

Recovery Potential Metrics **Summary Form**

Indicator Name: UNIVERSITY PROXIMITY

Type: Social Context

Rationale/Relevance to Recovery Potential: Universities provide persons with specialized knowledge that may advance a restoration effort in numerous ways. Experts from universities may be able to fill information gaps, or lead technically advanced modeling or calculations essential to complex restoration plans. They also may be less polarizing sources of key information for reconciling stakeholder conflicts than corporate or agency experts. Students from universities may provide low-cost labor through the learning experience of restoration projects managed and overseen by professionals. As students and faculty are typically busy and seldom highly paid, proximity to an impaired water very likely influences the opportunity to become involved.

How Measured: Statewide coverage of universities may need to be developed if not readily available; the entries can be further refined by including only those colleges with environmental, hydrology, or civil engineering programs. Proximity can be estimated by buffering a selected distance (e.g., 50 miles) around either the impaired waters or the universities, then identifying the number of 'proximate' universities per each water. Distance may be increased if considered more appropriate.

Data Source: Statewide or other coverage of universities can be developed from online sources such as UnivSource (see <http://www.univsource.com/region.htm>) or American Universities (see <http://www.globalcomputing.com/CollegesContent.htm>). Locations of state and private universities with environmental, hydrology, or civil engineering programs can generally be obtained from state websites.

Indicator Status (check one or more)

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

Supporting Literature (abbrev. citations and points made):

- (ASIWPCA workgroup meeting, 2007, unpublished) In December 2007, TMDL program practitioners from approximately 10 widely distributed states gathered in Washington, DC and discussed numerous factors that influence their success in TMDL development, implementation and restoration. One discussion point that received wide agreement claimed that university proximity and involvement in projects was highly favorable in aiding restoration success. The reasoning was that universities present specialized knowledge in assessing pollutant impacts and developing restoration plans and techniques that address those impacts. Universities may contain professors or staff whose flexibility may be greater than other experts, sometimes allowing them to engage freely in projects of interest before restoration funding becomes available. Professors are frequently perceived as less polarizing figures than government experts by stakeholders, which can be helpful in conflict-prone situations. Further, class or student projects assigned and overseen by a professor can advance the data and understanding of a restoration action at low cost. It is reasonable to expect that proximity of the impaired

- water to the university (e.g. 50 mile radius) affects the likelihood of repeat involvement by unpaid to moderately paid students and faculty with busy schedules.
- (Informal discussions with Regional EPA staff, 2008) Discussions (with leading TMDL program coordinators and staff) of the role of universities in aiding restoration success verified the state opinions described above.