



# TRAIL BRIDGE RECREATION AREA MASTER PLAN

DECEMBER 2012

# Acknowledgements

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This plan was developed by the University of Oregon's Community Planning Workshop (CPW) for the Eugene Water & Electric Board (EWEB). CPW wishes to thank the following individuals for their assistance with this project: Suzanne Adkins, Cheri Wilson, Dennis Harbour, and Debbie Spresser with Eugene Water and Electric Board; Forest Service (USFS) staff Dave Kretzing, Sandra Ratliff, and Dave Sanders; facilitator, Finlay Anderson, with Long View Associates; and the public citizens who participated in interviews on site with the project team.

Community Planning Workshop is an experiential learning program affiliated with the Department of Planning, Public Policy and Management at the University of Oregon. Students work in teams under the direction of faculty and Graduate Teaching Fellows to develop proposals, conduct research, analyze and evaluate alternatives, and make recommendations for possible solutions to planning problems in Oregon communities.

## **CPW STAFF**

### **Project Lead**

Bethany Steiner, AICP, Associate Director

### **Project Manager**

Anya Dobrowolski

### **Project Team**

Madeline Carroll

Jennifer Self

## **COMMUNITY PLANNING WORKSHOP**

Community Service Center  
1209 University of Oregon  
Eugene, OR 97403  
Phone: 541-346-3615

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# Introduction

The Eugene Water and Electric Board (EWEB) contracted with the Community Planning Workshop (CPW) to create the Trail Bridge Recreation Area Master Plan. EWEB initiated the master planning process as a response to the requirements of the Federal Energy Regulatory Commissions Settlement Agreement for the relicensing of the Carmen-Smith Hydroelectric Project (FERC Project #2242).

The Trail Bridge Recreation Area (TB-RA) currently functions as a campground and day-use site within the Willamette National Forest, approximately 65 miles east of Eugene, Oregon. Infrastructure within the site was originally constructed in the 1960s and is in need of upgrading to meet the current standards for recreation design, universal accessibility requirements, and the changing preferences of the visitors.

This Master Plan document provides a guiding vision for TB-RA improvements and redevelopment that is sustainable and cost effective, playing on the site's existing infrastructure and assets. Simultaneously, the recommendations in this document meet the requirements of the FERC relicensing agreement. This document presents (1) a description of the project's context (2) a description of the design methodologies and inputs, including FERC requirements and specific existing site conditions; (3) a set of design principles used to guide the master plan design process; (4) a site improvement Master Plan and recommendations; and (5) appendices with supplementary information to inform subsequent stages of the design process.



# Project Context

The Trail Bridge Recreation Area – lies within the Carmen-Smith Hydroelectric Project located on the upper McKenzie River in the Willamette National Forest. (See Fig.1) The hydroelectric project, and all facilities therein, operate under a federal license which establishes a cooperative agreement between the US Forest Service, an agency of the U.S. Department of Agriculture, and the Eugene Water and Electric Board (EWEB).<sup>1</sup> Under the agreement, EWEB leases land owned by the US Forest Service. The land and facilities are managed primarily by the US Forest Service, with some exceptions.

The Trail Bridge Recreation Area includes a campground and day-use site located along the northern shore of Trail Bridge Reservoir. Although the peak usage of the recreation area occurs during the summer months, it remains operational and visited year-round. EWEB built the campground in the 1960s and continues to provide funding for its operation and maintenance. The US Forest Service provides management of the campground including: patrolling, fee collection, and janitorial duties.

Management of the day use area, lying between the campground and the Trail Bridge Reservoir is funded by EWEB, with the exception of the boat ramp.

In 2008, as part of a relicensing agreement, the *Recreation and Aesthetics Management Plan* (RAMP)<sup>2</sup> was completed by EWEB. The plan provides an action plan for the maintenance of all EWEB facilities within the project boundary. EWEB is assigned to maintain and improve facilities on the site under the direction of the US Forest Service. According to the RAMP, the Trail Bridge Recreation Area (TB-RA) is in need of redevelopment and upgrades to existing infrastructure to “improve functionality and to meet current design standards and visitor preferences.”<sup>3</sup>

This Master Plan evaluates TB-RA infrastructure and provides a plan for site improvements in a manner that is cost effective and sustainable. All recommended site improvements are to be made in compliance with (1) Forest Service

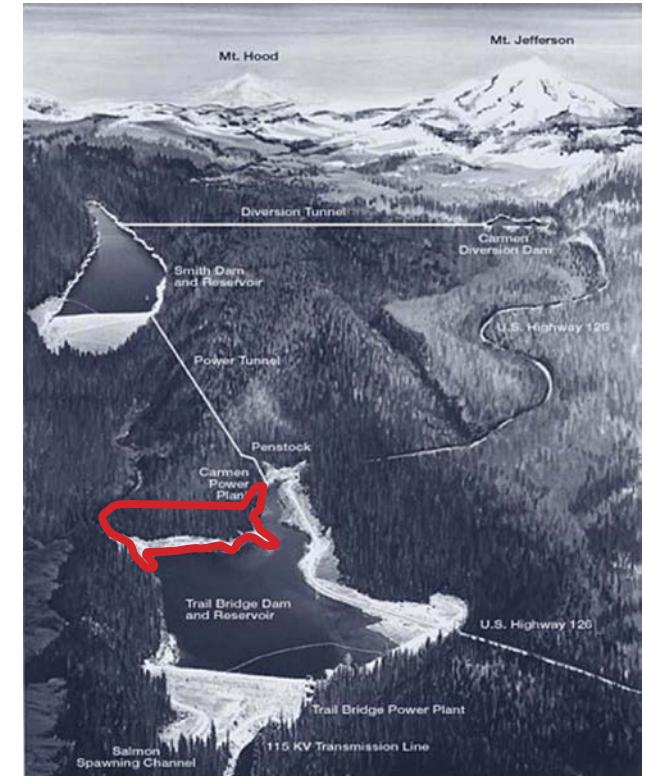


Fig. 1: Carmen-Smith Hydroelectric Project, Trail Bridge Recreation Area shown in red.  
<http://www.fs.usda.gov/detailfull/willamette/landmanagement/resourcemanagement/?cid=stelprdb5043611&width=full>

design standards, (2) the Carmen-Smith Hydroelectric Project operating license, and (3) the programmatic requirements as outlined by the RAMP. This Master Plan also seeks to serve the needs of current users while maintaining the site's integrity for future visitors.

<sup>2</sup> Martha Goodavish Planning & Design and Stillwater Sciences, Recreation and Aesthetics Management Plan, Final Plan, prepared for Eugene Water & Electric Board, October 2008.

<sup>3</sup> RAMP, p 17.

<sup>1</sup> Carmen-Smith Hydroelectric Project, Federal Energy Regulatory Commission (FERC), License No. 2242.

# Project Boundary

The project boundary encompasses the campground and day-use site within the Trail Bridge Recreation Area. The southern and eastern boundaries are defined by the reservoir shoreline. The northern boundary is defined by the McKenzie River Trail and south of EWEB. The western boundary is defined by the Smith River.

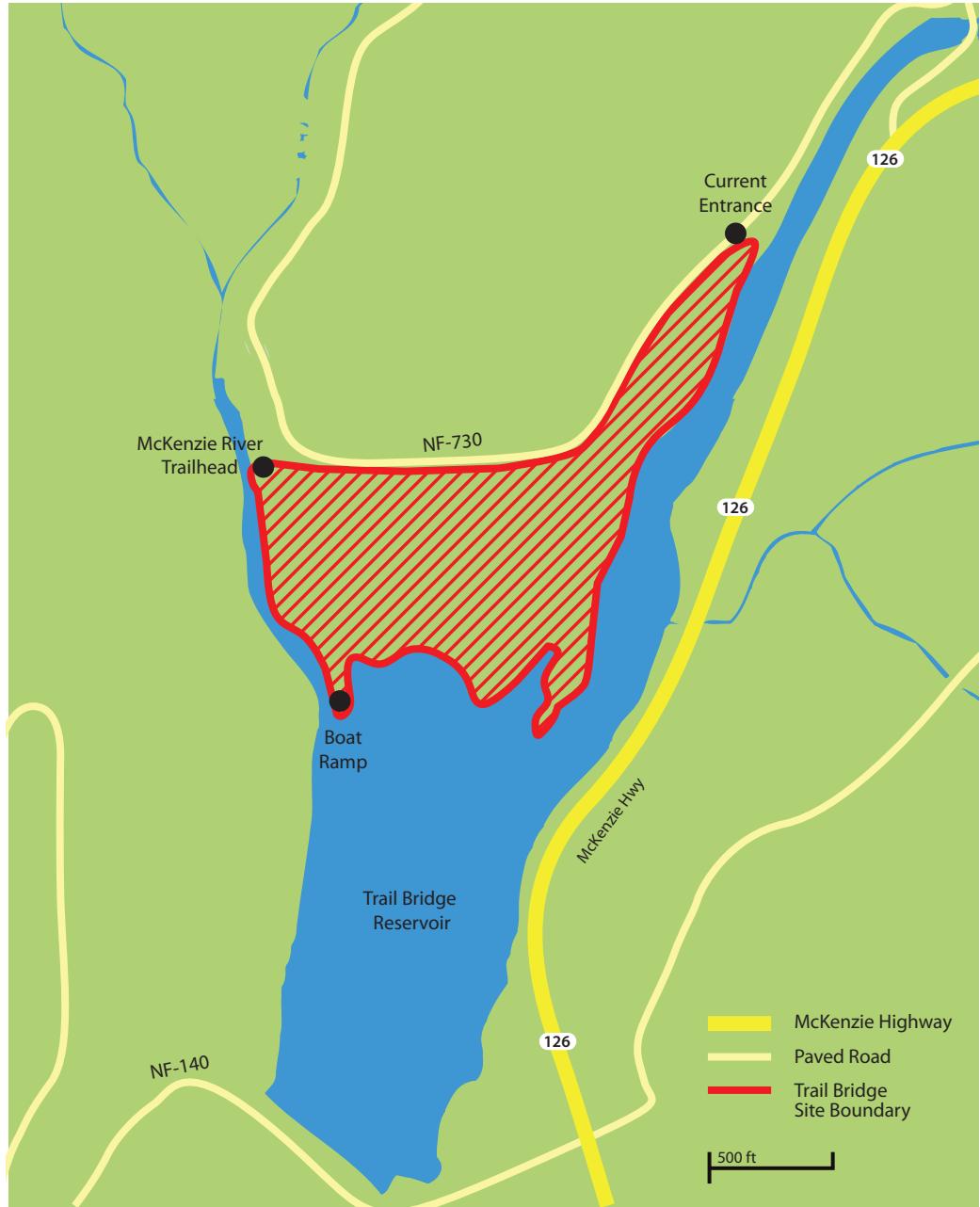
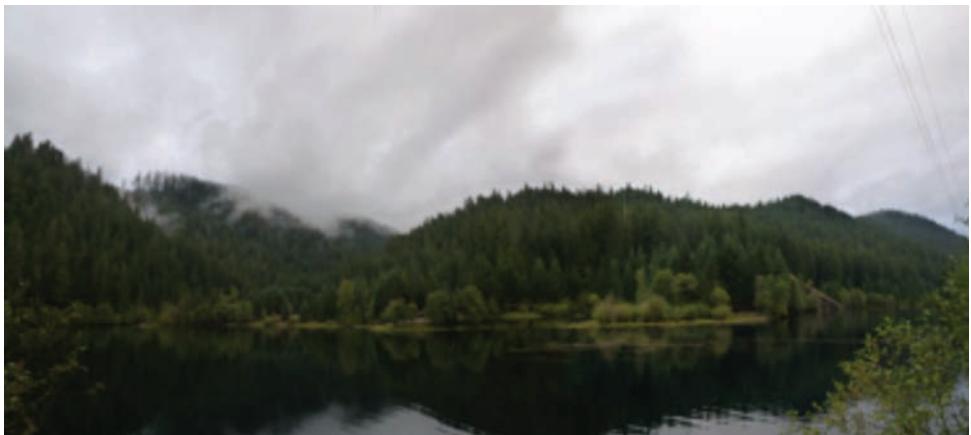


