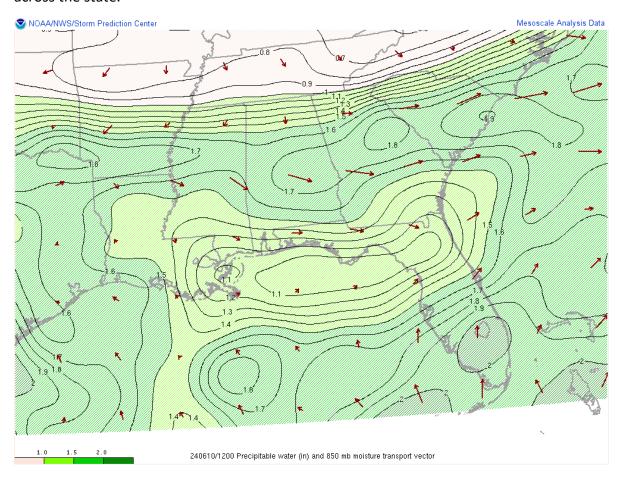
# West Central and Southwest Florida Heavy Rainfall Event: June 10<sup>th</sup> - June 13<sup>th</sup>, 2024

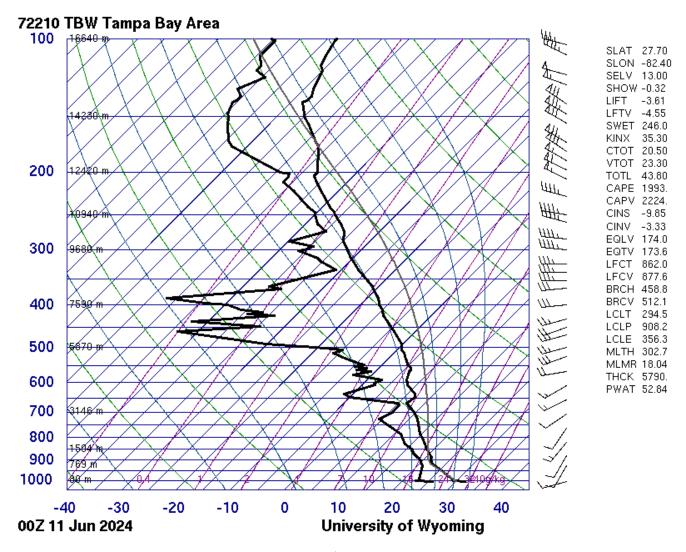
As a tropical disturbance and surge of moisture lifted northward over portions of the Florida peninsula during the week of June 10<sup>th</sup>, several rounds of heavy rainfall occurred across West Central and Southwest Florida. Over the course of the week, many locations experienced significant heavy rainfall. Several daily (and even hourly) records were broken during the week. In some locations, much of this rainfall fell during a very short duration, leading to flooding.

#### **Overview**

Beginning on the morning of June 10<sup>th</sup>, tropical moisture associated with a disorganized tropical wave surged northward. While this wave would not be able to organize before reaching the FL West Coast, the added moisture and instability was expected to enhance thunderstorm activity across the state.

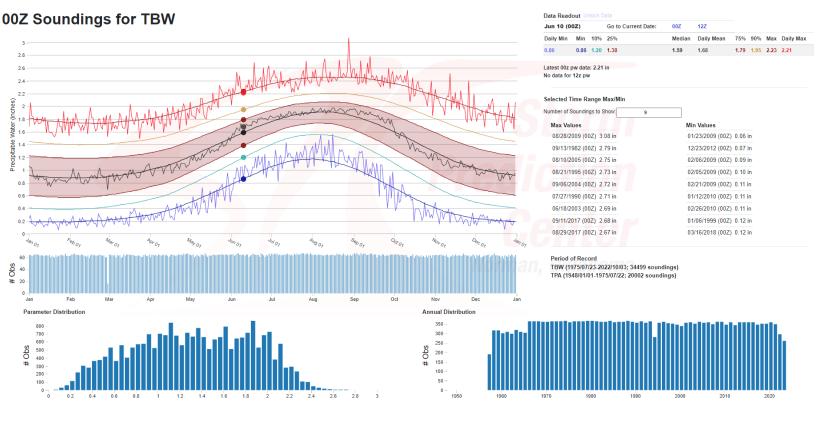


By the evening of the  $10^{th}$ , the Precipitable Water (PWAT) values – a representation of how much water is present in the atmosphere, was observed at 52.84 mm or 2.08 in.



