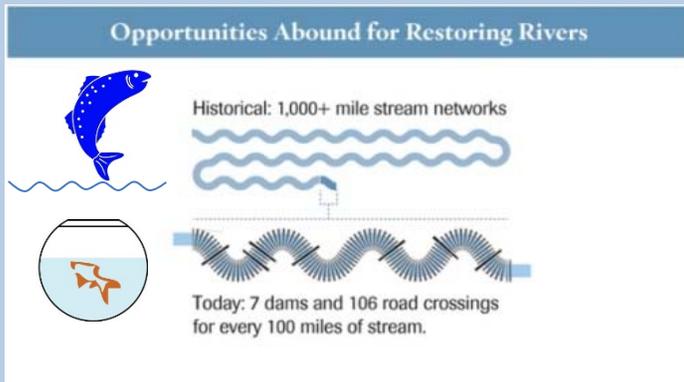


STREAMS AND RIVERS - Restoring Nature's Lifelines

From a tiny trickle in a headwater stream to the vast volume of water flowing in our mighty rivers, stream systems provide habitat for a tremendous diversity of life. Although they total over 200,000 miles in length, the stream networks of today are disconnected and altered fragments of what they once were.

A typical resilient stream occurs as a long connected network with unaltered water flow and forested, intact riparian areas. Resilient streams support a diversity of native fish, aquatic animals and plants.



Long Connected Networks



Unaltered Flow



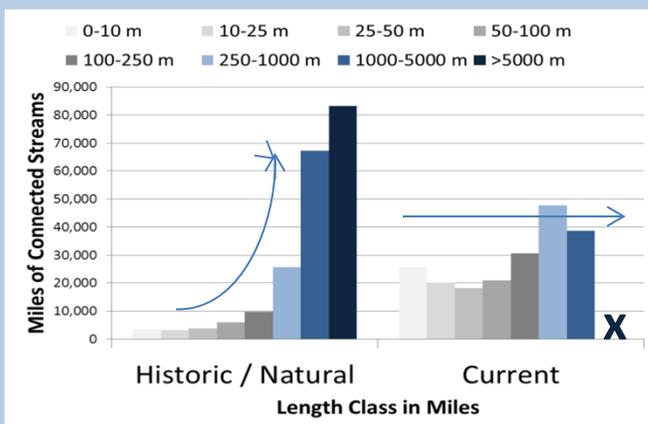
Intact Riparian Areas

Loss of Connectivity

Historically, 41 percent of the region's streams were part of larger interconnected networks, each over 5,000 miles long. Today none of those large networks remain, and even those over 1,000 miles long have been reduced by half. There has been a corresponding increase in short networks under 25 miles long, which now make up 23 percent of all stream miles. This highly fragmented pattern reflects the density of barriers in the region. There is currently an average of 7 dams and 106 road-stream crossings per 100 miles of stream.

Distribution of the Region's Streams by Network Length

The historic 5000-mile stream networks are gone, broken up by dams that increase the amount of short stream networks (200,000 miles total).



* The term "Northeast" and all statistics refer to the 13 New England and Mid-Atlantic states.

Underlying data developed by The Nature Conservancy's Eastern Science Office with support from the Northeast Association of Fish and Wildlife Agencies

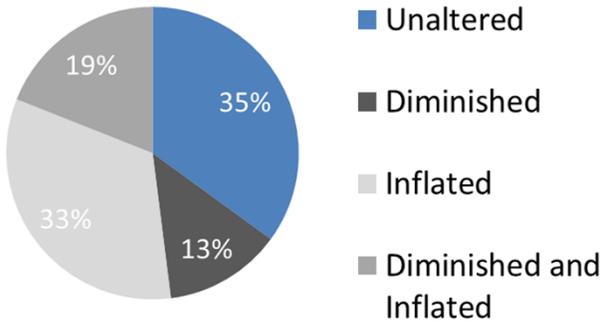


Fact sheet supported by
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For the full report and large maps go to:

<http://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/dc/reportsdata/stateofnature>

