

Florida Department of Environmental Protection



Division of Recreation and Parks

Paddlesports and Florida Demographic Trends with Implications for Non-motorized Boating Launch Design

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Paddling Trail Coordinator

September 15, 2014





Florida's Growing Population is Aging

Florida's population is projected to increase by almost 5 million people by 2030. People age 60 and older will represent 55% of the growth

Aging is more intense in Florida than elsewhere combined with steady growth = greater need for services, pressure on natural resources, changes in needed infrastructure



The Florida Legislature Office of Economic and Demographic Research, June 2012



Florida Health Trends Are Troubling.....

A projected 60% obesity rate in Florida by 2030!!

Rising Obesity Rates

Spotlight

Adult Obesity Rates in Florida			
Obesity Rate in 1995	Obesity Rate in 2011	Projected Obesity Rate in 2030 based on current trajectory*	Projected Obesity Rate in 2030 if BMI Decreased by 5%*
14.3%	26.6%	58.6%	51.1%

**All ages, all genders, adjusted for self-reporting bias. BMI: Body Mass Index*

Source: Trust for America's Health



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People™



Challenges for Florida

As Florida's population ages and the percentage of those with physical challenges increases we have to plan for a spectrum of universal design. The lack of available funding also defines design concepts.

Fortunately, the community of paddlers as a rule appreciate simple, low-cost or no-cost waterway access which can also be universally accessible.



Challenges for the Planet

Global Trends

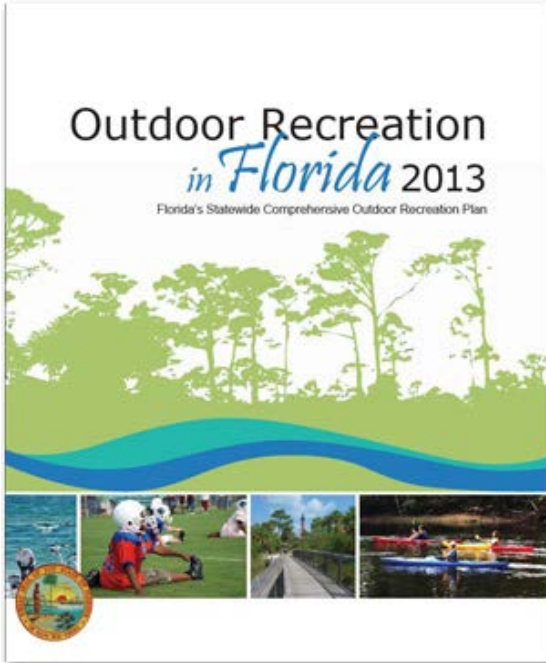
- By 2025, the world will be:
 - Much Older (the US will largely look like FL today)
 - Far Less Caucasian
 - Far More Concentrated in Urban Areas
- The aging population is a function of:
 - The Baby Boom Cohort
 - Falling Fertility Rates
 - Rising Longevity (life expectancy: 78.7 in 2011)

The Florida Legislature
Office of Economic and
Demographic Research





Outdoor Recreation and Paddling Participation



www.dep.state.fl.us/parks/outdoor/scorp.htm

Appendix G - Outdoor Recreation Participation by Activity

Activity	Residents		Tourists	
	% of Residents Participating	Number of Participants	% of Tourists Participating	Number of Participants
RESOURCE BASED				
Saltwater Beach Activities*	63%	11,844,825	49%	42,385,000
Wildlife Viewing	49%	9,212,642	47%	40,655,000
Bicycling - Paved Trails	40%	7,520,524	13%	10,899,000
Picnicking	40%	7,520,524	37%	32,005,000
Visiting Historical or Archaeological Sites	39%	7,332,511	26%	22,490,000
Fishing - Saltwater	38%	7,144,498	20%	17,300,000
From Boat	27%	5,001,148	14%	12,283,000
From Pier/Jetty/Catwalk	16%	2,929,244	7%	6,055,000
From Shore	14%	2,643,464	6%	4,844,000
Fishing - Freshwater	28%	5,264,367	7%	6,055,000
From Boat	16%	3,000,689	4%	3,451,350
From Pier/Jetty/Catwalk	7%	1,316,092	2%	1,755,950
From Shore	14%	2,632,183	3%	2,361,450
Canoeing or Kayaking	26%	4,888,341	10%	8,650,000
Hiking	26%	4,888,341	22%	19,030,000
Saltwater Boat Ramp Use	25%	4,700,328	7%	6,055,000
Freshwater Beach Activities*	22%	4,136,288	14%	12,110,000
Freshwater Boat Ramp Use	19%	3,572,249	3%	2,595,000



