

RUTGERS

THE STATE UNIVERSITY
OF NEW JERSEY

Weather Information for Decision Makers

Northeast Monthly Climate Update

Dr. David Robinson

NJ State Climatologist

Office of the New Jersey State Climatologist

Rutgers University

February 25, 2016



Seaside Heights, NJ
30 October 2012

Office of the NJ State Climatologist

Data



Information



Knowledge



Decision

ONJSC
at Rutgers University

Office of the New Jersey State Climatologist · Rutgers University · 54 Joyce Kilmer Avenue · Lucy Stone Hall B224 · Piscataway, NJ 08854

RUTGERS
New Jersey Agricultural
Experiment Station

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Latest from the NJWxNet

Temperature
Tue Feb 09 11:04:17 AM EST
Source: NJWxNet

Latest temperatures across NJ appear in the above map. Click on the map or here, the [New Jersey Weather and Climate Network](#), for much more information.

Frequently Updated Climate Data

[Winter 2015-2016 Snow Event Totals](#)

[Monthly and Annual Statewide \(1895-Present\)](#)

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Latest News

Snow in Hillsborough (Somerset County) on the morning of January 23rd.

A Winter Sampler: January 2016 Recap

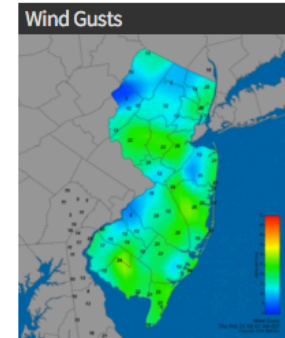
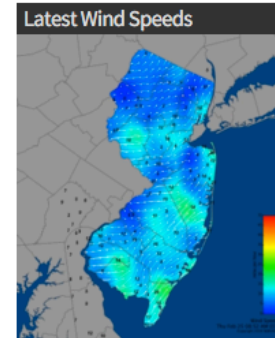
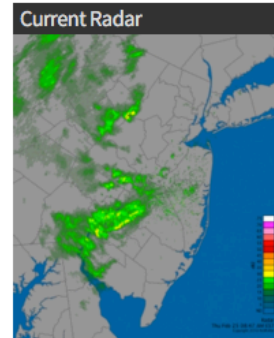
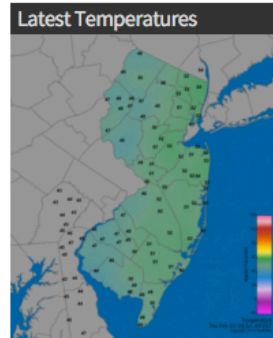
Dr. David A. Robinson
New Jersey State Climatologist
February 9, 2016

Appreciating Variations & Extremes



New Jersey Weather & Climate Network

<http://njweather.org>



Top Story

A Winter Sampler: January 2016 Recap

Monday, February 8, 2016 - 10:35am



Snow in Hillsborough (Somerset County) on the morning of January 23rd.

While average monthly temperature and precipitation (rain and melted snow) did not vary much from their long term averages, January 2016 certainly had enough of a

Latest Extremes

City, State	Temp	City, State	Temp
Haworth, NJ	54	High Point Monument, NJ	44
Hawthorne, NJ	53	Greenwich, NJ	44
Oceanport, NJ	53	Kingwood, NJ	45
Jersey City, NJ	53	High Point, NJ	45
Sea Girt, NJ	53	Pittstown, NJ	46

most current information as of Feb 25 8:59 AM

Latest Conditions & Forecast

New Brunswick, NJ

Rutgers University Meteorology Program

52 °F

Wind
20 mph from the WSW

Wind Gust
24 mph from the WSW

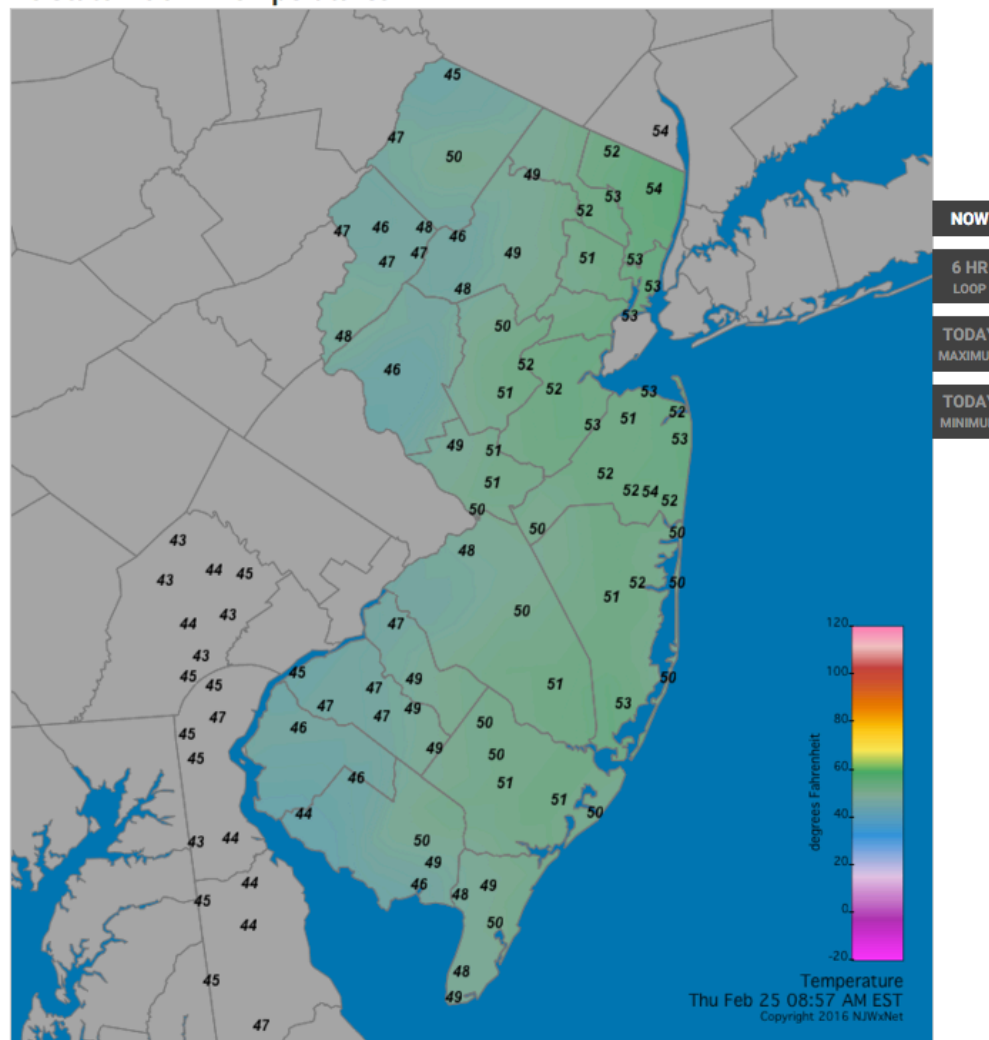
Maps

Statewide Maps

- Air Temperature
- Wind Chill
- Barometric Pressure
- Dewpoint
- Precipitation
- Relative Humidity
- Soil Water Content
- Soil Temperature
- Solar Radiation
- Wind Gusts
- Wind Speed
- Radar
- Radar/Precip Composite
- Radar: 1 Hour Precip
- Radar: Storm Total Precip
- Satellite - Visible
- Satellite - Infrared Color
- Satellite - Water Vapor
- Station Locations

- Northern New Jersey**
- Central New Jersey**
- Southern New Jersey**
- NY Metro Area**
- Philadelphia Metro Area**
- Mid Atlantic**

NJ Statewide Air Temperatures



Jersey City, NJ
Liberty Science Center

SET AS FAVORITE

search by zipcode or city/state **GO**

Latest NWS Forecast



Slight Chance Showers and Breezy

57 °F

Today

A slight chance of showers after 9am. Increasing clouds, with a temperature rising to near 57 by 10am, then falling to around 48 during the remainder of the day.



Mostly Cloudy

30 °F

Tonight

Mostly cloudy, with a low around 30. Wind chill values between 20 and 25. West wind 16 to 18 mph, with gusts as high as 29 mph.



Mostly Sunny

39 °F

Friday

Mostly sunny, with a high near 39. Wind chill values between 20 and 30. Northwest wind 16 to 18 mph, with gusts as high as 28 mph.



Mostly Clear

21 °F

Friday Night

Mostly clear, with a low around 21. Wind chill values between 15 and 20. Northwest wind 7 to 14 mph.



Sunny

Saturday

Sunny, with a high near 39. Southwest wind 6 to 9 mph.

Latest Conditions

53 °F



Wind
7 mph from the S

Wind Gust
13 mph from the S

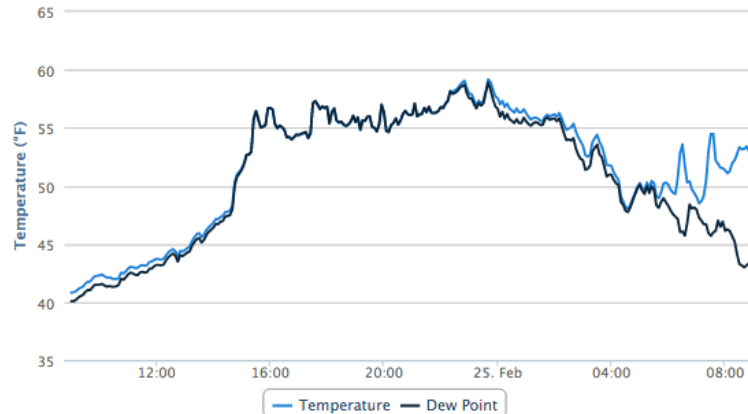
	Now	This Hour		Last 6 hr		Today		Last 24 hr	
Temperature	53	51	54	48	55	48	58	41	59
Wind Chill	47	--	--	--	--	--	--	--	--
Dewpoint	43	43	46	43	54	43	57	40	59
Wind Speed/Gust	7	--	15	--	15	--	24	--	34
Precip	--	0.00		0.00		0.02		1.11	

Values in blue are minimums, values in red are maximums. Data as of Feb 25 09:00 AM.

