EUCLID CREEK
RESTORATION MONITORING PLAN

Project Name: Euclid Creek Estuary Habitat Restoration

Project Proponent: Cuyahoga Soil & Water Conservation District

Project Goal: To restore and improve habitat in nearshore refuge and nursery areas for migrating fish within the Euclid Creek influence zone of Lake Erie.

Structural Objective: To increase the native plant composition and percent cover within the project area to quantities similar to those found in reference estuary areas.

Parameter: Post-project monitoring will evaluate the spatial distribution and species composition of native plants within the project site.

Baseline: A listing of new plant species planted or seed banked for the restoration project will serve as the baseline of new plants to measure for their re-establishment of structural integrity for the project. The plant species to be planted will be determined based on the native vegetation currently present at the Arcola Creek Estuary.

Reference: Composition and percent cover will be compared to Arcola Creek, an estuary wetland area in Lake County, within the same eco-region of the project site. Arcola Creek is a site protected by Lake Metroparks and the Nature Conservancy.

Target: Establishment of greater than 60% percent cover of native species within the project area. (final determination of target will occur during final design phase of project and coordination with advisory committee members).

Functional Objective: To increase the utilization of Euclid Creek's Lake Erie influenced area by nearshore fish species.

Parameter: Species composition, quantities and life stage distribution of native fish species will be measured to determine whether the functional objective is met.

Baseline: A trend analysis will be conducted to examine the changes in fish usage by nearshore species in the project area. Fish species composition and quantities will be determined via electro-shocking efforts that would be conducted each summer. Additionally, historical fish species data exist from Ohio EPA and Northeast Ohio Regional Sewer District. This historical data will be used in conjunction with the electro-shocking efforts to gauge changes in fish composition and usage as a result of this project.

Reference: The results of the project will be compared with nearby Lake Erie coastal estuary systems, including Arcola Creek and Old Woman Creek. An initial listing of target species have been identified through an initial planning evaluation conducted in

2006 for the project site. Electro-shocking will allow for a determination as to changes in the fishery as a result of the proposed project.

Timing: Monitoring of these objectives will occur once a year for five years following project construction. Monitoring will be conducted during summer months when spawning activities will not be interrupted. All monitoring efforts will be coordinated with existing agencies that monitor this site, including the Northeast Ohio Regional Sewer District.