

## Supplemental Information

**File S1: Ground level major sources of bioaerosols from rural-agricultural emissions/farming operations and urban-suburban activities in the study area:**

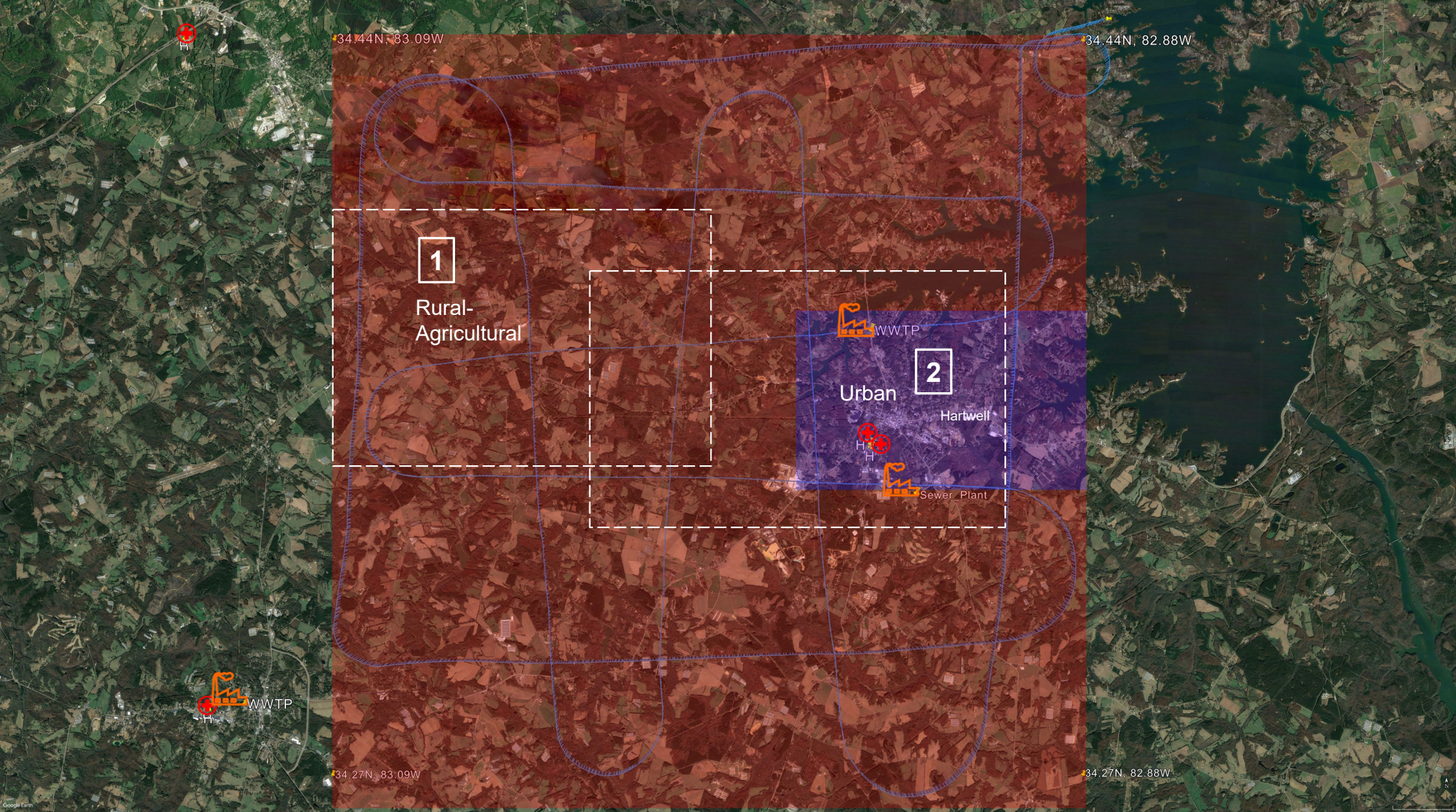
(A) Genetic aerial survey grid perimeter denoting [1] rural-agricultural land in purple overlay and [2] urban-suburban populated area in red overlay under superimposed flight track (blue) from Research Flight #1 at 300 m; (B) close-up view of putative [1] rural-agricultural aerosolization sources representative of the overall surveyed area; and putative (C) close-up view of putative [2] populated urban-suburban aerosolization sources in the surveyed area. Note: This representation approximates bioaerosol (environmental DNA) sources, and facilities could be active or inactive at time of flight. Emissions sources not represented could include fertilizer application, landfills, smoke, and construction. Map credit: © Google Landsat/ Copernicus.



