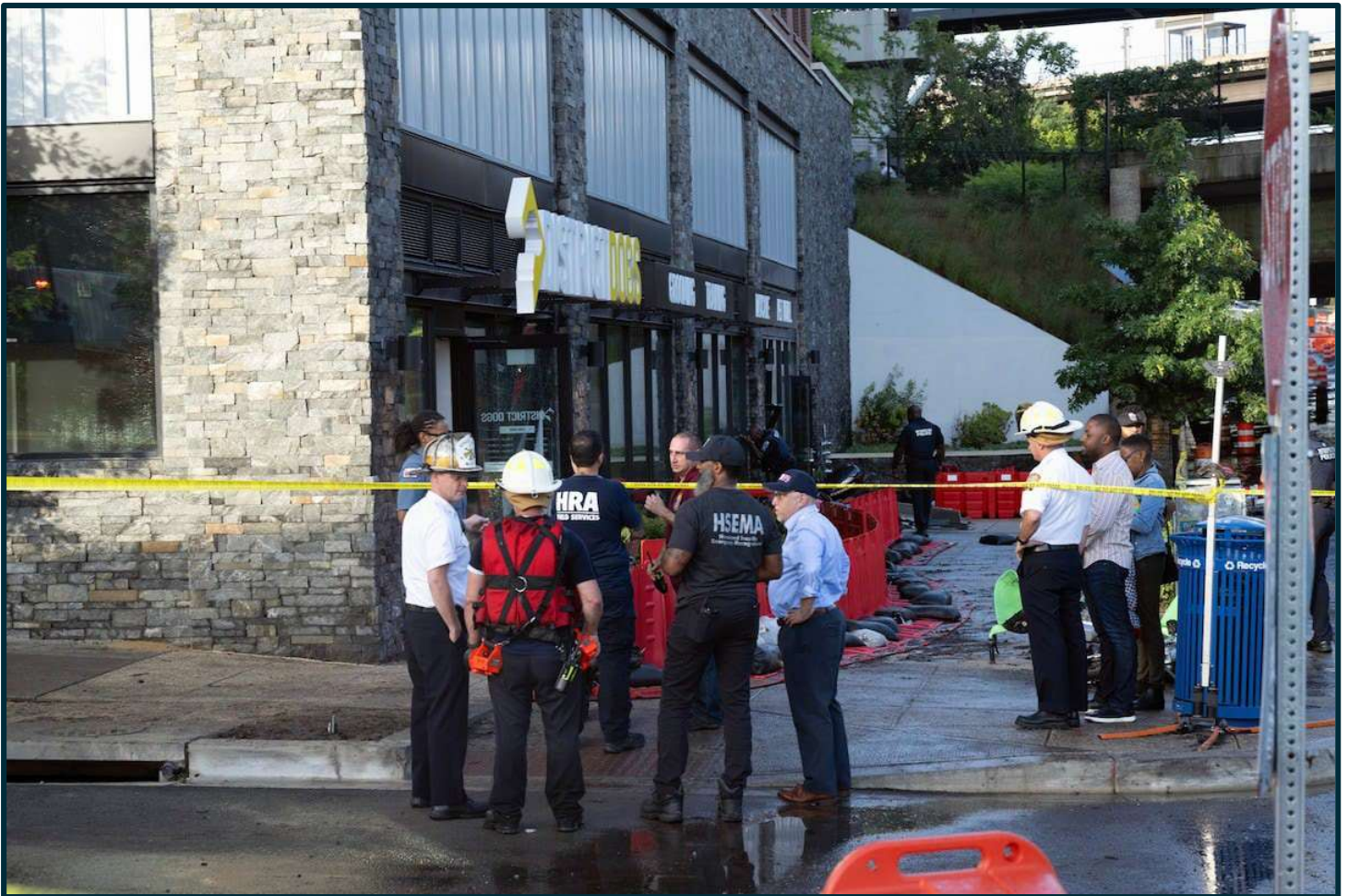




DC HOMELAND SECURITY AND EMERGENCY MANAGEMENT AGENCY



August 14, 2023 Rhode Island Avenue Flooding DRAFT After Action Report

December 18, 2023

Executive Summary

On Monday, August 14, 2023, around 4:30 p.m., a fast-moving severe storm hit the DC metropolitan area, dropping 1.85 inches of rain in approximately 30 minutes, and causing flash flooding. In the 600 block of Rhode Island Avenue NE, the magnitude and intensity of the rainfall exceeded the handling capacity of the sewer system and caused severe and rapid localized flooding. This quick-rising stormwater trapped multiple people inside their vehicles, and employees and dogs inside the District Dogs business. When DC Fire and EMS (FEMS) initially observed vehicles stranded in floodwaters, they self-dispatched and conducted swift- water rescue on Rhode Island Avenue.

OUC received a total of four 911 calls for this incident—one from an individual trapped in their car, two from District Dogs employees watching live video feeds from outside the District, and one from an individual trapped inside District Dogs. OUC opened and then merged calls as operators adjudicated calls for assistance and assigned resources. Based upon the 911 calls and observing people swimming to escape the District Dogs facility, FEMS conducted swift-water rescue of the people and dogs at District Dogs. As a result of the flooding, FEMS rescued seven people and 20 dogs; no human lives were lost but 10 dogs died from the flood.

Due to the likelihood of future floods of similar magnitude in this area, this report gives several recommendations on actions that should be taken to mitigate impacts from future incidents. The report recommends the District continue to provide mitigation strategies to residents and businesses in this area, along with pursuing federal grant funding to develop mitigation projects to alleviate flooding in this corridor. Additionally, it recommends the installation of automated beacons at the Rhode Island Ave overpass in this corridor to alert drivers to flooding. Finally, the report recommends the commercial space formerly occupied by District Dogs undertake mitigation efforts to significantly decrease risk. This last recommendation should be performed by the property owner to ensure it meets insurance and other safety standards.

