



STEP 1:
Launch Location

STEP 2:
User Assessment

STEP 3:
Launch Development
Considerations

To create an effective and sustainable launch, consider the following: launch location and the characteristics of the water body; the types of users accessing the launch and the craft they will use; and the permits and fundraising efforts needed to move the project forward.



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Step 1: Launch Location Assessing Your Site Options

Launch Location: Bodies of Water

Design for Environmentally Sensitive Areas

Design for Fluctuating Water Levels



Launch Location: Site Characteristics

Whether or not a launch will be effective and provide sustainable access depends largely upon its location; the characteristics of the water body (which may change between launch points); how the launch is used; and the skill and expectation of users.

Access is preferable in areas featuring:

- Low exposure to strong currents and wind such as an eddy, or in a cove or inlet
- No physical barriers such as dams or weirs
- Distance from other boat traffic, so that paddlers do not have to cross heavy traffic areas
- Adequate water levels
- Good water quality
- Little lateral movement that could erode the riverbank
- Visibility from both river and shore



Exposure to unsafe, unpredictable high flows that do not support boaters any time of the year.



Launch Location: Bodies of Water



Rivers



Whitewater: Class 1+



Coastal Waters



Lakes



Launch Location: Rivers



Building an effective launch will depend on a river's individual characteristics and on a range of topographic, ecological, and climatic factors. Stream channel patterns are impacted by stream flows, sediment deposition, climatic conditions, and landforms. Bank erosion rates, bed stability, slopes, riparian vegetation and habitats also affect a river's structure and behavior. Similarly, no two points along a river are the same. Rivers change character along their courses and over time; occurrences on one segment affect what happens downstream.



Rivers: Aerial View of River Morphology

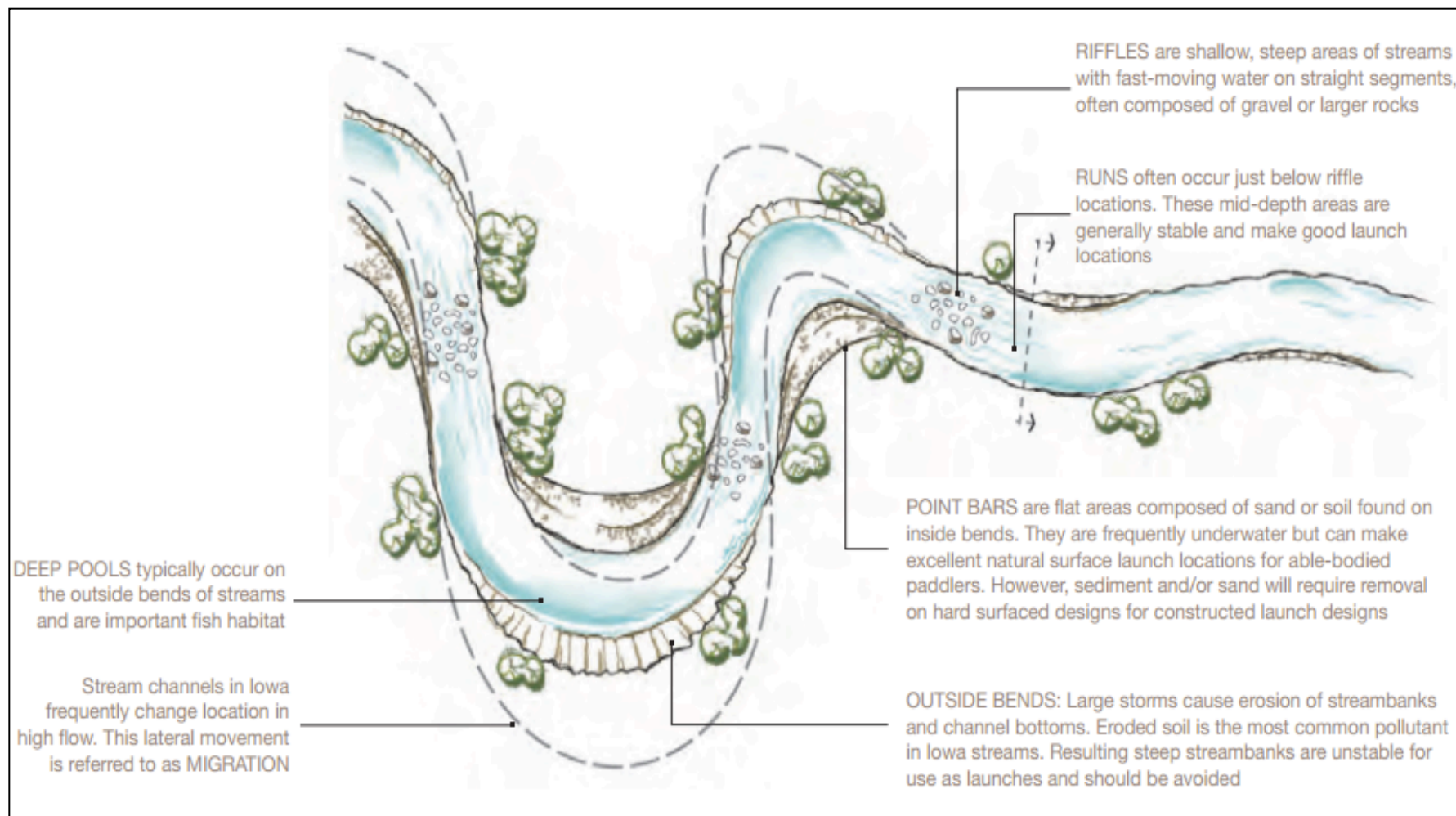


Diagram from [Iowa DNR Water Trails Toolkit](#)



