Finding Green Solutions for the Disposal of Fiberglass Boats

Against the Wind:

Dennis Nixon
The Growing ‘Fiberglass Dilemma’
The New Frontier: Vessel Recycling

Technological Recycling Processes
- Pure Materials Recovery (Physical Processing, Grinding, Separation of “recyclate”)
- Microwave Pyrolysis (Chemical Recovery, Melting and Separating of Materials in the Absence of Oxygen)

Valuable Components
- Polyester Fibers
- Liquid Resin
- Oil/Wax Additives

Much Different from Traditional Boatyard “Recycling”
Lessons From Abroad

Ongoing Efforts
- BOATdigest Program (EBI, European Commission)
- APER Recycling Network (52 sites in France, 4,000 hulls recycled since 2009)
- Japan Marine Industry Association Recycling Project (6,000 hulls recycled since 2000)
- First International Yacht Recycling Conference held November, 2015
Creating a Recycled Fiberglass Market

- Create value from a “low value” material
- Cultivate sustainable options for reuse
- Collaborate with other fiberglass industries
- Build capacity through investment
Fostering a New Maritime Industry

Share the Responsibility
- Stimulate funding through tax/fee systems

Develop a Supportive Policy Framework
- Help promote sustainable practice on State & Federal levels

Utilize Preexisting Marine Industry Infrastructure
- A perfect solution to the boatyard “off season”
Potential for Rhode Island

Applying national average rate of vessel retirement in R.I.: 1,392 FRP vessels / 1 year
(NMMA: 2014)

16% of all RI households own a registered boat
(NMMA: 2008)
Rhode Island Mattress Recycling Plan

- Producer Participation
- Established Fee Structure
- Proposed New Facilities
- Public Education Initiative
- Defined Performance Goals
Challenges Ahead

A Growing Wave of End-of-Life Boats, Abandoned & Derelict Boats

Environmental Consequences

The End of the Landfill

A Shrinking Profit Line for Manufacturers

How Can Disposal Influence Design?
Moving Forward: Next Steps