

OWEB Level 2 Assessment of Water Quality*

The Level 2 assessment is based on family level identifications. The number of organisms in each family are counted and recorded. The family-level metrics and scoring criteria are:

Taxa Richness – total number of macroinvertebrate families identified from the sample.

Mayfly Richness – total number of mayfly families identified from the sample.

Stonefly Richness – total number of stonefly families identified from the sample.

Caddisfly Richness – total number of caddisfly families identified from the sample.

% Diptera – total number of diptera (true flies) in the sample divided by the total number of macros X 100.

% Dominance – total number of the three most abundant organisms divided by the total number of macros X 100.

Metric	Raw Score	5	3	1	Score (circle one)
Taxa Richness		>18	10 – 18	<10	5 3 1
Mayfly Richness		>4	2 – 4	<2	5 3 1
Stonefly Richness		>3	1 – 3	<1	5 3 1
Caddisfly Richness		>4	2 – 4	<2	5 3 1
% Diptera (diptera/total X 100)		<15	15 – 30	> 30	5 3 1
% Dominance (sum top 3/total X 100)		<30	30 – 50	> 50	5 3 1
				Sum the Score =	

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 water quality 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.

* OWEB Level 2 Assessment as presented to Clark County educators by the Environmental Information Cooperative, Fall 2005