Rivers: Morphology



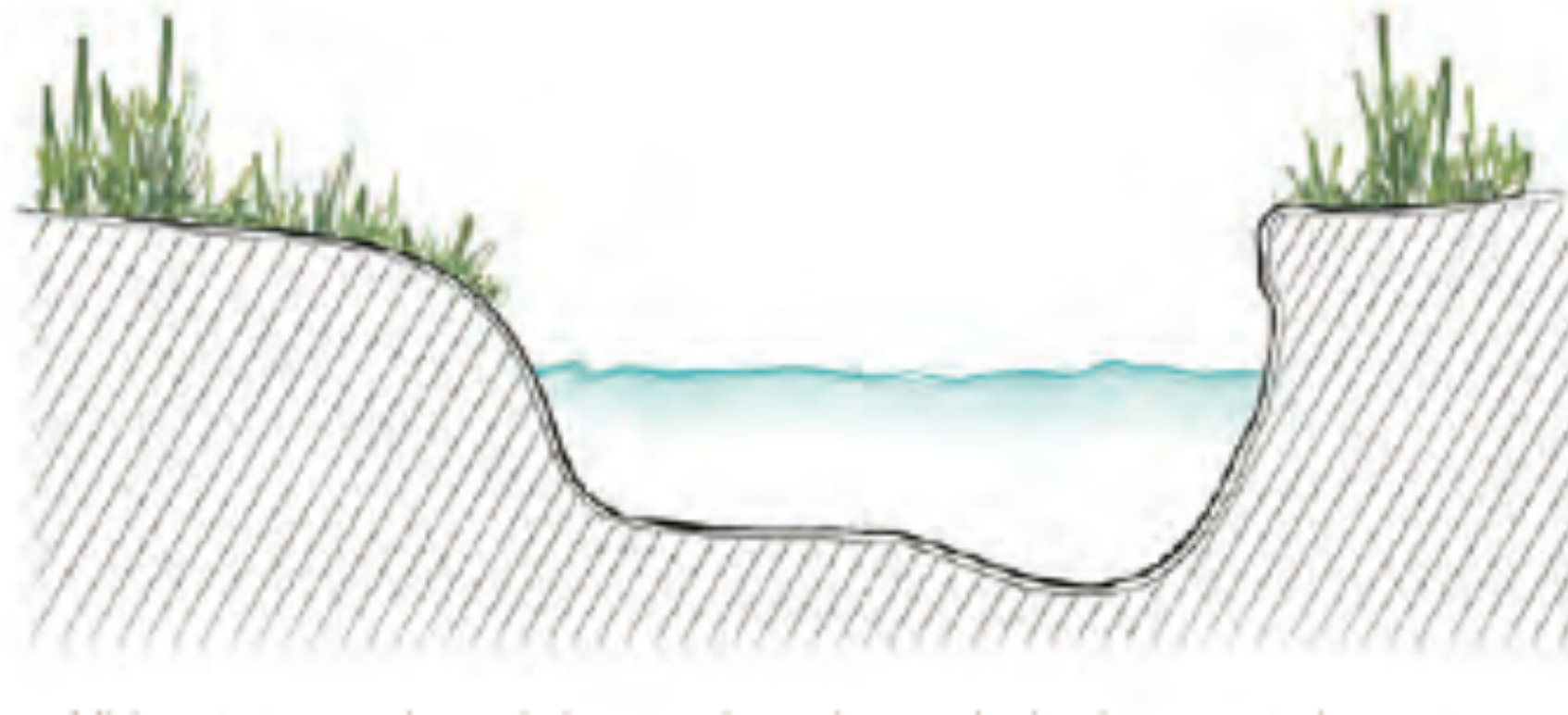
Meander bends on large floodplain rivers may be temporary features, given the dynamic nature of flows; therefore, launch design should take into account possible channel migration over time. Aerial photos over a period of years may be available from the U.S. Geological Survey (USGS) and can be helpful resources in analyzing channel migration.

Areas of heavy flow should be avoided as they will cause wearing on the site over time and can be hazardous to paddlers. Having some movement in the water, however, may prevent excessive sediment accumulation that could cause a canoe or kayak to get stuck. Ideally, there would be a moderate level of deposition that forms a natural beach area suitable for launching.

Federal and state government agencies, such as U.S Geological Survey, the U.S. Army Corps of Engineers, and state water surveys, can usually provide information on average water levels. These are important statistics to know before constructing a launch on any site.



Rivers: Least Suitable River Launch Site



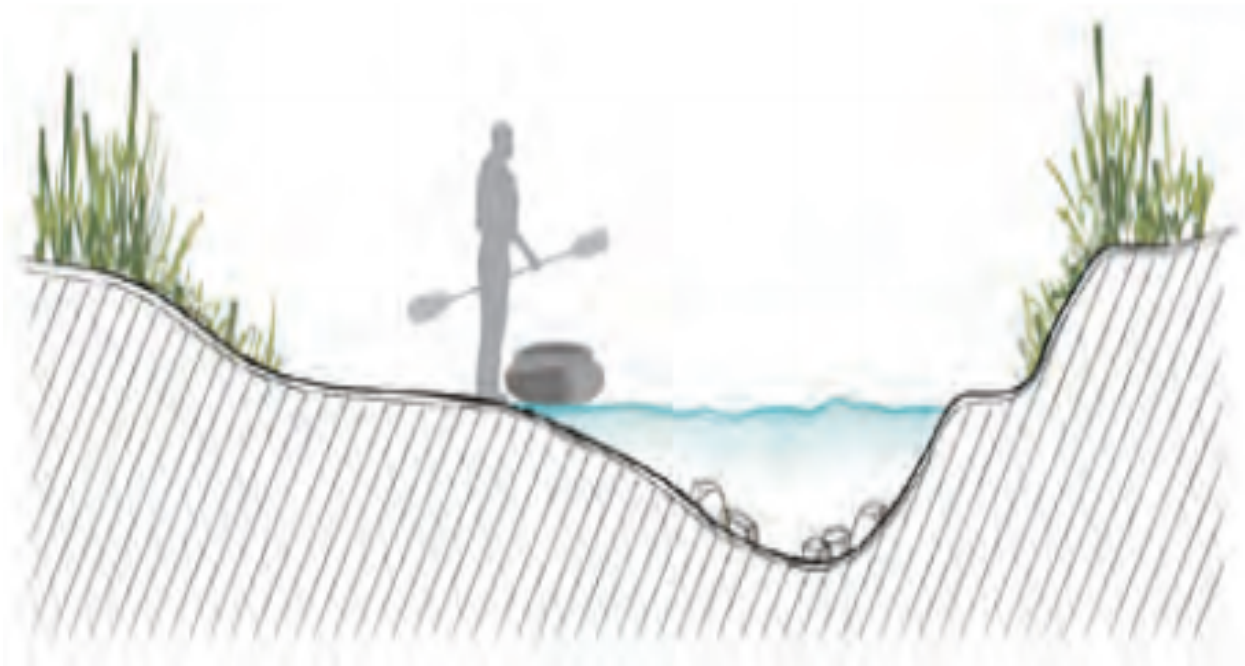
The steep banks of this stream make it the least suitable site for a launch, as it would be vulnerable to a great deal of erosion of the already unstable surface. If there is no other site option, an elevated launch design will help you bypass the unstable surface.

Diagram from [Iowa DNR Water Trails Toolkit](#)



Rivers: Ideal River Launch Site

This is an example of an ideal 'natural surface' launch site on a river. The gradual slope on the left side of this diagram provides easy access at various water levels. Gradual slopes also provide easy access for wheel chairs as long as the surface is stable. Vegetative buffers on both river banks help prevent erosion.



Some segments are more stable, with the bank on one side more gentle and the other side steeper. These segments offer both shallow and deeper water areas. The shallow side of a stream is often an excellent location for launch construction. Ensure sediment and/or sand deposition is not an issue before constructing launch.

Diagram from [Iowa DNR Water Trails Toolkit](#)



Launch Location: Whitewater

- This guide uses whitewater as Class I and higher rapids. See the definition by American Whitewater's [Whitewater Safety Code and International Scale of River Difficulty](#).
- A river rating takes into account many factors including the difficulty of individual rapids, remoteness, hazards, etc; similar to how a whitewater launch should consider those same factors.
- Due to seasonal changes or dam releases, some rivers experience dramatic differences in flow and water levels. These rivers require launch areas that can withstand extreme fluctuations and accommodate paddlers in a wide range of circumstances.



Whitewater: Example 1

Access on whitewater rivers is preferable near eddies or calmer sections. Natural shoreline areas that can be reinforced easily and inexpensively are typically the best places to launch.

