

EPD Report for Council 09-05-2023

Thanks to all of the city employees and EPD employees for their efforts with all the storms/flooding.

Homicide on 09-02-2023. EPD detailed to person shot at approx. 0300 hours. Victim shot in parking lot of The Chronicle Telegram. Investigative Division is actively investigating.

Patrol Officer Mic Fairbanks retired on Sept. 1 after 25 years of service.

Detective Zack Kasperovich resigned to work in the private sector for more money/time off.

This puts the department at 79 patrol officers. Budgeted for 100.

Only had two viable candidates for lateral entry, both given conditional offers pending psychological and medical exams.

09.6.2023

Memo

To
City Council Members

COMPREHENSIVE LAND USE PLAN

From
Dawn Calvert, Assistant
Safety Service Director

MS Consultants and City Staff completed a series of 4 walking tours in the month of August. Residents, citizens and staff toured locations on the North, South, East and West quadrants of the city where a variety of land uses could be observed within a 1-mile walking distance. Attendees were asked to complete a survey about their observations regarding housing, safety, infrastructure, businesses and general conditions.

CC
Mayor Whitfield

Re
Staff Report 9.5.23

The tours were well attended and participants offered significant input that will influence the plan.

MS Consultants will provide a presentation to Council at the October 2nd meeting.

ECDI

ECDI has confirmed that they are excited to work with the city and will agree to a cap of \$25,000 on the loan administration fees that was proposed during the August 28th Council Committee meeting. ECDI is committed to having staff physically present 2-3 days per week in Elyria.

City of Elyria

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Elyria, OH 44035

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Street Resurfacing

The asphalt contractor has started manhole and catch basin casting adjustments on the street paved with asphalt. Please watch for construction cones and barrels on the newly paved streets.

The Concrete Street Repair contract is in the process of being awarded. This project was re-bid due to the bids coming in over 10% over the Engineer's Estimate. Due to the timing of the bid opening and award, part of the work will likely be performed in Spring 2024 (this work is weather dependent and allowing the contractor to perform part of the work in 2024 helped with the final cost of the contract). A schedule will be shared when we have one.

West Ave Watermain Improvements

This project about a couple weeks out from being wrapped up. Then, the resurfacing contractor will be in to get the new asphalt down. With the weather cooperates, West Ave work should be completed by the end of the first week in October.

ESRS

People are wondering what's going on with Gulf Road; why is the contractor working on the road and not the sidewalk; when will all the East Bridge lanes open back up.

This project has had its share of obstacles.

- Delay in delivery of the shoring system for the E Bridge Chamber.
- Fiber/communication duct bank found to be in the excavation area of the chamber as well as electric pole and gas main encroachments
- Steel casing pipe found around the 10-foot storm sewer that needs to be cut for the chamber construction
- Old sandstone box culvert buried when the 10-foot storm sewer was installed.

- Concrete duct bank on Poplar that meanders in and out of the excavation for the 72" pipe.
- Normal everyday issues like finding additional inverts needed in a new manhole, trying to determine if an old utility is live or abandoned, etc.

So, to answer the common questions:

1. Work on Gulf Road will continue when the chamber hole in front of Smitty's and BP is backfilled and pipe is in place on East Bridge. Gulf Road is also being used for a staging area for pipe, materials and equipment. The general area just isn't suited for having a large enough construction yard to store the size pipes involved on this project.
2. On Poplar, it's important to be able to move traffic as soon as possible so work was concentrated on the roadway and not the sidewalks. The sidewalk work will take place after drive approaches are completed.
3. Work on East Bridge should be wrapping up the beginning of November if no hurdles are encountered.

E Broad Street project

Work continues on E Broad Street. The road is closed between E. River and Park. This is a short-term closure. Traffic updates are being sent out when changes occur.

Cleveland St Roadway Project

As of last Friday, the contractor will be out on site after Labor Day to perform test holes and locate the new traffic signal poles spots. The work zone will be installed. Curb removal on the south side of the street is expected to begin on 9/13 if everything falls into place. Traffic will be limited to 1 lane in each direction until the first part of November when the contractor needs to have all 4 lanes opened to traffic.

