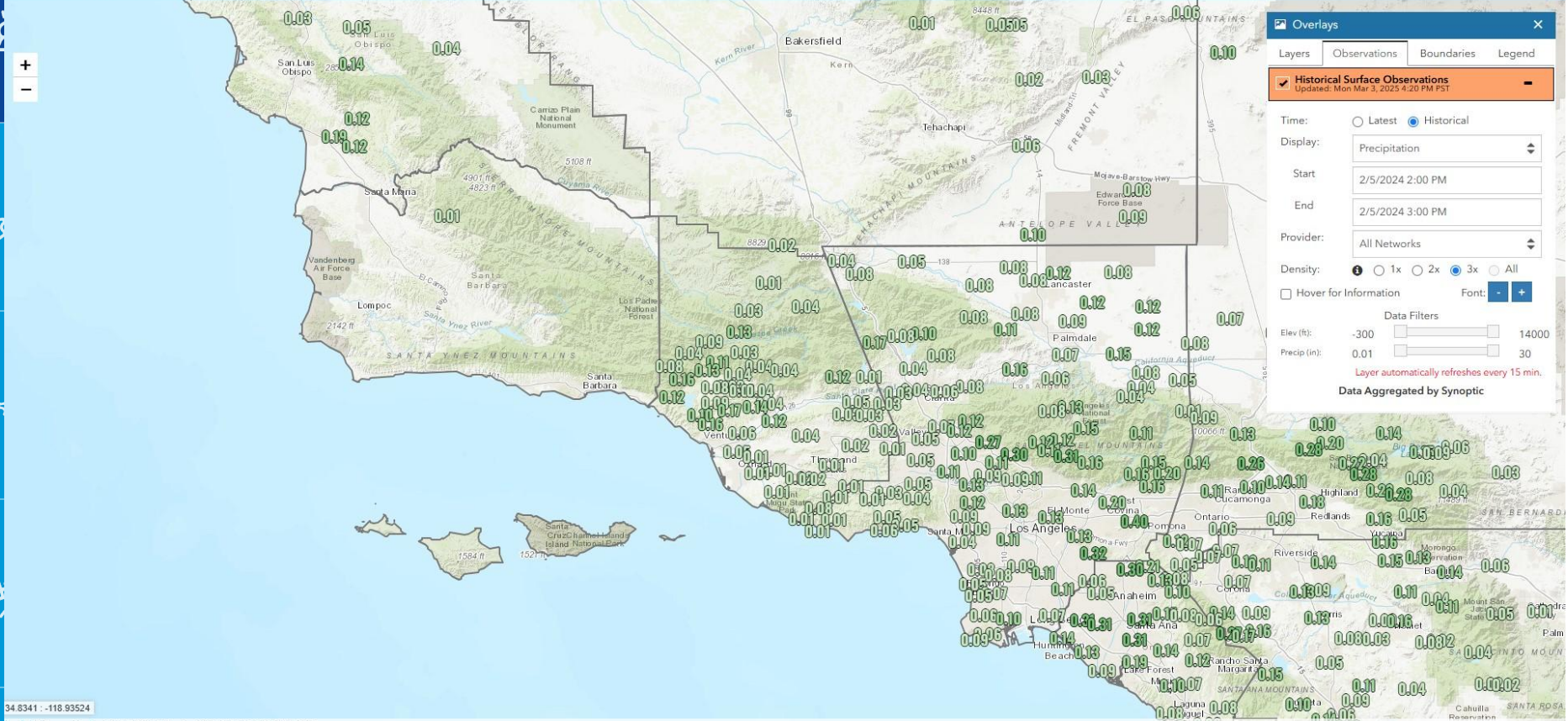
35.32409 -116.41388

2/5/24 12PM



35.22992 -116.39191

2/5/24 1PM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:20 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/5/2024 2:00 PM

End: 2/5/2024 3:00 PM

Provider: All Networks

Density: 1x 2x 3x All

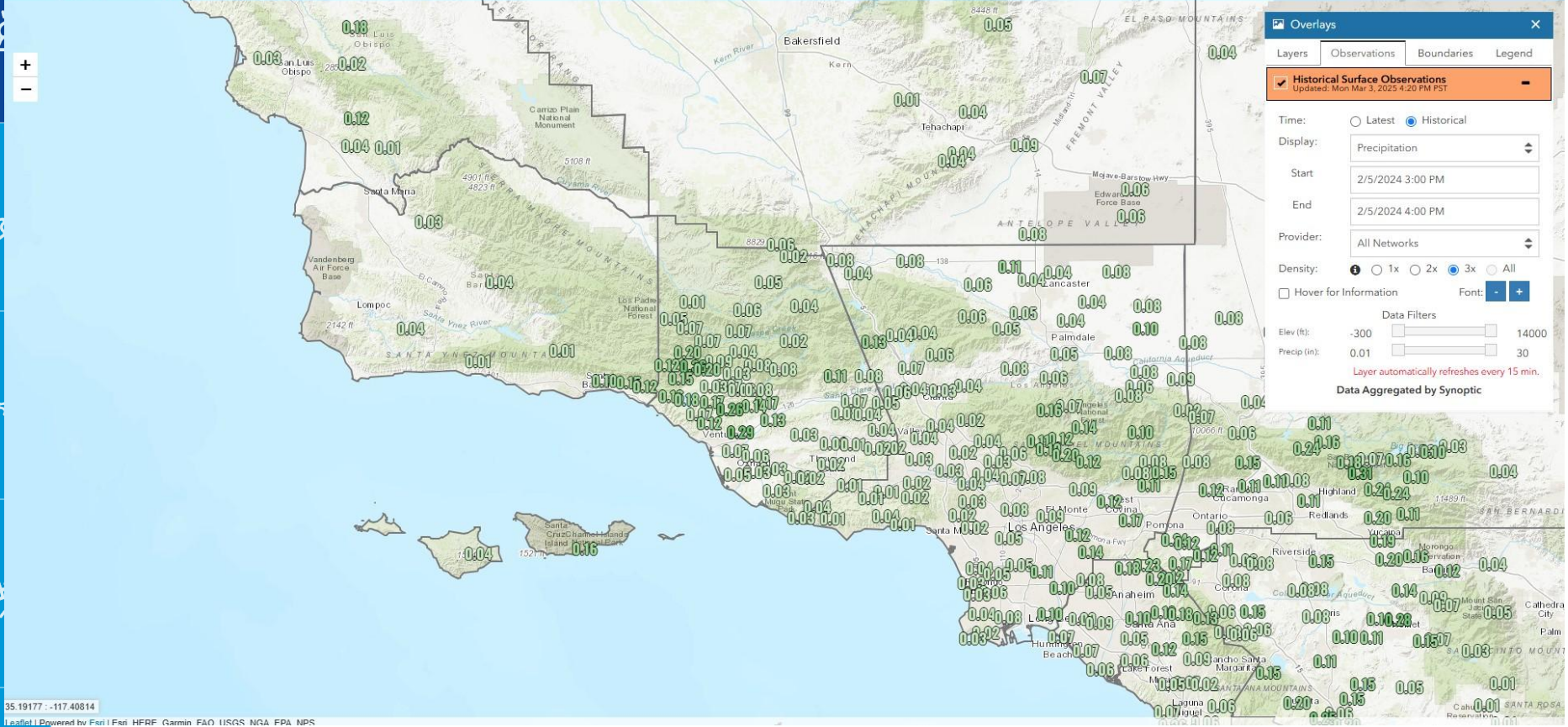
Hover for Information Font: + -

Data Filters
Elev (ft): -300 14000
Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

2/5/24 2PM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:20 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/5/2024 3:00 PM

End: 2/5/2024 4:00 PM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: - +

Data Filters

Elev (ft): -300 14000

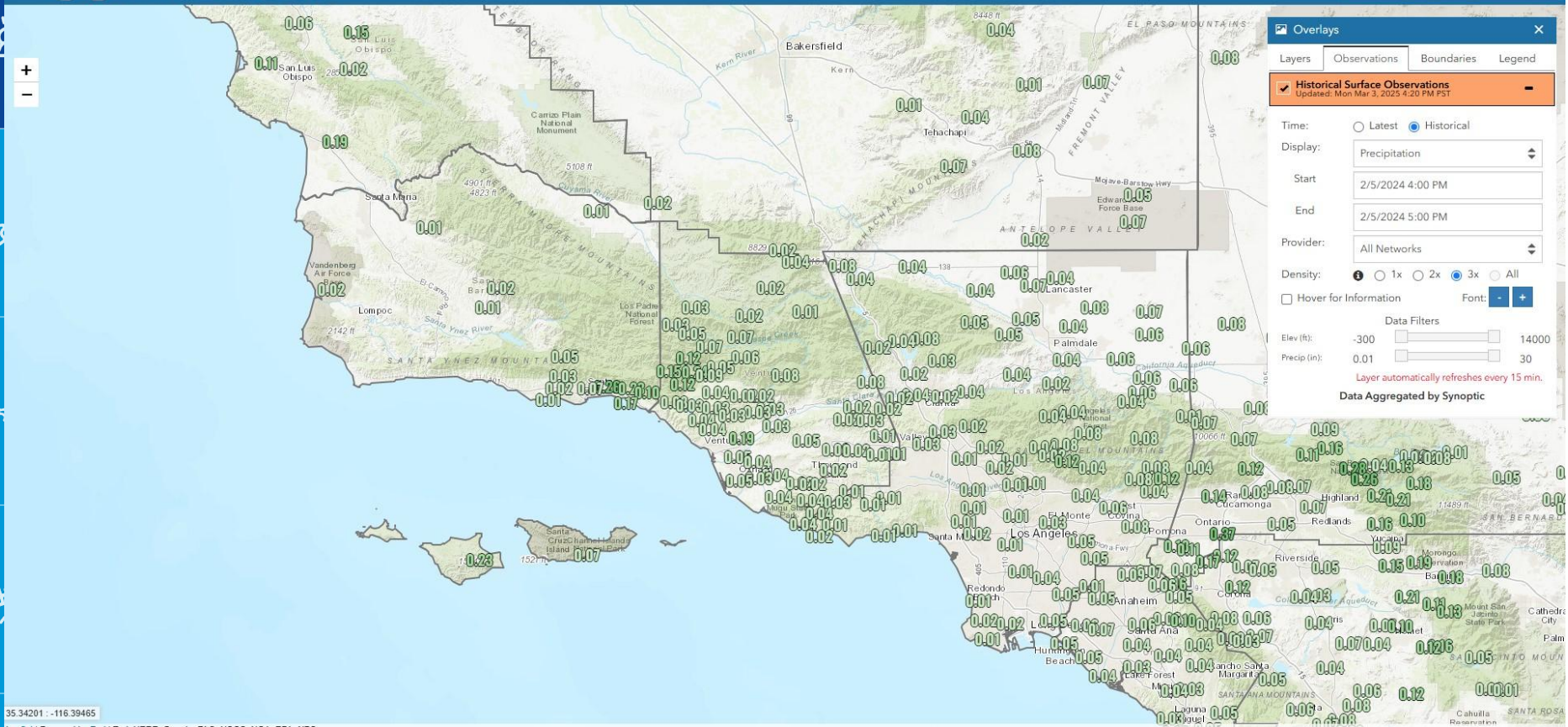
Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