Consider the type of craft, number and types of people who will use your launch. A 5' width path may be appropriate for use by paddlers carrying short kayaks, while rafters may need 12' to accommodate people carrying boats from both sides. Multiple groups beginning or ending multi-day trips require a considerably wide launch area.

Level beaches, flat rock outcrops, and sturdy banks may be sufficient. Structures such as concrete stairs may need to be designed to withstand heavy flows and ice without causing erosion. Concrete or other material can be used to divert runoff from a launch area.



Concrete Staircases on the South Platte River, CO



Whitewater: Example 2

Banks adjacent to bridges may provide consistent access during changing flows. Access from the road to these areas is often convenient, and the armoring used to protect bridges can also protect the launch area.



Staircase launch adjacent to bridge on the Harpeth State Scenic River in Tennessee



Whitewater: Launch Site Needs Improvement



Tuolumne River launch: too steep for boats, people, and is causing erosion and bank destabilization



Whitewater: Ideal Launch Site



Firm natural launch design preventing erosion on the Boise River



Launch Location: Coastal Waters

As with rivers, access along coastal waters is preferable in areas protected from waves and wind. Tidal water bodies experience dramatic changes in water level; a deep channel can become a muddy flat within a period of hours. Tidal changes can pose risks to paddlers when rocks or other hazards are exposed in lower water levels.

Launches need to be built to withstand tidal fluctuations and possible impacts caused by floating debris or aquatic life carried in or left behind by tidal currents. Materials used to construct launches should be salt-resistant.



Cape Cod Coastal Launch



Coastal Waters: Example 1

Vegetated banks with informal launch and take-out sites can be fragile and subject to trampling by paddlers, who may be unaware of their impact. As seen below, rocks or other natural materials may be placed in a way that directs paddlers toward specified launch areas and paddlers can be educated about their impacts. Natural grasses along these banks can help control erosion and preserve habitat.



Dinner Key Marina in Miami, FL uses limestone boulders to help funnel traffic away from the surrounding marsh shoreline.



Coastal Waters: Example 2

Environmental factors specific to salt water areas should also be considered when choosing a launch location or type, such as the level of sunlight needed by marsh and marine grasses. Structures that block light may prevent vegetation from receiving sufficient light for growth. Additionally, using [piles](#) or other support structures on sandy estuary bottoms may cause sediment displacement.



Desired natural surface design launch at Merritt Island
National Wildlife Refuge in FL.



Coastal Waters: Launch Site Needs Improvement



The stairs above are too narrow and are troublesome at low tide.



Coastal Waters: Ideal Launch Site



Alviso Marina Boat Launch in Santa Clara County, California

Launch Location: Lakes

Launch structures may not be needed on lake sites where shorelines are not exposed to heavy currents and fluctuating water levels. However, it is still recommended to locate access sites in relatively protected areas with minimal exposure and erosion problems. Shallow, marshy areas should be avoided, as they are difficult to navigate and likely to host fragile wetland ecosystems. Lakes can vary greatly in size, character, and behavior. The Great Lakes, for example, behave like tidal water bodies. Launch sites suitable for coastal areas should be considered in these areas.



Anthony Lakes small, concrete single-lane boat ramp in Oregon



Lakes: Launch Site Needs Improvement



The Sunshine Bottoms boat launch on the Lewis & Clark Reservoir in Nebraska suffered from freezing and thawing breakages before it was reconstructed with a concrete ramp mat.



Lakes: Low Impact Launch Site



Echo Lake, MN boat launch with minimal alteration to the shoreline



Design For Environmentally Sensitive Areas

- Avoid developing launch sites in environmentally sensitive areas.
- So, what do you do if you have **no** alternative access points?



Fort Clatsop Historic Canoe Launch



Design For Environmentally Sensitive Areas: Launch Design Types

Both elevated walkways and geotextile launches are recommended for these sites. If implemented correctly, these designs allow for vegetative growth to continue unimpeded by the installation of the launches. Although these launches are designed to allow vegetative growth, construction can have a large negative impact on the riparian zone of a river. This is why developing launch sites in environmentally sensitive areas is strongly discouraged.



Alviso boat ramp in Santa Clara County, CA was awarded the 2010 US Recreational Boating Access Award in part for its success in catering to its environmentally sensitive area.



Design For Environmentally Sensitive Areas: Materials

The choice of materials used to construct launches is particularly important in an environmentally sensitive area. Materials that require little onsite alterations and are least toxic are the most preferable for these sites.

A natural resource specialist should be consulted during the site planning, construction and maintenance to assure the integrity of the shoreline is not jeopardized along with the quality of the water.



Environmentally Sensitive Launch Design Case Study: Fort Clatsop Historic Canoe Launch

The Fort Clatsop historic canoe launch at the Lewis and Clark National Historic Park along the Columbia River near Astoria, Oregon, is an example of a site located in an environmentally sensitive area that cannot be moved, given its role in the historic and cultural landscape. Fort Clatsop was the site from which Lewis and Clark launched on their return journey east in 1806. Moving the launch would alter the site's historic accuracy, as well as the vistas important to the character and experience of the site.

The launch is used primarily for display purposes and is not open for public use, but the environmental challenges posed at this site resemble those at many public launches.





Fort Clatsop Historic Canoe Launch: Overview

Problem: Situated on an exposed area of a tidal river, the main challenges to the longevity of the launch are impacts of erosion, wind, and heavy flows. Additionally, due to its location on a bend of the river, the landing is vulnerable to lateral flows caused by the dramatic changes in direction and curvature on this part of the meander

Solution: Through detailed site analyses, assessments were made of the site that accounted for current and future trends in channel morphology and behavior, as well as the effects of sedimentation and erosion patterns. Due to the vulnerability of the canoe landing's location and exposure to strong winds and currents, it was determined that this site needed "erosion resistant features," such as a vegetation buffer, to offer protection and stabilization to the landing.

A beach area on the south side of the landing has been designated as a public launch site. The site may not be used at all times due to the tides. Paddlers may launch at high tide only, as the area becomes too muddy for launching at low tide. Paddlers carry their boats to the beach site while walking on a concrete path from a parking area located just north of the site.



Fort Clatsop Historic Canoe Launch: Site Details

Turfstone, see the image to the right, is a concrete mat that controls erosion and stabilizes the landing. The problem with the launch prior to this project was that silt had built up at the toe, creating a muddy area with a perceived drop off with some large rocks acting as tripping hazards in the murky water. Additionally, an uneven surface and erosion were caused by water from the upland side of the ramp and parking lot draining down the ramp in heavy precipitation.



Fort Clatsop Historic Canoe Launch: Site Details 2

Managers were able to minimize costs in design and construction, as well as environmental impacts. The minimal earthwork to even out the toe of the ramp and install the Turfstone could be done at low tide conditions when dry, avoiding the need to build a cofferdam and de-water. The Turfstone's voided mat design allows for vegetation to grow up through the mat and further prevent erosion. During construction, the steep slope was reduced. This type of mat will simplify silt removal, reducing future maintenance time.

