

# The TECHBlue Center



Clean Water • Clean Marinas • Learning Laboratories

*Sustainable Product Development for Waterfront Renovation*

**2008**

# the center

## the clean waterfront

The TECHBlue Center has a clean water mission:

Research, develop and test waterfront construction techniques which are ecologically and economically viable, while restoring sensitive natural ecosystems.

“TECHBlue subscribes to sustainable management practices. It’s good for business and it’s good for the waterfront.”

TECHBlue facilitates clean waterfront development.

## waterfront resources

The TECHBlue Center is a clearing house and showcase for sustainable waterfront information.

Resources are available to waterfront planning professionals, marine contractors and environmental educators --- considering green, BLUE, sustainable, holistic, clean water, clean marina, marina renovation, environmentally sensitive communities, ISO Standards, construction & business efficiency --- Connect The Dots.

## strategic location

Jacksonville, FL Advantages

- Educators -- University and trade college collaboration
- Supplemental manufacturing services (i.e. metal coatings)
- U.S. Army Corps of Engineers location
- 500 miles shipping radius savings
- St. Johns River and intercoastal waterway (salt & fresh water)
- JAX/Port international shipping

Sustainable Site Advantages

- Collaboration with local marine contractors
- Collaboration with sustainable industry professionals
- Leadership position in waterfront growth
- Marketing and recognition opportunities
- Community outreach programs

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# our industry

## clean marinas

The waterfront development industry combines the expertise of many:

- Marina operators
- Waterfront property owners
- Manufacturers
- Marine contractors
- Environmental educators and researchers
- Regulatory agencies

The primary market is estimated to be 18,000 marina sites. 12-14,000 existing sites, and 4,000 sites under development, repair or permitting. Currently, clean marina programs are active in over 19 states. Clean marina designations comprise less than 8% of all existing sites.



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# clean water

## water neutral

Waterfront development projects inherently impact our local waterway environments. Waterfront businesses are joining efforts to improve our most endangered resource – clean water. *'Blue' building practices are positioned to lead the way.*

Clean Marina and industry trade association programs are offering benchmarks and starting points to examine the waterfront environmental footprint.

It is common to view environmental footprints as they relate to energy usage and goals of being "carbon-neutral". The waterfront professional has an additional focus --- that of water usage and water quality stewardship. In most cases maintaining a site which is "water usage neutral" is only a beginning. As an industry we are dedicated to developing methods which improve water quality for our waterways.

*Clean water is "Blue Gold" and our most valuable natural resource –*

*100% recycled*

*100% recyclable*

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# the process

*"The primary focus of organizations should be on effective implementation of the environmental management system and environmental performance, not on a complex document control system." ISO 14001:2004 A.4.5*

## sustainable standards

Recognized environmental standards are used in developing Action Plans for waterfront professionals. Example guidelines and principals used by the TECHBlue Center:

- \* International Standards Organization (ISO)
- \* Clean Marina & Clean Boatyard Best Management Practices (BMPs)
- \* Environmental Protection Agency Performance Tracking
- \* Sustainable Green Building Programs (LEED) (Green Globes)
- \* Evidence Based Design and Value Engineering Data

Green and sustainable building practices are part of the construction language. TECHBlue proposes BLUE (water) thinking. From the shoreline – out, we assist with BLUE building techniques.

## site specific

Each site has a different set of environmental circumstances. TECHBlue professionals review the impact of the total waterfront site. In most cases, engineering studies are not necessary to begin. Marked improvement can happen with company commitment and a site assessment checklist.

## independent collaboration

TECHBlue features professionals, expert facilitators, strategic coaches and senior business leaders from a variety of industries. Understanding the technology and application of waterfront products, while protecting our waterways, are mutual goals.

## waterfront learning laboratories

A planned result of the TECHBlue process is the development of a “waterfront learning laboratory”.

Marinas may need extensive renovation to protect the environmental integrity and emergency preparedness of local waterfront communities — How best to do that?

Marinas may partner with local business and educational outreach efforts to enhance the community's environmental awareness, and effectiveness of clean waterfront programs.

# action plans

*Plan-Do-Check-Act (PDCA) is the planning methodology used by the International Standards Organization. TECHBlue Center procedures and recommended Action Plans reflect ISO guidelines.*

## waterfront site reviews

Determine what to improve:

- Dock, in water structures and equipment
- Shorelines, seawalls, bulkeads
- Marina equipment
- Waterfront structures and buildings
- Waste management
- Reporting, regulations, certifications, outreach



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## going beyond the norm

Most jurisdictions do not require specific product components used in waterfront development to be reviewed for permitting. Many standards (and more specifically environmental standards) are in early development stages. Clean Marina programs, and the efforts of industry trade associations are affecting how you build and your waterfront environmental footprint.

Regulations provide some level of needed protection, but unfortunately there remain large gaps between science, applied technology, and what is built. Many construction techniques are either not required or cost prohibitive, or both.

*'Blue' building practices are positioned to lead the way.*



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# testing

## sustainable waterfront products

TECHBlue provides forms and checklists to help evaluate sustainable waterfront products. We develop independent data to produce purchasing procedures specific to the waterfront.



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## monitors & reviews

Not all products maintain certification, nor do they present complete information. TECHBlue provides a review:

- what's available, versus what's required
- site specific applications versus best practices
- necessary versus cost effective

Monitoring displays, publications and workshops for public review. Product performance is periodically reviewed by waterfront professionals and quality control experts for warranty verification. Reporting results will show if product specifications compare well with long term benefit projections.



# community

## outreach

TECHBlue understands cost effective project management. Realizing long term savings from a sustainable design may not be enough to justify front-end expenses. Use our resources to investigate funding opportunities and incentives which help justify initial cost decisions.

Each site presents unique problems for a team of professionals and their ability to implement sustainable plans. TECHBlue facilitates team development and provides a central location dedicated to mutual goals.

## leadership

Waterfront development embraces many construction trades and professional disciplines. What happens in our waterways has a lasting affect on boating and tourist destinations.

TECHBlue encourages manufacturers, building supply companies and industry leaders to join with local business organizations and improve clean waterfront development.



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## site specific funding

Fund Description	Time	Capital Fund	Sponsorship
Waterfront Environmental Plans	ongoing	\$ 50,000	\$4,500+
Piling Replacement Projects	ongoing	\$100,000	\$1,500 +
Clean Waterfront Marketing	ongoing	\$ 20,000	\$ 500+
Clean Water Construction Fund	ongoing	\$200,000	\$5,000+
Marine Construction Testing	2009	\$100,000	\$1,000+
Clean Marina Plus Programs	2008-09	\$150,000	\$1,500+
Marina Day KIDS	ongoing	\$ 30,000	\$ 300+
Sustainable Product Prototype	2008	\$150,000	\$5,000 +
Marine Construction Testing	ongoing	\$100,000	\$3,000+
Waterfront Education Coops	2009	\$ 80,000	\$ 500+
<b>TOTAL Annual Funding Goal</b>		<b>\$ 950,000</b>	

Over 90% of all money received is contributed as matching funds for clean waterfront nonprofit alliances. Each alliance involves at least one qualified 501(c)3 nonprofit organization, as recognized by the U.S. Internal Revenue Service. Site specific funding is contributed to a designated local community organization.



*Please Join A Clean Waterfront Initiative Near You*



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