



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2004RI25B

Title: URI Water Reserve Project

Project Type: Research

Focus Categories: Water Use, Conservation, Treatment

Keywords: Education, Conservation, Treatment, Water Reuse

Start Date: 03/01/2004

End Date: 02/28/2005

Federal Funds: \$10,360

Non-Federal Matching Funds: \$83,782

Congressional District: 2

Principal Investigator:

Vincent Celmer Rose

Abstract

This project will be a joint effort between The College of Engineering and the University Facilities Services to implement a water reuse plan for the experimental aqua culture facility at East Farm. The facility currently uses approximately 100,000 gallons per day of potable water in a once through manner.

The effort will involve: 1. Evaluating systems to treat high BOD waste water. 2. Selection and installation of an appropriate system. 3. Determination of the best operation conditions. 4. Collection and evaluation of operating data. 5. Calculating the cost and payback period for this installation.

The East Farm facility buys water from the Kingston Water District. This water is pumped from wells in the Chipuxet Aquifer. After once through use, the water is discharged into the Saugatucket River Watershed, resulting in an out of basin transfer. Since the Kinston Water District and the University of Rhode Island both use the Chipuxet Aquifer as a source of water, recycling will reduce the demand on this stressed sole source aquifer.

This work will be conducted under the direction of David Lamb, the URI Utility Engineer, and Vincent Rose, a URI Engineering faculty member and a member of the Kingston Water District Board. In addition to the efforts of Mr. Lamb and Dr. Rose, the project will involve a URI Engineering student, ten hours per week during the academic year and 40 hours per week during the summer for one calendar year. It will augment the on-going efforts to develop a water conservation plan for the University of Rhode Island water system.