

AMI's are indicators for water quality:

- An indicator is something you can measure that gives you information about something else
- The reason we use indicators is because they are easier, quicker, and/or more convenient than other measurements.

Remember... Water quality is relative
(always in reference to same use of water)

→ Recreation (minor)

→ FISH & other
organisms (major)

· pH ~ 5-8

· temp = cool

· turbidity = low

· DO = high

AMIs can
tell us if
the water quality
is good for...

If AM's tell us
that the water
quality is good,
this is what that
looks like.

Mayfly Richness **Population**
This is the total number of mayfly families identified from the sample.

Stonefly Richness **Population**
This is the total number of stonefly families identified from the sample.

Caddisfly Richness **Population**
This is the total number of caddisfly families identified from the sample.

% Chironomidae **true flies**
This is the total number of chironomids (midges) in the sample divided by the total number of true flies

organisms sorted from the sample, multiplied by 100.

% Dominance **(one group)**
This is the total number of the most abundant organisms divided by the total number sorted from the sample, multiplied by 100.

Add up the scores for each metric to determine the total site score or biotic index. The total scores are used to determine three levels of impairment as indicated below.

Table 12-4. Family level metrics and scoring criteria.

Metric	Raw Value	Scoring Criteria			Score (Circle)
		5	3	1	
Taxa Richness total orgs		>18	10-18	<10	5 3 1
Mayfly Richness pop		>4	2-4	<2	5 3 1
Stonefly Richness pop		>3	1-3	0	5 3 1
Caddisfly Richness pop		>4	2-4	<2	5 3 1
% Chironomidae true flies		<15	15-30	>30	5 3 1
% Dominance		<30	30-50	>50	5 3 1
(Top 3 Taxa)					
Score Range	Stream Condition				
>23	No impairment: passes Level 2 assessment. Indicates good diversity of invertebrates and stream conditions with little disturbance. Further sampling will help confirm the site's condition as unimpaired.				
17-23	Moderate Impairment: evidence of some impairment exists. Requires further study and more detailed analysis.				
<17	Severe Impairment: fails Level 2 assessment. Evidence of stream disturbance exists. Further study may be warranted to confirm level of impairment and potential causes.				