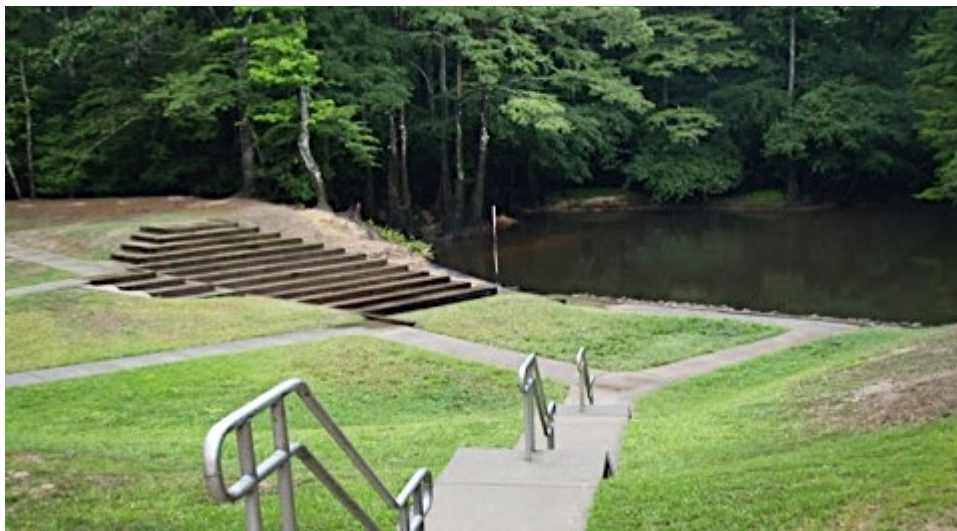
The drainage upslope from the ramp will be combined with roof drainage from the nearby kayak shed and diverted to flow into a rain garden/wetland area.



Design For Fluctuating Waters

- High/low flow rivers can change character dramatically when water levels fluctuate due to seasons or rainfall. Rocks, snags, low trees, and other hazards may be disguised during high flow, making them difficult to see and avoid; they may also be dangerous to paddlers at low flow. Some rivers turn into mud flats during low flow, making access nearly impossible unless there is a firm surface with sufficient water depth for launching.
- Natural surface designs are the most ideal for launches in areas of fluctuating water levels. A low sloping beach provides a perfect adaptable access point at various water levels. If no site similar to this is available, consider a floating or [pile](#)-supported launch. If you choose a built launch, the water level must remain below the height of the deck at all times.
- Federal and state government agencies, such as U.S Geological Survey, the U.S. Army Corps of Engineers, and state water surveys can usually provide information about average water levels. These are important statistics to know before constructing any launch.





Design for Fluctuating Waters Case Study: Lynches River, South Carolina

This launch design provides access at various water levels. The top picture shows a low level day when the path provides access directly to the river. The bottom picture shows the river on a high level day when the concrete stairs provide easy access to the river.

Photo credit: Mary Crockett

Step 2: User Assessment

Types of Users and Watercraft

Level of User Traffic

Accessibility Needs



Types of Users

Who are you planning for? Identify users and ask the right questions!

Your visitors may include paddlers carrying touring kayaks two at a time from the bow and stern; teammates unloading, lifting and launching 30' rowing shells; or customers unloading and carrying inflated rafts from both sides. Launches that greet multiple groups beginning multi-day trips require a very wide area, and if users start and end trips there you can expect use throughout the day.

Potential Partners: Involve paddlers, kayak anglers, rowers, rafters, standup paddle boarders, small sailboat owners and others of all abilities in early planning stages. They may have offer simple, cost-effective ideas to help create a successful design. Locals groups may also be interested in helping to maintain access and raise funds for the project.



Types of Users: Paddlers and Kayak Anglers

Features for Paddlers and Kayak Anglers

- Design short distances from parking area to launch or provide option for users to unload boats and gear near launch area and park remotely. Overnight parking is a plus for anglers and long-distance paddlers.
- Concrete ramp surface is damaging to the hull of boats being launched by hand. When no existing firm surface is available consider rubber matting, synthetic products, or other surfacing options.
- Design vehicle loading in-line with the launch, circular driveways become congested easily.
- In multi-user sites provide some parking for vehicles with and without trailers. Outfitters may have large vans or buses and long trailers.
- Provide secure storage, see picture to the right.



Kayak storage facility



Types of Users: Rowers

Launch & Parking Features For Rowers

- Floating docks must be stable for rowers with a minimum dock length of 45 ft. and height of 5-6" above the water. No dock posts should be present.
- Rowers need large parking and turning areas to facilitate length of crew boats trailers which are 76 ft. long.



Types of Users: Small Sailboats

Preferred Launch and Parking Features for Small Sailboats

- Overhead power lines, trees, bridges, and other structures that may be fine for other watercraft users pose hazards for sailors in both launch and parking areas.
- Sailors need adequate room for parking trailers.
- Hardened sand or small gravel are suitable surfaces for most small sailboats to launch.



Types of Users: Amenities for All

Amenities that are Appreciated by All Users

- Restrooms
- Fresh water to rinse boats/gear
- Trash cans
- Picnic area
- Maps or navigation guides

River Breeze Park, FL (to the right)

Parking – Free parking for all vehicles. 24 hours access with overnight parking.

Launch – Beach area launch with gentle slope into water. Out of the way of the motorized boat launch area.

Portage to Launch – You are able to unload your boat and gear near the launch. The parking lot is located about 350 feet away.

Amenities – Restrooms, showers, picnic tables, grills, fresh water, shade trees.

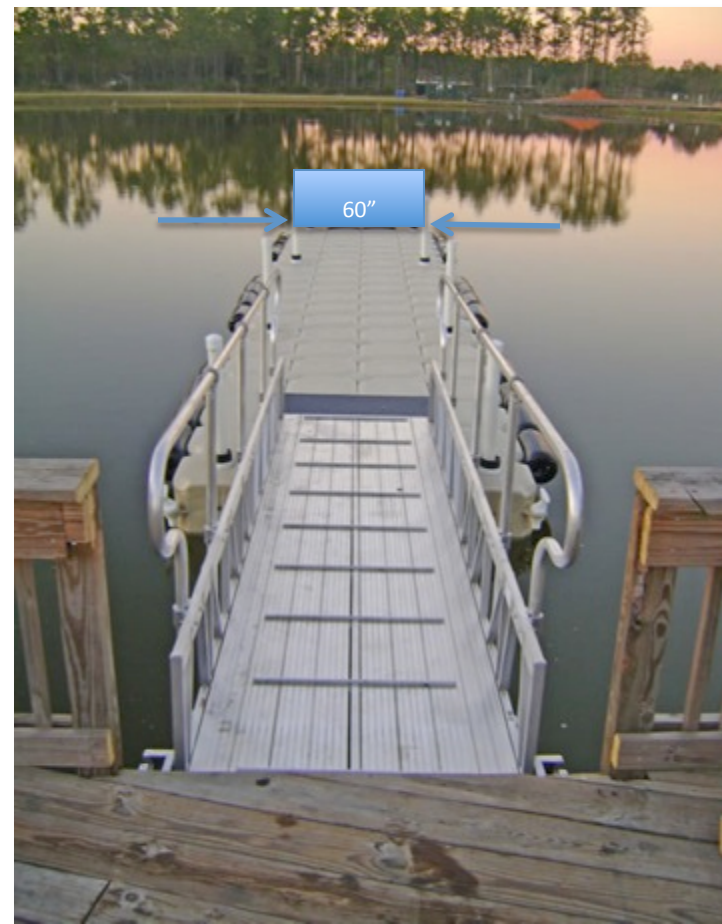


Types of Watercraft: Accessibility Considerations

Kayakers may prefer a natural surface while row boat owners prefer a dock. A launch site may be more frequently used by one type of craft, but it is a best practice to accommodate as many types of vessels as is practical.

