

## **Beneficial Use Impairments Rational for Removing from the Impaired List**

**Name:**

(BUI #4)

Degradation of Benthos

**Reason for listed:**

Documented at Stryker Bay and Hog Island/Newton Creek

**Comment:**

Surveys are needed to document extent of problems in AOC

**IJC Criteria:**

An impairment will be listed when benthic macroinvertebrate community structure significantly diverges from unimpacted control sites of comparable physical and chemical characteristics. In addition, this use will be considered impaired when toxicity (as defined by relevant, field-validated, bioassays with appropriate quality assurance/quality controls) of sediment-associated contaminants at a site is significantly higher than controls.

***SLR RAP Rationale for Listing:***

Reduced benthic invertebrate density, diversity, and species richness have been reported in areas of the estuary that are subject to physical disturbance or in close proximity to known discharges or hazardous waste sites. The benthic community is dominated by oligochaetes and chironomids, which are relatively tolerant of organic pollution (Stage I Report, pps. IV-29 to IV-35).

In evaluating sediment quality throughout the AOC, the Wisconsin DNR and Minnesota PCA have used the triad approach which combines sediment chemistry, toxicity tests and in situ benthic diversity to give a composite picture of overall sediment "health". The triad approach has demonstrated that the benthic community has been degraded as evidenced by the lack of species diversity and preponderance of pollutant tolerant species.

**Proposed Restoration Goal:**

The benthic macroinvertebrate community structure and productivity and sediment-associated toxicity and bioaccumulation does not significantly diverge from un-impacted reference sites of comparable physical and biological characteristics.

**Proposed Restoration Milestones:**

- No noticeable toxicity related to the "hotspots" which can be contributed to contaminated sediments.

Clean up of all known "hot spots" by 2020.

- Superfund USS and SLRIDT
- Hog Island Inlet
- RCRA corrective action sites (Crawford Creek, Howard's Pocket)
- Orphan

- In addition, the consumption of benthic invertebrates by fish and wildlife does not contribute to fish consumption advisories.

***Rationale for Removing from the List:***

No rationale for removing from the list at this time.