Summary

Waterbodies include rivers, wetlands, and lakes in which water structures play an important role in both animal and herbal environment, are very important for ecosystem persistent. It is obvious that existence of biodiversity and resources on earth depend on such water ecosystems. Also the applications, benefits, and enormous values making them ideal places and as a result, monitoring and protecting water ecosystems, today is important higher than ever.

Human activities have lately threated water ecosystems, due to over exploitations, industries establishment, and abnormal developments which may shortly result in an ecological collapse.

Iran country has 89 significant wetlands which is nearly 7% of the country's total marshland. Almost 65% of these areas are protected by Ramsar Conversion, (currently including 24 wetlands), Biosphere Reverse, and department of environment. In addition, a comprehensive wetlands management investigation is being carried out. currently, based on Integrated Water Resources Management and an ecological approach, Implementing a monitoring system plays the significant role in understanding the current state of a water body indicating required decisions and plans for a comprehensive management of that water body based on the gathered data; results in assessing the outcomes. On the other hand, an effective system entails the current circumstances knowledge and standard mechanisms based on an optimized and dynamic pattern which can be established as an instruction form.

Inevitably, building an advanced society expects criteria, standards, instruction forms, and regulations, along with the economic development found on the enforcement. Introducing regulations, criteria, and standards in any subjects depend on the own specialized and technical knowledge, with regard to the vast of today science for that reason, the key step toward water quality management would be the identification and monitoring wetlands water quality to recognize the quality standards for wide applications. Note 2 of article 106 of Iran third's development plan also requires full attention for providing and upgrading the monitoring equipment on the country’s water sources, forming the group to measure contamination of water resources, and improving the quality management principles. it should be verified that the planning and operating involve the systematization procedure with respect to the standards and the related regulations, in order to cover up the necessary information of the different water management sections, in addition to the minimal costs to water quality monitoring programs.

This monitoring procedure guide, follows an instruction form as to suggest the standards mechanism for, and a novel approach to the selection and setting up a workable monitoring system, regarding the importance of wetlands as one of the most valuable natural resource. Thus, chapter (1) discusses why monitoring is necessary, what are the types, and what is the wetlands monitoring cycle, chapter (2) presents more about wetlands environment, the different types, and the classifications into setting up the monitoring systems by using some examples. Therefore, the experts and the users may follow the instruction on how to identify a wetland properly and classify them based on the monitoring approach, chapters (3) and (4) describe the special instructions for monitoring wetlands both in Iran or around the globe, appearing to indicate strongly why this issue receives the considerations on the fundamental studies for a wetland, chapters (6) and (7) discuss the monitoring measurable parameters and the equipment associated with them. Chapter (8) introduces storing the monitoring obtained data in the data bank and then analyzing them. Along with the conclusion, finally, a decision making model is proposed in chapter (9) for prioritizing wetlands monitoring based on three example.

Authors sincerely encourage the readers to take note of this instruction form and offer any specific suggestions and comments as well.