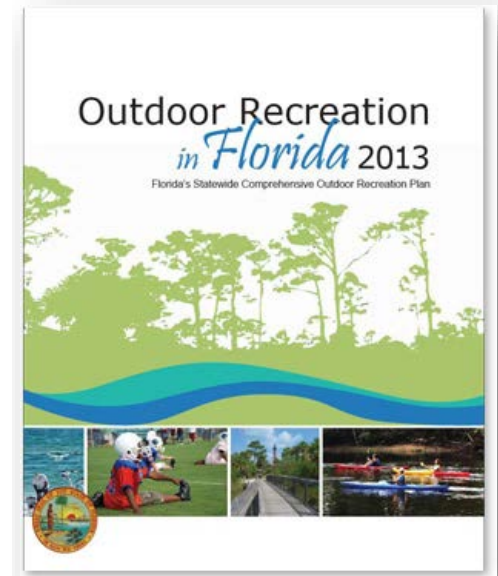
Profile of Paddling Stakeholders by Region

Canoeing/Kayaking

Region	% of Participation*		Total Participation**	
	Residents	Tourists	2011	2020
Northwest	19	10	1,054,751	1,210,853
North Central	29	10	436,178	491,119
Northeast	25	10	984,414	1,145,400
Central West	30	10	2,088,352	2,394,880
Central	24	10	3,557,058	4,164,016
Central East	24	10	999,124	1,149,200
Southwest	32	10	1,469,614	1,718,848
Southeast	26	10	3,022,809	3,396,190
Statewide	26	10	13,538,341	15,584,916

* Percent of participation represents the percentage of residents and tourists who participated in activity at least one time during the year

** Total participants represents the combined number of residents and tourists who participated in activity at least one time during the year