View expanded tabular data for this station: [5 Minute](#) / [Hourly](#) / [Daily](#)

Trends and Climatologies

Temperature / Dew Point
Jersey City, Hudson County, NJ (#3411)



Office of the New Jersey State Climatologist (NJClimate.org)

Includes the New Jersey Mesonet

35 Mesonet sites measure:

Air temperature

Wind speed and direction

Dew point/Relative Humidity

Precipitation

Air pressure

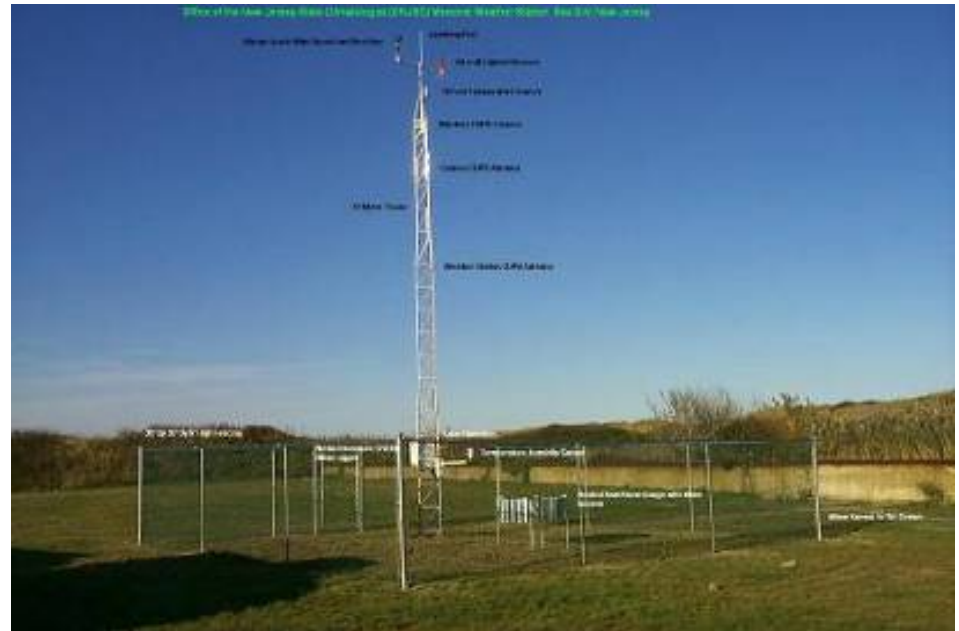
Solar radiation

Soil temperature

Soil Moisture

Cellular communications

Ability for expansion built into station design



Sea Girt

The New Jersey SafetyNet

24 SafetyNet sites measure:

Air temperature

Wind speed and direction

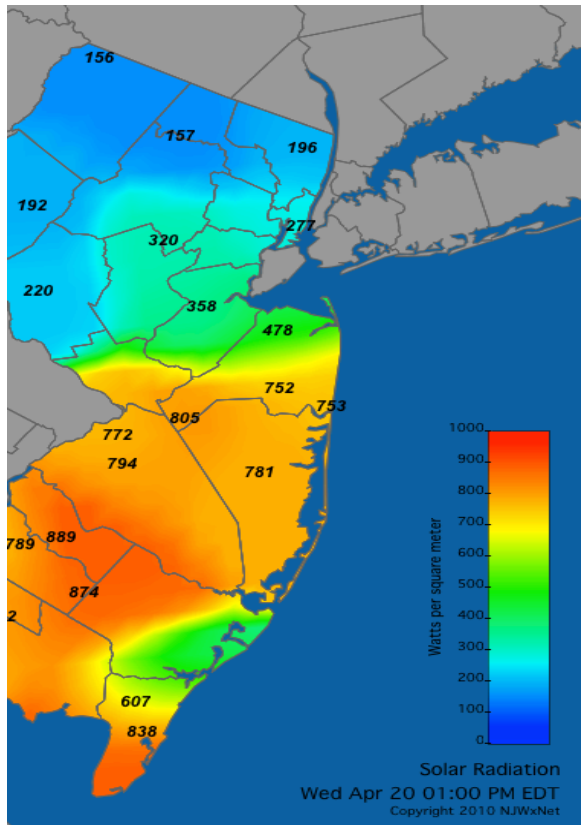
Dew point/Relative Humidity

Precipitation

Air pressure

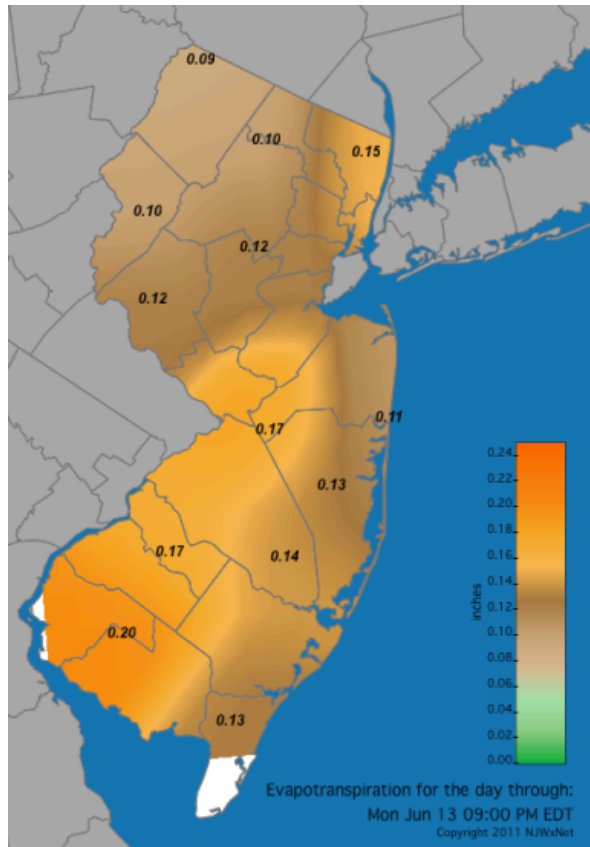
Cellular communications



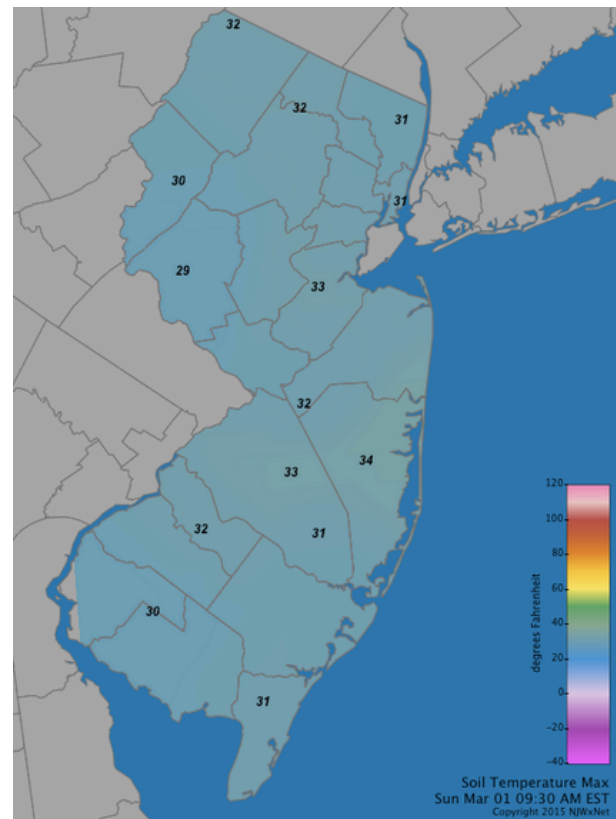


Solar Radiation

Unique variables
for the agricultural
community



Evapotranspiration



Soil temperature
and moisture

Data Viewer

[NEW SEARCH](#)

[< BACK 5 MINUTES](#) [FORWARD 5 MINUTES >](#)

Search:

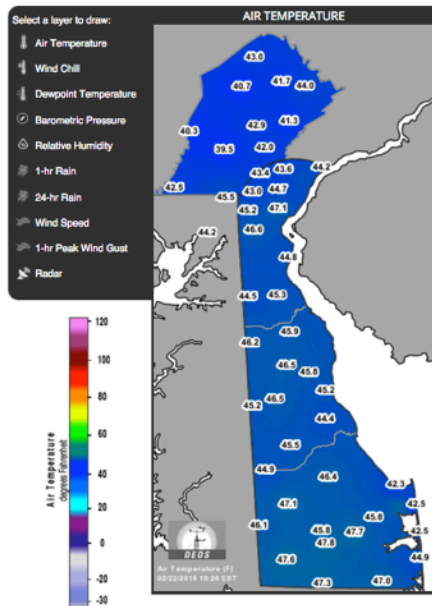
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City	State	Eastern Time	Source	Temp	DewPt	RH	BP	5 Min Precip	Wind Speed	Wind Dir	5 Min Wind Max	5 Min Wind Max Dir
▼ Atlantic City Marina	NJ	2015-05-05 21:35	SafetyNet	61			30.22	0.00	10	SW	11	SW
▼ Basking Ridge	NJ	2015-05-05 21:35	Mesonet	66	59	78	30.17	0.00	0	S	0	S
▼ Berkeley Twp.	NJ	2015-05-05 21:35	Mesonet	66	62	86	30.18	0.00	2	SSW	2	SSW
▼ Bivalve	NJ	2015-05-05 21:35	SafetyNet	65				0.00	0	SSW	0	N
▼ Cape May Court House	NJ	2015-05-05 21:35	Mesonet	66	57	73		0.00	1	WSW	3	SW
▼ Charlotteburg	NJ	2015-05-05 21:35	Mesonet	66	51	60	30.22	0.00	1	WSW	1	WSW
▼ Chatham Twp.	NJ	2015-05-05 21:35	SafetyNet					0.00	0	WNW	0	N
▼ Cherry Hill	NJ	2015-05-05 21:35	Mesonet	74	60	61		0.00	0	SW	2	SW
▼ Clayton	NJ	2015-05-05 21:35	SafetyNet	71			30.20	0.00				
▼ Dennis Twp.	NJ	2015-05-05 21:35	Mesonet	68	59	72		0.00	5	SSW	8	SW
▼ Egg Harbor Twp.	NJ	2015-05-05 21:35	Mesonet	65	55	71		0.00	0	SW	1	S
▼ Greenwich	NJ	2015-05-05 21:35	Mesonet	67	62	86		0.05	5	SW	16	WSW
▼ Hackettstown	NJ	2015-05-05 21:35	SafetyNet	66			30.22	0.00	0	SSW	0	N
▼ Hamilton	NJ	2015-05-05 21:35	Mesonet	70	60	71		0.00	0	NNW	0	NNW
▼ Hammonton	NJ	2015-05-05 21:35	Mesonet	72	56	57		0.00	3	SW	5	WSW
▼ Harvey Cedars	NJ	2015-05-05 21:35	SafetyNet	65			30.20	0.00	12	ENE	14	ENE
▼ Haworth	NJ	2015-05-05 21:35	Mesonet	67	55	65	30.16	0.00	0	SW	0	S
▼ Hawthorne	NJ	2015-05-05 21:35	SafetyNet	67			30.16	0.00	0	SE	0	N
▼ High Point	NJ	2015-05-05 21:35	Mesonet	69	34	28	30.27	0.00	3	NW	6	NW
▼ High Pt. Monument	NJ	2015-05-05 21:35	SafetyNet	67	42	40		0.00	8	NNW	10	N
▼ Hillsborough	NJ	2015-05-05 21:35	SafetyNet	69			30.08	0.00	0	NNE	0	N



