Bend Metro Park & Recreation District

June 17, 2025

Board of Directors

Agenda and Reports

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Bend Park & Recreation DISTRICT

play for life

Bend Park & Recreation DISTRICT

Our Vision

To be a leader in building a community connected to nature, active lifestyles and one another.

Our Mission

To strengthen community vitality and foster healthy, enriched lifestyles through parks, trails and recreation.

Our Community Pledge

To reflect our community, welcome and serve equitably, and operate with transparency and accountability.

We Value

COMMUNITY by interacting in a responsive, considerate and efficient manner to create positive patron experiences and impact in the community.

INCLUSION by reducing physical, social and financial barriers to our programs, facilities and services, and making them more equitable for all.

SAFETY by promoting a safe and healthy environment for all who work and play in our parks, trails, facilities and programs.

STAFF by honoring the diverse contributions of each employee and volunteer, and recognizing them as essential to accomplishing our mission.

SUSTAINABILITY by fostering a balanced approach to fiscal, environmental and social assets to support the health and longevity of the district, the environment and our community.

play for life

District Office
799 SW Columbia St., Bend, Oregon 97702 | www.bendparksandrec.org | (541) 389-7275

Board of Directors

June 17, 2025

District Office Building | 799 SW Columbia | Bend, Oregon

AGENDA

3:00 pm EXECUTIVE SESSION

The board will meet in Executive Session prior to the regular meeting pursuant to ORS 192.660(2)(i) for the purpose of reviewing and evaluating the performance of an officer, employee, or staff member and ORS 192.660(2)(e) for the purpose of discussing real property transactions. If additional time is needed, the board will reconvene the executive session following the regular meeting. This session is closed to all members of the public except for representatives of the news media. News media is asked to contact Sheila Reed to attend sheilar@bendparksandrec.org.

The board will meet at 5:30 pm with virtual links to the regular meeting. The public may provide public input in-person at the meeting or via the virtual Zoom link.

Please use the link below to join the webinar:
https://us02web.zoom.us/j/82090205722?pwd=r2xxgqqqmnmLhVTp9yi3zJyn8cyLI7.1
Passcode:704100

Or Telephone:
1 669 900 6833
Webinar ID: 820 9020 5722
Passcode: 704100

5:30 pm CONVENE MEETING

ROLL CALL

VISITORS

The board welcomes input from individuals at our public meetings about district-related issues. Members of the community who wish to make public comment may attend the meeting in person or virtually. To provide a public comment in person, please fill out one of the brief cards and submit it to staff in the back of the room. To provide public comment virtually, click on the "Raise Hand" option. You will be called into the meeting in the order received. Virtual visitors should turn on their cameras and microphones. All remarks should be limited to 3 minutes or less. If there are questions, follow up will occur after the meeting. Thank you for your involvement.

EMPLOYEE RECOGNITION

Alli Jorgensen, Fitness Supervisor

- Char Schulz

STAFF INTRODUCTIONS

Michelle Healy, Executive Director

- Jase Newton, Recreation Services Director

WORK SESSION

1. CAPRA Update – *Michael Egging (20 min)*
2. Bend Whitewater Park Maintenance Project Update – *Ian Isaacson and Mason Lacy (60 min)*

CONSENT

1. Approve Recreation Programming Plan

BUSINESS SESSION

1. Public Hearing and First Reading of Park Rules and Regulation Ordinance No. 14 – *Julie Brown (20 min)*
2. Approve Athletic Field and Sports Program Guidelines Policy– *Becky Rexford and Matt Mercer (20 min)*

EXECUTIVE DIRECTOR'S REPORT
BOARD MEETING SUMMARY – 6/3/2025
BOARD MEETINGS CALENDAR
GOOD OF THE ORDER
ADJOURN

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Accessible Meeting/Alternate Format Notification

This meeting location is accessible. Sign and other language interpreter service, assistive listening devices, materials in alternate format or other accommodations are available upon advance request. Please contact the Executive Assistant no later than 24 hours in advance of the meeting at sheilar@bendparksandrec.org or 541-706-6151. Providing at least 2 business days' notice prior to the meeting will help ensure availability.

BOARD AGENDA COMMUNICATION

AGENDA DATE:	June 17, 2025
SUBJECT:	CAPRA Update
STAFF RESOURCE:	Michael Egging, Recreation Business Manager
PREVIOUS BOARD ACTION:	None
ACTION PROPOSED:	None
STRATEGIC PLAN:	CAPRA is an evaluation of the district's efforts across all Strategic Plan priorities

BACKGROUND

The district is currently undergoing its reaccreditation process with the Commission for Accreditation of Park and Recreation Agencies (CAPRA). BPRD has been accredited since 2015. CAPRA accreditation is a thorough evaluation, setting qualitative standards that assess all aspects of a park and recreation agency's operations. Reaccreditation is required every five years to maintain our status, with 214 agencies currently accredited nationwide.

The most critical milestone in this process was the development and submission of our Self-Assessment Report, along with electronic documentation of evidence of compliance. We submitted these on April 15, 2025. The self-assessment preparation involves coordinated work across various departments to collect, refine, and document our practices. This ensures consistency and demonstrates compliance with CAPRA's high standards.

