

## StormSensor® Introduces New Technology to Identify Urban Flood Risk

Stormwater Urban Flood Risk (SURFR™) Index Uses Physical & Social Data to Pinpoint Vulnerable Areas within a Community

CHARLESTON, SOUTH CAROLINA, UNITED STATES, February 9, 2022 /EINPresswire.com/ -- One of the biggest challenges facing the US today



is the increase in frequency and severity of urban flooding. To help communities ascertain their individual flood risk, Seattle-based StormSensor<sup>®</sup>, a climate and water infrastructure technology company, is rolling out the newest tool in its line of flood mitigation hardware and software; Stormwater Urban Flood Risk (SURFR<sup>™</sup>). SURFR is a risk mapping program that will not only identify where the risk is within a community but also what factors are contributing to the increased risk.

SURFR's innovative technology maps geographic subregions within a city or community called Risk Management Zones (RMZs). Each RMZ is analyzed based on nine vulnerability factors. While typical flood risk indices only consider a series of physical parameters, such as elevation and proximity to water, SURFR includes that information but also incorporates social data that can increase the risk for floods, such as population density, land use, and income. SURFR creates a clear picture of a zone's risk level by accounting for all relevant factors.

"Some of the most impactful factors affecting the loss of property and life due to flooding aren't even the physical components; they're societal factors found in urban areas, and many of these communities are less able to rebound," says StormSensor founder Erin Rothman, MSc. "SURFR helps cities determine where the risks are concentrated so that they can allocate mitigation efforts accordingly."

StormSensor technology is already at work in cities across the US, including Boston, MA; North Miami and Jacksonville, FL; Tucson, AZ; Detroit, MI; Norfolk, VA; and several cities in the Chicago, IL area.

The City of Norfolk, Virginia, utilizes StormSensor technology to evaluate the capacity within their

water infrastructure. Kyle Spencer, Norfolk's Deputy Resilience Officer, comments, "We recognize that the system we have today is old. Water is coming out of the river and flowing into the pipes and flooding onto the streets, but we didn't really know, by the numbers, how much. We see in the StormSensor data that most of the time, 50% of the pipe is full of river water because it doesn't have time to flush out of the system. If 50% of our pipe is full of river water, that means only 50% is available to get the rainwater out. That was pretty eye-opening for me."

Sea-level rise is having a tremendous impact on coastal communities, but now, even inland areas with a historically low risk of flooding are starting to experience dangerous incidents that damage infrastructure, disrupt local economies, and endanger the population. In urban communities across the nation, expanding development and extraordinarily heavy rainfall coupled with aging and undersized stormwater systems are leading to backups and overflows that flood city streets, homes, and businesses. Excess water in highly developed areas cannot absorb into the ground. Instead, it accumulates in low-lying areas or flows across the pavement into storm and sewer systems, potentially contaminating domestic water supplies.

Using SURFR, cities can evaluate the flood risk score of each RMZ and use the information to prioritize capital improvement projects, identify vulnerable communities, incorporate flood warning systems, choose areas for green infrastructure, preserve natural areas that mitigate flooding, and educate citizens about local risk factors.

Founded in 2015, StormSensor provides cities and counties across the country with technology and cloud-based software to track how water moves through their storm, sewer, and coastal systems. Providing high-resolution, real-time insights that detect vulnerabilities within the systems allows communities to better respond before and during flooding incidents. This technology also provides data to ensure that costly infrastructure projects are designed correctly and efficiently, potentially saving millions—even billions—of tax-payer dollars.

To learn more about SURFR and StormSensor's stormwater and wastewater infrastructure solutions, please visit StormSensor/io/SURFR.

About StormSensor: StormSensor works with cities across the country to reduce future disasterrelated costs, protect citizens, and design resilient and sustainable communities by tracking how water moves through the storm, sewer, and coastal systems. Seattle-based StormSensor was founded in 2015 by Erin K. Rothman. After consulting on stormwater and remediation for 15 years, Rothman recognized a need for innovative data capture to manage urban and coastal flooding and mitigate climate risk by creating intelligent water infrastructure. Featured in publications including Forbes, Stormwater Magazine, and GreenBiz, StormSensor's technology is currently in use in nearly twenty cities across the country. To learn more about StormSensor and its stormwater and wastewater infrastructure solutions, please visit <u>StormSensor.io</u>.

Soraya McKay Little Dog Agency, Inc. This press release can be viewed online at: https://www.einpresswire.com/article/562762192

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