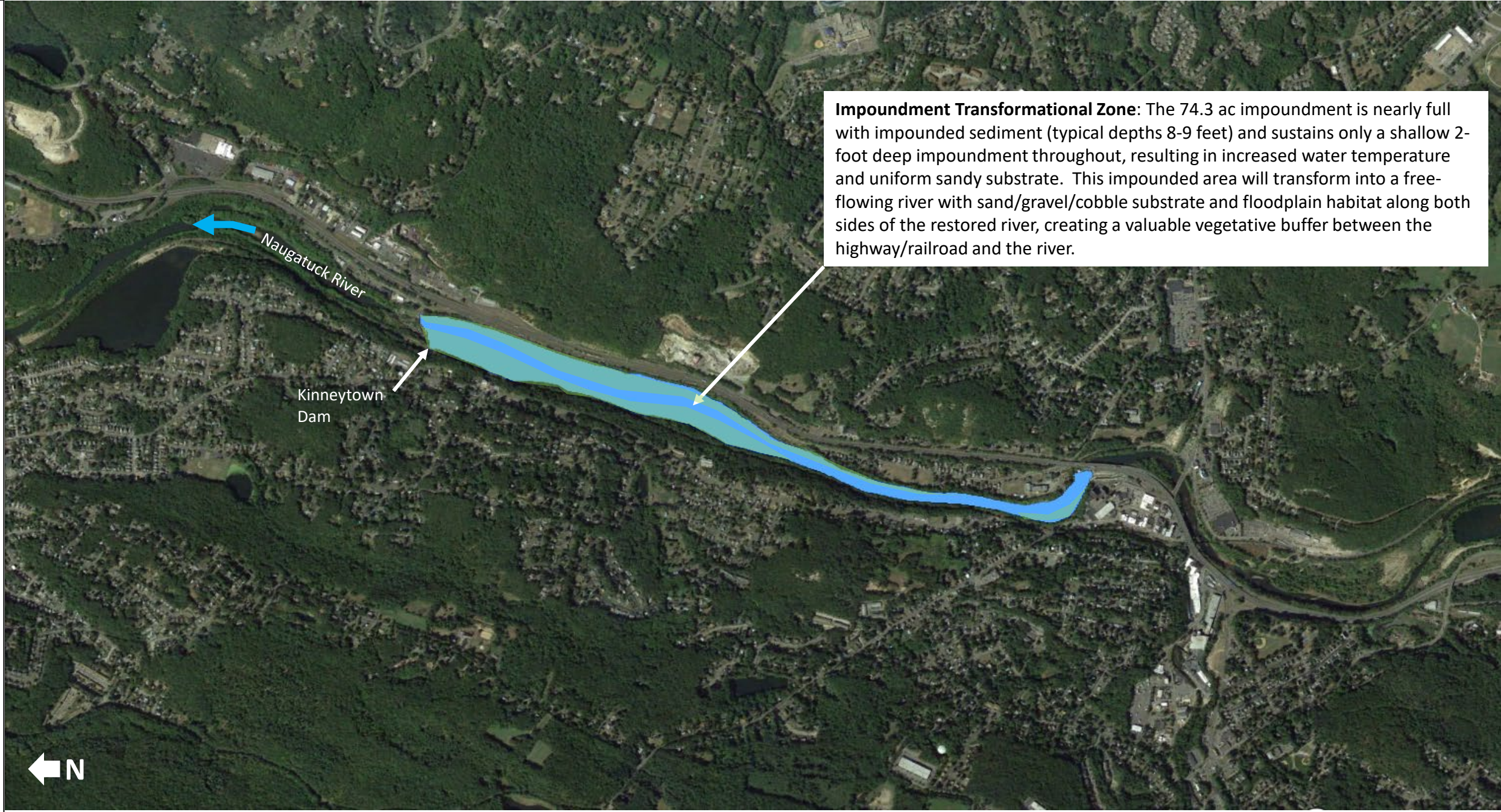


Transformational Habitat Zones	Area Subtotals (ac)
Impoundment (from Kinneytown Dam to base of Tingue Dam)	74.3
Naugatuck River In-channel Wetland Bars	3.42
Housatonic Riverside Wetlands	100.11
Housatonic In-channel Wetland Islands	19.6
Housatonic Coastal Riverside Wetland	84.37
Housatonic Coastal In-channel Wetland Islands	136.6
Housatonic Estuary	867.23
Beach	191.2
Total =	1477