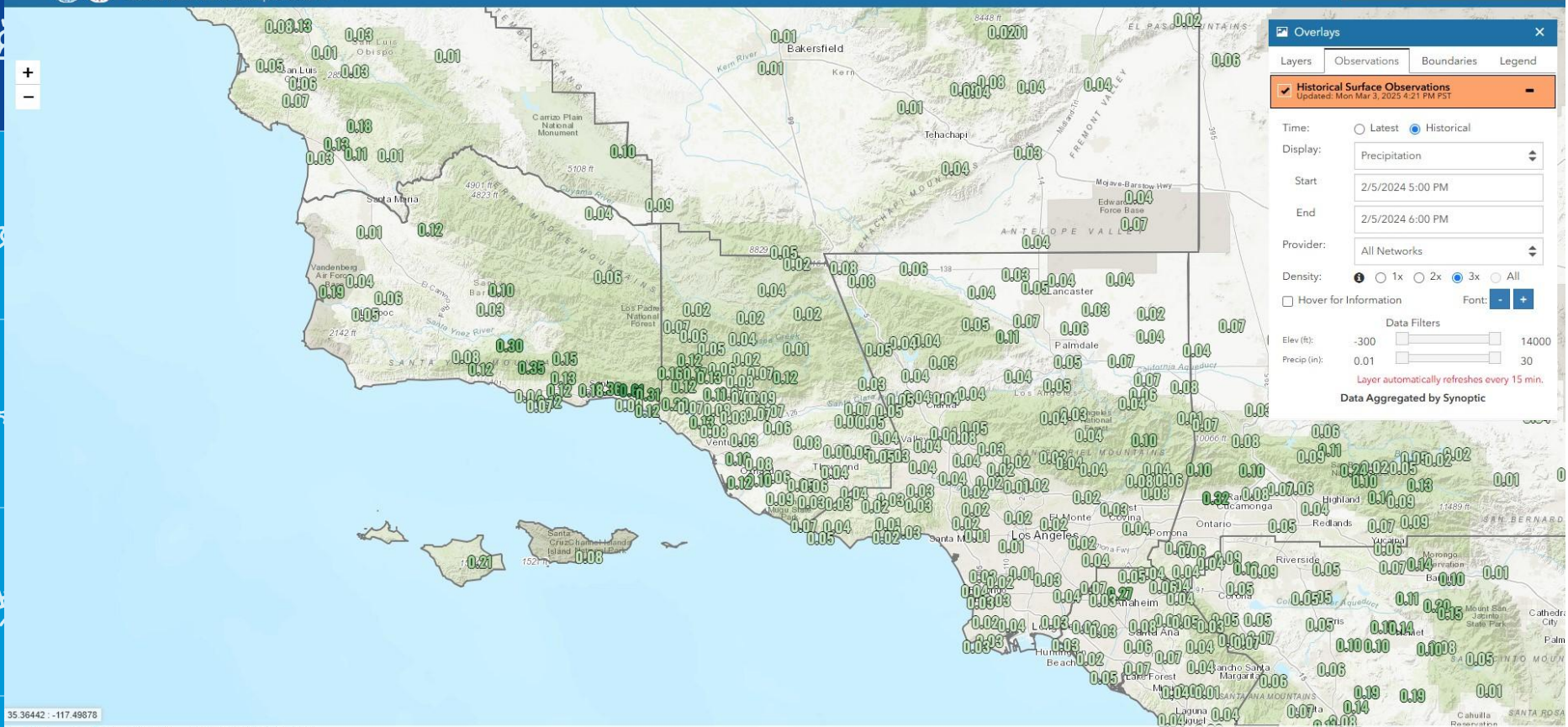
Data Aggregated by Synoptic

2/5/24 3PM

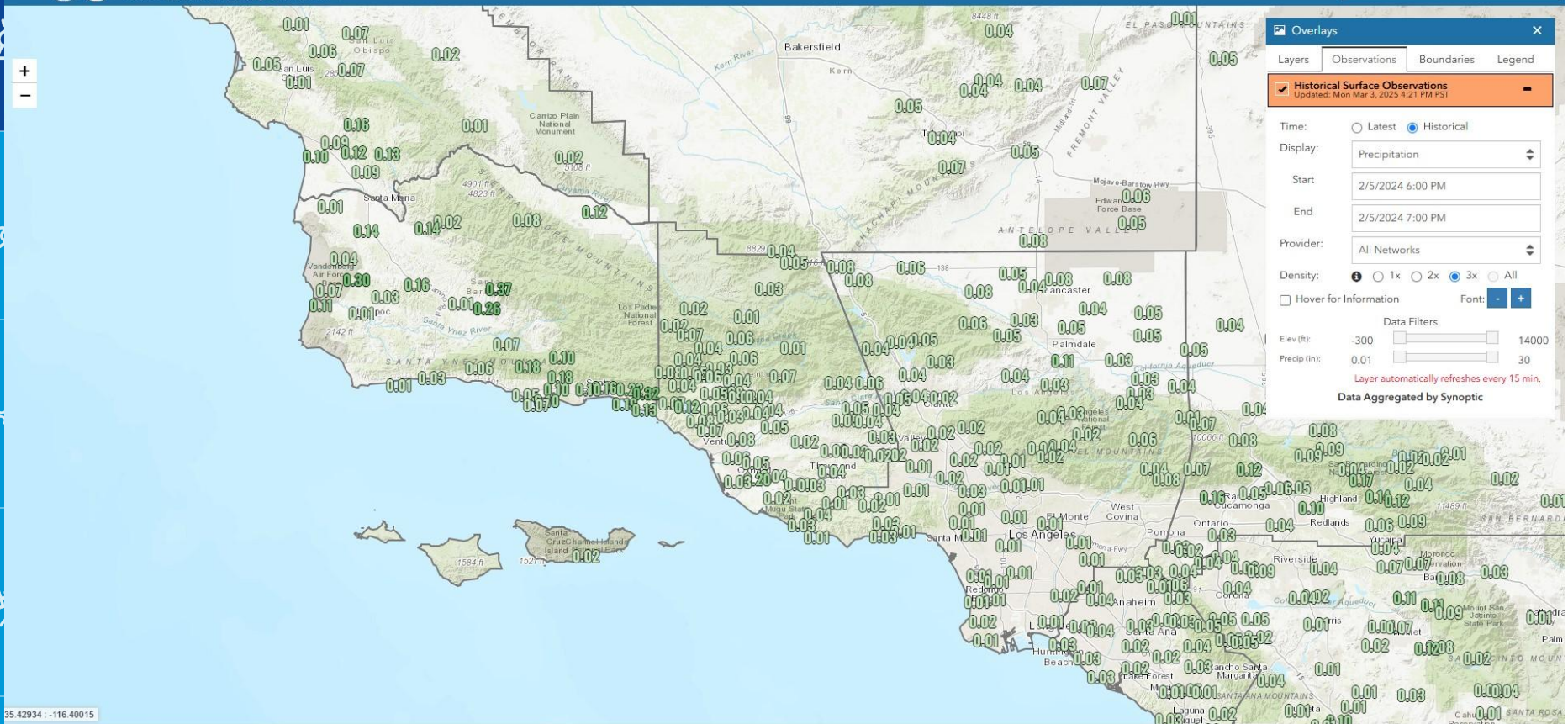




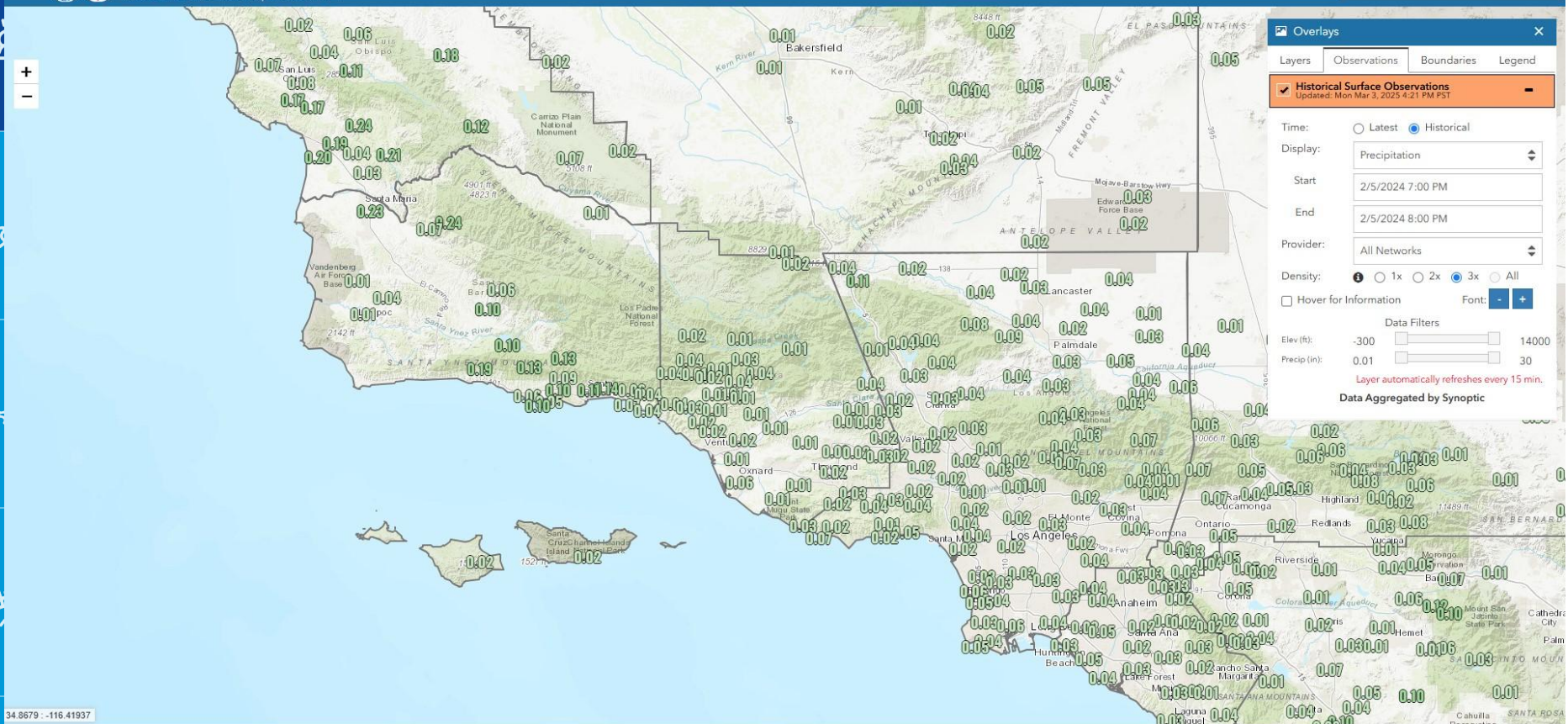
2/5/24 4PM



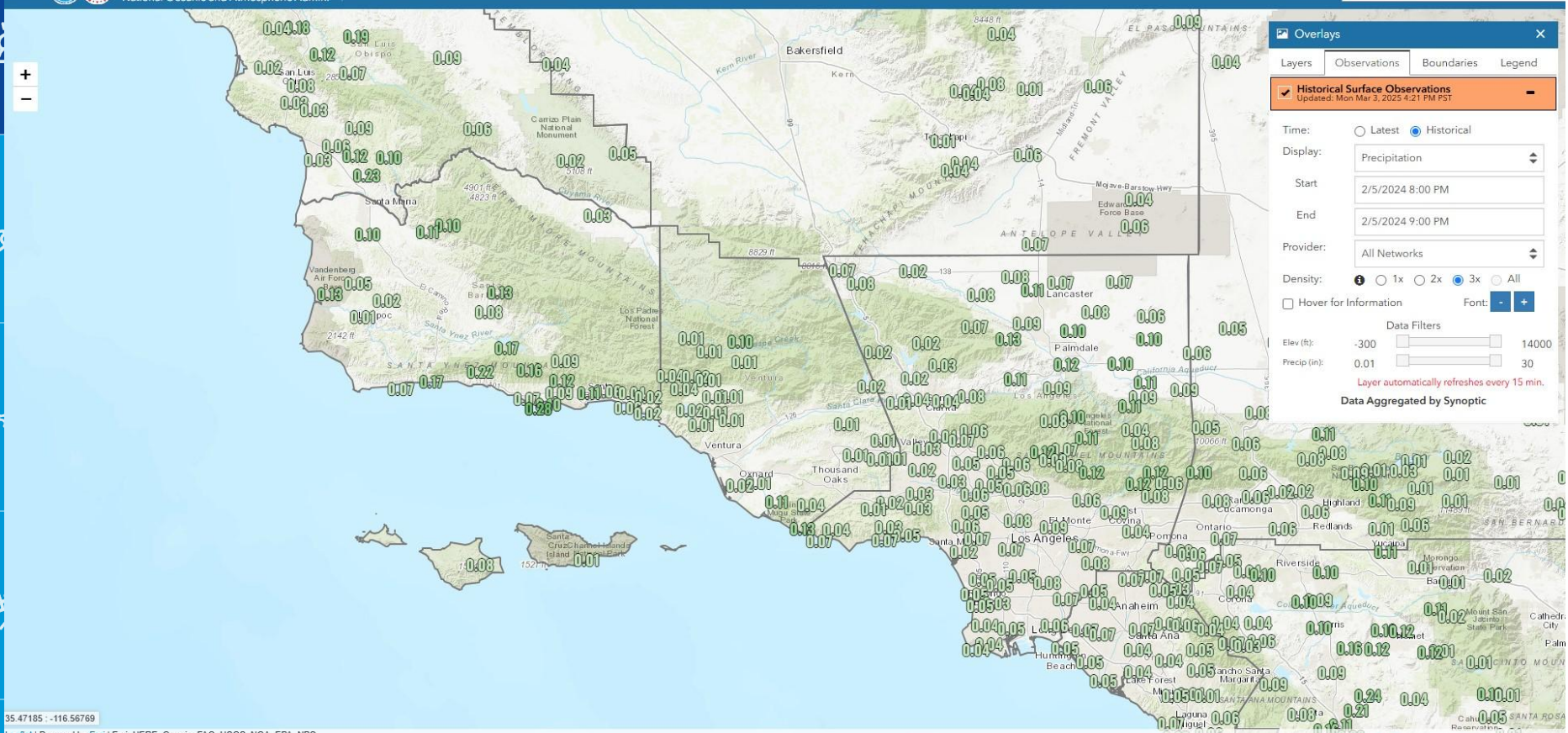
2/5/24 5PM



2/5/24 6PM



2/5/24 7PM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:21 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/5/2024 8:00 PM

End: 2/5/2024 9:00 PM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: - +

Data Filters

Elev (ft): -300 14000

Precip (in): 0.01 30

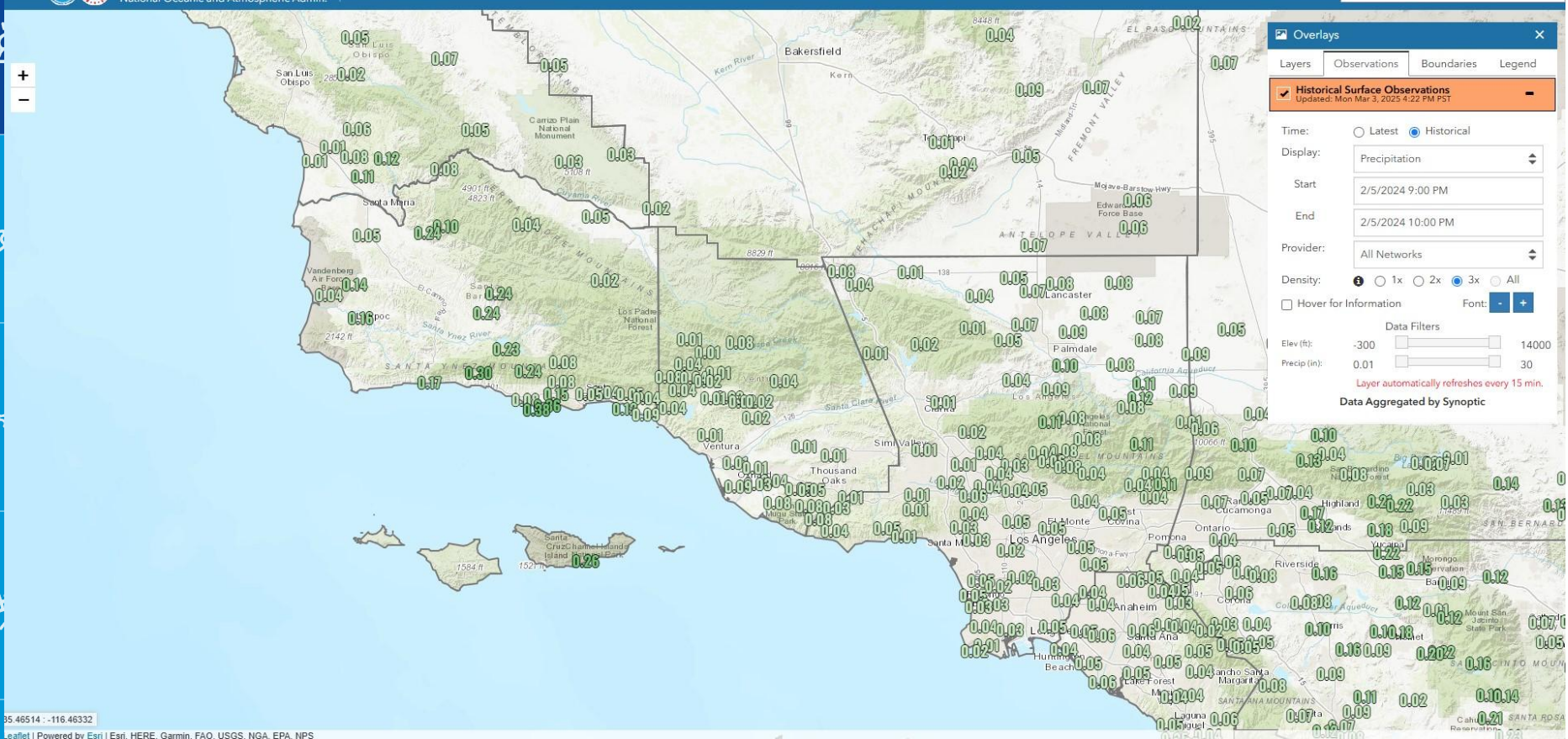
Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

2/5/24 8PM



35.46514 -116.46332
Leaflet | Powered by Esri | Esri, HERE, Garmin, FAO, USGS, NGA, EPA, NPS



Overlays ✕

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:22 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/5/2024 9:00 PM

End: 2/5/2024 10:00 PM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: + -

Data Filters

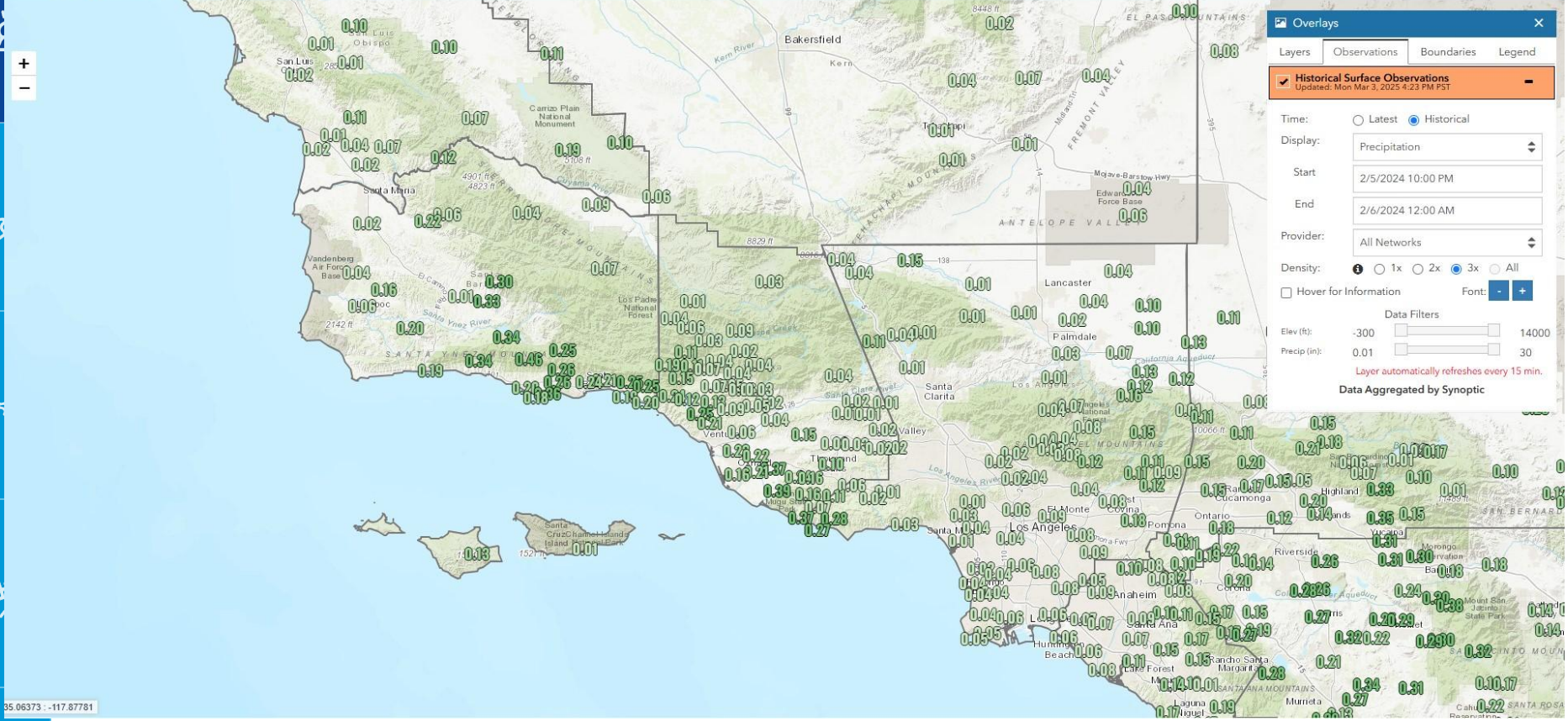
Elev (ft):

