

## **Annex 5: Sampling Strategy for Water Sampling During Area Based Assessment of Raqqa City, February 2019**

### **Sampling:** purposive sampling

The Raqqa city main water network has seen significant rehabilitation over the last year, but findings from previous rounds of Area Based Assessments (ABAs) – the most recent conducted in October 2018 - in the city have shown that issues with water quality and contamination persist. Responding to an information gap pertaining to this issue, REACH will collect water samples in accessible locations in the city.

Ten locations in Raqqa city will be covered: four neighbourhoods in which we assess to have direct access (based on security assessments by the in-country ACTED security team), four additional neighbourhoods in which REACH enumerators are currently living, and two water filling points located in the south-east and south-west of the city. These two water filling points were selected based on a request by Solidarités Internationale (SI), and them being the two primary water filling points for water trucks in the city.

In each of the neighbourhoods REACH has direct access, enumerators will visit a pre-selected household to conduct a short questionnaire, conduct a brief water quality test, and take two water samples from the drinking water source of the household. Selection of households will take place through local authorities to mitigate any potential security risks associated with visiting houses in Raqqa city. In addition, REACH will conduct a maximum of eight follow-up remote interviews (one per household sampled) to verify the water source of household water samples.

Given the limited access REACH has to Raqqa City as a result of the extremely fluid situation, REACH will also collect water samples at the households of enumerators to increase sampling coverage. This will encompass four additional neighbourhoods and the same questionnaire and water sampling method will be employed in these locations.

To verify the source of drinking water of assessed households, enumerators will record telephone numbers of the community water trucker that supplies the household with water (if available), and conduct a short questionnaire. The purpose of this short questionnaire is to confirm that the drinking water that is sampled in the eight assessed households is sourced from the two main water filling points in Raqqa city.

The last component of this exercise will be to collect water samples and conduct a short questionnaire at the water filling stations for water trucks in the south east and south west of Raqqa City. In these water filling points, REACH will randomly seek out a water trucker who has recently filled the water truck, request to conduct a short questionnaire, conduct a brief water quality test, take two water samples (same sampling method as conducted in households) and make a few basic observations about water storage conditions in the tank of the truck. Observations include whether the water storage tank is covered with a lid, whether there is a presence of green algae or any other suspended materials on the water surface. One interview will be conducted per location due to limited resources.

In the context of this Raqqa city pilot, a sample is a bag of water collected at each location. At each location selected for participation, two bags of water will be collected for analysis by the WASH experts at SI upon return to the office). Additionally, enumerators will test the water quality at the source of drinking water in households, as well as in the water outlet in water trucks. These tests

include ones for Free Residual Chlorine (FRC) and one pH test. Enumerators have been trained on how to conduct these tests by the WASH experts at Solidarités.