Climatologically, this value was exceeding the 90<sup>th</sup> percentile for the day. This meant that the amount of moisture available in the atmosphere was exceptionally rare for this date.

| Jun 10 (0 | 0Z)  |      | Go to Current Date: | 00Z    | 12Z        |      |      |      |           |
|-----------|------|------|---------------------|--------|------------|------|------|------|-----------|
| Daily Min | Min  | 10%  | 25%                 | Median | Daily Mean | 75%  | 90%  | Max  | Daily Max |
| 0.86      | 0.86 | 1.20 | 1.38                | 1.59   | 1.68       | 1.79 | 1.95 | 2.23 | 2.21      |

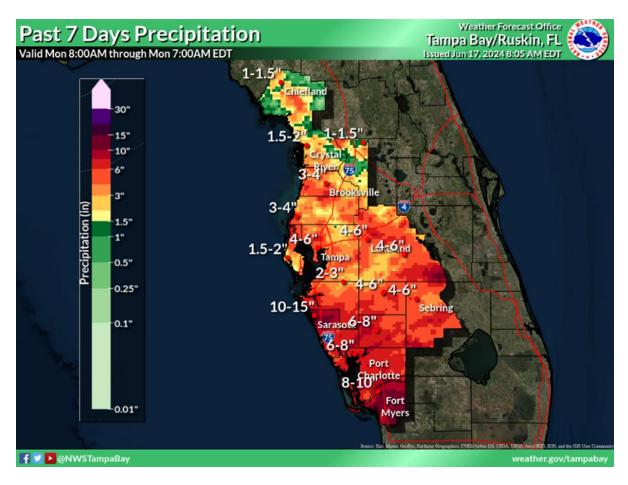


On the morning of June  $11^{th}$ , the highest value of the event was observed: 57.81 mm or 2.28 in. This was a new daily record for the day.

| Jun 12 (1 | 2Z)  |      | Go to Current Date: | 00Z    | 12Z        |      |      |      |           |
|-----------|------|------|---------------------|--------|------------|------|------|------|-----------|
| Daily Min | Min  | 10%  | 25%                 | Median | Daily Mean | 75%  | 90%  | Max  | Daily Max |
| 1.14      | 0.83 | 1.15 | 1.33                | 1.52   | 1.63       | 1.71 | 1.87 | 2.17 | 2.22      |

In response, significant heavy rainfall occurred across the region beginning on the 10<sup>th</sup> and continuing through the 13<sup>th</sup>. Rainfall totals across Central and Southwest Florida averaged anywhere from 4 to 10 inches, with some locations seeing even higher totals, notably in southern Lee County, northern Sarasota County, and even northern Pinellas County.

Several locations broke daily rainfall records as flooding occurred in some urban locations through the week. One storm in Sarasota County dumped over 10 inches of rain during the course of the event.







NWS Tampa Bay 🧔 @NWSTampaBay · Jun 12

♠ Flood Advisories for Lee County in Effect through 2:30PM ♠

Heavy rainfall this morning has led to water over #SWFL roadways in Lee County. Reminder: NEVER drive through floodwaters

#TurnAroundDontDrown #flwx



### 📵 nathan @NathanSWFL · Jun 12

Seriousl flooding in South Fort Myers has Gladiolus and Summerlin nearly impassable. LCSO Community Service helping to divert around the deep waters. Here's a little taste of some side street flooding in the area. #swfl #flwx















#### Public Information Statement

National Weather Service Tampa Bay Ruskin FL 948 PM EDT Thu Jun 13 2024

... HIGHEST 4-DAY PRECIPITATION REPORTS...

Location Amount Time/Date Provider ...Florida... ...Charlotte County... Punta Gorda 7.44 in 0931 PM 06/13 **CWOP** Punta Gorda 7.27 in 0930 PM 06/13 **CWOP** Punta Gorda 6.67 in 0845 PM 06/13 **CWOP** Punta Gorda 1.6 NNW 6.45 in 1150 AM 06/13 **COCORAHS** 3 SE North Port 6.44 in 0935 PM 06/13 **AWS** 