We are preparing to host the CAPRA Review Team (CRT) for an on-site visit, scheduled for July 9–10, 2025. During their visit, the CRT will tour district facilities and meet with key staff to validate our report and assess how CAPRA standards are embedded in our day-to-day operations and planning efforts. This visit is a valuable chance to show how we put these standards into practice

Notably, our district is one of only ten agencies nationally invited to beta test CAPRA's revised standards. This is the most significant update to the program since its launch in 1993, aiming to streamline the process, reduce redundancies, and better integrate core values such as diversity, equity, inclusion, and environmental sustainability. By participating in this beta phase, we can help inform updates to the national accreditation standards for park and recreation agencies.

Staff will present a summary of the accreditation standards, the benefits of CAPRA, the efforts made by staff to complete the self-assessment, and the next steps in the process.

BUDGETARY IMPACT

Our status as a beta-testing agency provides a 50% discount on the accreditation review fee, reducing it to $1,875. In addition, the district is responsible for the travel and lodging expenses of

the three review team members, which are estimated at $5,900. Funding for the CAPRA reaccreditation process is included in the administration department budget.

STAFF RECOMMENDATION
None

MOTION
None

ATTACHMENTS
None

BOARD AGENDA COMMUNICATION

AGENDA DATE:	June 17, 2025
SUBJECT:	Bend Whitewater Maintenance Project Update
STAFF RESOURCE:	Ian Isaacson, Project Manager Ryan Richard, River Recreation Specialist
GUEST PRESENTER:	Mason Lacy, Recreation Engineering & Planning
PREVIOUS BOARD ACTION:	None
ACTION PROPOSED:	None
STRATEGIC PLAN:	
Priority:	Service
Goal:	Maintain quality, clean and safe parks, trails and facilities
Strategy:	Take care of what we have by prioritizing investment in existing assets

BACKGROUND

The Bend Whitewater Park (BWP) is nearing 10 years of operation, and the river remains the most dynamic environment within district boundaries. "Taking care of what we have" is a high priority of the community and the district and is an objective included in the district's Strategic Plan. Over the years, the district has seen erosion and scour in the park and because of this, the Bend Whitewater Park Maintenance Project was added to the district's Capital Improvement Plan (CIP) in 2023. (Exhibit B, attached to this board report provides background details about the history and timeline of the development of the Bend Whitewater Park.)

In January 2024, the district hired a team consisting of Recreation Engineering & Planning (REP) – Prime consultant and original whitewater feasibility consultants, ESA – aquatic biology and permitting specialists and BECON – survey and mapping firm to complete a conditions assessment for the whitewater park.

The REP team completed the first survey in February 2024 which included five days of underwater inspection, topographic/bathymetric survey, aerial imaging and document review. Using RTK GPS (Real Time Kinematics, Global Positioning System), drones, and underwater cameras, they captured the first complete picture of the current conditions of the park. REP presented the initial findings to district staff for review and discussion in May 2024.

After the initial survey, REP produced a memorandum in October 2024 providing a hydrological analysis of the BWP because the park's hydraulics depend on the flows of water released from Wickiup Reservoir. The Bend Whitewater Park Maintenance Project - Deschutes River HCP Hydrology Analysis can be found in its entirety as an appendix within the Whitewater Park

Conditions Report attached to this document as Exhibit A). Drawing on 20 years of gage data and the 2020 Deschutes Basin Habitat Conservation Plan (HCP), the memo predicts a new operating band for the Bend Whitewater Park of 600–1,200 cubic feet per second (cfs)—higher in winter, slightly lower in mid-summer compared to the hydraulic conditions when the park was designed and built. Waves originally tuned for 1,500 cfs may need reshaping and banks and gates must be able to handle higher cold season flows. The report also detailed that the higher winter-based flows will eliminate short-term dewatering windows for maintenance and repairs unless the channels are rebuilt to accommodate additional flows.

Also in October 2024, REP presented staff with the initial Bend Whitewater Park Condition Assessment Report which catalogued structural and hydraulic issues across all three channels and the 26 pneumatic gates. The report:

- catalogued structural degradation (from leaking air lines to piping through the divider island)
- mapped scour and erosion along the banks and in the pools/drops
- checked habitat and water levels for the Oregon spotted frog
- flagged user safety hazards
- identified minimum recommended actions
- identified additional recommended actions

Staff reviewed the report and requested additional information clarifying the findings. In response REP, REP provided staff with the Bend Whitewater Park Condition Assessment Risk Rating Memo in January 2025 which is also part of Exhibit A). This memorandum developed a rating system to summarize risks and identify the relative severity of the risks included in the condition assessment report.

In March 2025, REP completed a second topographic and bathymetric survey to check the one-year progression of scour, undercutting and island stability identified in the initial 2024 survey and added the results to the updated Condition Assessment Report in Exhibit A.

The May 2025 Whitewater Conditions report incorporates all the data and findings collected to date. This single document includes existing conditions investigations, channel assessments, infrastructure and mechanical assessments, erosion and deposition observations, use observations, operational and maintenance concerns, the risk rating memo, construction cost estimates, HCP analysis, survey surface comparisons, recommendations and technical definitions/terminology.