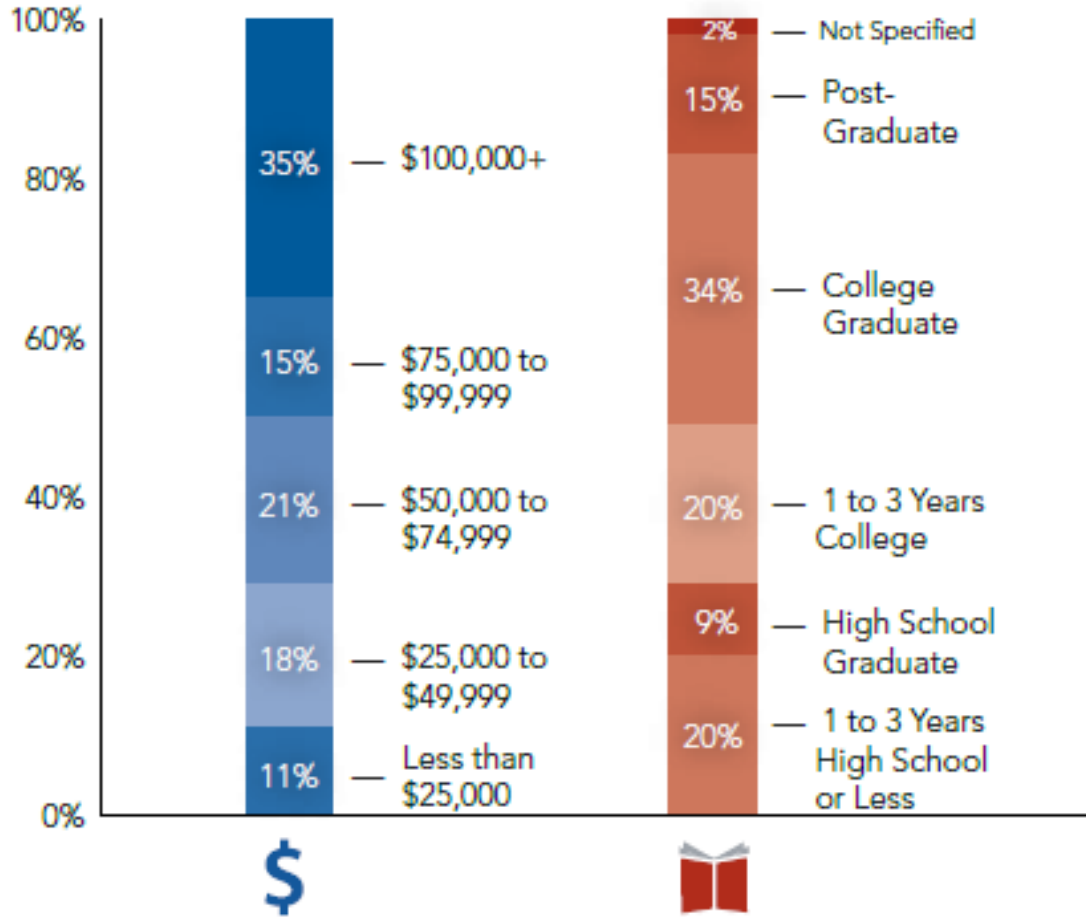




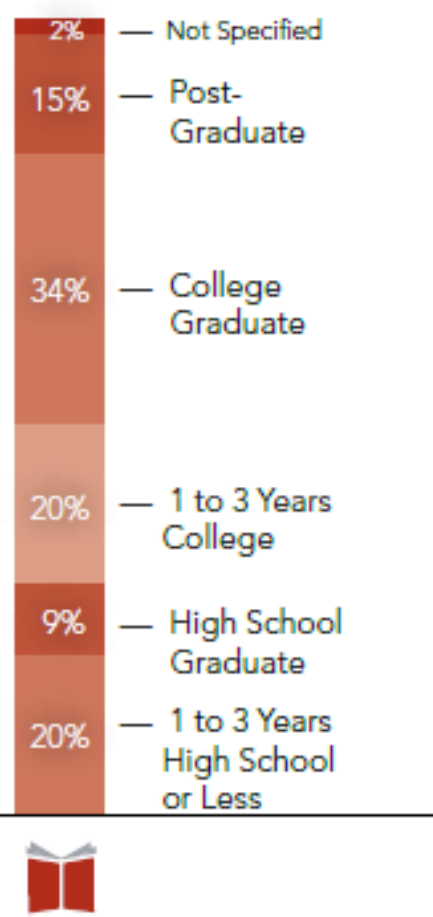
Paddlesports Research

Outdoor Industries Association Report 2012

Income

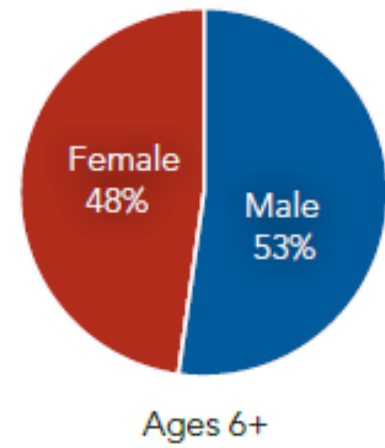


Education



The typical kayaker is male, white, well-educated, has an income > 50 K annually (71%) and is older than 25 (64%)