# A

Legend

-  Waste treatment
-  Hospital-medical

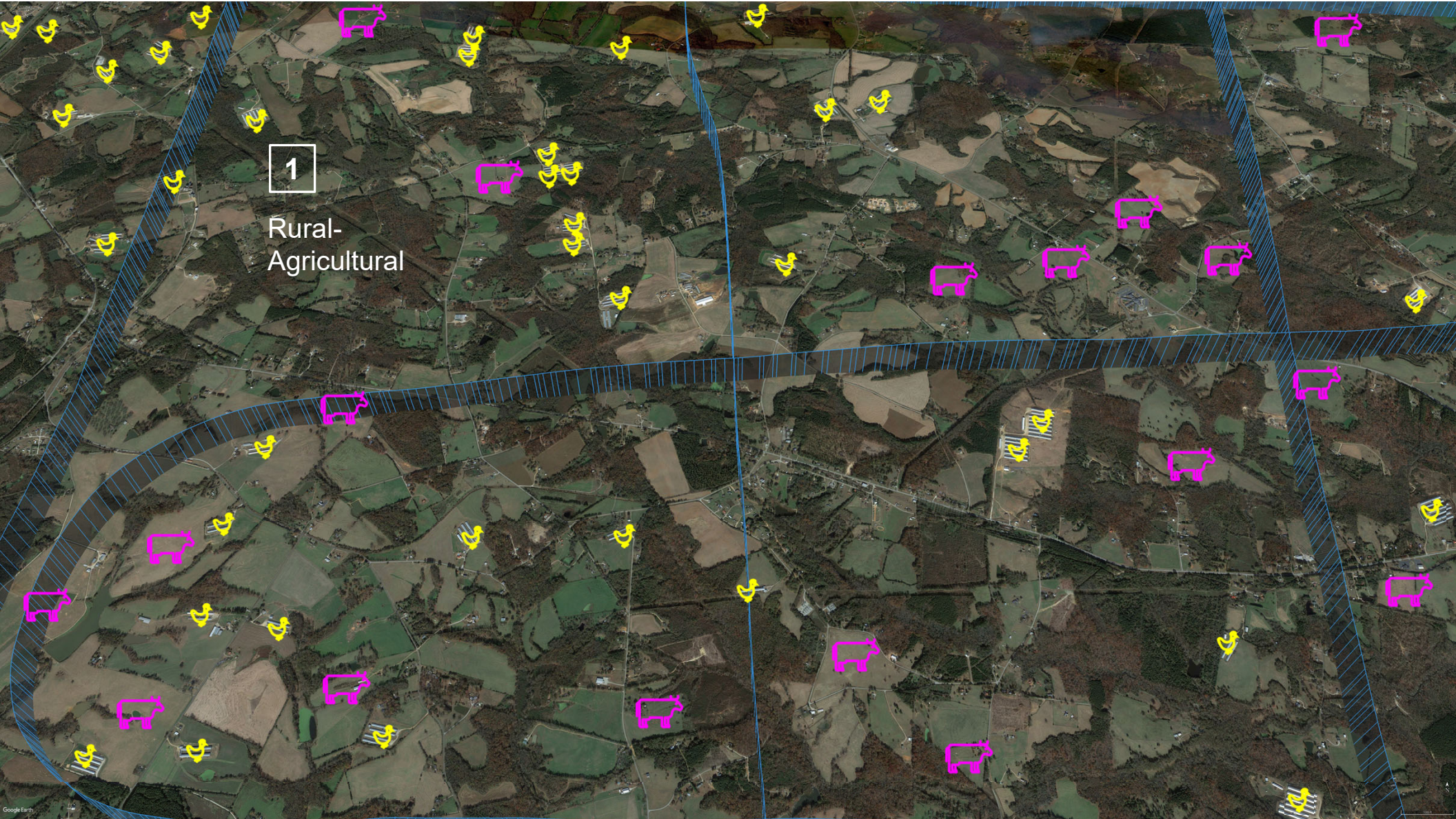




**B**

Legend

-  Livestock
-  Poultry





C

Legend

-  Livestock
-  Poultry
-  Waste treatment
-  Hospital-medical