Current Conditions

Updated: February 22 2016 10:26 (US/Eastern)



Station Conditions

Newark, DE-Ag Farm

Elevation: 106 feet
Location: 39.6695°N, -75.7503°W

CURRENT

TEMPERATURE: **45.2 °F**

DEWPOINT: 29.9 °F

RELATIVE HUMIDITY: 55 %

PRESSURE: 1021 mb

1-HR RAIN: 0.00 in

24-HR RAIN: 0.00 in

WIND: 6.7 mph NE

1-HR PEAK GUST: 10.0 mph

[VIEW MORE DATA](#)

YESTERDAY

Temperature

High: 62.1 °F Low: 35.4 °F

Peak Gust

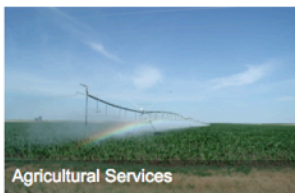
13.2 mph

Total Rain

0.00 in

[VIEW MORE DATA](#)

Project Highlights



Agricultural Services

Stay Connected...



Neighboring Mesonets

NYS Mesonet
UNIVERSITY AT ALBANY

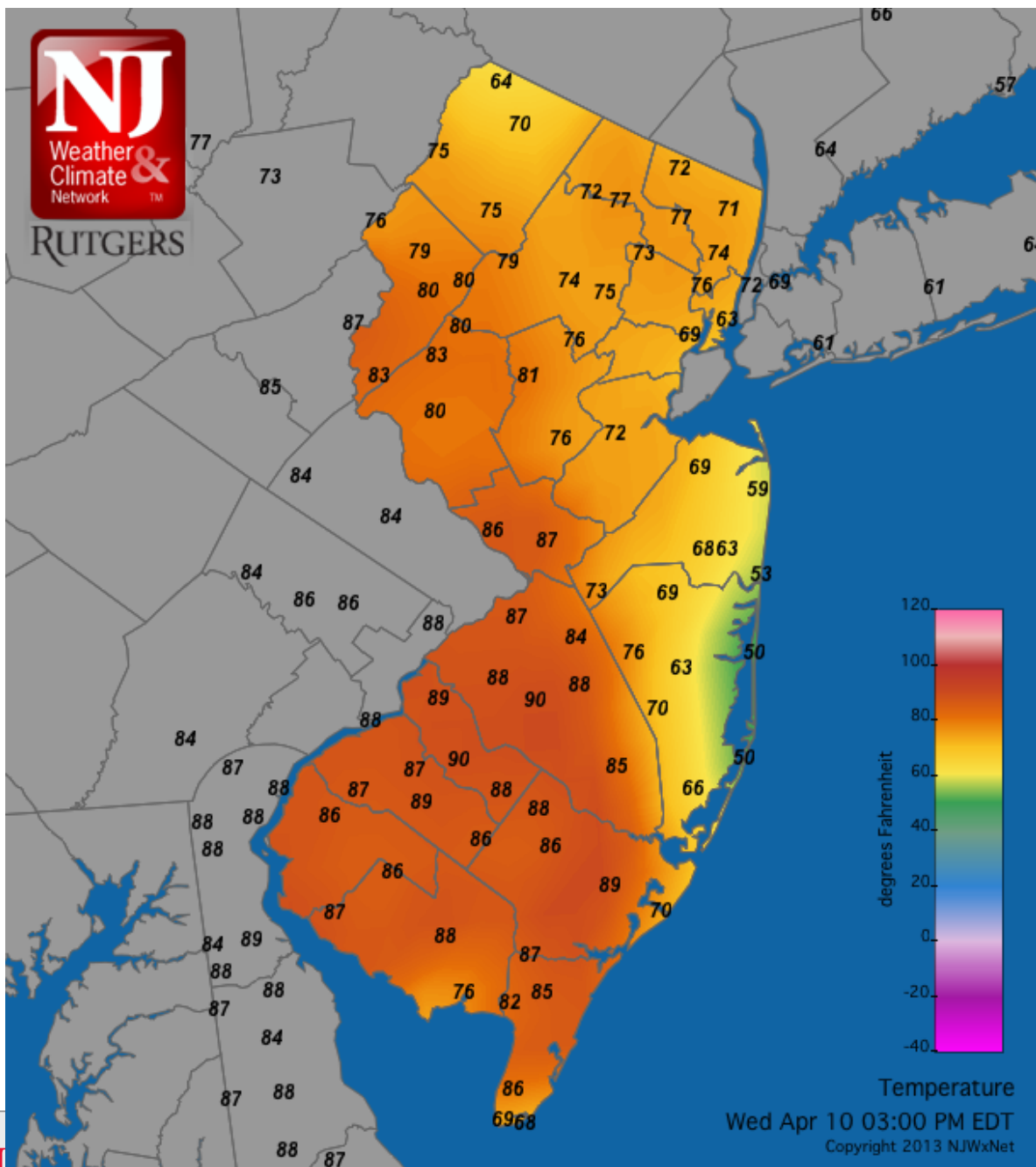
About How it Works Partners Live Data (MesoNow)

**NEW YORK STATE'S
MESOSCALE
WEATHER NETWORK**

More Stations. More Data. Better Forecasts.