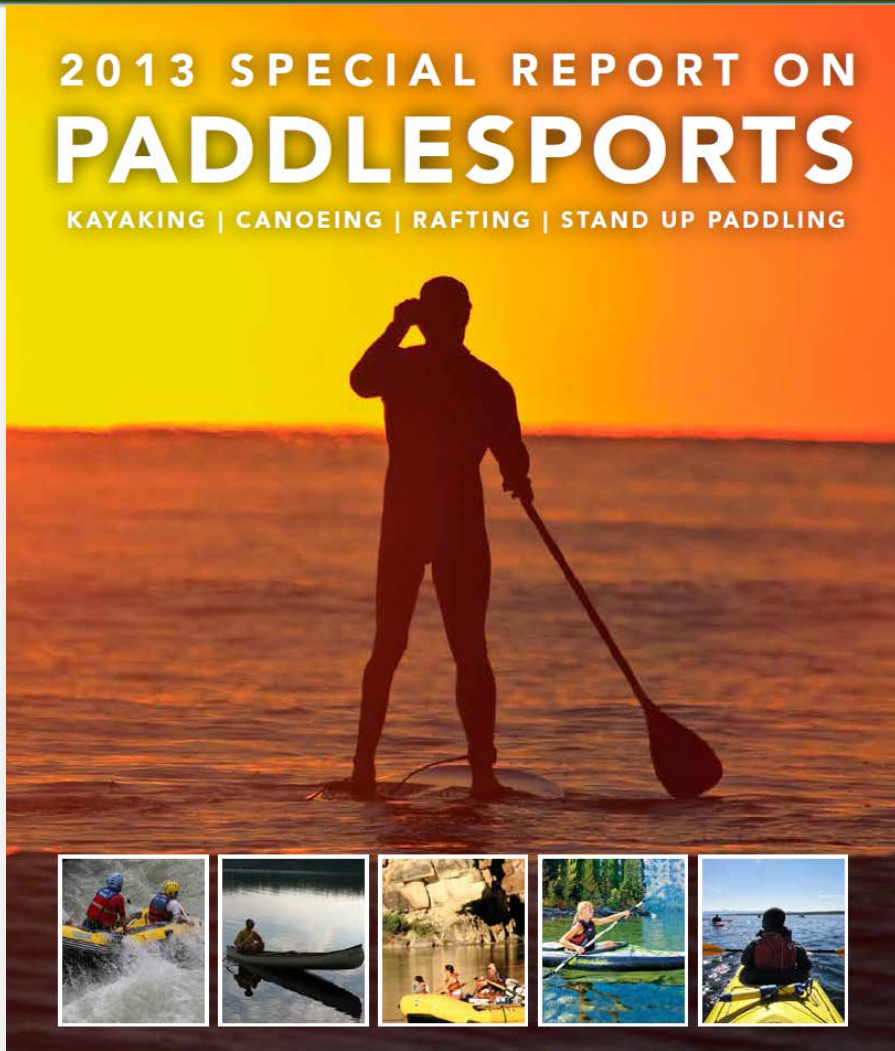
Participation in Kayaking by Gender



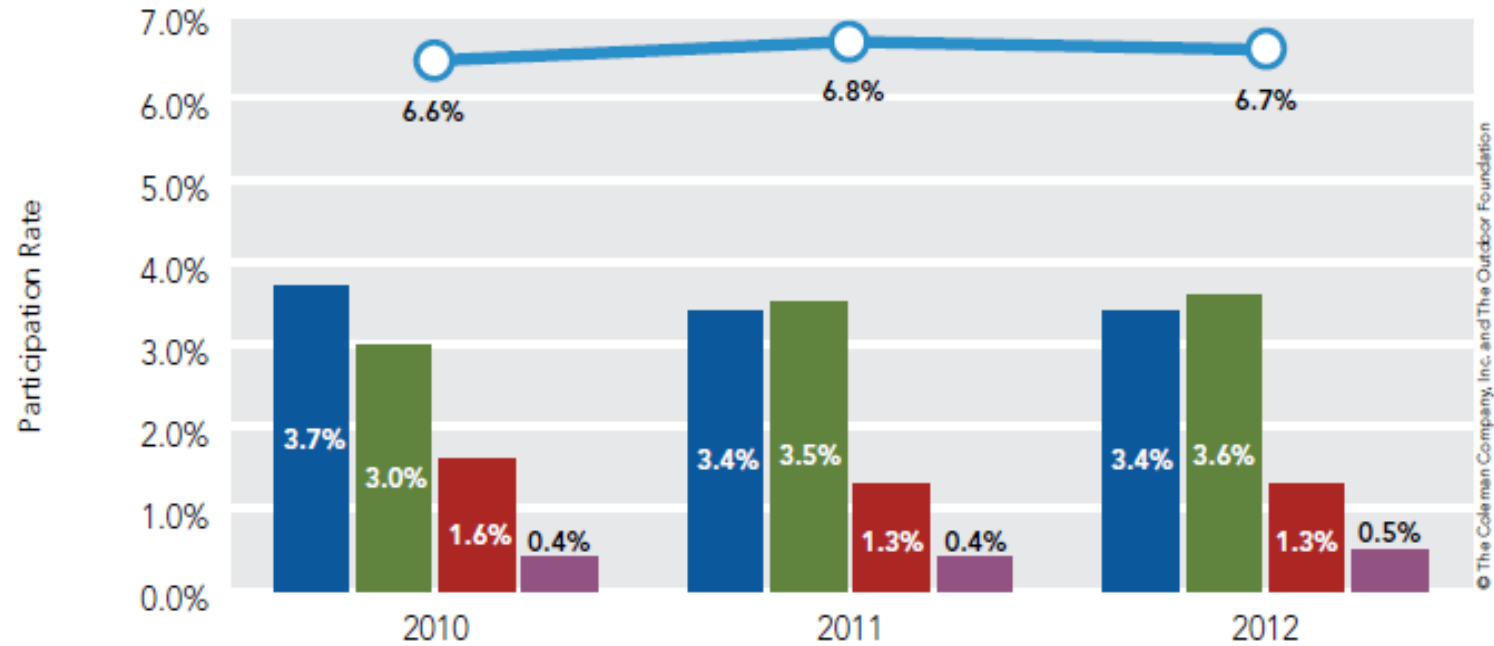
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Paddlesports Research Outdoor Industries Association Report 2012