Overall project objectives identified by REP include:

- Adapt to HCP
- Ability to temporarily shift water for maintenance and safety
- Minimize safety hazards and increase recreational value
- Accessibility and ADA improvements
- Maintain and improve ecological uplift

Based on their recommended actions, REP developed a “Rough Order of Magnitude” construction cost estimates. At this early stage of the project, a construction cost estimate is a Class 5 estimate (AACE Cost Estimate Classification System), which has a typical range of +100% to -50% of actual construction costs. Actual construction costs will be highly dependent on the final design approach

and further analysis. The "Rough Order of Magnitude" estimated construction cost ranges are as follows:

- Minimum Recommended Actions: $4.9M to $9.1M
- All Recommended Actions: $6.6M to $12.2M

Next steps following this board meeting include joint coordination meeting with the permitting agencies to get a better understanding of the regulatory framework for future repairs to the park. REP will also continue to progress conceptual designs this summer to further inform decision making, permitting, constructability requirements and overall costs.

From the initial RFP through the most current version of the Condition Assessment Report, the district and its consultants have adhered to a methodical, fact-driven workflow which entails defining baseline conditions, analyzing those conditions and continuing to collect data to help inform every subsequent decision about the park. This process of *identify → analyze → monitor → refine* will continue to guide decisions until a permanent suite of repairs is designed, permitted and built.

Additionally, district staff are continually monitoring the park and assessing what maintenance, repairs or other adjustments can be done without needing to dewater the park. This consistent monitoring allows staff to quickly identify if there are changing conditions that could pose risks to users and make operating adjustments, if necessary. This monitoring protocol will continue throughout the duration of the maintenance project to keep user safety front-of-mind while the larger capital fixes are scoped, permitted, funded and constructed.

BUDGETARY IMPACT

The FY 2026-30 CIP includes $1,300,000 from property taxes, for data collection, data analysis, design and permitting at the whitewater park. To date, we have spent approximately $135,000 on site surveys, data collection and analysis, leaving $1,165,000 remaining for design and permitting. Based on the initial construction cost estimates provided by REP construction will require additional funding due to the complicated nature of working within the river and the need to control water flows while construction occurs. Staff will be researching potential funding opportunities to cover construction costs and plans to discuss ideas with the board in the future.

STAFF RECOMMENDATION

None – the purpose of this work session is to update the board on the status of this project.

MOTION

None

ATTACHMENT

Exhibit A - Bend Whitewater Park Condition Assessment Report
Exhibit B – Bend Whitewater Park Timeline/History

Bend Whitewater Park
Condition Assessment Report

PREPARED FOR: Bend Park & Recreation District
799 SW Columbia Street, Bend, OR 97702

PREPARED BY: Recreation Engineering & Planning, Inc.
485 Arapahoe Ave, Boulder, CO 80302
info@boaterparks.com | (303) 545-5883

DATE: Original: October 30, 2024
Updated: June 3, 2025

Recreation
Engineering & Planning

Table of Contents

Appendices:

1. Habitat Conservation Plan Hydrology Analysis
2. Existing Conditions Drawings
3. Pneumatic Gate Layout
4. Risk Rating Memo
5. 2024 to 2025 Survey Surface Comparison

Introduction

The Deschutes River in Bend, Oregon is an environmental and recreational asset to the community of Bend. The river is a focal point of summer activity, with over 250,000 users floating the river in a season. Most river users float the calm stretch of river between Riverbend Park and Drake Park using inflatable tubes (or similar flotation devices), stand-up paddleboards (SUP's), or kayaks. Along the trip, floaters will pass the site of the Colorado Avenue Dam, now the site of the Bend Whitewater Park. The whitewater park is located just downstream of the Old Mill District and was initially constructed in 2014 / 2015 to replace the Colorado Avenue Dam which presented a barrier to fish passage and a safety hazard to the increasingly popular recreational use of the Deschutes River. Today, the whitewater park provides a downstream passage channel for river floaters and a whitewater channel with larger drops, waves, and holes for skilled whitewater paddlers and river surfers.

Figure 1. Bend Whitewater Park

In addition to recreation, the removal of the Colorado Avenue Dam and construction of the whitewater park created aquatic and riparian habitat, fish passage, and serves to protect habitat for endangered species. The north channel of the whitewater park is designated for fish and wildlife habitat and is closed to public access. The fish ladder channel provides upstream passage for aquatic species. Pneumatic gates at the head of the channels control the upstream water level in the historic millpond and Les Schwab Amphitheatre (LSA) marsh to protect critical habitat for the endangered Oregon Spotted Frog in accordance with the draft Safe Harbor Agreement between Bend Park and Recreation District (BPRD) and U.S. Fish and Wildlife Service (USFWS). The Colorado Avenue Dam was originally constructed to create a millpond that was used by the Shevlin-Hixon and Brooks-Scanlon Mills, the two largest mills in Bend history that played a critical role in the economy and growth of Bend in the twentieth century.