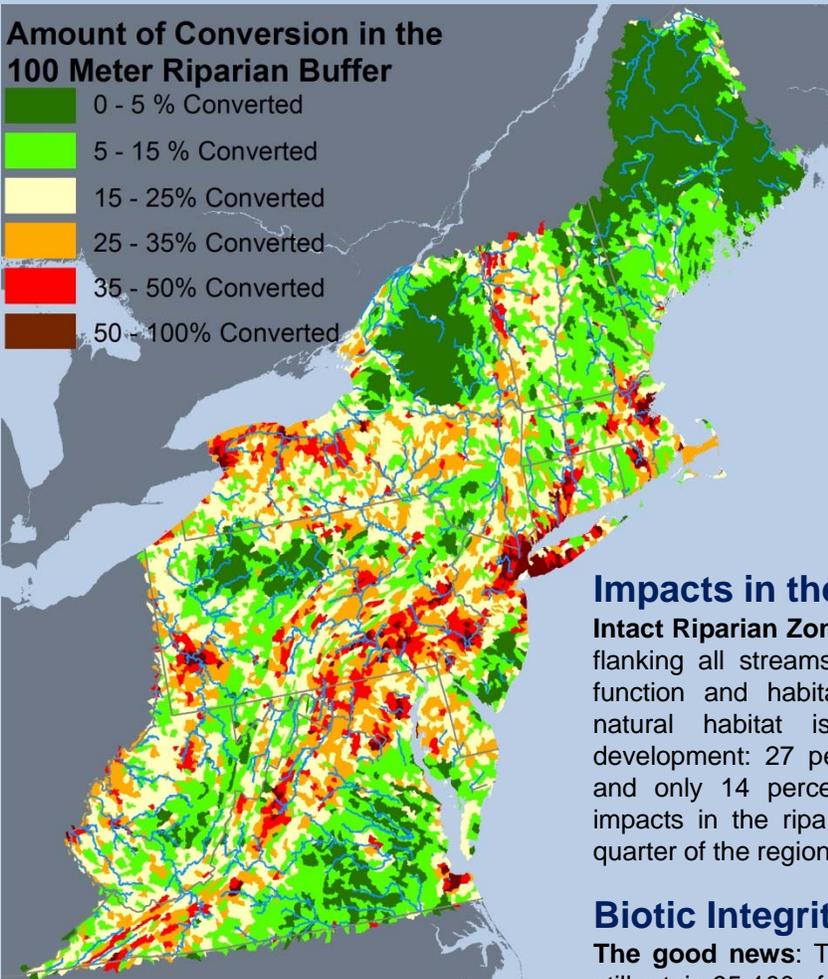
Streams with Altered Flows



Altered Flow

Flow is the essence of a stream ecosystem, but the majority of the region's streams have flow regimes that are altered enough to result in biotic impacts. Thirteen percent have diminished flows (they may dry up), including one-third of all headwater streams. This translates into a reduction of habitat. Seventy percent of large rivers have diminished maximum flow (smaller floods) that decreases the amount of water delivered to their floodplains. One third have year-round inflated flows due to artificial controls; this inundates the periodic wet-dry cycle so the rivers function more like lakes.

Amount of Conversion in the 100 Meter Riparian Buffer



Impacts in the Riparian Zone

Intact Riparian Zones: Riparian areas, the dynamic zone flanking all streams and rivers, are important for stream function and habitat. Currently, conversion of this key natural habitat is twice that of securement from development: 27 percent of riparian areas are converted and only 14 percent are secured. Moderate to severe impacts in the riparian zone are present in roughly one-quarter of the region, especially low-lying and coastal areas.

Biotic Integrity

The good news: The majority of the region's watersheds still retain 95-100 of their native fish species, and 30 percent have five or fewer non-indigenous species.

The bad news: Five percent of the region's watersheds have lost 5 to 50 percent of their native fish species, and 45 percent have 10 or more non-indigenous species. The range of native brook trout, a species that prefers cold, high-quality streams, has been reduced by 60 percent.

Full sized map at <http://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/edc/reportsdata/stateofnature>