



BARTON PARK COMPLEX MASTER PLAN

November 2020

DRAFT REPORT

ACKNOWLEDGEMENTS

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EXECUTIVE SUMMARY

The Portland Metro Area has experienced an influx in population and continues to grow in number and size. Among many resulting challenges, this growth has increased the demand for access to nature and water for recreation. Barton Park, given its location along the Clackamas River and its proximity to urban populations, has long been a regional destination for river recreation. In addition to the increase in users and the resulting pressure on staffing, infrastructure, transportation, and natural resources, recent property acquisitions and a desire to develop a trailhead for the Cazadero State Trail have created a need to create a long term vision for Barton Park and plan for future expansion.

Barton County Park (BCP) is a 122-acre county park located along the north side of the Clackamas River off Highway 224, approximately four miles outside of unincorporated community of Boring. As the largest and most popular of the County parks, BCP features camping, hiking, multiple day use and event amenities, and access for a variety of river recreation opportunities. Together with other parks and trails, such as Carver Park, Milo McIver State Park and the future Cazadero State Trail, Barton Park is part of a larger parks system that attracts users from the region to recreate along the Clackamas River.

The master plan process began in the summer of 2019 with a public engagement process consisting of four stakeholder (Working

Group) meetings, one public open house, one presentation to Eagle Creek Community Planning Organization (CPO), and an online survey. The open house and online survey solicited input on park programming and community goals for the project. Feedback from the Working Group, open house, Eagle Creek CPO presentation, and online survey generated the framework for two conceptual design options. Working Group review of the design options led to the development of the Draft Master Plan presented to the Clackamas County Parks Advisory Board, Pedestrian and Bikeway Advisory Committee, Board of County Commissioners, and Metro Council.

The master planning process was a collaborative effort between the County Project Management Team, community members, the Working Group, and the Design Team.

The Master Plan includes the following amenities (Figure 0-1):

Day Use:

- Trailhead parking lot and amenities for the Cazadero State Trail for bikers, hikers, and equestrian users
- Restrooms and picnic shelters
- Accessible beach and dock for the Quarry pond
- Inter-park trail system with overlooks, rest areas, and interpretive opportunities



Overnight camping area at Barton Park



Day users at Barton boat ramp

Overnight Use:

- Cabins and yurts with shared restrooms
- Group camping and hiker-biker camping sites with shared restrooms and open shelters
- Primitive camp sites, walk-in camp sites, and a shared restroom
- Remodel of the Overlook House and Garage to accommodate event rental

Transportation:

- New road spur to access Quarry Site amenities

- Multi-use path connection from Barton Park to Highway 224/Barton General Store
- Improved intersection at park entry
- Park shuttle analysis
- Securing and buffering Barton Stockpile from the park amenities
- New roundabout at intersection of Bakers Ferry Road and Barton Park Road

Restoration:

- Landscape restoration at the Quarry Site
- Restoration of the Quarry Pond for recreational use and wildlife habitat

Construction phasing depends on several factors, including funding availability. The first phase anticipates restoration of the Quarry Site including invasive species removal, grading, soil preparation, and landscaping to put the site on a path supporting the goals of providing a good user experience and creating wildlife habitat prior to implementing future phases for public use. Subsequent phases will be determined in accordance with the 30-year vision provided by the Barton Park Master Plan.

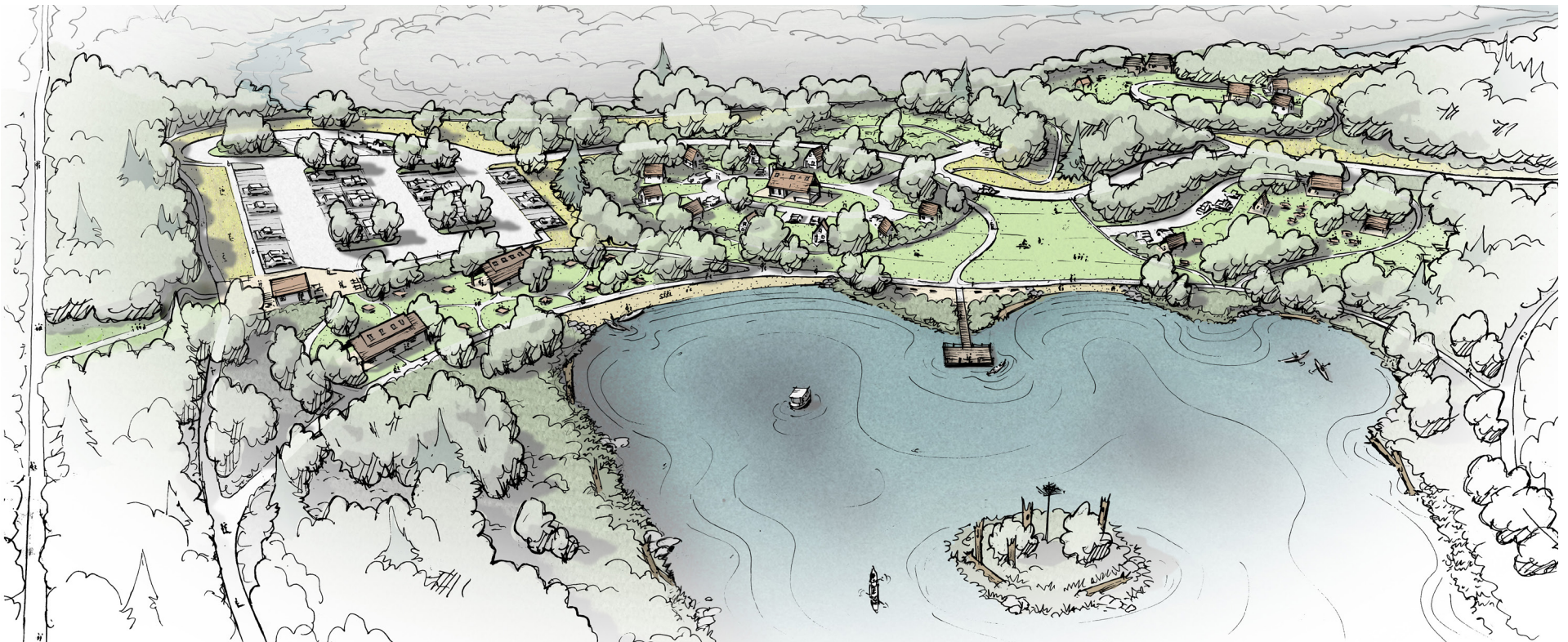


Figure 0-1. Perspective drawing of proposed improvements at Quarry Site



1. INTRODUCTION

1.1 BACKGROUND

Barton County Park (BCP) is a 122-acre county park located along the north side of the Clackamas River off Highway 224, approximately four miles outside of unincorporated community of Boring. As the largest and most popular of the County parks, BCP features camping, hiking, multiple day use and event amenities, and access for a variety of river recreation opportunities. Together with other parks and trails, such as Carver Park, Milo Mclver State Park and the future Cazadero State Trail, Barton Park is part of a larger parks system that attracts users from the region to recreate along the Clackamas River.

Given Barton’s location and proximity to Portland, the park has long been a regional destination for accessing the Clackamas River for fishing, boating, and floating. As the Portland metro area population continues to grow, demand for water recreation has greatly increased. Recreational use on one of the most popular river floating routes on the Clackamas River from Barton Park to Carver Park, has also increased. The increase in population, proximity to Portland, and demand for river access has resulted in vehicle congestion within the park and surrounding roads during weekend summer months and in park closures on the busiest weekends. Similarly, non-water recreation facilities such as campsites and picnic areas are also often at capacity during the peak season putting pressure on park management.

In recent years, approximately 49 acres of adjacent properties and undeveloped sites have



Figure 1-1. Portland region context

been either purchased by the County or Metro or turned over to County Parks presenting the opportunity to expand BCP. These properties include Cazadero Natural Area, a Metro owned property adjacent to the Cazadero State Trail; Barton Quarry, a former County rock quarry site, which will be transferred to County Parks following the master planning process; and the Overlook Property, a former residential property bought by the County.

These recent property acquisitions, the desire to create a trailhead for access to the Cazadero

State Trail, and summer capacity and congestion issues created the impetus to expand the vision for BCP for the next 30 years, incorporating new opportunities with existing uses. This master plan addresses the public recreation needs by tying together existing and future park uses with compatible programming, vehicular and pedestrian circulation, safety, and habitat restoration, among other considerations. This vision will guide the preparation of more refined plans and detailed design and construction documents as funding is secured.

1.2 PURPOSE

The master plan includes seven key elements listed and described below:

Cazadero Natural Area

The Cazadero Natural Area (CNA) is a 24-acre site between Barton Park and Highway 224. The property was a key target area purchased through the 2006 Natural Areas Bond to help protect water quality, wildlife habitat, and provide opportunities for access to the Cazadero State Trail, a planned future 12-mile extension of the Springwater Corridor connecting Boring to Estacada. The County and Metro signed an Intergovernmental Agreement (IGA) to establish the framework for a collaborative planning to include the CNA as a future trailhead for the Cazadero Trail. This master plan looks at how the CNA fits into the larger recreational and management context of the Barton Park and adjacent regional trail.



Vegetation in the Cazadero Natural Area

Barton Quarry

The Barton Quarry is a 19-acre former gravel mining operation on the northeast corner of the Barton Park Complex adjacent to the Cazadero State trail that overlooks Goose Creek. The site currently owned by the Clackamas County Department of Transportation and Development (DTD) will be transferred to County Parks and converted to recreational use. This master plan evaluates the opportunities and constraints for converting this heavily scarred site from past mining activities to future recreational uses and habitat creation.

Barton Stockpile

Barton Stockpile is a maintenance facility owned and operated by the Clackamas County Transportation and Development Department (DTD) and is surrounded by the Cazadero Natural Area, Barton Quarry, and East Campground as shown in Figure 1-2. The Stockpile site provides storage for materials



Pond at Quarry Site

necessary for building and maintaining county owned roads and bridges. County Parks also occupies a small section for storage. Since ownership and operation of the stockpile site will remain with DTD, this planning effort addresses maintenance access, security, and compatibility in the context of the entirety of Barton Park

Clackamas County has designated the Stockpile and Quarry Sites at Barton Park as one of the three Debris Management Site (DMS) in the county to receive various types of disaster-related materials such as vegetative debris; building materials and hazardous waste before the materials are processed and transferred to a recycling center or landfill. These sites are needed at strategic locations across the county to plan for effective, efficient emergency response in the event of natural and man-made disasters. The specific site layout and circulation patterns within the DMS boundaries are beyond the scope of this master plan project. The DMS will coincide with new proposed infrastructure at the Quarry Site.



Overlook House and Property

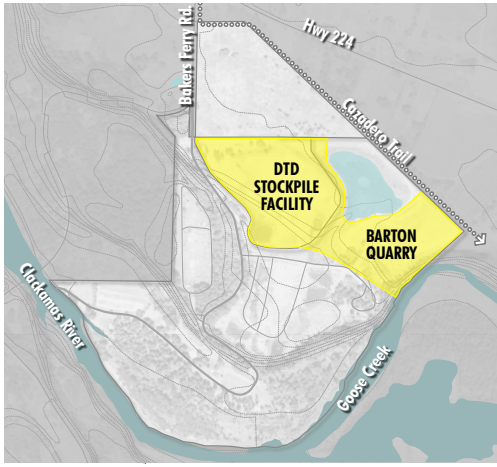


Figure 1-2. Debris Management Site (DMS)

Overlook Property

The Overlook Property is a 6-acre site on the east side of the Barton Park Complex that overlooks Goose Creek and River Island. This semi-wooded property owned by the County is currently used for primitive camping and maintenance storage. A former residential lot, the site includes a 1960's house and garage both requiring upgrades. This master plan provides an analysis of the condition of these structures and grounds and their potential for future park compatible park uses.

Barton – Carver Connection

Large numbers of floaters on the Clackamas River put in at Barton Park and take out at the Carver Boat Launch, approximately 6-miles downstream and a 3 hour float from Barton Park. The popularity of floating the river has increased park us on summer weekends increasing congestion and creating management issues for Barton Park



Line of cars at intersection of Bakers Ferry Road and Barton Park Road on a busy day

and the Carver Boat Launch. The master plan looks at parking capacity, vehicular circulation within BCP, and the use of a shuttle to offset congestion during peak use periods.

Transportation

Most park users arrive at Barton in passenger vehicles. During the peak use season, congestion in and around the park are a significant issue. The transportation system surrounding Barton Park includes components that this master plan took into consideration such as Highway 224, Bakers Ferry Road, the triangular intersection with Barton Park Road at the park entrance, and internal circulation between program areas and features within the park.

The master plan identifies areas of conflict and suggests solutions to mitigate the current and future transportation demands for vehicular

access to the park. The master plan examines traffic operations and safety at key locations along Barton Park Road and explores the feasibility of safe pedestrian circulation through the entire park.

Sustainable Revenue Generation

The revenues generated by Barton Park includes parking fees for day use, picnic area reservations, and overnight camping fees. The County does not assign budgets on a park by park basis but rather shares revenues and fees from park facilities. This master plan looks at current and proposed revenue inputs of Barton Park, and how new uses can not only provide great recreational opportunities, but add revenue for the County. This plan also looks at opportunities for increasing shoulder season and mid-week use to create more sustainable, long-term revenue sources.