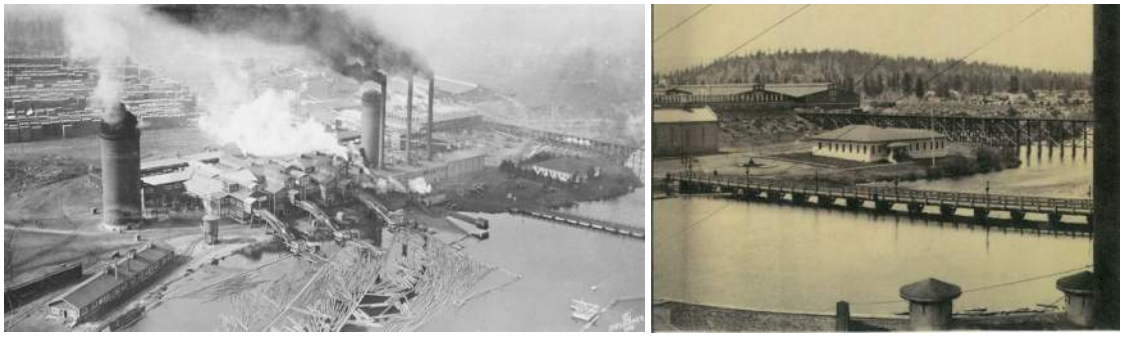


Figure 2. Historic photos of the Shevlin-Hixon Mill. The Brooks-Scanlon Mill was located on the opposite bank. The dam was built to create the millpond used by both mills, which would be eventually modified into the existing whitewater park.

Figure 3. The Colorado Avenue Dam prior to construction of the whitewater park, a barrier to fish passage and public safety hazard.

Following completion of the initial construction in 2015, modifications were made to the whitewater park to improve user safety and recreational value. This includes major modifications of the whitewater channel and fish ladder drop structures in the winter of 2015/2016 and winter of 2016/2017. Additional modifications since 2017 have included safety and operational upgrades such as installation of temporary plastic spacers on the green wave kicker edges and replacement of mechanical components in the gate control vault.

It has now been over a decade since the original construction began, and BPRD staff have identified ongoing issues related to pneumatic gate function, bank erosion, channel scour, safety hazards and recreational value. BPRD contracted with Recreation Engineering and Planning (REP) to perform condition assessment services at the Bend Whitewater Park and to develop a report of the condition assessment findings and recommendations.

The original design of the whitewater park predated the Deschutes Basin Habitat Conservation Plan (HCP), which dictates flow in this reach of the Deschutes River from 2020 through 2050. Implementation of the HCP has changed the current river flows compared to the original design, and there will be further significant flow changes in future years. Consideration of the upcoming flow changes to the Deschutes River is included as the new flows will affect park functionality and operations (see Appendix 1).

This report relies on the findings encountered during REP's onsite investigations, as well as input from BPRD staff, and the previously completed "Current Operational Status of the Bend Whitewater Park Fall 2023", prepared by BPRD's staff river recreation specialists. The following sections detail the existing conditions found during REP's site assessments.

Existing Conditions Investigations

Onsite Investigations

REP staff performed onsite investigations of existing conditions March 11-15, 2024 and February 18-20, 2025. Onsite work included coordination with BPRD staff, underwater inspection, aerial photography, topographic survey, and site investigation. BPRD river recreation specialists temporarily reduced flow to the working channel during the investigation to allow for underwater inspection, surveying, and aerial photography.

Figure 4. Drop structure inspection and survey, March 2024.

As-Built Document Review

BPRD provided REP data on the existing whitewater park including design plans, reports, construction documentation, progress photos, and hydrology data. REP reviewed all available information and compared to observed conditions during the onsite investigation.

Investigation Objectives

REP's investigation focused on safety, structural issues, and functionality of existing park systems. Major safety considerations focused on the river channels themselves and included bodily entrapment hazards, impact hazards, potential sieves, and reverse roller/low head dam hydraulics. Structural concerns include bank erosion, scouring of the channel or drop structure foundations, sediment deposition, and water migration or piping. The park systems investigated include the water control gates with associated appurtenances and user control measures such as trails, signage, and floater guide booms.

Topographic Survey and Control Points

BECON Civil Engineering & Land Surveying performed site topographic and bathymetric survey of the whitewater park in 2024 to create a baseline existing conditions survey. Additional survey conducted in 2025 provided a comparison of erosion and deposition over the year, as well as additional detail data, where needed. Topographic and bathymetric survey points were collected throughout the project site on upland areas, pathways, utilities, site features, riverbanks, drop structures, riverbed, and pools. Horizontal survey control points were established in a project coordinate system. Vertical control was established in NAVD88. The previously constructed improvements were designed in NGVD 29. For this report, all elevations are reported in NAVD88, except for upstream pond elevations related to the Safe Harbor Agreement for Oregon Spotted Frog protection.

Definitions and Terminology

Whitewater Drop Structure Components:

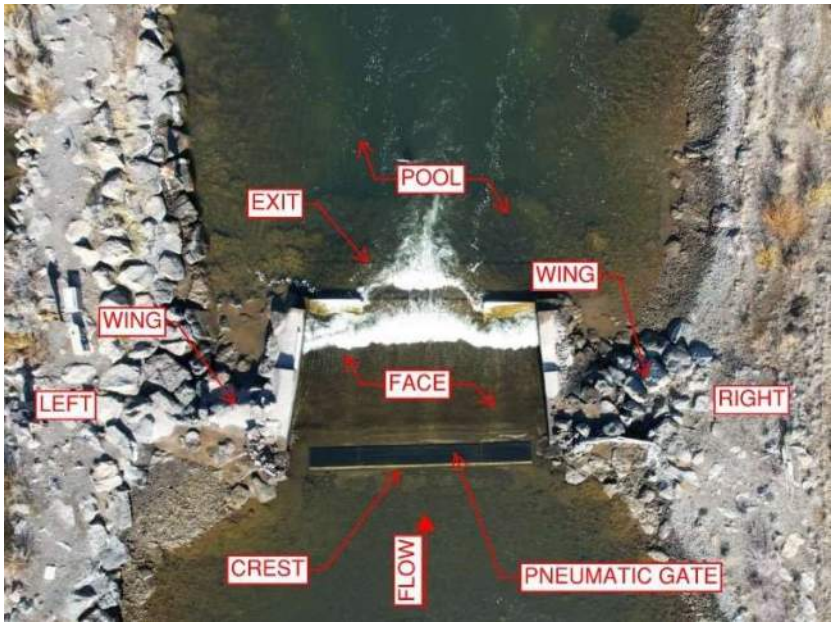


Figure 5. Drop structure components

Condition Assessment Terms:

Entrapment Hazard: Feature that may restrain a body part against removal. Most common is foot entrapment, which is extremely dangerous in areas with significant current.

Impact Hazard: High velocity flow into rocks, features that can cause injury through impact.

Sieve: Water flow through a narrow passage or contraction such as between or under boulders. Most dangerous sieves have significant water flow but are not large enough to pass a body.

Strainer: Similar to a sieve but created by wood.

Recirculation: Hazard associated with reverse roller hydraulics, where a body does not pass downstream but is rather cycled back into the hydraulic feature. This is the cause of most drownings at low head dams.

Piping: Water flow through an eroded void space, bypassing a hydraulic control structure.

Scour: Areas where riverbed material has been removed by erosive forces of moving water.

Undercut: Scour condition where a layer of non-erodible material is left above a void.

End-run: Condition where flow erodes a bypass around a hardened feature such as a drop structure.

River left / river right: Always oriented as if looking downstream.

Eddy: Area where current flows opposite to main direction of current, generally downstream of boulders or drop structure wings.

Habitat Conservation Plan and Safe Harbor Agreement

Habitat Conservation Plan

The U.S. Fish and Wildlife Services' Deschutes River Basin Habitat Conservation Plan (HCP), which was approved December 31, 2020, guides the operation of Wickiup Reservoir through 2050, among other requirements. The future flow regime is set to increase winter flows and lower summer flows (see Appendix 1 for a detailed hydrology analysis of HCP implementation). Historically, winter flows dropped extremely low below Wickiup Reservoir during storage season, sometimes as little as 20 cfs. Since adoption of the HCP, the minimum required flow release from Wickiup is 100 cfs. Starting in 2028, minimum winter flows will increase to a minimum of 300 cfs, as required by the HCP. In 2033, flows will increase again to a minimum of 400 cfs - 500 cfs. Future summer flows will decrease per additional HCP requirements and for sufficient water volume to meet winter flow minimums.

Safe Harbor Agreement

The draft Safe Harbor Agreement (SHA) between BPRD and USFWS, which has been adopted by BPRD regulates conservation actions for the recovery of the Oregon Spotted Frog (*Rana pretiosa*). Protective actions include management of the upstream water level above the whitewater park. Per the SHA, the following water level elevations were established (elevations reference the Colorado Avenue bridge staff gage):

- November – February: Maintain upstream water elevations between 3602.26 and 3602.43 feet.
- March – April: Steadily increase water elevations to between 3602.50 and 3603.00 feet. If water elevations rise after Oregon spotted frog egg deposition in the LSA Marsh (as informed by USFWS), the new higher water elevations must be maintained throughout larval development and must not be allowed to fall below the elevation recorded at the time of egg deposition.
- May – August: Maintain water elevations between 3602.50 and 3603.00 feet with a target elevation of 3602.75. If adequate flow rate is available, do not allow the water elevation to drop below 3602.43, or to rise above 3603.00.
- September – October: Steadily decrease water elevations to between 3602.26 and 3602.43 feet.

Maintaining upstream water level is a critical function of the whitewater park, and guides operation of the pneumatic gates in the whitewater and fish ladder channels. Fluctuations in water surface elevations have been shown to adversely affect upstream frog populations. All operations, maintenance, or improvements to the whitewater park must be executed to maintain the upstream pond elevations.

Figure 6. Left: The LSA Marsh upstream of the whitewater park provides designated critical habitat for the Oregon Spotted Frog. Right: Oregon Spotted Frog

The whitewater park has provided an ecological uplift to the Deschutes River as compared to the Colorado Avenue Dam that existed prior, including providing fish passage and habitat continuity to aquatic organisms, maintenance of water levels for Oregon Spotted Frog critical habitat, and providing habitat for a variety of species within the park including the habitat channel. Any maintenance project proposed should be designed to maintain and enhance the ecological benefit of the original project.

Whitewater Channel Condition Assessment

Figure 7. Whitewater park diagram with whitewater channel feature names

Jason's Wave

Jason's Wave (W-1) is the downstream-most drop in the whitewater channel. The drop is constructed of grouted boulder wings, with a grouted boulder drop face and a reinforced concrete gate foundation which has three pneumatic gates. The surveyed crest elevation is 3595.7, and the pool below has a bottom surveyed elevation of 3584.5. Areas of the pool have scoured to depths approximately 10ft deeper than design elevations from the 2017 improvements (see Appendix 2). Due to lowering of the riverbed by scour, an active City of Bend water line is exposed and undermined at the bottom of the pool.