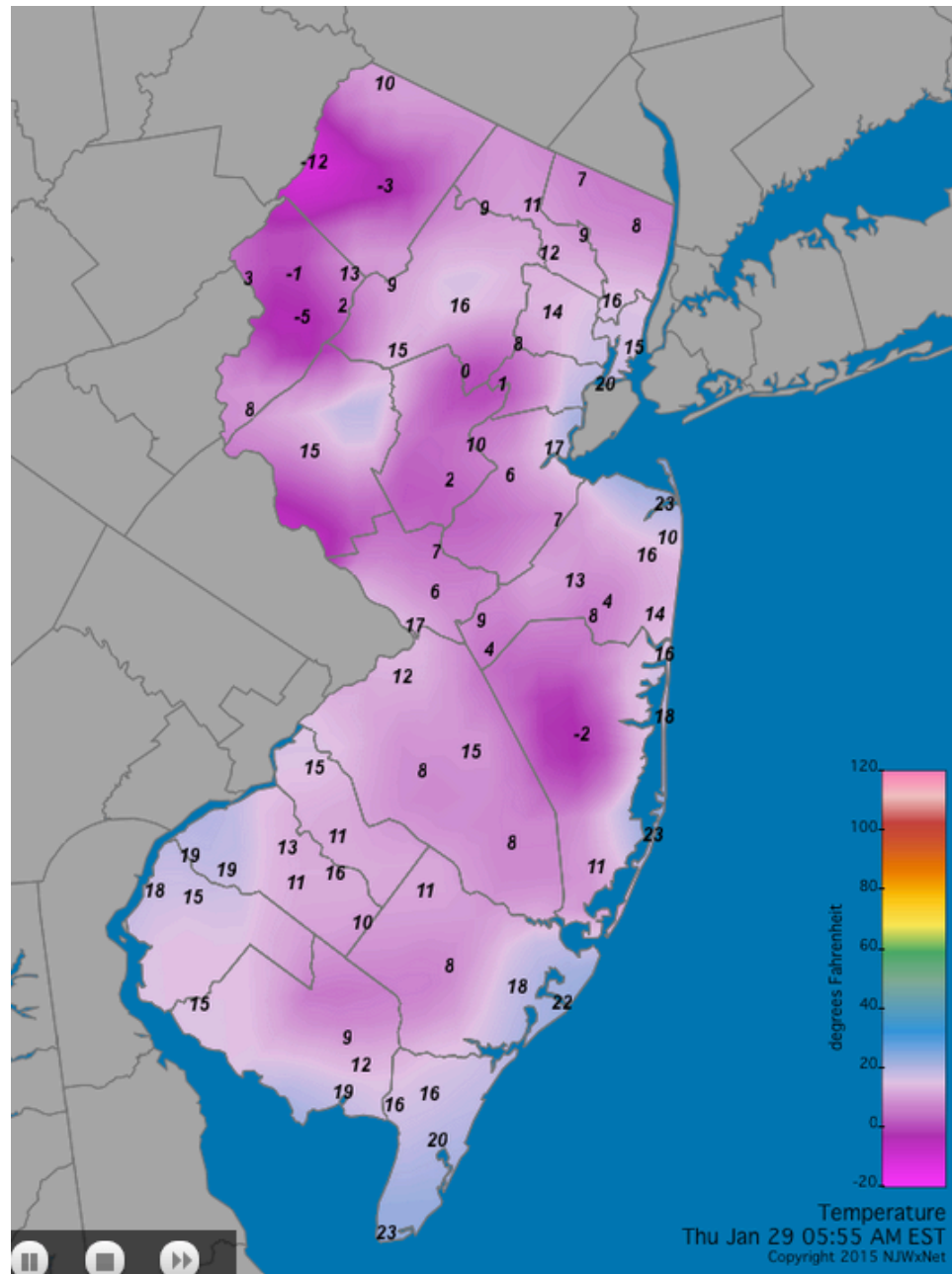
RUTGERS



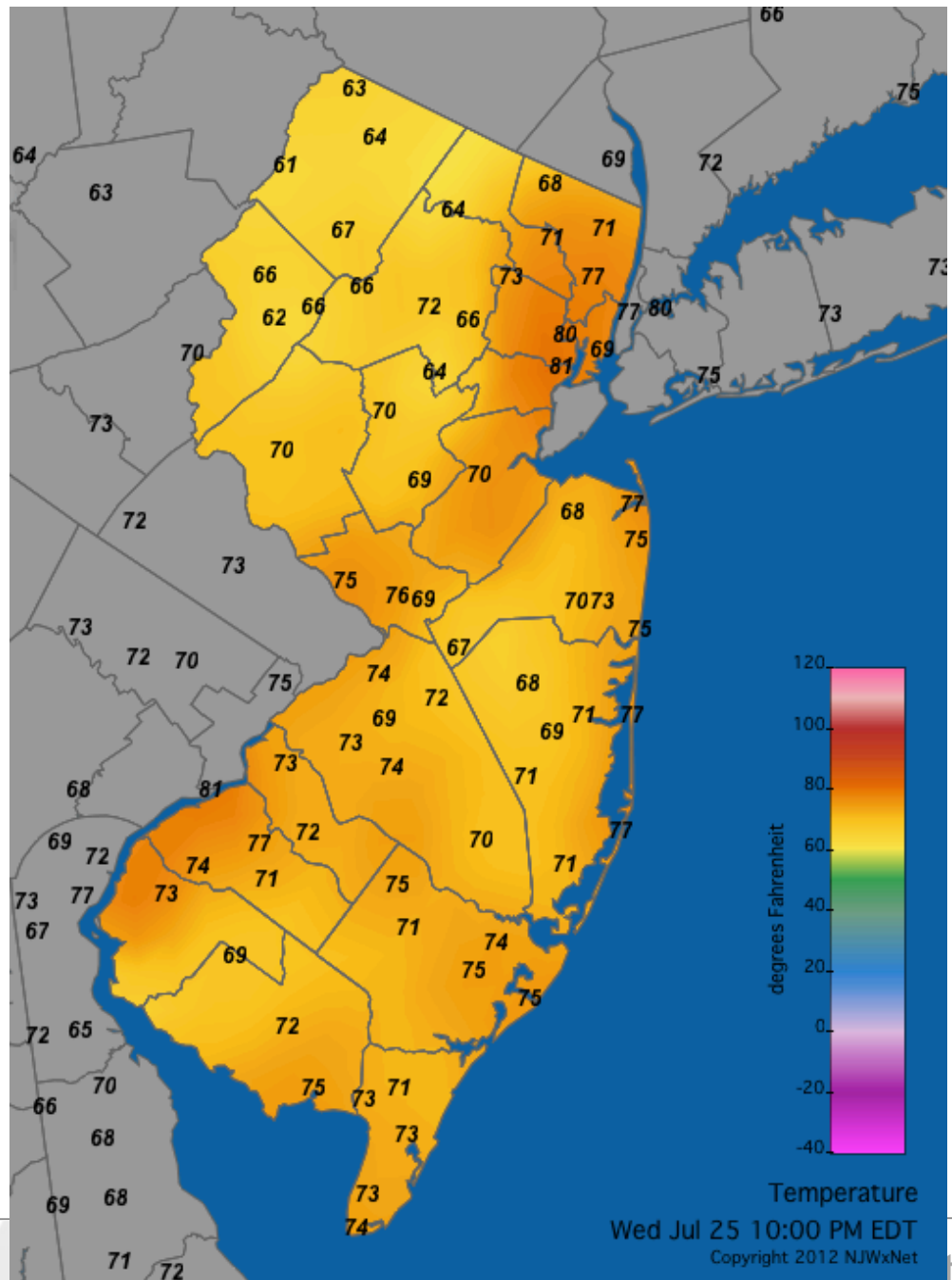
Sea Breeze
and backdoor
cold front:

April 10, 2013
3 PM

29 January 2015
5:55 AM

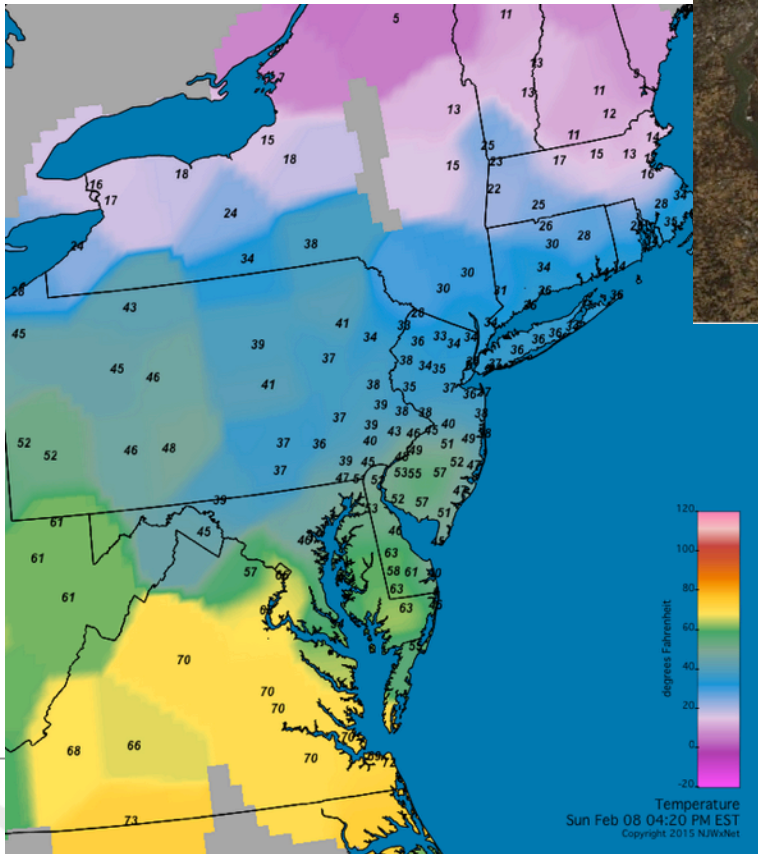


25 July 2012
10:00 PM

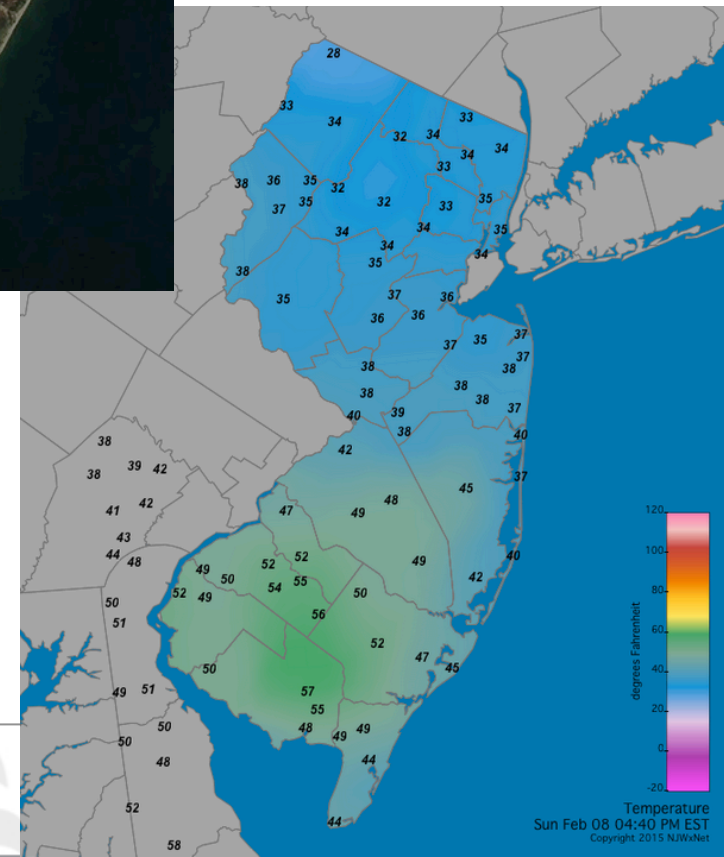


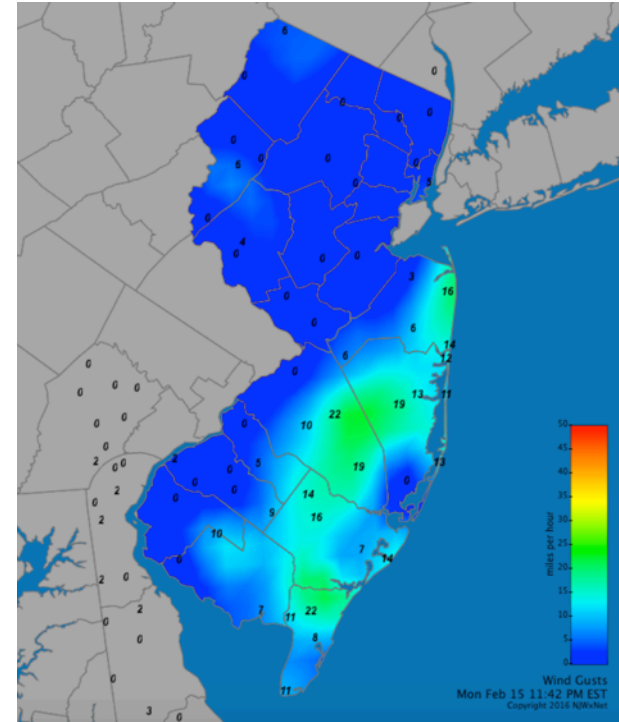
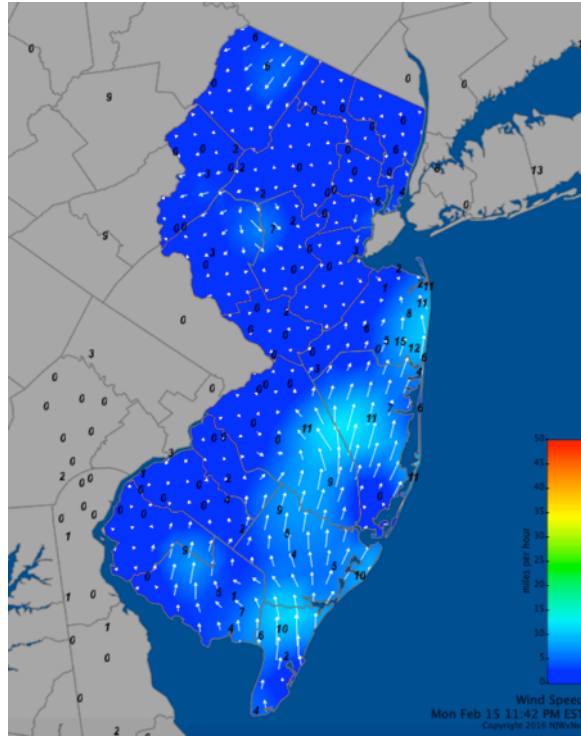
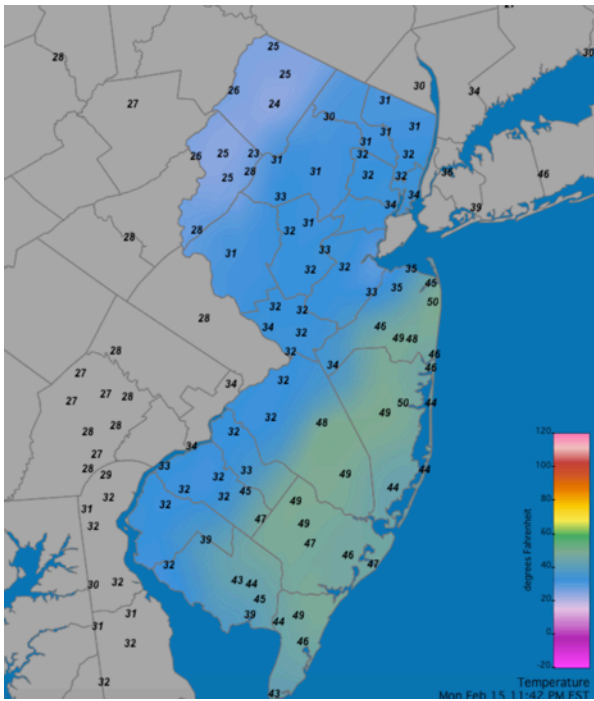
February 2015