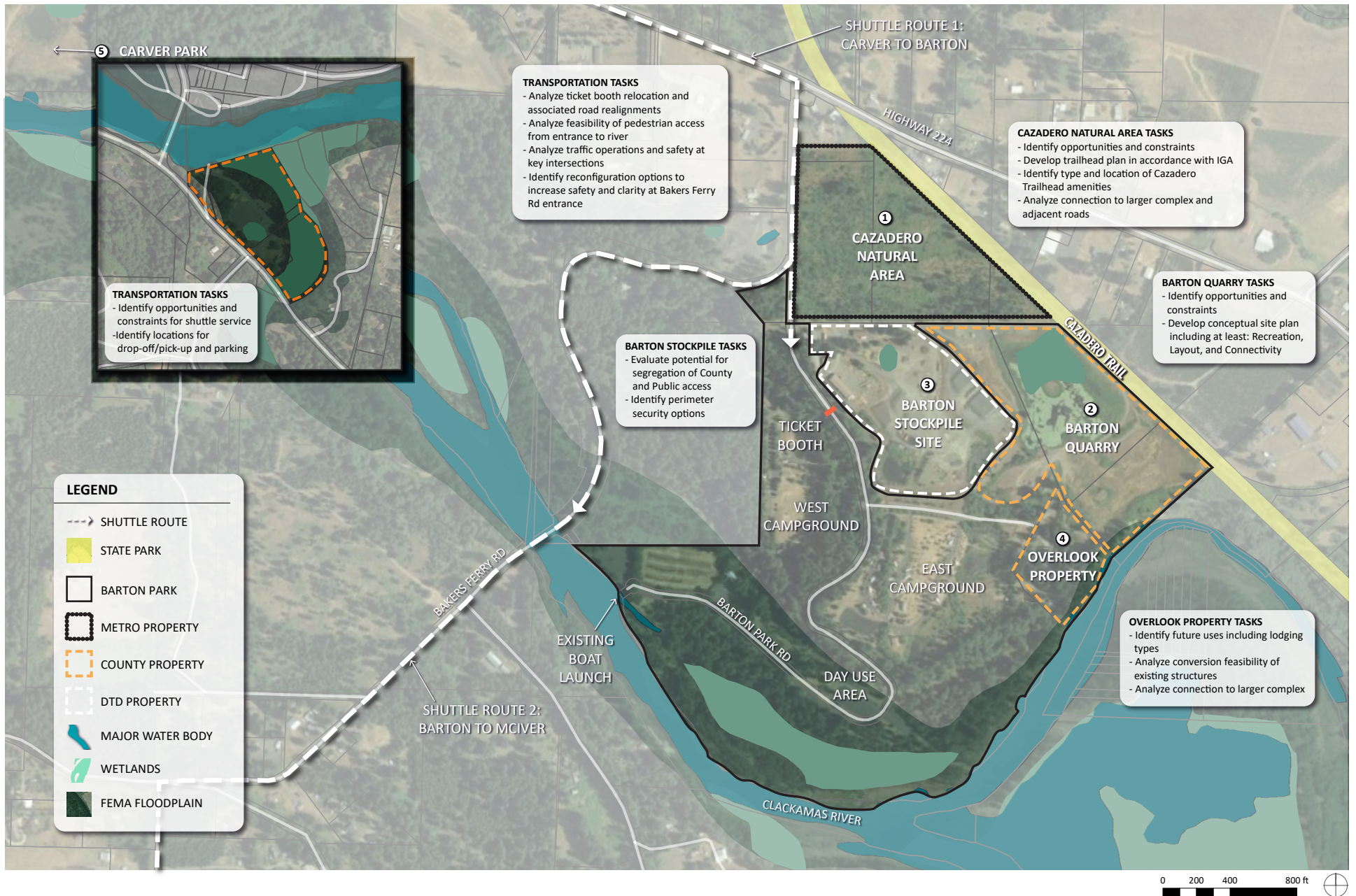


Figure 1-3. Study Area Tasks in Barton Park Complex

1.3 GUIDING PRINCIPLES

Public Involvement and Master Plan Adoption

The master planning process was undertaken in three phases during which a variety of methods were used to engage stakeholders, area property owners, park users, and the broader public as described in the Public Engagement and Communication Plan. The process also included presentations and input from Clackamas County Parks Advisory Board, Clackamas County Pedestrian and Bikeway Advisory Committee, and a formal approval for adoption from the Clackamas County Board of Commissioners for adoption.

Based on input from the Working Group, guiding principles were established to help steer the creation of the process and objectively critique elements of the master plan throughout the process. The guiding principles are as follows:

1. TRAFFIC AND SAFETY

- Removes pedestrians from roads
- Reduces neighborhood impacts
- Improves internal vehicular circulation
- Minimizes impact to DTD Stockpile site

2. USER EXPERIENCE

- Improves park user experience
- Addresses carrying capacity issues

- Provides diverse recreation options
- Embraces unique features of the site

3. ECOLOGY/ENVIRONMENT

- Enhances/promotes wildlife connectivity
- Considers larger scale connectivity
- Appropriate location and scales of development
- Use of green infrastructure to mitigate ecological impacts

4. PARK FUNDING AND OPERATIONS

- Generates revenue with a balance of uses
- Identifies feasible projects
- Streamlines park operations to better handle peak use
- Accomplishes the County IGA with Metro
- Considers potential additional infrastructure needs



2. ENGAGEMENT PROCESS

2.1 ENGAGEMENT PROCESS

The master planning process included a robust public involvement process engaging the public and garnering support from the community and key project stakeholders. The team included the public involvement consultant, Jean Lawson Associates, working with the County to develop a Public Involvement Plan that the County implemented with support from the Project Team. The plan included outreach to various user groups, media, advertising, mailings, web, social media, and outreach at the park over the summer of 2019.

The Working Group was made up of representative of stakeholder groups that had been identified by the County, including representatives from Metro, Oregon Parks and Recreation Department, Clackamas County Tourism and Cultural Affairs, Clackamas County Pedestrian-Bikeway Advisory Committee (PBAC), Clackamas County Parks Advisory Board (PAB), the County DTD, and Clackamas County Parks staff. The Master Plan also required a formal approval and adoption from the Clackamas County Board of Commissioners. Due to COVID-19 restrictions part way through the process, public engagement turned to virtual meetings with stakeholders and on-line surveys to help get the word out about the project and engage the community during a difficult period.

The master planning process occurred in three phases during which a variety of methods were used to engage stakeholders, area property owners, park users, and the broader public. These are described below and in the Public Engagement and Communication Plan in Appendix A1.

Phase 1: Inventory and Analysis

In the initial Inventory and Analysis Phase, data collection and analysis produced a planning level understanding of existing conditions and the site's opportunities and constraints. This phase included a study of the park's financial structure and feasibility of supporting a shuttle service. Guiding principles and long-term visioning were also established in this phase, and informed programming and the development of conceptual design alternatives in following phases.

The Inventory and Analysis Phase included two Working Group meetings, a presentation to the Eagle Creek Community Planning Organization (CPO), and a public open house. At the public open house in early December, project staff shared results of the Inventory Phase and collected verbal and written comments from attendees.

While the inventory and analysis allowed for understanding the site's opportunities and constraints at a planning level, more detailed inventory collection and analysis will be required in future phases of design. Details of additional inventory and analysis efforts are described in Section 6: Implementation chapter of this report.



Attendees at Open House #1

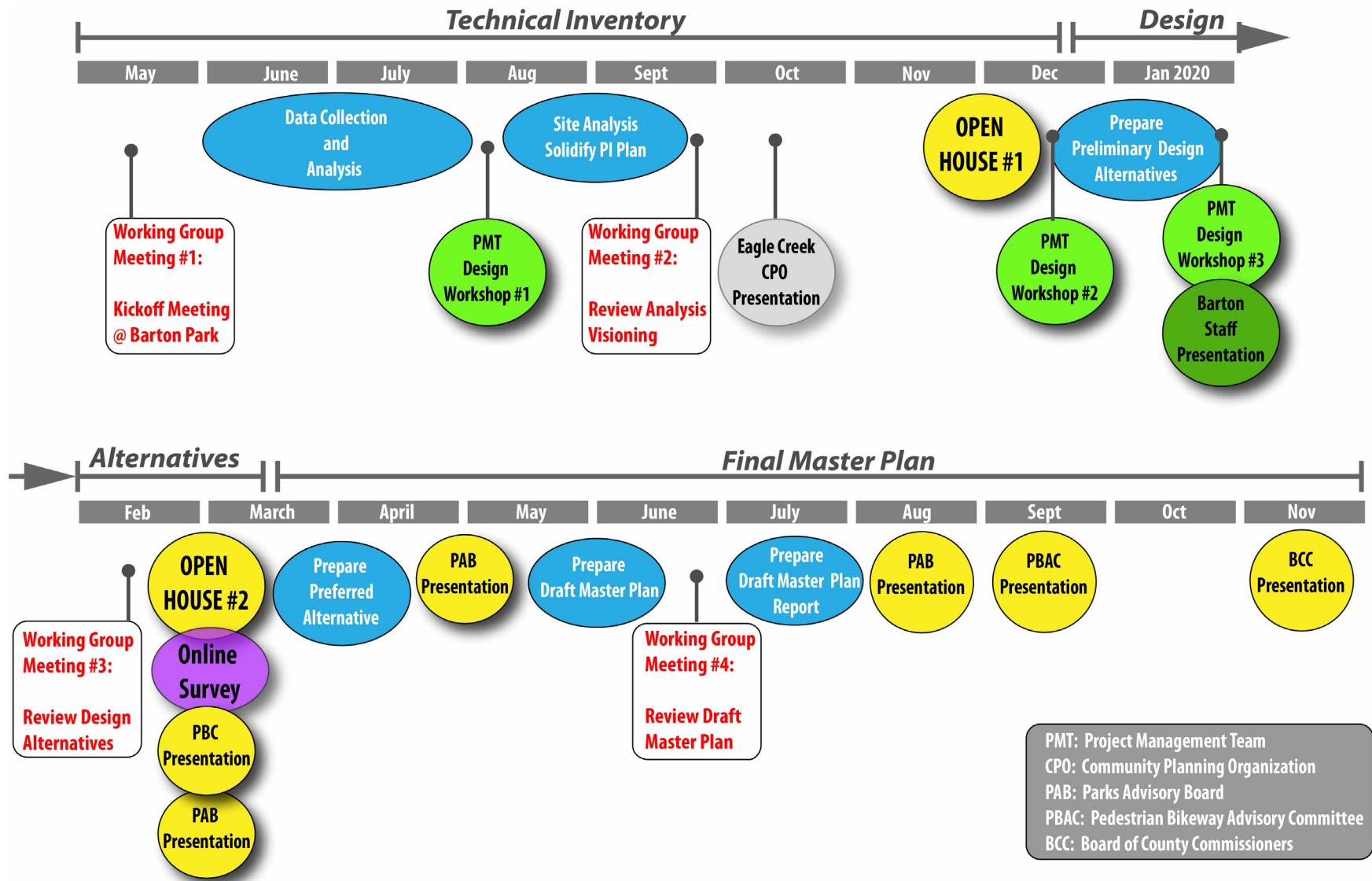
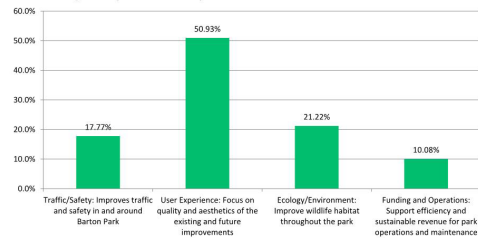


Figure 2-1. Process Timeline

Question 1

Answered: 377 Skipped: 16

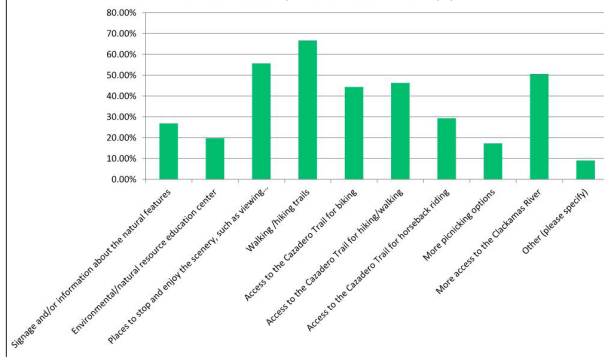
Of the guiding principles that will be used for improvements, which one is the most important to you? (Check one.)



Question 13

Answered: 354 Skipped: 39

What day use features would you like to see added to Barton Park? (Check all that apply.)




Phase 2: Design Alternatives

In the Design Alternatives Phase, preliminary design options were generated based on findings from the preliminary Inventory and Analysis Phase and input from the Working Group testing a variety of program uses, site capacity, and goals for the project. Outreach in this phase included meetings with Barton Park staff, PAB, PBAC, and the Working Group to review the design alternatives and obtain feedback. An online survey from late March to early April of 2020 received 393 responses addressing park visitors and recreation preferences. The results of the online survey are in Appendix A2.

Phase 3: Master Plan

This phase included development of a preferred design and presentations of the plan to the County and Working Group. The preferred plan became the Master Plan which was presented to the County PAB and PBAC in August of 2020 and the County Board of County Commissioners in November of 2020 to gain a recommendation for approval.

Figure 2-2. Sample online survey questions and responses

An aerial photograph of a parking lot and a winding road in a forested area. The parking lot is paved and has several rows of spaces. A road curves through the trees, with a car visible on it. The background is a dense forest of tall trees, some of which are bare, suggesting a cooler season. A teal overlay covers the bottom left portion of the image, containing the text '3. TECHNICAL INVENTORY AND ANALYSIS'.

3. TECHNICAL INVENTORY AND ANALYSIS

3.1 EXISTING CONDITIONS

Program

Barton Park is separated into three program zones: an Entry Zone to the north, Overnight Zone in the middle of the park, and Day Use Zone along the Clackamas River.

