


Environmental Indicator Profile Sheet

	<p>Indicator Profile No. 20</p> <p>User Perception</p> <p>Category: Social</p>	<p>Tools Used to Measure Indicator:</p> <ul style="list-style-type: none"> • Direct mail to public • On-site interviews • User survey and counts
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Description:
 Successful stormwater management efforts depend, in large part, on public support. Public support, in turn, depends upon its valuation of water resources. The public's valuation of a particular water body is usually based on more than water chemistry. Appearance, surroundings, ease of access, and apparent water quality are all considered by the average user. Trash, floatables, and turbidity will detract from the appearance of the water body. Surroundings are perceived as less than ideal when there is limited tree cover or other bank-side vegetation. Extremely dense vegetation, limited physical access, or remoteness may also detract from perceived value. Finally, oily waters, unusual colors and odors will also count against the water body.

It is possible that water bodies with generally good water quality may be perceived as being in poor condition by the public if access is limited or the water is turbid. On the other hand, biologically impaired waters may be perceived by the public as "clean" solely based on the lack of obvious pollution such as tires or bottles.

- Utility of Indicator to Assess Stormwater Impacts:**
- Can be used to assess the public's perception of existing conditions in the watershed.
 - Can be used as a foundation for educating the public about the "hidden" impact of water quality pollution.
 - Can be used as a platform for generating stewardship programs and public support for water restoration efforts.
 - Can be a major component of a public educational program which incorporates results of surveys into future programs.

- Advantages of Method:**
- Effective way to obtain information regarding citizen attitudes/concerns for a particular issue or set of issues.
 - Gives decision makers information on what aspects of watershed restoration are most important to the public.
 - Survey results are generally easy to interpret and therefore can be an effective tool for non-technical applications.
 - Targets the portion of the public most likely to be knowledgeable about water quality issues and be supportive of watershed restoration efforts.

Indicator Useful for Assessing:

- * Aquatic Integrity of:
 - Lakes ●
 - Streams ●
 - Estuaries ●
- * Land Use Impacts ○
- * Stormwater Mgmt Programs ●
- * Whole Watershed Quality ●
- * Industrial Sites ○
- * Municipal Programs ●

Key:

Very Useful ●

Mod. Useful ●

Not Useful ○

Indicator Advantages

- * Geographic Range ●
- * Baseline Control ●
- * Reliable ●
- * Accuracy ●
- * Low cost ●
- * Repeatable ●
- * All Watershed Scale ●
- * Familiar to Practitioners ●
- * Easy to use & Low training ●

Key

Very Advantageous ●

Mod. Advantageous ●

Not Advantageous ○

Cost

See Table 3.3D

Disadvantages of Method:

- Results of survey are dependent on the number of people who respond and the degree of importance people place on water quality issues.
- Results can be dependent on the socioeconomic status of the community being surveyed, the proximity of the water body, and the designated recreational usage.
- Results of survey are site-specific. The survey results assess concerns about a specific water body, not the entire watershed.
- Language barriers and lack of phone or address information may result in missing key population groups.
- Does not directly measure changes occurring in water quality.
- Can be very costly to obtain a representative survey sample.

Case Study: Desvousges, W.H.; V.K. Smith, M.P. McGivney, 1983.

Interviews with Target Audiences: Comparison of Alternative Approaches for Estimating Recreation and Related Benefits of Water Quality Improvements

Environmental Protection Agency, Misc. Rep Ser. U.S. EPA. No. EPA/230/05-83/001

Pollution control policy can reduce the amount of effluents going into a particular river. In turn, this changes the water quality and ecological habitat. The public then may be able to use the river more for in-stream activities such as swimming, boating, and fishing and for withdrawal purposes such as drinking water, irrigation, and cooling. However, measuring change in use understates the total benefits of the pollution control if there are positive "intrinsic" benefits for preserving the potential for future use and vicarious consumption. This study compares three methods for measuring overall recreation and related benefits of improved water quality. These methods are travel cost, contingent calculation, and contingent ranking. The comparison is based on detailed interview data for 305 user and nonuser households in the Pennsylvania portion of the Monogahela River watershed. The benefits measurement approaches show consistent results for comparable changes in water quality. The results of this project strongly support the feasibility of measuring the recreation and related benefits of water quality improvement.

Method References:

- Direct Mail: Hampton Roads Municipal Communicators, 1992. *Environmental Attitudes Surveyed in Hampton Roads*, Hampton Roads Municipal Communicators
- Methodology: Interviews with Target Audiences: Brinkley, C. And W. Hanemann, 1978. *The Recreation Benefits of Water Quality Improvement: Analysis of Day Trips in an Urban Setting*. U.S. EPA