3 Feb.




8 Feb.





Scouring out
cold air:
15 Feb 2016
11:42PM

CoCoRaHS: Citizen science at its best!



COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

Home | Countries | States | View Data | Maps | My Data | My Account | Admin | Logout

Welcome to CoCoRaHS! "Volunteers working together to measure precipitation across the nation."

Main Menu

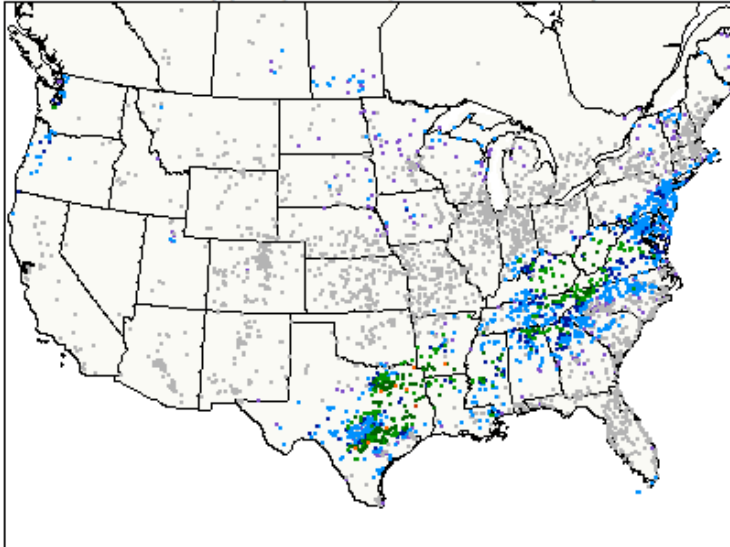
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- Contact Us
- Donate

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- Training Slide-Shows
- Videos
- Drought Impacts
- Evapotranspiration
- Volunteer Coordinators
- Hail Pad
- Distribution/Drop-off
- Help Needed
- Printable Forms
- The Catch
- Message of the Day
- Publications

Who uses CoCoRaHS Observations?

4,885 daily precipitation reports received today as of 2/22/2016 9:34 AM EST




Daily Precipitation (inches x.xx)
USA
2/22/2016

0.0
Trace
0.00 - 0.15
0.16 - 0.30
0.31 - 0.75
0.76 - 1.79
1.80 - 2.68
2.69 - 2.98




Canada VI ME

JOIN COCORAHHS



TRAINING SLIDE-SHOWS

Things to know about...

-  Rain
-  Hail
-  Snow

NJ Community Collaborative Rain, Hail and Snow Network

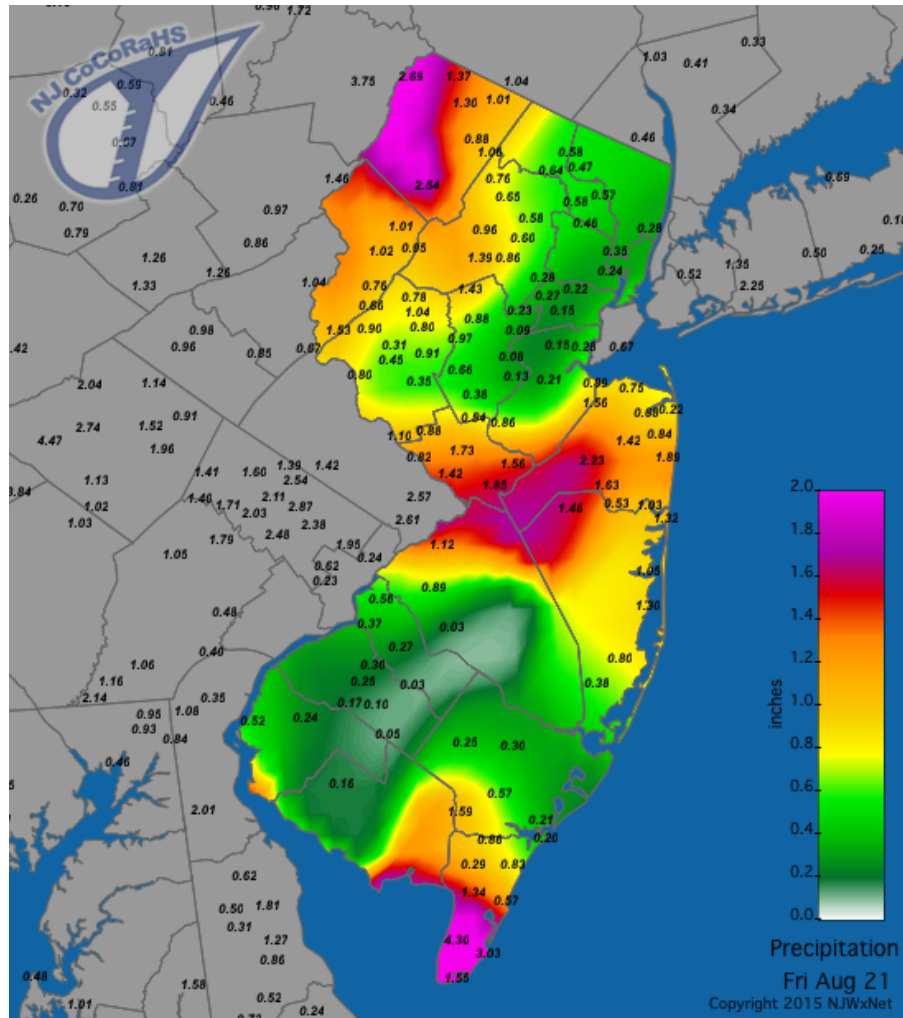


Daily observations by
trained volunteers of
all ages



Augmenting automated
precipitation observations

Community Collaborative Rain, Hail and Snow Network:



