

Using the NYTU Resource Information System

This information system, developed by the NYS Council TU Resource Management Team with support from a TU National Mini Grant, is intended to provide systematic entry, viewing, storage/retrieval and reporting of data on the condition of New York State cold water streams. It also serves as an archive for stream conservation work done by individual Chapters of Trout Unlimited (TU). We hope this information proves helpful to a wide range of visitors to this web site as well as assisting Chapters with their vital stewardship of our trout waters. Questions or comments may be directed either to resource management or to an individual chapter.

Note: To maintain system integrity, the data entry portion of the "Evaluations" & "Intervention" sections is strictly limited to an approved user in each NY Chapter. Posting to site follows review and approval of submissions by NYSCTU Resource Management. Approved users are requested to contact their current Chapter President to obtain the UID & PW.

The system is structured as follows:

I. **Basic shared parameters (common to all 3 assessment levels):**

- 1) Identifiers: location (coordinates, reach locators, DEC region, watershed, persons, dates)
- 2) Broad hydrologic & geomorphic parameters: drainage area, valley form (Rosgen I - IX), channel form (Rosgen Aa, A,B,C,D,DA,E,F,G), dominant substrate (Rosgen 1-6)
- 3) Land use: urban (residential, industrial); rural (agricultural, forestry, conservation)

II. **Multilayered assessment** from screening through more detailed levels of analysis

1) **First Level: Stream Visual Assessment Protocol (SVAP)**

This layer is modeled after the USDA NRCS Stream Visual Assessment Protocol (available on line). It consists of 16 scored weighted parameters in 4 clusters, reported both as a profile & as a computed mean score. A verbal summary, interpretation of causes, suggested additional studies, options for intervention, and reference reach candidacy are also included. Abbreviated SVAP Scoring Criteria are available as a help function.

Geomorphic cluster: deviation from bankfull width, channel condition, hydrologic alteration, bank stability

Fisheries cluster: pool status, in stream cover, riparian zone, canopy, migration barriers

Water Quality Cluster: appearance, enrichment, manure, temperature range

Invertebrate Cluster: macroinvertebrates, riffle imbeddedness, invertebrate habitat

2) **Second level: Focused Reconnaissance (FR)**

This layer is an adaptation of Rosgen and ancillary geomorphic methods, combined with available basic information on fisheries, water quality and invertebrate populations. Problems, causes, studies, options & comments also recorded.

Geomorphic cluster: - reach stability, planform shifts

- bankfull width/depth ratio, incision and entrenchment, sediment supply

- channel & riffle stability

- bank stress & erodability

- reference reach candidate (yes/no)

Fisheries cluster: - coding by salmonid species

- natural reproduction scale (0-3)

- stocking rate/year (0-3) & per acre

Water Quality Cluster: qualitative measures of coliforms, turbidity, pH, max temp

Invertebrate Cluster: rough EPT index, relative benthic population distribution

3) **Third Level: Detailed Evaluations (DE)**

Geomorphic cluster:

- Rosgen Stream Classification, bankfull discharge

- coding by Y/N exception for shifts in stream class, w /d, sinuosity, slope, radius of curvature, meander width ratio, bankfull discharge & frequency

Fisheries cluster: summary of detailed studies (as appropriate), e.g.: biomass, year class population distribution, growth, migration studies, limiting factor, diseases, angling mortality, other

Water Quality Cluster: pH, DO, conductivity, nutrients & toxicants, thermal studies

Invertebrate Cluster: formal macroinvertebrate analysis (by agency or lab)

III. Project Data (* are required fields for projects)

- 1) Project: category*, problems*, objectives*, methods*, photos*
- 2) Key Resources & References for project
- 3) Personnel: agencies & partnerships; man hours*
- 4) Costs*, funding sources & commercial value
- 5) Problems encountered & lessons learned*
- 6) Outcome assessment over time (scaled)*
- 7) Follow up* studies, plans & actions
- 8) Publicity

IV. Search Criteria: single or multiple search criteria are available for table format reports that link back to specific stream assessments or projects.

- first level selection of search criteria: date, location, stream class, size, stream condition, projects; show lengths & work hours
- second level specification of specific search criteria, eg date ranges, locators (region, watershed, name, chapter), size (width, discharge, order), condition (reference/non reference: geomorphic, fisheries, water quality, invertebrate clusters), projects (problem, objective, method)
- third level refinement: levels of impact on specified clusters, dominant land use
- report table, with links directly to original data

V. Mapping features: New York State precipitation & runoff, physiographic provinces, major watersheds, USGS hydrologic regions & DEC regions. Links to on line mapping of sites are also provided.

VI. Regional Curves: Bankfull discharge, width, & area vs drainage area are under development

VII. Administration (restricted area, approved users only)

VIII. Other NYSCTU linkages (Council's main website NYSCTU.ORG)

IX. Other useful links

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This website was developed using MS Access and Cold Fusion by Chris Cramer