

NONPOINT SOURCE PLANNING GRANT



Department of
Environmental
Conservation

Comprehensive Stream Corridor Assessment Study Outline

The following report outline must be used for comprehensive stream corridor assessment studies. The studies must identify areas of erosion across a watershed area. The comprehensive stream corridor study must be completed for a minimum of a HUC 12 size watershed area and must identify and/or prioritize opportunities for streambank stabilization, riparian buffer restoration, floodplain reconnection and/or culvert replacement and repair. Flood risk assessment and modeling may be included as part of the comprehensive study but are not required. Studies should follow the [Stream Corridor Assessment Guide](#). For flood risk assessment and modeling, studies should follow the same outline as studies completed under the [Resilient NY Program](#).

Required Elements

- I. **Cover Page** (project title, owner, prepared by, and date)
- II. **Executive Summary:** Overview of the assessments purpose, the assessment location, HUC 12 name, and the receiving body of water
- III. **Projective Objectives:** Describe goals for stream corridor assessment. Indicate whether the elements are a portion of a larger project. Include a project background description and history/problem statement.
- IV. **Existing Conditions:** Include an inventory of the stream corridor. Information collected must include but is not limited to:
 - 1) **Geospatial Information**
 - a. Assessment location
 - b. HUC 12 name
 - c. Nearby gage stations (if applicable)
 - d. Receiving body of water
 - 2) **Stream Channel Data**
 - a. Bankfull width
 - b. Bankfull depth
 - c. Floodplain Width
 - d. Any stream channel obstructions (e.g. culverts, bridges, crossings, gravel, woody debris)
 - e. Channel slope
 - f. Channel pattern
 - g. Stream channel avulsions
 - h. Stream channel habitat
 - 3) **Streambank Data**
 - a. Streambank height
 - b. Streambank angle
 - c. Streambank root density
 - d. Streambank soil stratification
 - 4) **Floodplain Data**
 - a. Floodplain elevation
 - b. Floodplain width
 - c. Floodplain land cover/land use
 - d. Floodplain obstructions
 - e. Invasive species in floodplain

5) Riparian Area Data

- a. Width of riparian area
- b. Type of riparian cover
- c. Quality of riparian habitat
- d. Slope of riparian area

6) Upland Area Data

- a. Upland land cover/land use
- b. Potential surface water impacts

7) Opportunities for implementation

- a. Streambank stabilization
- b. Riparian buffer installation
- c. Floodplain reconnection
- d. Culvert replacement
- e. Estimated cost of each implementation opportunity

8) Optional: Flood Risk Assessment and Modeling

- a. Description of initial data collection: hydrological and meteorological data, ortho-imagery, flood zone maps, streamflow, precipitation, flooding and ice jam reports
- b. Field Assessment: rapid “windshield” river corridor inspection, photo documentation, measurement and rapid hydraulic assessments
- c. Watershed Characteristics: study area, environmental conditions, watershed land use, geomorphology, hydrology, infrastructure
- d. Climate change implications
- e. Flooding characteristics/flooding history
- f. Flood risk assessment
 - i. Flood mitigation analysis
 - ii. Debris analysis
 - iii. Ice jam analysis
 - iv. Cost estimate analysis
 - v. High risk area description
- g. Mitigation recommendations/alternatives
- h. Description of additional data collection, modeling, or analysis needs

V. Site Photographs: Photographs that are representative of existing site conditions.