ADA Standards for Accessible Design include the following, geared toward traditional docks and piers (this may apply to marinas that would like to better accommodate carry-in craft):

- A floating *boarding pier* must have clear space 60" wide minimum.
- Every 10 feet of linear pier shall have at least one continuous clear opening a minimum of 60" wide unrestricted by railings. Railings are not required.
- 36" wide docking is acceptable as long as the 36" wide docking is no longer than 24" long and has 60"x 60" docking on either side.



Types of Watercraft: User Experience Levels



Consider the skill level(s) of the people most likely to use your launch site, for their level of experience should influence the type of launch chosen. If a site is a frequently used by beginner boaters, the launch design should take this into consideration.

Although the natural surface launch in the picture may look like a perfectly good site to an experienced boater, a beginner may not even recognize the site as a designated spot to launch their boat.

Level of User Traffic: How Often Will the Launch be Used?

- To construct an appropriate launch site a designer should have a thorough understanding of the expected level of use that the launch will have on a daily basis, particularly at peak times. If a site is known to be a popular point of access to the water, then a plan for a launch that will accommodate multiple users at the same time must be made. Wide natural surface launches are most effective at this.
- The volume of traffic is something that should be considered throughout the entire developmental stage of a site. This will affect how many parking spots are provided, how wide the access trail is, and how many portable toilets are on site, among other needs.





Launch Site Accessibility: Universal Design

- Accessible launches provide an opportunity for everyone to enjoy and share the experience on the water together. Most of the characteristics that a boater with a disability or an older adult with mobility restrictions desires are the same features that others look for in a launch:
 - A firm and stable surface directly into the water
 - A gradual slope that does not exceed 8.33%
 - Open area sufficient to turn around a 16 ft. or larger canoe or other craft
- The launch area is only part of an accessible site: also consider parking spaces, pathways, and restroom facilities so that they are accessible to all. Current accessibility requirements are available in the [Americans with Disabilities Act Standards for Accessible Design \(ADASAD\)](#) and in the [Architectural Barriers Act Accessibility Standards \(ABAAS\) for federal agencies.](#)



The ADA and ABA: What's the Difference?

Americans with Disabilities Act (ADA):

- **Who:** Private business owners, and State and local government both fall under the Americans with Disabilities Act.
- **What:** The ADA Standards for Accessible Design (ADASAD) provide guidelines to creating accessible facilities. The recreational boating section only deals with marinas, boat boarding docks and [gangways](#). There are no requirements for launching areas for carry-in watercraft such as canoes, kayaks, and rafts.



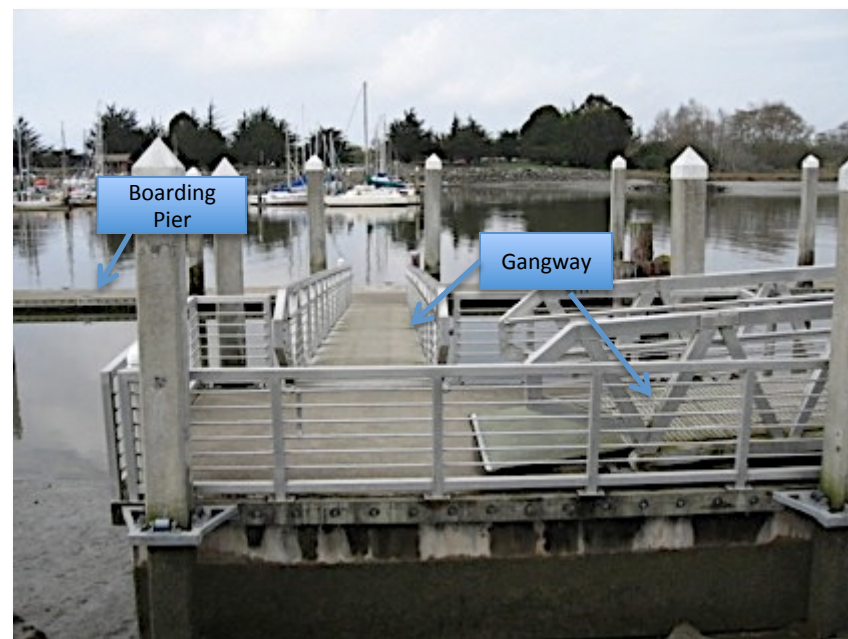
Accessible John Gurney Park Boat Launch in Hart, MI



The ADA and ABA: What's the Difference, cont.

The Architectural Barriers Act (ABA):

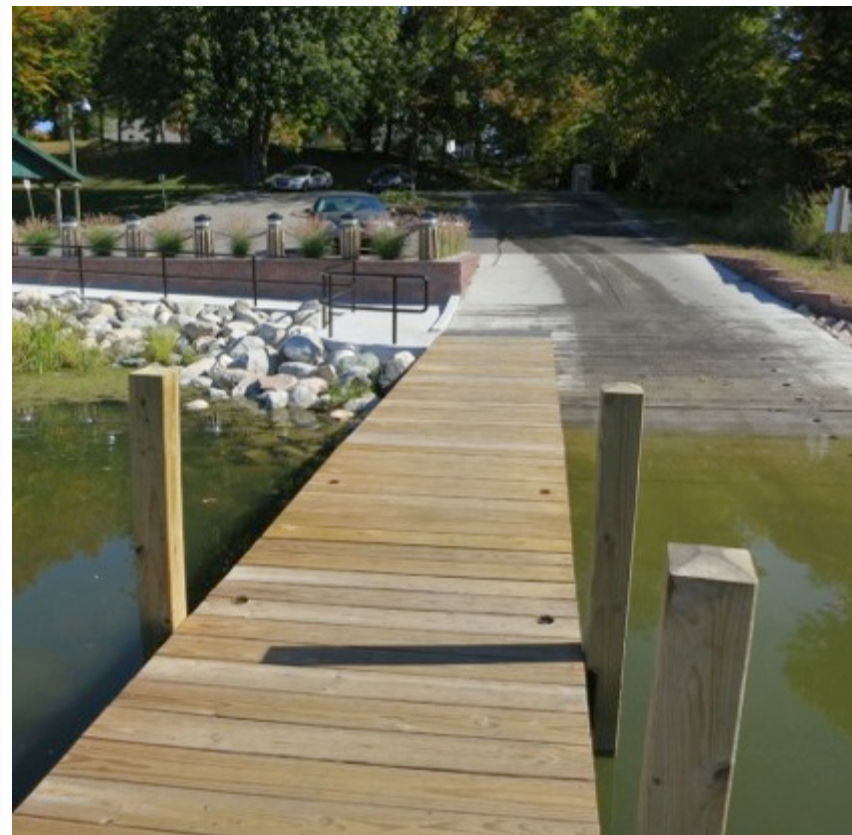
- **Who:** Facilities designed, built, altered or leased by or for a federal agency, or with federal dollars or located on federal land.
- **What:** Projects that fall under the Act are required to follow the Architectural Barriers Act Accessibility Standards (ABAAS), which are more stringent than ADASAD. The recreational boating section addresses marinas, *boarding piers*, docks and *gangways*: there are no design requirements for launching carry-in watercraft.



