



GREEN BOAT PROJECT A Worldwide First

RiverQuest's mission is to impact people's relationships to the world's environment through unique river-based education and adventure experiences.

RiverQuest has created Explorer, one of the first green passenger boats in the world to serve as its flagship vessel for river-based science education and public programming. The 150-passenger, 90'x25' boat is projected to serve over 10,000 students a year over time, while reducing emissions to air and water, implementing innovative propulsion technology and utilizing alternative fuels. It will serve as a practical model for sustainable boating technology worldwide. The following objectives have guided the Explorer project:

- Serve as an **educational tool and real world example of sustainable design practices** for the students, teachers and the public that RiverQuest serves.
- **Minimize the impact of operations on the natural environment.**
- Showcase how **green building design** and environmentally friendly procedures can be utilized on a passenger vessel **while still maintaining operating efficiency and reliability.**
- Design and build a passenger vessel that implements the Leadership in Energy and Environmental Design (LEED™) process for all applicable systems.

Over **110 onboard systems** were investigated and the resulting vessel design

demonstrates a number of technologies that are new to the marine industry. The following are examples of the innovative features of RiverQuest's Explorer:

- Hybrid diesel-electric propulsion system and a power plant designed for the future addition of solar, wind or fuel cells.
- Large battery banks for zero emission operations - charged at dock or underway.
- Generator engine waste heat recovery.
- Excellent thermal insulation system.
- Low volatile organic coatings.
- Highly efficient interior and exterior lighting systems.
- Water efficiency and zero wastewater discharge.
- Energy management and control system.

Project Team:

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TRACO

The Windows And Doors That Greet The World.