The entry sequence includes: the intersection between Bakers Ferry Road and the DTD Stockpile access road; a caretaker residence; a ranger station; a ticket booth; and an RV dump station. Past the Entry Zone, the main park road bisects the Overnight Zone into east and west campground areas with a total of 103 campsites including water and electric hookups for tents and RV/trailers. Each campground area includes two camp host sites, playground equipment, volleyball court, horseshoe pits, and a restroom with showers while the east campground area also offers a reservable picnic shelter. Further to the east, overnight use in the Overlook Site includes one bunkhouse cabin, one group campsite, and seven primitive campsites.

The main park road continues into the Day Use Zone at the southern, lower portion of the park and ends at the river's edge. Day use amenities in this area include a boat ramp, seasonal pavilion, three large reservable picnic shelters, several uncovered picnic table areas, volleyball court, playground equipment, horseshoe pits, two restrooms, and three large parking lots as well as an overflow lot and head-in parking stalls

along Barton Park Road. A walking trail connects the east side of the day use area to the Overlook Site, though sections of the trail are steep.

The master plan focuses on the additional 43-acres encompassing the Cazadero Natural Area and Barton Quarry located away from the main park road on an upper plateau paralleling the Cazadero Trail. The proximity of the two study areas is conducive to developing mutually supportive improvements in the master plan.

Under the County IGA with Metro, the Cazadero Natural Area may include up to 5 acres of development serving as the trailhead for the

Cazadero Trail operated by the County. The trailhead will provide a regional access point to the Cazadero State Trail for cycling, walking, and equestrian uses. The remaining area will continue under Metro stewardship focused on habitat restoration and not for public recreation. Southeast of the Cazadero Natural Area, the Quarry Site is adjacent to and easily accessible from the Overlook property and East Campground. A former gravel mining site, the landscape is highly altered and features a large quarry pond.

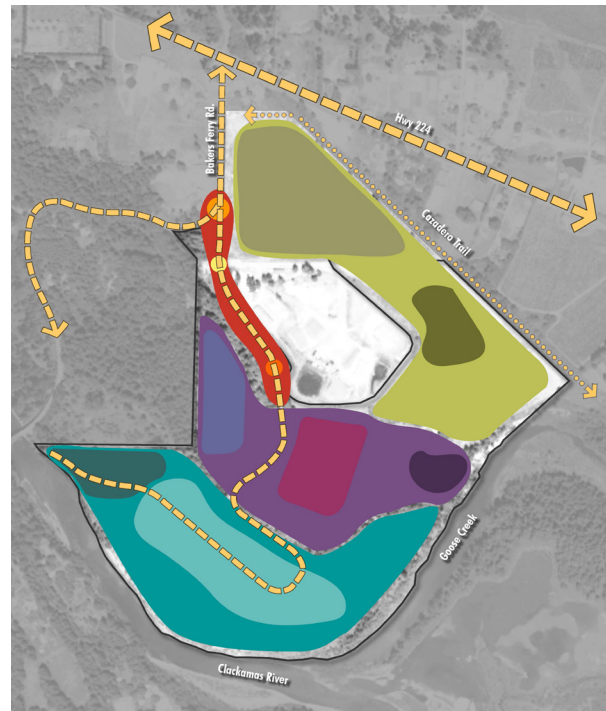


Figure 3-1. Program Zones



- ### SITE KEY
- ① Cazadero Natural Area (Metro)
 - ② Barton Stockpile (DTD)
 - ③ Overlook Property
 - ④ RV Camping (39 spots)
 - ⑤ RV/Tent Camping (64 spots)
 - ⑥ Barton Quarry Site
 - ⑦ Day Use Area

- ### PROGRAM KEY
- Restrooms
 - Reservable Picnic Shelter
 - Reservable Picnic Table
 - Parking (393 stalls)
 - Overflow Parking (400 stalls)
 - RV Dump Station
 - Boat Ramp
 - Primitive Camping (7 spots)
 - Play Area
 - Camp Host
 - Ticket Booth
 - Caretaker
 - Ranger Station
 - Event Pavilion
 - Volleyball
 - Ball Field
 - Bunkhouse
 - Group Camping

- ### LEGEND
- Floodplain
 - Ponds
 - Property Boundary
 - County Road
 - Park Road
 - Camp Road
 - Walking Trail
 - Stream
 - Seasonal Side Channel
 - 10' Contours

Figure 3-2. Existing Program



Circulation and Transportation

Visitors to Barton Park confront several decision points upon arriving and traveling within the park. These decision points present potential conflicts and confusion of varying degrees, with higher problem areas occurring at the larger intersections. The most critical intersections are located at Highway 224-Bakers Ferry Road and at the park entrance (Bakers Ferry Rd-Barton Park Road intersection), followed by spur roads along Barton Park Road inside the park.

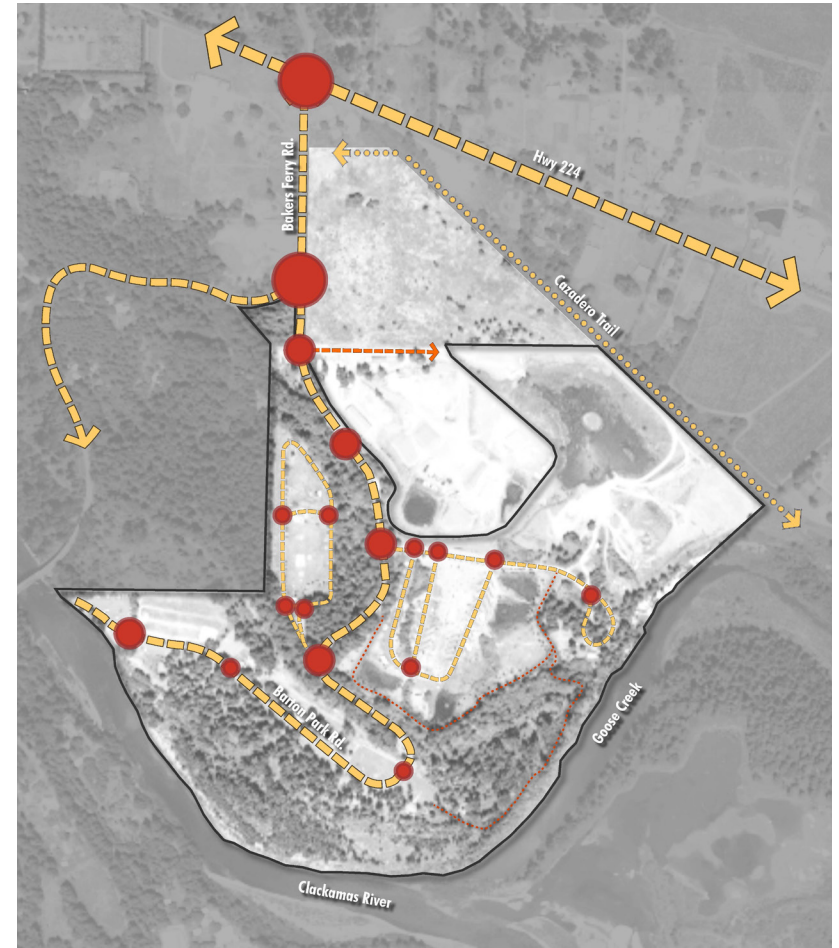
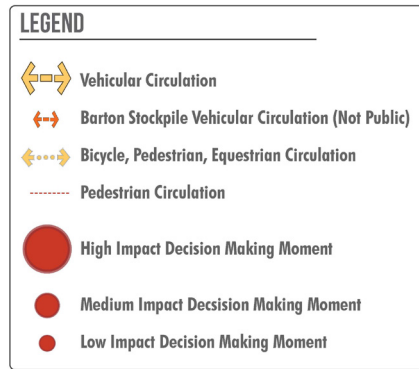


Figure 3-3. Vehicular Decision Making Moments

Environmental

On a regional level, Barton Park sits within the transition zone between Portland's dense urban area and the undeveloped forest and green space associated with the Mt Hood National Forest. Within the Clackamas River watershed, the park is surrounded primarily by low density residential and agricultural properties. The park's direct connection to the Clackamas River ties it to an important natural resource that not only provides drinking water and outdoor recreation opportunities but also habitat for numerous species of conservation interest. Among the Willamette River's tributaries, the Clackamas River is the most significant for salmon habitat, supporting runs of Coho and Chinook as well as steelhead and lamprey. Numerous other species of interest have also been identified along the watershed including birds, bats, reptiles, amphibians, and mammals.



Figure 3-4. Regional Environmental Context



Fishing Boats



Native Chinook Salmon



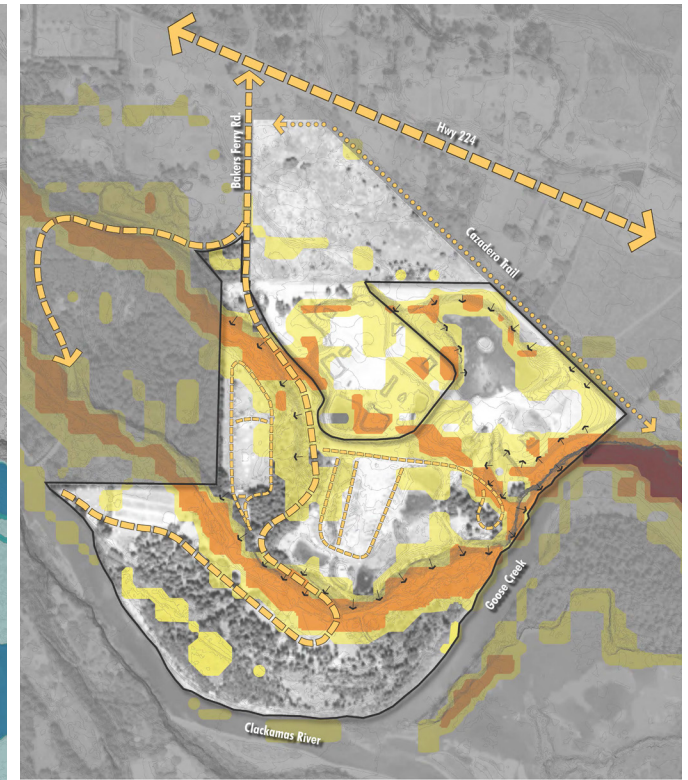
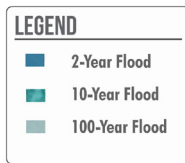
Clackamas River at Barton Park

Floodplain

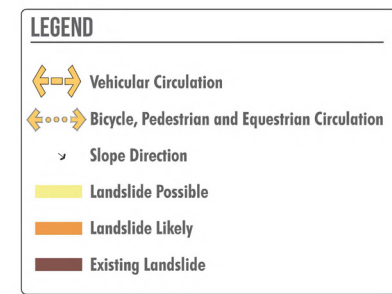
The lower Day Use area adjacent to the Clackamas River is entirely within the 100-year floodplain and experiences regular flooding and high-water events. There is a historic side channel along the north toe of the slope that is within the 2-year flood zone along including portions of the riparian forested area along the river. The narrowing of the river at the Bakers Ferry Bridge causes floodwaters to back up near the boat ramp. Rip rap bank stabilization has been placed to protect the parking lot near the boat launch from floods. The remainder of the park's river edge consists of natural river cobbles and native vegetation. Any improvements such as structures, trails, or overlooks within the floodplain should be analyzed to ensure there are no impacts to the 100-year floodplain and they are resilient to frequent inundation if situated inside the 2-year flood zone.

Landslides

The slope that separates the lower terrace of the Day Use area from the upper terraces of the Overnight Zone and that extends to the bluff overlooking Goose Creek is associated with unstable areas and likely to experience landslides. Several smaller unstable areas are found in the Quarry Site and on the northeast side of the West Campground. Overall, the areas in the park with the steepest slopes coincide with greater landslide potential. A geotechnical analysis should be conducted prior to development to analyze the risk and impacts of developing on the Overlook Property and Quarry Site.



Clackamas County, DOGAMI, Metro RUS

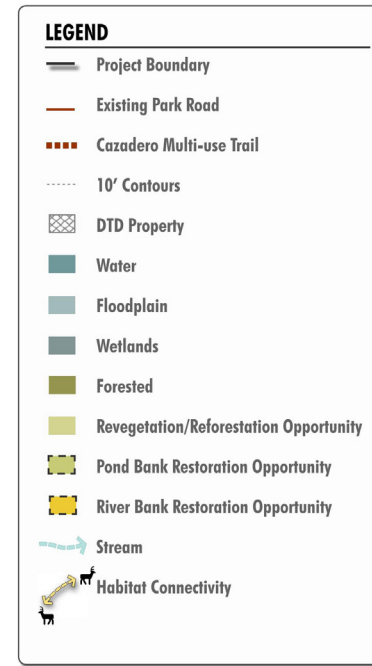


Figures 3-5 and 3-6. Flood Inundation and Landslide Potential

Vegetation and Habitat

Distinct differences in vegetation can be found in developed and undeveloped areas of the park. Undeveloped areas include groves of mature upland forest in the middle section surrounding the campgrounds and Overlook Site, and riparian forest in the lower part of the park surrounding the Day Use area and river's edge. The riparian forest within the floodplain serves an important wildlife habitat function and provides a buffer between the high impact day use area and river's edge.

In the developed areas including campground and day use facilities, vegetation primarily consists of maintained lawn with a sparse overhead canopy. The picnic table areas in the lower terrace are an exception where large healthy stands of conifers provide shade for these popular day use amenities. Disturbed and degraded areas, largely confined to the Quarry Site, are mapped as ruderal grass and shrub and invasive scrub-shrub. The Cazadero Natural Area, which was replanted 10 years ago, includes typical upland forest species such as Douglas Fir, Oregon Ash, and Oregon White Oak in the canopy layer and native shrubs and grasses as well as invasive species in the understory and ground layers. PBS Environmental Engineers prepared a detailed study of the site vegetation which can be found in Appendix C2.