This report also highlights improvements made to flood response since this event. Training has been provided to 911 call takers to improve call coding for interior flooding incidents, and Additional training will be provided to 911 dispatchers to ensure proper communication on resource location and allocation to the on-scene incident commander when there are multiple calls for service within one geographic location. Additionally, Standard Operating Procedures to close traffic corridors prone to flooding in the event of a flash flood watch or warning across the District have been implemented.

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Scope

This After-Action Report (AAR) documents findings from the District of Columbia Government’s evaluation of the flooding incident that occurred in the 600 block of Rhode Island Avenue NE on August 14, 2023. It includes an overview of the incident, an evaluation of the incident timeline, an incident map, and key findings.

The AAR only evaluates the District Government response to the incident and summarizes information into a single report, pulling from: director and staff interviews, previous building assessments, incident reports, agency after-action reviews, transcripts of 911 calls and radio traffic, weather information, media reports, and social media postings. The list of participating agencies is in the table below.

HSEMA did not interview District Dogs employees or families who lost pets and the AAR does not evaluate the emergency preparedness or response from District Dogs’ staff, who remained with the dogs in their care at their own peril.

Participating Agency	Role/Responsibility
OUC	911 call taker and emergency dispatcher
FEMS	Emergency response, swift-water rescue
DOB	Building inspection
DDOT	Prior protective measures and road closures
DC Water	Maintenance and operations of stormwater system
HSEMA	Public alert and notification, after action reporting



Summary of the Incident Timeline

District Initial Response to the Flooded Roadway. City responders identified an emergency in the 600 block of Rhode Island Avenue NE when FEMS Engine 12 attempted to return to their station after a call. At 4:52 p.m., Engine 12 approached the low-lying railroad underpass, which was flooded and impassable with cars in and under the water. Engine 12 quickly parked on the northeast end of the flooded area and established the incident with the Office of Unified Communications (OUC). The 911 center received only one call of a person trapped in their car at 4:54 p.m. and Engine 12 conducted the rescue.

As they conducted additional rescues, Engine 12 continued to witness rapidly rising water. After assessing the scene and seeing individuals stuck in and on cars, Engine 12 requested additional water rescue resources and requested DDOT shut down the flooded area in both directions. OUC dispatched a fleet of rescue apparatuses—including Rescue Squad 2 and Rescue Squad 3—to the location at 5:00 p.m.

Rescue apparatuses started arriving on scene at 5:05 p.m. and began freeing individuals trapped along Rhode Island Avenue NE. At 5:06 p.m., FEMS established a Command Post next to Mt. Calvary Holy Church (610 Rhode Island Avenue NE) to coordinate the response to the flooding in the roadway. At this time, neither OUC nor FEMS was aware of people and dogs trapped inside District Dogs.

Inside District Dogs. At 5:00:59 p.m., a timestamped screenshot of District Dogs surveillance video, labeled “Rear Vestibule” (Figure 1) shows water flooding into the establishment through a broken exterior door. Based on where the water is against the signage on the glass wall and the location of the exterior door handle, the water was around halfway up the door.



Figure 1, Credit: WUSA9

At 5:01:10 p.m., a timestamped screenshot of District Dogs surveillance video, labeled “Feeding” (Figure 2) shows significant and dangerous flooding in the interior of the establishment. The photo shows the water level has reached the countertops. One employee is seen standing on the counter with water up over their ankles while another employee appears to be sitting on the countertop. A large refrigerator has been knocked over from the water. According to an employee account given to local media outlets: “The fridge blocked the boarding room so no one could get the dogs in the bottom suites freed when the water poured in. It was ungodly fast how it happened.”



Figure 2, Credit: WUSA9

At 5:01:18 p.m., a timestamped screenshot of District Dogs surveillance video, labeled “Boarding Small” (Figure 3) shows dangerous flooding in the kenneling area of the establishment. The photo shows the waterline above the lower row of stacked boarding crates. Media coverage of this photo reports there were dogs in the lower crates. Dogs and debris can be seen floating at the top of the water. At this point, there are 10 dogs trapped in crates underwater; under these conditions, the dogs could not have survived.



Figure 3, Credit: WUSA9

911 Calls for District Dogs. At 5:06:42 p.m., OUC received the first 911 call for the incident at District Dogs. The caller was an off-site employee watching the businesses live video feed. The caller stated “...people are with the animals inside the building that is flooding. I am [an employee] of the location and I am watching it from the camera. I am at home, but there are people inside there”. The OUC call taker notified the on-duty supervisor of the call and asked how to properly code the call. The supervisor advised the call be coded as “water leak” and instructed the call taker to call the individual back to collect more information and obtain a number from someone inside the building. The supervisor then informed the Fire Dispatcher of the situation within District Dogs. FEMS Engine 12 was actively working the vehicle water rescues along Rhode Island Avenue and had established command of the roadway flooding incident. The FEMS dispatcher instructed the call taker to wait for a request for assistance from the on-scene Incident Commander before sending additional units.

OUC received a second 911 call at 5:09:30 p.m. from another off-site employee watching the same live feed inside District Dogs. The caller stated “I’m [an employee] there and I am watching the cameras and the whole place is flooding. There are people in there, animals in there and it’s like the whole place is completely flooded.”

