



## The Ocean County Utilities Authority

Helping to preserve the water resources of Ocean and Southern Monmouth County NJ

Summer 2007

### OCUA LAB PARTICIPATES IN EVALUATION OF QUICKER BATHING BEACH WATER QUALITY TEST PROCEDURE

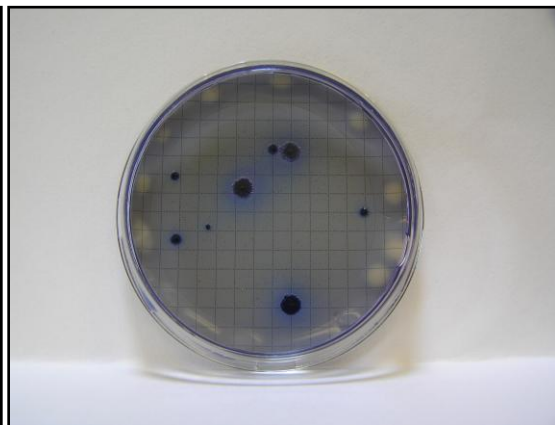
The OCUA Central Laboratory has been providing the analytical lab testing of samples from bathing beaches in Ocean County for over ten years through an intergovernmental agreement between OCUA and the Board of Health. The Coastal Cooperative Monitoring Program (CCMP) is coordinated by the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA). Samples are taken by the Board of Health and brought to OCUA's lab for testing.

The testing procedure uses an "indicator" organism to determine if harmful organisms, pathogenic bacteria, are potentially present. The traditional indicator organism is fecal coliform bacteria which are present in the digestive tract of warm blooded animals. Water samples are filtered to trap any organisms and then incubated on a media that is specific for fecal coliform. After 24 hours the filters are viewed under a low power microscope to see if any colonies of bacteria have grown. A few years ago another "indicator" organism, Enterococci, was introduced for use in saline waters because it is more specific for humans. This test takes a minimum of 24 hours as well.

The problem with existing tests is that the 24 hour delay in the testing results could leave beaches open while a "bad" sample is being analyzed. Health Departments have been longing for a test that can give results in a shorter time. This year OCUA is participating in a trial of a new procedure that can yield results within 4 hours. Before this new procedure is approved, the results from it must be verified with the traditional method through a side by side comparison of results from the same sample. OCUA's Central Lab has been selected by the EPA, which is the lead agency for this trial, to perform this side by side evaluation during the summer of 2007. OCUA Lab Manager, Bob Grant, and Lab Supervisor, Carol Conklin, have been working closely with all parties to make this trial successful. If approved, the new method could make water quality testing and beach closings quicker and more protective of public health.



Carol Conklin, OCUA Lab Supervisor, filters a sample from a bathing beach.



Colonies of fecal coliform after 24 hours of incubation.