| PUNTA GORDA                    | 5.30 in  | 0912 PM 06/13 | CWOP        |
|--------------------------------|----------|---------------|-------------|
| Punta Gorda                    | 5.17 in  | 0853 PM 06/13 | <u>ASOS</u> |
| Port Charlotte                 | 5.09 in  | 0940 PM 06/13 | CWOP        |
| Grove City                     | 3.67 in  | 0935 PM 06/13 | AWS         |
|                                |          |               |             |
| Hillsborough County            |          |               |             |
| Sun City Center                | 4.42 in  | 0940 PM 06/13 | CWOP        |
| Brandon                        | 4.41 in  | 0939 PM 06/13 | CWOP        |
| 3.1 W Temple Terrace           | 4.40 in  | 0930 PM 06/13 | HADS        |
| Carrollwood 1.3 N              | 3.98 in  | 0600 PM 06/13 | COCORAHS    |
| Wimauma                        | 3.98 in  | 0936 PM 06/13 | AWS         |
| VALRICO                        | 3.94 in  | 0939 PM 06/13 | CWOP        |
| 0.9 NE Carrollwood             | 3.75 in  | 0915 PM 06/13 | HADS        |
| Татра                          | 3.74 in  | 0935 PM 06/13 | CWOP        |
| WIMAUMA                        | 3.50 in  | 0940 PM 06/13 | CWOP        |
| 1 NW Wimauma                   | 3.32 in  | 0935 PM 06/13 | AWS         |
| 2.7 NW Riverview               | 3.28 in  | 0900 PM 06/13 | HADS        |
| 1.2 E Palm River-Clair Mel     | 3.24 in  | 0900 PM 06/13 | HADS        |
| Brandon                        | 3.23 in  | 0935 PM 06/13 | AWS         |
| Riverview                      | 3.22 in  | 0919 PM 06/13 | CWOP        |
| Plant City                     | 3.22 in  | 0938 PM 06/13 | CWOP        |
| Riverview                      | 3.20 in  | 0939 PM 06/13 | CWOP        |
| 2.9 NW Lithia                  | 3.06 in  | 0900 PM 06/13 | HADS        |
| Riverview                      | 3.01 in  | 0935 PM 06/13 | CWOP        |
|                                |          |               |             |
| <u>Lee</u> County              |          |               |             |
| 3 N Estero                     | 16.06 in | 0931 PM 06/13 | AWS         |
| 2 SSW Whiskey <u>Creek</u>     | 13.89 in | 0934 PM 06/13 | AWS         |
| 5 W Lehigh Acres               | 12.94 in | 0934 PM 06/13 | AWS         |
| Fort Myers                     | 12.75 in | 0934 PM 06/13 | <u>ASOS</u> |
| 2 NE Quail <u>Creek</u> Estate | 12.62 in | 0935 PM 06/13 | AWS         |
| 1 S Whiskey <u>Creek</u>       | 11.84 in | 0935 PM 06/13 | AWS         |
| Southwest Internat             | 11.81 in | 0934 PM 06/13 | AWS         |
| 1 ESE Fort Myers Villas        | 11.74 in | 0930 PM 06/13 | AWS         |
|                                |          |               |             |