At 5:10:29 p.m., OUC dispatched¹ FEMS Tower 3 to District Dogs. The call was verbalized over the radio as a “water leak,” but was coded as “Flooding-Public Assistance” in the computer aided dispatch notes. The Incident Commander heard the “water leak” dispatch over the radio, which is a low priority dispatch. The dispatch did not mention people or dogs being trapped, and the Incident Commander cancelled Tower 3 for the low priority “water leak” because the building was inaccessible due to flooding. This is a typical practice to reserve apparatus for emergency calls.

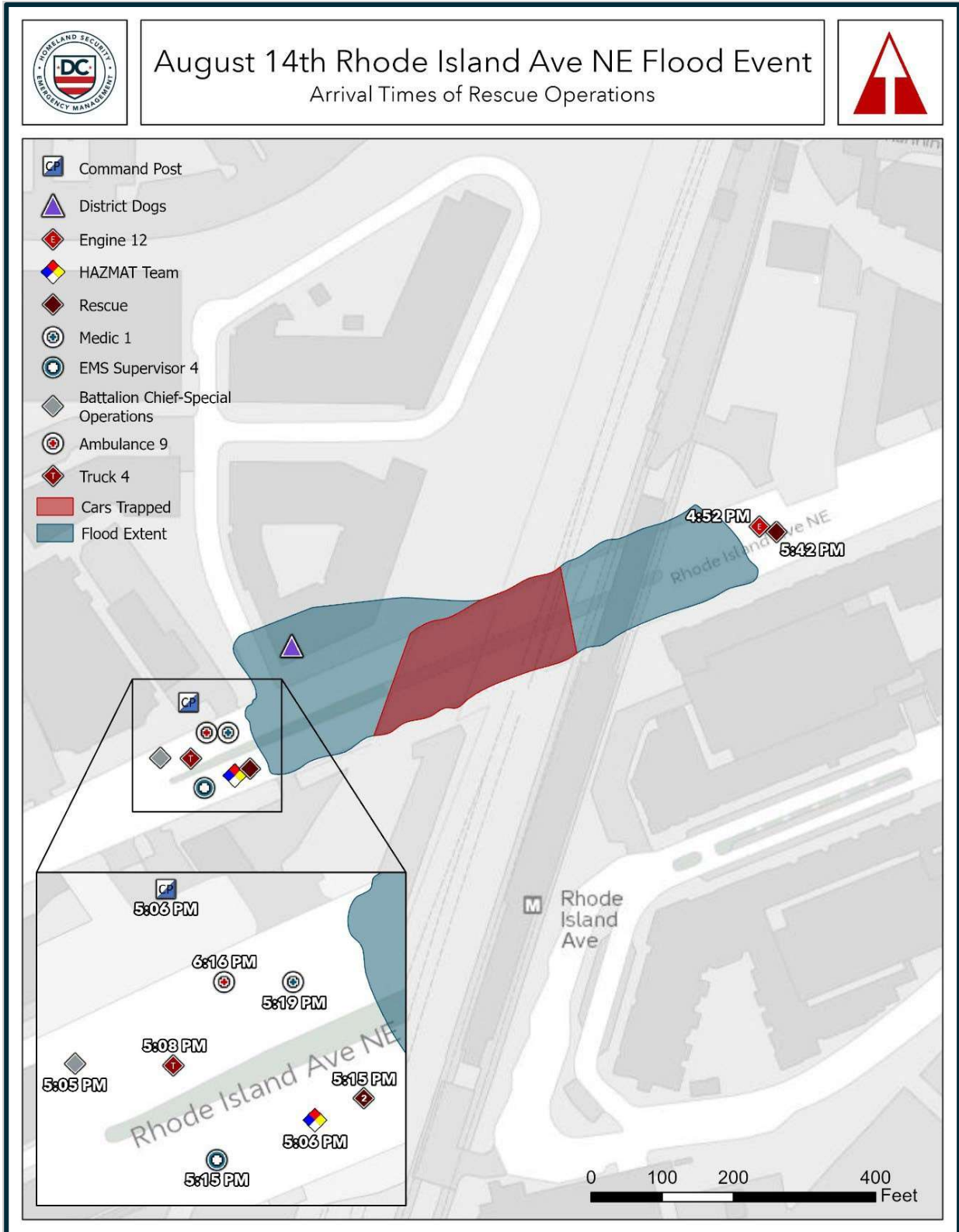
At 5:12 p.m., Rescue 2 entered the water with their inflatable boat from the southwest side of the flooding, in front of District Dogs to begin rescues for the flooded cars. At 5:17 p.m. an individual trapped inside the District Dogs building made the third 911 call for District Dogs. At 5:20, the caller stated “We’re at 680 Rhode Island Avenue NE at District Dogs. We are trapped in water above our heads. There are six people trapped and no way out. We need a water rescue immediately. The water is 12 feet high.”

At 5:22 p.m., OUC relayed to the Incident Commander by radio that individuals and dogs were trapped inside the business. The Incident Commander assigned Rescue 2 to District Dogs via motorized boat to perform search and rescue. At the same time, the Incident Commander began seeing people swimming out of District Dogs.

Rescue 2 made entry into District Dogs through the compromised front door of the business around 5:29 p.m. and had to swim through deep water and debris to reach employees towards the back of the store. At 5:35 p.m., Rescue 2 personnel reached the individual who placed the third 911 call, and FEMS personnel spent the next 45 minutes rescuing employees and dogs from the building.

¹ OUC operates under performance goals that require dispatch to occur within 90 seconds of receiving a call requiring emergency response. Calls transferred from other jurisdictions or with unclear needs for assistance may require additional time.