Precip (in):

Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

2/5/24 9PM



Overlays ✕

Layers Observations Boundaries Legend

Historical Surface Observations -
Updated: Mon Mar 3, 2025 4:23 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/5/2024 10:00 PM

End: 2/6/2024 12:00 AM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: - +

Data Filters

Elev (ft): -300 14000

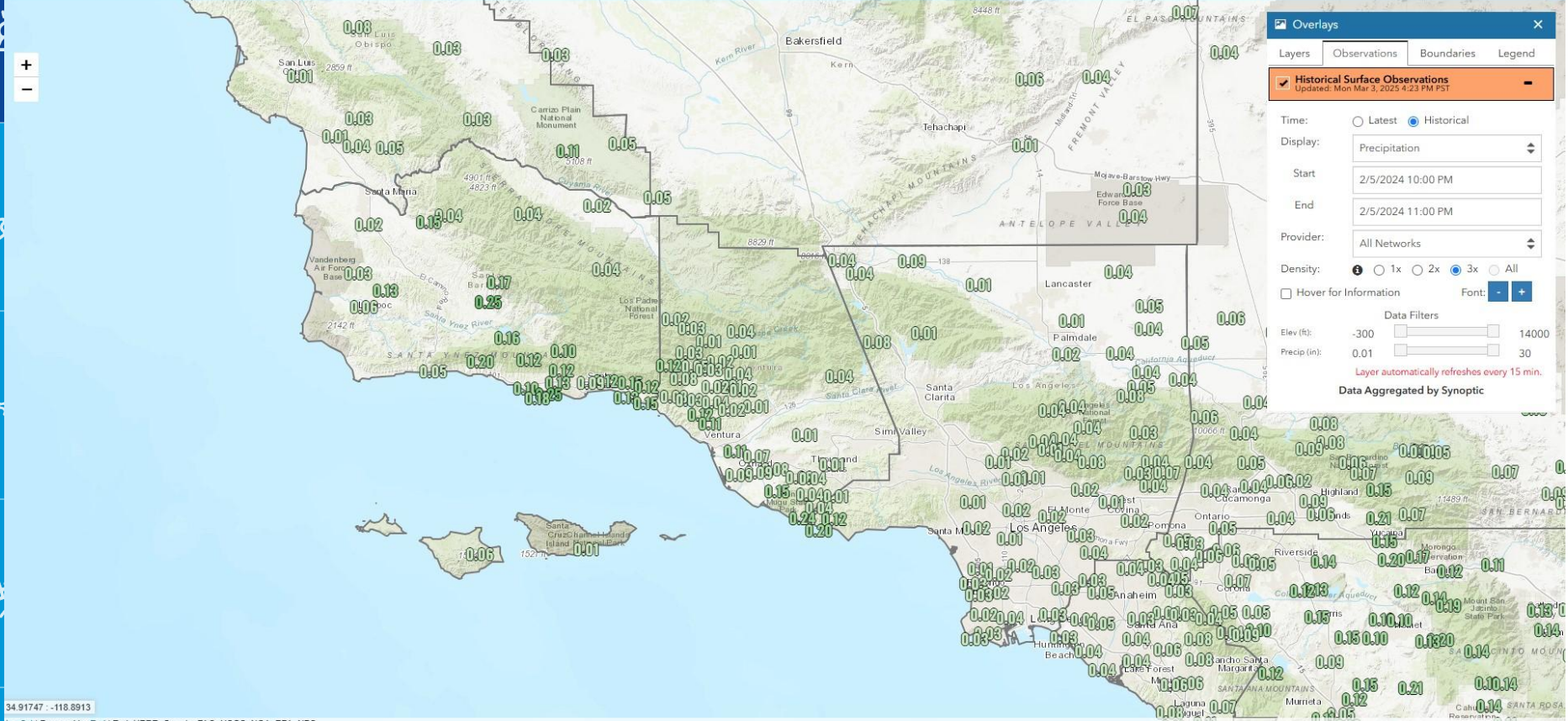
Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

35.06373 -117.87781

2/5/24 10PM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:23 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/5/2024 10:00 PM

End: 2/5/2024 11:00 PM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: + -

Data Filters

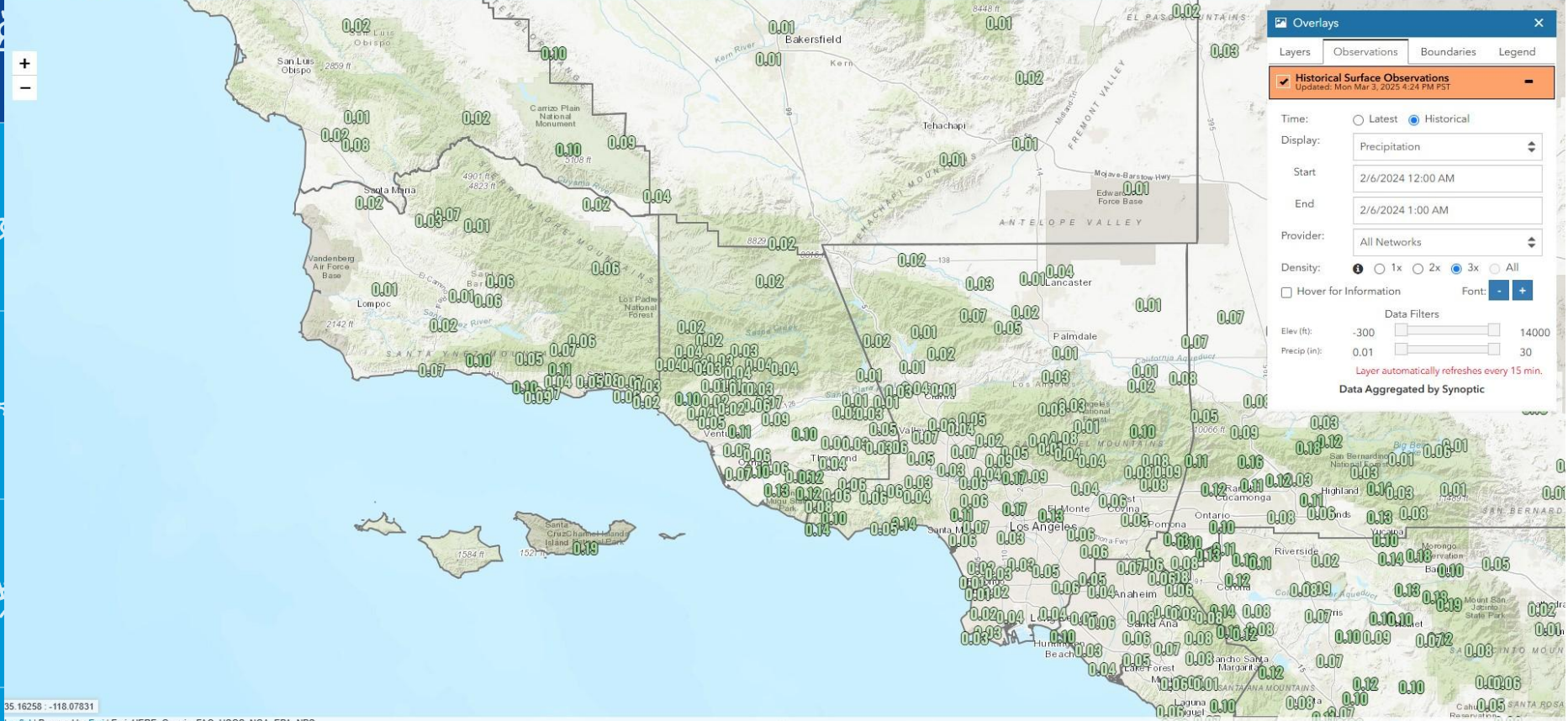
Elev (ft): -300 14000

Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

2/5/24 11PM



Overlays ✕

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:24 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/6/2024 12:00 AM

End: 2/6/2024 1:00 AM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: - +

Data Filters

Elev (ft):

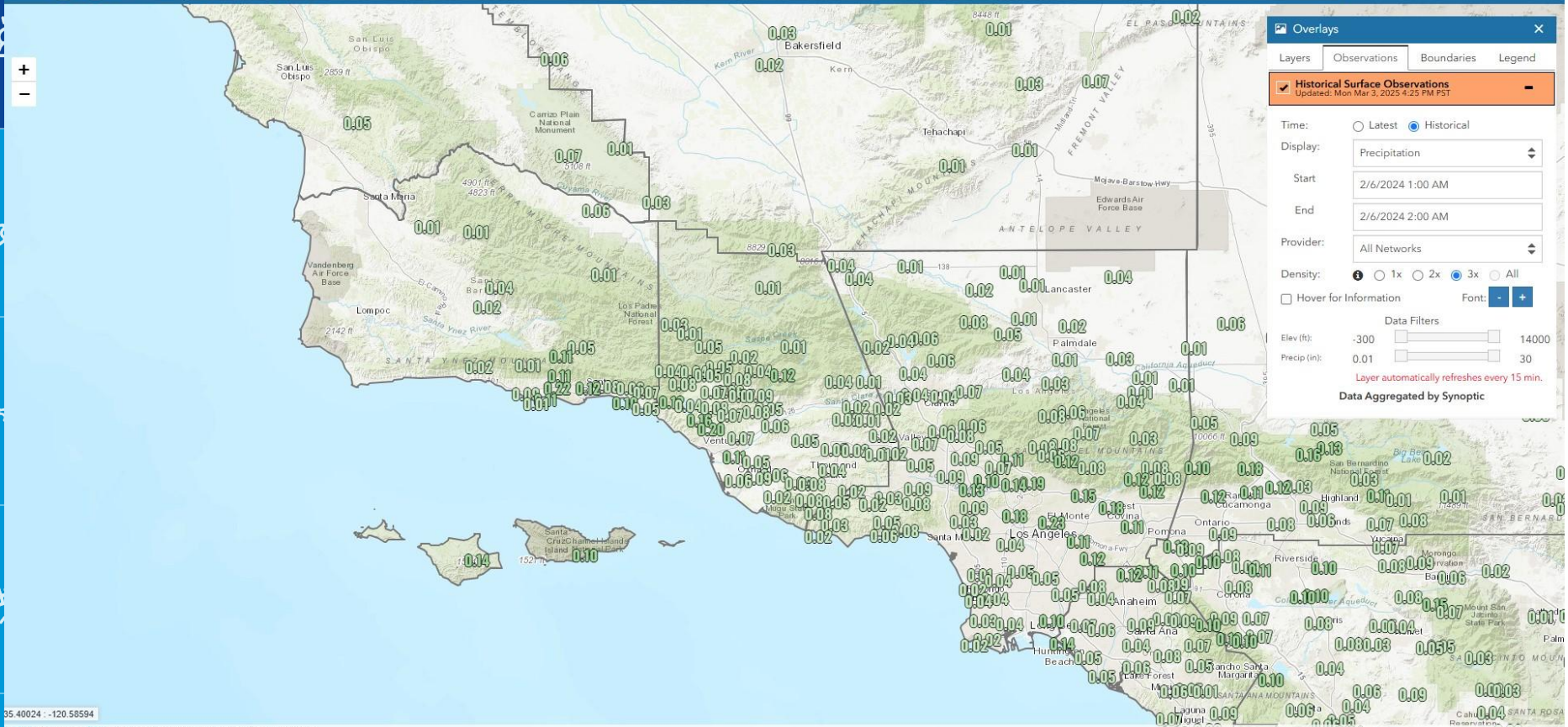
Precip (in):

Layer automatically refreshes every 15 min.

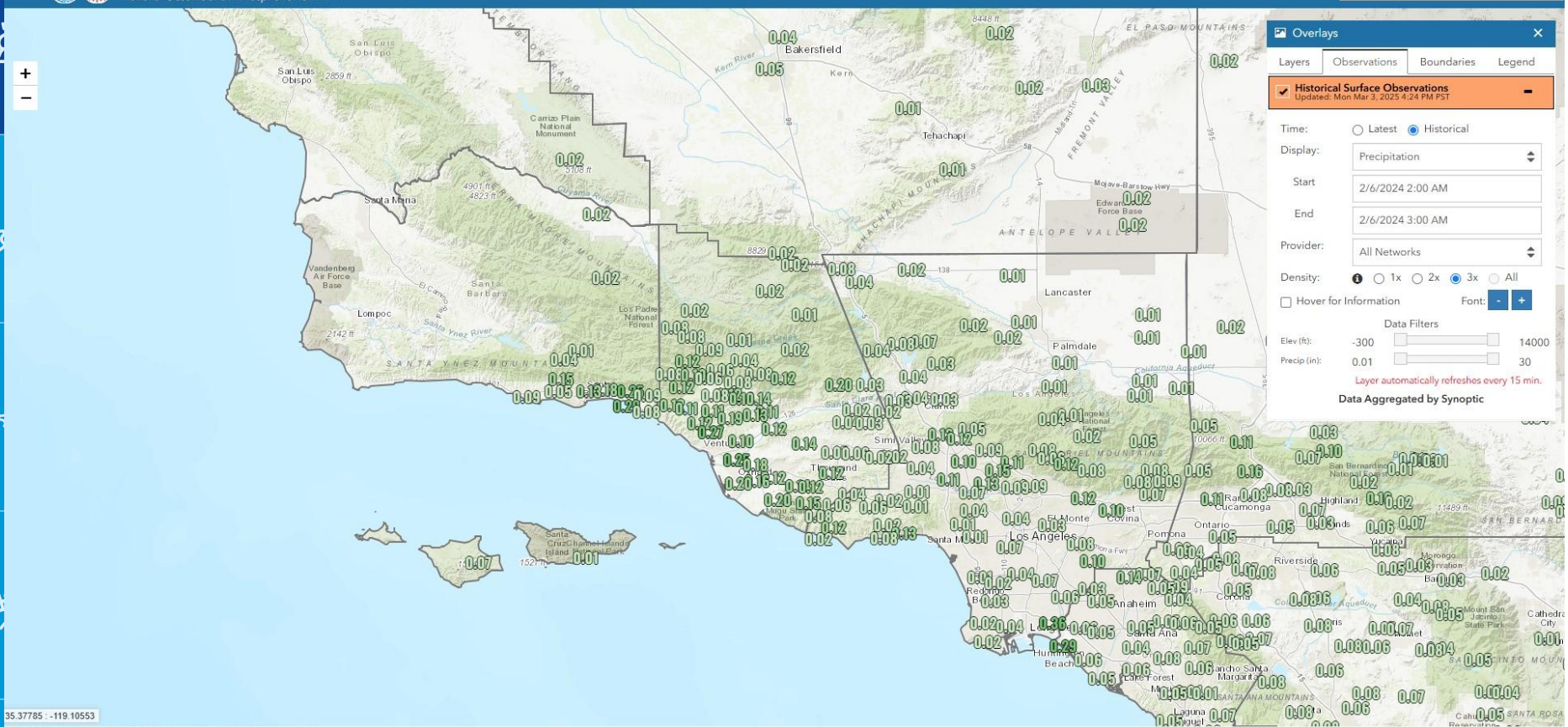
Data Aggregated by Synoptic

35.16258 -118.07831
Leaflet | Data by Esri, DeLorme, GeoEye, FAO, IGN, NOAA, EPA, NPS

2/6/24 12AM



2/6/24 1AM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:24 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/6/2024 2:00 AM

