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 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!!
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.
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)
## Appendix G - Outdoor Recreation Participation by Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Residents</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Residents Participating</td>
<td>Number of Participants</td>
<td>% of Tourists Participating</td>
</tr>
<tr>
<td><strong>RESOURCE BASED</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saltwater Beach Activities*</td>
<td>63%</td>
<td>11,844,825</td>
<td>49%</td>
</tr>
<tr>
<td>Wildlife Viewing</td>
<td>49%</td>
<td>9,212,642</td>
<td>47%</td>
</tr>
<tr>
<td>Bicycling - Paved Trails</td>
<td>40%</td>
<td>7,520,524</td>
<td>13%</td>
</tr>
<tr>
<td>Picnicking</td>
<td>40%</td>
<td>7,520,524</td>
<td>37%</td>
</tr>
<tr>
<td>Visiting Historical or Archaeological Sites</td>
<td>39%</td>
<td>7,332,511</td>
<td>26%</td>
</tr>
<tr>
<td>Fishing - Saltwater</td>
<td>38%</td>
<td>7,144,498</td>
<td>20%</td>
</tr>
<tr>
<td>From Boat</td>
<td>27%</td>
<td>5,001,148</td>
<td>14%</td>
</tr>
<tr>
<td>From Pier/Jetty/Catwalk</td>
<td>16%</td>
<td>2,929,244</td>
<td>7%</td>
</tr>
<tr>
<td>From Shore</td>
<td>14%</td>
<td>2,643,464</td>
<td>6%</td>
</tr>
<tr>
<td>Fishing - Freshwater</td>
<td>28%</td>
<td>5,264,367</td>
<td>7%</td>
</tr>
<tr>
<td>From Boat</td>
<td>16%</td>
<td>3,000,689</td>
<td>4%</td>
</tr>
<tr>
<td>From Pier/Jetty/Catwalk</td>
<td>7%</td>
<td>1,316,092</td>
<td>2%</td>
</tr>
<tr>
<td>From Shore</td>
<td>14%</td>
<td>2,632,183</td>
<td>3%</td>
</tr>
<tr>
<td>Canoeing or Kayaking</td>
<td>26%</td>
<td>4,888,341</td>
<td>10%</td>
</tr>
<tr>
<td>Hiking</td>
<td>26%</td>
<td>4,888,341</td>
<td>22%</td>
</tr>
<tr>
<td>Saltwater Boat Ramp Use</td>
<td>25%</td>
<td>4,700,328</td>
<td>7%</td>
</tr>
<tr>
<td>Freshwater Beach Activities*</td>
<td>22%</td>
<td>4,136,288</td>
<td>14%</td>
</tr>
<tr>
<td>Freshwater Boat Ramp Use</td>
<td>19%</td>
<td>3,572,249</td>
<td>3%</td>
</tr>
</tbody>
</table>
### Canoeing/Kayaking

<table>
<thead>
<tr>
<th>Region</th>
<th>% of Participation*</th>
<th>Total Participation**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Residents</td>
<td>Tourists</td>
</tr>
<tr>
<td>Northwest</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>North Central</td>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td>Northeast</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>Central West</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>Central</td>
<td>24</td>
<td>10</td>
</tr>
<tr>
<td>Central East</td>
<td>24</td>
<td>10</td>
</tr>
<tr>
<td>Southwest</td>
<td>32</td>
<td>10</td>
</tr>
<tr>
<td>Southeast</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>Statewide</td>
<td>26</td>
<td>10</td>
</tr>
</tbody>
</table>

* 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.
The typical kayaker is male, white, well-educated, has an income > 50 K annually (71%) and is older than 25 (64%).
Paddlesports Research
Outdoor Industries Association Report 2012

Participation in Paddlesports
All Participants Ages 6+

<table>
<thead>
<tr>
<th>Year</th>
<th>Canoeing</th>
<th>Kayaking (Any Type)</th>
<th>Paddling (Any Type)</th>
<th>Rafting</th>
<th>Stand Up Paddling</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>3.0%</td>
<td>3.7%</td>
<td>6.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>3.4%</td>
<td>1.6%</td>
<td>6.8%</td>
<td>1.3%</td>
<td>0.4%</td>
</tr>
<tr>
<td>2012</td>
<td>3.5%</td>
<td>1.3%</td>
<td>6.7%</td>
<td>3.4%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

2012 Participants
- Canoeing: 9.8 Million
- Kayaking (Any Type): 10.3 Million
- Rafting: 3.7 Million
- Stand Up Paddling: 1.5 Million
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
• 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)
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
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
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.
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.
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
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
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.
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
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.
Accessibility

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

However………………
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
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 limitations, 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.btm

- 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

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


Intro: Introduction and Table of Contents

Chapter 1: Water Trails in Iowa

Chapter 2: State Designation of Water Trails

Chapter 3: Design Development

Chapter 4: Land and Stream Management

Chapter 5: Managing River Recreation in Iowa

Chapter 6: Signage
Office of Greenways & Trails Reference Materials: [http://www.dep.state.fl.us/gwt/community/](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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Telephone: 850-245-2079