Scour was observed at the exit of the grouted boulder drop face, and the exit is undercut. It is assumed that previously grouted boulders have moved out from under the grout due to the depth of scour observed. No undercutting was observed at the structure crest and the structure does not appear to be at risk of developing a sieve opening or piping from crest to exit at this time. In the downstream portion of the pool below Jason's Wave, sediment has deposited in the river channel affecting the character of Jason's Wave. This sediment provides some tailwater control and may be beneficial to the recreational function of Jason's Wave.

The river left eddy below Jason's Wave can pull tubers from the end of the fish passage channel into the deep pool, towards the wave. Many tubers have been observed stuck in this area, where it is too deep to touch bottom and the tubes get stuck in a circular pattern. BPRD staff have installed a floating boom to direct users away from the eddy. Boom anchors were observed to have shifted during the course of onsite inspection.

Figure 8. Undercut grout at Jason's Wave exit

Jason's Wave was designed with the intent to function as a beginner playboating hole for learning maneuvers. Currently, Jason's Wave is the park's primary playboat feature. At high flows, there is a tendency for a retentive hole to develop on the right side where flow comes over the right wing.. The right wing also presents a shallow impact hazard at higher flows. At the center of the wave, users report that the drop structure can be too shallow to perform more advanced playboating maneuvers. The wave is also popular with users on boogie boards and SUP's. Raising the wings slightly may help deepen the feature, but from a recreational perspective, overall Jason's Wave is functioning well for its intended users.

Kricket's Wave

Kricket's Wave (W-2) is constructed of concrete wave blocks and grouted boulders, a reinforced concrete gate foundation which has three pneumatic gates, and grouted boulder wings. Each of the three wave blocks is set independently and consists of a top face, a vertical section and a foundation which is approximately seven feet below the crest elevation. The space between the blocks has been filled with rock, grout, and concrete during previous modifications. The surveyed crest elevation is 3597.7, and the pool below has a surveyed bottom elevation of 3588.8, approximately six feet below the design pool depth (see Appendix 2).

Figure 9. Concrete wave blocks and crest gates during original construction (April 2015).

Underwater investigation discovered scour and undercut in the upstream corner of the left boulder wing. The undercut does not appear to connect to the downstream side of the wing currently. Scour caves were observed on the downstream side of the left wing, but do not currently appear to be at risk of piping to the upstream side.

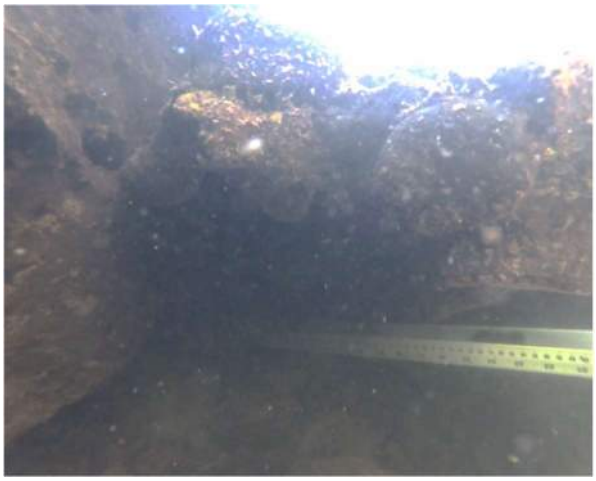


Figure 10. Measurement of upstream undercut
Note: Measurement shown is approximately 24" deep

Scour was also observed at the sides and downstream faces of the wave blocks. The depth of scour in the pool is below the block footing elevation, and the top of footing is exposed on the left block. Scour pockets were also observed between each wave block. The river left side of the left wave block scour cave was found to have an open window to the drop face. The undercuts and scour hole along the river left side of the drop present foot entrapment hazards.

Figure 11. Downstream edge of left wave block and exposed foundation

Figure 12. Open hole between scour cave and drop face

Kricket's Wave was designed to function as an intermediate playboating feature where progressing paddlers could practice more advanced maneuvers. In practice, the hole is not retentive enough for most playboating maneuvers and is not often used. Occasionally surfers attempt to use the wave, but it is not commonly used for surfing. During high flows the first few summers after the park opened, the feature functioned better as a freestyle kayak hole, but

river flows will not regularly reach that high again. In the current configuration, Kricket's Wave is commonly swum over by fallen surfers from the Green Wave who are unable to eddy out upstream. Swimmers going over the drop at the left edge are exposed to impact hazards as they pass over the left wing boulders. Serious injuries and pinned surfboards have been reported to BPRD staff at this location.

Overall, Kricket's Wave provides significantly less recreational value than originally intended, especially with the reduced summer flows with implementation of the HCP. There are safety hazards present, including impact hazards and foot entrapment hazards (see Appendix 4 for hazard descriptions / ratings). With its location below the Green Wave, there are regularly swimmers passing over the drop structure. All river users should utilize standard river swimming guidelines including not attempting to stand up in swift current, swimming with feet forward, floating shallow, and wearing a life jacket. This can all help in reducing the risk of foot entrapment.

