Handout to Citizens Advisory Council 16 April 2013 from Stephen P. Kunz, Senior Ecologist, Schmid & Company, Inc.

A new draft USEPA report on rivers and streams was just released in February: (http://water.epa.gov/type/rsl/monitoring/riverssurvey/upload/NRSA0809_Report_Final_508Compliant_130228.pdf) and it presents some disturbing findings.

Nationally, the percentage of rivers and streams classified as being in "good biological condition" based on benthic macroinvertebrates is only about 20% (only 17% in the East), and this represents a 25% decline from just 5 years earlier. **Take-home lesson:** clean streams are becoming more and more rare, and we must strive to protect and preserve what we have. We cannot afford to sacrifice our remaining good streams for any purpose.

SUMMARY:

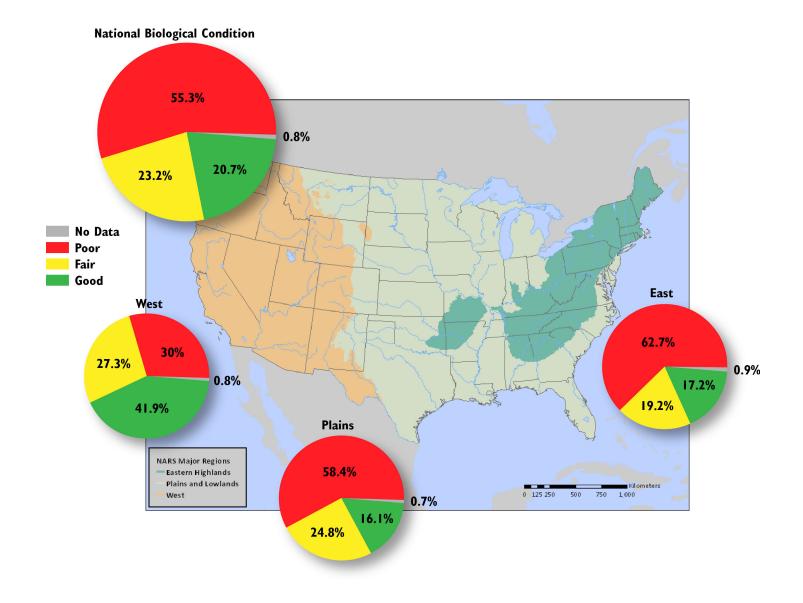
U.S. Environmental Protection Agency, states, and tribes are conducting a series of surveys of the nation's aquatic resources. Often referred to as probability-based surveys, these studies provide nationally consistent and scientifically-defensible assessments of our nation's waters and can be used to track changes in condition over time. Each survey uses standardized field and lab methods and is designed to yield unbiased estimates of the condition of the whole water resource being studied (i.e., rivers and streams, lakes, wetlands, or coastal waters). This latest report focuses on rivers and streams.

Biological condition is the most comprehensive indicator of water body health. When the biology of a stream is healthy, the chemical and physical components of the stream also are typically in good condition. According to this EPA report, overall, only 20.5% of the nation's river and stream length is in good biological condition, while 23% is in fair condition, and more than half (55%) is in poor condition, based on a robust, commonly used index that combines different measures of the condition of aquatic benthic macroinvertebrates (aquatic insects and other creatures such as crayfish).

The Eastern Highlands is one of three major climatic regions discussed in the EPA report (the others are the Plains and Lowlands, and the West), and it is composed of the mountainous areas east of the Mississippi River. In the Eastern Highlands, only 17% of river and stream length was found to be in good condition, 19% is in fair condition, and 63% is in poor condition. [this is worse than the national averages]

Compared to the findings of the 2004 Wadeable Stream Assessment also conducted by USEPA, some statistically significant changes are found in stream condition. Nationally, the amount of stream length in good quality for macroinvertebrate condition decreased by about 7 percentage points, from 27.4% in 2004 to 20.5% in this recent study(a 25% decline). For the Eastern Highlands, the values also declined, but the difference is not statistically significant.

The Clean Water Act goal to make our waters swimmable and fishable not only is not being met, we are going in the wrong direction.



http://water.epa.gov/type/rsl/monitoring/riverssurvey/upload/NRSA0809_Report_Final_508Compliant_130228.pdf

National Rivers and Streams Assessment 2008–2009: A Collaborative Survey

U.S. Environmental Protection Agency Office of Wetlands, Oceans and Watersheds Office of Research and Development Washington, DC 20460

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