7AM 20 Aug – 7AM 21 Aug 2015

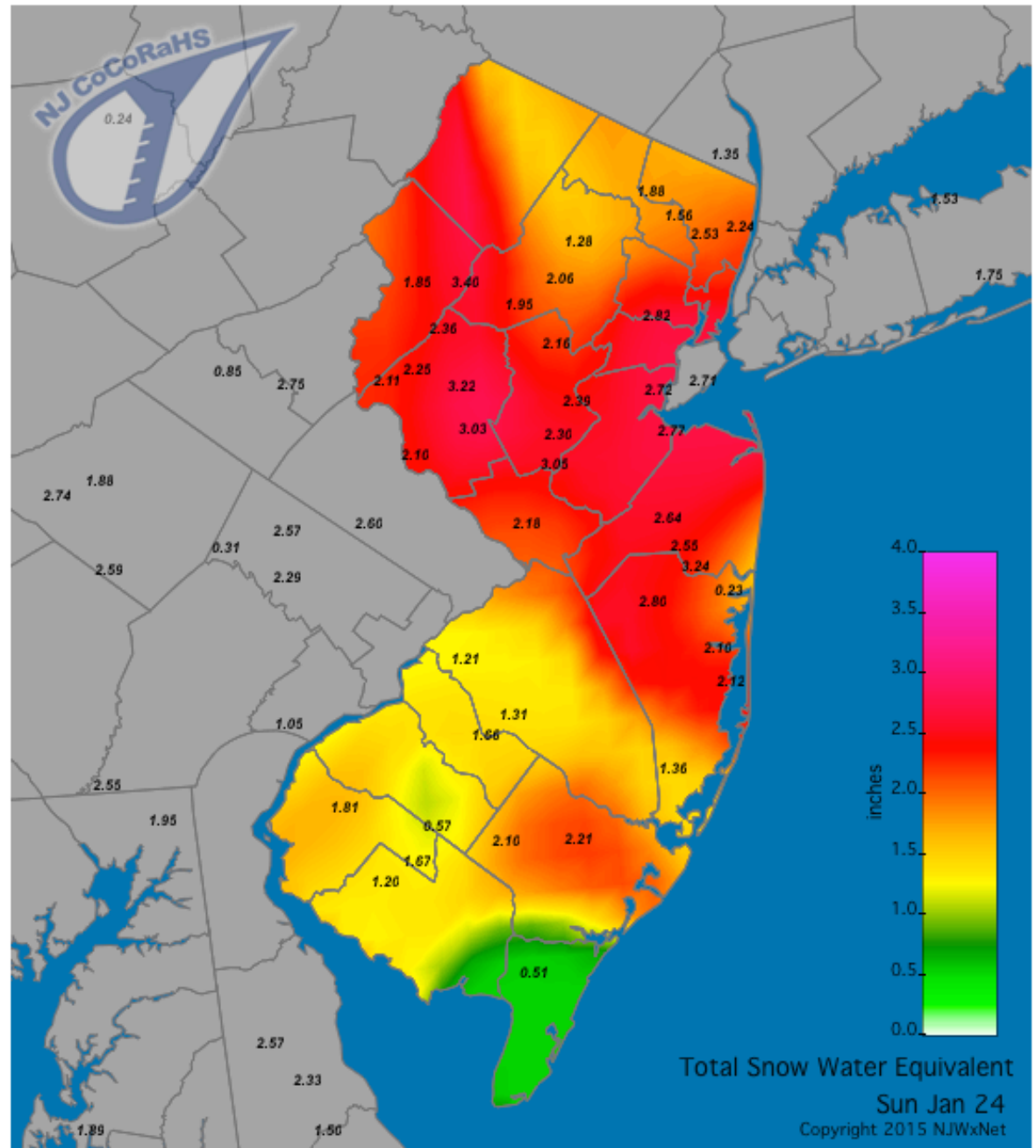
www.cocorahs.org

29 October 2011 snow storm

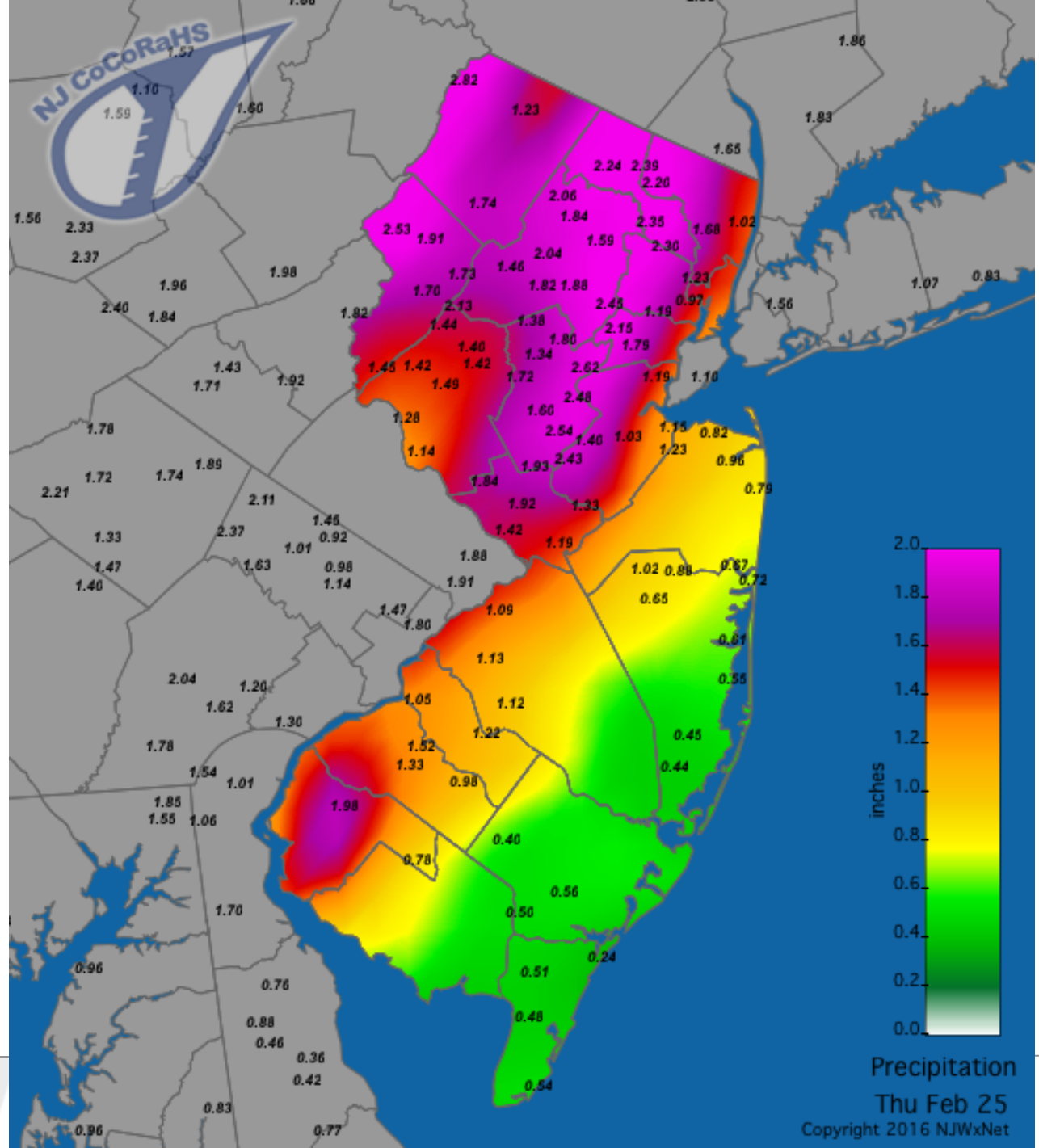


Snow water equivalent

24 Jan 2016



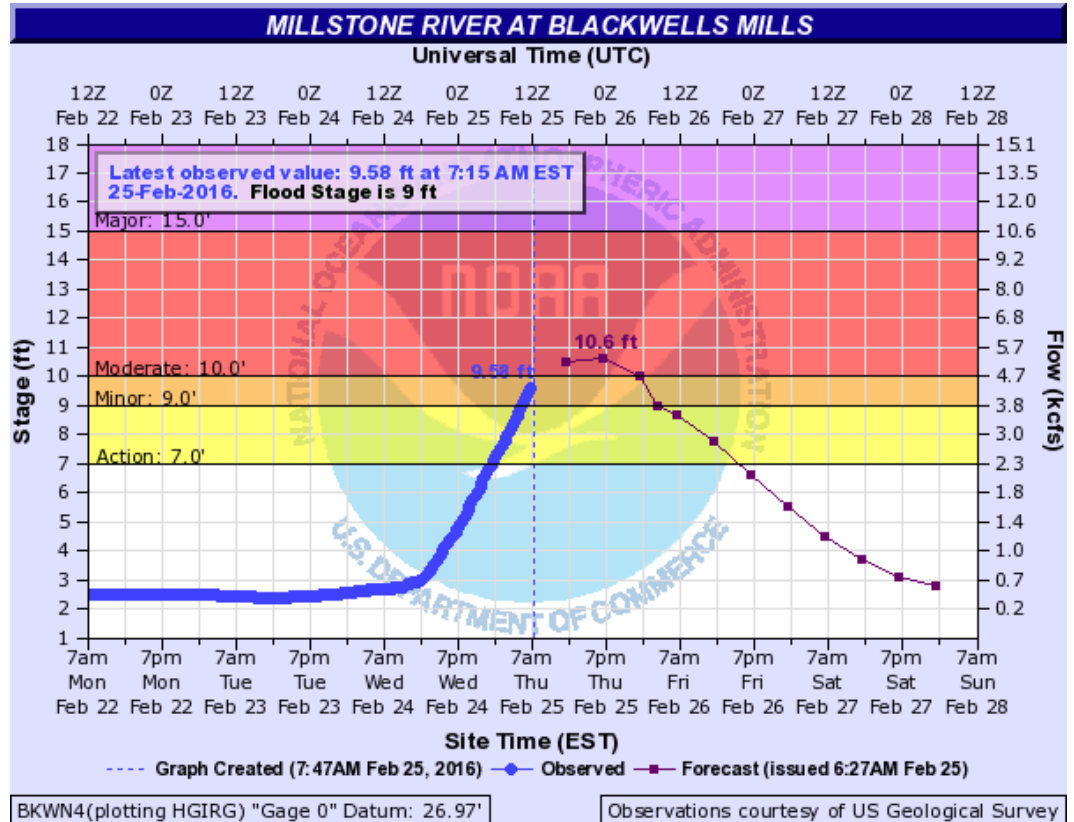
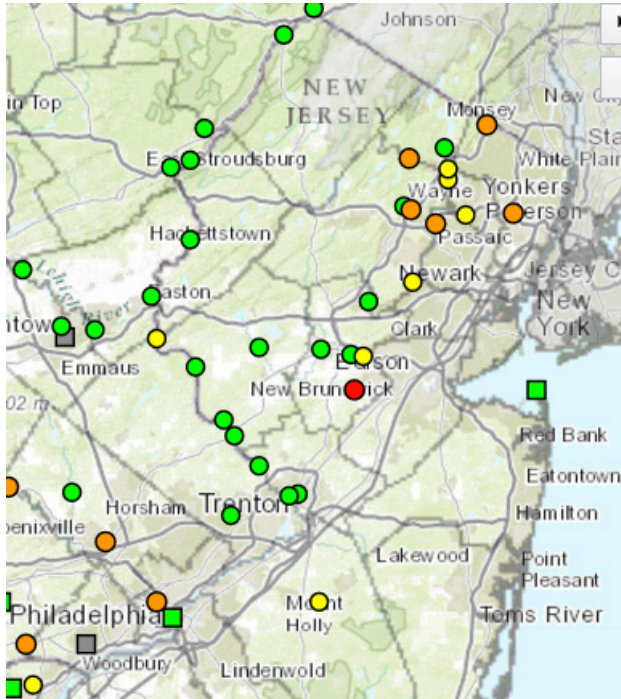
7AM 24 Feb –
7AM 25 Feb 2016
...aka, the past
CoCo day