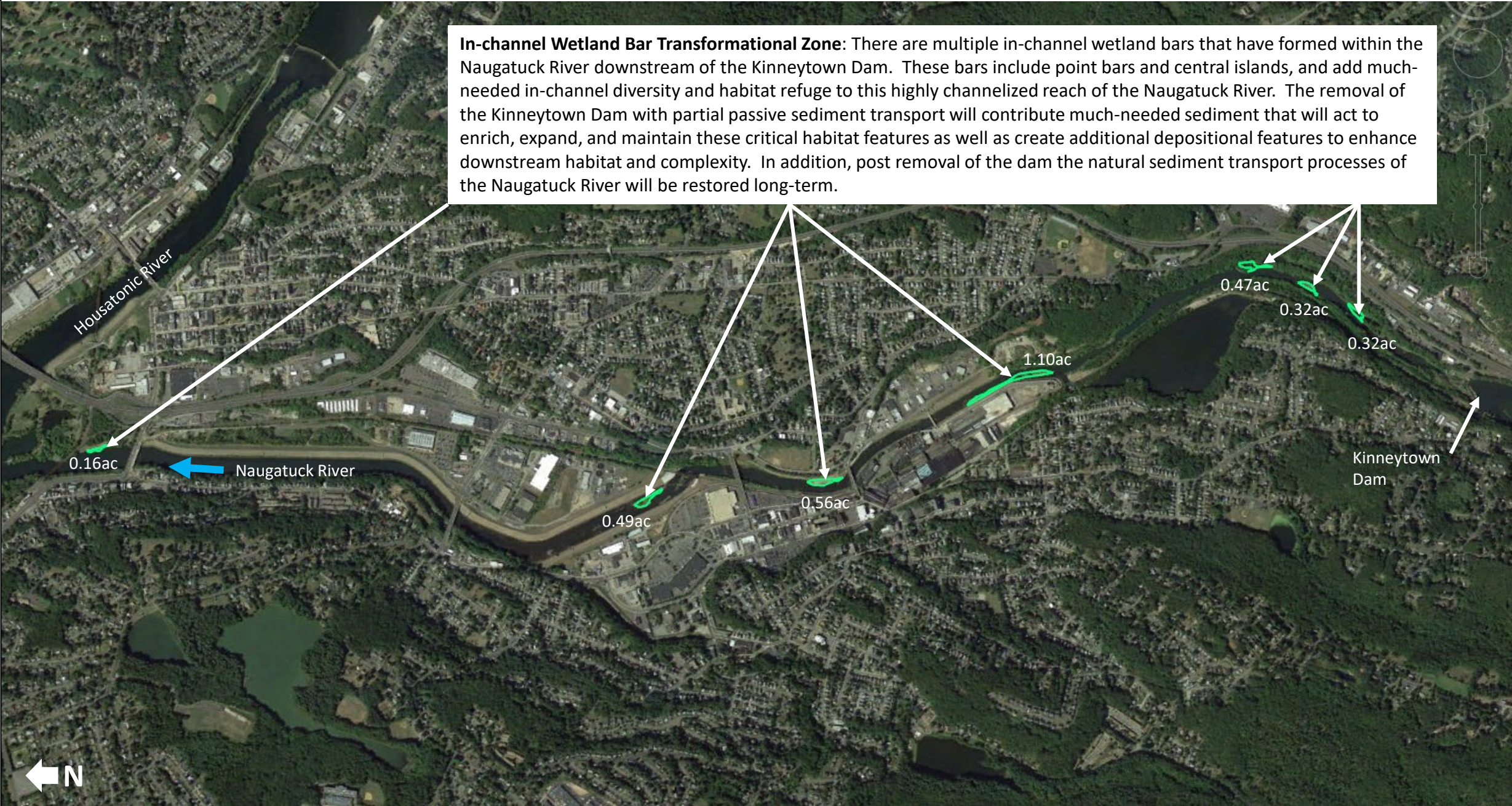
There is the Potential to Enhance/Restore a Total of ~1,477 acres of Transformational Habitat through the Removal of the Kinneytown Dam and Passive Sediment Transport