Wastewater Department – Report to Council

September 6, 2023

Topic: Recent Rain Events

August 11, 2023:

On this date, the City of Elyria received 2 inches of rain over a very short period of time. Several times during the rain event, the rain was falling at rates of 3-4 inches per hour. Neither the sanitary or storm sewers were able to keep up with the rates of rainfall. There were 11 calls for service due to basement backups and 4 calls for service due to water ponding in the streets. Wastewater crews were dispatched and responded to each call for service as they were received.

August 23, 2023:

On this date, the City of Elyria (and all of Lorain County and Northern Ohio) experienced the worst storm event in decades. The National Weather Service classified this as a 500-year storm event. The only other storm event in recollection that was similar to this was the July 4, 1969 storm/flood. In comparing the amounts of rainfall to Elyria for both storms, the storm of August 23rd was worse than the 1969 storm at 6-7 inches of rain for this most recent storm compared with 4-5 inches recorded by the National Weather Service for the 1969 storm. We are recording this storm in the 6-7 inch range because we lost power to the rain gauge when it was reading 6.5 inches while heavy rain continued. While we are certain the total rainfall exceeded 7 inches, we can only officially record 6-7 inches for the event.

At approximately 3 PM on August 23rd, Elyria received 2 inches of rain over a very short period of time which sent the flow rate coming into the wastewater treatment plant from 5 million gallons per day (MGD) to 75 MGD (please see the first attachment). This first storm saturated the ground and filled the sewer systems to capacity. A short time later, before the systems had a chance to catch up, additional storm supercells kept forming one after another on into the night dropping an additional 4-5 inches of rain. This completely overwhelmed the storm and sanitary sewers and the wastewater treatment plant. The flow rate coming into the treatment plant far exceeded 100 MGD, which submerged plant processes and caused bypasses through the processes to the river. As per our NPDES permit, Ohio EPA was notified of the bypasses and a public notification email was sent out. The only previous time the treatment plant sustained any flooding was during the storm on July 4, 1969.

There were 82 calls for service due to basement backups and 25 calls for service due to water ponding in the streets. The East side of the city was most affected with backup issues, with the highest concentration in the Abbe Road North area (please refer to the second attachment). Wastewater crews were out all night and through the next day responding to these calls for service as they were received. Additional crews were in keeping the plant operational and taking care of the flooding issues there.

The third attachment is a table of all significant rain events from 1995 through 2023, to date. While those highlighted yellow indicate the largest, many of the events in the 1-2 inches of rain column occurred over very short periods of time and cannot be discounted as significant events. It is important to note that there are only two storms in the 6-7 inch categories: The first was caused by Hurricane Sandy from October 27 – 31, 2012 which dropped 7.17 inches of rain over a 5-day period. The second was the August 23, 2023 storm which dropped 6-7 inches of rain over a period of 12 hours.

There were most probably a number of residents who had backup issues but did not call the wastewater plant at (440) 366-2211 Ext. 0 to report the problem. We have Operators on duty 24/7 to receive such calls and dispatch crews to investigate the problem. Our crews can also provide follow-up services and information to assist residents with these issues. The City Engineer's Office also has lateral replacement and backflow/check valve installation programs to assist residents who might want to look at these options as ways to help prevent future backups. Additional information can be obtained by calling their office at (440) 326-1444.

Most Respectfully Submitted:

