INTRODUCTION

A regular water quality monitoring programme for the Putrajaya Lake and Wetland has been implemented since year 2000. The main objective of the programme is essentially to verify that the water quality is suitable for the intended use of the lake viz-recreational activities. The monitoring data is also used to determine spatial and temporal trends in water quality and to assess the potential impacts of anthropogenic activities. General water quality parameters are determined at various frequencies. Water quality monitoring involves the measurements of dissolved oxygen (DO), pH, temperature, conductivity, salinity, transparency, BOD, COD, NH,N, TSS, E-coli, Faecal Coliform, Total Coliform, Chlorophyll a, Total P and Total N in both lake and wetland.

OBJECTIVES

- To ensure that the Putrajaya lake and wetland water quality sampling and water quality in-situ measurements of lake and wetland and related processes are carried out in accordance with internationally-accepted protocols as recommended in the International Standard ISO 5667:2006, World Health Organisation, 1987.
- To monitor and assess the water quality at the Putrajaya lake for its suitability for recreational use with body contact by the determination of compliance to appropriate standards such as the Putrajaya Lake Water Quality Standards (PLWQS), the National Water Quality Standards for Malaysia (NWQS), the National Lake Water Quality Criteria and Standards (NLWQS), the World Health Organization (WHO) Guidelines for Safe Recreational Water Environment, the European Economic Community (EEC) Standard 76/160EEC: requirements for bathing water, ISO 5667-Part 4:2006: Guidance on sampling from lakes, natural and man-made and other relevant standard. As integral components of the lake ecosystem, the water quality at the wetland and groundwater quality will also be assessed.
- To identify and investigate pollution sources that may compromise recreational use including bacteriological contamination and aesthetic degradation and to recommend appropriate remedial and preventive actions.
- To monitor and assess potential problems normally associated with a lake system, in particular organic/microbial loading, eutrophication and acidification.
- To assess efficacy of existing environmental management and control measures and to propose appropriate recommendations when necessary.
- To investigate trends in pollution, identify potential threats and recommend preventive management measures.

RESULTS

Overall improvement in Lake Water Quality based on WQI.

Water quality in Putrajaya Lake are classified as moderate good to good corresponding to Class II to Class I.

CONCLUSIONS

- Overall improvement in Lake Water Quality based on WQI.
- Water quality in Putrajaya Lake are classified as moderate good to good corresponding to Class II to Class I.

Way Forward:
- Information exchange and evaluation/joint study with international links.
- MOU with University – research and study for recognized level of expertise.