Participation in Paddlesports
All Participants Ages 6+



2012 Participants

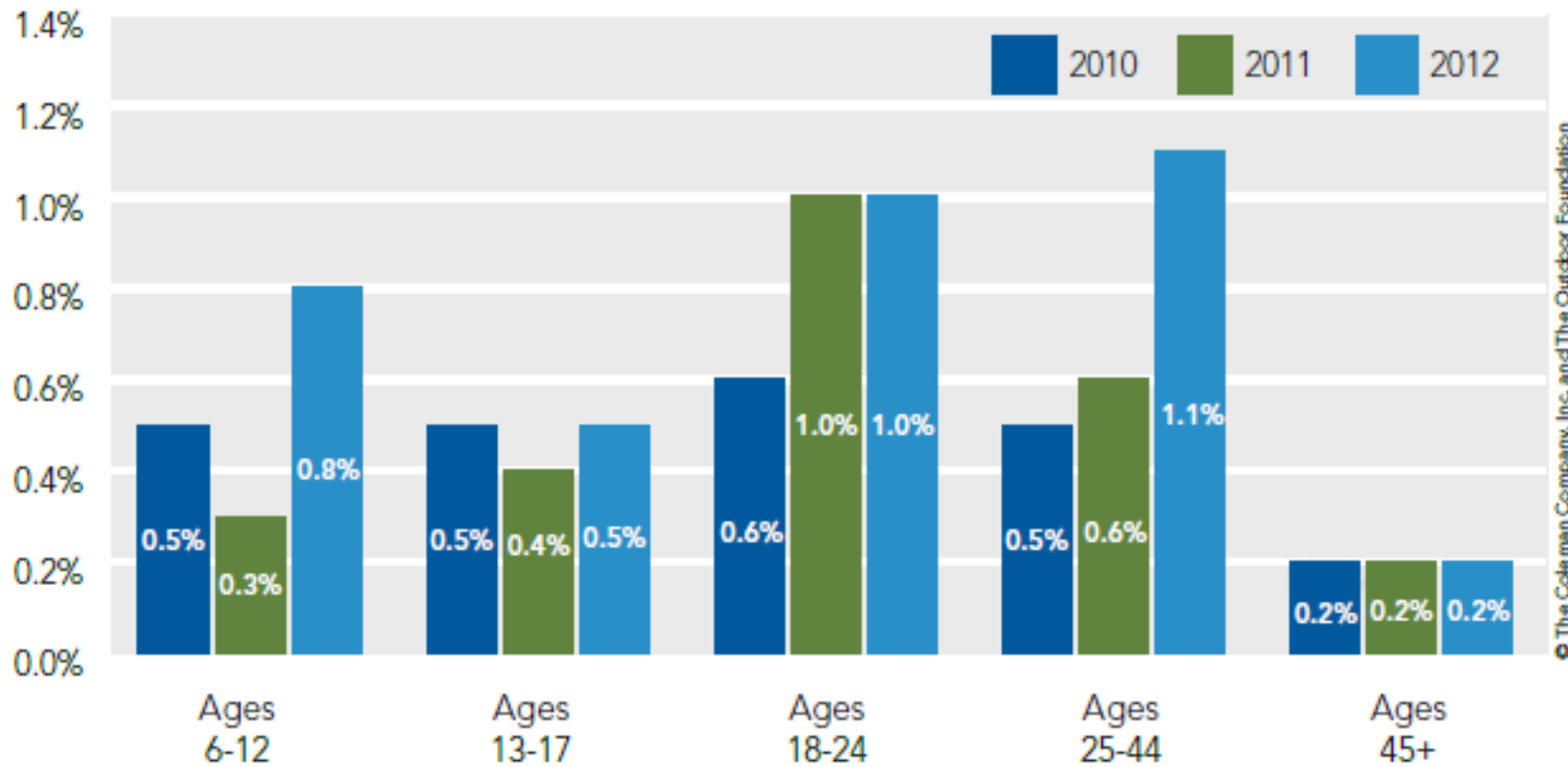
	Paddling (Any Type)	19.2 Million		Rafting	3.7 Million
	Canoeing	9.8 Million		Stand Up Paddling	1.5 Million
	Kayaking (Any Type)	10.3 Million			

A Partnership Project of:



Paddlesports Research Outdoor Industries Association Report 2012

Participation in Stand Up Paddling by Age
Years 2010, 2011 and 2012



The growth of SUP is explosive in recent years and continues to expand. SUP is a good gateway activity to draw youth to try other types of paddlesports and outdoor recreation





Universally Accessible Design Guidelines

Who are you planning for? Ask potential users!! Involve kayak and canoe paddlers, kayak anglers, and rowers, of all abilities in early planning stages. They may have simple, cost-effective suggestions

Look for Potential Partners - Local civic groups, conservation organizations, and paddling clubs may be interested in helping to maintain access and even raise funds



Universally Accessible Design Guidelines

- If necessary to build docks or decks to protect resources, install as close to water level as possible
- Allow paddlers to enter their boats from the side, parallel to the dock. The area for walking path/staging should be a minimum of 5' wide, preferably 6-12' wide.
- When possible create natural sloped, zero-entry (gradual slope from shore to water)



*New Burnt Sock Landing on Holmes Creek
By NFWFMD*



Universally Accessible Design Guidelines

Plan for environmental impacts!

- Identify sensitive habitats at access points, campsites, day use areas
- Locate access points and design sites at appropriate distances from bird colonies, manatee zones, other sensitive areas
- Keep lighting low for wildlife and sea turtles
- Design with the smallest footprint possible
- Protect submerged vegetation with boardwalks and or docks if necessary
- Use native plants in areas adjacent to launch and parking
- Parking areas and surfacing should be designed and located to minimize polluted runoff and erosion

Simple Design Options



The Great Calusa Blueway used recycled synthetic turf installed on muck substrate by using pressure treated wood at both ends and 30" galvanized spikes spaced ~3' apart to hold it in place. This is inexpensive, not slippery, and is very popular with users. It requires pressure washer maintenance annually in a sunny location and 3-4 times a year if sited in shade.



Silver Springs State Park
Installed outdoor carpet

Universally Accessible Design Guidelines

Michael Passo, an experienced paddler who uses a wheelchair, recommends the following design features:

Access route

Firm, level surface without gaps (not exceeding 8.33% slope or 2% cross slope).

