

Moab Town Boat Ramp Action Plan

May 2022



Moab Town Boat Ramp Action Plan – 2022

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Introduction

The Moab Town Boat Ramp is a popular and heavily used access point on the Colorado River. Its proximity to Moab, a recreation destination that attracts millions of visitors every year, make it a very accessible and desirable spot for both residents and visitors. After decades of heavy use, the ramp is cracked, eroding, and in poor condition, and the area does not accommodate the parking, vehicles, and general user traffic.

Grand County wants to reconstruct the ramp to enhance access, improve safety, and make it more functional for a variety of users. The proposed reconstruction will include a redesigned ramp, a paved area at the top of the ramp as a circulation plaza, and new parking in the area adjacent to the ramp upriver.

This action plan provides context on existing conditions and user activity and outlines the proposed changes needed to upgrade the ramp. The plan also provides recommended steps to implementing improvements over the next two to five years.

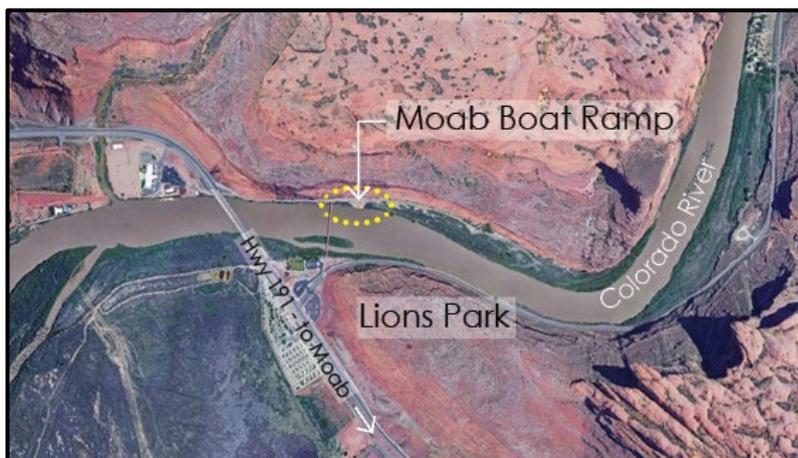


Figure 1: Context map showing boat ramp location



Figure 2: Boat ramp and parking area from pedestrian bridge. Credit: B. Byrne

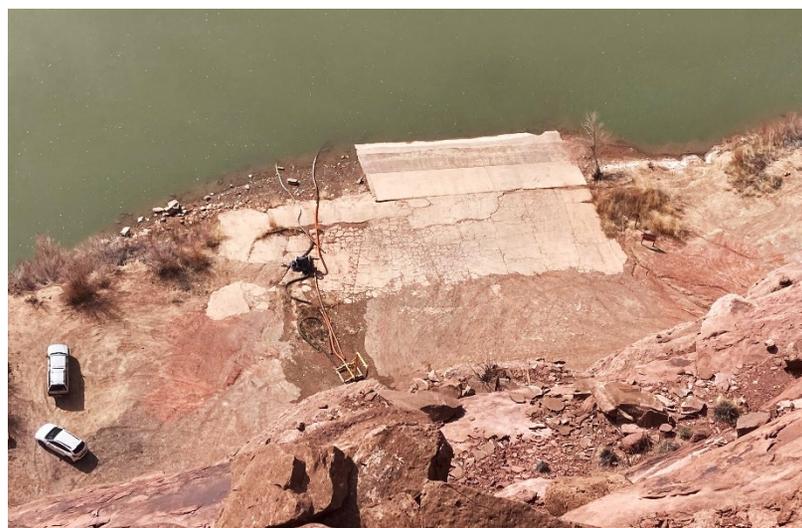


Figure 3: View of the ramp from above on the cliff to the north. Credit: J. Webster

Process and Public Input

Grand County engaged partners including Forestry, Fire, & State Lands, City of Moab, Bureau of Land Management, National Park Service, Grand County Search & Rescue, and knowledgeable boating experts to identify the needs of users and ways to improve the site. A planning team began meeting in the fall of 2021 to work on developing a site plan and action steps.