Incident Map



Incident/Event Timeline - Full Detail

District Dogs 911 Calls	Time	Event	Description
4-May-22			
N/A		District Dogs new construction building inspection	District Dogs construction was completed May 4, 2022. The building is not in the 100-year floodplain and did not require any special plan review or construction requirements.
14-Aug-23			
2:12 p.m.		NWS Flood Watch Alert issued 5 p.m. to 2 a.m.	The National Weather Service has issued a Flood Watch for the entire region including the District of Columbia from 5:00 PM to 2:00 AM. Anomalous moisture will overspread the region ahead of a cold front that will pass through tonight. Multiple rounds of showers and thunderstorms are possible this evening into the overnight. Rain rates over two inches per hour are possible which could result in excessive runoff which may cause flooding of rivers, creeks, streams, and other low-lying and flood-prone locations.
2:26		Flood Watch Alert issued 5 p.m. to 2 a.m. - DC Government Internal	Flood Watch for the District of Columbia in effect from August 14, 5:00 PM until August 15, 2:00 AM.
2:34		Flood Watch Alert issued 5 p.m. to 2 a.m. – Public	Flood Watch for the District of Columbia in effect from August 14, 5:00 PM until August 15, 2:00 AM.
2:37		Flood Watch and public safety Message	Initial Flood Watch Notice & turn around, don't drown message.
3:53		NWS Flash Flood Warning for the region	<i>Not applicable.</i>
4:05		Flash Flood Warning issued to NCR partners	Flash Flood Warning (Fairfax and Prince William, VA). Virginia - The National Weather Service has issued a flash flood warning until 8PM for the City of Fairfax, Fairfax County and Prince William County, VA.



District Dogs 911 Calls	Time	Event	Description
	4:11	Tornado warning for Charles County issued until 4:30pm	Tornado Warning (Charles County, MD). Charles County - the National Weather Service has issued a Tornado Warning until 4:30PM for Charles County, MD.
	4:17	HSEMA tweets public safety Message	Initial Flash Flood Warning notice & turn around, don't drown.
	4:21	Flash Flood Warning issued for NCR partners	Flash Flood Warning (NCR) - Update #1. The National Weather Service has issued a flash flood warning until 8PM for the District of Columbia, Prince Georges County, MD and Falls Church, Arlington County, City of Alexandria in VA.
	4:25	Flash Flood Warning Alert issued until 8 p.m. – Public	<i>Not applicable.</i>
	4:27	Flash Flood Warning Alert issued until 8 p.m. - DC Government Internal	<i>Not applicable.</i>
	4:30	Tornado warning for NOVA issued until 4:45 p.m.	Tornado Warning (Partial NCR) - Update #1. Virginia - The National Weather Service has issued a Tornado Warning until 4:45PM for the City of Alexandria, Arlington and Fairfax Counties, VA
	4:33	HSEMA Tweets public safety Message	Initial Severe Thunderstorm Warning notice – reminder to not drive through flooded road
	4:35	Severe Thunderstorm Warning issued until 5 p.m. – Public	<i>Not applicable.</i>
	4:36	Severe Thunderstorm Warning issued until 5 p.m. - DC Government Internal	Severe thunderstorm warning issued for the northwestern District of Columbia until 4:30 PM EDT. At 4:09 PM EDT, a severe thunderstorm was located over Herndon moving east at 30 mph. HAZARD: 60 mph wind gusts and quarter size hail.



District Dogs 911 Calls	Time	Event	Description
4:36		Severe Thunderstorm Warning issued until 5:45 p.m. – DC Government Internal	Severe Thunderstorm Warning issued until 5:45PM for the District of Columbia, Montgomery County, MD, Prince George’s County, MD, City of Falls Church, VA and Fairfax County, VA. At 4:24PM, severe thunderstorms were located along a line extending from Savage-Guilford to Hillandale to Reston, moving east at 35 mph. 70 mph wind gusts.
4:48		Severe Thunderstorm Warning issued until 4:30 p.m. for NCR partners	Severe thunderstorm warning issued for the northwestern District of Columbia until 4:30 PM EDT. At 4:09 PM EDT, a severe thunderstorm was located over Herndon moving east at 30 mph. HAZARD: 60 mph wind gusts and quarter size hail.
4:52:30		FEMS Engine 12 "self-dispatches" to the northeast side of Rhode Island Avenue NE	FEMS Engine 12 attempts to return to the firehouse after a call but the road to the firehouse is flooded, and they end up north of Rhode Island Ave. When they see individuals trapped in cars, they self-dispatch and inform OUC of Rhode Island Ave NE flooding. OUC received a radio transmission from FEMS Engine 12 for cars stuck in the water underneath the bridge in the 600 block of Rhode Island Avenue, NE “under the Metro bridge where it floods pretty much every time.”
4:53:42		Incident F230142292 is created	OUC creates incident number F230142292 (call type: investigation, changed to water rescue). Initial CAD notification disseminated for this incident. Engine 12 is added as the first resource deployed for F230142292. All incidents created after this are eventually merged into F230142292 as incident management and resource adjudication takes place.
4:53:42		Engine 12 marked "on scene" at north end of flooding	Engine 12 on the scene of the call for service they initiated. Advised they would let dispatch know if they needed any other resources.
4:54:08		911 call received from person trapped in a car	OUC receives 911 call for a person trapped in a black Hyundai Sonata in the 600 block of Rhode Island Avenue NE.
4:54:16		Scene size up complete, Engine 12 requests road closure	FEMS advises initial vehicle rescues are complete and request MPD and DDOT to shut down Rhode Island Avenue NE in both directions.



