

**Date:** May 1, 2019  
**To:** Local Public Health Inspectors (PHI), Medical Officers of Health, Environmental Public Health Advisors, Safe Healthy Environments Directors and Managers, Alberta Environment and Parks Directors and Managers  
**From:** Alberta Public Laboratories (APL) - ProvLab  
**Re:** Changes to Recreational (Beach) Water Testing

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### PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

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#### Key Message:

- Under the proposed *Alberta Safe Beach Protocol*, recreational beach water testing will change to *Enterococcus* using the quantitative polymerase chain reaction (qPCR) based molecular method (*Enterococcus* qPCR) from the previous thermotolerant coliform testing using a culture-based method. This change is effective May 13, 2019, and there will be no further testing of thermotolerant coliforms.
- When the quantitative testing results of *Enterococcus* qPCR are between 1,280 - 6,400 CCE/100 mL, a microbial source-tracking (MST) panel will also be analysed using *Bacteroides* real time PCR to further check for human or bovine faecal contamination.
- This change in testing methods will provide improved correlation of test results with risk to human health.
- Recreational water samples will be accepted from the third week of May to the second week of September.
- Only the priority beaches identified on the AH/AHS list will be tested.
- For each priority beach, the operator is eligible to submit a maximum of 1 set of samples per week during their open season.
- For sites not identified as priority for routine testing but requiring special investigations into suspected faecal contamination and risk to human health, please contact the local PHI. If needed, the local PHI will call the ProvLab Water Lab at 780-407-8925 to obtain a pre-approval BEFORE collecting and submitting samples.

**Sample submission:** Refer to Provincial Lab Guide to Services

(<https://www.albertahealthservices.ca/webapps/labservices/indexProvLab.asp?id=5376&tests=W&zoneid=1&details=true>)

- The following water samples will be REJECTED:
  - Samples from beaches other than those listed as priority beaches without the pre-approval
  - Samples submitted outside of monitoring season
  - Samples arriving in the lab outside the standard time for *Enterococcus* qPCR testing (acceptance: Monday – Wednesday before 16:00 at ProvLab Calgary and Monday – Thursday before 12:00 noon at ProvLab Edmonton)
  - Extra samples over and above the weekly number of samples for a given beach.

#### Background & Importance:

Alberta has used the detection of thermotolerant coliforms as the accepted standard approach for evaluating recreational water quality for many years. Under Alberta's Safe Beach Protocol, new recreational water quality standards based on molecular testing for *Enterococcus* and *Bacteroides* are being adopted (1). These new standards better correlate with risk to human health and thus better protect the health and safety of Albertans.

#### Inquiries and feedback may be directed to:

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**This bulletin has been reviewed and approved by:** Dr. Graham Tipples, Medical-Scientific Director, Public Health, APL

<sup>1</sup> Thermotolerant test for the detection of faecal coliforms will be replaced by the quantitative USEPA Method 1611: *Enterococci* in Water by TaqMan qPCR Assay (*Enterococcus* qPCR) for recreation beach water.