On January 27, 2022, the planning team held a site visit and workshop with other stakeholders and site users, including private and commercial boaters and users of the water load-out. The workshop identified how people use the site, what challenges there are with existing conditions, and opportunities to make improvements. This input was used to create a site plan for the ramp area.

In April 2022, the proposed site plan and improvements were presented to the community for feedback. An open house was held



Figure 4: A group photo from the January 2022 boat ramp site visit. Credit: B. Byrne

on April 20, 2022, and opportunity for comment was also available through Grand County Connects.

After this final round of public input, an action plan was developed to guide implementation of the boat ramp site plan.

Key Stakeholders Providing Input

- Grand County (Planning, Roads, Econ Dev, SAR)
- Moab (Parks & Rec, Planning)
- Utah Guides & Outfitters
- Sheri Griffith Expeditions
- Moab Jett
- Canyonlands by Night
- Wild West Voyages
- BLM, NPS
- Dept. Natural Resources – FFSL, UT Div. of Parks
- LeGrand Johnson
- Grand Water & Sewer Agency



Figure 5: Participants in the public open house on April 20, 2022. Credit: B. Byrne

Existing Conditions

Landownership and History

The Moab Town Boat Ramp is located three miles north of Moab on the bank of the Colorado River, across the US 191 and Colorado Riverway bridges from Lions Park.

The land that the boat ramp occupies was granted to Grand County by the Bureau of Land Management (BLM) through the Recreation & Public Purposes Act (R&PP) on April 24, 1963. The grant states that the lands must be "designated as Boat Docking and Picnic Area." The National Park Service inherited the R&PP patent from the BLM when Arches National Park was created by US Congress in 1971, and the parcel now lies within the Park's boundary. The Utah Division of Forestry, Fire, & State Lands (FFSL) manages the river to the high-water mark.

The ramp was originally built sometime between 1952 and 1956. The last time the ramp received heavy maintenance was in 1990, when Canyonlands by Night extended and repaired the ramp. Since then, the area has been minimally maintained, largely by users of the boat ramp and the community. FFSL and Grand County have worked together in the past to do some invasive species removal and restoration work in the open area upstream of the ramp, known locally as Bill's Site.

Connection to Other Plans

The Moab Town Boat Ramp was identified in the 2020 [Colorado River Comprehensive Management Plan](#) (CMP) as a recreation management concern. The CMP calls for improvement of boater access points and facilities that experience congestion and lists the Town Ramp as one that was specifically mentioned by the public as needing improvements (pg. 166).



Figure 6: Photo of the boat ramp during a Friendship Cruise event in the 1950s. Credit: unknown.

Site Conditions

The boat ramp has several layers of concrete of different ages and is in poor condition, with the surface crumbling and the edges eroding. The ramp does not extend far enough into the river and is exposed at lower water levels. At the top of the ramp is an informal dirt area for parking, but no spaces are delineated, and haphazardly parked vehicles cause problems for general circulation and trailer access to the ramp.

Upstream of the ramp is an area known as Bill’s Site, where efforts to restore native vegetation have been hampered by poor soil conditions. Invasive non-native species like tamarisk are periodically removed from the ramp area. The shoreline is rocky and vegetated, and the bank has a short and steep slope adjacent to the ramp.

The Colorado River typically has flows between 2,000-20,000 cubic feet per second (cfs). At 40,000 cfs, flood waters reach the cliff bounding the area to the north, which happened most recently in the 2011 high water year. The ramp is in a place where motorized boats can reach deeper water, but there is not a natural eddy and river flows cause erosion/scour on the upstream side and along the end of the ramp. At lower water levels, the end of the ramp is exposed, causing dangerous conditions for boaters. Users estimate that the ramp becomes useable at around 5,000 cfs.

The site is bounded on the north by a sandstone cliff, which causes occasionally safety issues with falling rocks. There are some spots with cultural and historical significance along the cliff wall.

Site Use and Activity

The Moab Town Boat Ramp is an important access point to the Colorado River, heavily used by both motorized and non-motorized boaters, and by commercial outfits as well as private users. This



Figure 7: Photos showing poor condition of the ramp. Credit: B. Byrne

ramp is also used as a key launch site by Grand County Search and Rescue, US Fish and Wildlife Service, US Geological Survey, Grand County Weed, and the Utah Division of Wildlife Resources.