ABAAS: a *boarding pier* must measure at least 60" wide through its length: a *gangway* may be less than 60" wide



Accessible Boat Launch Case Study: John Gurney Park Boat Launch



To improve the previously narrow and inaccessible ramp, the launch was widened from 12 to 18 feet, retaining walls were added, and the parking lot was raised and flattened. The new ramp has an 11% slope with an 8% slope concrete walkway between the parking lot and pier.



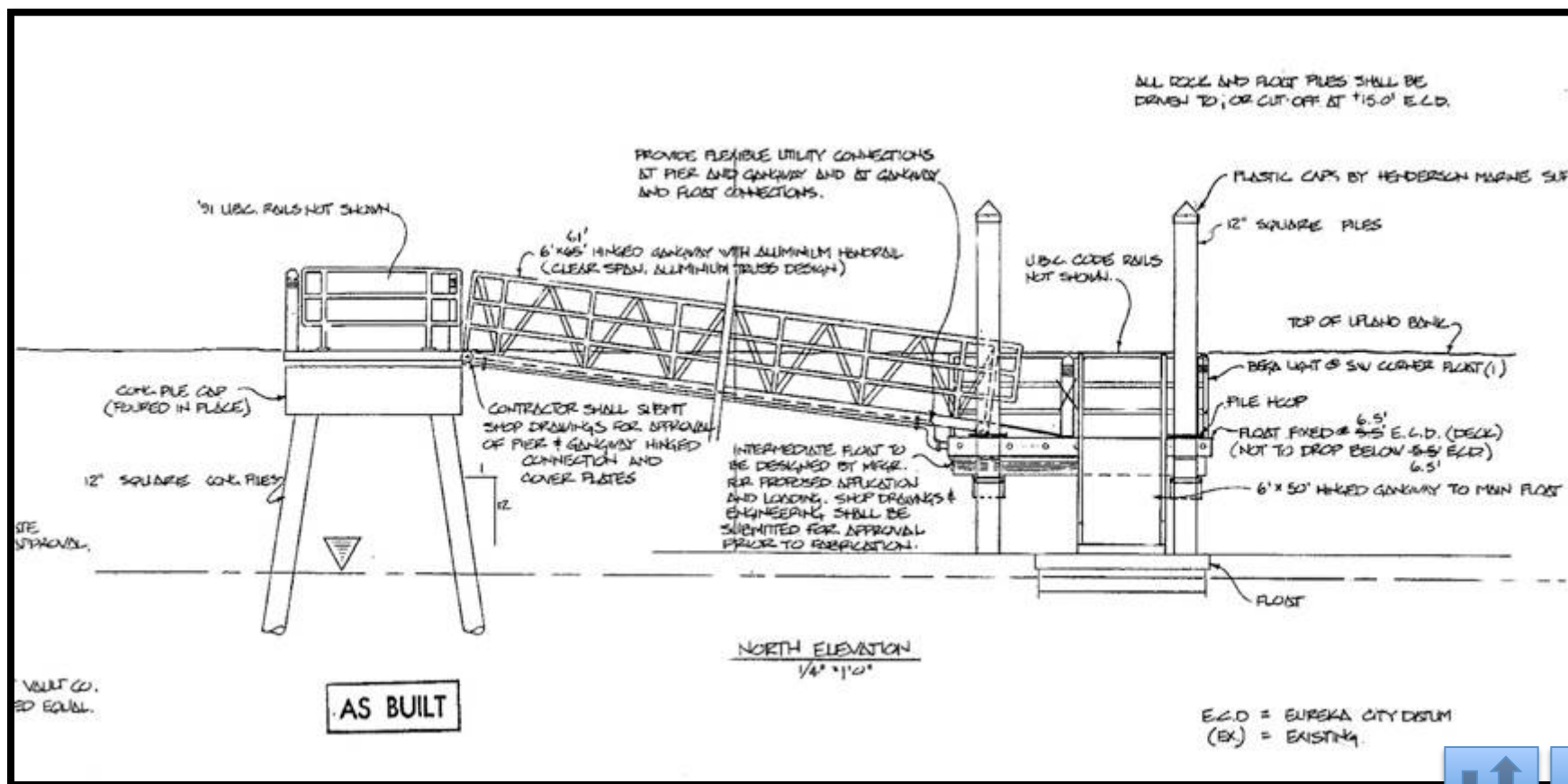
Accessible Launch Example: Bonnie Gool Guest Dock, Eureka, California

The Bonnie Gool Guest Dock maintains a consistently accessible slope of 8.33% for about 90% of the time. Only during extreme low tides does the slope become too steep. The launch is composed of several connecting parts. A fixed dock at the shoreline connects to an intermediate approach ramp at a 90 degree turn (*see below*). The ramp is surfaced with non-skid, aluminum alloy that provides traction and connects to a floating launch at a 90 degree turn.