5 Minute NJWxNet observations at Hillsborough 10:25-11:30 PM 24 February 2016

City	State	Eastern Time	Source	Temp	DewPt	RH	BP	5 Min Precip	Wind Speed	Wind Dir	5 Min Wind Max	5 Min Wind Max Dir
▼ Hillsborough	NJ	2016-02-24 23:30	SafetyNet	58			29.31	0.01	11	NW	20	WNW
▼ Hillsborough	NJ	2016-02-24 23:25	SafetyNet	59			29.31	0.01	13	NW	24	WNW
▼ Hillsborough	NJ	2016-02-24 23:20	SafetyNet	59			29.31	0.28	19	NW	29	N
▼ Hillsborough	NJ	2016-02-24 23:15	SafetyNet	59			29.34	0.11	8	W	17	NNW
▼ Hillsborough	NJ	2016-02-24 23:10	SafetyNet	59			29.30	0.01	0	N	9	NW
▼ Hillsborough	NJ	2016-02-24 23:05	SafetyNet	59			29.31	0.07	5	NW	12	WSW
▼ Hillsborough	NJ	2016-02-24 23:00	SafetyNet	60			29.31	0.05	7	W	19	W
▼ Hillsborough	NJ	2016-02-24 22:55	SafetyNet	60			29.32	0.12	10	NW	21	WNW
▼ Hillsborough	NJ	2016-02-24 22:50	SafetyNet	60			29.35	0.18	7	NW	20	WNW
▼ Hillsborough	NJ	2016-02-24 22:45	SafetyNet	61			29.34	0.12	12	W	29	NW
▼ Hillsborough	NJ	2016-02-24 22:40	SafetyNet	63			29.34	0.15	23	NW	18	NW
▼ Hillsborough	NJ	2016-02-24 22:35	SafetyNet	63			29.32	0.06	3	NW	21	WNW
▼ Hillsborough	NJ	2016-02-24 22:30	SafetyNet	63			29.32	0.01	7	WSW	25	W
▼ Hillsborough	NJ	2016-02-24 22:25	SafetyNet	63			29.32	0.01	16	WSW	28	WSW

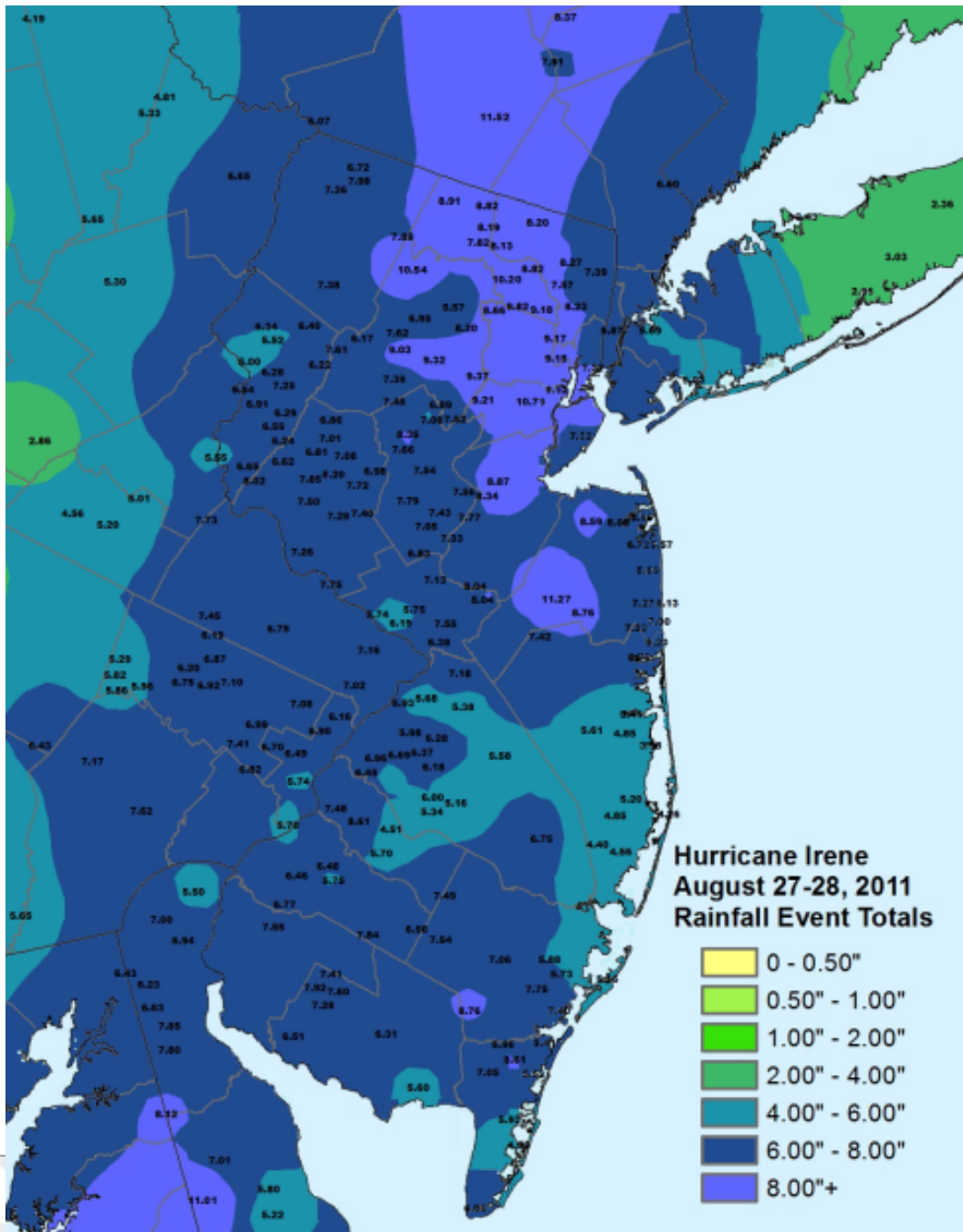
A great deal of water in a short period of time certainly has its impacts on streams and rivers: Millstone R. Basin, NJ morning of 25 February 2016



