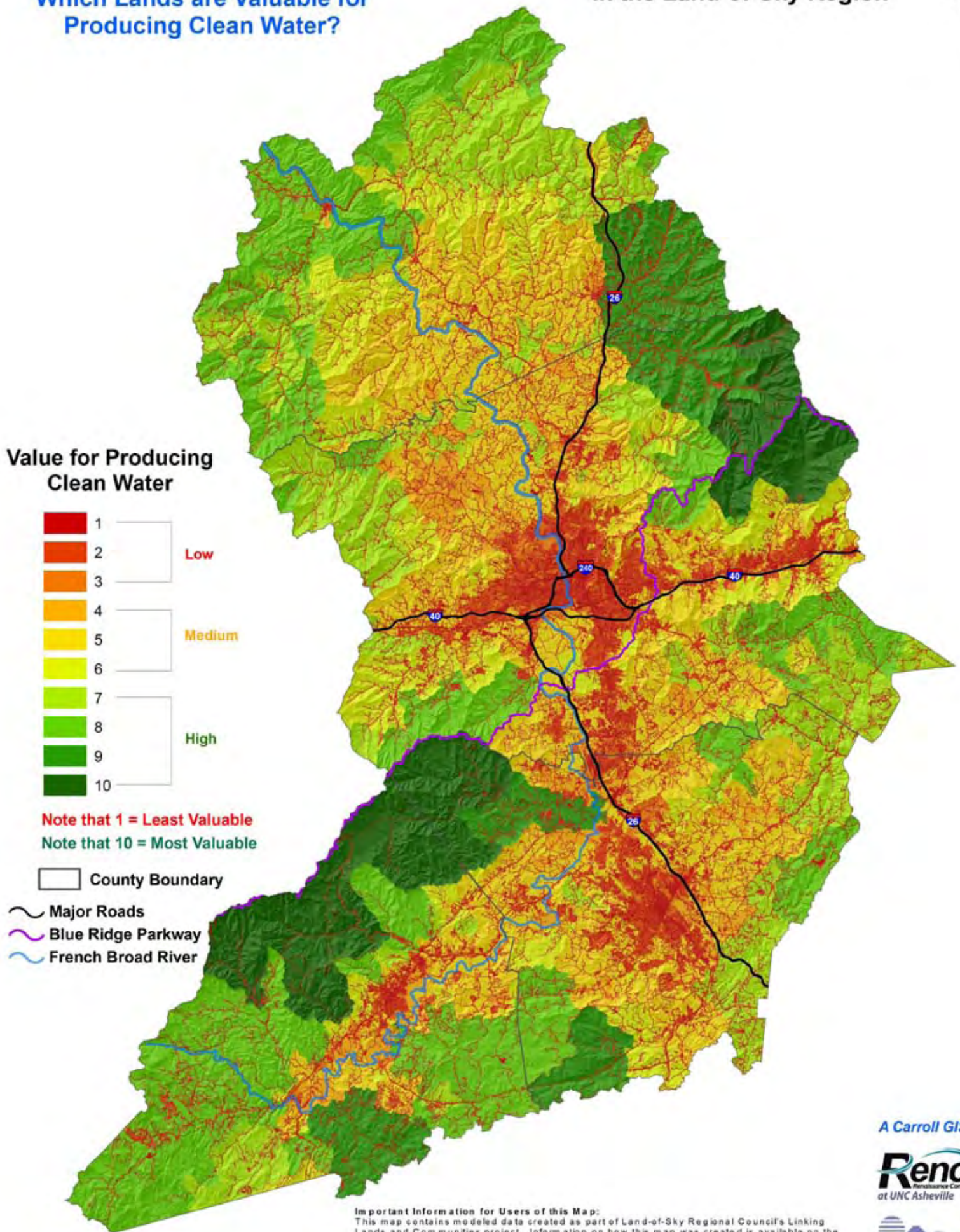


Water Quality Assessment Map

Which Lands are Valuable for Producing Clean Water?

Linking Lands and Communities in the Land-of-Sky Region



Value for Producing Clean Water



Note that 1 = Least Valuable
Note that 10 = Most Valuable

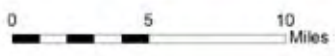
- County Boundary
- Major Roads
- Blue Ridge Parkway
- French Broad River

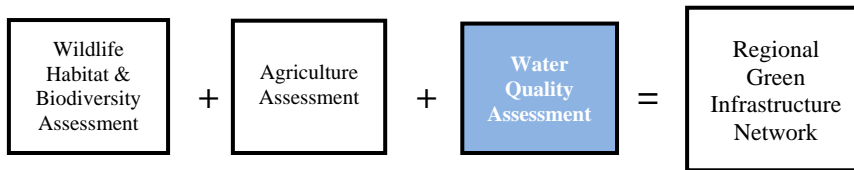
Important Information for Users of this Map:
This map contains modeled data created as part of Land-of-Sky Regional Council's Linking Lands and Communities project. Information on how this map was created is available on the project website. To access this information, visit www.linkinglands.org and click on "Resource Assessments" in the left-hand menu. The web page for each assessment explains how the assessment model was created, and includes links to a fact sheet, conceptual model, data sources & definitions, ranking scheme and input data layers. LOSRC, RENCi and A Carroll GIS consider all of this information to be an integral part of this map, and essential to understanding what this map represents and how to interpret it properly.