The Green Wave

The Green Wave (W-3) is a surf wave feature constructed of grout and concrete slabs set over grouted boulders and reinforced with sheet pile anchoring. The original structure consisted of a grouted rock face. The sheet pile, smooth concrete face, and concrete walls were added during subsequent modifications. There are three pneumatic gates at the crest, and the exit has two static aluminum kickers and two pneumatic gates which are adjusted to shape the surf wave. The crest of the drop structure is at 3599.8, and the bottom of the pool is at 3587.1, approximately 8.5' below the design pool depth (see Appendix 2).

Figure 13. Original feature at Green Wave location (May 2015)

Figure 14. Sheet pile installation during modifications (January 2016)

Scour was observed during underwater investigations at the structure exit. Due to the construction of the drop structure with sheet pile anchoring, scour is not anticipated to risk structural stability of the drop structure. Boulders in the left eddy were found to be undercut and may fall away from the island creating voids at the left bank. The crest of the structure wings have been modified with ungrouted rock and debris placed by surfers in order to keep water from flowing over the concrete edge walls and wings. The right wing has experienced significant erosion of material between boulders. Boulders existing downstream of the structure in the left and right eddies can pose an impact risk to surfers, especially if jumping left or right when exiting the wave. An air leak was visible by bubbles coming from under the left wing boulders during onsite investigations.

Figure 15. Rock and debris placed on Green Wave wing

Temporary plastic spacers were installed by BPRD staff between the static aluminum kickers and pneumatic gates in response to a foot entrapment hazard. These spacers were installed with screws into the existing aluminum and a single anchor bolt to the concrete drop face. The longevity of these spacers is unknown, and replacement would not be feasible during the high flow season.

Figure 16. Temporary spacer on static aluminum kickers

The Green Wave is the most utilized feature in the whitewater channel, and is extremely popular with short board river surfers during the appropriate flow range. Generally it can be surfed as low as 450 cfs in the river at the head of the park, though fins can hit at the lower end of the range. BPRD staff primarily use tailwater elevation as the indicator when the wave will function properly, given by the pressure transducer in the pool downstream. Once the tailwater is below elevation 3596.2, the wave will lack the ability to form. As flows increase, the Green Wave generally provides high quality surfing. At high flows, generally over 1,200 cfs, the downstream tailwater elevation in the pool can be too high and crash out the wave, which does not provide good surfing. This has been less of an issue recently as summer flows have been lower in recent years, and with further implementation of the HCP high flows are expected to be rare.

The Green Wave provides little value for freestyle kayakers, as there is no eddy service and the wave can be hard to stay on. There have been scheduled sessions where BPRD river recreation staff crash out the wave for kayakers, which can be popular but there is not adequate depth for bow initiation maneuvers. With the concrete edge walls, the feature can be hard to exit and is uniform across its width.

Overall, the Green Wave provides world-class recreation for short board river surfing. Flow changes from HCP requirements are anticipated to be beneficial for the feature, with winter flows increasing to surfable levels and summer flows not high enough to regularly crash out the wave. Maintenance activities should focus on providing a permanent fix to the foot entrapment hazard, improving the wings, ensuring longevity of the pneumatic gate components, and maintaining the high-quality surf experience provided by the wave.

Eddy's Wave

Eddy's Wave (W-4) is a drop structure constructed of grouted boulders, ungrouted boulder wings, reinforced concrete slabs, and unreinforced concrete fill. The drop structure is anchored to the original Colorado Avenue Dam structure. The drop contains six upstream gates which control flow to the whitewater channel and upstream water surface elevation, two mid-way angled gates, and two exit gates. The surveyed crest elevation is 3602.7, and the surveyed bottom of pool is at 3589.7, approximately 7' below the design pool depth.

Figure 17. Eddy's Wave during construction (April 2015)

Figure 18. Concrete ramp poured below exit during modifications (February 2017)

Investigation of the drop structure face and banks found multiple large voids, holes, and gaps between boulders. Several of these voids present foot entrapment hazards. Piping from the other two channels was observed on both sides of the drop structure. The structure exit and ramp were undercut by scour, with the exit ramp having large undercuts. Due to the size of the

drop structure and anchoring to the old dam, piping under the drop structure from crest to exit is not expected to be a concern.

Eddy's has a relatively large elevation gradient across the drop. The orientation of the gates within the feature can result in complex and powerful hydraulics with lateral waves, pour-overs, and retentive holes. BPRD staff operate the gates to reduce the power and retentiveness of the center hydraulic, but the left and right faces of the drop below the midway gates present shallow, rocky hazards to swimmers or floaters and complex hydraulics remain.

Figure 19. Piping from Habitat Channel to Whitewater Channel

Figure 20. Foot entrapment hazard in void on left side of drop

Figure 21. Large voids between boulders in drop structure

Figure 22. Scour at end of exit ramp

Figure 23. Typical gate configuration at Eddy's Wave.
Note: Shallow, rocky edges on left and right.

Eddy's was designed to function as an advanced playboating feature for professional-level kayakers to perform advanced playboating maneuvers. The current recreational value is lower than intended, and the feature is rarely used by any river users. For freestyle kayaking, the center hole can be used but is narrow, steep and hard to set up on, surges and can be flushy, and generally offers little value to playboaters in its current configuration.