Fig. 2: Trail Bridge Recreation Area redesign project boundary



# Design Methods Diagram

## Methods

The 2008 Recreation and Aesthetics Management Plan identified the Trail Bridge Recreation Area was not being used as intended and in need of overall improvements. Over a five-month period, CPW explored the strengths, weaknesses, and opportunities within the recreation area through the following series of activities:

- Conducted a literature review of relevant planning, resource management, and **programmatic requirement** documents, as well as best practices for campground improvements on federal lands.
- inventoried the **existing conditions**, infrastructure and facilities within the recreation area and how each was being utilized.
- Facilitated public engagement through **site user intercept surveys**
- Developed project **design intentions** and **design principles** to guide concept designs
- Presented findings and **concept designs** to EWEB and US Forest Service for comment and review
- Developed proposed **master plan** and **recommendations**

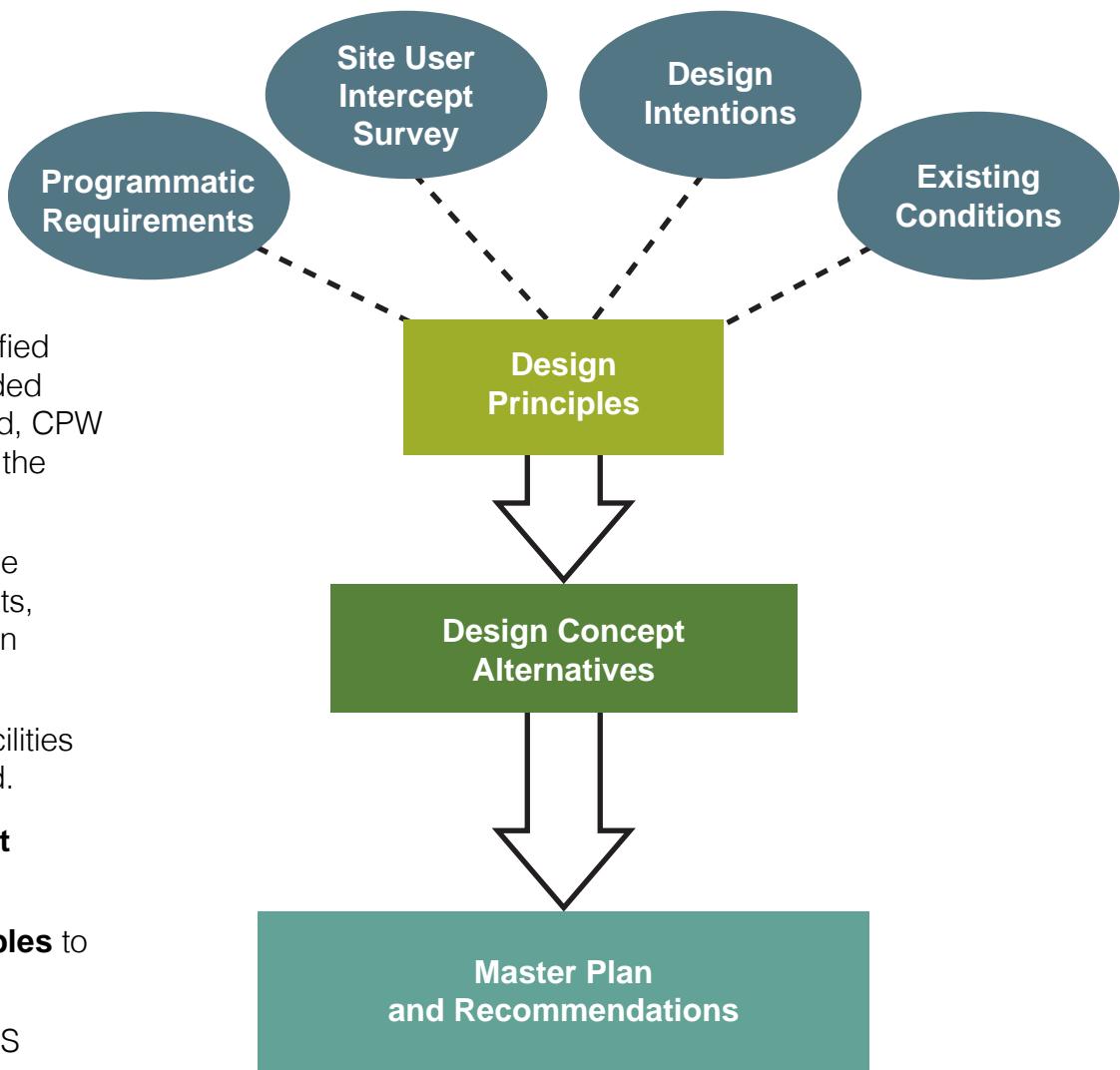


Fig. 3: Community Planning Workshop methods diagram

# Existing Conditions and Programmatic Requirements

|                               | Existing Conditions      | Programmatic Requirements | Notes  |
|-------------------------------|--------------------------|---------------------------|--|
| <b>Campground Facilities</b>  |                          |                           |  |
| Tent Campsites                | <b>26</b>                | <b>26</b>                 | The site currently has 26 officially designated campsites; however, the day-use area now accommodates additional informal camping areas. Programmatic requirements call for "some" Universally Accessible (UA) campsites and do not provide a specific number. Industry standards recommended UA sites should account for approximately 10% of the total number of camp sites. |
| UA                            | undesignated             | 3                         | One UA picnic table and one UA fire ring.  |
| Non-UA                        | undesignated             | 23                        | One UA picnic table and one non-UA fire ring.  |
| Multi-sites                   | undesignated             | 3                         | A multi-site is designed for group camping.  |
| RV Campsites                  | <b>Undefined</b>         | <b>8</b>                  | The site currently does not have designated RV camping sites. Informal gravel areas and undefined day-use areas are currently being used by RVs.   |
| Camp Host Site                | <b>1</b>                 | <b>1</b>                  | Camp host site currently has 1 water spigot.   |
| <b>Day-Use Facilities</b>     |                          |                           |  |
| Picnic Unit                   | <b>22</b>                | <b>4</b>                  | The programmatic requirements call for 4 "picnic areas"; however, it is unclear, what an area entails. See Master Plan for interpretation.   |
| Boat ramp                     | <b>1</b>                 | <b>1</b>                  | The existing boat ramp is not UA compliant. EWEB's programmatic requirements and the proposed boat ramp are to be UA.  |
| Viewing Platform or Dock      | <b>0</b>                 | <b>2</b>                  |  |
| Shoreline Path                | <b>Approx. 100 yards</b> | <b>1</b>                  | Programmatic requirements in the RAMP call for a shoreline path. They do not specify the appropriate length for a shoreline path.  |
| <b>Utilities</b>              |                          |                           |  |
| Flush Toilet Building         | <b>1</b>                 | <b>1</b>                  | Replace the existing flush toilets in-kind   |
| Pit Toilet                    | <b>3</b>                 | <b>-</b>                  | The existing pit toilets threaten the surrounding ecological habitat and ground water. The RAMP requires replacement of the existing pit toilets with an appropriate alternative, which can include vault toilets.   |
| Vault Toilet                  | <b>-</b>                 | <b>-</b>                  | Programmatic requirements call for vault restroom facilities.  |
| Portable Toilet               | <b>6</b>                 | <b>-</b>                  | The site currently contains portable toilets to accommodate the additional restroom capacity needs.  |
| Water spigot                  | <b>9</b>                 | <b>Undefined</b>          | According to EWEB's "Master Drawing" of the site, there are 8 water spigots or risers. 1 additional water spigot was observed on site.   |
| <b>Other</b>                  |                          |                           |  |
| Parking Spaces for Campground | <b>Undefined</b>         | <b>Undefined</b>          | Large expanses of gravel areas now serve as undefined and haphazard parking areas. See Master Plan for proposed treatments.  |
| Parking Spaces for Day-Use    | <b>Undefined</b>         | <b>-</b>                  | See note above.  |
| Auto & Boat Parking           | <b>Undefined</b>         | <b>Undefined</b>          | See note above.  |
| Entry Signage                 | <b>1</b>                 | <b>0</b>                  | The site currently has a US Forest Service entry signage. Although programmatic requirements do not call for additional signage, the Master Plan will need to consider the movement of signage due to site redevelopment.  |
| Informational Kiosk           | <b>2</b>                 | <b>1</b>                  | The site currently has two informational kiosks. The programmatic requirements call for a minimum of one.  |
| Self-service pay station      | <b>1</b>                 | <b>-</b>                  | See note above.  |



# User Intercept Survey

CPW gathered information regarding the wants and needs of the Trail Bridge Recreation Area by conducting two rounds of user intercept surveys on site. The primary questions we asked users were (1) What changes would make Trail Bridge better?, (2) What's great about Trail Bridge?, and (3) What activities are you participating in while you're at Trail Bridge?. Below is a list of key take-aways from the survey. For a more detailed methodology and findings, please refer to Appendix II – User Intercept Surveys.