Impoundment Transformational Zone: The 74.3 ac impoundment is nearly full with impounded sediment (typical depths 8-9 feet) and sustains only a shallow 2-foot deep impoundment throughout, resulting in increased water temperature and uniform sandy substrate. This impounded area will transform into a free-flowing river with sand/gravel/cobble substrate and floodplain habitat along both sides of the restored river, creating a valuable vegetative buffer between the highway/railroad and the river.

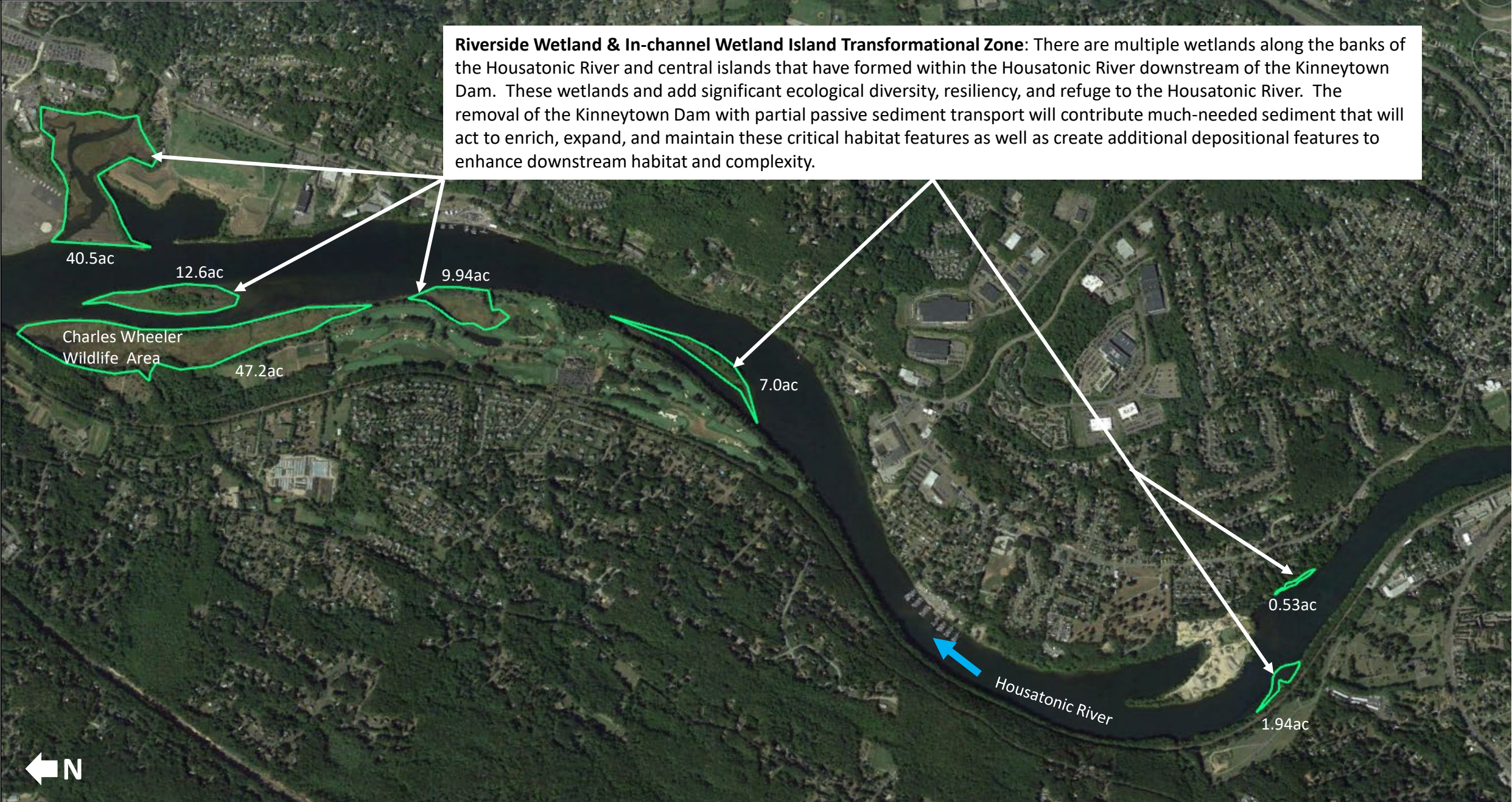


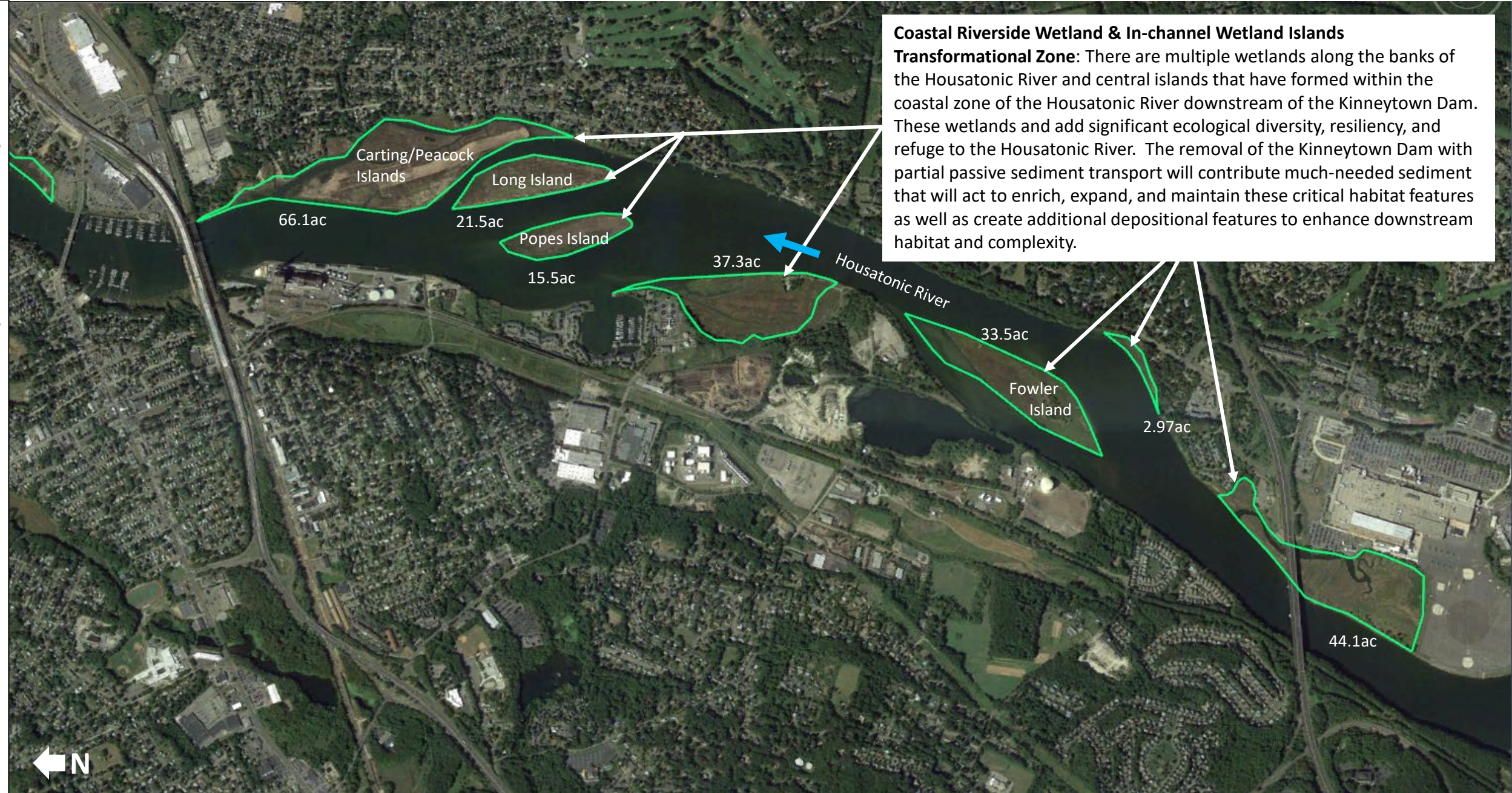
In-channel Wetland Bar Transformational Zone: There are multiple in-channel wetland bars that have formed within the Naugatuck River downstream of the Kinneytown Dam. These bars include point bars and central islands, and add much-needed in-channel diversity and habitat refuge to this highly channelized reach of the Naugatuck River. The removal of the Kinneytown Dam with partial passive sediment transport will contribute much-needed sediment that will act to enrich, expand, and maintain these critical habitat features as well as create additional depositional features to enhance downstream habitat and complexity. In addition, post removal of the dam the natural sediment transport processes of the Naugatuck River will be restored long-term.



