



# Memorandum

To: Mayor and Town Council  
From: Bill Lindley  
Date: February 26, 2021  
Subject: 2021 Winter Storm

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Across the state, local municipalities were confronted the week of February 15, 2021, with what would quickly become a winter storm of unparalleled magnitude for citizens and cities alike. The challenges faced by Highland Park were typical of so many other communities across the State, including electrical outages, equipment failures, staffing availability, subfreezing temperatures, and deliverability of safe drinking water.

According to the National Weather Service, the DFW region was at or below freezing for 139 consecutive hours between Saturday, February 13, 2021 (around 5:00 pm) to Friday, February 19, 2021 (around 1:00 pm). The number of freezing hours tied for the fifth longest period with the longest recorded in 1983 with 295 of freezing temperatures. Compounding the freezing temperatures was the inability of ERCOT/Oncor to provide, on a reliable basis, electricity to residents, businesses, and the Town.

The following is a summary of the 2021 Winter Storm's impact with the Town's work and responses by our employees meeting the needs of our residents.

- During the storm, the Town had at least one Utility Billing Office employee working at Town Hall while other staff worked remote. In addition, the employees worked this past Saturday in anticipation of receiving calls for meter disconnects as residents experienced frozen pipes thawing and bursting causing flooding in the homes. One employee obtained a local hotel room to be available for work during the storm.
- The Town receives automatic bank draft and credit card payment services from 2,000 of our 3,070 residential customers. A note will be sent with the March utility billing advising customers they may request a payment plan for a high-water bill. The average winter water bill at this time last year was \$51.67 compared to an estimated average water bill of \$72.83 this February. This is based on the increase in consumption between the two timeframes and the actual average for February 2021 will not be known until bills are calculated in March. It is important to note, that this amount is not adjusted for leak adjustments that may be requested in response to the storm.
- Preliminarily, we estimate approximately 21,000,000 gallons of water was pumped compared to 14,821,000 gallons metered at the residence or business during the duration of the storm.

The variation in pumped to metered water is from broken water lines, residents running faucets or experiencing burst water pipes, and normal system water loss (<4% unaccounted water loss). The Town was able to maintain customer water supply and pressure by utilizing its two interconnects with the Dallas Water Utilities (City of Dallas).

- With the focused work by our engineering and public works staff, augmented by the Water District (District) and Dallas Water Utilities (DWU), the Town was never in peril of a boil notice. It is important to note this accomplishment was of no small feat where over 15 million Texans were without drinkable water at the peak of the storm. Media coverage is replete with news reports of a number of local municipalities being placed on a boil notice by the State because of a loss of water pressure to their distribution systems and or treatment plants.
- The Town remarkably managed, throughout the week, maintaining both its water supply and water pressure enabling our delivering safe drinking water to the residents. We achieved this by an around-the-clock close interaction among the staffs of the District and to a lesser extent with DWU. The Town coincidentally was utilizing its two interconnects with DWU in response to the District's plan to close temporarily its water treatment plant (Plant) for scheduled maintenance. In conjunction with the Plant maintenance, the District asked the Town to utilize its DWU interconnects while the District also made improvements to its transmission water line servicing the Town. All this facilitated our residents' need for uninterrupted potable water throughout the storm.
- Town staff and its consulting engineers worked closely on Wednesday with University Park (City), the District and DWU assessing a way to provide an emergency interconnect between the Town and City. Due to variances in the water pressure planes, the Town was not able to "push" water into the City's system.
- Public Works, Streets, and Parks crews worked two (2) 12-hour shifts responding to meter disconnects and water line repairs. Sleeping accommodations were provided at Town Hall for the employees. A Park's employee was assigned two days assisting University Park which was faced with 55 broken water lines and an estimated 1,200 meter disconnects.
- While we do not know how many residential meters were disconnected by a homeowner or plumber, the Town's staff disconnected approximately 900 meters. The Utility Department reports, as of February 19, 2021, 243 accounts showing zero usage indicating the meter was likely disconnected in response to burst water pipes.
- In addition to assisting with utility needs, Streets and Park crews stayed busy sanding streets and bridges to minimize road hazards and to better enable the HPDPS to respond safely to emergency calls.
- Throughout the four days, Lt. Koppa (Community Relations / PIO) and Holly Russell (Management Assistant) kept the Town's website updated while also providing BlueZone alerts and utilizing the Town's Twitter accounts with timely information for residents.

