

Storm Preparedness

December 8, 2022

Rainfall Ready NYC is a plan that outlines the shared responsibilities New Yorkers and City government can do to combat intense storms together. Learn more at nyc.gov/rainfallready



Plan for Intense Storms



Prepare for the Storm



Monitor Conditions During the Storm



Recover Rapidly After the Storm

The City's role:	<ul style="list-style-type: none"> • Publish interactive flood map • Provide flood barriers • Promote/expand FloodHelpNY 	<ul style="list-style-type: none"> • Activate the flash flood plan • Inspect chronic flooding locations • Issue travel advisories • Lower lakes in NYC Parks 	<ul style="list-style-type: none"> • Expand a network of street flooding sensors • Monitor traffic cameras to deploy emergency responders 	<ul style="list-style-type: none"> • Deploy resources to support cleanup efforts • Resolve flooded roadways
New Yorker's role:	<ul style="list-style-type: none"> • Use the flood map to understand your risk • Get flood insurance • Sign up for Notify NYC 	<ul style="list-style-type: none"> • Clear debris from the curb line and on top of catch basins • Set up sandbags and flood barriers • Stock up on supplies • Elevate belongings in your basement 	<ul style="list-style-type: none"> • Stay home • Do not drive or walk through standing water 	<ul style="list-style-type: none"> • Document damages • Call 311 to report flood damage



The Citywide Stormwater Resilience Vision outlines the plan to make NYC more resilient, combining traditional sewers and green infrastructure.

NYC's 7,000 miles of sewers are not designed to handle the quantity of rain brought by the extreme storms we began to see in 2021.

Before 1977, sewer standards were set by borough presidents, and different boroughs had different standards for sewers.

For example, most sewers in Queens are only built to handle 1.5" of rain per hour. Today's standard for sewer construction is ~1.75" of rain per hour, although the City is evaluating that standard given the realities of climate change.

Over the long-term, we need to upgrade all sewers to today's standard of ~1.75" of rain per hour. .

Upgrading the sewer system is a decades-long project. So what is NYC doing now to prepare the sewer system for storms of the future?

What has been done?

- Built ~125 miles of new/upgraded sewers in the last five years
- Completed emergency upgrades and repairs to resolve chronic flooding conditions at 14 locations in Staten Island and Queens since September 2021
- Adopted new catch basin designs to allow more stormwater to flow into the sewers during extreme weather

What is happening right now?

- Building sewers in Southeast Queens
- Implementing enhanced catch basin cleaning and inspection schedule
- Partnering with MTA to reduce flooding in subways

What is our vision?

- Upgrade at least 70 miles of sewers per year (1% of the sewer system), using data to target the most at risk communities
- Complete sewer build out in unserved areas

While we expand the sewer system, we are deploying additional green infrastructure projects to intercept stormwater before it enters the sewer system.

What has been done?

- Built 11,000 green infrastructure assets, nearly all in combined sewer areas

What is happening right now?

- Constructing stormwater medians in the Rockaways and Floral Park
- Completing an additional 1,000 rain gardens in Brooklyn and Queens

What is our vision?

- Expand green infrastructure, including curbside rain gardens and the stormwater median program, to all parts of the City
- Partner with the State and Federal government to financially support these projects with grants
- Develop a robust maintenance program that grows a green workforce



Storm Preparedness



Key City agencies prepare themselves every year before the rainy season begins.

- The Flash Flood Emergency Plan is a coordinated response of multiple agencies for emergency flash flood events in New York City.
- DEP is a major stakeholder in the NYC Flash Flood Emergency Plan of which New York City Emergency Management (NYCEM) is the lead agency.
- Every year, multiple agencies (including DEP) attend a pre-hurricane season briefing where a pre-season outlook briefing is provided by the National Weather Service and the Coastal Storm Plan is reviewed.
- Internally, DEP holds a pre-season hurricane and Flash Flood Plan call with our Field Operations Management where internal plans are reviewed.

When NYCEM activates the NYC Flash Flood Emergency Plan, DEP:

- Activates our internal Flash Flood Plan
- Begins inspecting chronic flood locations
- Prepares a staffing plan for storm period
- Checks storm response equipment
- Provides internal weather updates





NYC Flash Flood Emergency Plan

- NYC's Flash Flood Activation includes just under 300 chronic flooding locations.
- The major agencies such as DEP, DOT, DSNY, MTA etc. mobilize in preparation of our storm events.
- DEP is responsible for 106 locations for pre-inspection

During rain events, DEP closely monitors conditions and responds to flooding.

- During rainfall events, DEP responds to priority calls:
 - Missing manhole covers
 - Arterial roadway flooding
 - Sewer back-ups (SBUs)
- Produce Situation Reports for management
- Coordinate with NYC DOT, NYS DOT, NYPD, and NYCEM
- Monitor real time roadway conditions via DOT cams
- Data-mine flooding conditions in social media

After a storm has ended, DEP conducts a post storm assessment and responds to critical needs

- Respond to residual street flooding locations
- Conduct after action review as necessary
- Ensure all data from responses have been accurately reported to support data analytics

Call to action: You can help!

If you are able, take a look at catch basins on your block and clear any debris that's on top. Doing this will ensure your city's drainage infrastructure is working at it's best.



Resources for Planning for Intense Storm

- Rainfall Ready NYC website outlines the shared responsibilities New Yorkers and City government can do to combat intense storm.
Website: <https://www1.nyc.gov/site/dep/whats-new/rainfall-ready-nyc.page>
- NYC Department of Environmental Protection interactive map
Website: [New York City Stormwater Flood Maps \(arcgis.com\)](#)
- Sign up to receive alerts from Notify NYC, the City's official source of information for emergencies and important city services.
Website: <https://a858-nycnotify.nyc.gov/notifynyc/>

Stay Connected

- Follow NYC DEP's social media accounts to stay up to date on agency related events and notifications like storm preparedness



NYC Water

NYC Water on Facebook



NYC Water

NYC Water on Instagram



@nycwater

NYC Water on Twitter

[NYC Gov Social Media](#)



NYC Water ✓

@NYCWater

If you're able, take a look at catch basins on your block and clear any debris that's on top. Be sure to wear gloves and watch traffic! Doing this will help ensure your street's drainage infrastructure is working at its best. Stay safe NYC!



10:21 AM · Sep 8, 2021 · Twitter Web App

Getting help from DEP

- Report all DEP constituent complaints and issues to 311
- 311 complaints go directly to DEP response teams on duty in your area
- Contact DEP Community Affairs with the complaint number
- DEP Community Affairs will follow up with response teams

DEP Community
Affairs Liaison

Director of
Community Affairs

Assistant
Commissioner
Intergovernmental
Affairs

DEP Community Affairs Line

Denise Hubbard
deniseh@dep.nyc.gov
(O) 718-595-3478
(M) 347-844-0618

Karen Ellis
KarenE@dep.nyc.gov
(O) 718-595-4394
(M) 347-419-0823

Mario Bruno
MBruno@dep.nyc.gov
(O) 718-595-3519
(M) 917-743-9895

DEP Community Affairs
CommunityAffairs@dep.nyc.gov
(O) 718-595-3496

Thank you

Questions?

