



## Background

- Areas with a higher variety, or diversity, of community types may provide unique ecosystem services and support distinct species combinations.<sup>1</sup>
- The risk of extinction for a plant community is based on:<sup>1</sup>
  - Remaining number and condition of occurrences of the community;
  - Remaining acreage covered by the community; and
  - Severity of threats to the community.
- There are three categories of at-risk plant communities:<sup>2</sup>
  - Critically Imperiled: Very high risk of extinction; five or fewer occurrences.
  - Imperiled: High risk of extinction; 20 or fewer occurrences.
  - Vulnerable: Moderate risk of extinction; 80 or fewer occurrences.
- Higher values suggest higher vulnerability relative to other watersheds.

**THIS INDICATOR MEASURES THE PERCENTAGE OF WETLAND AND RIPARIAN PLANT COMMUNITIES THAT ARE AT RELATIVE RISK OF EXTINCTION.**

## Data Sources

Data Source	Description	Spatial Resolution	Temporal Resolution
NatureServe - Explorer (customized dataset)	Percentage of at-risk plant communities in 2006 by state	State	2006; frequency of collection not specified

## This Indicator Was Used to Assess the Vulnerability of Two of USACE's Eight Business Lines

Business Line	Importance Weight (Varies from 1 to 2 for USACE)
Ecosystem Restoration	2
Regulatory	2

## Calculation

- If a HUC-4 watershed lies within a single state, assign the percentage of plant communities at risk for that state to the HUC-4 watershed. At risk plant communities were defined as communities in risk categories G1-G3. The total number of plant communities was defined as all communities in risk categories G1-G5, or GNR.<sup>3</sup>
- When portions of multiple states fall within the HUC-4 watershed's boundaries, weight the percentage of plant communities at risk by the area of each state intersecting the HUC-4 watershed.

<sup>1</sup> The H. John Heinz III Center for Science, Economics, and the Environment. 2008. The State of the Nation's Ecosystems: Measuring the Lands, Waters, and Living Resources of the United States. Washington, D.C.: Island Press.

<sup>2</sup> A plant community is a group of plant species that occur together under similar environmental conditions.

<sup>3</sup> See <http://explorer.natureserve.org/sumecol.htm> for a description of plant risk categories.

**LOW**



Mossy Creek, Post-Restoration

### LOW INDICATOR VALUE

Post-restoration, Mossy Creek returned to a natural stream condition and healthier plant ecosystem.

### HIGH INDICATOR VALUE

Engineered structures on Mossy Creek reduced flow and increased sedimentation in the creek, degrading the stream and harming the plant ecosystem.

Photos to left and right are of the same site in Augusta County, VA. Courtesy of USFWS.

**HIGH**



Mossy Creek, Pre-Restoration