District Dogs 911 Calls	Time	Event	Description
	4:55:53	Additional cars become stuck in water due to increased flooding	"We do have a couple of cars stuck in the water, we will go down there and advise what we need as far as resources"
	4:57	HSEMA tweets public safety message	Turn around, don't drown message.
	4:57:12	Engine 12 requests water rescue resources	"We're going to need the water rescue assignment. We have a couple of people stranded and the swift water moving under the bridge and several cars submerged. There's nobody in them at this point but there are several people in the middle. Give me a tac channel and advise what it is"
	4:57:44	911 dispatch assigns Engine 12 a radio channel	"You have radio channel Zero Bravo 3. Giving you a water rescue assignment."
	4:58:44	911 dispatcher sends Rescue 1 to Mt. Olivet Road NE for flooded cars	Local Alarm - FEMS units dispatched for several cars stuck in the water 1100 block of Mt. Olivet Road NE to respond on Zero Bravo 3.
	4:59:33	Technical rescue	OUC tells Engine 12 they'll now be on radio channel Zero Bravo 7 and they're filling out the assignment (this was due to the assignment for cars in the water in the 1100 block of Mt. Olivet Road NE being dispatched on radio channel Zero Bravo 3 simultaneously).
	5:00:00	FEMS dispatches more units to Rhode Island Avenue NE for car water rescues	Units are dispatched to the water rescue assignment for water rescue of the vehicles in the 600 block of Rhode Island Avenue NE. Dispatch package: Battalion Chief 6 (BC6), Battalion Chief-Special Operations (BCSO), EMS Supervisor 4 (EMS4), Fireboat 2 (FB2), Hazardous Materials Unit (HM1), Rescue Squad 2 (R2), Rescue Squad 3 (R3), Truck 4 (T04), Medic 1 (M01), Ambulance 9 (A09).



District Dogs 911 Calls	Time	Event	Description
	5:00:59	Flooding inside District Dogs	Timestamped screenshot of surveillance video of District Dogs, labeled "Rear Vestibule," shows water flooding into the establishment through a broken exterior door. The top sill of the doorway appears visible in the top right-hand corner of the photo indicating the water is around halfway up to door.
	5:01:10	Flooding inside District Dogs	Timestamped screenshot of surveillance video of District Dogs, labeled "Feeding," shows significant and dangerous flooding in the interior of the establishment. The photo shows water is over the countertops and one employee is waist deep in the water and one employee is standing on the counter with the water up over the ankle. A large refrigerator has been knocked over from the water (employee account: "The fridge blocked the boarding room so no one could get the dogs in the bottom suites freed when the water poured in, It was ungodly fast how it happened"), and two individuals shown seeking higher ground.
	5:01:18	Flooding inside District Dogs	Timestamped screenshot of surveillance video of District Dogs, labeled "Boarding Small," shows dangerous flooding in a kenneling area of the establishment. The photo shows the waterline is above the lower row of stacked boarding crates and an employee waist deep attempting to rescue dogs. Media coverage of this photo reports there were dogs in the lower crates. Dogs and debris seen at the top of the water.
	5:01:59	Engine 12 establishes command and provides a situation update via radio	"Establishing command: four vehicles in the water; two people stranded in the back of a stake body [flatbed truck]; one car completely submerged, unsure if anybody in that one. I'm not able to reach it."
	5:02:30	Engine 12 provides a situation update via radio	Confirms four vehicles: one with two people; one unsure; and two are empty.
	5:02:48	Engine 12 provides a situation update via radio	"Both occupants are out of the cars and do not need medical assistance."



District Dogs 911 Calls	Time	Event	Description
First District Dogs 911 Call (2 minutes, 21 seconds)	5:04	Severe Thunderstorm Warning issued until 5:30 p.m. - Public	Severe thunderstorm warning issued for the northwestern District of Columbia until 5:30 PM.
	5:05	Severe Thunderstorm Warning issued until 5:30 p.m. – DC Government Internal	Severe thunderstorm warning issued for the northwestern District of Columbia until 5:30 PM.
	5:06:09	Engine 12 provides a situation update via radio	“We’ve been here since pretty much the beginning, we saw two people leave their cars, we assisted them out. This one last car went under before we could even notice it was there.”
5:06:40	FEMS Special Ops on scene and assumes incident command; Command Post established	“Special Ops is on the scene assuming the Rhode Island Command. The Command Post is going to be across from 610 Rhode Island Ave on the sidewalk”. (This is on the southbound side, next to Calvary Baptist Church and in the construction parking lot. Engine 12 was located on the other side of the flood, closer to 700 block of Rhode Island Avenue NE).	
5:06:42	District Dogs 911 call #1	Montgomery County with a transfer. The caller states he’s the manager of the District Dogs at 680 Rhode Island Avenue NE and there is major flooding happening. There are two people conferenced in on the call and both are stating there is water coming in and broke down walls with people and dogs trapped. The call taker calls them back at 5:12 p.m. to get more information.	
5:07:30	FEMS Battalion Chief assumes incident command	Battalion Chief assumes Rhode Island Avenue Command.	
5:08:03	District Dogs 911 call #1 ends	911 call ends.	
5:09	HSEMA tweets public safety message	Extension of Severe Thunderstorm Warning notice & turn around, don’t drown.	



