Boaters and recreational boating businesses, including dealers, manufacturers and marinas, rely on clean water, healthy ecosystems and abundant fish populations.

Combating the environmental challenges facing the entire recreational boating community—rising sea levels, ocean acidification, water pollution and more—requires action.

To ensure future generations can enjoy our natural resources and time on the water, the marine manufacturing industry is using a three-pronged approach to lessen its impact and protect the environment:

- **Sustainable Manufacturing**
- **Clean Product Innovation**
- **Advocacy**

### SUSTAINABLE MANUFACTURING

Marine manufacturers are constantly innovating and searching for new approaches to make the manufacturing process more environmentally friendly.

#### ACCOMPLISHED:

- Introduced new manufacturing techniques like vacuum infusion to reduce fiberglass boat building emissions
- Phased out flotation foams that contain hydrofluorocarbons (HCFs)
- Use renewable energy sources to power facilities
  
  **Industry example:** Scout Boats is now partnering with Hannah Solar Government Services to power their new manufacturing facilities with solar energy systems.
- Reducing waste and recycling materials whenever possible
  
  **Industry example:** In 2019, Mercury Marine earned a “Zero Waste Landfill” designation for its distribution operation and was recognized by the Wisconsin Sustainable Business Council for its use of recycled aluminum

#### IN PROGRESS:

- Working to eliminate all HFCs from the fiberglass manufacturing process
- Identified “bottom paint” alternatives that will not flake off boats sitting in the water
- Manufacturers are reducing water usage—up to one million gallons per month—and yearly natural gas consumption
CLEAN PRODUCT INNOVATION

Recreational boaters and anglers experience and treasure our nation’s waterways firsthand. That’s why our industry is working diligently to make boating cleaner and more efficient.

ACCOMPLISHED:

- U.S. marine engine manufacturersones were the first to install catalytic converters to reduce greenhouse gas emissions
- Reduced marine engine emissions up to 95% and increased fuel efficiency more than 40% over the past 20 years
- Worked with the Environmental Protection Agency on Evaporative Emissions Regulations that reduced boat fuel system emissions and required automatic fuel pump shutoffs to eliminate refueling spit back and spillage
- Support recycling and reuse initiatives, including fiberglass sustainability efforts
  
  **Industry example:** Supported the Fiberglass Vessel Recycling Pilot Program in Rhode Island that reprocessed fiberglass hulls into cement as an alternative to landfill

IN PROGRESS:

- Working with the Department of Energy to develop Biobutanol—a cleaner, more efficient fuel additive than ethanol-blended fuels like E-15
- Using advancements in solar technology and energy storage to power boats on solar energy
  
  **Industry example:** Marine electric engine manufacturer, Torqeedo’s “Deep Blue” hybrid power system offers a 50-mile range and can be recharged by solar panels along the way
- Bowrider and ski boat manufacturers are working to make zero-emission, fully powered electric boats using electronic propulsion
- Researching the use of hydrogen cell technology to power recreational boats
- Major marine engine manufacturers are developing power systems to significantly reduce emissions and maximize fuel efficiency
  
  **Industry examples:** Cummins and Yanmar are experimenting with hybrid power systems that can replace gas and diesel engines at slower speeds and reduce emissions safely
- Working with Congress to identify the environmental impact of derelict recreational boats and to identify options for recycling recreational boats