**CPW interacted with 45 site users.**

Approximately **60%** of people we interviewed were campers...

...and **40%** were day users.

## **Six Key Take-Aways from User Intercept Survey**

- Trail Bridge is a tradition.
- Site users enjoy the informal feeling of Trail Bridge Recreation Area.
- Campers enjoy the flexibility of existing campsites and the ability to be separated from others.
- Numerous visitors use the Trail Bridge Campground as a trail head for the McKenzie River Trail.
- More oversight from rangers or a campground host is welcomed.
- More ground vegetation and shade trees would make the site more comfortable.

# Design Intentions

The purpose of this Master Plan is to guide improvements to the recreation area to meet current standards, needs, and function. Design intentions for the Master Plan were derived from the *Recreation and Aesthetics Management Plan* and through collaboration with EWEB staff. These seven design intentions form the backbone of this Master Plan, guiding CPW's recommendations.

One:

## **Incorporate Universal Design Principles**

The recreation area should be aesthetic and usable to the greatest extent possible by everyone, regardless of their age, ability, or status in life.

Two:

## **Improve Aesthetics and Enhance the Viewshed**

The recreation area should be functional and also create a sense of place by enhancing a connection to the natural beauty of the area and connecting visitors to key views.

Three:

## **Create a Well-Organized Site**

The layout for the recreation area should be easily legible and programmatic areas on the site should be clearly delineated to minimize user conflicts.

Four:

## **Improve the Recreation Experience**

The recreation area should provide users with a variety of recreational experiences on site and connect them to nearby amenities such as the McKenzie River Trail.



Five:

## **Maintain the Historic Character of the Area**

The natural and built features surrounding the recreation area – such as topography, the reservoir, and the forest – should be highlighted by the design and the historic integrity of the recreation area should be kept intact.

Six:

## **Enhance Opportunities for Site Interpretation**

The recreation should have interpretive signage that emphasizes the natural, built, and historic qualities as well as offering key information germane to the Trail Bridge Reservoir and the entire Carmen Smith Project Area.

Seven:

## **Protect and Improve Natural Resources and Habitat**

The recreation area should maintain and improve upon the health of terrestrial and aquatic habitats.

# Current Conditions

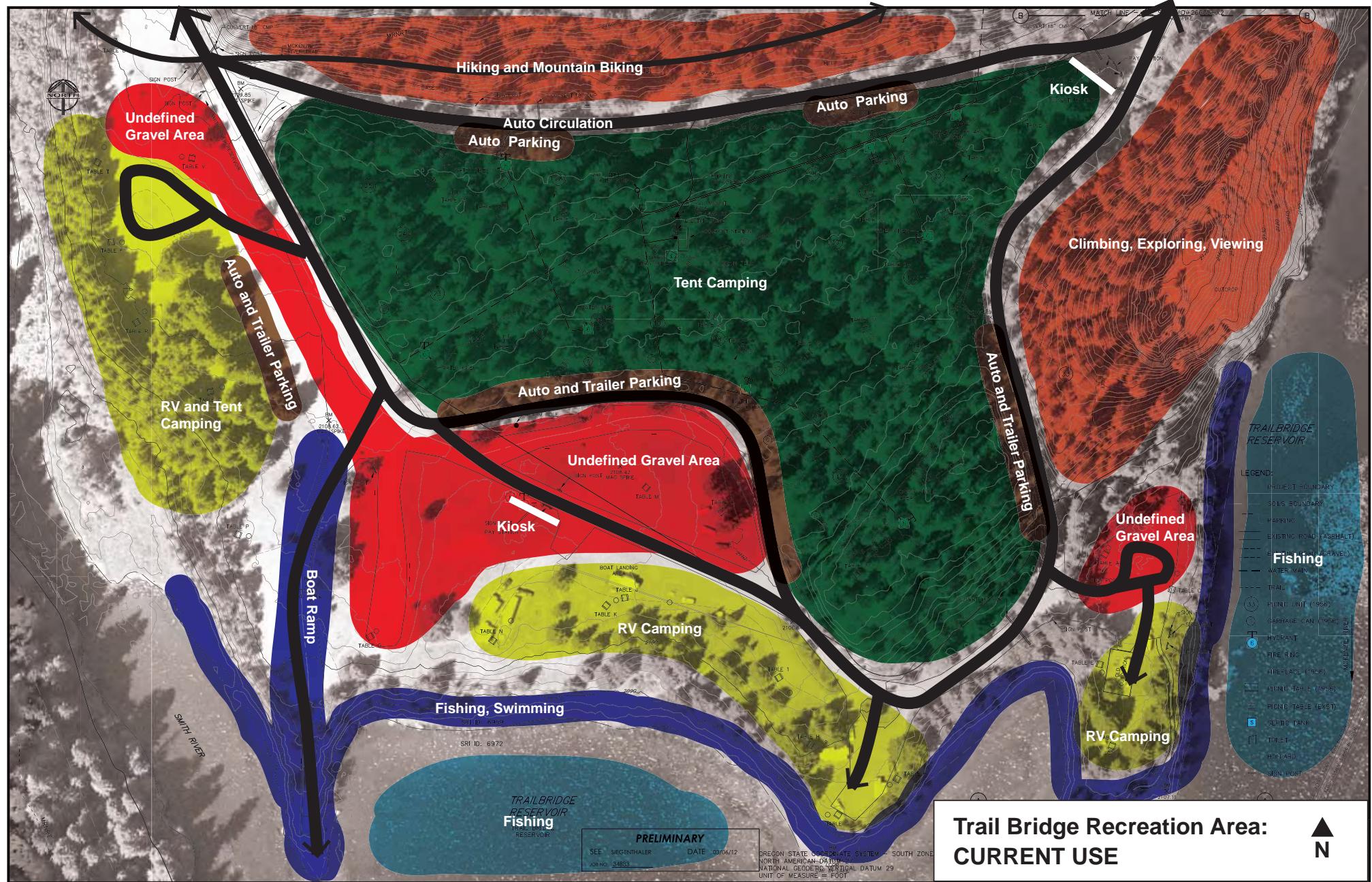


Fig. 4: Trail Bridge Recreation Area current use diagram

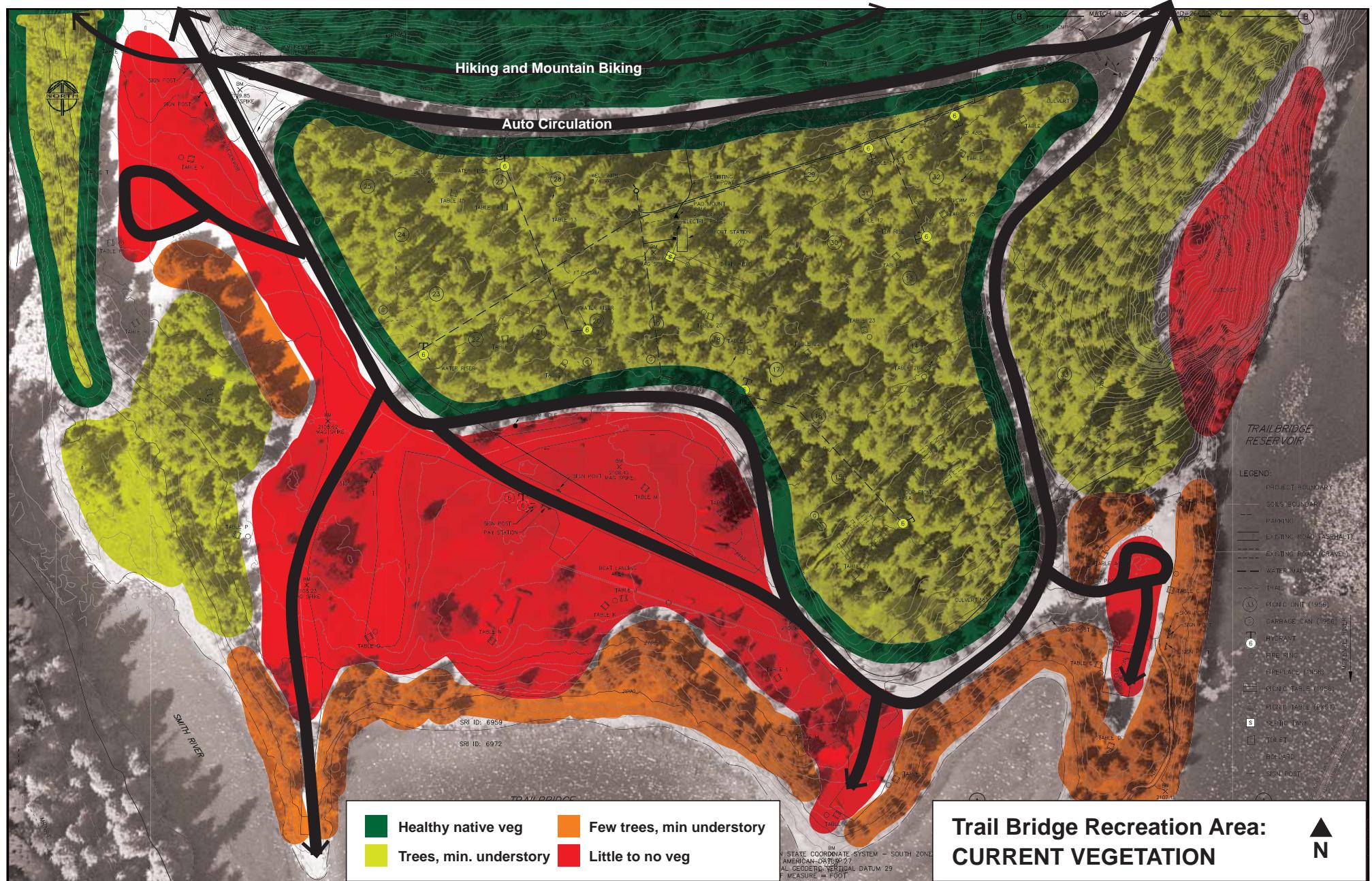


Fig. 5: Trail Bridge Recreation Area current vegetation diagram





# Design Principles

CPW developed five design principles specifically for the Trail Bridge Recreation Area (TBRA) by analyzing programmatic requirements, design intentions, existing site conditions, and user feedback from intercept surveys. Although the redevelopment design may change in the future based on agreements between the US Forest Service and EWEB, unknown variables, and available funding, the following principles should remain constant to ensure a user-friendly recreation area that is sustainable, accessible to all, and maintains its integrity:

## TRAIL BRIDGE RECREATION AREA DESIGN PRINCIPLES

- Circulation Hierarchy
- Shoreline Focus
- Diversity of Site Options
- Pod Development
- Public and Private Space Delineation

These five design principles are the foundation of the TB-RA Master Plan. The subsequent section contains further information for each unique principle, including: (1) a brief explanation, (2) general findings of current conditions, and (3) recommended treatments.