Accessible Launch Example: Bonnie Gool Guest Dock 1

Northern Profile



Eastern Profile



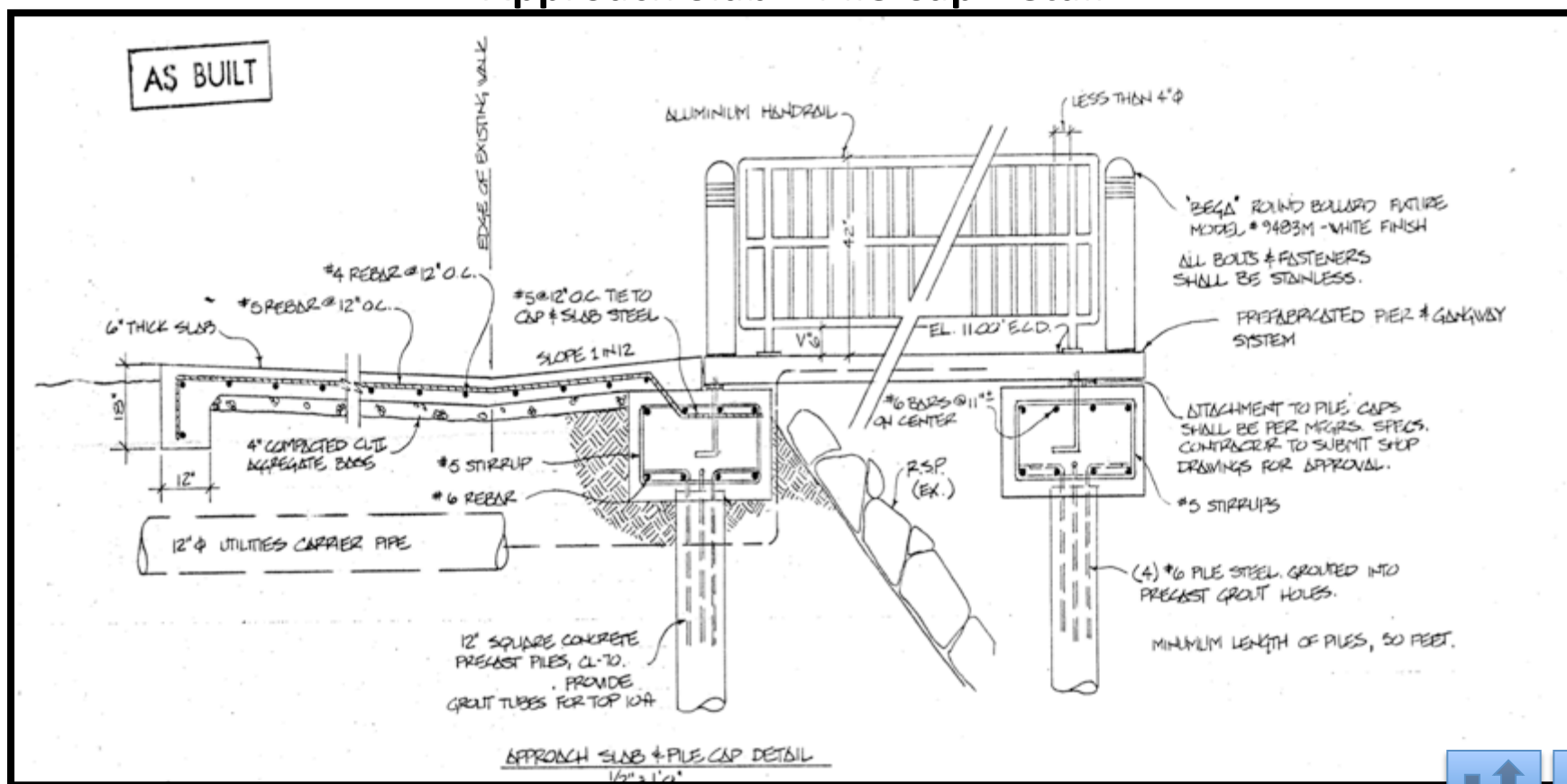
Pile Cap Detail





Accessible Launch Example: Bonnie Gool Guest Dock 4

Approach Slab + Pile Cap Detail



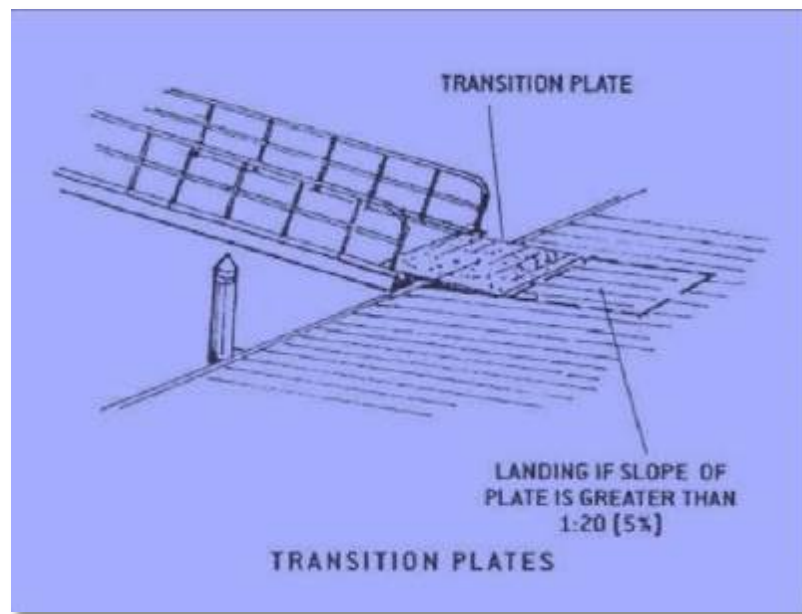
Accessible Launch Example: Bonnie Gool Guest Dock - Photos



Suggestions for Creating an Accessible Launch

Transition plates: Sloped surfaces located at the end of a [gangway](#). If the slope of a gangway is greater than 5%, it must include a landing at the non-gangway end of the transition plate and comply with accessibility standards for gangways.

Handrails: Handrails are required on sloped surfaces that have a rise of less than 6" or a projection less than 72", or a slope of 5% or less. Since the surface may be moving with changes in the water handrail, extensions do not need to be parallel to ground or floor surfaces.



Suggestions for Creating an Accessible Launch, cont.

Cross Slope: The cross slope of a structure refers to the slope perpendicular to the structure's "running" slope - a slope spanning the length of the structure. The cross slopes of [gangways](#), transition plates, and floating piers that are part of an accessible route must be designed and constructed to not exceed a maximum slope of 2% (*see image below*). Once placed in the water, measurements absent live loads, are to be made from a static condition (i.e., absence of movement that results from wind, waves, etc.).

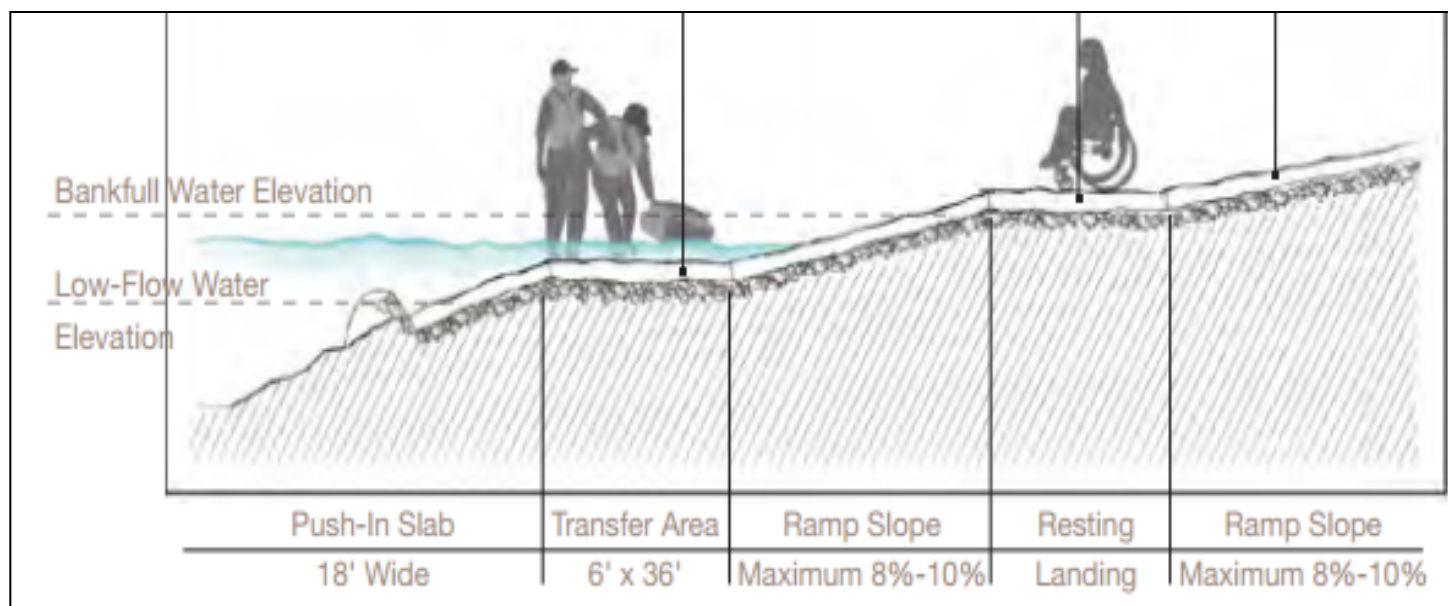


Diagram from [Iowa DNR Water Trails Toolkit](#)