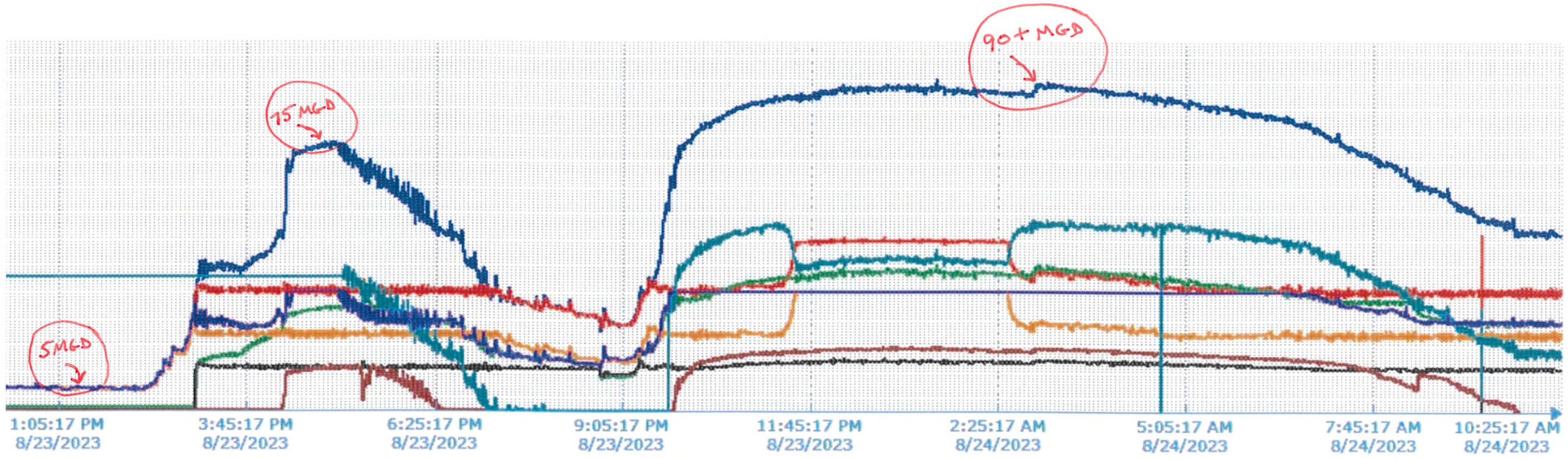


Terry Korzan
Superintendent
City of Elyria
Wastewater Pollution Control

24 Hour Flow Trend

Thursday, August 24, 2023

8/24/2023 10:25:17 AM Last 24 hours

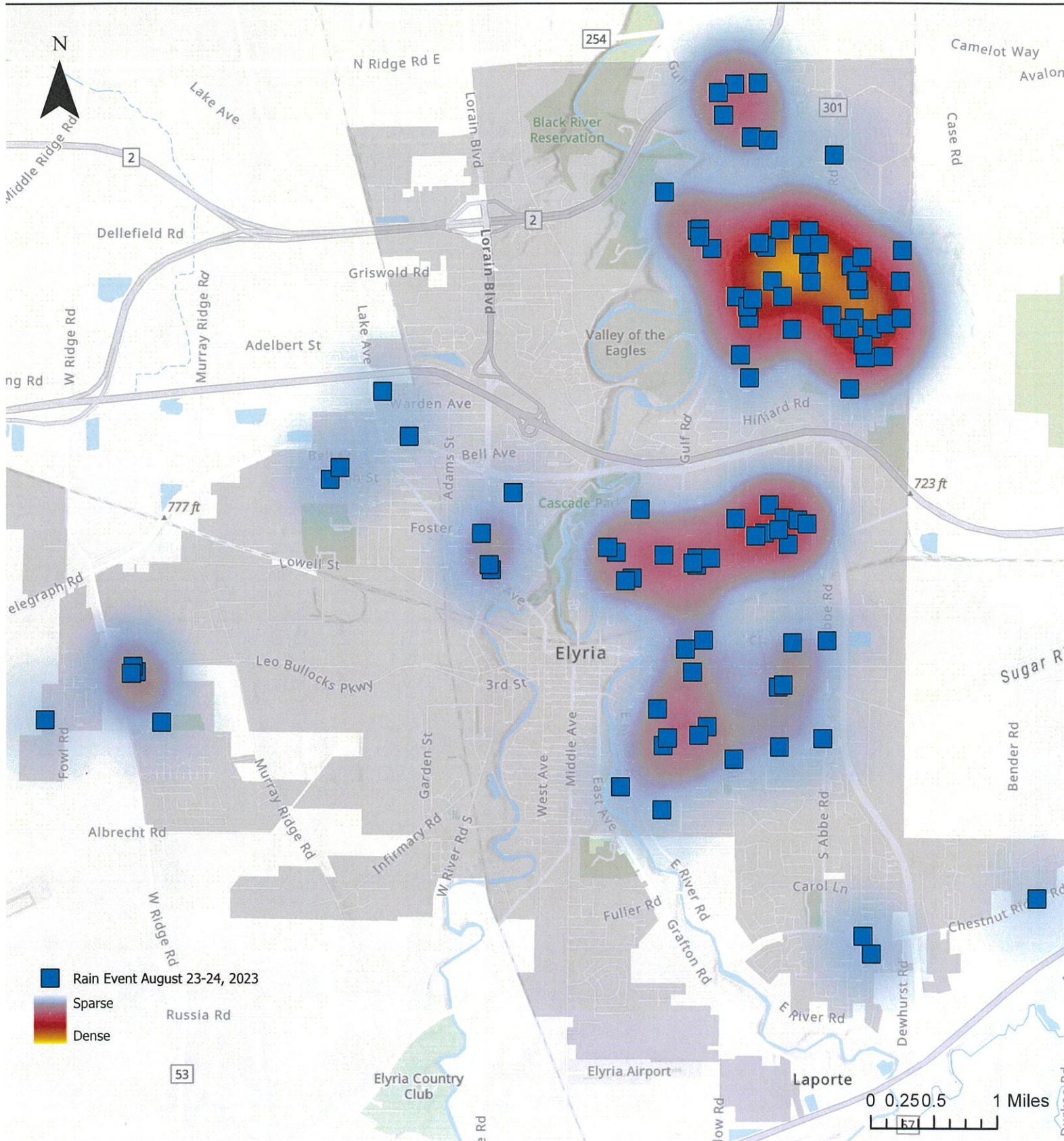


| Historical Model | Style | Axis Min | Axis Max | Unit | Precision | Format | Tag Min | Tag Max |
|------------------|----------------|----------|----------|------|-----------|---------|---------|---------|
| Raw Flow | WWTP_Historian | 0.01 | 100.00 | MGD | 2 | Decimal | 0.00 | 100.00 |



WWPCP Rain Event Map

August 23 - 24, 2023



Evaluation of Rain Data 1995 - 2023

This table shows the number of rain events per year and the numbers of those rain events that fall within certain categories of rainfall, in inches.

Note: Rain events with < 0.5 inches of rain are not included in this table.

| Year | Events | Inches of rain | | | | | | | | NOTES |
|---------------|------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|
| | | >0.5 to <1.0 | >1.0 to <2.0 | >2.0 to <3.0 | >3.0 to <4.0 | >4.0 to <5.0 | >5.0 to <6.0 | >6.0 to <7.0 | >7.0 to <8.0 | |
| 1995 | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1996 | 36 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1997 | 39 | 14 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| 1998 | 37 | 9 | 7 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1999 | 32 | 13 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2000 | 40 | 12 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2001 | 36 | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | 36 | 13 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2003 | 43 | 12 | 7 