# Circulation Hierarchy

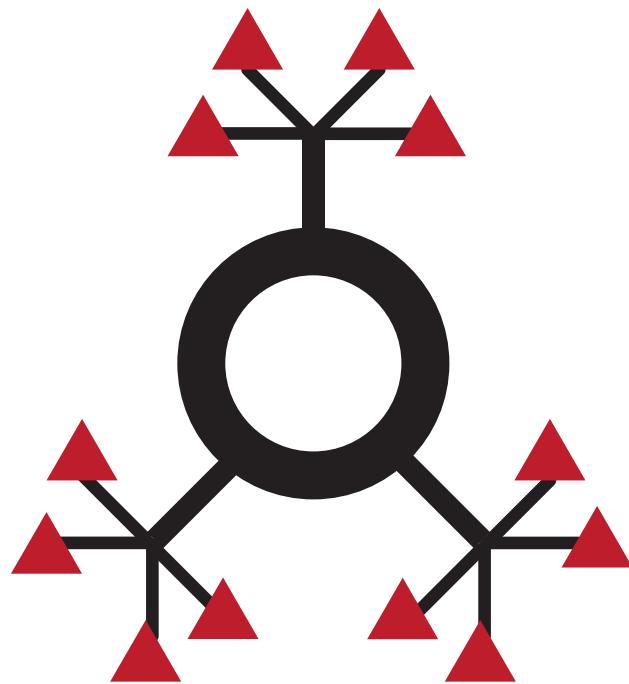


Fig. 6: Circulation hierarchy diagram

Circulation throughout the site includes both vehicular roadways and pedestrian pathways. Creating a hierarchy of circulation, through the use of landscape features, makes movement through the site intuitive to users while avoiding a heavy-handed, signage-dependent approach. For this design principle, CPW analyzed designated routes as well as social, or informal, trails created by users within the site over time.

## FINDINGS

### ASSETS

- Visitors enjoy the more “rustic” pathways, rather than paving.
- Gravel roadways help maintain a more “primitive feel” of the site.
- Current circulation allows for flexible parking and recreational vehicle (RV) camping.
- Current circulation allows for ample day-use parking.
- 

### ISSUES

- Circulation routes are numerous and often do not aide in directing visitors to a point of interest.
- Social trails created by users often attract people into other individuals’ campground site.
- Social and designated trails throughout the site are unnecessarily wide due to trampling and lack of natural barriers.
- Gravel roadways produce significant dust.
- There is currently a need for a defined boat parking area.

- Current large expanses of gravel areas are undefined and being used by both vehicular and pedestrian travel. This presents a potential safety concern.

## RECOMMENDATIONS

- The hierarchy encompasses three levels of circulation: 1) Roadways to be shared by automobiles, bicyclists, and pedestrians; 2) Main trails for pedestrians; and 3) Minor trails for pedestrians.
- Narrow the existing roadway to better direct vehicular traffic.
- Create well-defined, pedestrian-friendly trails from camping and day-use areas to site amenities.
- Create Universally Accessible (UA) trails at specified locations composed of a permeable, firm and stable surface.
- Continue the use of non-UA trails made from local materials (earthen, woodchips, etc.).
- Delineate vehicular roadways and pedestrian trails by landscape features (such as, berms) and vegetation.

# Shoreline Focus

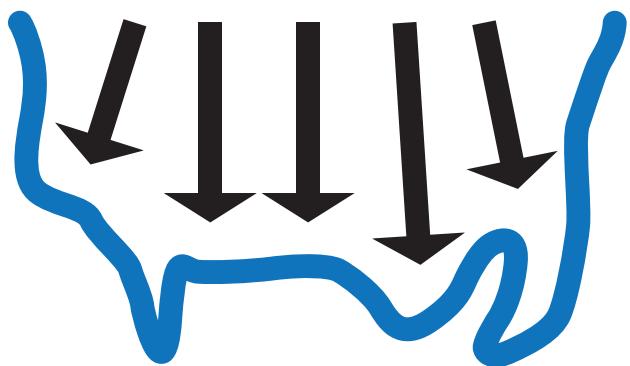


Fig. 7: Shoreline focus diagram

The reservoir is the primary attractor for the TB-RA. While at the site, visitors enjoy activities in and around the reservoir, such as: fishing, boating, swimming, and hiking.<sup>1</sup> Because of this focus, design decisions regarding circulation, day-use area location, and sightlines should be directed towards the shoreline.

## FINDINGS

### ASSETS

- Views and vistas from the shoreline are a significant asset to the site.
- Sensitive natural areas occur at specific places along the shoreline. (*Aquatics Management Plan, October 2008*)
- Visitors and campers enjoy the shoreline for a variety of uses: fishing, swimming, relaxing, birding, picnicking, boating, etc.
- Private camp sites along Smith River are a prized location for visitors.
- Programmatic requirements call for a shoreline trail but do not specify length or exact location.

### ISSUES

- Rogue camping along the shoreline creates a visual and physical barrier for visitors and reservoir access.
- Visitors want more shoreline frontage.
- Young trees, with low-hanging branches, block the viewshed from the site to the reservoir.
- The southern portion of the site along the shoreline is sunny and hot due to a lack of trees or vegetation.

- The current asphalt path providing water access for persons with mobility challenges is in disrepair and overgrown. Additionally, this path is located within a sensitive aquatic habitat area.

## RECOMMENDATIONS

- Preserve the reservoir shoreline for day-use activities to provide water access for the greatest number of users.
- Limb up existing trees and plant new trees to create site lines with a forced perspective towards the reservoir.
- Remove asphalt path in disrepair.
- Develop a new shoreline trail within the day-use area with distinct points of interest.
- Use permeable firm and stable material for the shoreline trail
- Provide a variety of options for accessing the water along the shoreline trail.

<sup>1</sup> For a complete list of activities visitor's participate in while at Trail Bridge Recreation Area, see Supplemental Information: Site User Feedback Survey Results.



# Diversity of Site Options

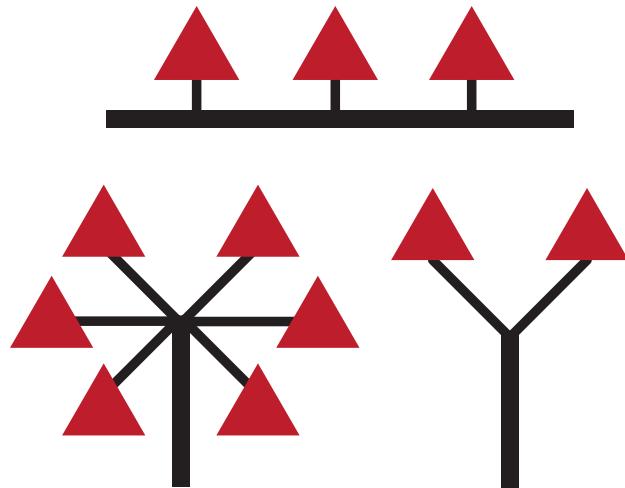


Fig. 8: Diversity of site options diagram

Well-planned campgrounds can have a variety of camp site locations and layouts. A diversity in camping options accommodates different user groups – such as 1-2 people camping in an RV, or a large group of 6-8 tent camping – as well as, providing different camping experiences.

## FINDINGS

### ASSETS

- Site users enjoyed the variety of camping experiences and site locations currently at TBRA.
- Although many of the camp sites boundaries are not clearly defined, there are generally four types of camp sites available: (1) walk-in single tent site, (2) walk-in multi-sites for tents (or the ability to have numerous tents together), (3) auto camping, and (4) RV camping.
- Current sites provide a variety of privacy levels from secluded to communal.
- Current sites are located in diverse landscape settings including close proximity to water and open areas amongst Douglas fir trees.

### ISSUES

- Many campsites and day use areas are unmarked or lack spatial delineation, contributing to user conflicts

## RECOMMENDATIONS

- Provide both pull through and back-in campsites for RVs.
- Provide drive-in and walk-in campsites for tent campers.
- Provide walk-in campsites that allow campers to have a feeling of solitude.
- Provide other, “buddy sites” that walk-in campers can use as individuals sites or as larger groups.
- Use vegetation as a buffer between sites (or groupings of sites) to allow for privacy between users.

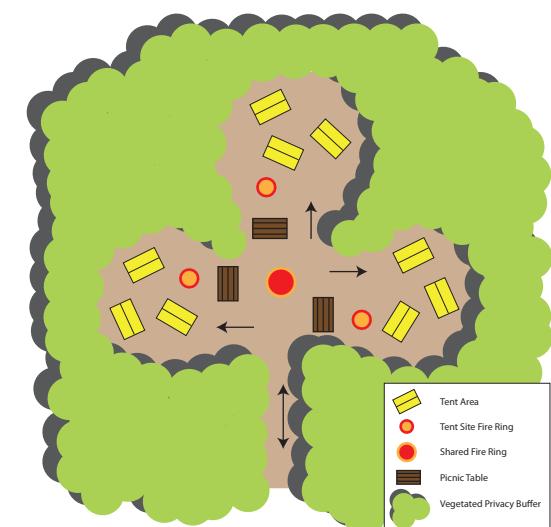


Fig. 9: Buddy sites diagram

# Pod Development

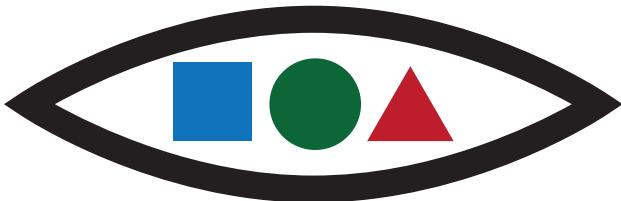


Fig. 10: Pod development diagram

Day-use areas and camping areas should be developed in “pods” or clusters that incorporate infrastructure amenities in close proximity to one another. Developing campsites and day-use areas to consider the multiple needs of site visitors will help to minimize the impact of social trails and other trampling while improving the experience of site users.

## FINDINGS

### ASSETS

- Parking for autos and autos with trailers in close proximity to camp sites is preferred.