Beyond boating, the site sees a variety of recreational use including swimming, fishing, and picnicking. Camping is illegal at this site, but frequently occurs despite that restriction. There is little enforcement of the rules on site. These day use activities sometimes cause conflict with boating activity,

There is also a water load-out pump on the ramp. This load-out is used by local construction company LeGrand Johnson, Grand County, and a few other users. Access to water from this load-out helps to reduce the use of culinary water for commercial, construction, and dust suppressant activities. There have been discussions about moving the load-out downstream in the long-term, but for now this use will need to be located in a way that facilitates access while reducing interaction with boat ramp activity.

Boating occurs primarily mid-March to October, with highest use June-August. Weekends and holidays are the busiest, but activity occurs all week. The water load-out is used approximately 10 months of the year. Other activities occur year-round, though at a lower level in the winter.

There are other established boat ramps, campsites, trailheads, and informal access points both up and down river. This boat ramp is at approximately the mid-point between Takeout Beach and Potash. It is the river access closest to Moab and sees a fair amount of use from both visitors and residents because of that proximity. See figure 8 on the next page for a map of recreational access points along the Colorado Riverway.

Types of Use

Primary activities:

- Private/commercial boating
- Rafts
- Jet boats
- Kayaks
- SUPs, tubes
- Water load-out
- Search and Rescue

Secondary activities:

- Day use, picnicking
- Fishing
- Swimming
- Hiking, dog walking
- Camping (illegal)
- Climbing
- Partying

