Frequently Asked Questions

Q 1: **Are there any data we are required to use in building the software and algorithms? Can we use different data sets?**

A 1: Please refer to the Applicant Guidelines at:

https://riseresilience.org/wp-content/uploads/2020/01/Applicant-Guidelines_Urban-Mobility-Resilience-Challenge.pdf

Note the description of data to be used starting on page 5, in particular the paragraph at the end of page 6:

"After Finalist selection, in Stage 2 and thereafter, entrants may choose any data sources which give them the best solution (in their opinion and based on our judging criteria). RISE will not prescribe or direct entrants as to which flooding, weather, sensor, or other data sets to use or how to use them. Entrants may use proprietary and/or non-proprietary data they wish, however, if there is a cost to the data it must be reflected in the business plan. Several tidal and rain data sources will be provided on the Challenge website under Datasets."

Therefore after Stage 1, if you are selected as a finalist, you may use any data you want, but for Stage 1 submissions you need to use the provided (StormSense) flooding data as a basis for the reports. This is to allow our judges a way to compare the submissions. During Stage 1, at your own discretion, you may augment these provided Stor Sense data with other contemporaneous data if you feel it improves your solution.

Q 2: **Are there any GIS (and other) computer resources available for teams to use in developing their algorithms for submission and thereafter if they are selected as a finalist?**

A 2: Yes. ESRI, one of the Challenge partners, is helping us set up an ArcGIS hub, and get access to ESRI tools. We plan to release the hub in February and will cover it during the webinar on February 5, 2020.

Q 3: **What are the terms of the funding provided in the Urban Mobility Challenge? Does RISE take an equity position in the company? Do the funds have to be repaid?**

A3: The funds are provided as grants. RISE takes no equity in any company. The funds do not have to be repaid as long as all deliverables and tasks in the contract are completed.

Q4: **Am I able to apply if I have a strategic partner that doesn't meet a small business definition?**

A4: Yes, but the small business must be leading the application and implementation.

Q5: **The Waze app allows individuals ("Wazers") to report flooding obstructing roadways. What is RISE seeking in a solution that isn't provided by Wazers driving around at scale and reporting flooding across the area in real time?**

A5: We want to tap into the Waze routing logic so that the app will route vehicles around the flooding areas. Reports from individuals do not go into the routing logic, only road closure/incident notices which are generated and subsequently approved by the City (Connected Community) and provided to Waze to be included in the logic. This will allow the routing logic to route your vehicle around dangerous flooding.

We are looking for an automated data driven process to accurately determine affected roadway segments. You are, of course, allowed to use Wazer reports if you want and can get them – that's up to you.

Q6: **Stormsense data provided on the website does not fully cover the spatial extent of the Hampton roads region and does not cover the spatial extent of the roadways map. How should entrants respond?**

A6: All datasets provided for Stage 1 are from StormSense, a program developed by the Virginia Institute of Marine Science. This program was started in 2016 and has since expanded (spatially) in its coverage. This means that the flood maps for each event have different spatial coverage and may not cover the entire region of the roadway maps. Clearly applicants will be expected to produce roadway reports only in the region covered by the flooding data. Also, datasets provided at this stage of the development are intended to provided entrants data to start and test their software development, and full geographic extent at this stage is not necessary.

Q7: **Is there numerical depth information in the StormSense data? If not, how do entrants calculate and assess water depth on roadways?**

A7: The flood map datasets from StormSense do not contain the numerical water depth values explicitly. They only indicate the presence of flooding. The computed depths in the datasets were not stored on computation due to the large amount of storage that would have been required. To calculate the flooding depth at a particular point, entrants need the topological elevation at that point. For Stage 1, entrants must use this elevation map: 2016 USGS CoNED Topobathymetric Model (1859 - 2015) Chesapeake Bay.