District Dogs 911 Calls	Time	Event	Description
<p>Second District Dogs 911 Call (6 minutes, 4 seconds)</p>	5:09:30	District Dogs 911 call #2	<p>Prince George’s County with a transfer. The caller states 680 Rhode Island Avenue NE and confirms the address. The caller says she’s the assistant manager at District Dogs and she’s watching the camera and the whole place is flooding and there’s people and dogs in there. The call taker tells the caller the information has been sent to the fire department and they’ll be on their way. The caller said this was the fourth time this was flooded and it looks like everything has collapsed. She said her general manager had put in a group chat that it was flooding and that’s what prompted the caller to check the cameras. She said no one that is there at work is texting in the group chat. She’s advising them in the group chat that the fire department is on the way. The call taker advises the caller that other people are on their way. The caller disconnects to try and reach someone there.</p>
	5:09:30	Incident F20230142306 is created	<p>OUC creates incident number F20230142306 (call type: assist the public). Initial CAD notification disseminated for this incident.</p>
	5:10:29	911 dispatcher sends Tower 3 to District Dogs for "water leak"	<p>OUC dispatches Tower 3 to a Public Assist for flooding at 680 Rhode Island Avenue NE at District Dogs and verbalizes the issue over the radio as a "water leak" (which is not a call type).</p>
	5:10:30	Incident F20230142309 is created	<p>OUC creates incident number F20230142309 (call type: assist the public). Initial CAD notification disseminated for this incident.</p>
	5:11:30	Call taker tells 911 that help has been sent	<p>Two minutes into the call, the call taker advises she will be sending help.</p>
	5:11:30	Incident F20230142309 is merged with F230142292	<p>OUC merges incident number F20230142309 with the original incident, F230142292.</p>
5:12		<p>OUC calls back first District Dogs 911 caller for more information</p>	<p>The call taker calls the first District Dogs 911 caller back and asks if they are still able to see the camera. She confirms that all the walls facing the street collapsed. The dogs were trying to swim out, but they don’t know more than that. The dogs were in the back of the building in the suite room.</p>



District Dogs 911 Calls	Time	Event	Description
Third District Dogs 911 Call (17 minutes, 35 seconds)	5:12	Fire Liasson Officer Notified	The Fire Liasson Officer (FLO) is notified of people and dogs trapped inside District Dogs.
	5:12:35	FEMS reports all occupants out of vehicles	All occupants are out of all vehicles.
	5:13:51	Incident Command "holds" Tower 3 on "water leak" call b/c building flooded	Incident Command advises that the "access to those buildings are all completely flooded right now. You'll have to hold that call for a little while."
	5:13:53	Additional incident and resources deployed for water leak. OUC asks the status of this call.	"We have a call Channel 1 placed Tower 3 on in reference to 680 Rhode Island Avenue for a water leak, if a unit can check it out."
	5:14:06	Tower 3 in service	Tower 3 marked in service.
	5:15	HSEMA tweets public message	Tweet about 311 reporting procedures.
	5:15:34	District Dogs 911 call #2 ends	911 call ends.
	5:17:29	District Dogs 911 call #3 (caller is inside the business)	"We're at 680 Rhode Island Avenue NE at District Dogs. We are trapped in water above our heads. There are six people trapped and no way out. We need a water rescue immediately. The water is 12 feet high." The call has been sent out to dispatch. The call taker stays on the line and updates the card to include there's a man in the water and they can't hear him anymore.
	5:19:25	Incident F20230142316 is created	OUC creates incident number F20230142316 (call type: water rescue). Initial CAD notification disseminated for this incident.
	5:20:25	Updates from District Dogs 911 call #3	Caller states 7 people are trapped inside the building.
5:20:50	Updates from District Dogs 911 call #3	Caller states one male is not responding and they have not heard anything from him.	
5:21:08	Updates from District Dogs 911 call #3	Caller states they are located on the main level of District Dogs.	



District Dogs 911 Calls	Time	Event	Description
	5:21:20	Adjudication with FLO	FEMS Dispatch Assistant Watch Commander confers with the FLO to ensure they are aware of the caller stating individuals are trapped in the building. The FLO instructs them to notify the on-scene Incident Commander.
	5:22:24	OUC notified Incident Command of District Dogs situation (people and dogs trapped)	Incident Commander is notified in reference to 680 Rhode Island Avenue. Report of seven people and dogs trapped.
	5:22:31	Incident Commands sends Rescue 2 and 3 to District Dogs	"Units will check" (Command sends Squads 2 and 3. Rescue 2 had just finished car rescues and proceeds to District Dogs. Rescue 3 proceeds towards District Dogs via ground.)
	5:22:31	Incident Command sees people swimming out of District Dogs	Incident Command stated they saw individuals swimming out of the establishment from right when they were notified via radio of the situation.
	5:25:50	Updates from District Dogs 911 call #3	Caller states there are dogs trapped as well.
	5:26	HSEMA sends situation update to NCR partners	As of 5:15 PM, 107,472 utility outages are being reported in the NCR. There is no estimated time of restoration. Transportation: Metro reports that Red Line trains are bypassing Forest Glen and Wheaton stations due to a due to a power outage. Shuttle buses operate between Forest Glen and Glenmont. Also, due to a downed tree outside of Silver Spring, train service is suspended between Silver Spring and Takoma. Shuttle bus service has been requested.
	5:26:38	Incident F20230142306 is merged with F230142292	OUC merges incident number F20230142306 with the original incident, F230142292.
	5:26:38	Updates from District Dogs 911 call #3	Flooding inside location; Water coming from everywhere....per complainant; Caller watching from a camera; 2nd call 280 Rhode Island Ave District Dogs; Caller states "680 Rhode Island Ave, NE"; Complainant calling from Maryland.