### ISSUES

- Infrastructure within the site was originally constructed by EWEB in the 1960s and has only received minimal improvements since that time. In the mid-1980s a restroom facility was added to the site and improvements to the water system occurred in 2002 and 2003.
- McKenzie River Trail (MRT) trailhead lacks a defined, parking area, information, water, and restroom facilities.
- Day-users for the MRT currently park near the boat launch.
- Water spigots are difficult to locate and not in close proximity to restrooms.
- Site only has one flush toilet building and 2 Pit toilets. 6 portable toilets have been placed on site to accommodate demand.

- Portable toilets are unsightly and deter from the natural surroundings.
- There is currently no delineated parking area for boats.
- Large unsightly and smelly dumpsters are sporadically placed throughout the site.
- Site amenities are currently spread widely dispersed and lack cohesiveness.

## RECOMMENDATIONS

- All day-use sites and campsites should have both access to parking and toilets located within a 100' radius of the site.
- TB-RA's three UA campsites as well as the UA picnic areas should be located closest to both parking and toilet facilities to allow for fast access.
- All parking areas and toilets on the site should be UA.
- UA sites should have access to UA trails to circulate between the sites and the amenities cited above.



# Public and Private Space Delineation

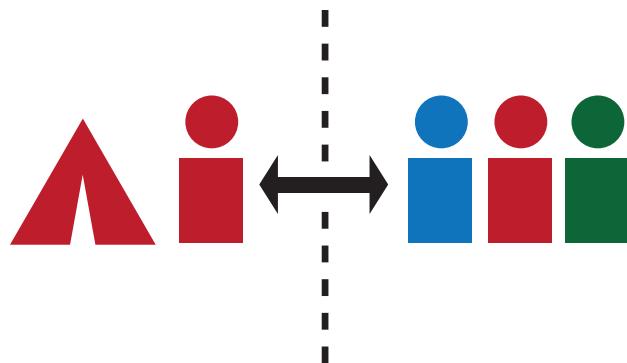


Fig. 11: Public and private space delineation diagram

Delineation of public and private space means separating the more public, day-use functions of the site from the camping areas. The road and vegetated buffers will provide this delineation of activity zones. Delineating public and private spaces will minimize user conflict by keeping strangers out of others' campsites.

## FINDINGS<sup>1</sup>

### ISSUES

- Uses and zones within the campground and rec area are not delineated.
- Site information signage uses small fonts and does not help to interpret the layout of the site.
- The day-use area is currently being used primarily for informal camping.

## RECOMMENDATIONS

- Reserve waterfront sites along the reservoir for day-use areas.
- Use the road as a barrier between day-use from camping sites.
- Use ground cover and mid-story vegetation to delineate and screen views to camp sites.
- Minimize use of mid-story vegetation to create a sense of openness in day-use areas.
- Reserve the northeastern area and the western coast of the site for camping.

<sup>1</sup> See page 7: Current Conditions Maps for more detail

# Master Plan

The following master plan provides conceptual maps with recommendations to guide the future re-development of the Trail Bridge Recreation Area.

This planning document is intended to provide EWEB direction for improvements to the Trail Bridge Recreation Area. Overall recommendations are presented within the subsequent section, Treatment & Use, followed by annotated graphic concept

plan. Additional information on dock precedents to further guide redevelopment and management of the site can be found within Supplemental Information. EWEB is responsible for working with design and architectural (or engineering) professionals to develop specifications for infrastructure construction and placement.





