

SECTION 9: MONITORING EFFECTIVENESS

A monitoring plan is needed to track the indicators and evaluate the effectiveness of the implementation efforts over time. Indicators of success are listed for each of the six goals.

Goal #1: Sustain the financial and institutional capacity of a stakeholder group. Increase the collaboration of both urban and agricultural stakeholders to eliminate program duplication, reduce costs, and identify effective solutions.

Research done by V3 indicates that approximately \$18.2 million is needed to accomplish the pollutant reduction goals over the next 20 years.

Indicators of Success:

- Ratio of dollars obtained to dollars needed
- Increase in ERA members/supporters
- Procuring other grants
- Quarterly Steering Committee meetings
- An active subcommittee for each high priority concern

Goal #2: Reduce soil erosion and sedimentation so that surface water functions and aesthetics are improved and protected. By the year 2027, surface waters within the Elkhart River Watershed will comply with the Steering Committee's target based on the recommended water quality threshold of 80 mg/L total suspended solids.

The selected water quality indicator for accomplishing goal #2 is based on the measurable improvements to the pollutant concentrations in the TSS load reduction modeling. As the implementation of agricultural and urban BMPs takes place within the Watershed, improvements to the TSS loads can be projected.

Indicators of Success:

- Number of Agricultural BMPs
- Number of Urban BMPs
- Model reflects TSS load reduction

Goal #3: Reduce the concentration levels of *E. coli* so the primary and secondary contact waters within the Watershed do not pose an adverse human health impact. By the year 2027, surface waters within the Elkhart River Watershed will comply with the Indiana State water quality standard of 235 colony forming units per 100 ml of *E. coli*.

The reduction of *E. coli* levels are not based on modeling of water quality, so indicators for this goal can be expanded to evaluate the implementation of BMPs to reach goals #2 and #4. Successfully accomplishing outreach and education components of goal #6 will also indicate reductions of *E. coli* levels in agricultural lands, urban lands, and from rural residential lands.

Indicators of Success:

- Number of Agricultural BMPs
- Number of Urban BMPs
- Monitoring samples collected without exceedances of 235 colony forming units per 100 ml of water for concentrations of *E. coli*

Goal #4: Reduce the amount of nutrient loading (phosphorus and nitrogen) so that surface water functions and aesthetics are improved and protected. By the year 2027, surface waters within the Elkhart River Watershed will comply with the Steering Committee's target based on the recommended water quality threshold of 10 mg/L of nitrate/nitrite and 0.3 mg/L of phosphorus.

The selected water quality indicator for accomplishing goal #4 is based on the measurable improvements to the pollutant concentrations for total nitrogen and total phosphorus load reduction modeling. As the implementation of agricultural and urban BMPs takes place within the Watershed, improvements to the nitrogen and phosphorus loads can be projected.

Indicators of Success:

- Number of Agricultural BMPs
- Number of Urban BMPs
- Model reflects nitrogen and phosphorus load reduction

Goal #5: Increase preservation, restoration, and appreciation of open space, and maintain a proper balance between the many diverse landuses in the Elkhart River Watershed.

An indicator of accomplishing goal #5 can involve the general inventory of lands held within preservation and open space landuses. Indicators of successful restoration of uplands, wetlands, shoreline, and stream channels are all positive indicators of reaching this goal. An increase in appreciation of open space is difficult to quantify, so focus should be on areas providing opportunities for diverse user groups

Indicators of Success:

- Acres protected by land trust organizations
- Acres of wetlands restored
- Acres of public open space protected
- Number of programs providing opportunities to appreciate open space

Goal # 6: Develop an outreach and education program that keeps stakeholders involved in issues in the Watershed, and coordinate volunteer activities that benefit the health of the Elkhart River Watershed.

Indicators for achieving goal #6 can be identified by the successful accomplishment of the high priority action items for this goal, which include:

Indicators of Success:

- Number of programs and people in attendance
- Number of individuals accessing the ERRA and ERA websites
- Number of volunteers
- Number of volunteer hours dedicated to the goals of the Elkhart River WMP
- Number of printed materials distributed