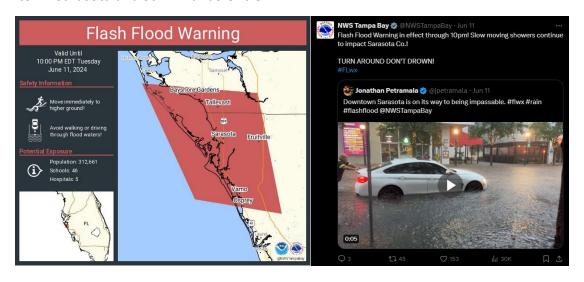
| 2 NE Estero                     | 11.59 in | 0932 PM 06/13 | AWS         |
|---------------------------------|----------|---------------|-------------|
| 1 NNE Page Park-Pine Man        | 11.10 in | 0935 PM 06/13 | AWS         |
| NORTH FORT MYERS                | 10.91 in | 0935 PM 06/13 | CWOP        |
| Fort Myers                      | 10.72 in | 0935 PM 06/13 | CWOP        |
| Fort Myers                      | 10.68 in | 0900 PM 06/13 | <u>ASOS</u> |
| Southwest Internat              | 10.52 in | 0935 PM 06/13 | AWS         |
| 1 W Fort Myers                  | 10.50 in | 0935 PM 06/13 | AWS         |
| Fort Myers                      | 10.08 in | 0935 PM 06/13 | AWS         |
| Ding Darling <u>Nwr</u>         | 9.41 in  | 0917 PM 06/13 | RAWS        |
| 1 NW Fort Myers                 | 9.32 in  | 0935 PM 06/13 | AWS         |
| 3 SE Lehigh Acres               | 9.15 in  | 0935 PM 06/13 | AWS         |
| NORTH FORT MYERS                | 8.71 in  | 0935 PM 06/13 | CWOP        |
| Fort Myers                      | 8.69 in  | 0935 PM 06/13 | CWOP        |
| Sanibel                         | 8.22 in  | 0938 PM 06/13 | CWOP        |
| 1 NNW Quail <u>Creek</u> Estate | 7.96 in  | 0935 PM 06/13 | AWS         |
| 6 NNW <u>Cape</u> Coral         | 7.94 in  | 0933 PM 06/13 | AWS         |
| 1 NW Lehigh Acres               | 7.54 in  | 0935 PM 06/13 | AWS         |
| 3 NW Bonita Springs             | 7.38 in  | 0935 PM 06/13 | AWS         |
| Southwest Internat              | 7.01 in  | 1226 PM 06/13 | AWS         |
| 2 WNW <u>Cape</u> Coral         | 6.99 in  | 0930 PM 06/13 | AWS         |
| Fort Meyers                     | 6.29 in  | 0939 PM 06/13 | CWOP        |
| 1 NW Fort Myers                 | 5.98 in  | 0935 PM 06/13 | AWS         |
| 3 SE Estero                     | 5.92 in  | 0935 PM 06/13 | AWS         |
| <u>Cape</u> Coral               | 4.89 in  | 0939 PM 06/13 | CWOP        |
|                                 |          |               |             |
| Manatee County                  |          |               |             |
| Lakewood Ranch                  | 8.39 in  | 0935 PM 06/13 | CWOP        |
| Sarasota Bradent                | 7.80 in  | 0853 PM 06/13 | <u>ASOS</u> |
| 7.6 E Lake Manatee State Par    | 5.73 in  | 0915 PM 06/13 | HADS        |
| Ruskin                          | 5.49 in  | 0936 PM 06/13 | CWOP        |
| 3.6 E Oneco                     | 4.02 in  | 0900 PM 06/13 | HADS        |
| 5.2 NE Desoto Lakes             | 3.92 in  | 0915 PM 06/13 | HADS        |
| 3.0 NW Lake Manatee State Pa    | 3.33 in  | 0915 PM 06/13 | HADS        |
| Colonie                         | 3.24 in  | 0930 PM 06/13 | CWOP        |
|                                 |          |               |             |

| Pasco County               |          |               |             |
|----------------------------|----------|---------------|-------------|
| 5.4 NE Zephyrhills         | 3.35 in  | 0845 PM 06/13 | HADS        |
|                            |          |               |             |
| Pinellas County            |          |               |             |
| TARPON SPRINGS             | 5.68 in  | 0939 PM 06/13 | CWOP        |
| Seminole                   | 4.68 in  | 0930 PM 06/13 | CWOP        |
| 3.0 NW Oldsmar             | 4.31 in  | 0900 PM 06/13 | HADS        |
| 5.5 SW Odessa              | 4.25 in  | 0900 PM 06/13 | HADS        |
| Crystal Beach              | 4.22 in  | 0930 PM 06/13 | CWOP        |
| Seminole                   | 4.01 in  | 0930 PM 06/13 | CWOP        |
| Palm Harbor                | 3.84 in  | 0933 PM 06/13 | CWOP        |
| St Petersburg              | 3.50 in  | 0925 PM 06/13 | CWOP        |
| Clearwater                 | 3.02 in  | 0930 PM 06/13 | CWOP        |
|                            |          |               |             |
| Polk County                |          |               |             |
| Avon Park Afr North        | 7.33 in  | 0901 PM 06/13 | RAWS        |
| Indian Lake Estates        | 7.12 in  | 0935 PM 06/13 | CWOP        |
| Auburndale                 | 6.77 in  | 0939 PM 06/13 | CWOP        |
| Frostproof                 | 6.56 in  | 0937 PM 06/13 | CWOP        |
| 2 SW Polk City             | 5.05 in  | 0930 PM 06/13 | AWS         |
| Lakeland                   | 4.51 in  | 0936 PM 06/13 | CWOP        |
| DAVENPORT                  | 4.46 in  | 0935 PM 06/13 | CWOP        |
| 1 NW Gibsonia              | 4.19 in  | 0934 PM 06/13 | AWS         |
| 2 S Polk City              | 3.81 in  | 0935 PM 06/13 | AWS         |
| Auburndale                 | 3.50 in  | 0937 PM 06/13 | CWOP        |
| Dundee                     | 3.35 in  | 0936 PM 06/13 | CWOP        |
| Lakeland                   | 3.34 in  | 0935 PM 06/13 | CWOP        |
| Lakeland                   | 3.30 in  | 0930 PM 06/13 | CWOP        |
| Winter Haven               | 3.15 in  | 0853 PM 06/13 | <u>ASOS</u> |
| 2 <u>WSW</u> Highland City | 3.04 in  | 0935 PM 06/13 | AWS         |
|                            |          |               |             |
| Sarasota County            |          |               |             |
| 1 NNE Siesta Key           | 12.87 in | 0935 PM 06/13 | AWS         |
|                            |          |               |             |