End: 2/6/2024 3:00 AM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: - +

Data Filters

Elev (ft): -300 14000

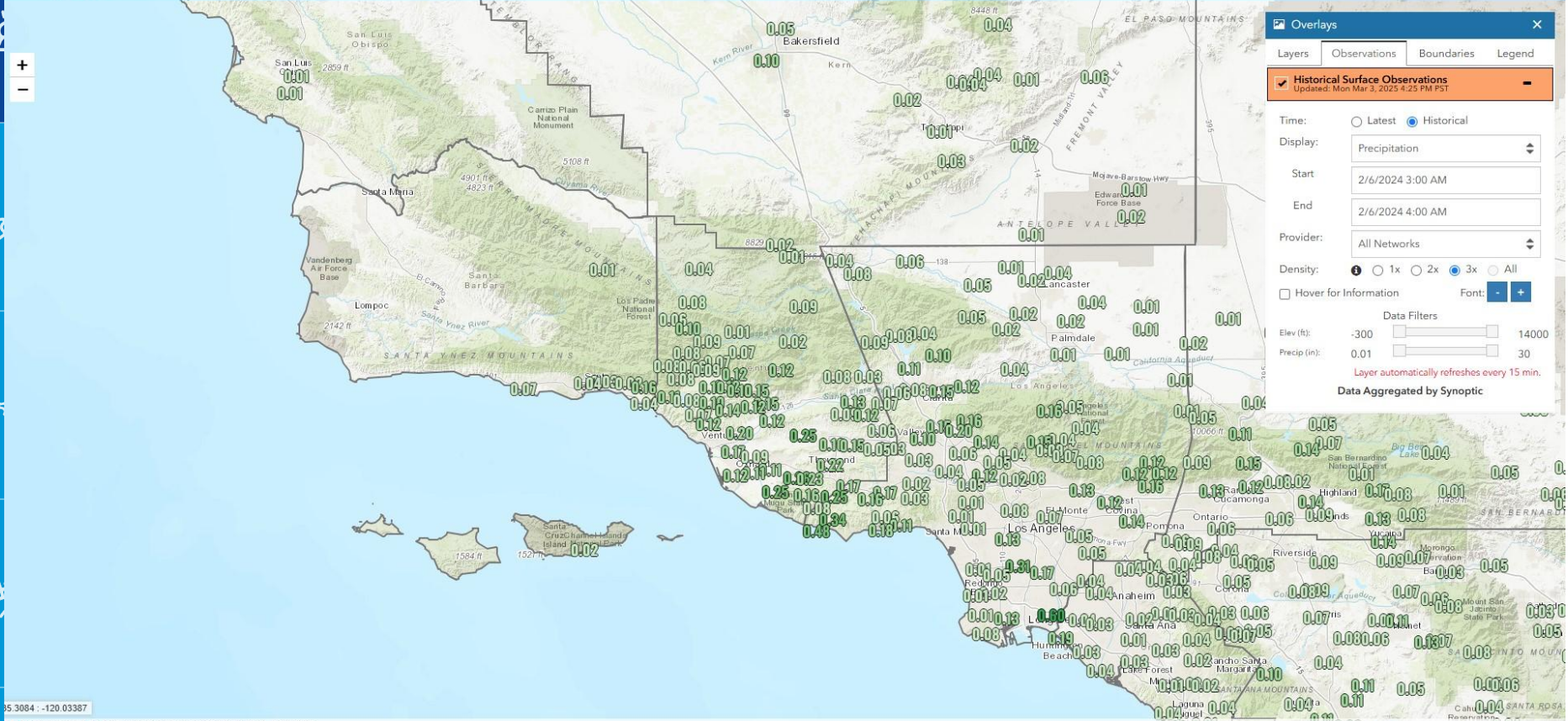
Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

2/6/24 2AM





Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:25 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/6/2024 3:00 AM

End: 2/6/2024 4:00 AM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: - +

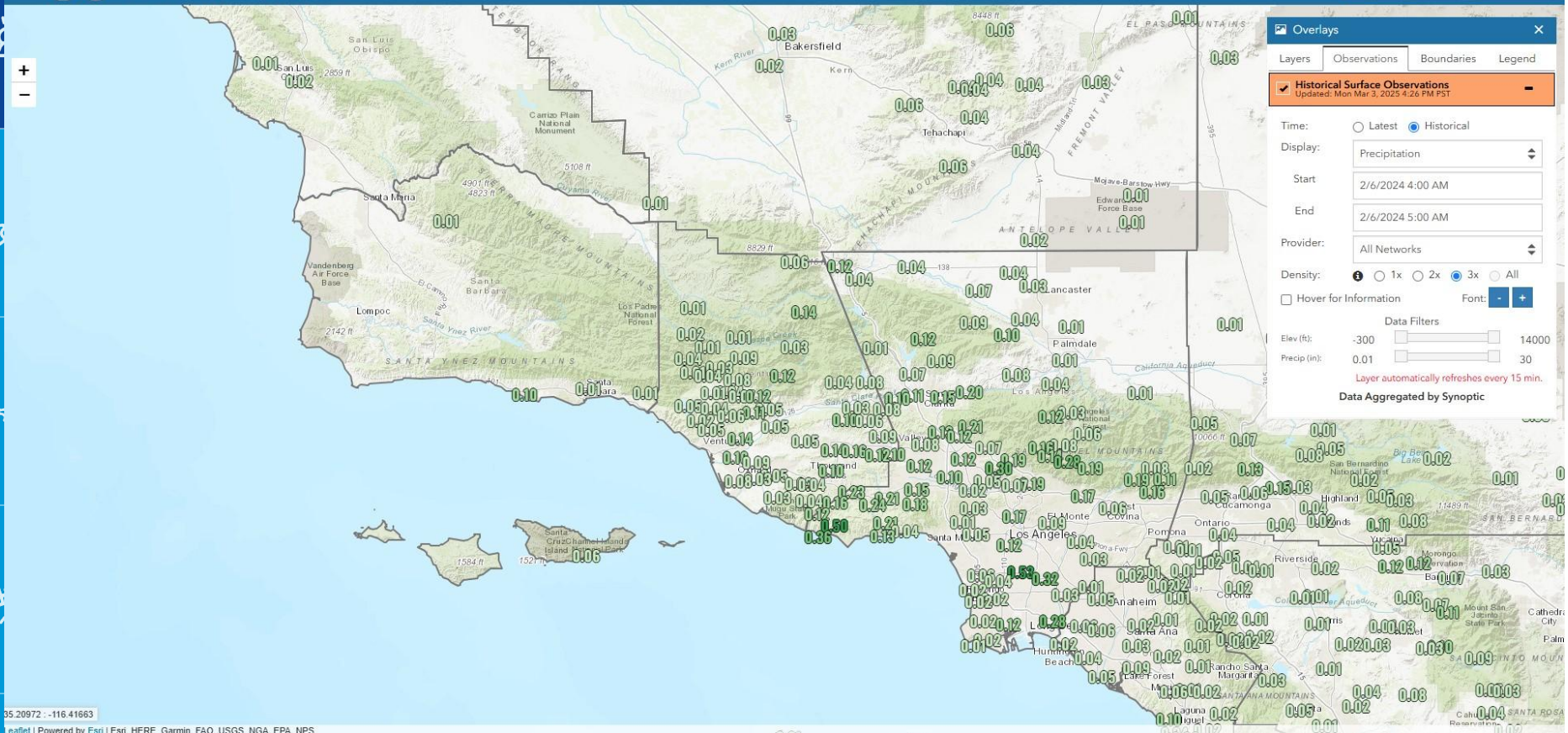
Data Filters
Elev (ft): -300 14000
Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

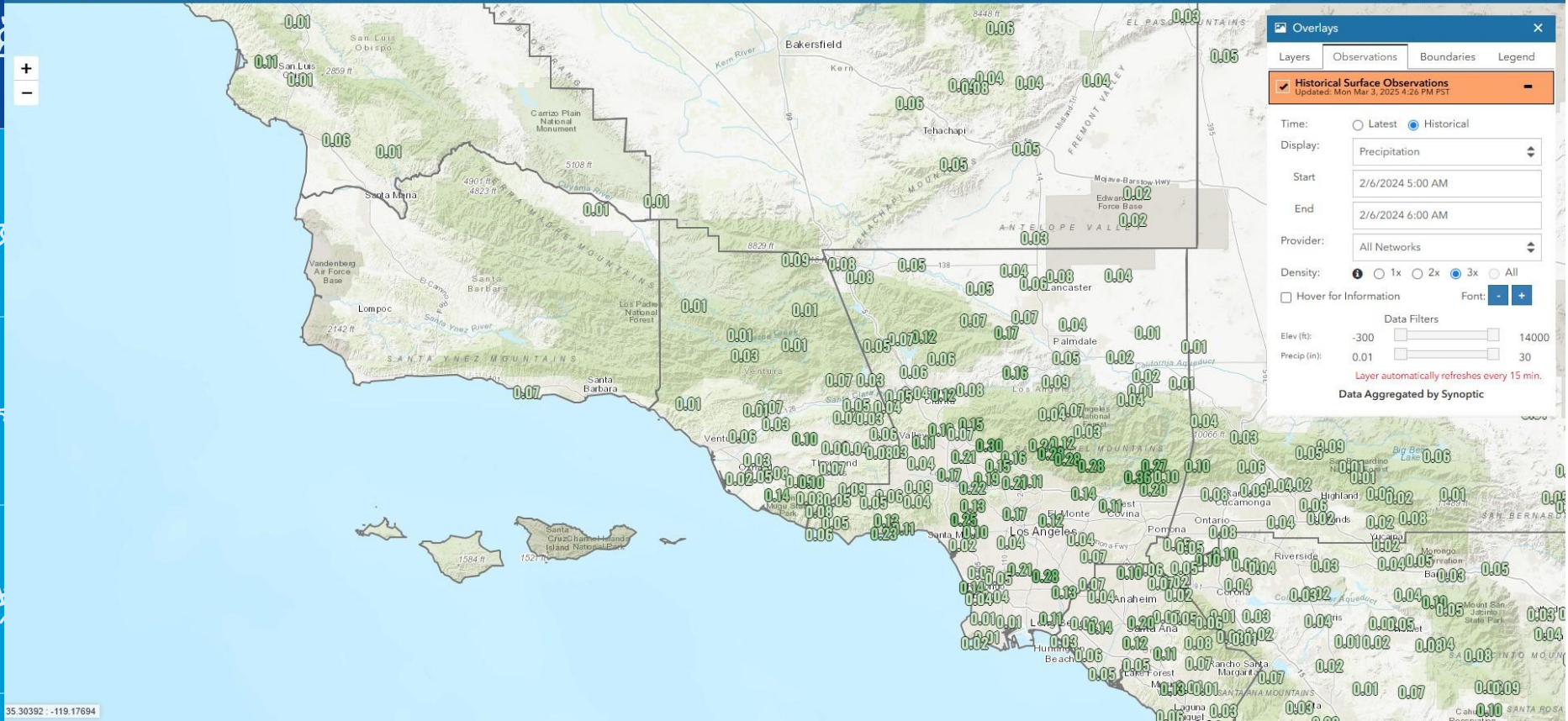
35.3084 -120.03387

2/6/24 3AM

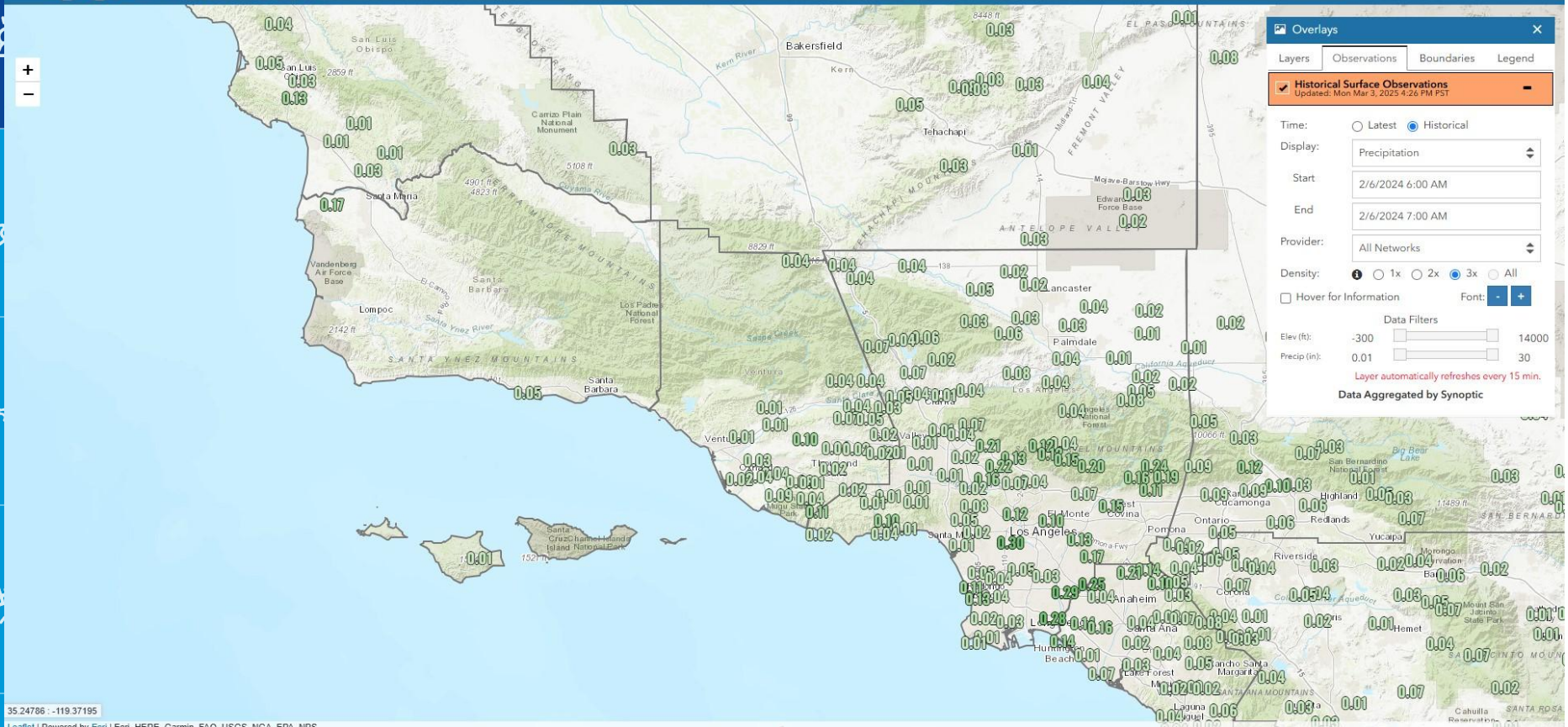


35.20972 -116.41663
Leaflet | Powered by Esri | Esri, HERE, Garmin, FAO, USGS, NGA, EPA, NPS

