

# SHOWCASE



## USFWS ranks 41 on the Fortune 500 list!

A first of its kind report from the US Fish and Wildlife Service (USFWS), undertaken with state agencies and other conservation organizations, says the fisheries division of the service puts \$3.6 billion a year into the national economy, generating 68,000 jobs across the country. A substantial part of that involves hatcheries, habitat restoration and conservation.

"The report confirms once again that fishing, hunting and other outdoor recreational activities are an economic engine for our country," Secretary of the Interior Ken Salazar stated in releasing the study. "When we invest in restoring fish and wildlife habitat and creating opportunities for people to enjoy outdoor recreation, we are investing in economic growth and jobs for the American people."

Overall, said Salazar, hunting, fishing and outdoor recreation contribute around \$730 billion annually to the US economy; 5% of jobs nationwide are in the recreation economy: more than in professions such as teachers, lawyers or doctors.

"How big is \$3.6 billion?" asked Bryan Arroyo Bryan, Assistant Director for Fisheries and Habitat Conservation in Washington, DC. "A company with annual profits of \$3.6 billion would rank No. 41 on the Fortune 500 List of America's Most Profitable Corporations."

The report, *Conserving America's Fisheries, An Assessment of Economic Contributions from Fisheries and Aquatic Resource Conservation*, shows that each dollar invested in the Service's Fisheries Program, combined with its partners, generates about \$28 in economic contributions... "These are evidenced at sporting goods stores, marinas, guide- and outfitter services, boat dealerships, bait shops, gas stations, cafes, hotels, and many other enterprises."

The national fish hatchery stocking program alone yields the following results in recreational angling each year:

- 13.5 million angler-days;
- \$554 million in retail sales;
- \$903 million in industrial output;
- 8,000 jobs;
- \$256 million in wages/salaries;
- \$37 million in federal tax revenues;
- \$35 million in local tax revenues.

For a good read visit:  
[www.fws.gov/.../conservingfisheries.htm](http://www.fws.gov/.../conservingfisheries.htm)

## CANADA

# New aquatic research facility nears completion in Vancouver, BC

**I**ntegrated Aqua Systems, Inc. (IAS) of Escondido, California was awarded a contract in Spring 2011 to design, build, supply and commission a new Aquatic Research Facility for the University of British Columbia in Vancouver, Canada. Construction is currently underway with completion scheduled for late January or February 2012.

According to a press release from Integrated Aqua Systems the state-of-the-art facility is the largest of its kind in Western Canada and will serve students and researchers' aquaculture research needs for many years to come.

IAS is supplying the facility with 13 recirculating systems which will occupy eight research rooms with over 7,000 sq ft of combined laboratory floor space in the newly renovated Biological Sciences building. The systems include seven 3,000 gallon recirculating systems designed for high-density (stocking 80kg./m<sup>3</sup>) fish rearing and six 2,000 gallon recirculating systems designed for low-density (stocking 20 kg/m<sup>3</sup>) fish rearing and holding.

In addition to the recirculating systems, IAS also designed and supplied the effluent treatment system and seawater supply pump systems for the project. IAS collaborated on the project with JLH Consulting of Courtenay, BC; Aquacare Environment, Inc. of Bellingham, Washington; and Fulcrum Technologies, Inc. located in Nanaimo, BC.

Systems supplied by Integrated Aqua Systems are designed for 99.9% recirculation utilizing PermaBead™ filtration systems as the primary mechanical filtration and MicroBead biofilter technology for biological removal of ammonia and CO<sub>2</sub>. A facility-scale Windows based PLC backwash automation system was designed and supplied to provide complete automation of filter backwashing with freshwater for all 13 systems.



Additional life support equipment used in the project include UV Sterilizers and ozone for sterilization and disinfection, denitrification systems to remove nitrates, protein fractionators to remove dissolved organic particles, and low head oxygenators (LHO) supplied with pure oxygen from a centralized oxygen generator to support high fish densities in tanks.

In addition to designing and supplying the recirculating systems for the project, IAS was retained to design the water quality monitoring, control and alarm system for the entire facility.

Although the primary culture species are salmonids, the systems and facilities are designed to be used as "flex" research space to provide optimal rearing conditions for a wide range of saltwater and freshwater species in cold or warm water. The primary focus for UBC researchers spearheading the project will be to define the ideal fish rearing conditions, water quality parameters, feed rates and stocking densities for commercial aquaculture. Research from this project is intended to support commercial efforts to develop inland recirculating aquaculture throughout North America.

For more information go to [www.integrated-aqua.com](http://www.integrated-aqua.com)



## Technology donation helps conservation organization

The Conservation Fund's Freshwater Institute in Shepherdstown, West Virginia is benefiting from a donation of technology and expertise from YSI, a developer and manufacturer of water quality monitoring and testing equipment. Freshwater is using the donation to grow populations of salmon and trout on land.

"YSI is proud to work in conjunction with quality organizations committed to the environment," said Tim Grooms, product manager. "Working closely with the Freshwater Institute to continuously provide water quality information in their closed containment aquaculture systems is vital to conserving our most precious resource – water."



Recirc tanks at Freshwater Institute.