Figures 3-7 and 3-8. Existing Vegetation and Potential Habitat Connectivity

From the floodplain to upland habitat areas, the park contains several stream channels, small ponds, and wildlife corridors. The pond on the Quarry Site is a remnant from the previous mining operations. The pond has potential for recreational activities like fishing and canoeing as well as habitat restoration for western pond turtles, a species of conservation interest. The pond is surrounded by steep slopes, invasive species, and appears to generate seasonal algae blooms. The pond hydraulically remains full as it captures runoff and groundwater from seeps along its north slopes. The pond feeds a series of channels, riparian areas, and ponds that surround the east and south side of the East Campground. These ponds once were used for emergency fire suppression. Prior to development, a study should be conducted to analyze the feasibility of restoring the quarry pond for recreational and/or functional habitat for native wildlife.

In combination with existing adjacent natural areas, the restoration and enhancement in the



Overlook (Fandrigh) House

Cazadero Natural Area and Barton Quarry Site offer potential for additional connections both within the park and surrounding areas.

Architecture

An assessment of the structures on the Overlook property found that the house is stable, including replacement and reconstruction of various sections, but is still in need of significant interior remodeling, mold and asbestos remediation, and water and sewer line replacement. The house, which can comfortably hold up to 20 people, offers an excellent view from the back deck of River Island and Goose Creek.

The house is accessed by an existing asphalt road and has parking for up to 8 passenger vehicles. The landscape surrounding the house is mature, creating a natural setting that offers privacy and respite.

Other structures on the Overlook property include a pumphouse currently housing the well head, pump, and tank serving the nearby campground restroom, and a garage used as park storage. Both of these structures and their equipment are in good condition with minimal repairs needed. More detailed information about the conditions of the structures was prepared by Waterleaf Architecture and can be found in Appendix C3.



Figure 3-9. Overlook Property Structures

Park Infrastructure

Barton Park was developed in phases over many decades. As new areas and amenities were added, so were infrastructure improvements. The park obtains water from 5 wells. At the time of this study, the well in the SE corner of the site was no longer able to supply water for filling the fire suppression ponds in the East Campground. A new well may be required to support new facilities proposed in this master plan. Septic is handled in isolated drain fields adjacent to each of the park's restrooms and caretaker facility. The current site is at capacity as defined by DEQ for septic drain fields, but since the Quarry Site and Overlook Property occupy separate lots, new drain fields could be added. Overhead utilities supply power throughout the park. The service capacity of these lines should be confirmed with the utility provider prior to implementing any phase of this master plan. Further study and confirmation of park infrastructure capacity needs to be explored prior to advancing any major component of this master plan. A utility diagram prepared based on conversation with County Staff can be found in Appendix C4.

Economics

Understanding current funding of Barton Park was the first step to understanding the feasibility and impacts of incorporating new and additional programming in the study areas, and operating a shuttle system to handle peak season congestion. Barton Park operations are funded through the budget of the County Parks Department, which

primarily draws its revenue from parking and reservation fees, timber sales, golf course related fees, and concession sales. Major costs for the Parks Department include personnel and capital outlay. Opportunities for future funding include more fees for new services/amenities, increasing current fees, and disposition of properties. A detailed economic analysis of the existing park revenue prepared by ECONorthwest can be found in Appendix D1.



New Restroom Structure



Reservable Picnic Shelter

3.2 OPPORTUNITIES AND CONSTRAINTS

The following opportunities and constraints were prepared based on the findings noted above and in the technical analysis section of the appendix. The list below outlines specific opportunities and constraints for each of the study areas:

Day Use Area

Opportunities

- Expand day use amenities in underutilized space on the north side of Barton Park Road.
- Improve and expand hiking trails to include a formal, more accessible trail through the riparian area offering access to the river and including viewpoints and interpretive elements.
- Reconfigure Barton Park Road to reduce traffic conflicts and provide ease of management by consolidating parking and removing “on-street” parking.
- Replace existing seasonal pavilion with a permanent structure for reduced seasonal workload and increased use season.
- Improve riparian side channel conditions along the north side of the day use area by opening the connection at Goose Creek to provide beneficial flood functioning and wildlife habitat.

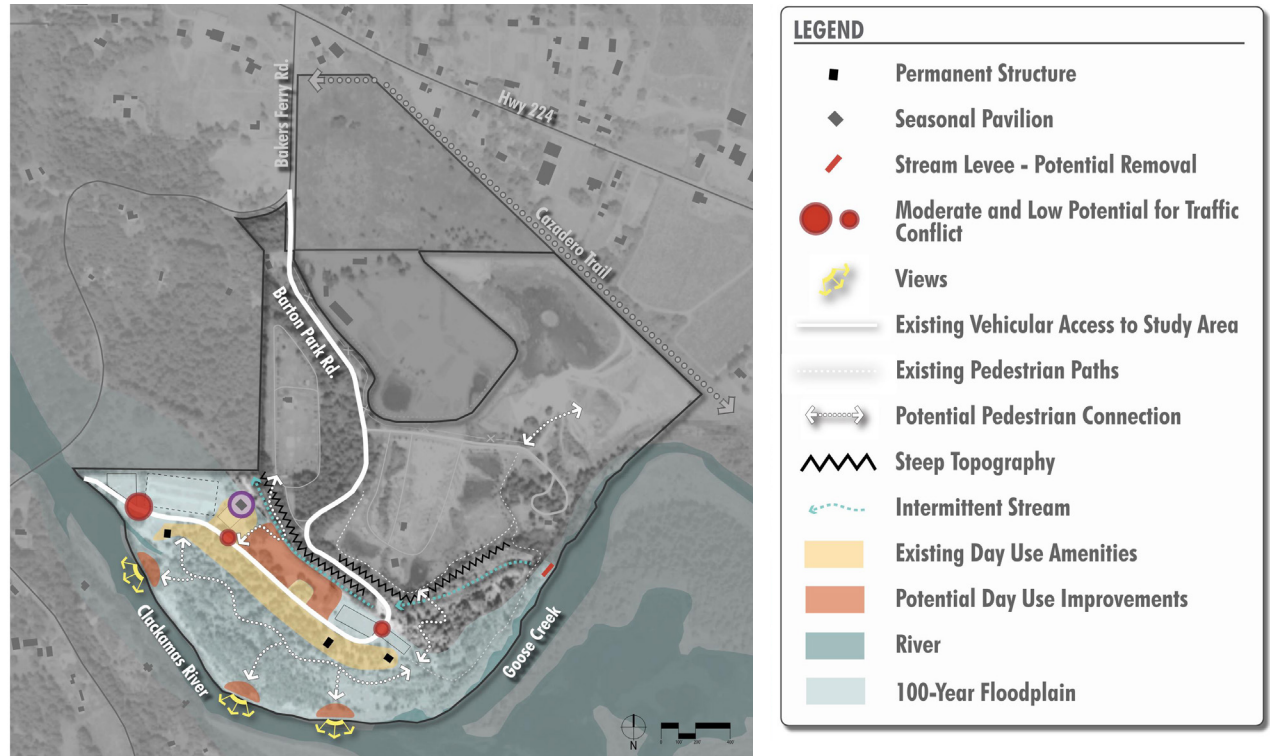


Figure 3-10. Opportunity and Constraints in Day Use Area

Constraints

- Because the lower day use area by the river is within the 100-year floodplain, all improvements and structural additions such as a permanent pavilion must be flood resilient and not impact floodplain function.
- Steep slopes separate the Overnight Zone from the Day Use Zone. Accessible pedestrian connections will impact slopes and existing vegetation.



“On-street” parking spaces blocked off

East and West Campgrounds

Opportunities

- Provide pedestrian and bicycle connections to the existing day use area for river access and future Cazadero Trail.
- Align entrances to East and West Campgrounds to clarify decision points.
- Integrate new turnaround area/RV dump station.
- Potential infrastructure improvements to increase availability of water for fire suppression.
- Screen East Campground from Stockpile Site.
- Provide additional plantings and trees to enhance experience and increase privacy.

Constraints

- Steep slopes and distance decrease connections to the Clackamas River.
- Steep slopes into the West Campground across from the East Campground limit opportunities for aligning entrances.
- Road noise and congestion from day users impacts camping experience.
- Lacks trails for pedestrian connections to the river.
- Lack of privacy between campsites.
- Poor soils in the East Campground require mitigation prior to planting trees and shrubs.

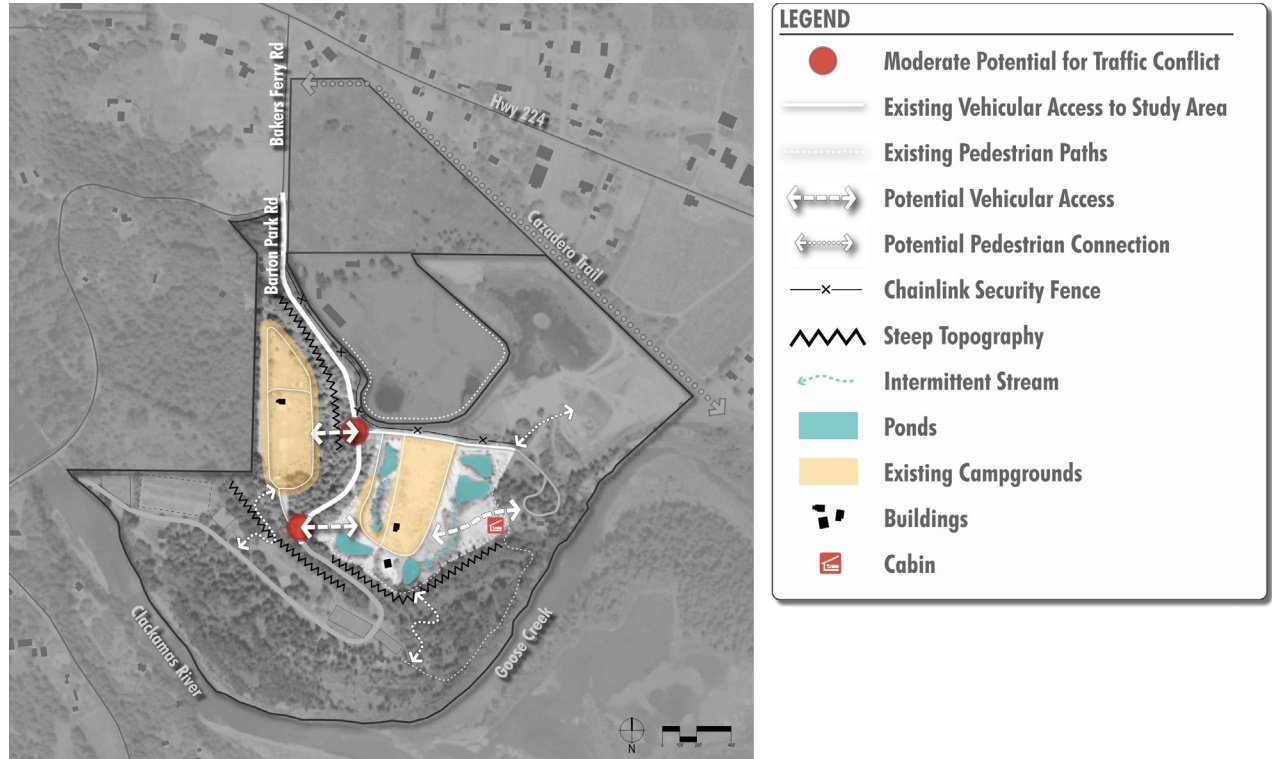


Figure 3-11. Opportunity and Constraints in Overnight Area



RV and trailer campsite



West Campground entrance

Overlook Property

Opportunities

- The existing house has “good bones” to support group rentals after renovations occur.
- Provide cabins or yurts cluster for rental with Overlook House for large group events.
- Renovate shop to act as grange for Overlook Site events.
- Excellent views of Goose Creek and River Island.
- Mature trees and vegetation provide privacy and good user experience.
- Enhance landscape to provide greater wildlife habitat and connectivity from Quarry Site to Day Use Area.

Constraints

- House needs significant interior renovation and infrastructure investment.
- More intense uses require additional utility infrastructure.
- The steep cliff along the east side is a potential safety hazard and landslide risk— a geotechnical investigation is recommended prior to future development.

