

Coastal Headwater Study-2014 in Perch Creek as headwater stream that scored out as heavily impacted relative to the designated Reference streams in this Study.

Based upon this study the following observations and measurements were observed for the PERCH CREEK Reach Study Data:

Based upon over 3 years of perennial observations, Perch Creek had some flow regime considerations that relate to designation of the intertidal reaches. Placement of any restoration would need to be upstream of that tidal flux.

Based upon this 2014 Coastal Headwater Study, the field flow measurements indicated seasonal flows from 0.2 to 1.0 cfs.

Fluctuations of DO from 4.0 to almost 10.0 mg/L, with a range in Salinity of 0.06 to 0.13 ppt based upon the time of year and adjacent stressors.

Turbidity exhibited a similar range of values (7 to 20 NTUs) with an average of 14 NTUs.

Impervious Cover (IC) was calculated at 28.5% for this watershed. Based upon NPS studies conducted by the UConn's Center for Watershed Protection, most stream indicators are significantly affected when IC exceeds 10%, with possible long-term degradation beyond 25% of impervious surfaces present in that

watershed.* http://clear.uconn.edu/projects/TMDL/library/papers/Schueler_2003.pdf

In this Coastal Headwater Study-2014 the Composite Assessment Index (CAI) was created to comprehensively compare contributin factors for these coastal headwater streams. A score of 1.0 to 0.85 was considered Excellent. A score of <0.85 to 0.60 was considered to exhibit Moderate impaction.

A CAI score of 0.60 or less was considered to exhibit Heavy impacts to that stream, indicating potential for a degraded stream reach.

Perch Creek scored at 0.39 on a Scale of 1.0 on the Composite Assessment Index, placing it as a heavily impacted coastal stream.

It was the third lowest CAI score in this study of 14 coastal stream segments.

I hope that this information helps! Further WQ data may be found at

STORET/WQX <http://www.epa.gov/storet/>

and

The Water Quality Portal (WQP) <http://www.waterqualitydata.us>

With my best regards,

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