2/6/24 4AM

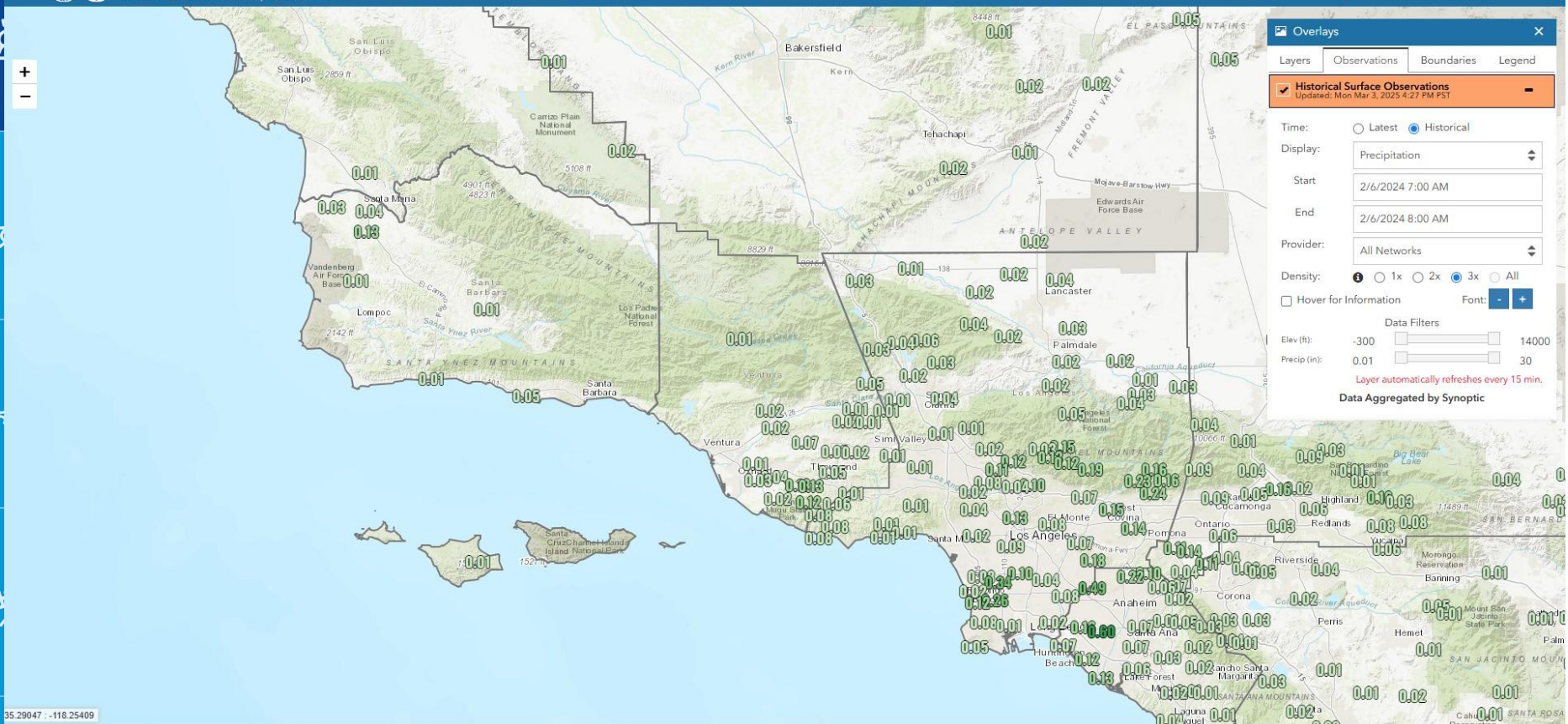


2/6/24 5AM



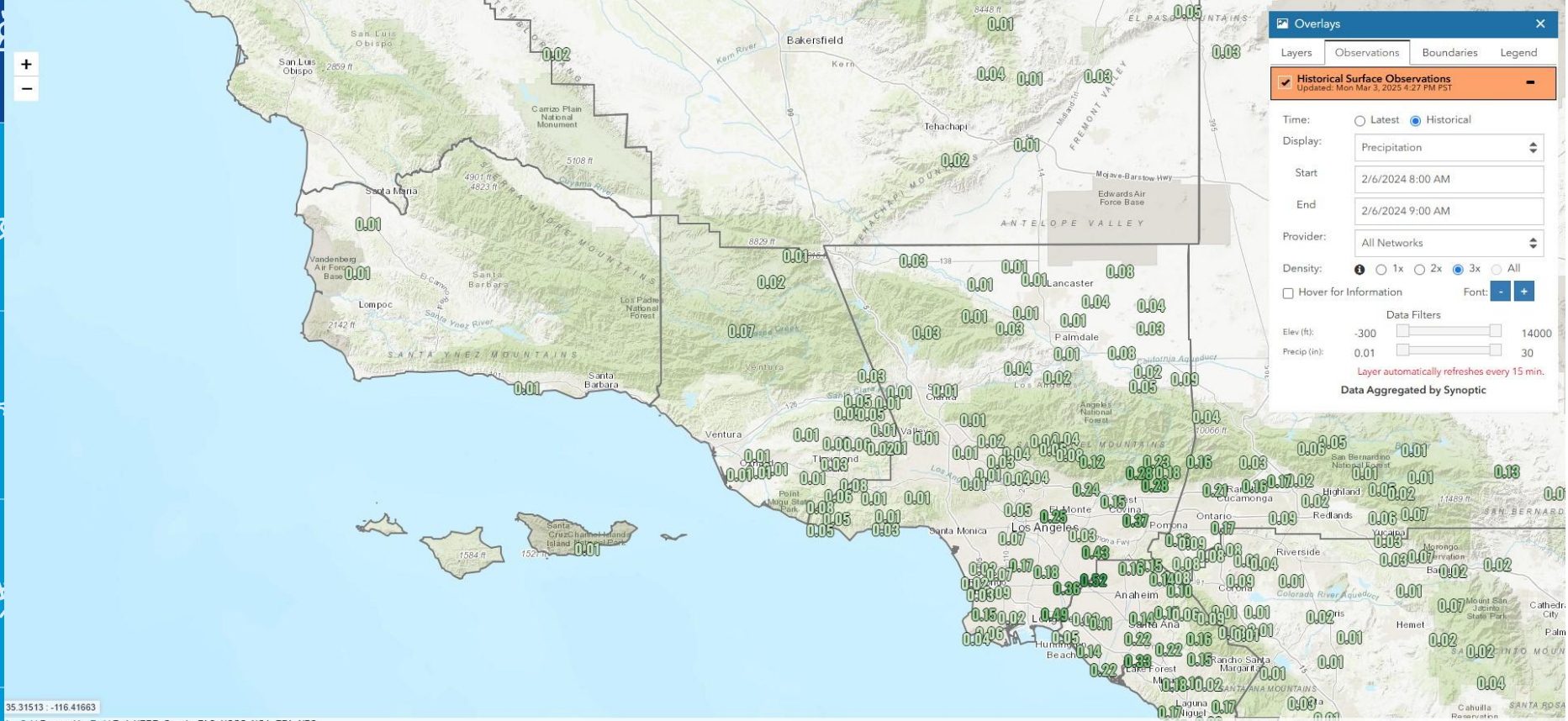
35.24786 - -119.37195
Leaflet | Powered by Esri | Esri, HERE, Garmin, FAO, IGN, NGA, ESA, NPS

2/6/24 6AM

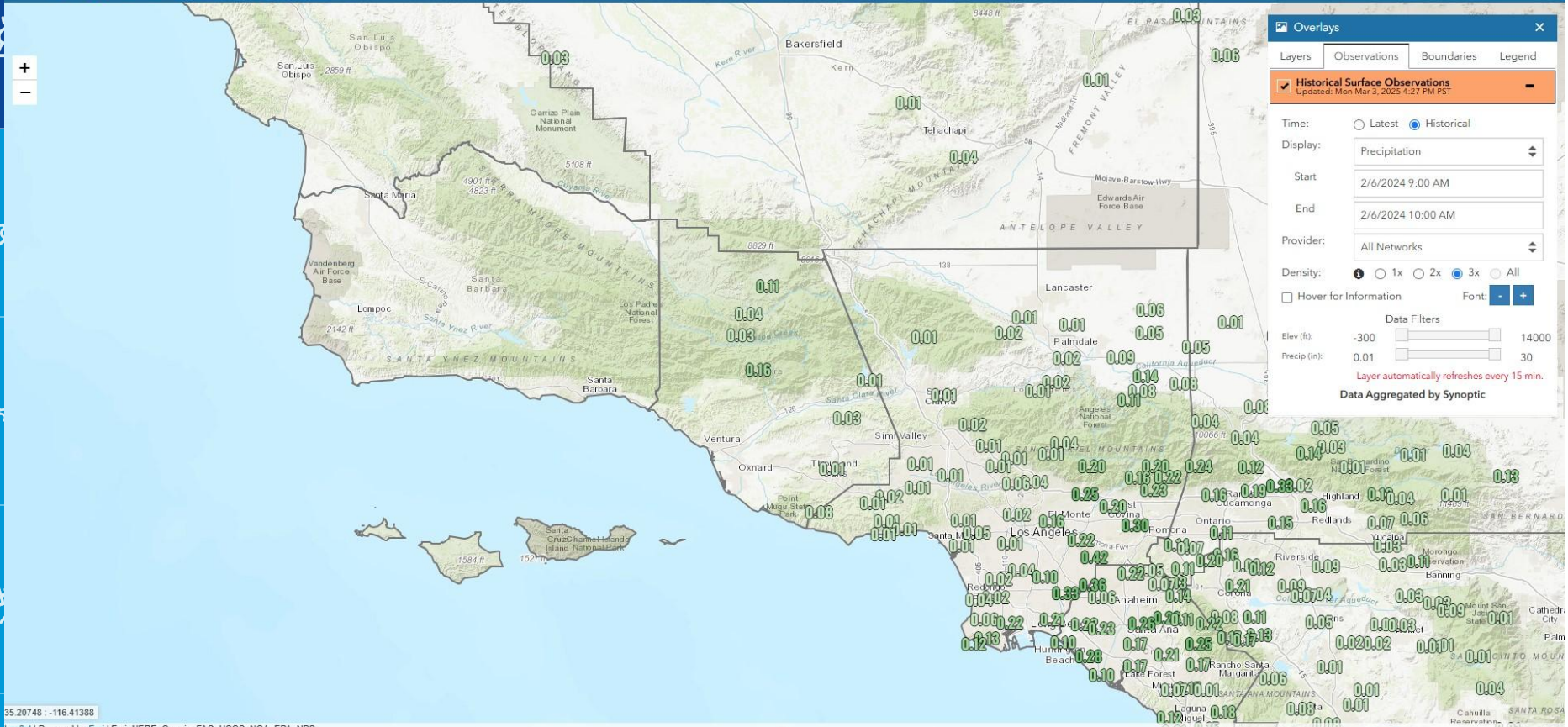


35.29047 -118.25409
Leaflet | Data by Esri, DeLorme, GeoEye, FAO, IGN, NOAA, EPA, NPS

2/6/24 7AM

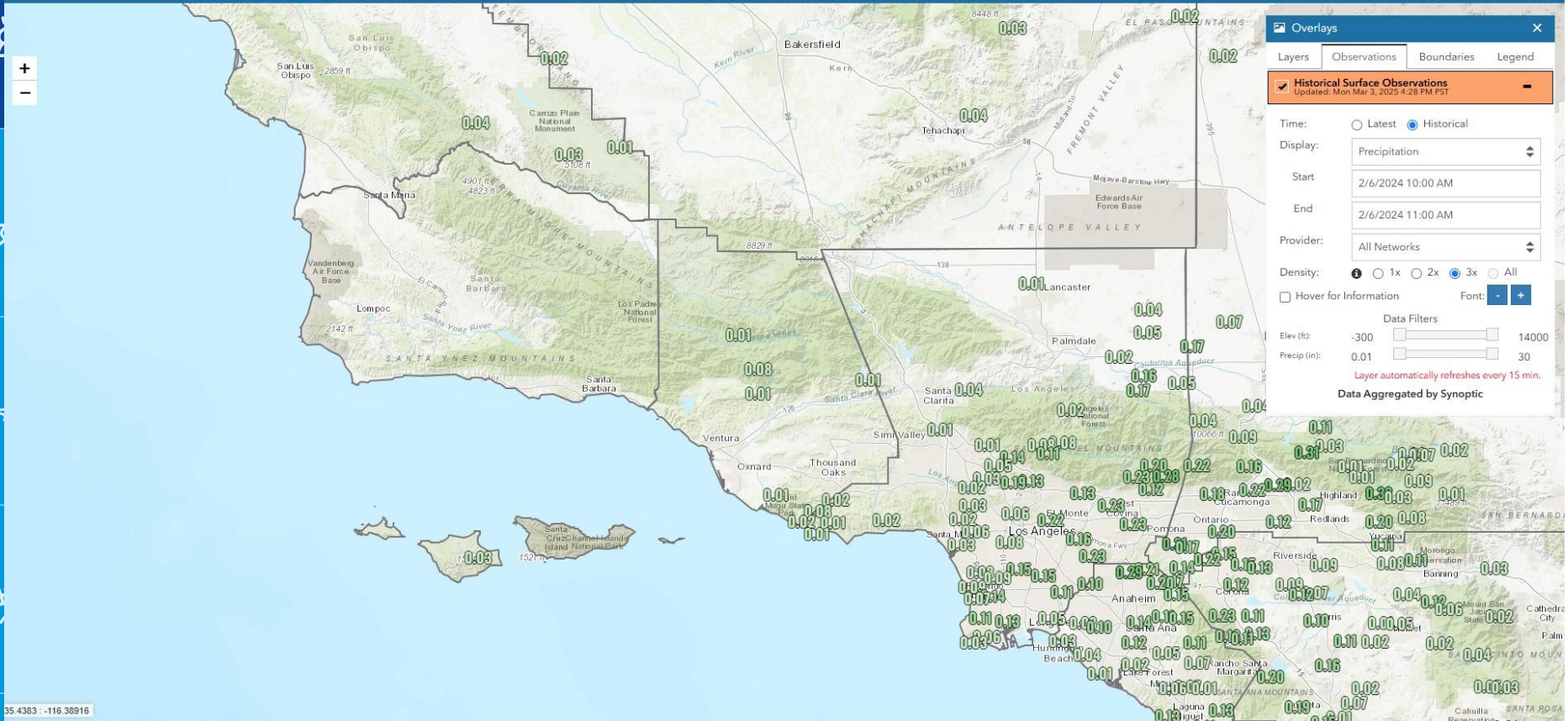


2/6/24 8AM



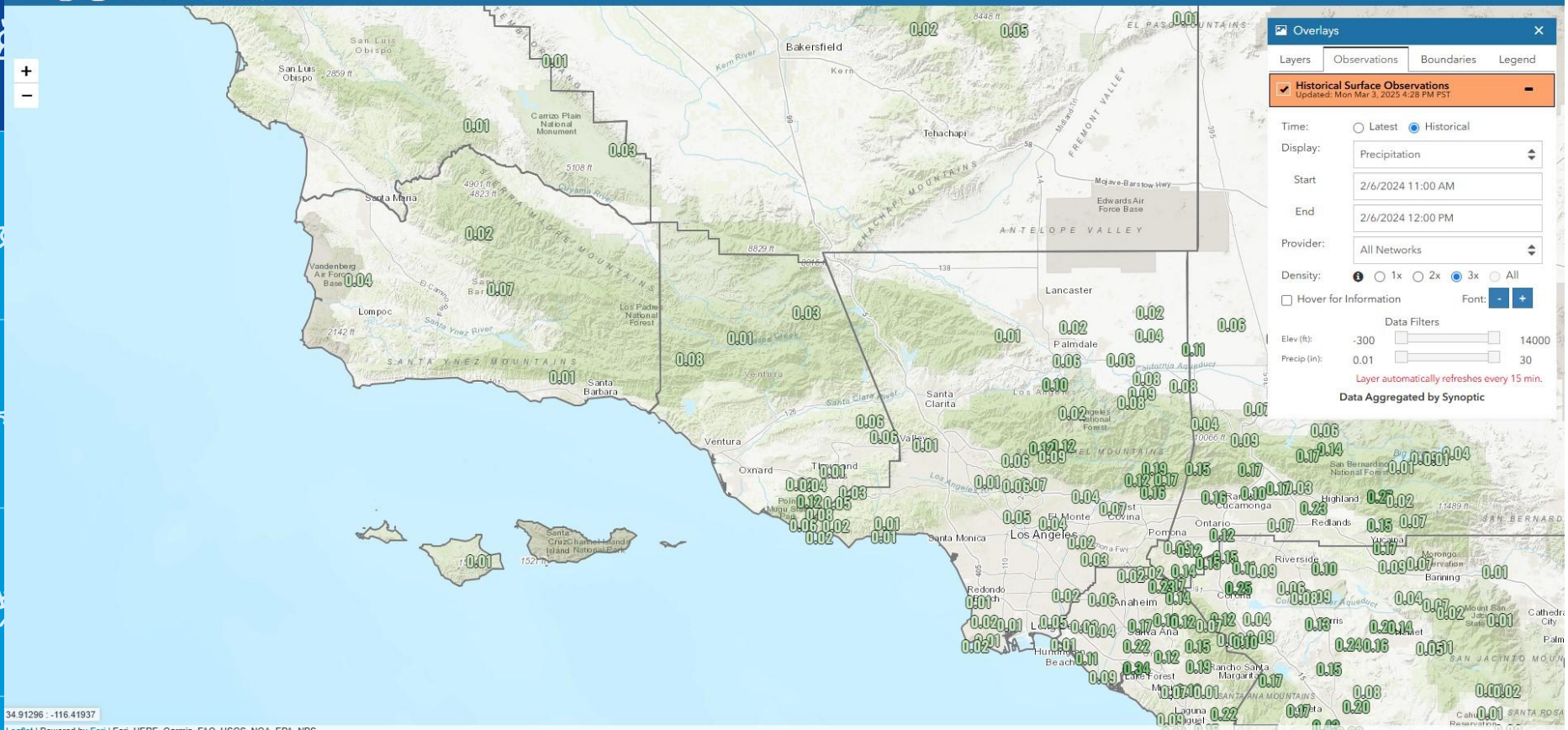
35.20748 -116.41388
Leaflet | Data provided by Ferret, Ferret, HREF, Garmin, FAO, USGS, NOAA, EPA, NDS

