
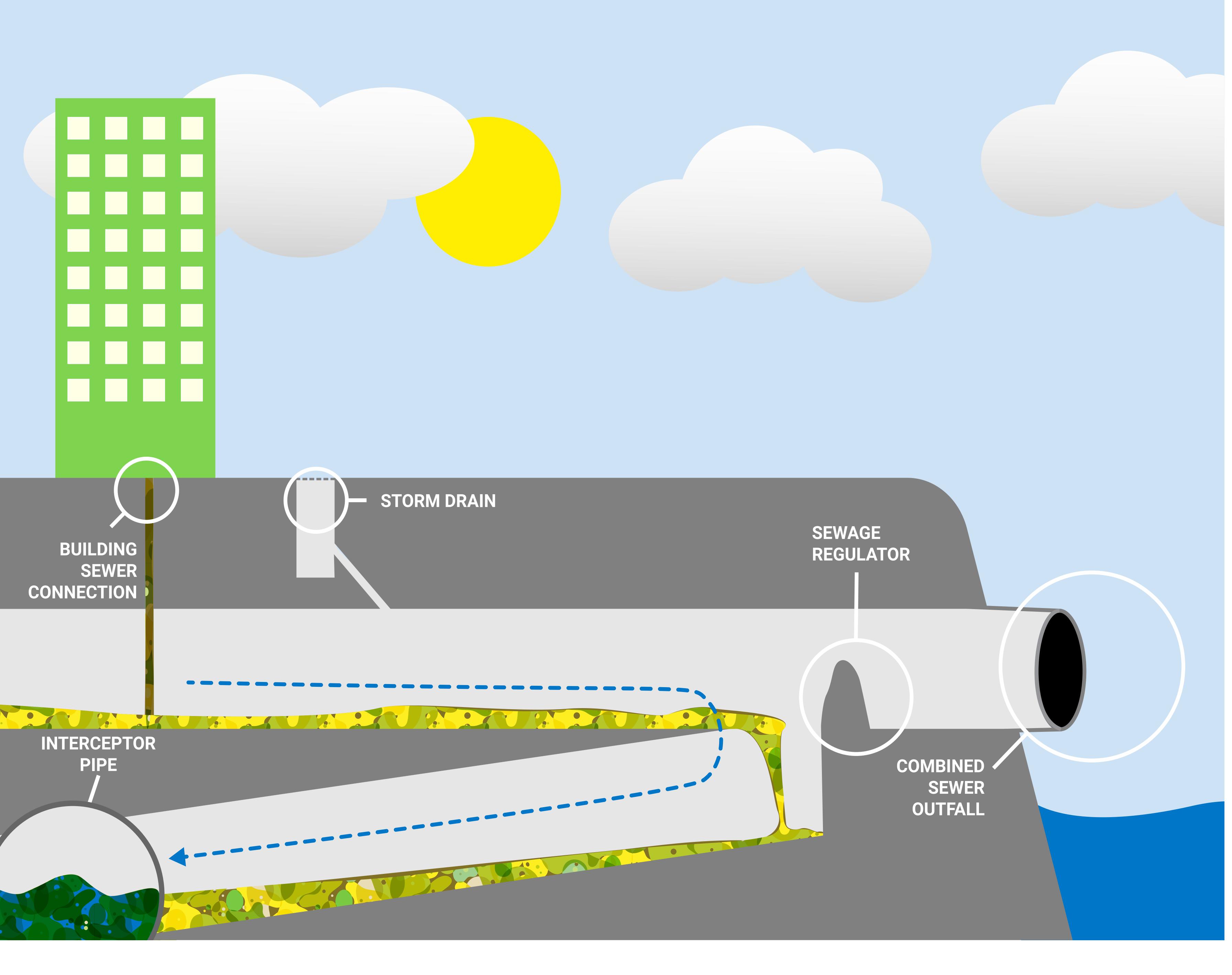
RAIN AND THE COMBINED SEWER SYSTEM





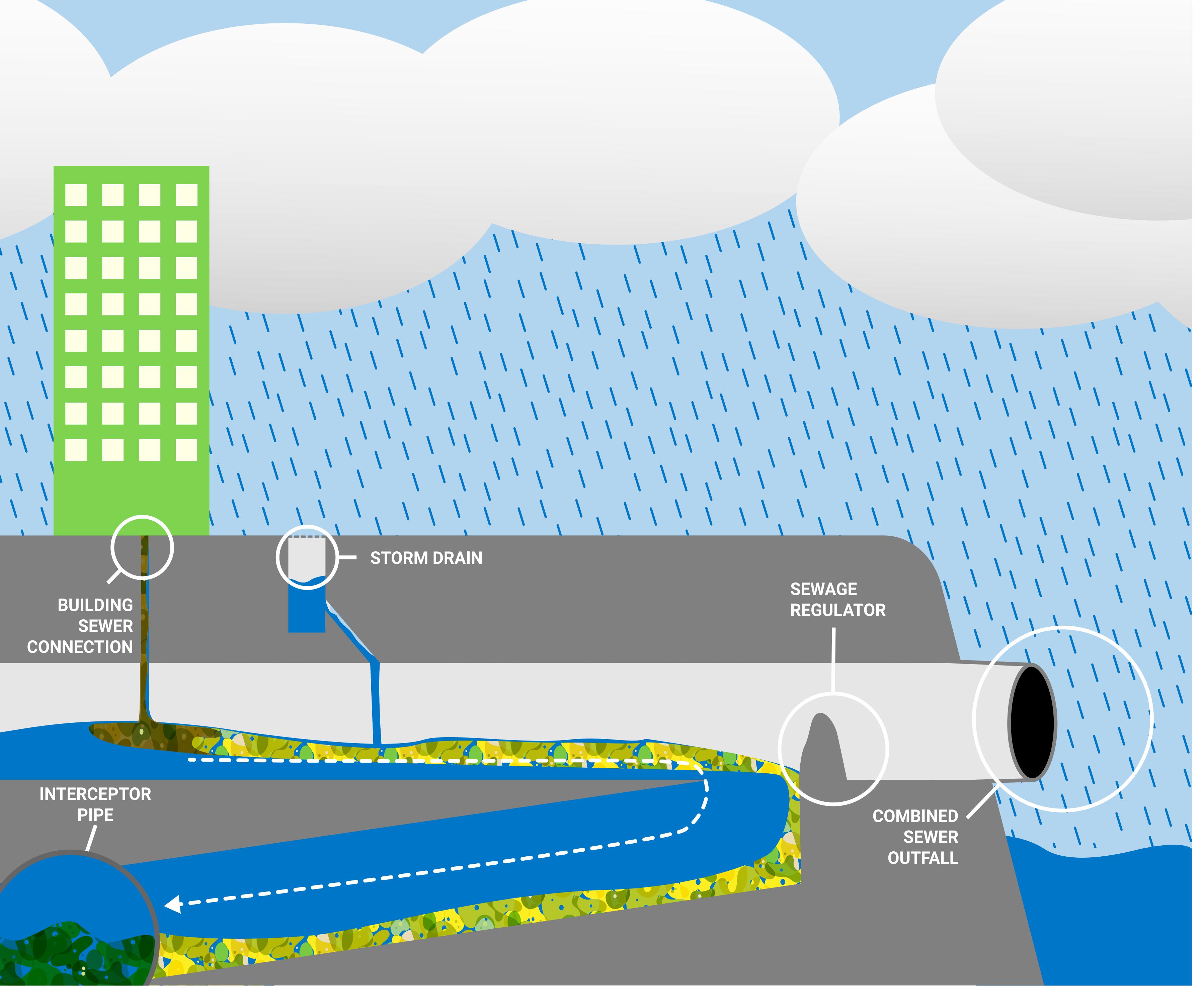


SUNNY DAY CONDITIONS

In a combined sewer system, there is a single interceptor pipe that carries both rain and other flooding along with sewage from buildings to the wastewater treatment plant. On a sunny day in today's conditions, the wastewater is carried through the interceptor pipe to the Manhattan **Pump Station, where** it is then pumped to the Newtown Creek Wastewater Treatment Plant to be treated. The treated water is then discharged into the river.