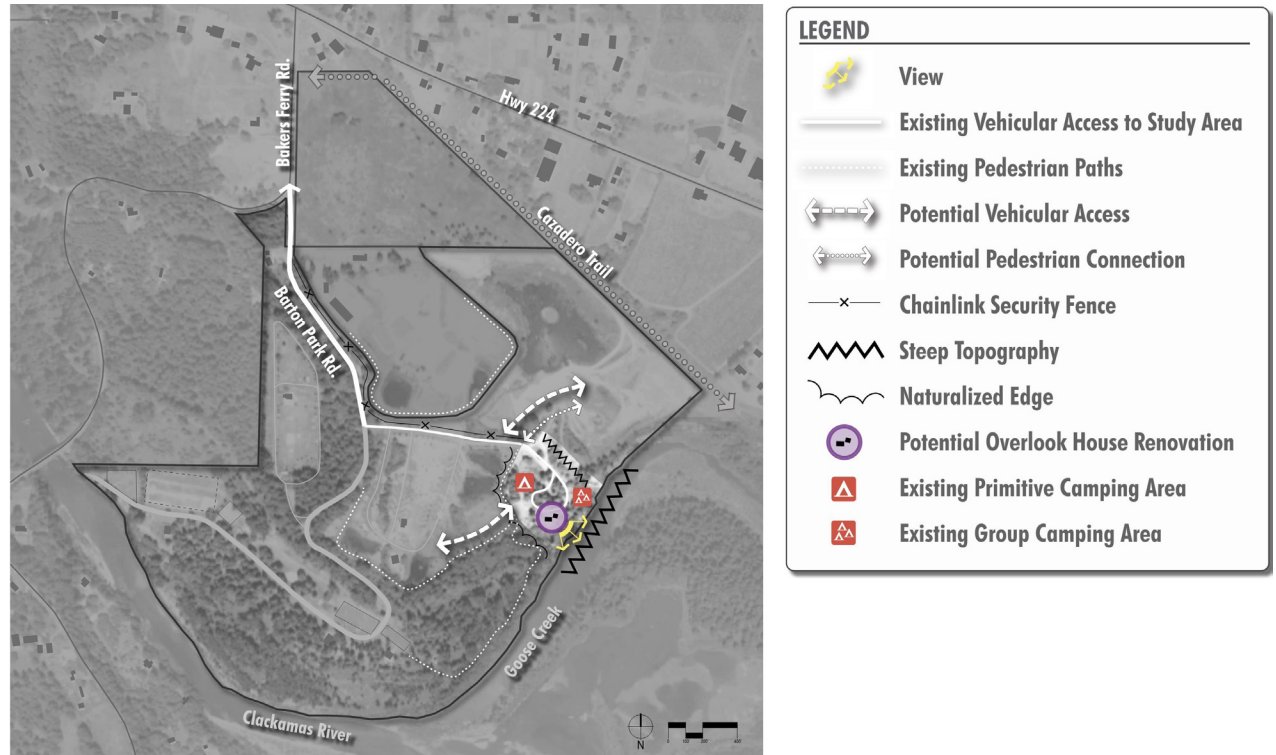


Figure 3-12. Opportunity and Constraints in Overlook Property



View of Goose Creek from Overlook Property



Interior of Overlook House

Quarry Site

Opportunities

- The site is large and open, providing capacity for varied uses.
- Because the Cazadero Trail abuts the property along the north side, the site is a good alternative as a regional trailhead for bikers, hikers, and equestrian users.
- The pond provides a focal point if restored for recreational uses (swimming, fly casting, warmwater fishing, boardwalk, non-motorized boating) and wildlife habitat (Western Pond turtles)
- Ample space to provide an overflow parking area for summer river floaters and shuttle.
- There are few cabin and yurt camping opportunities along the Clackamas River. The addition of these amenities could increase shoulder season revenue.
- Potential for other camping opportunities including; group camping, equestrian facilities, primitive camp sites, and hiker/biker camping.
- An enhanced trail system could provide educational opportunities, overlooks, and picnic areas and shelters.
- Possible trail connections to Day Use Area along the river.
- Good views of Goose Creek/River Island from the bluff.

Constraints

- Significant grade change at pond and property boundaries.
- Issues with vehicular access and circulation through DTD and/or Metro properties (need

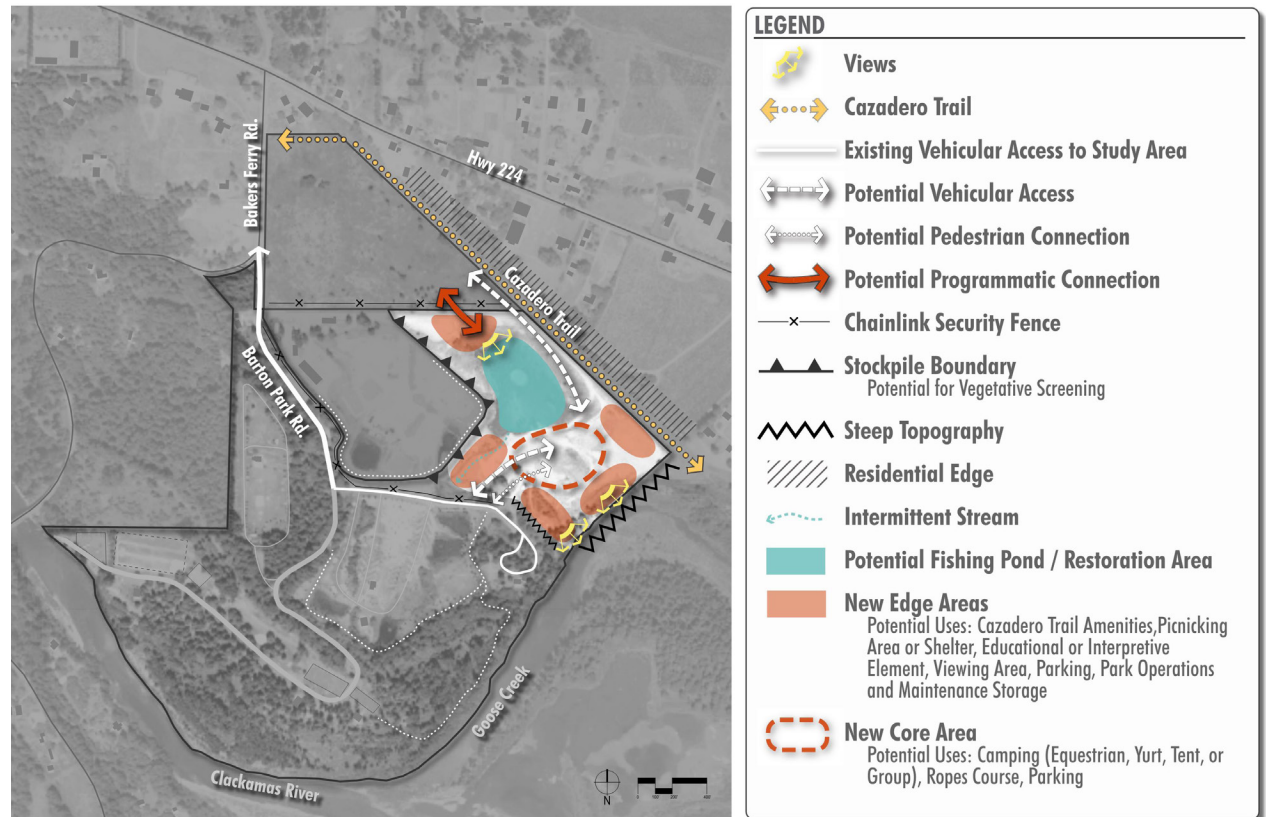


Figure 3-13. Opportunity and Constraints in Quarry Area

- to minimize overlap with park user traffic) or via East Campground road (need to minimize impacts to campground user experience)
- Expanded uses would require new, costly utility infrastructure.
- Exposed sites; minimal canopy coverage.
- Past mining operations, requires significant restoration work in uplands and pond.
- Invasive species removal requires significant work to remove and manage.
- Steep cliff along east side is a potential safety hazard and landslide risk – a geotechnical investigation is recommended prior to future development.



Steep and uneven topography at Quarry

Cazadero Natural Area

Opportunities

- Proximity offers good trailhead location for Cazadero Trail (trailhead, parking lot, hiker-biker campsites)
- Adjacency to Barton Quarry provides sense of larger park feel.
- Large space for upland forest restoration north of Barton Park provides core habitat opportunities and wildlife connectivity.
- Potential for non-vehicular connectivity from Barton Park to Barton General Store.

Constraints

- Property owned by Metro. Parameters established by County IGA with Metro may limit types of development. See Appendix F2.
- Lack of roads through site for vehicular connection to Quarry Site.
- Proximity to private properties and Highway 224 to the north detract from sense of privacy and solitude for camping.

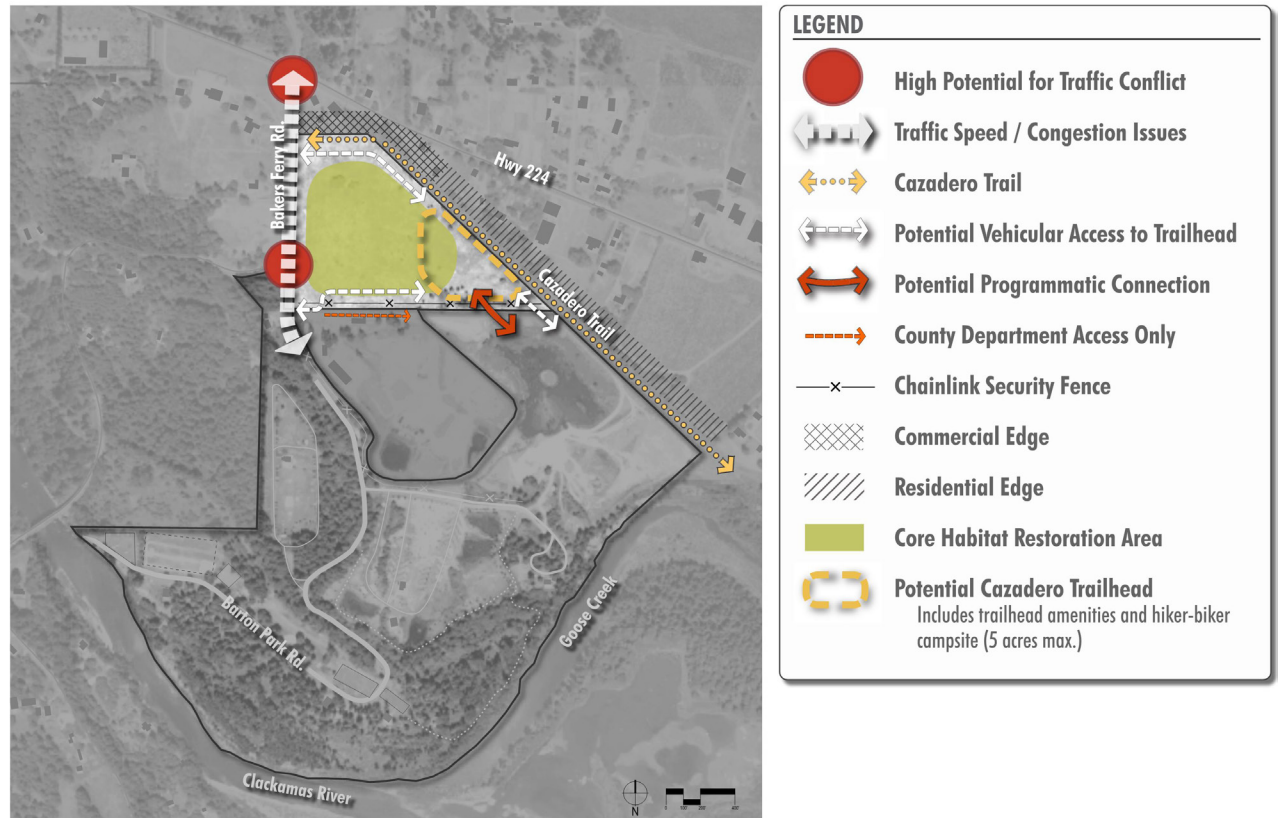


Figure 3-14. Opportunity and Constraints in Cazadero Natural Area



Restoration in progress in Cazadero Natural Area



Cazadero trail at Baker's Ferry Road



Park Entrance at Baker's Ferry Road

Carver Boat Launch

Opportunities

- Improve/formalize shuttle pick-up area.
- Provide queuing zone for floaters waiting for shuttle.
- Potential to expand overflow parking in open grassy areas, or with removal of caretaker house.
- Close parking during peak season to require shuttle use for river users.
- Naturalize riverbank to improve fish habitat.

Constraints

- Limited opportunities for additional parking to meet demand.
- No turn lanes on Springwater Road creates traffic conflicts.
- Peak season use creates congestion on the surrounding roads.
- Springwater Road has no sidewalks and is dangerous for pedestrians who park outside of the park.
- Parking lot is in floodplain.
- Limitations based on agreements between the County and Oregon Marine Board.