District Dogs 911 Calls	Time	Event	Description
	5:27:43	Incident Command provides situation update	"Focus on the buildings with below grade entrances, we have reports of people being trapped inside that building."
	5:29:18	Rescue 2 is inside District Dogs	Incident command advises that Rescue 2 is inside 680 Rhode Island Avenue now.
	5:29:29	FEMS gives a situation update inside District Dogs	"We have several reports of people inside the building we'll have to at least conduct a primary on that entry level."
	5:31:09	Assistance cutting power	FEMS requests Pepco to cut the power at District Dogs.
	5:31:54	Updates from District Dogs 911 call #3	Caller stated they are still waiting for responders. Stated water went down a little but water is still above their head level stated they are standing on cabinets.
	5:34:40	Rescue 2 reaches the back of District Dogs. Provides a situation update. Reports someone may be stuck in an elevator	We made entry into the back [of the establishment, from the front]. We have seven employees and numerous dogs. They all seem to be okay for now. We're trying to make our way and there is a person who may be in the elevator and a patron in here.
	5:35:06	District Dogs 911 Call #3 ends	Caller informs the call taker that Fire & EMS have entered District Dogs. Call ends.
	5:35:12	Person trapped in elevator is out without Rescue 2 assistance	"The person in the elevator is out. She told us she was trapped and got out".
	5:36:58	Incident Command provides situation update	Incident Command informs OUC they have several people and dogs.
	5:43:56	Incident Command notifies Pepco	Incident Commander coordinates with Pepco.



District Dogs 911 Calls	Time	Event	Description
6:10		Severe Thunderstorm Warning issued until 6:45 p.m.	The National Weather Service has issued a Severe Thunderstorm Warning until 6:45 PM for Charles County, MD, Prince George's County, MD and Prince William County, VA. As of 6 PM, 165,380 power outages are reported in the NCR. There is no estimated time of restoration. Train service has been restored between Forest Glen and Wheaton, the stations have reopened. Trains operate every 10 minutes and single tracking between Takoma and Silver Spring due to a downed tree outside of Silver Spring.
6:31:21		Incident Command provides situation update	Incident update from IC to OUC: four car searches, two rescue, 10 dead dog, 20 removed, and seven civilians.
7:14		HSEMA tweets public safety message	Notice on anticipated timing of next storm system impacting DC.
7:26:36		Incident F20230142316 closed	OUC merges incident number F20230142316 with the original incident, F230142292.
7:27		Flash Flood Warning canceled	Flash Flood Warning (NCR) - FINAL. Regional - The Flash Flood Warning has been canceled for the District of Columbia, Prince Georges County, MD, and Falls Church, Arlington County, City of Alexandria in VA.
7:50		Power Outage update for NCR	As of 7:30 PM, there are 180,618 power outages being reported in the NCR following adverse weather. No major impacts to transportation. Severe Thunderstorm Warning for Charles County, MD until 8:15PM.
9:25		Power Outage update for NCR	As of 9 PM, there are 152,554 power outages being reported in the NCR following adverse weather. No major impacts to transportation are being reported at this time.
11:22		Power Outage update for NCR	As of 11 PM, there are 114,543 power outages being reported in the NCR following adverse weather. No estimated time of restoration has been given.
11:32:30		Incident F20230142292 closed	OUC closes incident number F20230142292. This is the final closeout of all incident numbers created and for this incident.



24-Aug-23

	N/A	Department of Buildings conducts property inspection	DOB noted the owner's representative was awaiting permit to replace a sump pump. The inspector also noted a small crack in the garage but does not require additional action to be taken. All other areas appeared code compliant and had all appropriate inspections and tags accordingly.
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Key Findings

The following areas for improvement have been identified for the District to implement.

Infrastructure

Area for Improvement 1: Flood mitigation for historic Rhode Island Avenue NE corridor

Reference: dcfloodrisk.org

Analysis: The Rhode Island Avenue NE Corridor has experienced several flash floods in the last few years. The frequency of this flooding has increased in recent years due to changes in the climate and built environment. The area is not a federally designated flood zone and thus special planning and zoning considerations do not currently apply.

The sewer system in the area at the time of the storm, constructed by the federal government in the late 1800s, was significantly undersized for current demand; as a result, flooding occurred. Additional land development in the District since original construction has exacerbated the frequency and magnitude of flooding. On August 14, 2023, it rained about 1.85 inches in approximately 30 minutes, which is approximately equivalent to a 20-year return frequency storm. The capacity of the existing system prior to development of the Northeast Boundary Tunnel was between a 2-to-5-year return frequency storm which would produce significantly less rain in the same period. The magnitude and intensity of rainfall exceeded the capacity of the sewer system to receive water and the result was rapid and significant flooding in that corridor.

Key Definitions:

Flood events are often characterized based on likelihood of recurrence. This is *only* a statistical measure.

- **15 Year Flood:** 1 in 15 (6.67%) chance of a storm of this magnitude occurring each year.
- **20 Year Flood:** 1 in 20 (5%) chance of a storm of this magnitude occurring each year.

Infrastructure growth and the effects of climate change have skewed these standards and are resulting in higher frequency of high-magnitude storms.

When this event occurred DC Water was nearing completion of a 5-year, \$585 million dollar project to construct the Northeast Boundary Tunnel. The Northeast Boundary Tunnel was completed on September 15, about 15 months ahead of schedule. The tunnel will not eliminate flooding for a large storm but will mitigate the impact of flooding in several areas including the Rhode Island Avenue NE Corridor.

The Northeast Boundary Tunnel is designed for a 15-year 24-hour storm in accordance with the current design standard for the sewer system. Since the August 14 rainfall was a 20-year storm and the tunnel is designed for a 15-year storm, there may have been some flooding had the tunnel been in service at that time. However, the magnitude and duration of flooding would likely have been significantly reduced.

Corrective Action: The District should continue to provide mitigation strategies to residents and businesses in this area and other parts of the city prone to flash floods, including specific education on areas prone to flash floods, guidance on when evacuation from residences and places of business is recommended, and measures that businesses can take, such as sandbagging.

