**Topic:** The project report will address a topic of interest in stream ecology or management, with an emphasis on Iowa streams. Groups of students (assigned by the instructor) will work cooperatively. Each group will be responsible for choosing their own topic, but groups are encouraged to discuss potential topics with the instructor. The project will be evaluated as a single document - all group members earn the same score.

The project report will include a thorough review of existing literature on the topic, and an analysis of relevant data for Iowa streams. The topic should be fairly narrow, and because of the data analysis requirement, it is important to choose a topic for which data are available and amenable to some sort of analysis. Each group must work on a different topic.

**Format and Style:** The report should be structured and written in a format and style appropriate for a completion report to a funding agency, or a review or synthesis article in an ecological journal. These guidelines give you a wide range of formats and styles, but whatever you choose, make it clear, attractive, comprehensive and professional.

**Length:** A thorough review of a stream ecology topic along with an original analysis of data should require at least 20 pages of written text, with separate tables, figures and maps displaying data and supporting your arguments and points. This is not a firm rule, but rather a rough guideline.

**Sources:** You may use a variety of sources, including journal articles, books, agency reports, maps, web sites, the Iowa Rivers Information System (IRIS) or other sources that can be documented. A minimum of 15 journal citations are required; there are no requirements for the number of other sources. IRIS must be used in some way to retrieve, compare or analyze at least a portion of the data.

**Data Analysis:** Collecting and analyzing existing Iowa stream data in an original way that supports or complements the literature review is a requirement of the paper. A quantitative analysis is preferred, but a qualitative analysis may be appropriate and sufficient, depending on the topic and data available. Quantitative analyses may take the form of tables, scatter plots, frequency histograms, statistical tests or other techniques. An example of an appropriate qualitative analysis might be a series of maps that show a trend or pattern. Think about this requirement when you are choosing a topic! Be sure to choose a topic for which Iowa data are available.

**Group Cooperation:** Group members must work together to choose a topic, divide the workload, communicate regularly about progress, and meet periodically to discuss the project. Although members will probably have differing roles, it will benefit the entire group if members help each other and interact frequently.

**Grading:** Logical and effective organization, clear and concise writing style, originality of idea and approach, thoroughness of researching the topic, quality of the analysis, and depth of interpretation will be primary considerations in evaluating reports and assigning grades.