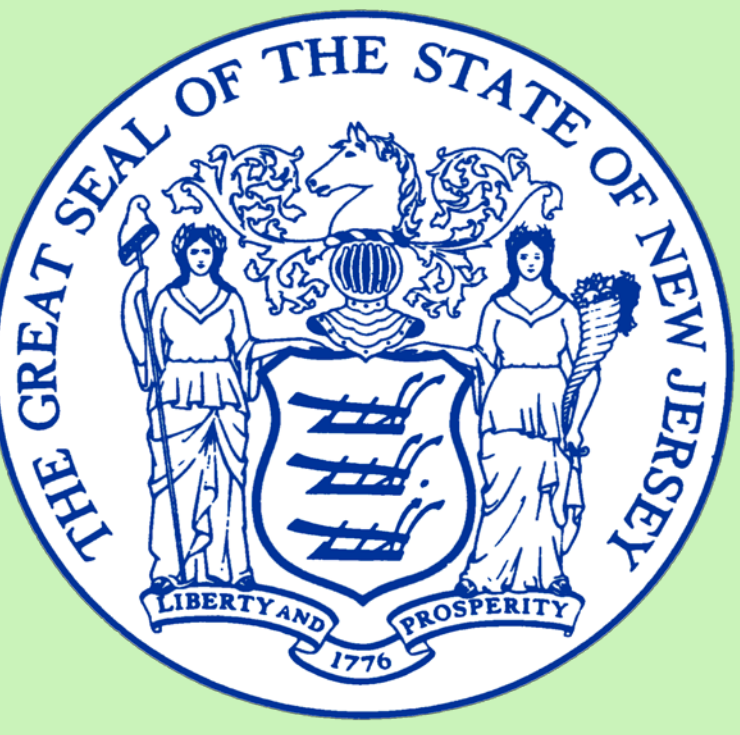




# Northern New Jersey Fish Index of Biotic Integrity



## HEALTHY



In healthy streams, we expect to see a diverse habitat with alternating riffles, runs, and pools with numerous boulders, cobbles, and gravel substrate to provide fish with an assortment of habitats. Riparian vegetation serves as a buffer to pollutants as well as provides overhead canopy to shade the stream and prevents water temperatures from being too high. The fish species composition in healthy streams spans across a large trophic system and includes fish that eat other fish, insects, and algae. The fish are often sensitive to pollution and have specialized feeding, habitat guilds, and behavioral strategies.



Brook trout



Slimy sculpin



Shield darter



American brook lamprey



In moderately impaired streams, we expect to see a less diverse habitat with fewer areas for fish to inhabit. The majority of the substrate may be dominated by one size and is often embedded with fine sediment. The fish species composition will be less diverse in a moderately impaired streams with more generalist species present which can use a variety of food and resources.



Redbreast sunfish



Largemouth bass



Tessellated darter



Spottail shiner



Creek Chub



In impaired streams water quality and physical habitat will be degraded. Streams are often littered with trash, contain stormwater outfalls, have eroded banks and have excessive sedimentation which limits fish habitat. The fish community will be dominated by pollution tolerant species, with a large proportion being invasive species who can thrive in impaired ecosystems.



Fathead minnow



Mummichog



Banded killifish



White sucker



Green sunfish

## IMPAIRED