METHOD STATEMENT

Determinand:
Escherichia coli and total coliforms

Matrix:
Bathing waters

Principle of method:
Volumes of sample, or appropriate aliquots of suitable dilutions, are filtered. The filters are incubated on absorbent pads soaked in Membrane Laurel Sulphate Broth (MLSB). The organisms produce characteristic yellow colonies on MLSB. Total coliforms and E. coli are distinguished by thermo tolerance.

Sampling and sample preparation:
Once taken, microbiological samples should be transferred immediately to dark storage conditions and kept at a temperature between 2 - 8°C for transport to the laboratory. If samples are not analysed immediately on receipt in the laboratory, they should be kept at a temperature between 2 - 8°C, in dark conditions until analysis commences.
Samples should be analysed as soon as practicable on the day of collection. In exceptional circumstances, if there is a delay, storage under the above conditions should not exceed 24 hours before the commencement of analysis.

Interferences:
Samples with high turbidities may not be suitable for this method. The particulates may block the filter and limit the volume that can be examined. Accumulated deposits on the membrane may mask or inhibit the growth of the target organisms. High numbers of competing organisms may also mask or inhibit the growth of the target organisms. More than one sample volume/dilution should also be filtered to enable easy reading of the final plates.

Performance of method:

Range of Application:	0 – 100000 cfu/100ml (with standard dilutions)
Limit of Detection:	0 cfu/100ml
Normal Reporting Level:	0 cfu/100ml

References:
The Microbiology of Recreational and Environmental Waters (2000).

Environment Agency. The Microbiology of Drinking Water (2002) . Part 4. Methods for the Isolation and Enumeration of Coliform Bacteria and Escherichia Coli (including E. Coli 0157:H7).