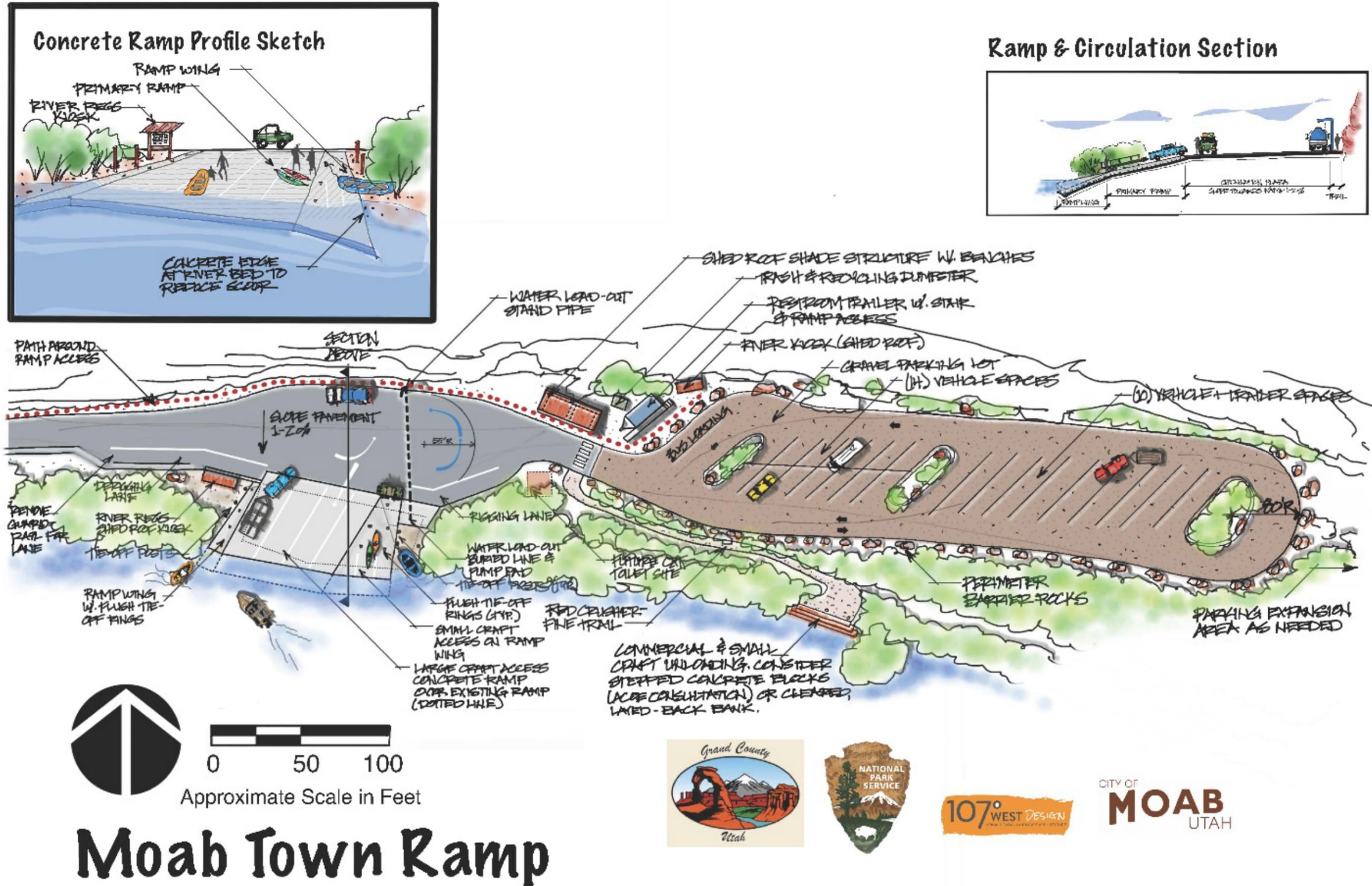
Site Challenges

- Site does not accommodate current use comfortably.
- Ramp is breaking up and in bad repair, limiting the useful area.
- Angle and length of ramp are not sufficient for some trailers.
- Parking is not adequate; there is conflict between parking, turnaround, loading/unloading, and day users.
- Graffiti, trash, human waste issues.
- Access road is narrow. There are limited sight distances when exiting the access road onto SR 191, causing safety concerns for people pulling onto the highway.



Figure 8: A map of the Colorado Riverway upstream of Hwy 191 and the Moab Town Boat Ramp showing locations of boat ramps, campgrounds, and trailheads. BLM

Site Plan



Plan | Moab Boat Ramp Detailed Plan

Figure 9: Proposed site plan for the boat ramp area. Credit: D. Martens

107° West Design, LLC
Mar 21, 2022



Site Improvements

The site plan proposes a number of changes and upgrades based on the input of the planning team, stakeholders, and users. These recommendations will need to be refined in the final engineering and construction documentation phase. The following provides further explanation of the features in the site plan.

Ramp:

- Remove existing concrete and construct a new concrete ramp in its footprint, with the ramp width (parallel to the shoreline) approximately the same as the current concrete area.
- Construct ramp thickness to a proposed minimum of 6". Engineer calculations and factors (concrete percentage and mix, reinforcement, base depth) will determine final recommendation of proper ramp thickness and associated ramp edge thickness.
- Stripe 15-18' lanes for larger vehicles, space for smaller craft. Width of ramp should be able to accommodate four to five primary lanes.
- Improve angle and extend length for better trailer access to deeper water. Final length will be determined in the engineering phase, but one estimate is approximately 4' beyond the river's low water level, as measured on the angle of the slope.
- Ramp lanes could be angled downstream to make it easier to back trailers and craft into the stream flow and existing small eddy on the downstream side of the ramp. This angle helps reduce the current force broadside to the boat as it is loaded on or off the trailer.
- Construct side wings to protect ramp from erosive water force and provide space for smaller craft.

- Install a slanted groove in the concrete for water drainage.
- Install anchor posts or loops for boat tie-off.

Circulation plaza:

- Pave the area above the ramp from the current end of asphalt access road to eliminate the erosion problems and provide a stable, durable surface for vehicle access and turn around.
- Slope pavement 1-2% toward river.
- Provide space for derigging / rigging lanes on either side of the ramp. The guard rail just past the pedestrian bridge could be moved to accommodate a lane.

Water load-out:

- Alternative 1: bury water line under new asphalt turnaround area with the water intake on the upstream edge of the ramp. Provide a load-out standpipe on the north side of the circulation plaza next to the cliff to allow trucks to fill tanks away from boater traffic. Water load-out pipe length under the pavement would be approximately 75'. Final design and specifications will be determined in engineering phase.
- Alternative 2: retain existing water pump and pipe system and keep it on the far upstream side of the ramp.