Irene August 2011



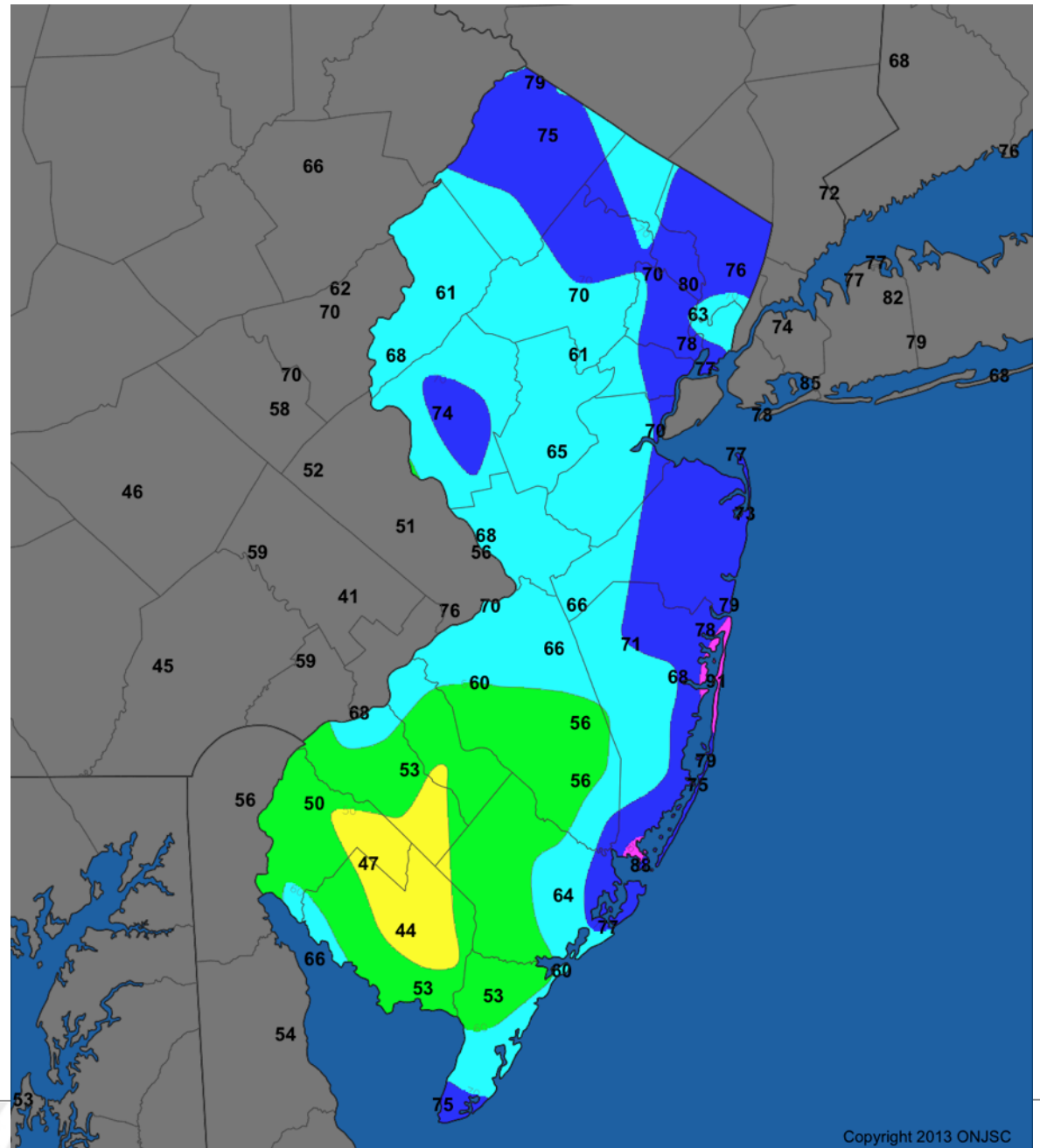
Irene rainfall: station observations



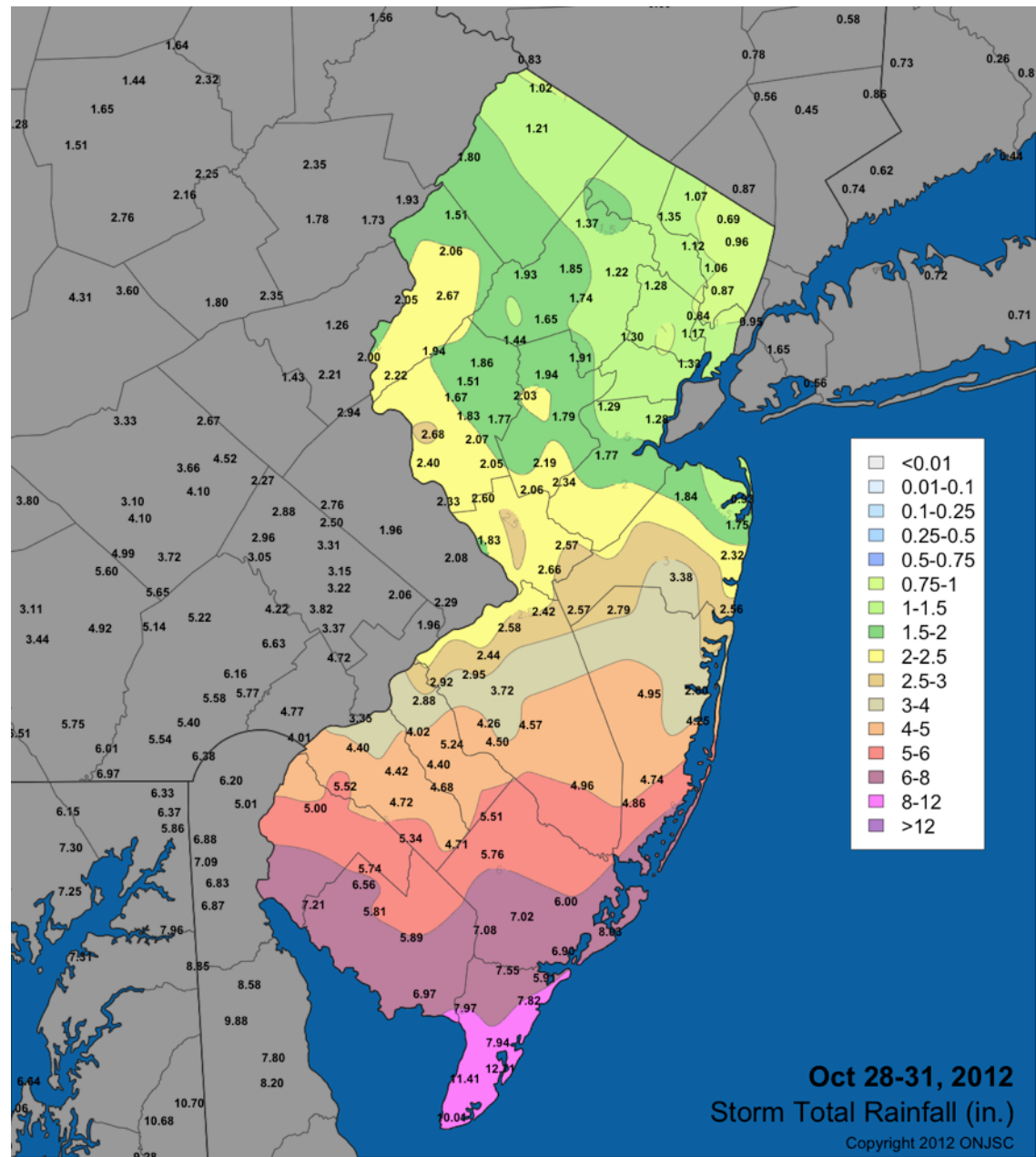
Sandy October 2012



Sandy
Maximum
Wind Gusts
Oct 29-30, 2012



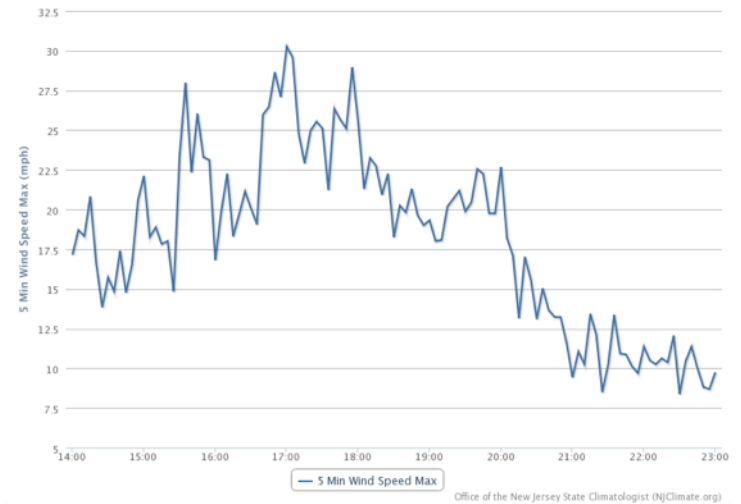
Sandy Total Precipitation Oct 29-31, 2012



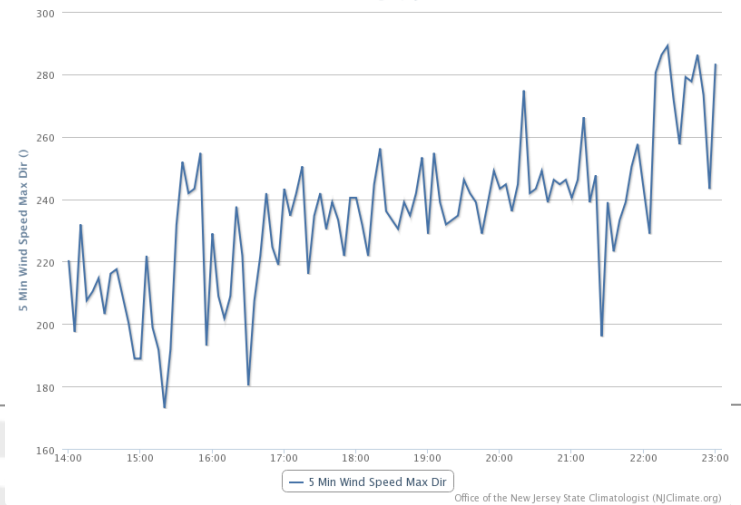
Seaside Park/Heights 12 September 2013



Peak Wind Gusts: September 12, 2013
Seaside Heights, NJ



Direction of Peak Gusts: September 12, 2013
Seaside Heights, NJ



US Forest Service NJ Fire Danger Monitoring Console

Most recent information collected as of February 22, 2016, 4:25 pm

Site	Air Temp	RH	Wind Sp	Peak Gust	Wind Dir	10hr Fuel Moisture	10hr Fuel Temp	24hr Precip
Ancora Hospital	53	34	2	8	WSW	13	59	
Berkeley Twp.	45	51	8	12	SE	12	51	0.03
Cedar Bridge	47	47	5	11	SSE	16	52	0.04
Coyle Field	53	39	2	8	ESE	9	61	
Cream Ridge	51	45	2	6	SSE	13	54	0.06
Forsythe	47	60	9	14	E			
Fort Dix I	54	38	1	9	ESE	16		0.01
Hammonton	50	45	4	10	SE			0.00
Howell	47	50	5	10	SE			0.00
Jackson	53	36	4	8	SW	9	60	
Lakehurst		39	7		WNW			
Oswego Lake	46	52	1	10	SE	15	49	0.00
Piney Hollow	53	37	0	3	SW			0.00
Silas Little	50	35	4	4	NNW	11	56	0.00
Upper Deerfield	51	52	2	6	ENE			0.00
Woodbine	44	58	3	11	SE			0.05

Legend:

Relative Humidity	< 40%	< 30%	< 20%
Wind Speed/Gust	> 15	> 20	> 25
Fuel Moisture	< 20	< 15	< 10

This page will automatically reload every 60 seconds.

US Forest Service NJ Fire Danger Monitoring Console

Most recent information collected as of February 25, 2016, 8:34 am

Site	Air Temp	RH	Wind Sp	Peak Gust	Wind Dir	10hr Fuel Moisture	10hr Fuel Temp	24hr Precip
Ancora Hospital	52	60	10	25	SW	24	56	
Berkeley Twp.	52	72	12	26	SW	33	52	0.76
Cedar Bridge	49	76	7	16	SW	52	48	0.81
Coyle Field	52	68	7	18	SW	25	50	
Cream Ridge	51	73	13	32	W	33	50	0.76
Forsythe	51	74	6	17	SSW			
Fort Dix I	51	70	6	13	WSW	53		0.74
Hammonton	51	61	11	28	WSW			0.61
Howell	53	68	4	13	SSW			0.90
Jackson	52	74	8	16	SSW	27	50	
Oswego Lake	52	64	13	26	SW	39	53	0.73
Piney Hollow	51	61	4	17	WSW			0.57
Silas Little	51	64	15	17	SW	67	48	0.68
Upper Deerfield	48	66	15	25	W			0.81
Woodbine	50	65	17	26	WSW			0.54

Legend:			
Relative Humidity	< 40%	< 30%	< 20%
Wind Speed/Gust	> 15	> 20	> 25
Fuel Moisture	< 20	< 15	< 10

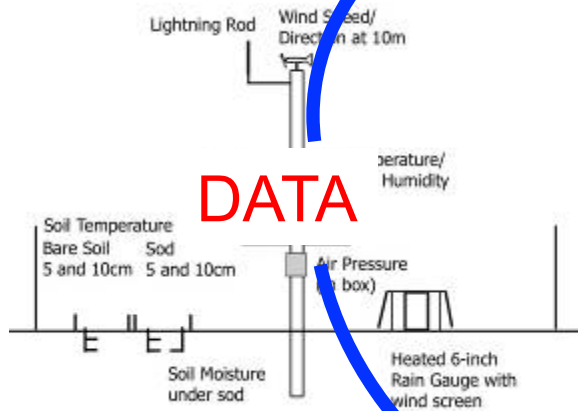
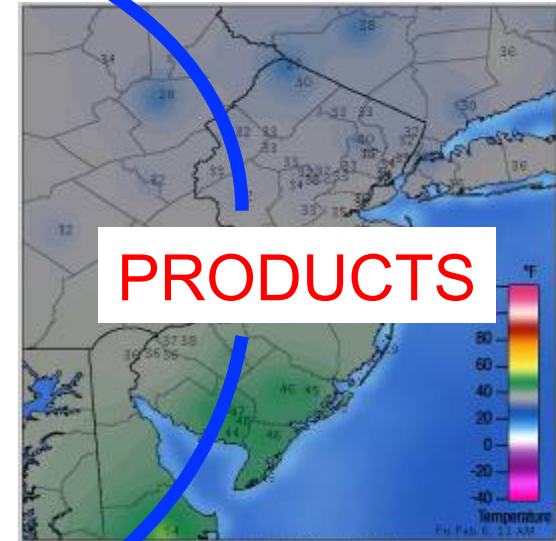
This page will automatically reload every 60 seconds.

Helping make critical decisions

OUTREACH & TRAINING



PRODUCTS





Thanks

david.robinson@rutgers.edu

NJclimate.org