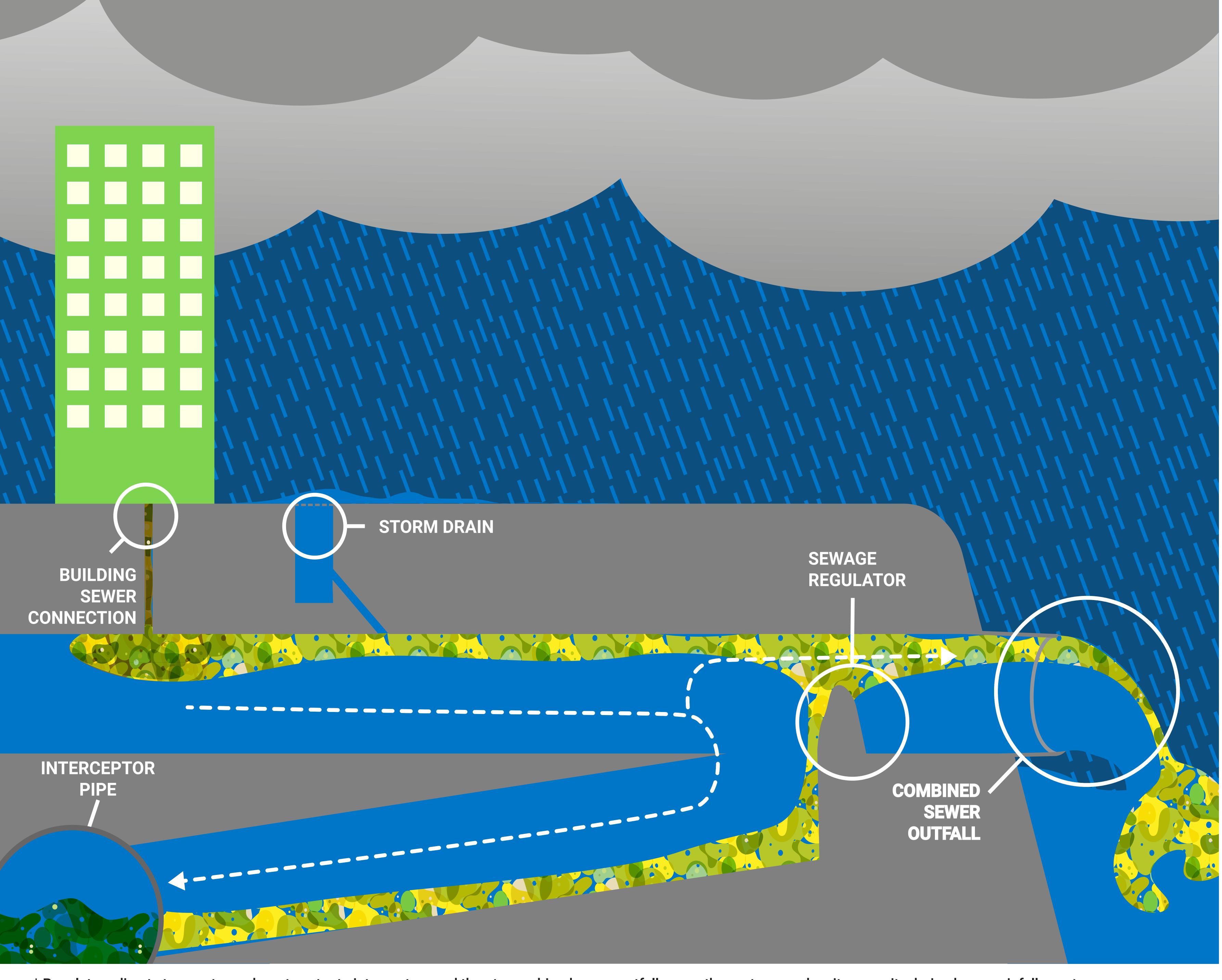


LIGHT RAIN EVENTS

During a light rain event in today's conditions, the rain goes into storm drains on the street, where it flows into the interceptor pipe. There is enough capacity, or room in the interceptor pipe, to take both the rain and sewage (wastewater) to the Manhattan Pump Station, where it is then pumped to the Newtown **Creek Wastewater Treatment Plant to be** treated. The treated water is then discharged into the river.





