NOTICE OF PUBLICATION

⊕RESEARCH REPORTS

Title: Modeling Water Quality in Aquaculture Ecosystems

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Abstract: The techniques and uses of computer models, future developments, and applications of computer modeling in aquaculture are reviewed. The general characteristics of aquaculture ecosystems are summarized from a computer modeling point of view. Various types of models of aquaculture systems are presented, including models that simulate dissolved oxygen concentration, water temperature, and other water quality variables. The models presented are reviewed from perspectives of modeling technique, model uses, data requirements, and predictive ability. Future applications of computer models in aquaculture research and commercial practice are proposed. These applications include the development of models integrated with automated data acquisition and control systems, models that simulate water temperature and water quality parameters simultaneously, and models for use in stratified ponds.