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Sarasota
                             8.42 in
                                       0930 PM 06/13
                                                        CWOP
4 NE North Port
                             6.99 in
                                       0935 PM 06/13
                                                        AWS
Venice Gardens
                             5.67 in
                                       0935 PM 06/13
                                                        AWS
1 SE Fruitville
                             5.52 in
                                       0935 PM 06/13
                                                        AWS
2.0 E Warm Mineral Springs
                                       0915 PM 06/13
                                                        HADS
                             5.45 in
4.3 N North Port
                             5.35 in
                                       0900 PM 06/13
                                                        HADS
Sarasota
                             4.43 in
                                       0940 PM 06/13
                                                        CWOP
2 SSW <u>Ridge</u> Wood Heights
                             3.90 in
                                       0936 PM 06/13
                                                        AWS
North Port 2.1 NNW
                             3.39 in
                                       0700 PM 06/13
                                                        COCORAHS
VENICE
                             3.04 in
                                       0936 PM 06/13
                                                        CWOP
&&
Observations are collected from a variety of sources with varying
equipment and exposures. We thank all volunteer weather observers
for their dedication. Not all data listed are considered official.
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## Sarasota – June 11th, 2024

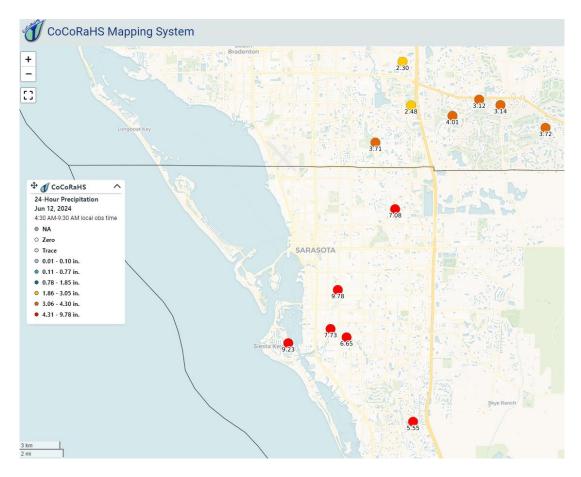
During the evening of June 11<sup>th</sup>, one storm in particular produced an estimated 8 to 10 inches of rainfall across northern Sarasota and southern Manatee County, causing Flash Flooding in Downtown Sarasota and St. Armands Circle.



At Sarasota-Bradenton Airport, a new all-time one-hour record rainfall total was set: 3.93 inches. The airport observed a total of 6.47 inches on June 11<sup>th</sup>, which is a new daily record that surpassed the previous record set in 1940. Records for Sarasota-Bradenton Airport date back to 1911.

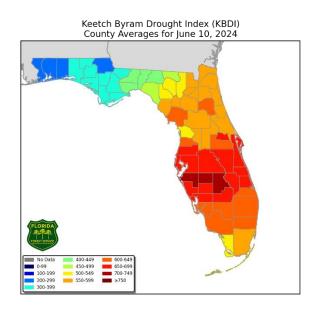


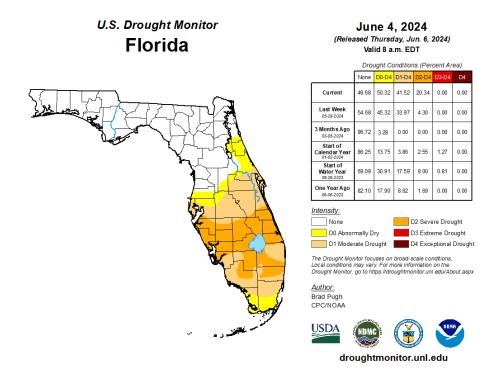
Observations from CoCoRaHS Observers helped meteorologists from NWS Tampa Bay better understand the spatial extent of the event post mortem. Additionally, these observations provide ground truth for radar estimates for rainfall across the region.



# **The Silver Lining**

Areas where the highest rainfall occurred were in moderate to severe drought prior to the event. This meant that soils were dry and the region needed rainfall.





While some locations – especially some coastal communities – received too much rain too fast, many locations received beneficial rainfall that led to improvements in drought conditions. Had this event occurred later in summer, the impacts could have been far more significant.