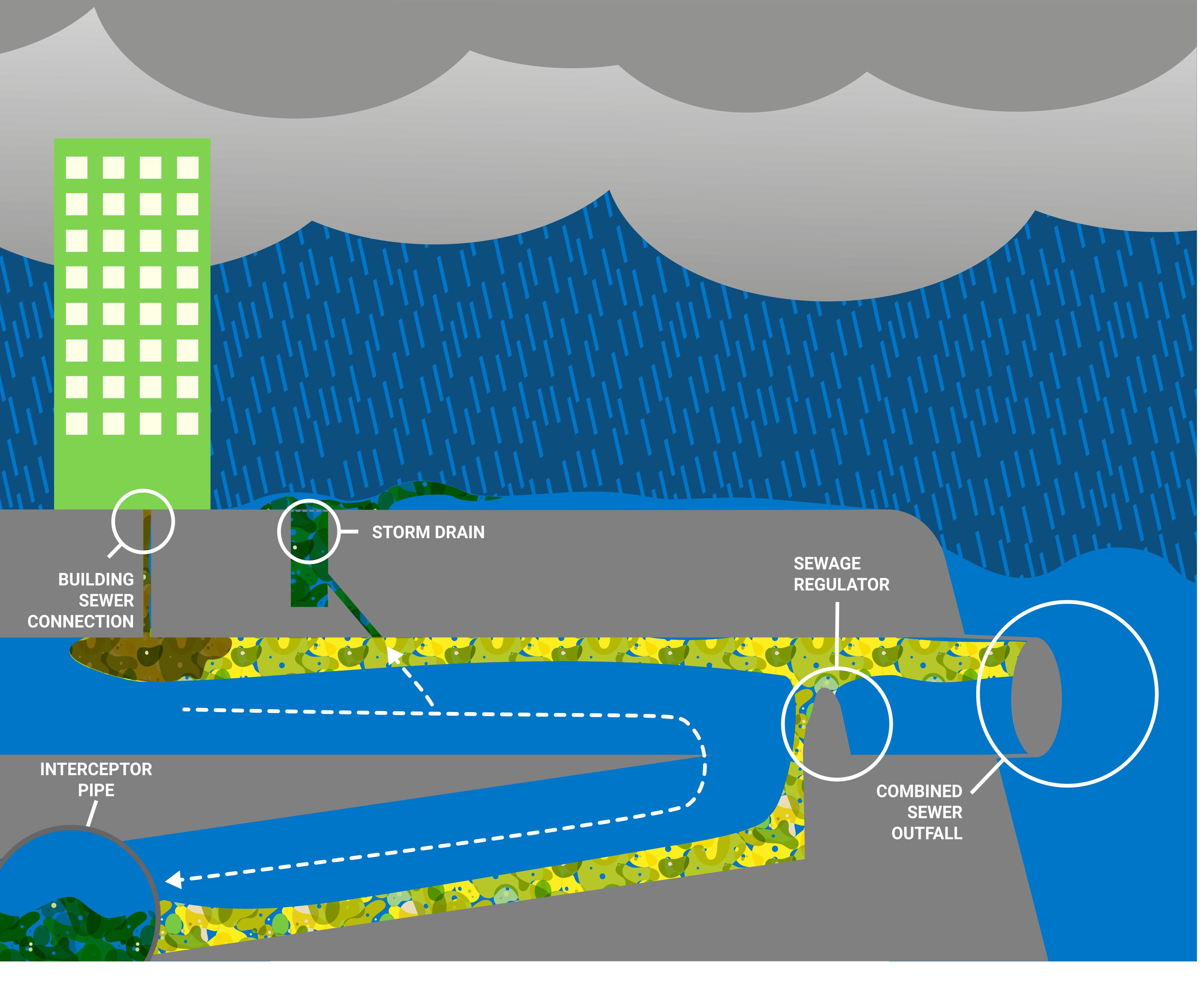


* Regulators direct stormwater and wastewater to interceptors and then to combined sewer outfalls once the system reaches its capacity during heavy rainfall events.

HEAVY RAIN EVENTS

During heavy rainstorms, the combined sewer system does not have enough capacity to manage the combined rain and sewage flows. When a rain event surpasses a certain threshold and the system reaches its capacity, the regulator directs the wastewater to a combined sewer outfall.

The system discharges untreated sewage directly into the City's waterways, including the East River. These events are called combined sewer overflows (CSOs). **CSOs have a negative** effect on water quality and our ability to use our waterways for recreation.



FUTURE SEA LEVEL RISE

Our combined sewer system currently drains by gravity: water naturally flows to outfalls that discharge directly into the river. As sea levels rise, these outfalls will become submerged and even blocked, impacting the system's ability to discharge. This will cause more flooding to occur on our streets and in our basements, unless a significant intervention is made to increase the capacity of our system.











HOW THE COMBINED SEWER SYSTEM WORKS