Fig. 12: Trail Bridge Recreation Area north-end concept plan

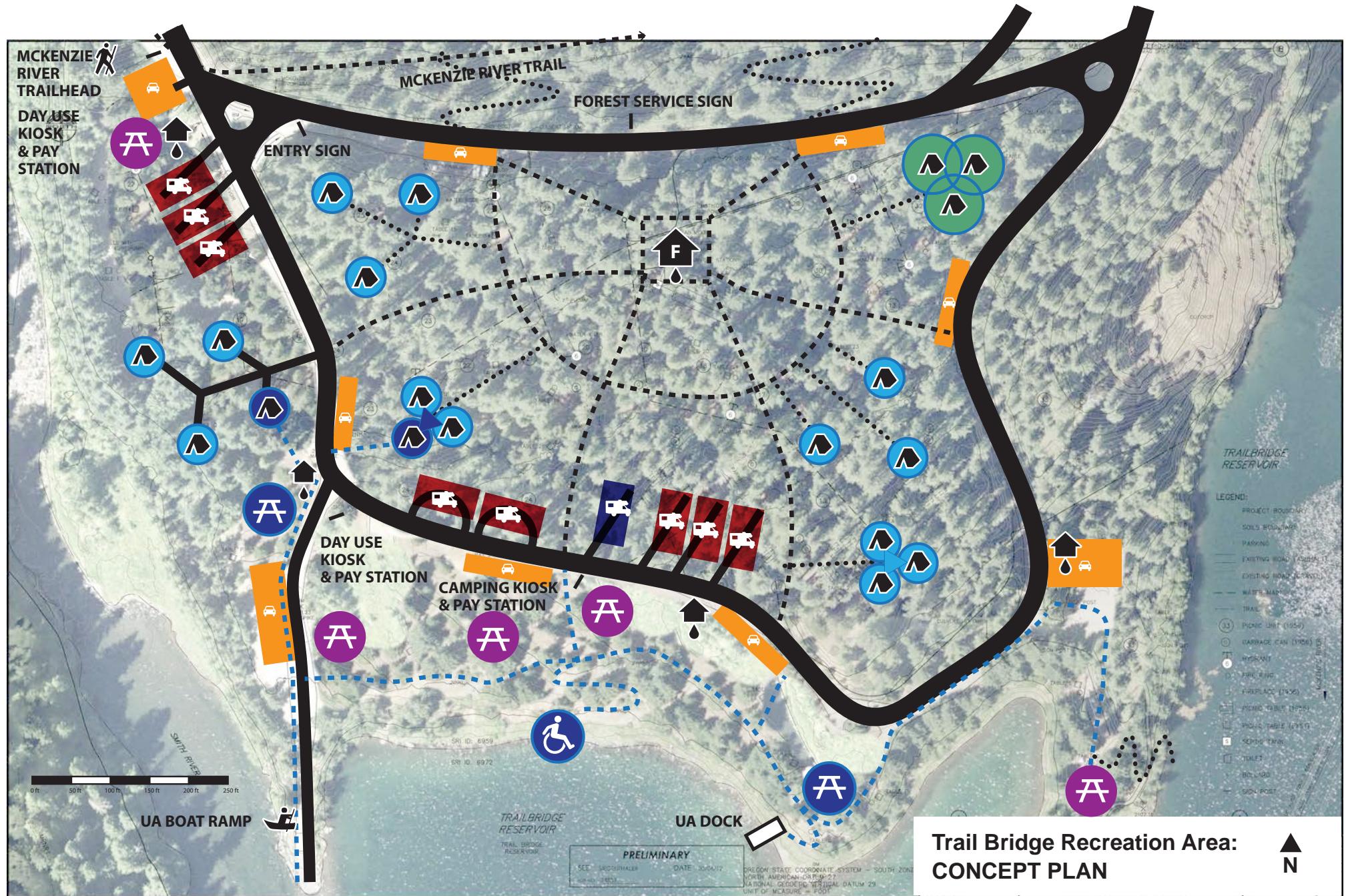


Fig. 13: Trail Bridge Recreation Area south-end concept plan



Fig. 14: Trail Bridge Recreation Area north-end space delination plan

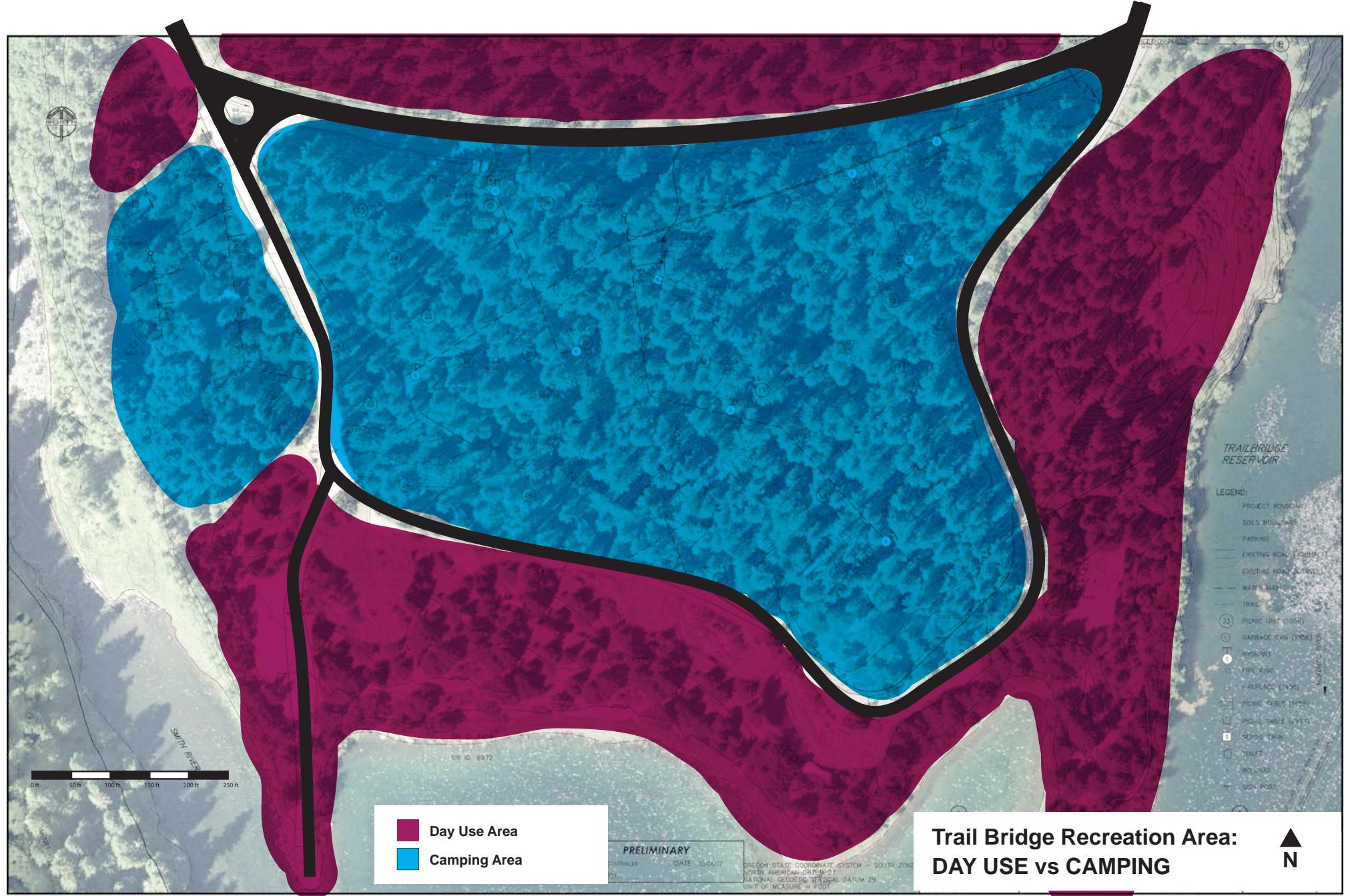


Fig. 15: Trail Bridge Recreation Area south-end space delineation plan



Fig. 16: Trail Bridge Recreation Area north-end re-vegetation plan

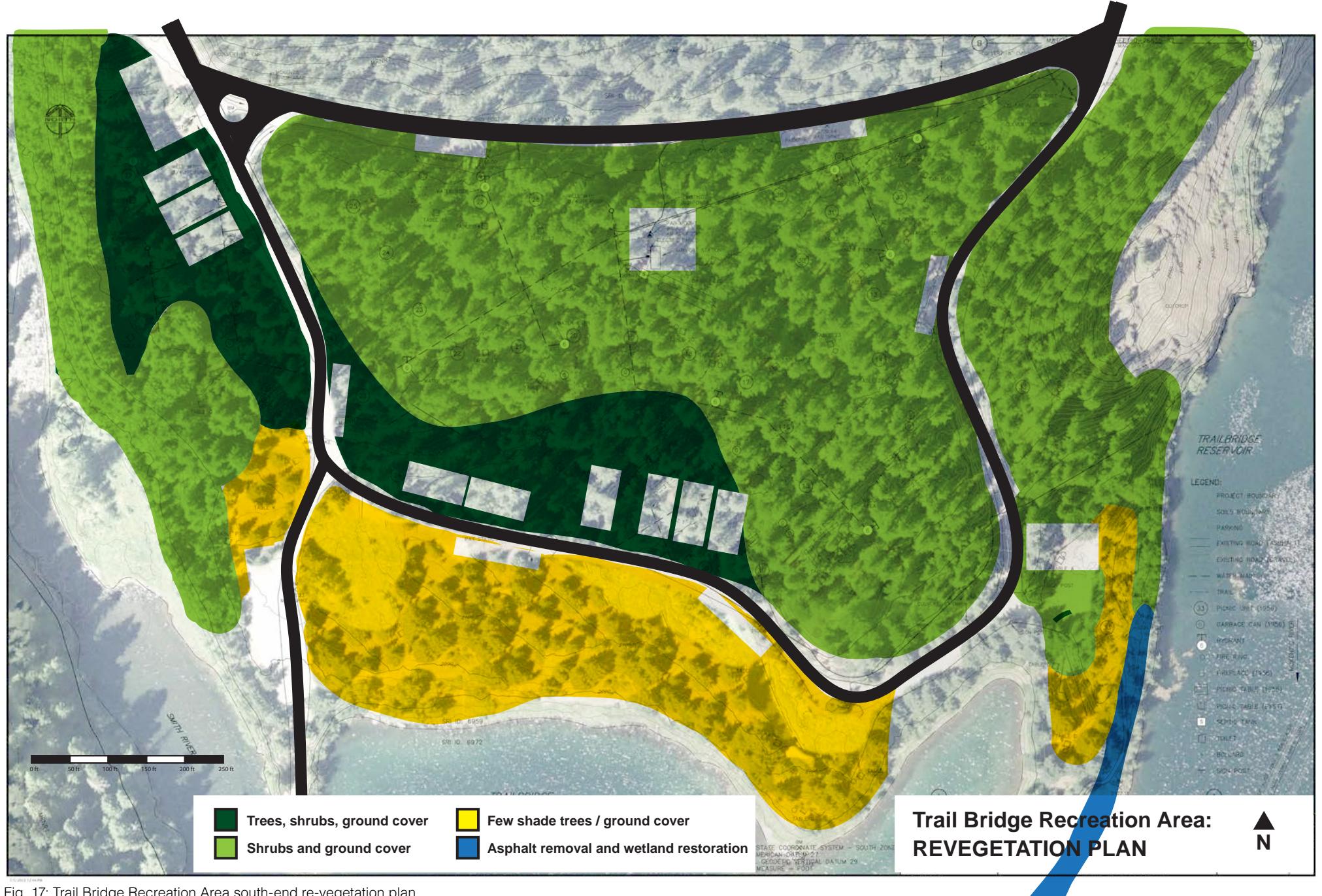


Fig. 17: Trail Bridge Recreation Area south-end re-vegetation plan

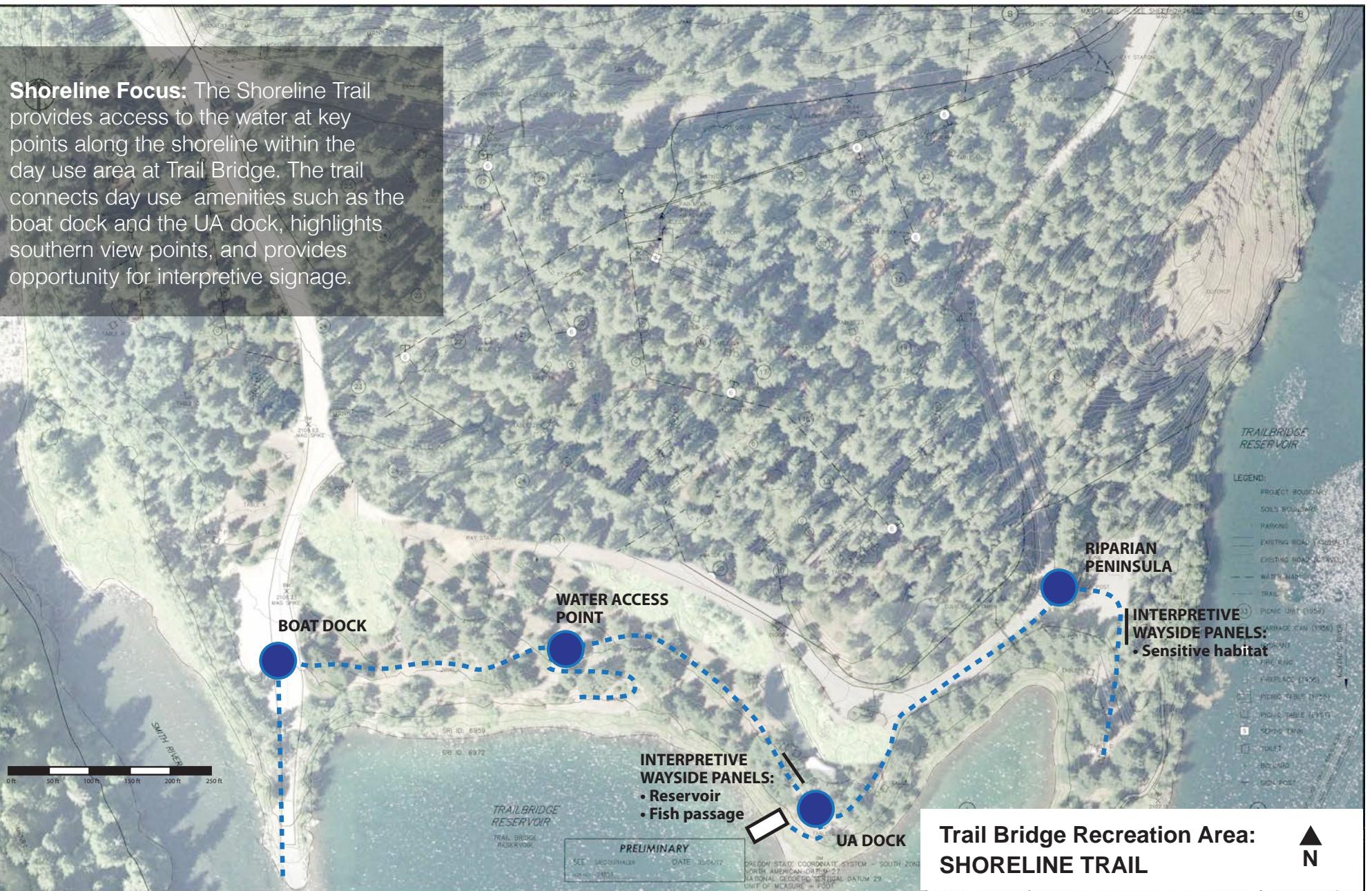
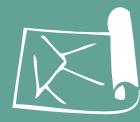


Fig. 18: Trail Bridge Recreation Area shoreline trail plan



# Proposed Amenities

The matrix found below contains the detailed information on the existing infrastructure, programmatic requirements for upgrades to the site, and proposed infrastructure included in the Master Plan. Programmatic requirements were derived from the Recreation and Aesthetics Management Plan (RAMP).

