Recovery Potential Metrics
Summary Form

Indicator Name: SEVERITY/NUMBER OF 303(d) LISTING CAUSES

Type: Stressor Exposure

Rationale/Relevance to Recovery Potential: The number of stressors affecting an impaired water body is generally a direct indication of the relative complexity, expense and difficulty of its restoration, according to many practitioners. More pollutants causing impairments frequently implies more numbers and diverse types of responsible sources. The number of listing causes also may be associated with greater magnitude of impairment due to cumulative effects.

How Measured: Number of pollutant causes per listed water body segment, identifiable from EPA data systems available online. If the reporting unit contains more than one listed waterbody segment, the total number of pollutant causes per length of listed waterbodies can be measured.

Data Source: The Assessment TMDL Tracking and Implementation System (ATTAINS) (See: http://www.epa.gov/waters/ir/) contains information on 303d-listed waters by state and by semi-annual reporting cycle. States may also have more detailed information.

Indicator Status (check one or more)

_____ Developmental concept.
___x__ Plausible relationship to recovery.
_____ Single documentation in literature or practice.
___x__ Multiple documentation in literature or practice.
_____ Quantification.

Supporting Literature (abbrev. citations and points made):

- (Palik et al., 2000) RPI integrates information on ecosystem conservation status (historical vs. current rarity), with effort to restore a selected polygon to a reference condition. Our assumption for the latter is that cost to restore a disturbed site to the reference condition increases as degree of dissimilarity to the reference ecosystem increases (194).
- (ASIWPCA state meeting dialogue, unpublished, 12/2007) The number of stressors affecting and impaired water body is generally a direct indication of the relative complexity, expense and difficulty of its restoration, according to many practitioners. More pollutants causing impairments frequently implies more numbers and diverse types of responsible sources. The number of listing causes also may be associated with greater magnitude of impairment due to cumulative effects.
- (Palik et al., 2000). Highly disturbed sites require greater effort to restore than minimally disturbed sites (following the idea of thresholds of irreversibility; Aronson et al. 1993).