- Anticipating being overwhelmed with emergency meter disconnects and water line breaks, the Town engaged two of its utility contractors and the landscape contractor to assist with work. In addition, the Town made arrangements with its utility parts provider to open its warehouse allowing us to advance stock parts and materials to have ready for repairs. This critical work was identified by Lori Chapin, Director of Engineering, as a stopgap means to maintain water supply and system pressure to avoid being placed on a boil notice and more importantly, an interruption of utility service to residents.
- During the storm, the Town's flow in the Turtle Creek Sanitary Sewer Interceptor Trunk Main averaged roughly 7.2 MGD with approximately 6.3 MGD of flow is attributable to the City. The increase of flow during the storm is likely attributable to residents running faucets in their homes. Under normal dry weather circumstances, the pipe's flow is roughly 3.4 MGD with roughly 2.9 MGD attributable to the City.
- The Town experienced 17 water line breaks with all being older cast iron pipe. The break of a PVC line, during the storm, was coincidental with its breakage cause identified due to tree roots. The water distribution system has approximately 140,000 linear feet of remaining cast-iron pipe, in varying conditions, with an estimated replacement cost alone of \$20,000,000. The Utility Department's annual Capital Improvement Plan regularly schedules replacement, as needed, the cast-iron pipe.
- The Town may expect a rating reduction this year with our water conservation efforts by the Texas Water Development Board's *Water Conservation Report*. The adjustment is based on the substantially increased amount of water pumped to customers during the storm. There is no penalty associated with a higher-than-normal planned water usage. Staff will make note of the cause of the water usage being higher because of the winter storm.
- The Town hosted a water-filling station at Town Hall enabling residents without water service to obtain water for some basis domestic use. Initially operated by Town employees, the second day the station was converted to self-operating based on the infrequent use by residents. We anticipate operating the station thru the second week of March.
- The HPDPS (Department) assisted other Town crews during the storm completing 44 water meter disconnects. The Department responded to 361 calls for police service, 65 calls for fire service and 13 ambulance calls. Calls ranged from welfare checks to slip and fall accidents to vehicle accidents. Electric power outages resulted in 129 police and fire responses for home alarms being activated. Many of the Public Safety Officers utilized the Department's dormitory arrangements to be assured they could make their upcoming shift. While the "inn was full" many of the Department's Communication and Operations staff rented area hotel rooms at their own cost to be sure they were able to be present for their scheduled work.
- Beginning Sunday night, the HPDPS Communication Center had three Communication Specialist during normal working hours and two during the rest of the day to handle the increased call volume. During a normal month of activity, the Communication Center handles around 3,000 calls to include emergency 911 calls, administrative calls, and tennis line calls. During five and half days last week, our Communication specialist handled 3,984 calls.

- Beginning Tuesday, the Library was opened as a community warming site allowing the public to browse the materials while keeping warm. For those residents with electric power during the storm, the Library's internet service offered several online readings and activities for adults and children alike.
- Library staff were available by phone and email to address patrons' information needs, as well answer questions regarding library accounts and accessing digital resources. On Saturday, they were available to answer questions about the Water Filling Station. Library staff continuously updated the Library's portion of the Town website to inform patrons about Library hours, services, and highlight the Town's Severe Weather Updates webpage.
- Starting Thursday, a Library staff member was on-site to resume regular Library services, including circulation of physical items. Library staff performed advance courtesy renewals for physical items for patrons throughout the week to prevent automatic overdue notices being sent and/or patrons having to return physical items during the inclement weather.
- Residential refuse collection was suspended with service resumed on Saturday, February 20, 2021.
- Finally, the community's rallying providing meals and snacks to the various work groups was heartwarming to our employees. Countless times, residents met our field crews, while water line repairs were being made, with a hot drink and tasty snack with a grateful smile and hug!

In conclusion, Lori Chapin (Director of Engineering) and Captain Ryan Pursley (Emergency Management Manager) will prepare a "After Action Report" assessing leading up to and during the storm what we did good and areas we can improve. In no way should the preparing of this report be viewed in the negative but instead an opportunity to learn for the next emergency.

Highland Park was fortunate being able to maintain our water supply to residents throughout the winter storm. I want to thank all our staff, and the District and DWU, for their diligence in keeping the water system operating well throughout these very difficult weather conditions. The Mayor was engaged during the storm asking key questions helping focus areas of our work. The Town Council's support and encouragement during the event was encouraging to the staff.

Preparing this report is the realization of so many tasks accomplished by our employees that I either am not aware of or failed to include. Our residents are fortunate having a group of men and women who, as Town employees, are truly dedicated to providing outrageous service. Without a doubt, our employees showed once again these last few days how Highland Park is "*An American Community Making a Difference.*" We all feel for so many of our peers who had to ration and boil water and more those who lost their life from the storm.