Parking:

- Construct a new gravel parking lot upstream of the ramp.
- Proposed parking area accommodates 14 vehicle stalls and 10 vehicle-plus-trailer spaces. Parking area may be expanded in future if space is needed.
- Install a perimeter barrier of rocks or a fence to prevent vehicle trespass past designated area.

- Establish a spot to unload boat passengers upstream of the ramp by removing or managing invasive noxious weeds and plants. Provide an access trail to the parking area and facilities. This unloading location could also be used for smaller carryout craft, like SUPs or kayaks. A future phase may include a more permanent structure.

Facilities:

- Shade structure with benches and sturdy roof to protect from rock fall.
- Restroom trailer with stairs and ramp access. Trailer can be moved in times of flooding or in months of low use.
- Kiosk with river information.
- Trash receptacles

Signage and Enforcement:

- Improve signage at the ramp. Provide information on regulations and activities that are allowed (e.g., boating) or not allowed (e.g., camping, swimming). Include a map of the river showing other boat ramps or recreation access points to orient users.
- Work with Grand County Sheriff's office to improve patrolling and enforcement of rules at the boat ramp.

Access Road:

- Install traffic mirror so drivers can see oncoming traffic when exiting onto US 191.
- Work with UDOT to improve safety on the highway. This may include slowing traffic down, lowering the speed limit, or adding signage that indicates the need to slow down for the boat ramp access road. Long term, this may include physical access design improvements.

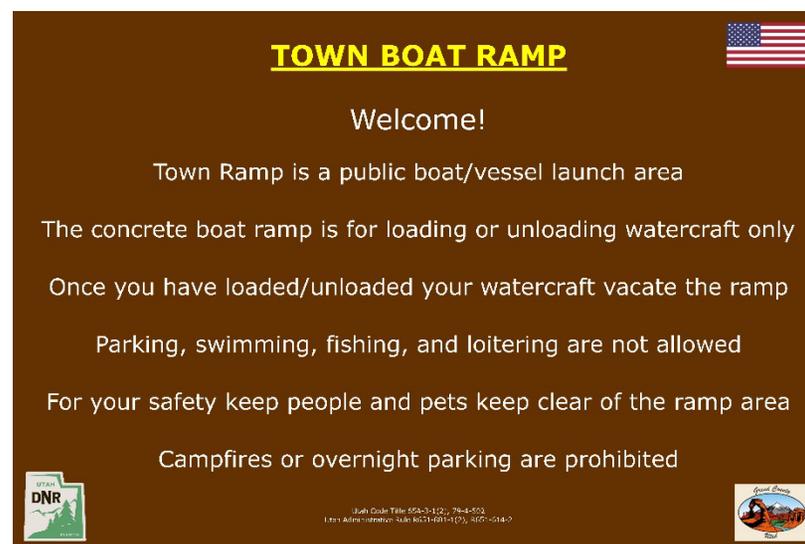


Figure 10: Example of signage explaining allowable activities at the boat ramp.
Credit: T. Mancuso