|                                    | Existing Conditions      | Programmatic Requirements | Proposed Conditions | Notes  |
|------------------------------------|--------------------------|---------------------------|---------------------|--|
| <b>Campground Facilities</b>       |                          |                           |                     |  |
| Tent Campsites                     | <b>26</b>                | <b>26</b>                 | <b>27</b>           | The site currently has 26 officially designated campsites; however, the day-use area now accommodates additional informal camping areas. Programmatic requirements call for "some" UA campsites and do not provide a specific number. Industry standards recommended UA sites should account for approximately 10% of the total number of camp sites. Each proposed walk-in camp site would include: a picnic table and firepit. |
| Walk-In UA                         | undesignated             | 3                         | 2                   | One UA picnic table and one UA fire ring. Each UA campsite can accommodate up to 2 tents.  |
| Walk-In Non-UA                     | undesignated             | 23                        | 18                  | One UA picnic table and one non-UA fire ring. Each UA campsite can accommodate up to 2 tents.  |
| Walk-In Multi-sites                | undesignated             | 3                         | 3                   | A multi-site is designed for group camping. Each multi-site can accommodate up to 3 tents.   |
| Auto-Spur UA                       | -                        | -                         | 1                   | One UA picnic table and one UA fire ring. Each UA campsite can accommodate up to 2 tents. Proposed auto-spur tent camping sites would include 1 designated UA site; however, the design of auto-spur tent sites could likely accommodate additional users seeking UA facilities given their surface material and close proximity to other amenities.   |
| Auto-Spur Non-UA                   | -                        | -                         | 3                   | One UA picnic table and one non-UA fire ring. Each UA campsite can accommodate up to 2 tents.  |
| RV Campsites                       | <b>Undefined</b>         | <b>8</b>                  | <b>8</b>            | The site currently does not have designated RV camping sites. Informal gravel areas and undefined day-use areas are currently being used by RVs. Each proposed RV site would include: one UA picnic table and one UA firepit.  |
| Camp Host Site                     | <b>1</b>                 | <b>1</b>                  | <b>1</b>            | Camp host site currently has 1 water spigot. Proposed camp host site would include: one UA picnic table, one UA firepit, and an electricity source   |
| <b>Day-Use Facilities</b>          |                          |                           |                     |  |
| Picnic Unit                        | <b>22</b>                | <b>4</b>                  | <b>23</b>           | The programmatic requirements call for 4 "picnic areas"; however, it is unclear, what an area entails. For purposes of the master plan, a picnic unit would contain a picnic table, fire ring, and grill. 2-4 units. A picnic unit would include a picnic table, fire ring, and grill.   |
| UA                                 |                          |                           | 6                   |  |
| Non-UA                             |                          |                           | 15                  |  |
| Boat ramp                          | <b>1</b>                 | <b>1</b>                  | <b>1</b>            | The existing boat ramp is not UA compliant. EWEB's programmatic requirements and the proposed boat ramp are to be UA.  |
| Viewing Platform or Dock           | <b>0</b>                 | <b>2</b>                  | <b>1</b>            | A second dock or viewing platform is being considered by both interested parties - EWEB and the US Forest Service - but has not been included within this Master Plan.   |
| Shoreline Path                     | <b>Approx. 100 yards</b> | <b>1</b>                  | <b>0.5 mile</b>     | The existing UA shoreline path is in a state of deferred maintenance and is approximately 100 yards in length. The programmatic requirements do not specify the appropriate length for a UA shoreline path. The proposed design will abandon the existing shoreline path for reasons outlined in the report and create a new UA shoreline path that is 1/2 mile in length.   |
| <b>Utilities</b>                   |                          |                           |                     |  |
| Flush Toilet Building              | <b>1</b>                 | <b>1</b>                  | <b>1</b>            | The existing flush toilet building will be replaced as called for in programmatic requirements.  |
| Pit Toilet                         | <b>3</b>                 | <b>-</b>                  | <b>-</b>            | The existing pit toilets threaten the surrounding ecological habitat and ground water. Each pit toilet will be removed.  |
| Vault Toilet                       | <b>-</b>                 | <b>-</b>                  | <b>5</b>            | All to be UA. 1 double vault, 4 single- vault.   |
| Portable Toilet                    | <b>6</b>                 | <b>-</b>                  | <b>-</b>            | The site currently contains portable toilets to accommodate the additional restroom capacity needs. These toilets will be removed.   |
| Water spigot                       | <b>9</b>                 | <b>-</b>                  | <b>9</b>            | According to EWEB's "Master Drawing" of the site, there are 8 water spigots or risers. 1 additional water spigot was observed on site. It is agreed that EWEB will provide access to water through the use of water spigots, or risers, throughout the site.   |
| Electricity Hook-ups for Camp Host | <b>-</b>                 | <b>1</b>                  | <b>1</b>            | Installation of electrical hook-ups at the camp ground host is an agreement between the US Forest Service and EWEB.  |

**Other**

|                               |           |           |     |   |
|-------------------------------|-----------|-----------|-----|---|
| Parking Spaces for Campground | Undefined | Undefined | 35  | Large expanses of gravel areas now serve as undefined and haphazard parking areas. Proposed parking spaces will be defined by natural barriers (such as large boulders or logs). In the Master Plan there are no designated UA parking spaces. Once regrading and surface compaction are complete, parking areas will provide a firm and stable surface for all patrons. See Master Plan for locations. |
| Parking Spaces for Day-Use    | Undefined | -         | 20  | Includes spaces for McKenzie River Trail Trailhead  |
| Auto & Boat Parking           | Undefined | Undefined | 10  | The proposed auto and boat parking will contain elongated parking spaces to accommodate vehicles with trailers.   |
| Entry Signage                 | 1         | 0         | 2   | The site currently has a US Forest Service entry signage. Proposed Master Plan calls for moving the current entry signage and adding one directional sign for day-use and campground facilities.  |
| Informational Kiosk           | 2         | 1         | 2   | The site currently has 2 informational kiosks. The proposed kiosks will incorporate informational material and a self-service pay station.  |
| Self-service pay station      | 1         | -         | 2   | See note above.   |
| Interpretive Wayside Panel    | Undefined | Undefined | 3   | Programmatic requirements call for "some" kiosks and do not provide a specific number. The proposed wayside panels are to be placed at strategic locations throughout the site, such as the boat ramp, sensitive habitat area, and UA viewing platform or dock.   |
| Trash Containers              | 4         | 0         | tbd | The existing trash containers are dumpsters. Proposed trash receptacles to be individual trash cans.  |

\*\*The proposed conditions on this page do not include surface treatments and landscaping. See Master Plan section of document for recommendations.





# Appendices

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# Appendix I. User Intercept Survey Results

The purpose of the site user intercept surveys were to gather information about the wants and needs of campers and day-users of the Trail Bridge Recreation Area. Site analysis and “secret shopper” observation on Friday, 7/20. Saturday, 7/21 and 7/28, the team participated in a user intercept survey. An information/survey station was established at an activity hub within the recreation area with signs, easels, and free finger sandwiches. Campers and day users were asked to participate in our survey by (1) being approached by a team member as they walked by the station, (2) large flyers posted at three information kiosks throughout the recreation area, and (3) team members going “door-to-door” at campsites asking them to stop by the station.

Three large easels with our primary questions were set-up at the station. Primary questions were (1) What changes would make Trail Bridge better?, (2) What's great about Trail Bridge?, (3) What activities are you participating in while you're at Trail Bridge?. Team members interacted with campers and day-users then wrote their comments on post-its, which were placed under the appropriate question. Other

informal questions were asked during the survey and team members took written notes of the findings.

## **Findings:**

Team members interacted with 24 people on 7/21 and 21 people on 7/28; approximately 60% campers, 40% day-users.

## **Key take-aways:**

1. Trail Bridge is a tradition. Several individuals said they had been coming to this campground for 10-25+ years. This was the only, or one of the few, campgrounds they go to. This campground serves primarily local individuals, rather than tourists from outside of the region. Proximity to their hometown, informal quality of the site, no reservations required, at a lower elevation, recreation opportunities, and family tradition were the primary reasons cited for site users.
2. Trail Bridge serves as a base camp for recreationist. A number of individuals camp at Trail Bridge then fish in surrounding

lakes and reservoirs. (Trail Bridge is not particularly a prime destination for fisherman because they prohibited from using live bait with the reservoir.) Many mountain bikers and hikers also use Trail Bridge as a base camp for vehicle parking while they go on the MRT.

3. Maintain the character of Trail Bridge as a spacious, informal, family-friendly campground. During initial questioning, users said they didn't want any changes to be made to the campground; however, after more discussion they mentioned various ways the campground could be improved – from location of rv sites, improved restroom facilities, etc. The common theme was that users did not want to Trail Bridge to become a highly developed campground, but rather keep the informal feel of the place. Many users expressed concern that the redesign would leave the site feeling crowded, overly developed, and more expensive.

## RESULTS FROM SURVEY:

### (1) What changes would make Trail Bridge better?

#### Recreational Facilities

- Dishwashing/fish cleaning station (suggestion of team member)
- Put back the booms (docks)
- Small fishing dock
- Allow bait fishing in the reservoir
- Water slides
- Be able to fish from the shore (such as a dock)
- Zip line into the water
- Warmer water or a shallow pool area for swimming
- Towels
- Trailhead improvements
- Rope swing
- Covered picnic area in hotter parts of the site
- A place for kids to play
- Better maintained and more accessible paths to rivers and reservoir
- Obscure the views of power lines
- Day use area on the shoreline

#### Camping Facilities

- Dump station
- Cabins
- A camp store
- More spots on the west side (near Smith River) for tent camping
- Increase the number of back-in RV camp sites
- Separated tent & RV sites
- Equal distribution of sites. RVs now claim the best sites (near creek and along shoreline). Should also have tent sites in these locations.
- More secluded tent sites. Improve privacy.
- Walk-in camping area for hikers/bikers with smaller, more private sites
- Free camping sites
- Pay per car instead of per site

#### Feeling & Character

- Delineation between the campground and day-use areas
- Make circulation and camping areas more clear
- Keep same number of users/campers. General thought that "improvements" mean more people, which is not desired.

- Reduce number of people.
- Keep it "primitive"
- Have a camp host
- More rangers or other oversight
- A center, a place where people gravitate towards
- More respect for the site, less litter

#### Vegetation & Natural Resources

- More lake frontage
- More trees for camp sites on the west side of the site
- More trees in the exposed areas
- More shade throughout the rec area and campground
- Trim the younger trees near shoreline for improved viewshed of reservoir
- More shading for tent sites
- More privacy between sites; a little more foliage
- Poison oak control



## **Signage & Wayfinding**

- Better signage for pay station
- Signage with site map
- Identification signage of potable water and wayfinding to help find water spigots
- More educational signage
- Identification of entry
- Clear signage regarding fishing regulations

## **Roadways**

- Maintain gravel (General improvements needed to roadways because it gets very muddy during the rainy season. Lots of erosion from roadways.)
- More space for cars to pass each other on the entry road
- Less dust but no paving

## **Parking**

- Clearer delineation of parking areas
- Better places to park boats
- Have boat parking near camp sites

## **Technology**

- Electricity
- Phone connections
- Webcam to assess snow conditions

## **Bathrooms**

- Another flush toilet restroom on site
- Cleaner bathrooms
- Shower Facilities, or Exterior showers by bathrooms to rinse off
- Restrooms by MRT

## **Water spigots**

- More water spigots
- Water spigot by MRT

## **(2) What's great about Trail Bridge?**

### **Recreational Facilities**

- Open year round
- No hook-ups, like to camp
- Mix of uses
- No bait fishing – protect the native fish
- Very good trails
- Lots of fish
- Good place to bring dogs
- Great location for mountain biking

### **Camping Facilities**

- Primitive enough that there are always spots available
- Private camp sites
- Creekside camping
- Like it how it is – flexible parking, areas for RVs
- Large and flexible campsites

## **Setting**

- The power plant is an interesting landmark
- Lots of room
- Camping by the creeks is tucked away/ private
- Lake

## **Feeling & Character**

- Rustic feeling
- Not a party place, generally quiet after 9am
- Not very developed
- No power hook-ups (general consensus that electricity would change the atmosphere of the place)
- Not overused
- Rustic feel – no paving
- Historic feeling (ie-older restroom)
- Quiet, peaceful
- Openness, spread out
- Not motorized on the reservoir
- Like it how it is
- Familiar
- Not crowded
- It's a little rough
- Community feeling
- It's not an RV park
- Tradition, come back year after year
- Quiet, peaceful

- Just the right level of development
- Informal
- It's unpaved

### **Proximity & Convenience**

- Close to Albany
- It's close to Eugene
- Access from urban areas
- McKenzie Bridge market is close by if we forget anything
- Access for many activities
- This is a base camp for play
- I park my car here when I bike on the MRT
- Lower elevation

### **(3) What activities are you participating in while you're at Trail Bridge?**

- Backpacking
- Biking
- Board games
- Boating and canoeing
- Camping
- Fishing
- Geocaching
- Hanging out and relaxing
- Hiking
- Mountain biking on MRT
- Parking for day-use and MRT
- Swimming
- Trail running

### **Fees**

- Free in the winter and not many people
- No reservations
- Reasonable fee

### **Bathrooms**

- There's a flush toilet

### **Water Spigots**

- Running water



Table-1. Estimated minimum and maximum visits at Project reservoirs.