2/6/24 9AM

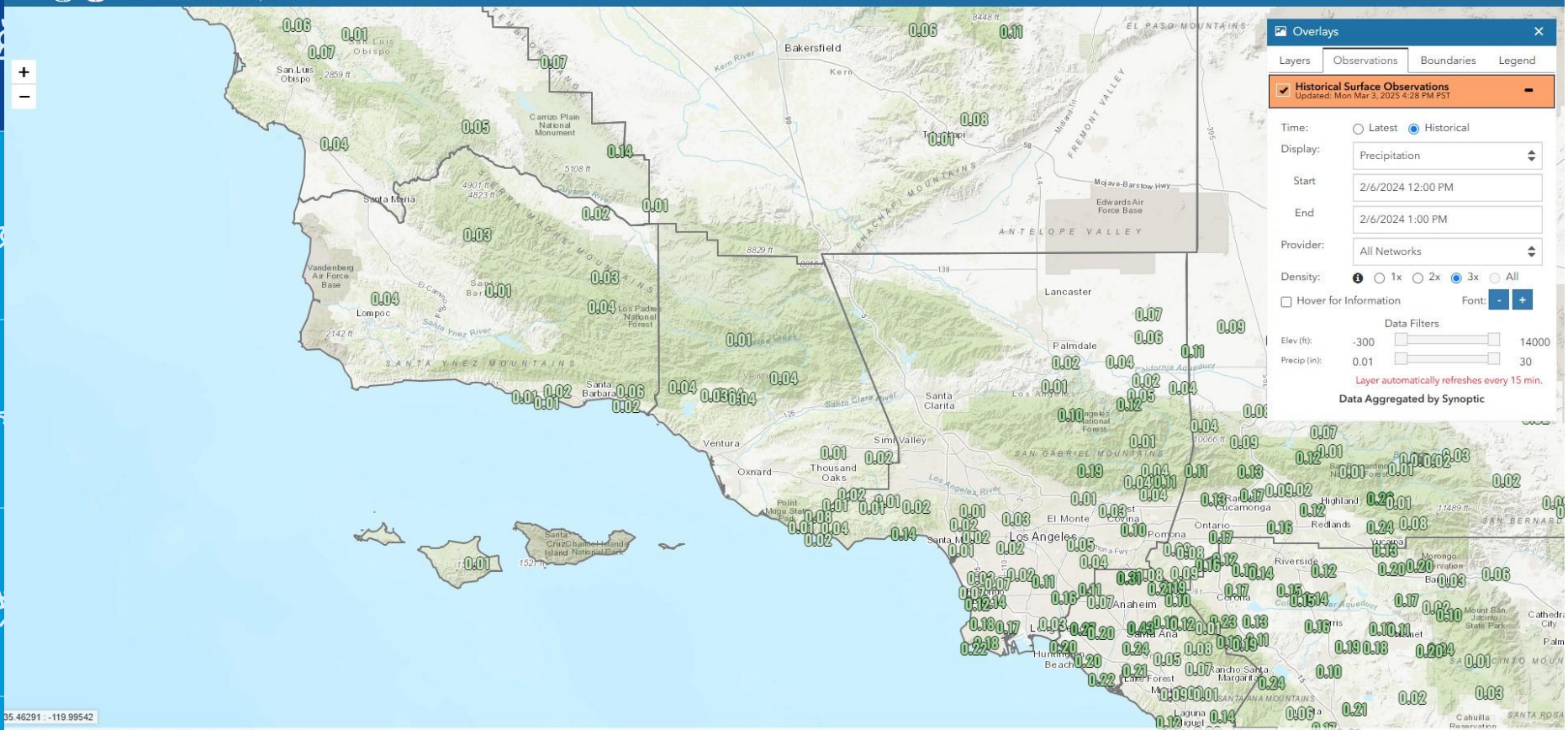


35 4383 -116 38916
Leaflet | Powered by Esri | Data: NOAA, GEBCO, Esri, FAO, USGS, NGA, EPA, NPS

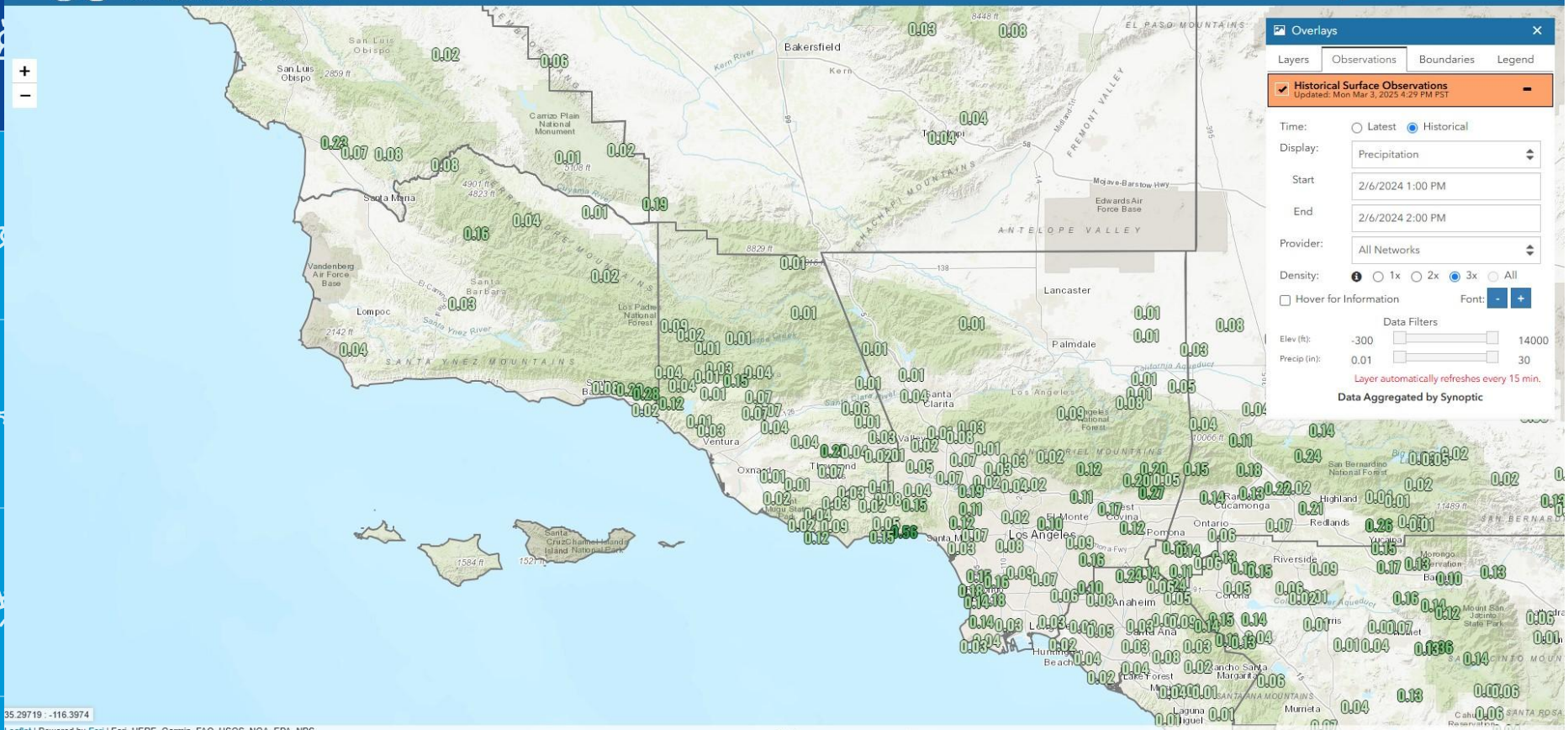
2/6/24 10AM



2/6/24 11AM

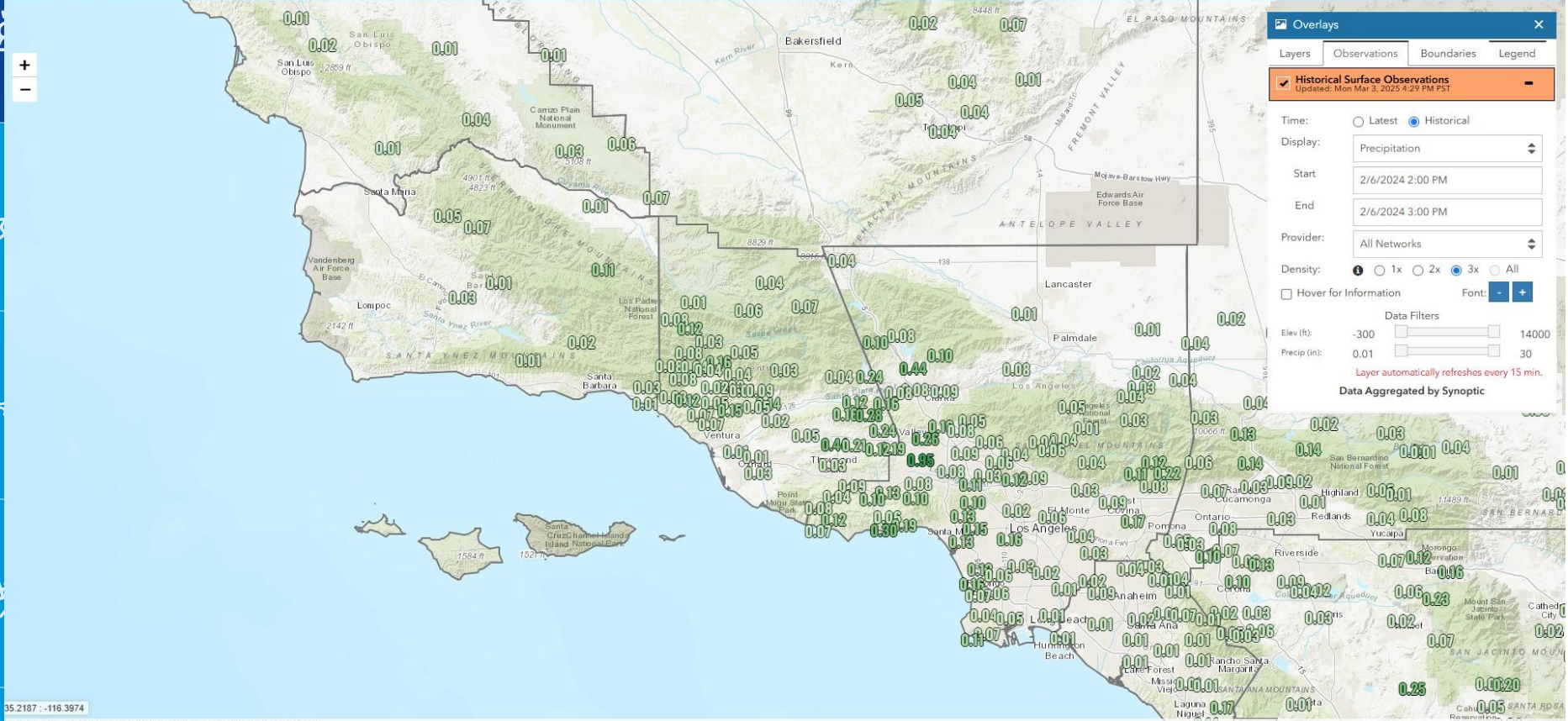


2/6/24 12PM



35.29719 -116.3974
Leaflet | Powered by Esri | Esri, HERE, Garmin, FAO, USGS, NGA, EPA, NPS

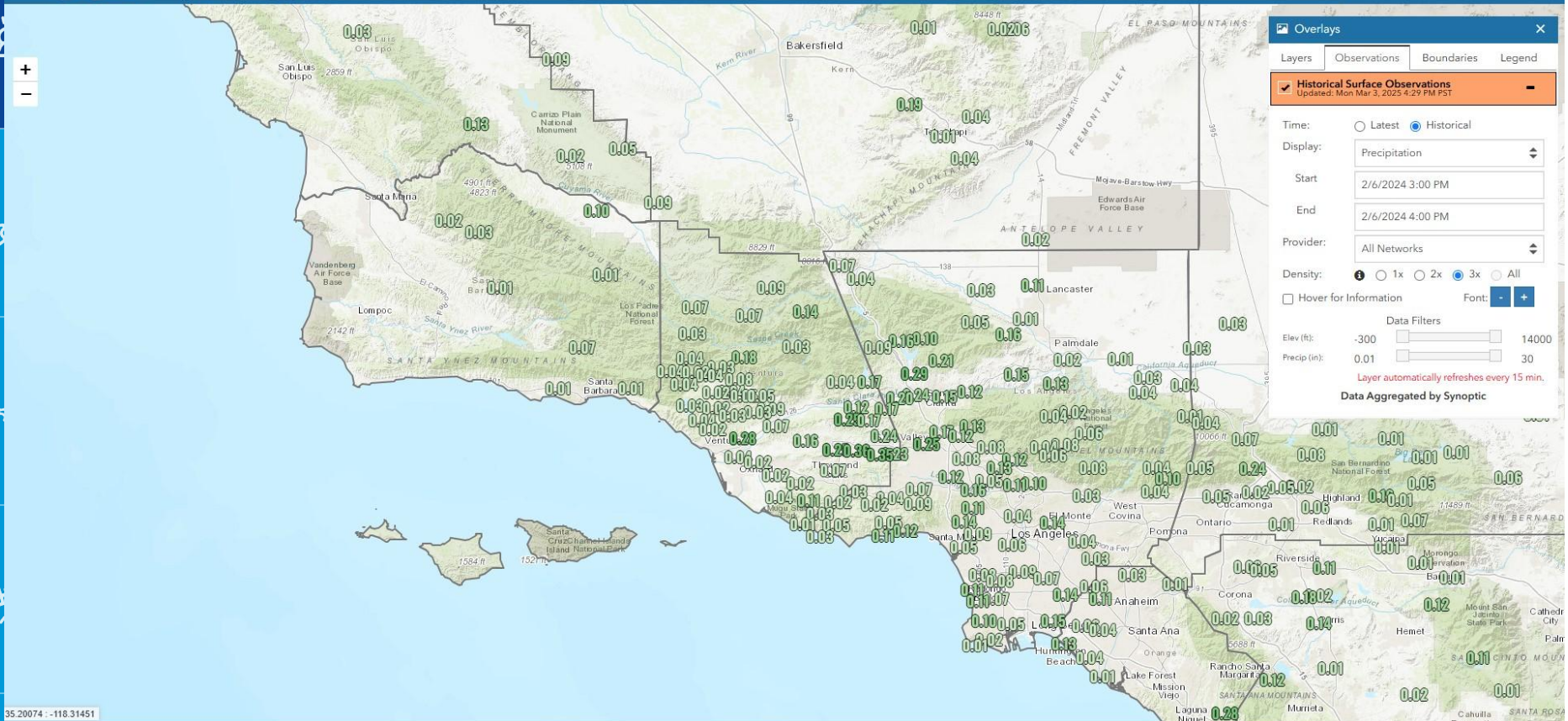
2/6/24 1PM



35.2187 -116.3974

Leaflet | Data by Esri, DeLorme, GeoEye, FAO, IGN, NOAA, EPA, NPS

2/6/24 2PM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:29 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/6/2024 3:00 PM