Precedent examples

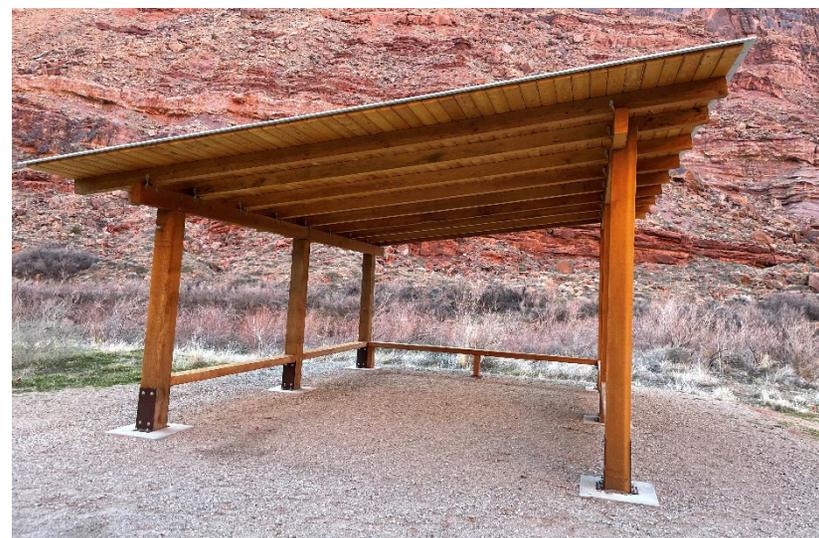


Figure 11: Top photo: Example of designated loading zone at Takeout Beach. Bottom photo: Example of paint designating rigging area. Credit: B. Byrne

Figure 12: Top photo: A boat tie-off ring installed at Potash Boat Ramp. Bottom photo: Shade structure at Takeout Beach. Credit: B. Byrne

Potential Future Phase: Lions Park

Several stakeholders and users have noted that Lions Park may be a better location for some river activities, including swimming, “touching the Colorado River,” and access for small personal watercraft like kayaks and SUPs. The park has great facilities including restrooms, drinking water, picnic shelters, play structures, and parking.

Anecdotally, some people are already using this area to launch small craft, either upstream of the bridge or somewhere along the bank in the park. Thick vegetation along the bank and the small island

across a channel make it a challenge to access the river directly from the park.

Future changes may include clearing vegetation to allow better access to the water and trails linking parking to the river. There may also be an opportunity for a locking rack for kayaks and SUPs in conjunction with bike racks, so that people could run a shuttle by biking up the SR 126 pathway and road.

City of Moab manages Lions Park and is not ready to make changes currently. The planning team recommends that the City consider changes to the park to accommodate river access in the future.



Figure 13: Concept plan showing potential future river access in Lions Park. Credit: D. Martens

Phasing

Phase I

- Initial planning
- Public input
- Deliverable: Proposed site plan, action plan
- Winter '21/Spring '22 - COMPLETE

Phase II

- Apply for Boater Access Grant for engineering
- Develop 90% design construction and engineering documents
- June-November 2022

Phase III

- Secure NEPA compliance and necessary permits from Army Corps of Engineers, State Historic Preservation Office, others as necessary
- Pursue funding for construction (Boater Access Grant, Utah Outdoor Recreation Grant - see funding chart)
- October 2022 – March 2023

Phase IV

- Construction of site
- Ramp will be constructed when river is low
- Fall/winter 2023-2024

Recommended Next Steps

As of the completion of this action plan, Grand County is pursuing the Boater Access Grant to fund the engineering documents for the ramp. Other grant funding sources are listed on the next page for construction, weed management, or other items.

The Boater Access Grant and the Utah Outdoor Recreation Grant/Recreation Restoration Infrastructure Grant are excellent sources of funding for construction of the ramp. To prepare to go after these funds, the County should identify sources of in-kind or cash matches for the grants. These could include:

- Use Forestry, Fire, and State Lands noxious weed management funds, distributed through the Grand County weed department, or other weed management funding sources for site preparation or rehabilitation activities.
- Investigate the possibility of raising funds or in-kind assistance through guides and outfitters or ramp user groups. Grand County may be able to set up a donation account or method of managing donations.
- Investigate the possibility of federal assistance through NPS or BLM on items such as signage, weed management, or other elements.

Once engineering documents are complete and the design, cut and fill estimates, and site preparation specs are developed, Grand County will pursue the necessary environmental clearance and approvals from Army Corps of Engineers, State Historic Preservation Office, or others as needed. Forestry, Fire, and State Lands can help identify contacts.

Grants

The following grants are grouped around the best funding opportunities for boat ramp infrastructure, trails (if needed in the open space), general infrastructure, and invasive species/vegetation management for post-construction rehabilitation.