Design that may be Useful for Paddlers with Disabilities:

When designing for paddlers with disabilities, know that a feature which is helpful to one person may block access for another.

Access Route: The surface, grade, width, and cross slope need to be as accessible as a location will allow. The surface should be as even and level as possible (not exceeding 8.33% slope or 2% cross slope) without gaps or interruptions. The route should be clearly marked.

Level and Stable Landing / Loading Area: There should be an area adjacent to the landing area that is level, stable, and at least 60" x 60". This can be anywhere adjacent to the landing area.

Transfer Assistance: The greatest challenge to using a launch, once a paddler is beside the canoe, can be getting down into the seat of the boat. Whether it is on a highly developed launch or the bank of a lake, it is difficult to transfer to a moving boat. Therefore, provide flexible space adjacent to the boat for an individual to use.

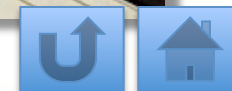


Design that may be Useful for Paddlers with Disabilities:

Transfer Step: A moveable structure approximately 8" to 12" high that may be helpful to paddlers who have difficulty bending or squatting, and can provide wheelchair users with an intermediate step between their chair and the ground or boat.



Transfer Board: A board that slides out from the launch, over the top of the canoe, and allows a person to slide out over the canoe before sitting down on the seat. If located at gunwale level, it can both support a person's weight and stabilize the boat as legs are moved around and adjustments are made.



Design that may be Useful for Paddlers with Disabilities:

Overhead Handles (Grab Bars): The transfer between land and boat can be extremely difficult to maneuver, especially when moving from a canoe seat to a higher launch platform. Alternative grab points can mitigate the complicated procedure of getting oneself onto a launch from a boat so that the boat is not the sole anchor point.

Surface Textures: Textured surfaces on a launch, included those added to provide extra traction, should be practical for wheelchair use. Surface gaps should not exceed 0.5" since the widths of most wheelchair and caster tires are 0.75" - 1".





Step 3: Launch Development Considerations

Required permits and fundraising are crucial steps that will have a huge impact on the developmental stage of a launch design. In order to prevent last minute obstacles from cropping up in the course of a project, these topics should be researched and well understood before beginning design.

Permitting

Funding Resources

Professional Resources



Launch Development Considerations: Permitting

Learn and understand early what permits might be needed for a site. Permitting may drive important aspects of the site plan. Understanding federal, state, and local permit requirements in the planning stages will avoid costly changes later in the development stage. The following agencies are a few that may require permits for the construction of a boating facility:

- U.S. Army Corps of Engineers
- Department of Transportation
- Environmental Protection Agencies (federal, state, local)
- Local building, zoning agencies, or boards





Launch Development Considerations: Federal and State Funding Resources

Depending on your project, there may be organizations available to help with funding. Listed below are a few of the more well known funding sources, but project funding may be available for launch development, land acquisition, site development, and environmental mitigation.

The Land and Water Conservation Fund

The LWCF Program provides matching grants to States and local governments for the acquisition and development of public outdoor recreation areas and facilities (as well as funding for shared federal land acquisition and conservation strategies). The program is intended to create and maintain a nationwide legacy of high quality recreation areas and facilities and to stimulate non-federal investments in the protection and maintenance of recreation resources across the United States

<http://www.nps.gov/ncrc/programs/lwcf/grants.html>

The Recreational Trails Program (RTP)

RTP provides funds to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation's Federal Highway Administration (FHWA). Each State administers its own program. Contact your State RTP Administrator for guidance on State policies and project eligibility requirements. Many States fund water trails and/or access to water trails, but not all.

http://www.fhwa.dot.gov/environment/recreational_trails/

States Organization for Boating Access

State Boating Access, Clean Vessel Act (CVA) and Boating Infrastructure Grants (BIG) projects - States administer grants for public recreational boat access to waterways. The States Organization for Boating Access maintains state contacts for these grants.

<http://www.sobaus.org/resources/resources.html>





Launch Development Considerations: Foundation Funding Resources

In addition to federal and state funding sources, many foundations support projects that allow more people to get access to the outdoors.

The Foundation Center

A directory of private funding sources. They provide information on philanthropy, fundraising, and grant programs.

www.fdncenter.org

The American Canoe Association

Provides grants for the construction of waterway access called the Club Fostered Stewardship Grant. See link below for more information.

http://www.americancanoe.org/?page=LLBean_CFS_Grant

Outdoor Nation

Provides small grants, including Paddle Nation Project Grants, which support pioneering projects and initiatives that are youth-developed that result in increased paddling participation. They also have Take Me Fishing Awards which support pioneering projects and initiatives that are youth-developed and result in increased fishing participation.

<http://outdoornation.org/outdoor-and-environmental-grants>





Launch Development Considerations: Professional Resources

Help can come in the form of technical support, too:

The National Park Service Rivers, Trails and Conservation Assistance Program (RTCA)

RTCA provides technical assistance to agencies, communities and organizations to help them with their recreation and conservation goals. RTCA has helped many water trails groups seeking to provide more access to local water bodies.

www.nps.gov/rtca

The River Management Society (RMS)

RMS is a national non-profit professional organization whose mission is to support professionals who study, protect, and manage North America's rivers. Queries sent to RMS can be forwarded to their members who often can provide help.

www.river-management.org





Bibliography/Resources – Chapter 2

- Iowa DNR - [Iowa Watertrails Toolkit](#)
- [American Whitewater](#)
- Florida Fish & Wildlife Conservation Commission - [Guidelines for Developing Non-motorized Boat Launches in Florida](#)
- [Lewis & Clark Historical Park](#) – Ft. Clatsop
- [ADA Standards for Accessible Design](#)
- [ABA Accessibility Standards](#)
- Bonnie Gool Guest Dock - <http://pacaff.com/project/Marine-Engineering/project1> , <http://www.flickr.com/photos/humboldtbykingtides/8336865106/in/pool-cakingtides>
- [The Land and Water Conservation Fund](#) (LWCF)
- [The Recreational Trails Program](#) (RTP)
- [Rivers, Trails, and Conservation Assistance Program](#) (RTCA)
- [River Management Society](#) (RMS)





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