End: 2/6/2024 4:00 PM

Provider: All Networks

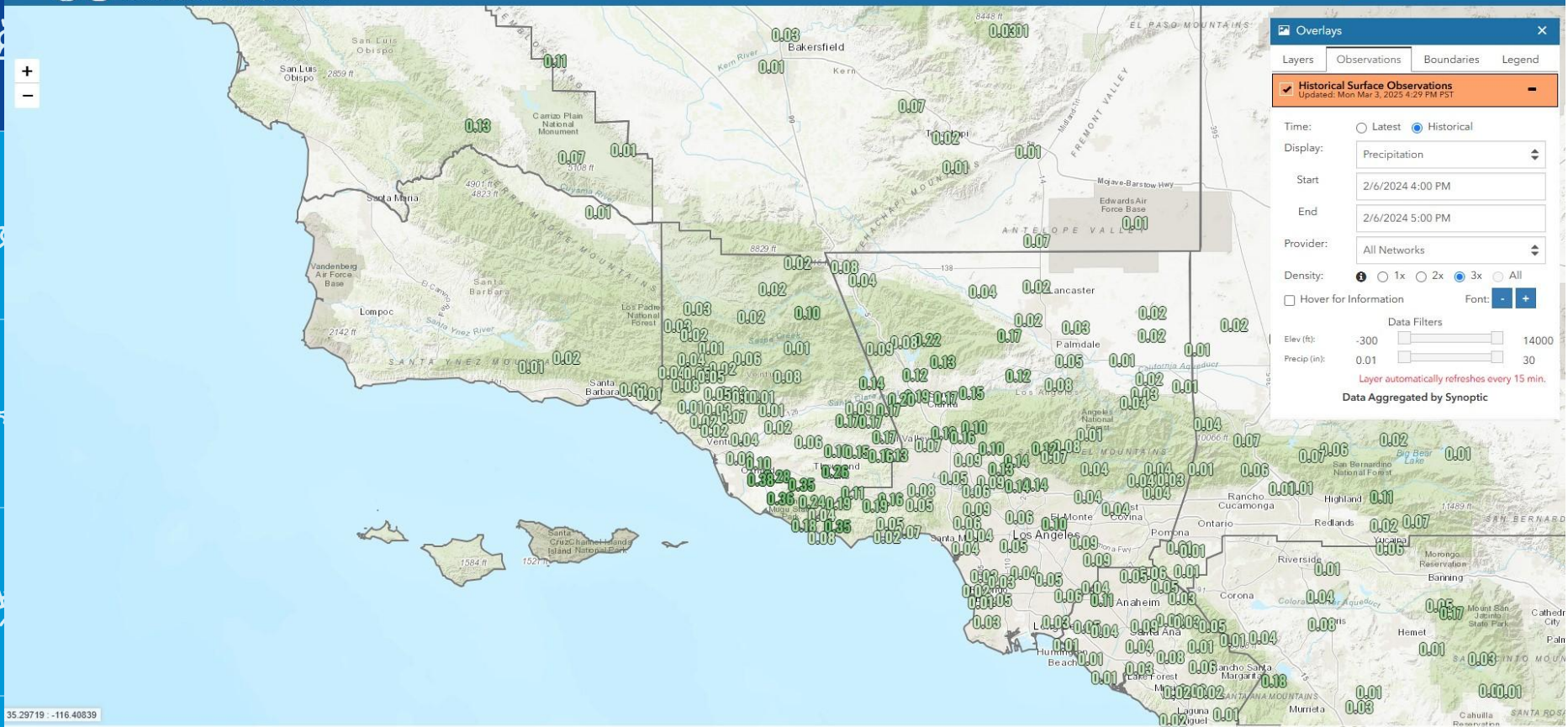
Density: 1x 2x 3x All

Hover for Information Font: - +

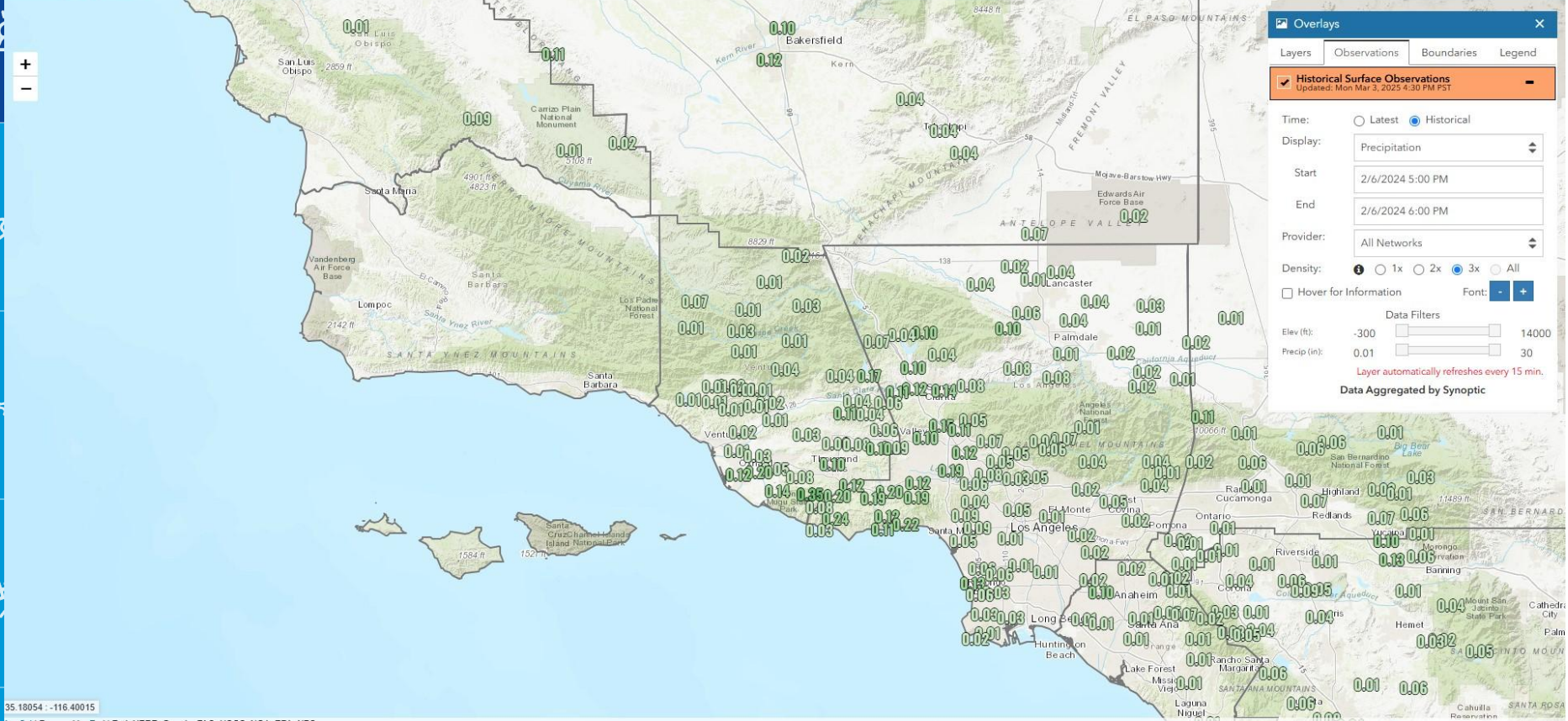
Data Filters
Elev (ft): -300 14000
Precip (in): 0.01 30

Layer automatically refreshes every 15 min.
Data Aggregated by Synoptic

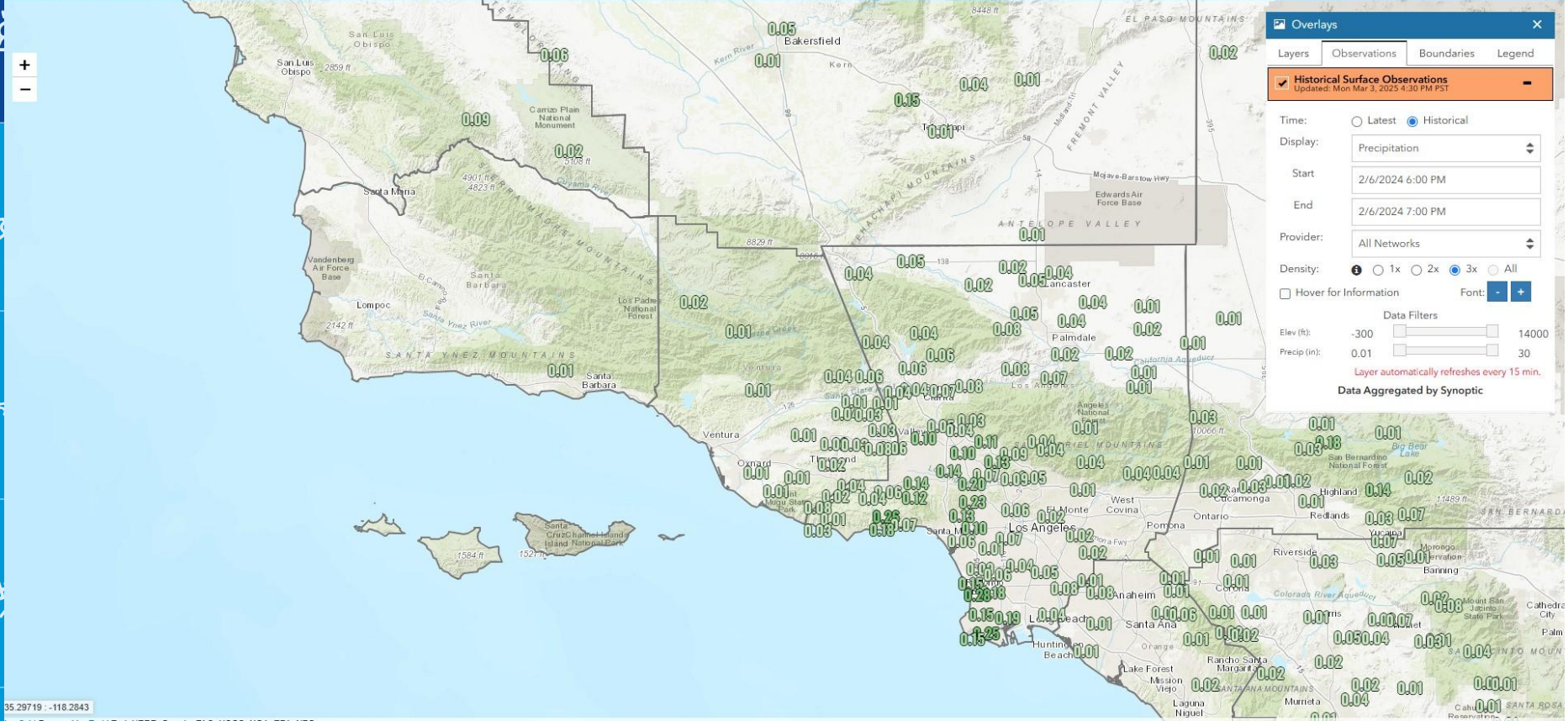
2/6/24 3PM



2/6/24 4PM

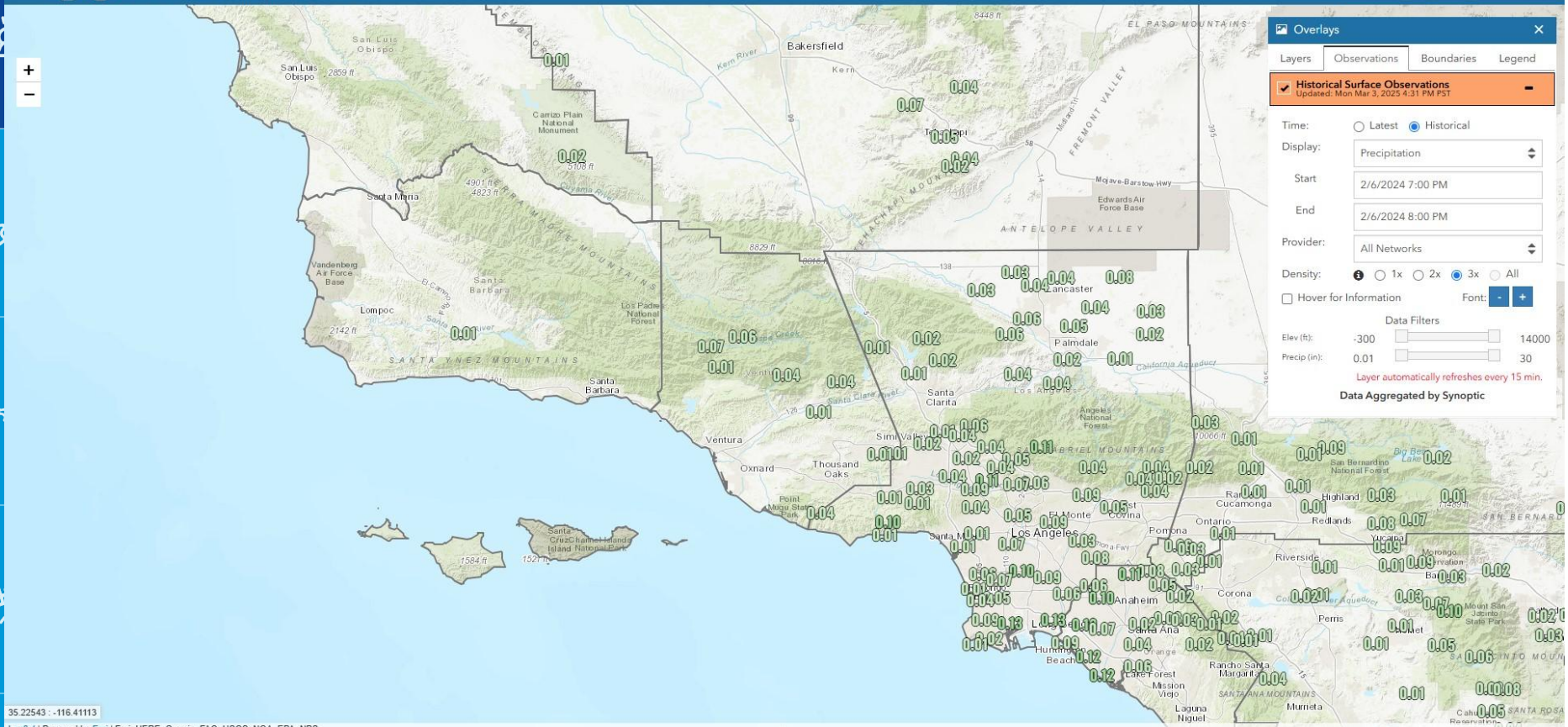


2/6/24 5PM

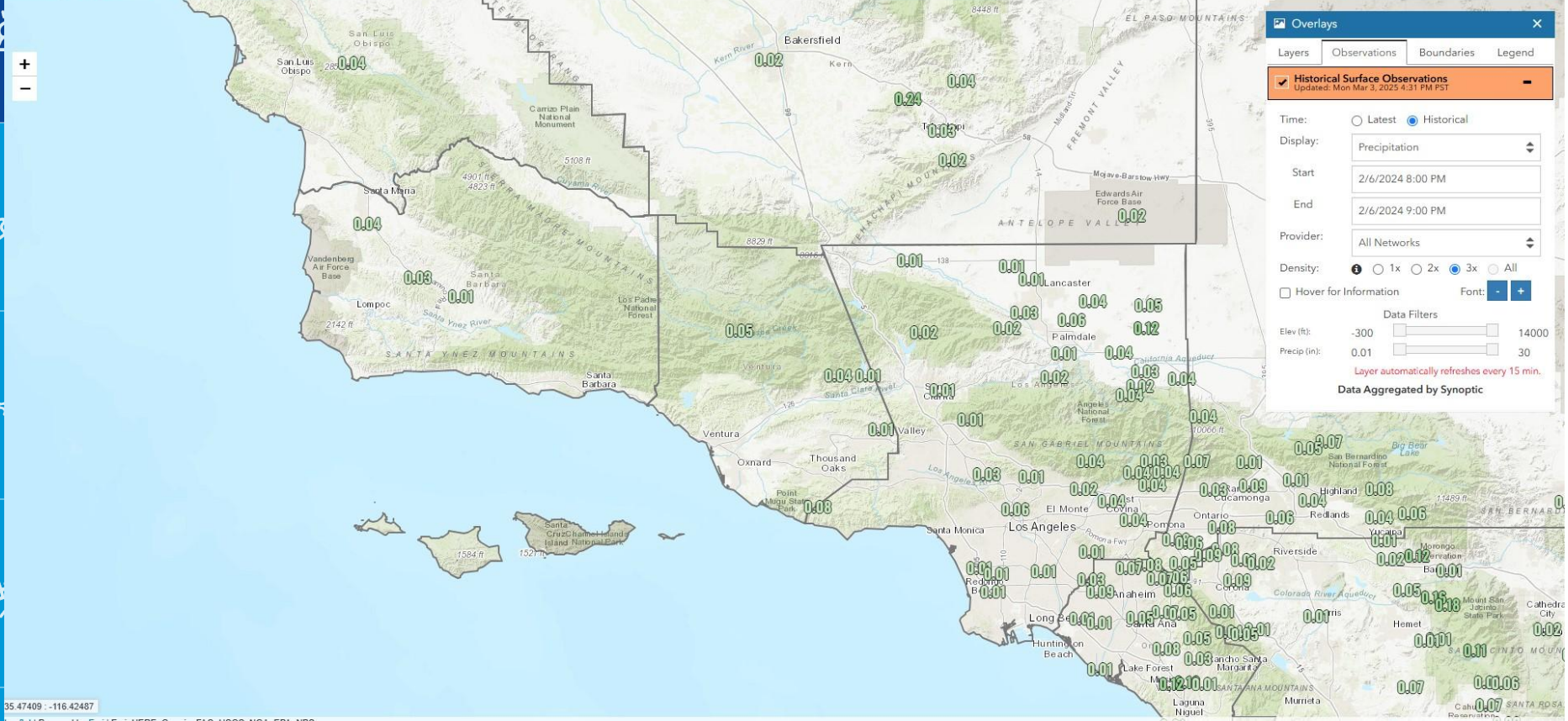


35.29719 -118.2843

2/6/24 6PM



2/6/24 7PM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:31 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/6/2024 8:00 PM