	<i>Name</i>	<i>Eligible Projects</i>	<i>Process Timing</i>	<i>Local Match Required</i>	<i>Funding Amount</i>	<i>Contact</i>	<i>Website</i>
Boat Ramp Infrastructure	Boating Access Grant	Launching and docking: ramps, docks, access roads, bridges; Facilities: restrooms, fish cleaning stations, lighting, trash receptacles, parking areas, camping areas; Navigation aids: dredging, weed control, buoys; Engineering: planning, construction, environmental assessments, permitting; Outreach: signage, brochures, maps, websites; Operation and maintenance	Applications due October 30	25% match (cash, in-kind) State may be able to assist	Not specified; 60-76k is typical; could do up to 100k; Depends on federal funding; \$1 million typically available	Craig Walker craigwalker@utah.gov 801-834-1970	Boating Access Grant (BA) Utah State Parks
	Utah Outdoor Recreation Grant (UORG)	Outdoor recreation infrastructure including: trails and trailhead facilities; river or lake recreation facilities; outdoor climbing structures; structures for fishing or wildlife viewing; all-ability outdoor rec facilities; winter recreation trail facilities; community-owned camping facilities; outdoor shooting sports structures; etc. Cannot be used for project planning, maintenance of existing trails, or the purchase of property. Three tiers: Mini-grant, Tier 1, Regional Asset Tier	Application period open Jan. 18 - March 18	Given as a 50/50 match. Up to 25 percent of total may be an in-kind match.	Mini-grant: \$500-10k Tier 1: \$10k-\$200k Reg. Asset: up to \$500k	Tara McKee tmckee@utah.gov 801-538-8686 Patrick Morrison patrickmorrison@utah.gov 801-538-8652	Utah Outdoor Recreation Grant (UORG) - business.utah.gov
	Utah Outdoor Recreation Grant - Recreation Infrastructure (RRI)	Projects that rehabilitate or restore recreation amenities on public lands in areas that receive high visitation. Includes trail repair, realignment, major maintenance; campground/picnic sites; water recreation infrastructure; accessible outdoor recreation facilities.	Application period open Jan. 18 - March 18	Given as a 50/50 match. Up to 25 percent of total may be an in-kind match.	\$5,000 - \$150,000	Tara McKee tmckee@utah.gov 801-538-8686 Patrick Morrison patrickmorrison@utah.gov 801-538-8652	Utah Outdoor Recreation Grant (UORG) - business.utah.gov

Trails	Recreational Trail Program	Construction and maintenance of trails and facilities; trailheads; restroom facilities; trail signage; acquisition of property or easements; purchase / lease of trail construction and maintenance equipment; educational programs to promote safety and environmental protection	Application period open Feb. 15 - May 1	50/50 match (cash, in-kind services, volunteer labor, or donations)	Up to \$100k; Depends on federal funding	Tara McKee tmckee@utah.gov 801-538-8686	Recreational Trails Program Utah State Parks
General infrastructure	Utah Permanent Community Impact Fund Board (CIB)	Planning, construction and maintenance of public facilities, and provision of public services; may include public infrastructure traditionally provided by governmental entities.	Applications reviewed and authorized on a trimester basis; applications due June 1, Oct 1, Feb 1. (see website)	Planning & study funding requests require a 50% cash contribution from the applicant; in-kind contributions are ineligible (except for real property).	Not specified; max. \$5,000,000; Small planning grant up to \$50k	Todd Thorne, SEUALG 435-637-5444 Candace Powers, UT HCD 385-341-0199 cpowers@utah.gov	Overview (utah.gov) Regional Planning = SEUALG/SEUEDD (utah.gov)
Invasive Species	Watershed Restoration Initiative	Watershed rehabilitation processes such as reduction of invasive plant species, fire prevention and reseeding, restoring degraded stream systems and reversing aspen forest decline	Project proposals due to regional teams 1st Friday in January	None specified	Varies	Tyler Thompson tylertompson@utah.gov	Watershed Restoration Initiative
	UDAF Invasive Species Mitigation Grant	Early detection & rapid response; treating critical acres that protect larger land use areas; monitoring and preventing the spread of small populations and new introductions; monitoring and rehabilitating established infestations; research related to invasive species	February (check website for future FY grants)	Not specified, but encouraged for higher ranked application	approx. \$125k	Aaron Eagar (801) 538-7186 aeagar@utah.gov	FY2022 Invasive Species Mitigation Grant Application Utah Department of Agriculture and Food



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