Level and stable landing/loading area

Provide an area adjacent to the loading area with level, hardened surface at least 5' x 5'. An accessible launch might incorporate a large, flat rock surface (assure non-slippery) that may be 8" to 12" under the surface of the water with a gradually sloped access route. The transfer from a wheelchair to a rock to a floating canoe could be nearly level.



Examples of Accessible Design Issues



Transfer block in use. This can be helpful for those with upper body strength but may be an obstruction for other users. Provide a barrier-free staging area as in this photo (to the left of the kayak) to offer options for diverse users.



Florida Disabled Outdoors Association (FDOA)

From David Jones, President of FDOA:

- Solicit input from FDOA for proposed siting and design plans. There is a team of statewide volunteers that may be able to make a site visit and/or comment on plans. Call David Jones: 850-201-2944
- Make sure that when something is built it won't create barriers. **Ask the people who use it!**
- Mobi-mat is great way to enhance an area, roll it into the water to create inexpensive, removable access. Transfer blocks are good but can be a barrier, has to be site specific.
- Paddlers can bring their own portable transfer blocks or they could be offered by a vendor or at a facility.





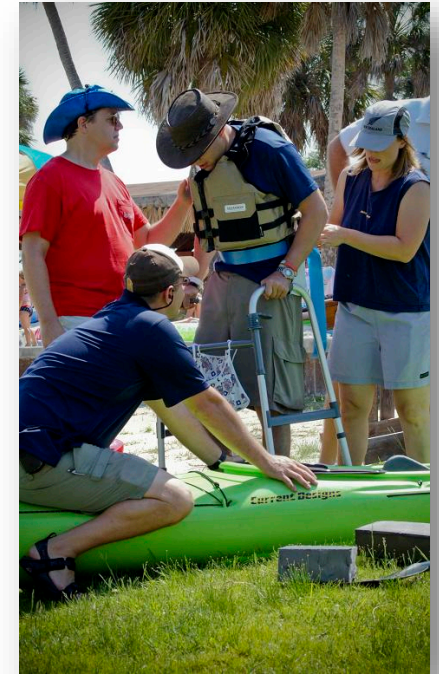
Florida Disabled Outdoors Association (FDOA)



This launch at Oscar Sheerer State Park solicited user input in the planning stages and received praise from David Jones at FDOA



Wounded Veterans Enjoy Adaptive Paddling



 **TEAM RIVER RUNNER**
HELPING OUR WOUNDED VETERANS

 **HEALTH AND HEALING THROUGH PADDLESports** 



US Forest Service Universal Design

Universal Design of Launches/Landings for Carry-down Watercraft

Janet Zeller

National Accessibility Program Manager
U.S. Forest Service

& ACA certified Adaptive Paddling Instructor Trainer Educator





US Forest Service Universal Design

Universal Design:

A design useable by all people to the greatest extent possible, while both maintaining the character and experience of the setting and providing access, without separate or segregated access for people with disabilities.



US Forest Service Universal Design

57 million people with disabilities



**& our population is aging...
+ disability often comes with aging**



Families and friends look for good access for them all.



US Forest Service Universal Design

Accessibility:

- Americans with Disabilities Act (ADA) of 1990:
 - Programs and facilities are not to exclude a qualified person just because they have a disability.

 - New construction / alteration is to comply with the applicable accessibility requirements.

 - ADA applies to the facilities and programs of
 - State and local governments
 - Public accommodations
 - Businesses, organizations and other entities.....
open to the public





US Forest Service Universal Design

Accessibility:

Federal agencies: (by the agency, on federal lands, or with federal funds)

- **Architectural Barriers Act (ABA) of 1968:**
 - New construction / alteration is to comply with the applicable accessibility requirements.

- **Section 504 of the Rehabilitation Act of 1973:**

Programs and activities are not to exclude a qualified person just because they have a disability
...unless their participation would fundamentally alter the program.

 - Applies to Federal agencies
 - businesses / organizations receiving federal funds or using federal lands for its program.





US Forest Service Universal Design

Accessibility

There are NO ADA or ABA accessibility standards or guidelines for the water entry point of carry-down craft launching / landing locations.

However.....





US Forest Services Universal Design

Accessibility

ADA Standards for Accessible Design (ADASAD) & for Federal agencies the ABA Accessibility Standards **DO** apply to new or altered:

- ❑ Parking Lots;
- ❑ Walkways from Parking Lot and within the recreation area;
- ❑ Restrooms;
- ❑ Fishing piers and platforms.
- ❑ Boat slips;
- ❑ Floating gangways and transition plates at boat slips;
- ❑ Boarding piers at boat launches.



Boat Ramps



NOT required to have an accessible route within a boat launching ramp.



