To the Mayor and Members of the City Council

April 16, 2024

SUBJECT: PROCESS TO INVESTIGATE SEEPING WATER

This Informal Report provides information on the collaborative process undertaken by the Transportation and Public Works Department, Water Department, and Code Compliance Department to investigate seeping water.

Reports of seeping water should first be sent to the Transportation and Public Works Department, Stormwater Management Program for investigation. Reports may be submitted using the My Fort Worth App under the Drainage Inquiry category. Once received, the request is logged for tracking and the reporting party is contacted to gather any additional information needed. A site visit is then performed to evaluate the stormwater infrastructure in the area, determine if the seepage is creating a flood risk, and determine the cause of the seeping water. If public or private water infrastructure is in the vicinity, the Water Department is notified to test the water for chlorine to determine if the seeping water is from a public water source, private water source, or from a natural spring.

If the field test yields positive results for chlorine, a survey is conducted to determine if the water is coming from a public or private water source. If the water is determined to be from Water Department owned infrastructure (water main, fire hydrant, valve, etc.), the reporting party or nearby customer is informed in-person or by door hanger that a work order has been created to fix the leak. If the leak is due to a privately-owned water line, the Water Department informs the customer in-person or with a door hanger that it is their responsibility to repair the leak. If the repair isn't made within a reasonable amount of time, the Water Department notifies Code Compliance and Code Compliance may issue a Notice of Violation.

If the field test yields negative results for chlorine, two samples are collected and delivered to the Water Department's testing lab—one from the nearest known water source and one from the unknown water source. If the lab results of the unknown water source sample fail to indicate identifiers of treated water when compared with the known water source sample, the investigation is closed and it is documented that the water source is from a natural spring. The reporting party or nearby customer is informed in-person or with a door hanger. Natural spring seepage often occurs when shallow groundwater oozes across an area and has no defined discharge point. This usually occurs after rainfall increases groundwater levels or when a layer of impervious soil, such as clay, redirects groundwater to the surface. Many natural spring seeps will resolve on their own as shallow groundwater dries up.

If the source is determined to be from a natural spring and is occurring in public right-of-way, the Stormwater Program tracks and monitors these locations bi-weekly to determine if they are being created due to broadscale overwatering or seasonal rainfall. If overwatering is determined to be the source, the location is provided to Code Compliance for follow-up. If algae forms on the pavement, the location is monitored for hazardous conditions and the impact on the road condition. Depending on the natural seepage location and level of severity, Stormwater

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Operations will periodically wash the algae, typically not more than twice a year, to reduce the risk of a potential hazard forming.

If the seepage does not significantly reduce after monitoring over several seasons of changing temperature and weather conditions, and the seepage has a high potential to pose a risk to public safety, road infrastructure, or to present a flooding risk to homes and businesses, a small reactive project to construct sub-drains is evaluated and prioritized based on risk. Performing a project to mitigate natural seepage is the last resort after monitoring because any new infrastructure will have to be permanently maintained and because seepage often stops or is significantly reduced as seasons and rainfall patterns change. Because of these reasons, seepage is typically a low risk and more of a nuisance than a hazard. Since the creation of the Stormwater Utility in 2006, twenty-three projects have been performed to address hazardous seepage situations.

Questions about this Informal Report may be directed to Jennifer Dyke, Transportation and Public Works Assistant Director of the Stormwater Management Program at 817-392-2714, Roy Teal, Water Department Assistant Director at 817-392-8144 or Shannon Elder, Assistant Code Compliance Director at 817-392-6326.

David Cooke
City Manager