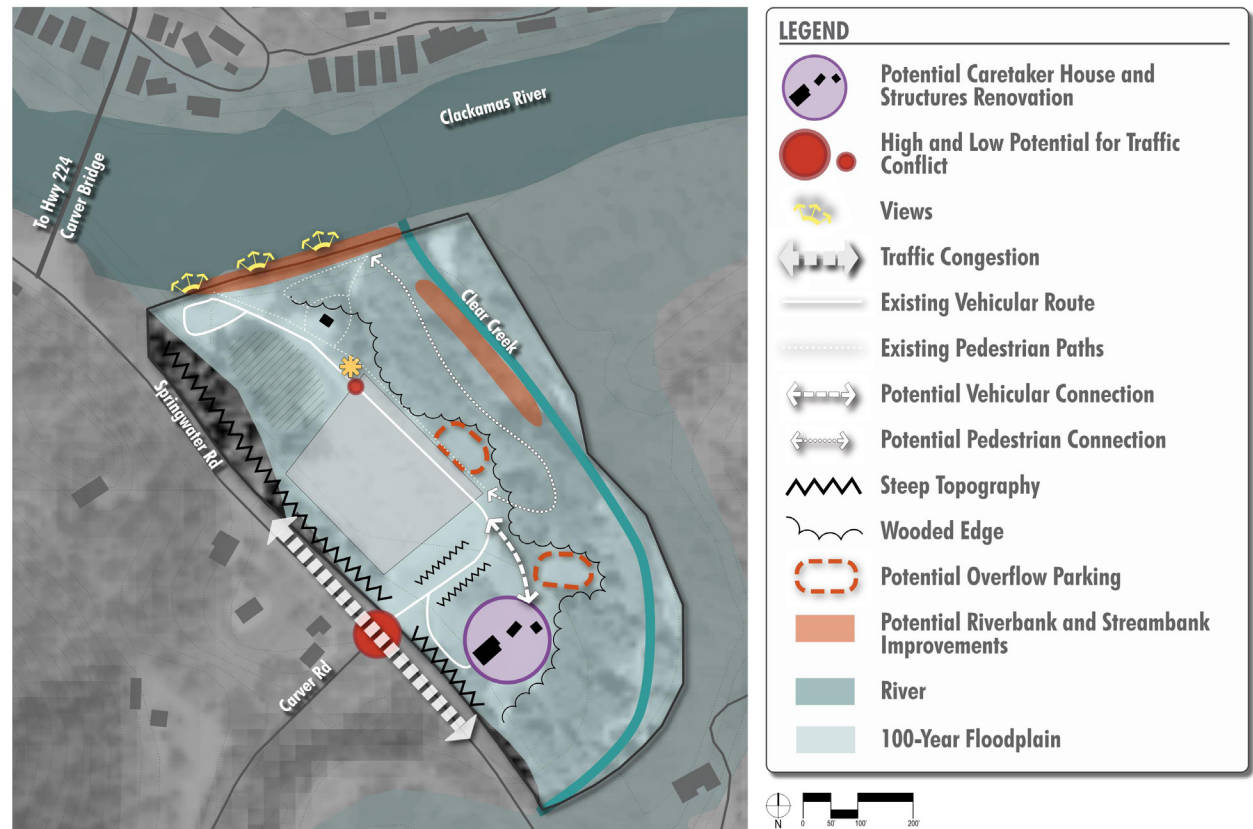


Figure 3-15. Opportunity and Constraints at Carver Park



Parking lot fills with non-boat-towing vehicles in summer



Riverbank lacks vegetation due to high recreation use



4. DESIGN ALTERNATIVES

4.1 PRELIMINARY DESIGN ALTERNATIVES

The Design Team, with County staff input, prepared two preliminary design options based on information and feedback from Working Group meetings and the first open house. Each option presented at the third Working Group meeting illustrated a range of appropriate development options that varied overnight use versus day use elements and included differences in existing and proposed vehicular circulation. Both options included common elements of vehicular circulation, trailhead parking for the Cazadero Trail, cabins and yurts, group camping, hiker/biker camping, primitive camping, trails, and support facilities such as restrooms and picnic shelters, and landscape restoration. The scale and location of these features varied with each option depending on focus.

The following section describe the primary features of each of the two alternatives:

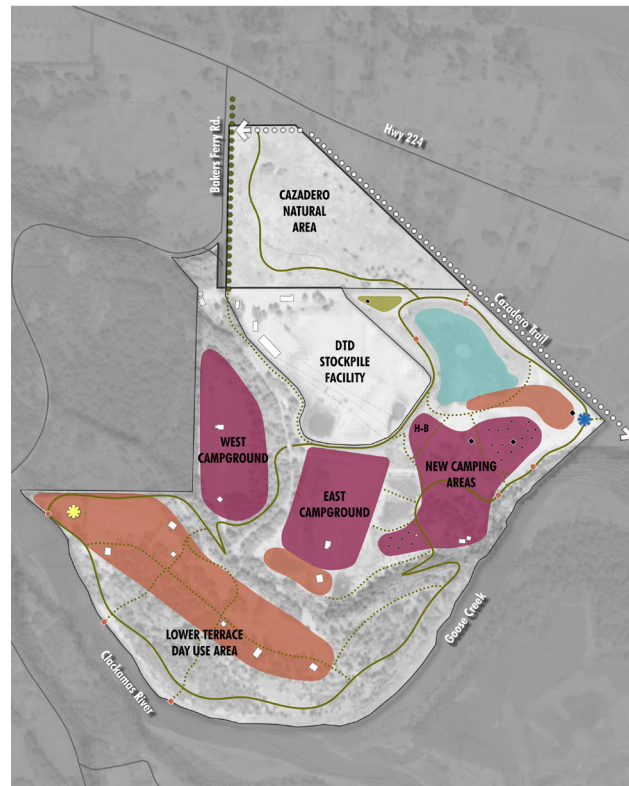
Option A

Option A provides a minimal amount of circulation changes and a greater amount of proposed overnight uses compared to Option B. The internal vehicular circulation largely remains intact, focused on providing 2-way

access to the Quarry Site along the existing road between the East Campground and Barton Stockpile. The existing ticket booth remains at its current location with an additional by-pass lane and ticket booth added to mitigate congestion coming into the park on busy weekends.

The Overlook Site and much of the Quarry Site includes ample space for the camping types

lacking in the current park including cabins, yurts, group campgrounds, and primitive camping sites. The Cazadero Trailhead access and parking lot is in the NE corner of the site providing access to the trail without the need to incorporate a road through the Cazadero Natural Area.



Figures 4-1 and 4-2. Programming and Circulation for Option A



Figure 4-3. Overall Concept for Option A



LEGEND

E = Existing; P = Proposed

- Day Use Area**
- Overnight Area**
- Park Storage Area**
- Pond**
- Parking Lot**
- Overflow Parking**
- Property Boundary**
- Cazadero Trail**
- Primary Road**
- Secondary Road**
- DTD and Park Staff Road**
- Primary Pedestrian Trail**
- Secondary Pedestrian Trail**
- Paved Multi-use Path**
- 10' Contours**
- Roundabout**
- Expanded Ticket Booth**
- Shuttle Dropoff (Pickup)**
- Cazadero Trailhead**
- Viewing, Interpretive, or River Access Area**
- Existing Building**
- Proposed Building**

PROGRAM KEY

- 1 Hiker-Biker (H-B) Camping**
Restroom; Picnic Shelter and Tables; Water; Fix-it Station; Fire Rings; Solar Charging Station; Bike Racks
- 2 Cabins/Yurts**
Cabin and/or Yurt Structures; Water; Electricity; Parking; Bike Racks
- 3 Primitive Camping**
Restroom; Picnic Shelter and Tables; Water; Electricity; Fire Rings
- 4 Group Camping**
Restroom; Water; Electricity; Parking; Fire Rings; Picnic Tables
- 5 Pond**
Restoration and Invasive Species Management; Dock; Viewing Areas with Seating; Picnic Tables
- 6 Cazadero Trailhead**
Restroom; Water; Parking; Trailhead Kiosk; Bike Racks; Fix-it Station
- 7 Lower Terrace Play Area**
Adventure/Nature/Water Play; Bike Racks

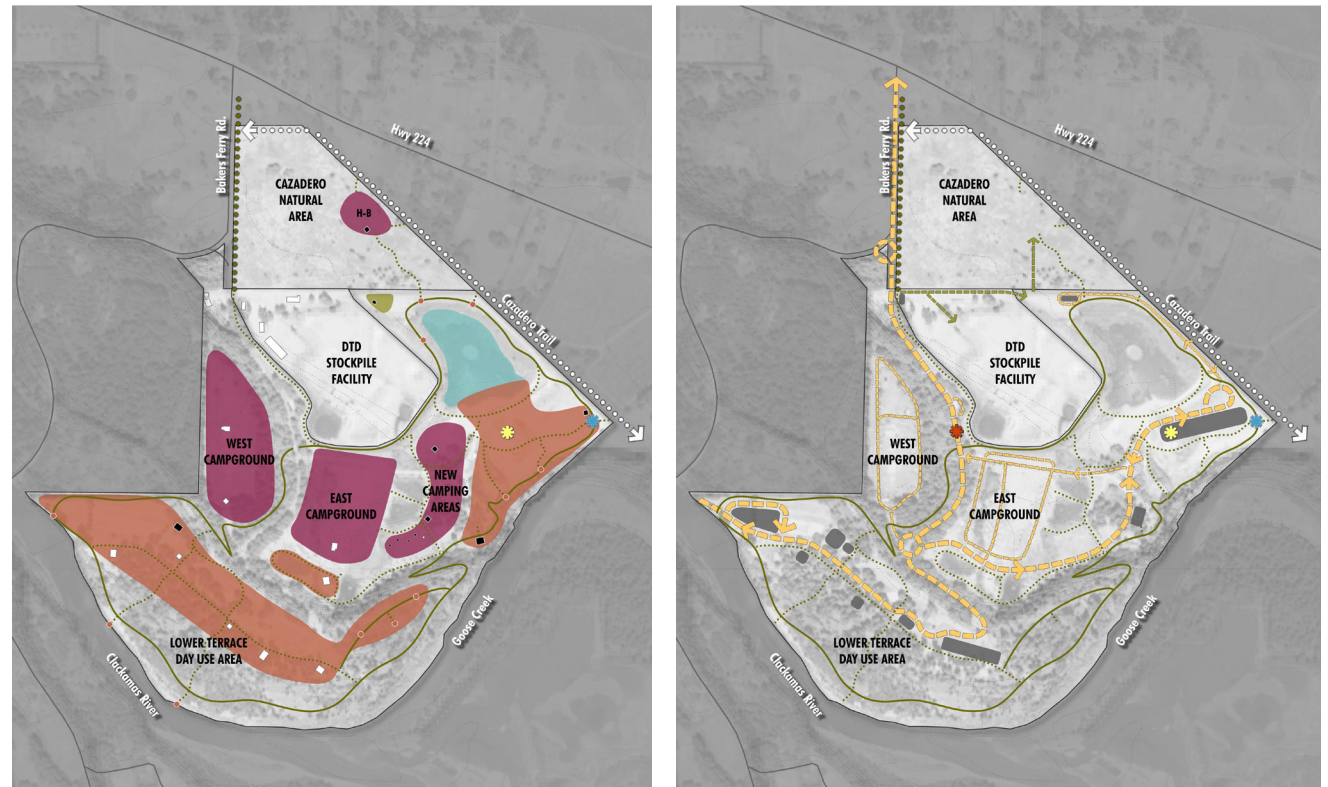
CIRCULATION KEY

- A Park Entrance**
Realignment with roundabout or additional turning lane
- B Ticket Booth**
Relocate existing booth; Add additional lane and ticket machine
- C Turn Around Area**
Close existing Dump Station; Adjust turning radius
- D Dump Station**
New Dump Station; Size for large RV/trailer use

Option B

Option B has more proposed day uses in the east study areas and significant circulation changes to the existing roadways based on expected increase in use. Option B provides a roundabout in the middle of the park to simplify the vehicular intersection and decision making along Barton Park Road. The roundabout provides a new entrance to the East Campground as well as maintains the current entrance to the West Campground. A two-way road along the southern end of the East Campground to the Quarry Site and a one-way, exit only, along the north side of the East Campground are included.

Option B proposes replacing the house at the Overlook Property with a Nature Education Center providing educational opportunities for campers and as a draw for day users to the park. The Quarry Site includes space for picnicking, hiking, and enjoying the restored pond and views to Goose Creek. The parking lot at the Quarry Site provides access to the Cazadero Trail with space for habitat enhancements between the restored pond and Goose Creek.



Figures 4-5 and 4-6. Programming and Circulation for Option B



Figure 4-7. Overall Concept for Option B

LEGEND

E = Existing; P = Proposed

- Day Use Area**
- Overnight Area**
- Park Storage Area**
- Fishing Pond**
- Parking Lot**
- Property Boundary**
- Cazadero Trail**
- Primary Road**
- Secondary Road**
- DTD and Park Staff Road**
- Primary Pedestrian Trail**
- Secondary Pedestrian Trail**
- Paved Multi-use Path**
- 10' Contours**
- Roundabout**
- Expanded Ticket Booth**
- Shuttle Dropoff (Pickup)**
- Cazadero Trailhead**
- Viewing, Interpretive, or River Access Area**
- Existing Building**
- Proposed Building**

PROGRAM KEY

- 1 Hiker-Biker (H-B) and Primitive Camping**
 Restroom; Picnic Shelter and Tables; Water; Fix-it Station; Fire Rings; Bike Racks
- 2 Equestrian Camping**
 Restroom; Picnic Shelter and Tables; Water; Electricity; RV Hookups; Horse Trailer Parking; Horse Corral; Hitching Post; Mounting Block; Fire Rings
- 3 Group Camping**
 Restroom; Water; Electricity; Parking; Fire Rings; Picnic Tables
- 4 Cabins/Yurts**
 Cabin/Yurt Structures; Restroom; Water; Electricity; Parking; Bike Racks
- 5 Pond**
 Restoration and Invasive Species Management; Dock; Viewing Area with Seating; Picnic Tables
- 6 Quarry Day Use and Cazadero Trailhead**
 Restroom; Water; Parking Day Use; Picnic Shelter and Tables; Pedestrian/Equestrian Trails; Viewing Areas with Seating; Open Lawn Cazadero Trailhead; Trailhead Kiosk; Fix-it Station; Bike Racks
- 7 Overlook Day Use Area**
 Nature/Education Center; Parking; Viewing Area with Seating; Bike Racks
- 8 Nature Walk Area**
 Boardwalk; Viewing Areas with Seating
- 9 Lower Terrace Play Area**
 Adventure/Nature/Water Play; Bike Racks
- 10 Picnic Area**
 Picnic Shelter and Tables; Water; Electricity

CIRCULATION KEY

- A Park Entrance**
 Realignment with roundabout or additional turning lane
- B Turn Around Area**
 Close existing Dump Station; Adjust turning radius
- C Ticket Booth**
 Relocate existing booth; Add additional lane and ticket machine
- D Dump Station**
 New Dump Station; Size for large RV/trailer use

4.2 CAZADERO NATURAL AREA OPTIONS

Metro's Cazadero Natural Area (CNA) was included in the planning effort as a potential site designating 5-acres for primitive hiker-biker campsites and trailhead for the Cazadero State Trail. Early in the design process, an alternative showed the hiker-biker campsites in the CNA, but it was agreed upon by both Metro and Clackamas County that it made the most sense to include the trailhead and hiker-biker camp within the Quarry Site for ease of management, security, and maintenance. The project team felt the type of camping experience and trailhead amenities inside Barton Park represented a safer, high quality user experience that could be flexible and offer a wider range of uses as the Cazadero Trail develops in the future.

