Each day, New Yorkers consume 1.3 billion gallons of water transported on 3 major aqueducts from 22 different reservoirs in upstate New York. These 3 aqueducts—totaling over 290 miles—funnel into 2 primary water tunnels that then distribute to the 5 boroughs of the city. One of the biggest consumers of this water is ConEd, using up to 1.6 million gallons of water per hour in winter months to steam heat some of New York’s most famous institutions such as the United Nations, the Metropolitan Museum of Art, and the Empire State Building. On the other end, New York City’s sewer system is the most extensive in the nation, with over 6,000 miles of pipes. The 150 year old system does not separate between storm water runoffs versus wastewater—so on rainy days, an estimated 40 billion gallons of untreated waste, 20% raw sewage, is ejected into adjacent rivers, rendering recreational use of the city’s shores prohibitive, and contaminating nearby marine habitats.

New York City’s water infrastructure is a complex, antiquated and often hidden network which briefly reveals itself at intersecting points of service. This vast constellation traverses through the sectional landscape of the city, manifesting itself into programmed form as elevated as water towers, and as submerged as aquifers. The focus of this studio is to explore the sectional qualities of water networks as they relate to a city with an established infrastructure. Through a series of exercises, students are asked to first collapse and then distend the section; drawing new relationships between seemingly disparate water uses to discover new infrastructural nodes and alignments.

Programmatically, each student is expected to identify a water remediation strategy alongside its architectural manifestation(s). This new public amenity will address the notion of civic space in the context of contemporary urbanism. The scope of the project can take on a range of scales, operating either at the points of service or along the network path. Each student will be expected to formulate a design strategy that consists of a catalogue of parts, capable of being deployed to organize and adjust to the pressures of the site(s).