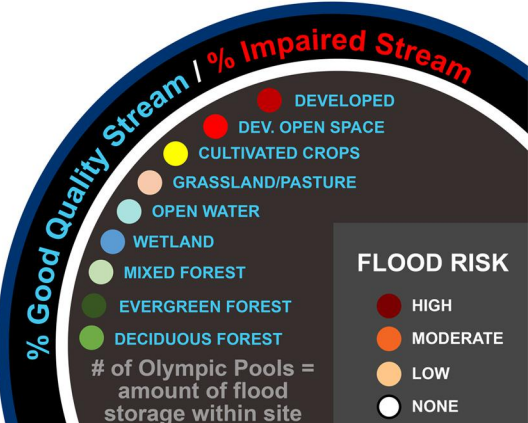


## WATER QUALITY & QUANTITY

Nine sites were examined for their ecosystem service of water purification. The **red** part on the map represents an impaired stream or lake in the watershed, and **blue** means the stream attains its designated use. An impaired water body is a body of water that does not meet the minimum chemical, physical, or biological water quality standards for its particular designated uses and is represented in the maps above as red lines. Designated use is the use that state and federal governments have determined should be attained in a given waterbody.

Flood storage is depicted by the number of Olympic-sized pools, which are roughly 2,500 m<sup>3</sup> (660,430 gallons) in volume. Forest dominated environments have the greatest flood storage capacity compared to more urban sites, where there tends to be lower permeability due to greater presence of impervious surfaces. Flood risk was also evaluated and is represented by circles adjacent to the amount of flood storage for each site.



# WATER BENEFITS

## Water Purification, Stream Impairment & Flood Storage

Pennsylvania State University - Created for Centred Outdoors

Ramzi Tubbeh (Geog), Zheng Lin (Env Engr), Tara Mazurczyk (Geog), Kyle Clark (ESM),

Peter Backhaus (Geog), Travis Young (Geog), Tim Gould (Ecology), Josh Wisor (ESM), Jesus Ruiz-Plancarte (Meteo)

GEOG 550 – Wetlands Ecology and Management – Robert P. Brooks, Ph.D. Instructor