4.3 TRANSPORTATION OPTIONS

Kittleson & Associates provided professional traffic and transportation services throughout the process regarding vehicular circulation routes in the alternatives as well as the configuration and operation of the Barton Park Road intersection with Bakers Ferry Road. A roundabout at this intersection is the preferred recommended solution. Preliminary roundabout options are included in Figure 4-8. The roundabout option presented safety and clarity issues that the current configuration lacks, but could encroach on Metro's Cazadero Natural Area and the Oregon Department of Transportation facility across Bakers Ferry Road. A separate effort outside the scope of this master plan will be needed to further study the intersection from an engineering and right of way perspective. If the result continues to encroach on the CNA, Metro should be involved early to obtain necessary approvals.

The two design options also explore a more extensive pedestrian and trail system to attract more day users and provide an amenity for overnight use. An offsite multi-use pathway is included in both schemes along the east side of Bakers Ferry Road to provide direct pedestrian and bicycle connections to the park from the intersection of Highway 224 where the Barton General Store is located.

With a shuttle analysis being conducted concurrently, the two options explored the implications of a shuttle drop-off and pickup locations for the Barton to Carver connections. Option A assumed overflow parking for summer river users and shuttle drop-off would occur in its existing location near the boat launch. Option B looked at relocating the overflow parking to the Quarry Site. Because of the distance from the Quarry Site to the boat launch, relocating the overflow parking would require an additional leg of shuttle service, which was not seen as a favorable option by the County Staff.

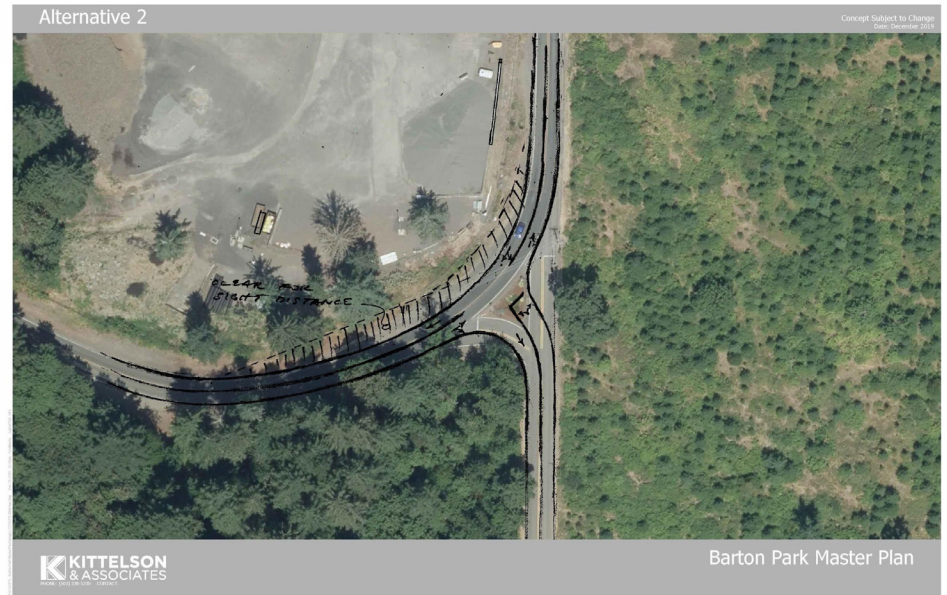


Figure 4-8. Road Options at Barton Park Entrance



5. MASTER PLAN

5.1 MASTER PLAN

Findings from the open house, online survey, Pedestrian and Bikeway Advisory Committee, Parks Advisory Board and feedback from the County and Working Group contributed to the development of the Master Plan (Figure 5.4). The Master Plan is a combination of overnight and day use recreation and habitat opportunities, as well as safety and transportation improvements, and management operations identified early in the process as goals for the project.

The Master Plan for the Barton Park Complex includes the following core elements:

Day Use

Day use areas at Quarry Pond and Cazadero Trailhead include:

- A beach and dock along the south side of the pond.
- Terraces overlooking the pond with benches, rentable picnic shelters, picnic tables, and flexible open lawn areas.
- An enhanced pond accommodating swimming and small non-motorized boats with the potential for stocked fish. Enhancements include natural elements that contribute to Western Pond turtle habitat.

The day use parking lot includes 107 standard stalls, 5 ADA stalls, 5 horse trailer spaces, a loading zone, and stormwater facilities. The parking lot design accommodates phased construction based on future demands of the Cazadero Trail.

Amenities at the trailhead include restrooms, an information kiosk, bike racks, a bike fix-it station, trash receptacles, and a drinking fountain.

Access to the Cazadero Trail is provided from multiple areas of the parking lot: a primary route is located near the restroom for direct access to the trail, parking lot, and day use area. A secondary route is located by the horse trailer parking area to reduce conflict with pedestrians and bicyclists.



Boring Station Trailhead along Springwater Corridor



Fishing Dock

Trail System

In response to the Oregon Parks and Recreation Department's (OPRD) Statewide Comprehensive Outdoor Recreation Plan (SCORP) survey and the public online survey for this project, the plan greatly expands the current trail system. The plan provides a hierarchy of paths creating multiple loop options for recreational use and safe means for getting around the park without the use of a car. A 10-foot wide multi-use, paved path extends south from the park entrance at Barton Park Road and provides direct connection from the Cazadero Trail to the new day use facilities as well as the hiker-biker campsites south of the pond. The path includes access to the pond and beaches as sitting areas for resting and enjoying views of the pond.

A 5-foot wide looped hiking path connects the Quarry Site, Overlook Site, East and West Campgrounds, and South Day Use Area. This pathway provides slopes not to exceed 5% and surfaced with compacted gravel to comply with accessibility guidelines. This hiking trail provides users a "wilder" experience and explores the different natural habitats of the park from upland forest to riparian forest, to the river's edge. Benches and overlooks are located along the path at key viewing spots overlooking Goose Creek as well as the Clackamas River, and offer spectacular views as well as educational opportunities about the restoration efforts at River Island and significant species in the Clackamas River.

A more detailed analysis of the topography, vegetation, and sensitive areas along the trail route is required to identify an optimum trail

alignment. Tradeoffs may be required between accessibility, tree removal, and major earthwork costs along the steep slopes between the upper and lower portions of the park.

A new multi-use pathway is included on the east side of Baker's Ferry Road. This paved path is separated from the road to provide safe access along Baker's Ferry Road between the park and the Barton General Store at Highway 224. The path could potentially be located in the Baker's Ferry Road right-of-way or on the periphery of the Cazadero Natural Area (CNA) requiring the County to work with Metro to establish a pedestrian easement. Once north of the CNA, the multi-use path could be combined with the Cazadero Trail. The Cazadero Trail crossing at Highway 224 will require separate planning and traffic engineering effort in conjunction with key stakeholders including Clackamas County, OPRD, Metro, and ODOT. More information on the Cazadero State Trail can be found in Appendix F3.



Paved Trail



Hiking Trail



Multi-use Trail

Overnight Use

Given high interest in camping, several areas are proposed for new types of overnight camping and lodging that are currently lacking at the park.

South of the pond, a cabin loop includes six small cabins, two large cabins, and a centrally-located shared restroom with showers. An open lawn area separates the cabin loop from group tent camping areas to the west and serves as flexible open space for overnight or day users.

There are six total campsites in the group camping area that share a restroom and shower facility and can be used as hiker-biker campsites as demand for increases with the Cazadero Trail. The two largest campsites can accommodate up to five and ten tents, respectively, and include picnic shelters, picnic tables, tent pads, a firepit, bike racks, and designated parking spaces. The four smaller campsites can accommodate up to four tents and each include a firepit and bike rack. A central picnic shelter with picnic tables serves as a gathering area for the four smaller group sites.

To facilitate ease of management and surveillance, the hiker-biker camp sites are incorporated into the park and could also serve as non-biker sites depending on demand.

South of the new park road, a small parking lot serves five, walk-in primitive campsites that share a single vault toilet. These sites will have their own picnic table, tent pads, and fire rings.

At the Overlook Property, the house is renovated for overnight lodging and facilities to serve as a hub for group events. The garage is converted into a grange-like facility that serves as additional rentable space. Existing primitive campsites are removed and replaced with eight cabin sites with a shared central restroom/shower. The lodge, cabins, and grange can all be rented for a single event offering a unique experience that could expand mid-week and shoulder season use.

Adjacent to and accessed from the existing East Campground area, eight yurts with a shared vault toilet provide more overnight options that could extend into the shoulder seasons. The existing bunkhouse can either remain or be removed.



Group Camping



Primitive Camping



Cabin at Stub Stewart State Park

Vehicular Circulation

The plan identifies improvements to the park entry at the intersection of Barton Park Road and Bakers Ferry Road. To improve safety and system operations, the Master Plan recommends a roundabout at this intersection. Final roundabout design and engineering is outside the scope of the Master Plan and will be required in the future.

The existing parking lot in front of the Ranger Station has several safety issues. First, the entire parking area is open to Barton Park Road which does not promote the control of vehicular movements. Second, the parking lot is open to DTD access which creates vehicular conflicts with county vehicles entering the DTD site. Third, the parking lot is used as a turn-around spot for vehicles when the park closes during peak use

times, which it is not adequately sized or designed to function in that manner.

This plan identifies resolving these issues by adding a buffer strip to close off the parking lot along Barton Park Road and adding a one way access drive and angled parking so cars can enter from the south and exit to the north. These modifications are shown in Figure 5-1.

The plan keeps the current ticket booth, and adds an additional lane and ticket booth to expedite entry and alleviate congestion on busy days. The dump station is proposed to be north of the East Campground to offer more direct access for RV users. An RV dump station for the West Campground should be considered. The current dump station would then become a formal turn-around spot for people not intending on entering the park.

The existing East Campground road is extended to the proposed developments in the Quarry and Overlook sites. The road follows the alignment of the current maintenance access curving around the base of the existing mound and ending at the Day Use Area and Cazadero Trailhead parking lot. Each of the overnight zones have access from this road along with off-street parking offering privacy for camping and reducing vehicular conflicts with day users.

In the lower Day Use Area, the road is realigned to consolidate the two existing parking areas at Shelters 1 and 2 into one lot. Other parking lots are proposed for picnic areas to eliminate on-street parking from along the road. A seasonal road around the existing overflow parking lot reduces congestion and pedestrian-vehicular conflicts during peak use times.



Forested Road

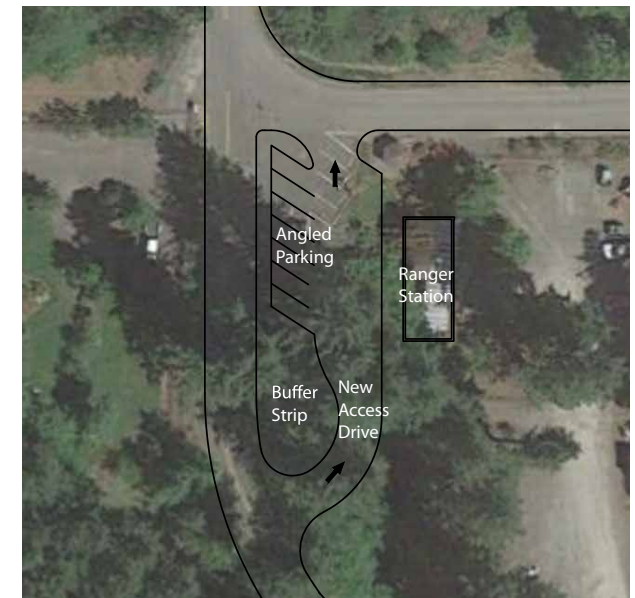


Figure 5-1. New Circulation at Ranger Station

Park Storage

North of the Quarry pond, a gravel pad with a building is reserved for County Park storage. Access to the fenced storage area is proposed from the DTD stockpile site. An additional access point from the Quarry site offers more direct connections to the new amenities for maintenance storage.

Shuttle Service

Shuttle service was studied to consider how to better manage use by river-floaters that come to Barton Park. Several options were explored as outlined in Appendix D3. By keeping the overflow parking near the boat launch at Barton Park, the County can test different models of shuttle service without having to take risks by establishing wholesale changes to the park or management. The vehicular circulation changes, proposed pedestrian paths, and overflow parking road make the park more conducive to a shuttle service as well and to access to the river and boat launch for overnight users by foot.

Restoration

Landscape restoration in the new portions of the park enhance the user experience and improve wildlife habitat and connectivity. Buffer areas between uses and around the fringes of the Quarry Site propose contiguous landscape patches of native trees and groupings of native understory plantings. Plantings closer to amenities include visual openings and areas with only trees with rough lawn beneath that provide beneficial

canopy and shade for users.