ADASAD and ABAAS Chapter 10. Sec. 3 Recreation Boating Facilities

Universal Design



- Surface
- Grade
- Open Space
- Close to parking



US Forest Service Universal Design

What if....at only available launch site:

- No potential for firm/stable surface

or

- It's wetland / marsh

or

- It's tidal

or

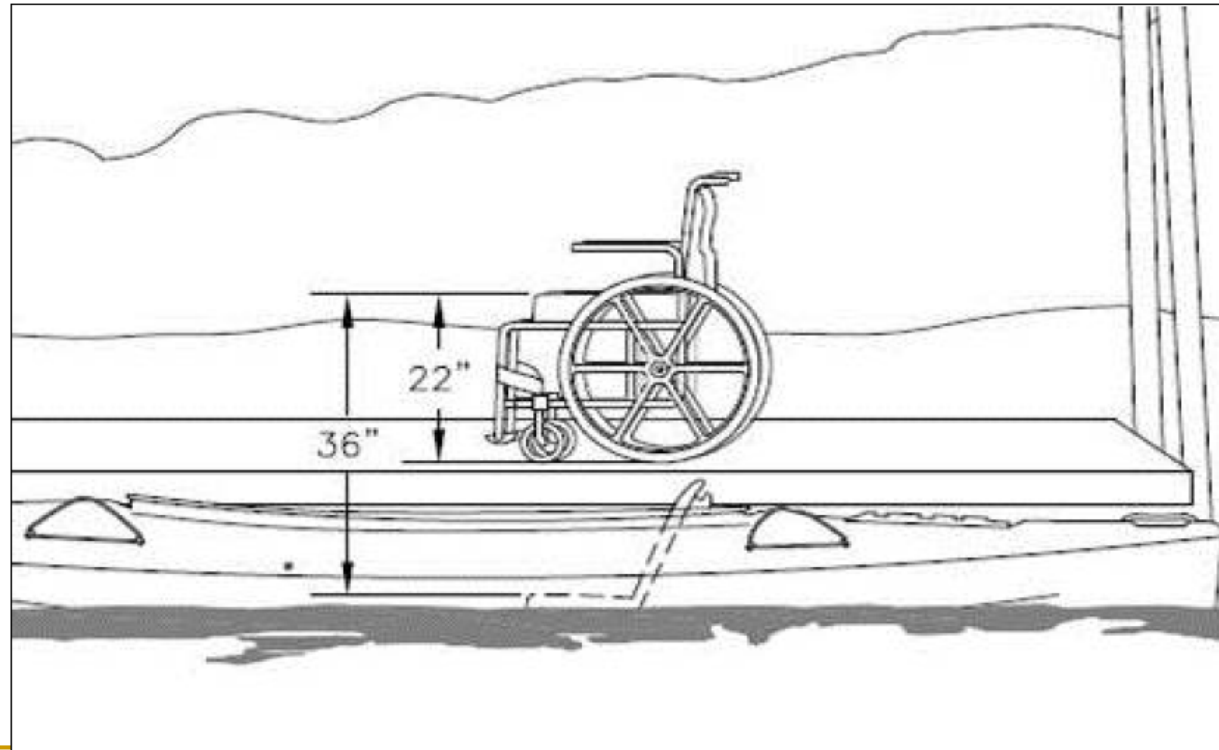
- Other....

Designers will have to make choices / decisions /compromise that won't serve all paddlers well.



Choice/Compromise...

Any dock...means very difficult transfer from and back to a wheelchair, walker, crutches, etc.



Choice/Compromise...

- *Dock height above kayak/canoe seat... creates difficulties for those using wheelchairs, walkers, etc.*



Caution:

Don't install mechanical devices

unless they will always be maintained and staffed.



Choice/Compromise...

- *Railings, bars, etc.:* often block access for those with wheelchairs, walkers, visual limitation,s etc....



Choice/Compromise...



Transfer benches...are only helpful for those who have strong arms and who are very strong and stable above the hips.



& bench blocks direct transfer from wheelchair, walker, crutches, etc. into boat.

Choice/Compromise...

■ Steps...

block access from a wheelchair, walker, crutches, etc.



Choice/Compromise...

- **Chutes** ...difficult for those who need assistance moving their boat





Launch Design and Accessibility Resources

US Forest Service Access Board and Programs:
www.fs.fed.us/recreation/programs/accessibility/

- **Access Board's *Accessible Boating Facilities*:**

<http://www.board.gov/recreation/guides/boating.htm>

- **USFS *Accessibility Guidebook*:**

<http://www.fs.fed.us/recreation/programs/accessibility>

U.S Access Board - 1-800-872-2253 www.access-board.gov

DOJ - 1-800-514-0301 www.ada.gov

Janet Zeller - jzeller@fs.fed.us





Launch Design and Accessibility Resources

Presentations & Articles

- Universal Design of Launches/Landings for Carry-down Craft ([PDF](#))
- Paddling and People with Disabilities ([PDF](#))
- The ADA and Outdoor Programs ([PDF](#))
- Developing Essential Eligibility Criteria ([PDF](#))