Most of the sewer system in NYC is a "combined" system, meaning a variety of sanitary water is combined with rainwater in the sewer. Shower water, toilet flushes, sink water, laundry water, as well as rainwater from the streets and roofs all enter the same sewer system.





RAIN EVENTS

LOCATION: RECTOR ST DATE: JAN 25, 2020 SOURCE: @NEVIDOMSKY92/TWITTER

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LOCATION: 14TH STREET AND 1ST AVENUE DATE: SEP 18, 2018 SOURCE: @SUBWAYTHESERIES / TWITTER 1.5"

LOCATION: 14TH STREET AND 1ST AVENUE DATE: JUL 17, 2018 SOURCE: @WLY_CDGR / TWITTER



LOCATION: UNION SQUARE – 14TH STREET DATE: MAY 5, 2017 SOURCE: @KATIEDUBH / TWITTER

OADWAY LIN



LOCATION: GRAND STREET STATION DATE: APR 5, 2016 SOURCE: @TIHUACHANG / TWITTER 0.5"

LOCATION: WASHINGTON SQUARE PARK DATE: AUG 11, 2018 SOURCE: @ESTHIZIPORI / TWITTER

1.5"

LOCATION: MANHATTAN DATE: JUL 17, 2019 SOURCE: @NEIASNMORE / TWITTER 1.5

LOCATION: FDR DRIVE DATE: MAY 5, 2017 SOURCE: SPENCER PLATT / GETTY IMAGES 2"

Cetty Images

LOCATION: FDR DRIVE DATE: MAY 5, 2017 SOURCE: ANGUS MORDANT / NY DAILY NEWS 27

LOCATION: MANHATTAN DATE: MAY 5, 2017 SOURCE: SPENCER PLATT / GETTY IMAGES 2"

LOCATION: WEST SIDE HIGHWAY DATE: MAY 5, 2017 SOURCE: TREVOR KAPP / DNA INFO 27

LOCATION: WEST SIDE HIGHWAY DATE: MAY 5, 2017 SOURCE: CARLO ALLEGRI / REUTERS 2"