Final Project Summary
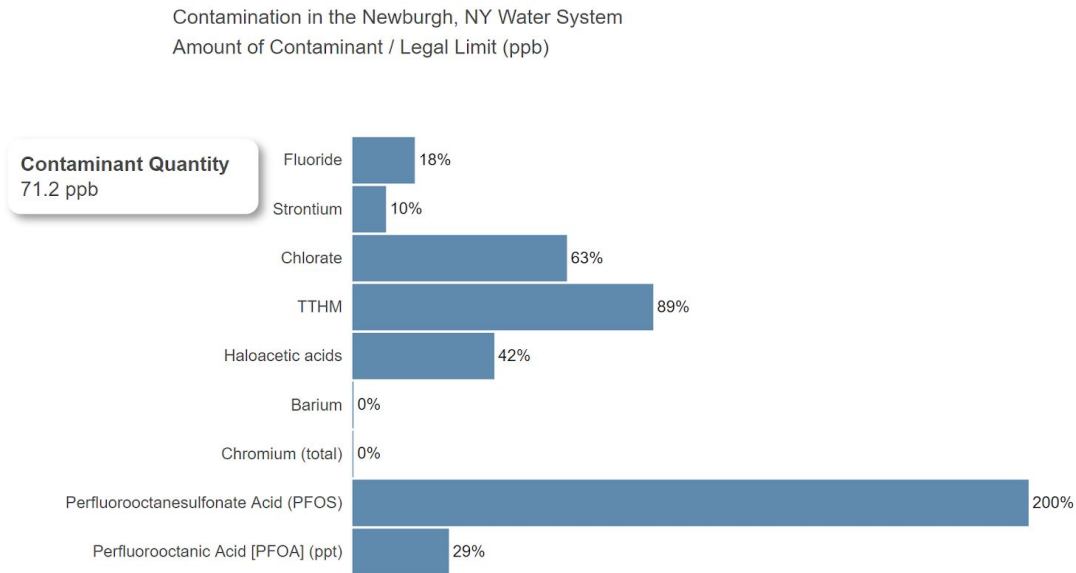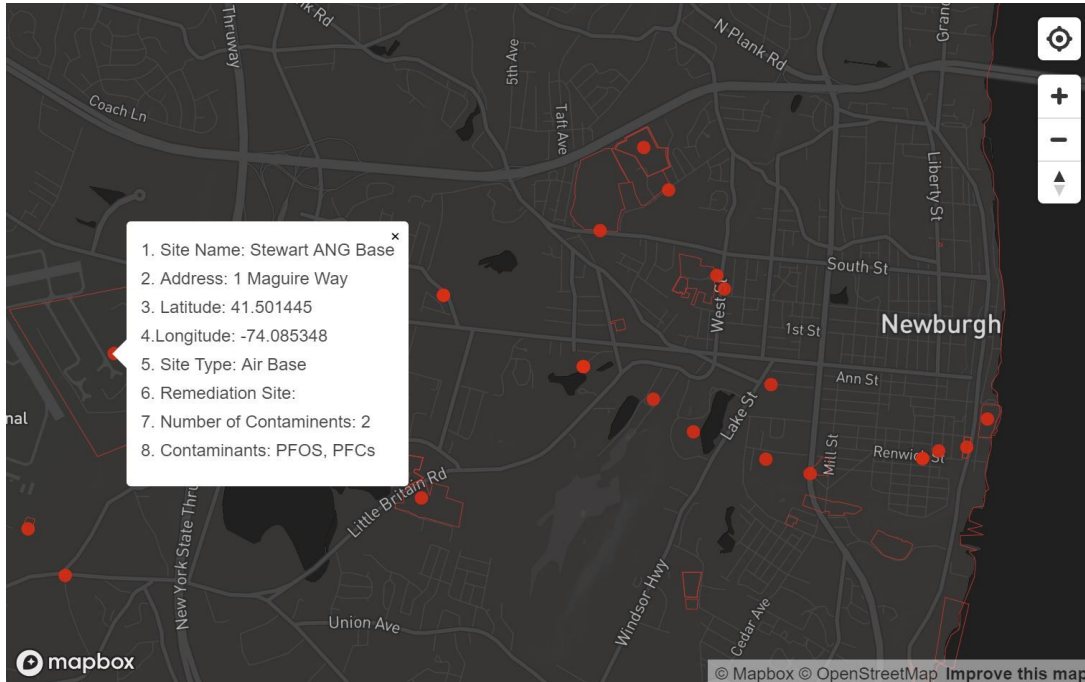**Allison Fricke, Lucy Navarro, Sanggyu Shin**

Summary:

Our group's Advanced IV studio focuses on ecological challenges in and around Newburgh, NY. Water safety in Newburgh has been a significant issue since 2014, when the New York State Department of Environmental Conservation discovered high levels of PFOS in the Newburgh water supply and reported it to the U.S. EPA. Our project visualizes water contamination data in a bar graph, expressing contamination as a percentage of contaminant parts per billion (ppb) over the legal limit in ppb. We then spatialized the contamination in a map, drawing from existing NYS DEC contamination maps. Lastly, the project conveys information about the history of this water contamination, health threats to Newburgh residents, and advocacy opportunities through text.

Website Link: https://aln2149.github.io/Final-Project/

Contamination in the Newburgh, NY Water System
Amount of Contaminant / Legal Limit (ppb)

1. Site Name: Stewart ANG Base
2. Address: 1 Maguire Way
3. Latitude: 41.501445
4.Longitude: -74.085348
5. Site Type: Air Base
6. Remediation Site:
7. Number of Contaminents: 2
8. Contaminants: PFOS, PFCs

© Mapbox © OpenStreetMap **Improve this map**

Why you should be worried and what are the legal limits.

The Newburgh water supply is no longer sourced from Lake Washington or Brown's Pond, instead receiving water from the Catskill Aqueduct (a source of NYC water) since June 2016. However, Newburgh residents were exposed to elevated level of PFOS for a period of at least 3-4 years. The EPA had set a health advisory of 200 ppt of PFOS and 400 ppt of PFOA, but reduced the number to 70 ppt of PFOS in May 2016.

How this affect your health?

The health effects of PFOS, PFOA, PFHxS, and PFNA have been more widely studied than other per- and polyfluoroalkyl substances (PFAS). Some, but not all, studies in humans with PFAS exposure have shown that certain PFAS may:

affect child development (low birth weight, accelerated puberty, skeletal variations, behavior problems, learning disabilities), lower a woman's chance of getting pregnant, interfere with the body's natural hormones, increase cholesterol levels, affect the immune system, increase the risk of cancer (testicular, kidney).

55%

28% 60.1% 50 60.44% 120