## Appendix II.

## Visitation Rates

This table illustrates the estimated minimum and maximum daily visits to the Trail Bridge Recreation Area. The data was compiled in the 2006 Martha Goodavish Planning & Design and Stillwater Sciences for the Recreation and Aesthetics Management Plan. EWEB and design staff can use this table to determine capacity loads for the site.

| Dates                 | Location <sup>1</sup>      | Statistic            | Estimates |          |          | Total<br>(includes an<br>adjustment factor for<br>maximum estimates<br>only) <sup>2</sup> |
|-----------------------|----------------------------|----------------------|-----------|----------|----------|---|
|                       |                            |                      | Weekdays  | Weekends | All days |   |
| 28 May– 6 Sept.       | Trail Bridge Reservoir     | Minimum              | 2,289     | 3,206    | 5,494    | 5,494   |
|                       | Trail Bridge Reservoir     | Maximum              | 11,967    | 9,255    | 21,221   | 10,611  |
|                       | Carmen Diversion Reservoir | Minimum              | 1,160     | 877      | 2,037    | 2,037   |
|                       | Carmen Diversion Reservoir | Maximum              | 6,992     | 5,941    | 12,932   | 9,699   |
|                       | Smith Reservoir            | Minimum              | 713       | 922      | 1,635    | 1,635   |
|                       | Smith Reservoir            | Maximum              | 3,189     | 3,236    | 6,424    | 4,818   |
| 7 Sept.–30 Nov.       | Trail Bridge Reservoir     | Minimum              | 236       | 198      | 435      | 435   |
|                       | Trail Bridge Reservoir     | Maximum <sup>3</sup> | 1,919     | 1,024    | 2,943    | 1,472   |
|                       | Carmen Diversion Reservoir | Minimum              | 43        | 124      | 167      | 167   |
|                       | Carmen Diversion Reservoir | Maximum <sup>3</sup> | 377       | 397      | 774      | 581   |
|                       | Smith Reservoir            | Minimum              | 102       | 37       | 139      | 139   |
|                       | Smith Reservoir            | Maximum              | 208       | 87       | 295      | 222   |
| 1 Dec–31 Mar.         | Trail Bridge Reservoir     | Minimum              | 261       | 185      | 446      | 446   |
| 1 Apr.–27 May         | Trail Bridge Reservoir     | Minimum              | 312       | 212      | 525      | 525   |
|                       | Trail Bridge Reservoir     | Maximum              | 2,515     | 2,474    | 4,990    | 2,495   |
|                       | Carmen Diversion Reservoir | Minimum              | 239       | 121      | 360      | 360   |
|                       | Carmen Diversion Reservoir | Maximum              | 1,182     | 704      | 1,886    | 1,415   |
|                       | Smith Reservoir            | Minimum              | 206       | 141      | 348      | 348   |
|                       | Smith Reservoir            | Maximum <sup>4</sup> | 470       | 577      | 1,047    | 785   |
| Annual Visits by Site | Trail Bridge Reservoir     | Minimum              |           |          |          | 6,900   |
|                       | Trail Bridge Reservoir     | Maximum              |           |          |          | 14,578  |
|                       | Carmen Diversion Reservoir | Minimum              |           |          |          | 2,564   |
|                       | Carmen Diversion Reservoir | Maximum              |           |          |          | 11,695  |
|                       | Smith Reservoir            | Minimum              |           |          |          | 2,122   |
|                       | Smith Reservoir            | Maximum              |           |          |          | 5,825   |
| Total Annual Visits   | Ice Cap Campground         | NA <sup>3</sup>      |           |          |          | 3,693   |
|                       | Total Annual Visits        | Minimum              |           |          |          | 15,279  |
|                       | Total Annual Visits        | Maximum              |           |          |          | 35,791  |

<sup>1</sup> Trail Bridge Reservoir estimate includes use associated with the Smith Lo-Level Road Dispersed Sites; Smith Reservoir estimate includes use associated with the day use area and Lakes End Campground.

<sup>2</sup> Adjustment factors are applied to maximum estimates only; 50% reduction applied to visits to Trail Bridge Campground and Day Use Area; 25% reduction applied to Carmen Diversion Reservoir and Smith Reservoir.

<sup>3</sup> The USDA Forest Service provided a 2004 use estimate for Ice Cap Creek Campground, but no minimum or maximum estimates were available. This estimate was added to both the minimum and maximum total annual visits.

<sup>4</sup> Vehicle counts were obtained at Smith Reservoir during 2006 and were used to recalculate the maximum use estimate for the spring season.

## Appendix III. Supporting Resources

The following list contains supplemental resources which could be consulted during the design phase for Trail Bridge Recreation Area redevelopment.

- Botanical Report for EWEB Carmen Smith Relicensing Project, August 2012
- Aquatics Management Plan, October 2008
- Wildlife Management Plan, October 2008
- Vegetation Management Plan, October 2008
- Roads, Waste Areas, and Staging Areas Management Plan, October 2008
- Recreation and Aesthetics Management Plan, October 2008
- Historic Properties Management Plan, October 2008
- US Forest Service ORDER #18-58, V.2007.1, Occupancy and Use, Willamette National Forest, Detroit, Middle Fork, and McKenzie River Ranger Districts
- Aesthetic Resources at the Carmen-Smith Hydroelectric Project, Upper McKenzie River Basin, Oregon, April 2006
- Existing Recreational Uses at the Carmen-Smith Hydroelectric Project, Upper McKenzie River Basin, Oregon, March 2006
- USDA The Built Environment Image Guide, For the National Forests and Grasslands, September 2001



# Appendix IV. Viewing Platforms and Decks

This supplemental section contains information requested by EWEB pertaining to viewing platforms and docks for the Trail Bridge Recreation Area.

## **VIEWING PLATFORM OR DOCK**

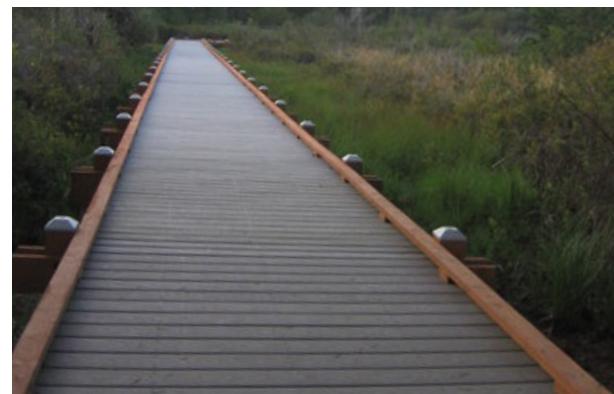
Programmatic requirements state that EWEB shall construct two floating docks, one of which should be Universally Accessible (UA). Floating docks are preferred to compensate for the fluctuations of the reservoirs water level. This section is intended to provide further guidance to the general type of floating dock to be constructed on site. EWEB is responsible for the final design and compliance. Proposed locations for the docks are included within the Master Plan.

The floating docks, to be constructed on-site, shall be used for fishing or as a viewing platform. EWEB and the US Forest Service wish to not encourage the floating docks as a swimming platform. Docks, including posts and rails, should be low-profile so as to not detract from the aesthetic qualities of the shoreline. Continuous rail stops should be used along the perimeter of the decking for UA compliance.

Examples of low-profile floating docks can be seen below. For design guidelines, consult the USDA Floating Trail Bridges and Docks Guidebook: <http://www.fs.fed.us/t-d/pubs/pdffpubs/pdf02232812/pdf02232812dpi72.pdf>.



East Devil's Lake, Oregon State Parks,  
[http://en.wikipedia.org/wiki/Devils\\_Lake\\_State\\_Recreation\\_Area](http://en.wikipedia.org/wiki/Devils_Lake_State_Recreation_Area)



East Devil's Lake, Oregon State Parks,  
<http://www.panoramio.com/photo/4630855>

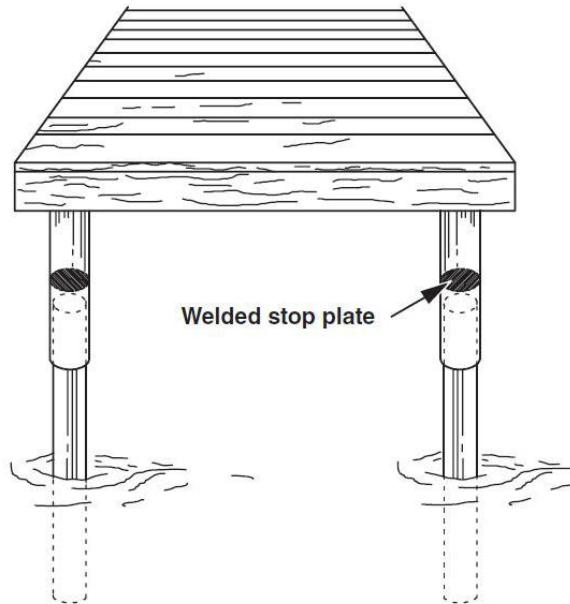


Figure 23—A sleeved pile should have a stop on the exterior of the inside pile or on the interior of the outer pile to keep the outer pile at the desired level.