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2004 | 54 | 15 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2005 | 13 | 7 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 41 | 14 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 37 | 11 | 10 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 43 | 17 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 27 | 16 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2010 | 27 | 10 | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2011 | 39 | 9 | 17 | 4 | 1 | 0 | 1 | 0 | 0 | 0 |
| 2012 | 31 | 14 | 11 | 0 | 0 | 0 | 0 | 0 | 1 | Hurricane Sandy |
| 2013 | 22 | 9 | 6 | 1 | 2 | 1 | 0 | 0 | 0 | 0 |
| 2014 | 26 | 13 | 8 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2015 | 19 | 4 | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2016 | 20 | 12 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2017 | 32 | 12 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 2018 | 35 | 12 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2019 | 26 | 13 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2020 | 30 | 13 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2021 | 15 | 5 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2022 | 18 | 12 | 6 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2023 | 16 | 6 | 5 | | | | | 1 | | 500-Year Storm |
| TOTALS | 900 | 311 | 168 | 34 | 11 | 4 | 1 | 1 | 1 | |

| | |
|------------------------------------|--------------------------|
| Hurricane Sandy Statistics: | Rainfall (Inches) |
| October 27, 2012 | 1.15 |
| October 28, 2012 | 1.32" |
| October 29, 2012 | 2.22" |
| October 30, 2012 | 1.80" |
| October 31, 2012 | 0.68" |
| Total | <u>7.17"</u> |