

Luray High School Water Testing

Water Source: *Hawskbill Creek*

Location: *Ruffner Plaza, Luray VA*

Class *Fall 2017 Earth Science Honors*
School *LHS*
Date *11/15/2017*

Testing Equipment: Low-Cost Water Monitoring Kit LaMotte (tab tests)

I. Data

Dissolved Oxygen (ppm)	Nitrate (ppm)	Phosphate (ppm)	pH	Coliform (positive or negative)
<i>0.7 ppm</i>	<i>5 ppm</i>	<i>0.6 ppm</i>	<i>7.4</i>	<i>+</i>

0% saturation

Water Temperature *10* DEG C

II. Rate The Following Parameter Concentrations Below.

DO (Dissolved Oxygen)

1 (poor) 2 (fair) 3 (good) 4 (excellent)

Nitrate
1 (poor) 2 (fair) 3 (good) 4 (excellent)

Phosphorus
1 (poor) 2 (fair) 3 (good) 4 (excellent)

pH
1 (poor) 2 (fair) 3 (good) 4 (excellent)

Fecal Coliform (check which one applies)

positive negative

The Water Is Safe (check all that apply):

for drinking
 for swimming

III. Using the data collected above, assess the overall stream health of the Hawksbill Creek at Ruffner Plaza, Luray, va.

Our low dissolved oxygen reading indicates poor overall health of the stream because 0% of the water is saturated with oxygen; therefore, aquatic life will struggle to thrive.

Nitrate readings are consistent with previous tests, concluding that our creek is oversaturated with nitrate nutrients that could lead to adverse health affects in infant humans and excess in algae growth.

phosphorus readings indicate a good level of phosphorus nutrients. No concerns.

pH - excellent (neutral)

The water has tested positive for fecal coliform so we don't recommend drinking the water. This could be contributed to agricultural waste.

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