A Carroll GIS



Map Date: June 5th, 2010





Water Quality Assessment Summary

The Water Quality Assessment is one of three resource assessments conducted as a part of the Linking Lands and Communities project. The purpose of the assessment is to identify lands in the Land-of-Sky Region that are valuable for producing clean water. A watershed approach was used so that both the quality of land and water resources could be incorporated into the assessment. The region was divided into 1345 sub-basins, which were each individually prioritized based on the predominant land cover and the known quality of streams within the sub-basin. The model prioritizes forested sub-basins that contain a stream or network of streams known to have good-to-excellent water quality.

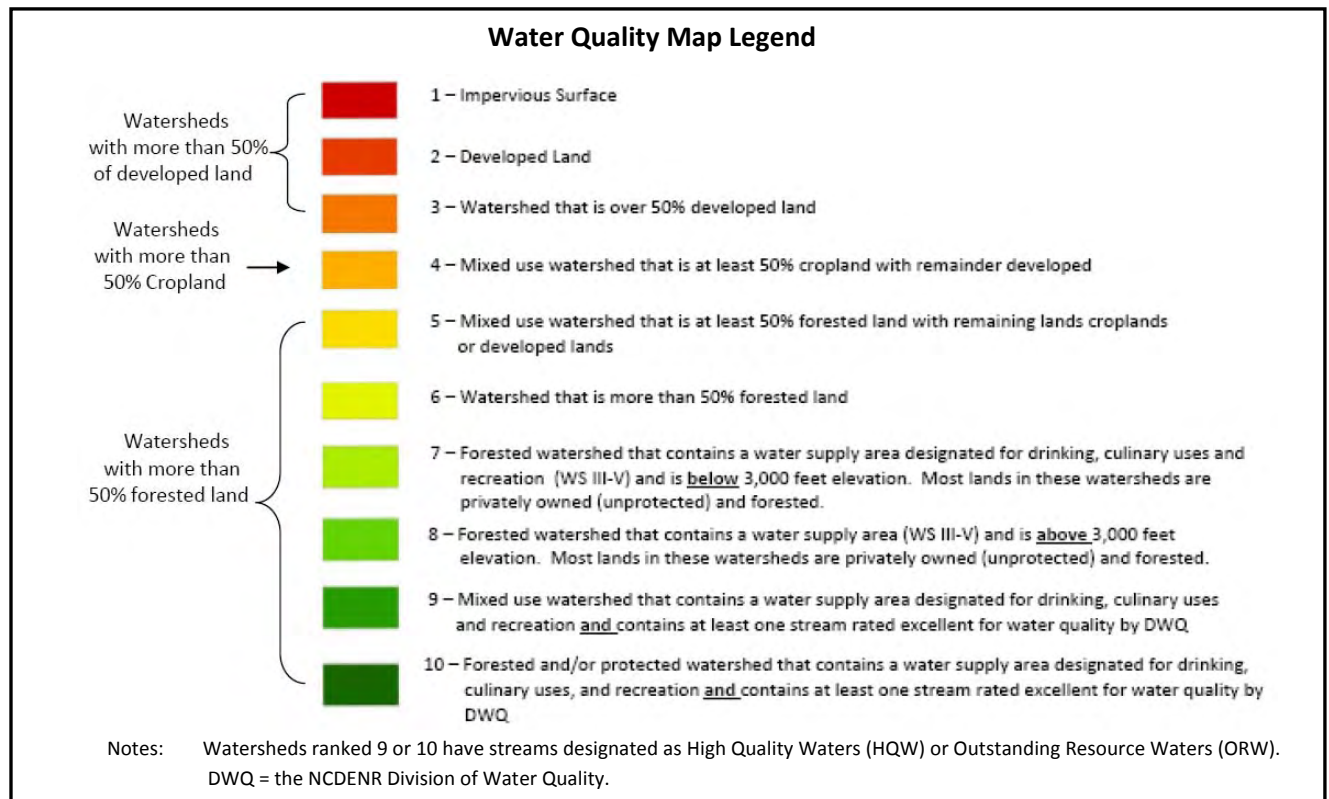
Land Cover

The 2001 National Land Cover Dataset was used to determine the land use for each sub-basin. The percentages of each type of land cover were used to assign each sub-basin an initial ranking on a scale of 1-10 (1 is low and 10 is high). The four land cover categories used in this assessment include:

Impervious Surfaces (where 80 - 100% of the total cover is impervious); Developed Lands (impervious surfaces account for 20-79% of the total cover); Cropland (primarily consists of grassland, herbaceous, pasture/hay, and cultivated crops); and Forested Lands (deciduous forests, evergreen forest, mixed forest, and shrub/scrub).

Stream Quality

Streams with “good” or “excellent” water quality were used as indicators of sub-basins that produce clean water. Datasets used in the assessment include: streams designated as High Quality Waters (HQW) or Outstanding Resource Waters (ORW); Water Supply Watersheds I-V; Trout Streams; and streams with good and excellent bio-class data. A sub-basin that contained a stream or network of streams with any of the above classifications was ranked a 7 or higher.



The Water Quality Assessment was created by RENCI at UNC Asheville, staff from Land-of-Sky Regional Council, NCDENR Natural Heritage and One NC Naturally Programs, and Mars Hill College.