Total Acreage of In-channel Wetland Bar Transformational Zone (Naugatuck River) = 3.42 acres

Riverside Wetland & In-channel Wetland Island Transformational Zone: There are multiple wetlands along the banks of the Housatonic River and central islands that have formed within the Housatonic River downstream of the Kinneytown Dam. These wetlands add significant ecological diversity, resiliency, and refuge to the Housatonic River. The removal of the Kinneytown Dam with partial passive sediment transport will contribute much-needed sediment that will act to enrich, expand, and maintain these critical habitat features as well as create additional depositional features to enhance downstream habitat and complexity.





Coastal Riverside Wetland & In-channel Wetland Islands
Transformational Zone: There are multiple wetlands along the banks of the Housatonic River and central islands that have formed within the coastal zone of the Housatonic River downstream of the Kinneytown Dam. These wetlands add significant ecological diversity, resiliency, and refuge to the Housatonic River. The removal of the Kinneytown Dam with partial passive sediment transport will contribute much-needed sediment that will act to enrich, expand, and maintain these critical habitat features as well as create additional depositional features to enhance downstream habitat and complexity.



Tidal Estuary Transformational Zone: The Charles Wheeler Wildlife Area is an ~ 776 ac estuary at the mouth of the Housatonic River where it meets the Long Island Sound would benefit greatly from the release of impounded sediment from behind the Kinneytown Dam. The estuary plays a critical role in water quality and coastal resilience. In addition, there are multiple small wetland estuaries in this coastal zone, along with a 52 ac alcove that could potentially be enhanced by promoting sediment deposition post the dam removal. These estuarine wetlands add significant ecological diversity and resiliency to the Connecticut coastline



Delta and Beach Transformational Zone: The removal of the Kinneytown Dam with partial passive sediment transport will also contribute sediment for natural delta and beach nourishment, critical to maintaining dune habitat along the coast for a variety of shoreline species. Sediment is the building block of these critical coastal ecosystems that help sustain our coastal defenses.

Total Delta and Beach Transformational Zone: 191.2 ac

Total Tidal Estuary Transformational Zone (Housatonic River) = 859.86 acres