

ROADWAY FLOODING SENSOR NETWORK



OVER 200 LOCATIONS IN HAMPTON ROADS WITH FREQUENT FLOODING HAVE BEEN IDENTIFIED AS FUTURE SENSOR LOCATIONS.



SHORT-TERM BENEFITS, LONG-TERM VALUE

Flooding can be unpredictable in Hampton Roads.

It is dependent on the tide, wind, and rainfall. The Hampton Roads Planning District Commission (HRPDC) wants to install a regional network of water level sensors to monitor roadway flooding. The network will be owned by HRPDC and participating localities, providing communities and drivers with real-time data notifications that will reduce the time and money lost by navigating flooded streets. The system will be able to send email, text alerts, and an RSS feed in addition to delivering the data to Waze, a GPS navigation software app owned by Google. The data will be publicly available and exportable to support multiple research efforts with academic institutions.

The sensors redirect drivers to roads that aren't flooded, saving commute time and avoiding potential property damage caused by driving through dangerous high water. The data can also inform emergency response actions such as ambulance routing.

Long-term, the sensor data allows us to analyze trends and understand when tides, wind, and rainfall create the most flooding. This improves our ability to predict the frequency and severity of flooding and evaluate investments in flood mitigation.

