

2004 Budget Request - BSRA Water Testing program

“We know what we know”- from last year’s water testing

1. of the 8 beaches and 4 ravines sampled the ravines consistently exceeded recommended levels of E.coli (100 E. coli/100mL of water) sometimes by factors of 10, 20, and even 40 X.
2. Huron County Health officials permanently posted 7 beaches in Huron County including 2 in our study area (Houston Heights and St. Joseph’s)

“We know what we don’t know”

-we don’t know the specific source(s) of the high E.coli counts in these ravines.

The proposal consists of the following 2 protocols

Protocol 1:

1. continue to sample the water quality(E.coli levels) on a weekly basis in last year’s test areas.
2. a number of parameters will be noted at the time of sampling including wind strength and direction, wave height, water and air temperature, solar conditions, rain history, turbidity etc.
3. algae identification, nitrate and phosphate testing where algal blooms are noted (ravines particularly)
4. pilot study involving the correlation between traditional E. coli test procedures vs. new quick (<8 hour) procedure.

Protocol 2:

This protocol applies to the ravines only and will be piloted on the St. Joseph's Ravine initially. The protocol employs *Microbial Source Tracking* as explained in the handout prepared by [GAP EnviroMicrobial Services - click here for Word document](#)

Rationale for St. Joseph's

- 1. to support and provide data for BSRA's request "that the watershed with the outflow at the St. Joseph's ravine be established as an area for a water quality pilot initiative"*
- 2. data on the ravine dates back from 1984 to present.*
- 3. the watershed is relatively small and well defined (good for a pilot study) easily accessible and is representative of various stakeholders' multiuse demands.*

The budget request includes:

- 1. The hiring of a student part-time (1 day /week) during the time of the study. Training of the student in sample collection will be done by GAP laboratories.*
- 2. Pick up of weekly water samples will be in Grand Bend by GAP for delivery to and testing in their London laboratories.*
- 3. Protocols 1 and 2 will be completed by GAP with protocol 2 expanded to the other ravines in the study area as time and money permit.*
- 4. GAP will e-mail weekly water test results promptly to BSRA's website.(Wednesday sampling posted Friday afternoon)*
- 5. GAP will submit a final written report to council summarizing and interpreting their results with recommendations based on their findings and past historical data. This report will also be submitted by BSRA to the Huron County Water Protection Steering Committee.*

The above is costed out at \$15,000 and BSRA's request is for that amount

GAP is very interested in undertaking this study and in doing so have reduced their charges for the weekly E coli samples and are including at no charge their quick analysis of E coli vs. the more traditional techniques.

They have invested many hours of work already (20 man- hours alone meeting with our environment committee chairman) with additional hours spent in developing and refining the protocols. In all matters they have been very prompt, professional and helpful!

**for additional information on DNA techniques we suggest*
<http://www.ecolirep.umn.edu>