End: 2/6/2024 9:00 PM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information

Font: - +

Data Filters

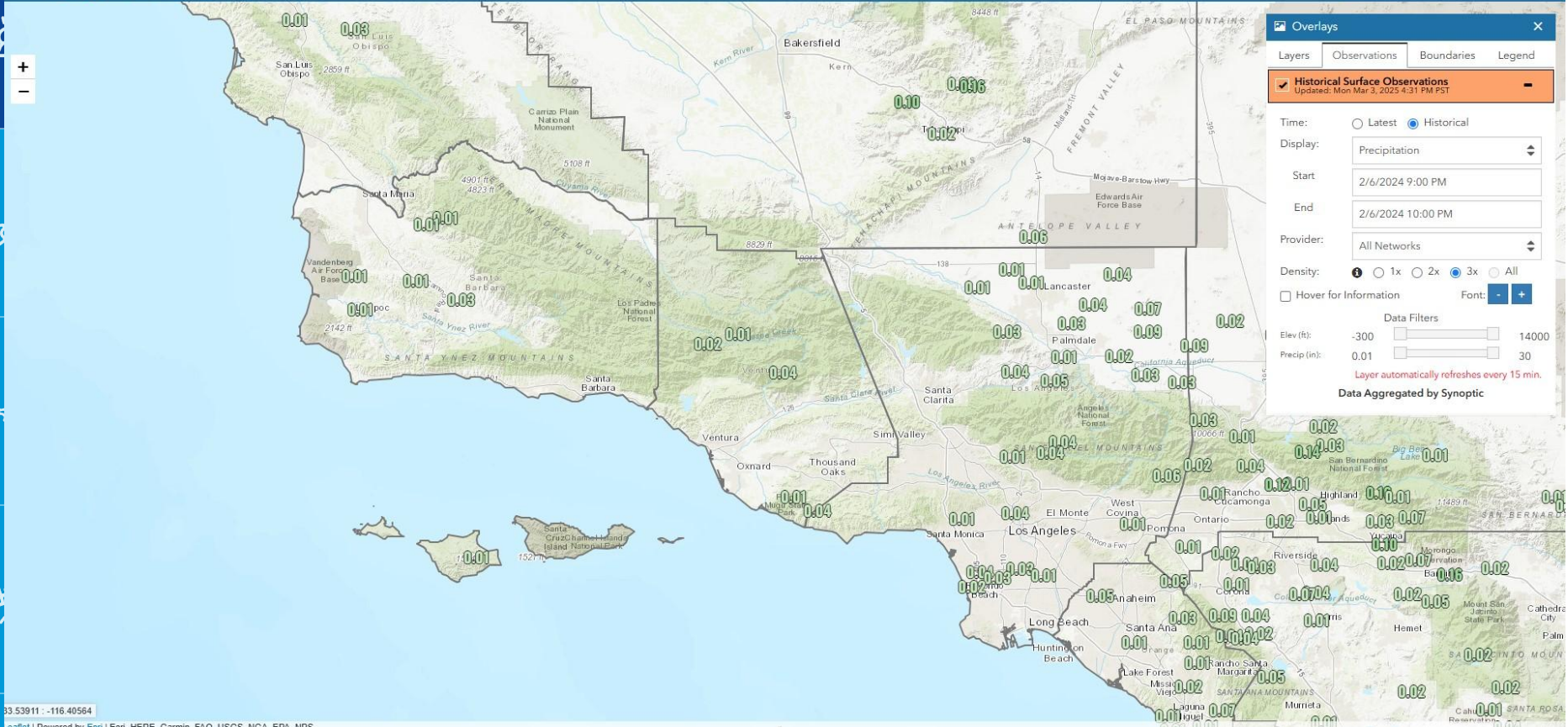
Elev (ft): -300 14000

Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

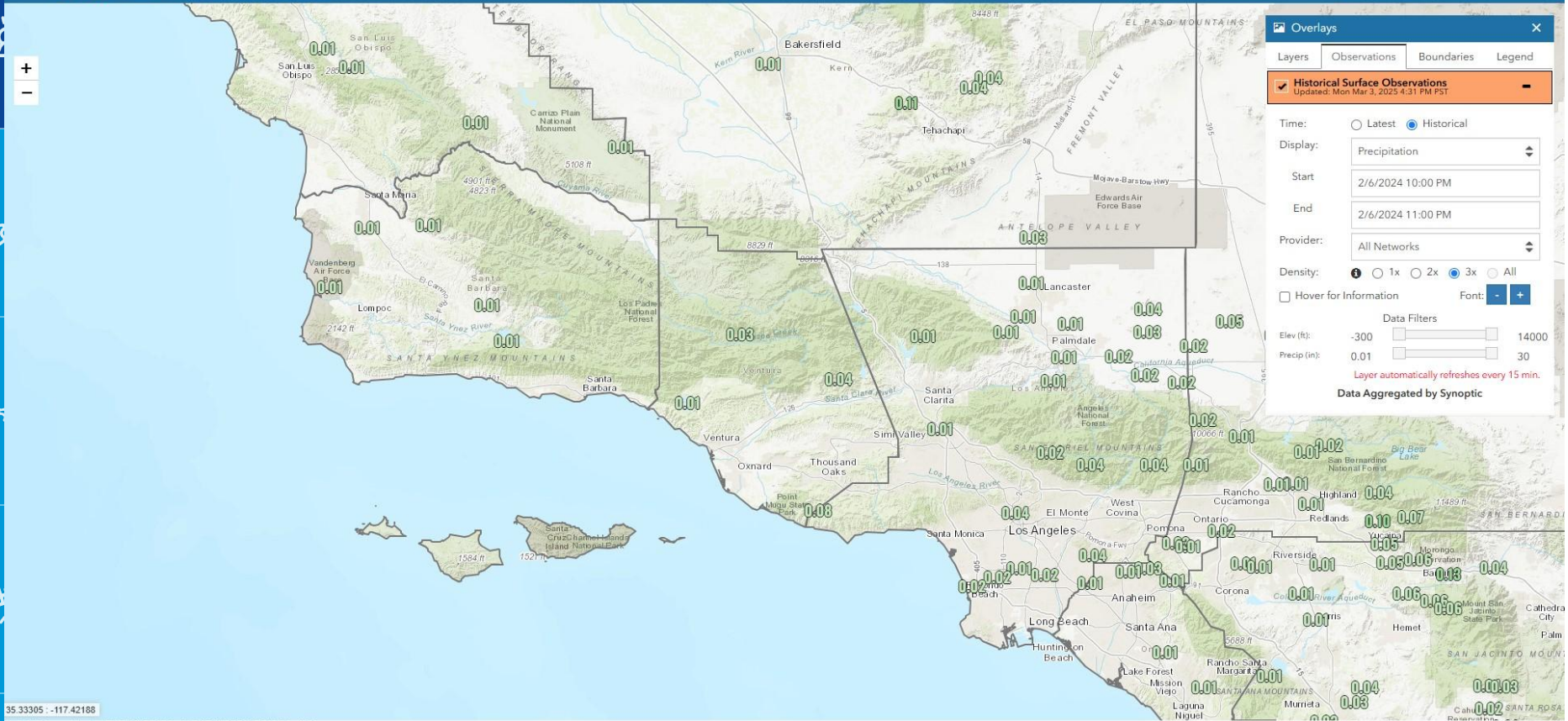
Data Aggregated by Synoptic

2/6/24 8PM

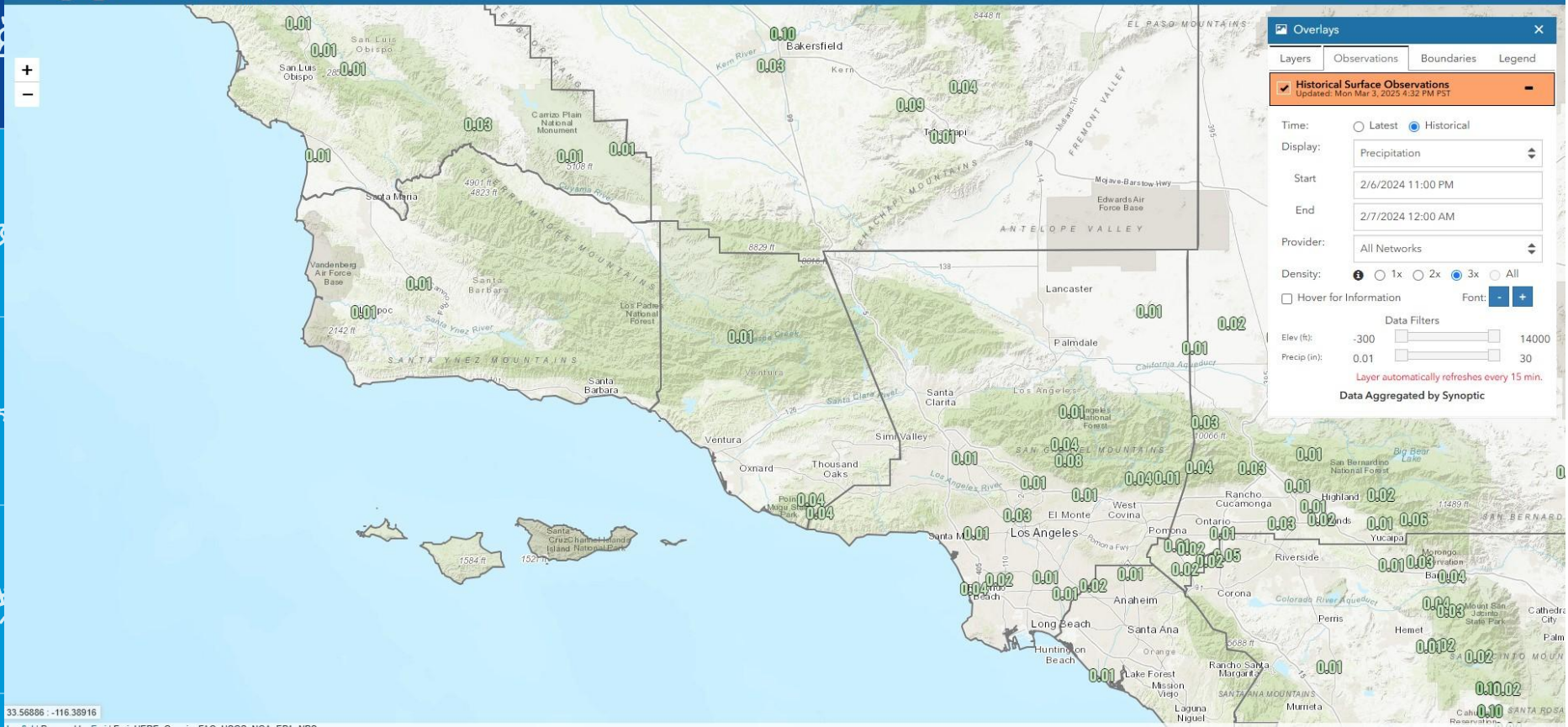


33.53911 -116.40584
Maplet powered by Ferret | Ferret | HPDF | Garmin | FDO | USGS | NGA | FPA | NPS

2/6/24 9PM



2/6/24 10PM



Overlays

Layers Observations Boundaries Legend

Historical Surface Observations
Updated: Mon Mar 3, 2025 4:32 PM PST

Time: Latest Historical

Display: Precipitation

Start: 2/6/2024 11:00 PM

End: 2/7/2024 12:00 AM

Provider: All Networks

Density: 1x 2x 3x All

Hover for Information Font: - +

Data Filters

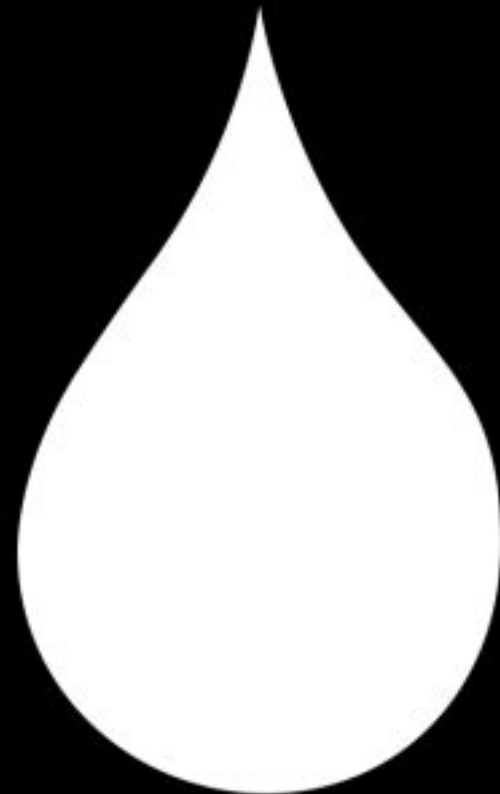
Elev (ft): -300 14000

Precip (in): 0.01 30

Layer automatically refreshes every 15 min.

Data Aggregated by Synoptic

2/6/24 11PM



READY

Regular Communication

- BEFORE weather events, NWS & Core Partners strengthen connections
 - Seasonal preparedness activities, joint exercises, learning about each other's needs
- Why?
 - Core Partners (e.g., EMs) directly support disaster response...
 - Weather plays a huge role in disasters!
 - Core Partners can make better-informed decisions when advised by NWS expert Meteorologists...
 - So, better disaster response comes from stronger NWS-Partner relationships



First ever Southern California Tropical Workshop (May 2024) attended by three dozen partners with significant NWS attendance including from the National Hurricane Center.

SET

Preparing for the Event

- Leveraging NWS-Core Partner relationships
 - Coordinating ahead of the storm
 - NWS provides briefings, forecast info, watches, warnings, advisories
 - Weather forecast influences Core Partner staffing and operations tempo
 - Core Partner upstaffing can increase preparedness
- NWS positions resources to meet partner needs, including deployments to EOCs



*City of Los Angeles EMD designated space in the Planning Section of the EOC
NWS deployed Meteorologists to provide IDSS, eye-to-eye with Core Partners for major events*

GO!

The Event: Eye to Eye in LA

- EOC activates when NWS forecasts high-impact weather
 - NWS deploys Meteorologists to EOC, getting Eye-To-Eye with Partners
- NWS ensures City of LA EMD is prepared for disaster response
 - Saving lives and property!
 - NWS expertise at Press and Mayoral briefings adds credibility and urgency to facilitate effective public response



GO!

The Event: Eye to Eye in LA

- NWS LA/Oxnard brought in NWS personnel from NWS Portland, OR and NWS Seattle, WA who redeployed to the Santa Barbara County and LA County EOCs, respectively.
- Five members of the NWS LA/Oxnard team also deployed to the EOCs
- 7 NWS team members were eye-to-eye with partners at four EOCs nearly continuously during activations starting February 4.





Ventura County Star



"This time, however, let us pause to also give praise to those who alerted us to the coming danger and enabled us to prepare. In the days leading up to the prolonged storm, the meteorologists at the National Weather Service office in Oxnard spared no caution in their forecasts. A 'life-threatening' event was on its way, they warned, and they were spot on."



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Editorial: Unsung weather heroes in Oxnard

The Star Editorial Board Ventura County Star

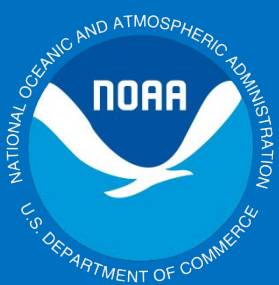
Published 12:00 p.m. PT Feb. 9, 2024 | Updated 12:00 p.m. PT Feb. 9, 2024



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Once again, Ventura County has been hit by an extreme weather event, and once again we have cause to celebrate the heroes who helped us get through it — the rescue teams, those who patrolled our rain- and mud-slicked streets, the crews who cleared flood channels and storm drains to limit flooding, the workers who did their best to prevent and limit power outages, all those who braved difficult conditions to keep us safe.





NOAA

National
Weather
Service

It's Not Always Sunny in SoCal

Dr. Ariel Cohen

*Meteorologist In Charge
NWS Los Angeles/Oxnard*

Dr. Robbie Munroe

*Meteorologist
NWS Los Angeles/Oxnard*