The area in question is not a federally designated flood zone and thus special planning and zoning considerations do not currently apply. DOEE would need legislative authority to establish special flood zones that would allow for additional mitigation in those zones.

The District should consider pursuing federal grant funding for additional mitigation projects to help alleviate the flood hazard in this corridor.



Individuals Stranded in and on Vehicles

Area for Improvement 1: Traffic management for Rhode Island Avenue NE corridor during floods

Reference: DDOT Flash Flooding Roadway Closure Standard Operating Procedures

Analysis: The flash flood event on Rhode Island Avenue NE occurred rapidly and quickly flooded the roadway. Multiple vehicles transiting the roadway in both directions got stuck in the standing water. There were no indicators aside from the water itself that the area was flooded (due to ongoing construction, existing indicators had been removed from the median on the east side of the overpass that automatically alerted drivers to flooding conditions). Additionally, the deepest part of the flooding was located under the pedestrian overpass that is significantly shadier than the rest of Rhode Island Avenue NE, making it difficult for drivers to see the obstacle.

Corrective Action: As a result of this event, the District Department of Transportation (DDOT) created a new Standard Operating Procedure (SOP) for closing problem corridors in the event of a flash flood watch or warning. The SOP, published on August 30, states that Traffic Control Officers (TCOs) will be deployed to the 400 and 1000 blocks of Rhode Island Avenue NE within one hour of notification to close the roadway using their TCO vehicles and to redirect traffic away from the flood prone areas. DDOT Roadway Operations Patrol (ROP) Units will also be notified and will use traffic control devices to close the roadways that TCOs have blocked with vehicles. If no TCOs are available, then ROP Units - which operate 24 hours a day - will fulfill all duties. Additionally, DDOT will install appropriate automated beacons on both sides of the Rhode Island Avenue overpass to alert drivers when the roadway ahead is flooded.

Area for Improvement 2: Review of dispatch to incident commander communication process flows and associated training

Reference: 911 Call and Radio Transcript

Analysis: The first 911 call received for this event identified that an individual was unable to exit their vehicle after becoming trapped in flood water on Rhode Island Avenue NE. Engine 12 was already on scene assisting people trapped in and on their vehicles. Though Engine 12 was able to identify and assist this individual, Engine 12 was not notified of this specific 911 call via radio. The information was entered into CAD.

Corrective Action: OUC will provide training to dispatchers to ensure proper communication regarding resource location and allocation to the on-scene incident commander. This training should reiterate the likelihood of multiple separate calls for service taking place in the same geographical location.

Individuals and dogs stranded in District Dogs

Area for Improvement 1: Recategorization of 911 calls for flooding and associated training

Reference: 911 Call and Radio Transcript

Analysis: Historically, flooding incidents in the District have resulted in calls for outdoor water rescue and indoor water leaks. Water rescue inside of a building has not occurred. Prior to this event, the “water rescue” event code used for 911 calls was typically taught and used as an exterior call type and not relevant for interior building flooding. All interior flooding calls for this event were coded as “flooding – assist the public,” which was consistent with 911 training and protocols at the time of the event. When dispatching this call at 5:10 p.m., the dispatcher called the event a “water leak” based on past practices used by both OUC and FEMS. “Water leak” is a non-emergency service call, meaning it is triaged as less emergent than other higher-priority calls.

Because of the use of the term “water leak,” the FEMS Incident Command was unaware of the severity and danger of the situation and decided against addressing the reported “water leak” while water rescue operations were underway. As a result, the Incident Commander deprioritized the “water leak” event for FEMS Tower 3 and returned them back to service to respond to other calls. Dispatch provided additional details of individuals and dogs trapped within District Dogs via radio at 5:22 p.m., at which point the FEMS Incident Commander observed individuals swimming out of the building and began rescue operations. It took 12 minutes for the dispatcher to notify the Incident Commander that the original dispatch for a “water leak” was to rescue individuals and dogs trapped inside District Dogs. While this change in call coding would not have saved the dogs that died—as available information indicates they were dead before the first 911 call was made—it would have ensured proper resources were dispatched from the initial dispatch.

Corrective Action: In August, OUC trained call takers and dispatchers that indoor flooding incidents can yield higher damage than a “water leak” and can be categorized as rescue or building collapse. The “water rescue” code can and should be used for indoor flooding when appropriate.

Area for Improvement 2: Review of District Dogs ingress and egress points

Reference: DC Building Code Section 1006 – Number of Exits and Exit Access Doorways

Analysis: The only two entry and exits doors for District Dogs are located along Rhode Island Avenue NE, are below-grade, and were compromised by flood waters. The below grade points of ingress to District Dogs have doorways at street level that immediately descend to the main floor. These points of ingress were code compliant according to the last building assessment conducted in May 2022.

As the exterior façade held water out, employees could move about the space. When the exterior glass façade failed, the volume of water quickly leveled with the outside water levels. As a result of rushing water and the layout of the space and entrances/exits, employees had no time to evacuate before the flood waters were too high. At that point, both egress points were compromised and left no way for employees and dogs to evacuate without swimming through incoming flood waters. Likewise, rescue operations had to be conducted though the floodwaters in the points of egress.

Corrective Action: To limit the risk of a similar event, the commercial space formerly occupied by District Dogs should remain vacant until District Government, the building owner (along with their engineers), and the insurance carrier underwriting the building have determined that an interior flood risk is no longer present. One element to be analyzed is whether the Northeast Boundary Tunnel has demonstrated sufficient ability to mitigate flood risk in the area and specifically for the property.