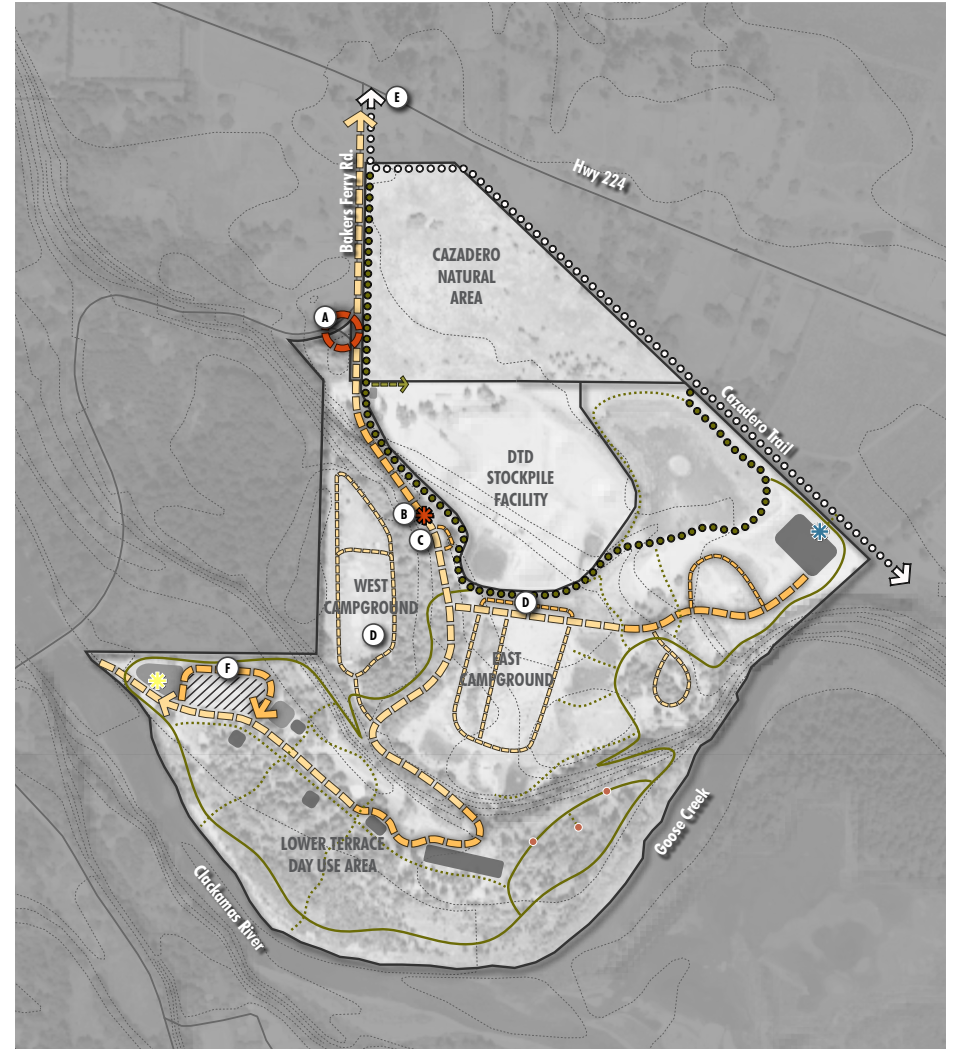
The pond is considered for both recreation and wildlife habitat. Because of its condition, an additional study outside the scope of this master plans is needed to address restoring the pond while achieving a balance between safe recreational use and a functional wildlife habitat that could support Western Pond turtles. Further discussions about restoration are outlined in Chapter 6 of this report.



Western Pond Turtles



Pacific NW Forest



Figures 5-2 and 5-3. Programming and Circulation for Master Plan



Figure 5-4. Overall Concept for Master Plan

LEGEND

E = Existing; P = Proposed

| | |
|--|---|
| E P | Day Use Area |
| E P | Overnight Area |
| | Park Storage Area |
| | Pond |
| E P | Parking Lot |
| / / / / | Overflow Parking |
| — | Property Boundary |
| ◁ ○ ○ ○ ▷ | Cazadero Trail |
| E P | Primary Road |
| E P | Secondary Road |
| — — — — | DTD and Park Staff Road |
| — — — — | Primary Pedestrian Trail |
| ⋯ ⋯ ⋯ ⋯ | Secondary Pedestrian Trail |
| ● ● ● ● | Paved Multi-use Path |
| ⋯ ⋯ ⋯ ⋯ | 10' Contours |
| ○ | Roundabout |
| * | Expanded Ticket Booth |
| * | Enhanced Shuttle Dropoff Area |
| * | Cazadero Trailhead |
| ● | Viewing, Interpretive, or River Access Area |
| E P | Restroom Building |
| E P | Picnic Shelter |
| □ | Cabins/Yurts |
| E P | Other Buildings |

PROGRAM KEY

- 1 Hiker-Biker (H-B) and Group Camping**
Shared Restroom; Picnic Shelter and Tables; Water; Fix-it Station; Fire Rings; Solar Charging Station; Bike Racks
- 2 Cabins/Yurts**
Shared Restroom; Cabin and/or Yurt Structures; Water; Electricity; Parking; Bike Racks
- 3 Primitive Camping**
Shared Restroom; Host Site; Picnic Shelter and Tables; Water; Electricity; Fire Rings
- 4 Overlook Lodge**
Renovated to support overnight lodging; Restroom; Host Site; Water; Electricity; Parking; Bike Racks
- 5 Pond Day Use Area**
Shared Restroom; Small Picnic Shelters and Tables; Dock; Viewing Areas with Seating; Bike Racks; Restoration and Invasive Species Management
- 6 Cazadero Trailhead**
Shared Restroom; Water; Parking; Trailhead Kiosk; Bike Racks; Fix-it Station
- 7 Lower Terrace Play Area**
Adventure/Nature/Water Play; Bike Racks
- 8 Pavilion**
Permanent Structure; Water; Electricity; Parking; Bike Racks

CIRCULATION KEY

- A Park Entrance**
New roundabout and road realignment
- B Ticket Booth**
Relocate existing booth; Add additional lane and ticket machine
- C Turn Around Area**
Close existing Dump Station; Adjust turning radius
- D Dump Station**
New Dump Station; Size for large RV/trailer use
- E Cazadero Trail at Hwy 224**
Approach and crossing should be studied to safely cross highway and connect to trail alignment north
- F Seasonal Road at Overflow Parking**



KEY

- 1 Hiker-Biker and Group Camping**
 Shared Restroom with Showers; Host Site; Picnic Shelter and Tables; Water; Fix-it Station; Fire Rings; Solar Charging Station; Bike Racks
- 2 Cabin Circle**
 (6) 16' x 16' cabins; (2) 16' x 24' cabins; Shared Restroom with Showers; Water; Electricity; Parking; Bike Racks
- 3 Primitive Camping**
 Shared Restroom; Host Site; Picnic Tables; Water; Electricity; Fire Rings
- 4 Overlook Lodging Area**
 Existing house renovated to support overnight lodging; Existing garage converted to event space; (8) 16' x 16' cabins; Shared Restroom with Showers; Host Site; Water; Electricity; Parking; Bike Racks
- 5 Pond Day Use Area**
 Shared Restroom; Small Picnic Shelters and Tables; Dock; Viewing Areas with Seating; Beach; Bike Racks; Restoration and Invasive Species Management
- 6 Cazadero Trailhead**
 Shared Restroom; Water; Parking (5 Horse, 5 ADA & 105 Standard Stalls); Trailhead Kiosk; Bike Racks; Fix-it Station
- 7 Yurt Village**
 Shared Restroom; (8) 16' Dia. Yurts; Water; Electricity; Parking; Bike Racks

Figure 5-5. Illustrative Site Plan of Proposed Overlook Site and Quarry Site Improvements



Figure 5-6. Quarry Site Perspective Looking South from Quarry Pond



6. IMPLEMENTATION

6.1 PHASING

Park development in phases will be completed based on available funding and logical sequencing maximizing resources and minimizing impacts to existing and proposed elements. This process has identified initial phases of implementation focused on restoration of the pond and Quarry Site.

The Quarry Site is severely degraded and needs a lot of work done before it can become a place for people to come and enjoy. Restoration efforts includes invasive species removal, grading, soil amendments, and a variety of methods for landscape plantings on a large scale. Restoration to the site to needs to support the goals for providing a good user experience and wildlife habitat prior to implementing other uses. The site should remain off-limits to the public during restoration to will allow the site to stabilize. Further refinements to the long-term vision for the Quarry site should be considered prior to advancing restoration efforts. This includes taking the Quarry Site to a 30% design refinement level to better establish the scale and location of future built elements and grading and drainage changes required.

Once the site is established the County could implement the Day Use amenities and/or overnight zones in phases or a single project. Individual elements of the overnight zones could also be built in phases; for example, two group campsites could be constructed before the entire build-out to slowly bring on elements as funds are available.

6.2 ADDITIONAL CONSIDERATIONS

Regulatory considerations that may impact the project's timeline are described below:

WATER RESOURCES

Section 404 of the Clean Water Act gives the US Army Corps of Engineers regulatory authority over natural waterways and wetlands. In Oregon, the Department of State Lands also regulates wetlands and waters of the state. For these reasons, Section 404 permits are be required before altering existing wetlands and streams.

Because the lower day use area is within the existing 100-year floodplain, any of the proposed improvements in that area will need to follow the State of Oregon and National Flood Insurance Program (NFIP) minimum standards for floodplain management.

6.2 PROJECT COSTS

The preliminary cost estimate for development of the Barton Park Master Plan is based on the approximate costs of features used as precedent imagery throughout the public engagement process. These precedents established a range of unit costs of materials needed for the construction estimate based on 2020 dollar values.

The costs of development in the estimate include soft costs such as design and permitting fees and 30% contingency allowances for variations in market construction costs. The estimated cost for park all the features as shown below in Figure 6-1 is \$16,683,804 based on 2020 costs.

| Item | Estimated Costs | | | | | | | | | | | Item |
|------------------------------|------------------|----------------------------|------------------------|------------------|--------------------|--------------------|-------------------|--------------------|------------------|--------------------|--------------------|---------------------|
| | ACCESS ROAD | CAZADERO TRAILHEAD PARKING | QUARY SITE RESTORATION | POND DAY USE | CABIN LOOP | GROUP CAMPING | PRIMITIVE CAMPING | OVERLOOK PROPERTY | YURT VILLAGE | HIKING TRAIL | LOWER DAY USE AREA | |
| Site Clearing | \$38,719 | \$122,293 | \$231,672 | \$43,081 | \$113,096 | \$73,003 | \$41,927 | \$106,915 | \$43,598 | \$71,972 | \$142,462 | Site Clearing |
| Earthwork | \$28,000 | \$94,300 | \$396,000 | \$28,000 | \$63,000 | \$82,600 | \$70,000 | \$24,000 | \$24,000 | \$71,820 | \$424,000 | Earthwork |
| Utilities | \$60,000 | \$83,300 | | \$3,600 | \$45,400 | \$49,000 | \$6,500 | \$23,000 | \$6,500 | | \$124,000 | Utilities |
| Paving | \$199,300 | \$384,900 | | \$69,000 | \$46,200 | \$74,940 | \$28,048 | \$100,640 | \$45,000 | \$435,800 | \$124,000 | Paving |
| Structures | | \$250,000 | | \$220,000 | \$770,000 | \$335,000 | \$75,000 | \$845,000 | \$220,000 | | \$60,000 | Structures |
| Furnishings | | \$27,500 | | \$63,000 | \$20,000 | \$26,500 | \$14,500 | \$14,000 | \$19,000 | \$35,100 | \$60,000 | Furnishings |
| Irrigation | | \$29,500 | | | | | | | | | \$96,000 | Irrigation |
| Planting | \$2,000 | \$97,000 | \$240,000 | \$4,700 | \$14,820 | \$96,800 | \$50,900 | \$6,000 | \$69,500 | \$0 | \$300,000 | Planting |
| Soil Preparation | | \$55,650 | \$293,778 | \$7,600 | \$2,300 | \$20,000 | \$8,000 | \$1,400 | \$18,250 | \$0 | \$500,000 | Soil Preparation |
| Sub Total | \$328,019 | \$1,144,443 | \$1,161,450 | \$438,981 | \$1,074,816 | \$757,843 | \$294,875 | \$1,096,955 | \$445,848 | \$614,692 | \$1,830,462 | \$9,188,385 |
| Estimating Contingency (30%) | \$98,406 | \$343,333 | \$348,435 | \$131,694 | \$322,445 | \$227,353 | \$88,463 | \$329,086 | \$133,755 | \$184,408 | \$549,139 | \$2,756,515 |
| Total Hard Cost | \$426,425 | \$1,487,776 | \$1,509,885 | \$570,675 | \$1,397,261 | \$985,196 | \$383,338 | \$1,426,041 | \$579,603 | \$799,100 | \$2,379,601 | \$11,944,900 |
| Additional Costing Factors | \$90,534 | \$315,870 | \$320,564 | \$121,160 | \$296,653 | \$209,167 | \$81,386 | \$302,763 | \$123,055 | \$169,657 | \$521,773 | \$2,552,582 |
| Soft Costs | \$77,544 | \$270,547 | \$274,567 | \$103,775 | \$254,087 | \$179,154 | \$69,709 | \$259,321 | \$105,399 | \$145,314 | \$446,906 | \$2,186,322 |
| TOTAL | \$594,503 | \$2,074,193 | \$2,105,016 | \$795,610 | \$1,948,001 | \$1,373,518 | \$534,433 | \$1,988,124 | \$808,057 | \$1,114,070 | \$3,348,280 | \$16,683,804 |
| GRAND TOTAL | | | | | | | | | | | | \$16,683,804 |

Note: The values above are based on 2020 dollars. Each zone should be reevaluated based on refinements to the design and inflation.

| | |
|--|-----------------------------------|
| <u>Additional Costing Factors Include:</u> | <u>Soft Cost Include:</u> |
| General Conditions (10%) | Internal Staffing/Management (3%) |
| G.C. Bond & Insurance (3%) | Permitting (2%) |
| G.C. Overhead & Profit (7%) | Design and Engineering (10%) |

Figure 6-1. Project Cost Summary