Organization Links:

- [Disabled Sports USA](#)
- [U.S. Paralympics](#)
- [Paracanoe - ICF](#)

Government Links:

- Department of Justice - www.ada.gov
- U.S. Access Board - www.access-board.gov
- Section 508 - www.section508.gov
- Web Content Accessibility - [website](#)
- Architectural Barriers Act (ABA) - [website](#)
- Section 504 of the Rehabilitation Act - [fact sheet](#)
- American with Disabilities Act - [fact sheet](#)



American Canoe Association (ACA)
<http://www.americancanoe.org/>



Launch Design and Accessibility Resources

Guidelines for Developing Non-motorized Boat Launches in Florida



FWC Guidelines for Developing NMB Launches

<http://myfwc.com/media/1340507/Non-motorizedBoatingAccessGuidelinesVer4.pdf>





Launch Design and Accessibility Resources

3 | LAUNCH DESIGNS



Natural Surfaces

Geotextile Mats

Concrete Mats

Concrete Ramps

Wooden Stairs

Concrete Stairs

Docks / Piers

Cantilevers

Floating

Elevated Walkways

Portages

Many launch types are available to meet the needs of various environments. This section can help you choose the appropriate design and construction method for your site.

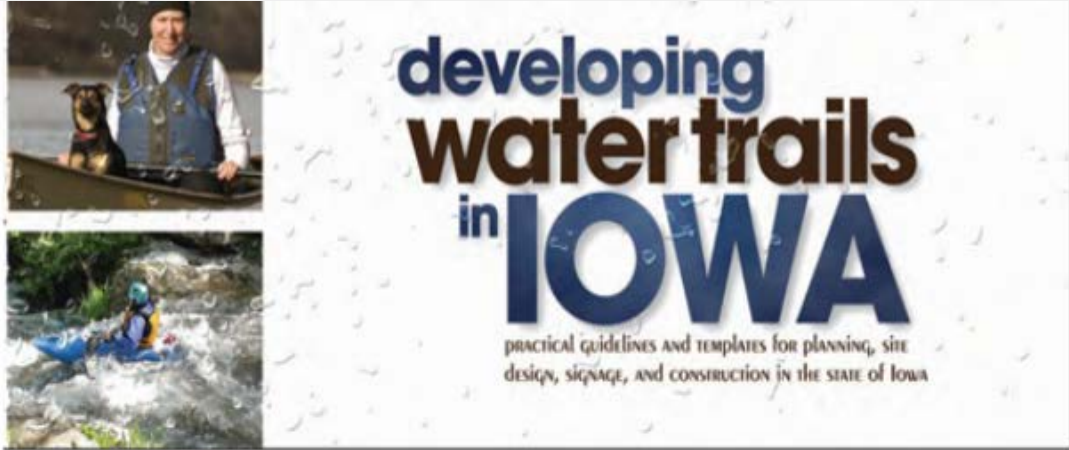
Prepare to Launch from the National Park Service

This is an excellent resource and available as e-book, web version, and PowerPoint. This replaces the former NPS version of 'Logical Lasting Launches' from 2004

<http://www.river-management.org/prepare-to-launch->



Launch Design and Accessibility Resources



Iowa DNR Water Trails Guidelines

<http://www.iowadnr.gov/Recreation/CanoeingKayaking/WaterTrailDevelopmentTools/WaterTrailsToolkit.aspx>

[Intro: Introduction and Table of Contents](#) PDF

[Chapter 1: Water Trails in Iowa](#) PDF

[Chapter 2: State Designation of Water Trails](#) PDF

[Chapter 3: Design Development](#) PDF

[Chapter 4: Land and Stream Management](#) PDF

[Chapter 5: Managing River Recreation in Iowa](#) PDF

[Chapter 6: Signage](#) PDF



Office of Greenways & Trails Resources

Office of Greenways & Trails Reference Materials: <http://www.dep.state.fl.us/gwt/community/>

Paddling Trails

- » [Canoe, Kayak Launch Sites and Accessibility](#) [PDF], Office of Greenways and Trails
- » [Establishing and Promoting a Paddling Trail or Blueway System](#) [PDF], Office of Greenways and Trails
- » [Establishing and Promoting Paddling Trails](#) [PDF/Power Point], Office of Greenways and Trails
- » [Guidelines for Creating Paddling Trails](#), Florida Fish and Wildlife Conservation Commission
- » [Guidelines for Developing Non-motorized Boat Launches in Florida](#), Florida Fish and Wildlife Conservation Commission
- » [Logical Lasting Launches - Design Guidance for Canoe and Kayak Launches](#) [PDF], National Park Service
- » [Prepare To Launch! Guidelines For Assessing, Designing and Building Access Sites For Carry-In Watercraft](#) [PDF], National Park Service

Questions? Contact:

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Division of Recreation and Parks

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