Fish Ladder Channel Condition Assessment

Overall Erosion and Stability
The fish ladder (formerly called safe passage) channel is the most utilized channel in terms of total number of users, particularly by floaters during the summer months. The left bank is utilized for river access, though it was not designed for this and heavy use has eroded the left bank along its entire length. High flows have caused erosion as well as challenging conditions for floaters, leading BPRD river recreation specialists to limit flow into the channel.

Drop Structures
The fish ladder channel has 12 drops constructed of grouted boulders with grouted and ungrouted boulder wings. Drops are numbered SP-1 through SP-12, from downstream to upstream. Drop SP-11 and 12 have reinforced concrete slabs with pneumatic gates spanning partial channel width. Underwater investigation found SP-2 to have undercutting at the grouted drop face on the upstream and downstream sides. The undercutting did not appear to be piping at the time of investigation, but it is recommended this is monitored for signs of further degradation.

Figure 24. Measuring exit undercut at SP-2 with a 48-inch level

Figure 25. Crest undercut at SP-2

Note: Undercut does not appear to be piping from upstream to downstream.

Drop SP-3 has undercutting present across the exit of the drop but does not appear to be at risk of piping through to structure crest. Loose boulders on the left wing of SP-3 could present a sieve hazard at higher flows. The channel is currently limited to low flows, where this is not a significant hazard.

Figure 26. Potential sieve at SP-3 at high flows

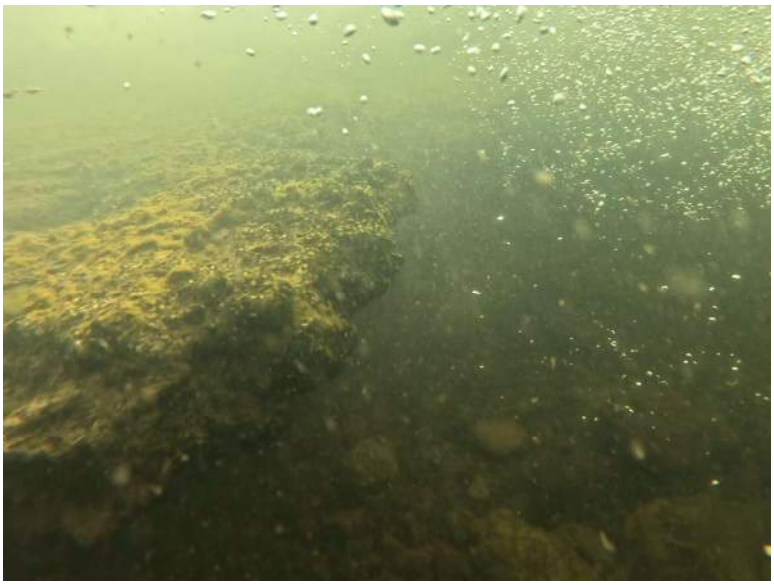


Figure 27. Exit undercut at SP-3

The drop structures are generally linear with tight spacing between drops. This results in relatively short pools with limited recovery time between drops.

Figure 28. Fish passage channel subsequent to grouting, looking upstream (Dec 2015)

Piping

Piping was observed near drops SP-11 and SP-12. At SP-12, piping through the left bank riprap bypasses the drop and emerges above SP-11. Piping is also present through the right island coming from the whitewater channel to the fish ladder channel. Below SP-11, piping occurs through the island from the fish ladder channel to the whitewater channel. It was not observed that the piping water was moving large material or destabilizing the islands during REP's site investigation. It is recommended that piping locations be monitored for further degradation.

Figure 29. Piping between SP-11 and SP-12 from Whitewater Channel to Fish Ladder Channel.

Figure 30. Voids in left bank with piping flows bypassing SP-12

Habitat Channel Condition Assessment

The habitat channel is outside of the maintenance project area, but is a part of the overall park and affects flow in the other channels and use. The habitat channel is relatively shallow and low velocity with a waterfall feature located at the upstream end. The waterfall prevents this channel from being used for fish passage. Flow to the waterfall feature is conveyed from an upstream inlet structure by two 36-inch diameter inlet pipes. The inlet structure bar screen may present a sieve hazard when significant flow as passing into the pipes. It is recommended that options to reduce the potential safety hazard at the inlet be investigated.

Figure 31. Habitat Channel inlet structure bar screen

Pneumatic Gates Condition Assessment

The Bend Whitewater Park has a system of 26 pneumatic gates, which BPRD river recreation specialists can control remotely. Appendix 3 includes a layout of all the gates and summary table of status. Each pneumatic gate consists of a steel or rubber gate face, which hinges on a concrete foundation. The gate face is raised and lowered by adjusting air pressure in a rubber bladder below the gate. The air is conveyed through buried air lines that originate in an underground control vault located south of the river channel.

BPRD river recreation specialists completed an assessment of gate functionality in 2023 and noted a number of gates as inoperable or having minor to moderate leaks. Since the assessment, BPRD replaced a manifold in the control vault which improved functionality. Servicing the whitewater channel's pneumatic gates is complicated by factors including the following:

- Air lines are buried below the fish ladder channel without maintenance access beyond the manholes south of the channel.
- Air line layout was not constructed as shown on design drawings, and actual layout was not documented in as-built drawings.
- The whitewater channel cannot be isolated for long enough duration to perform substantial gate maintenance without causing damaging erosion to the fish ladder channel.
- The original pneumatic bladder installation method may have left debris in air bladders which can block air inlet/outlet port causing sluggish operation.

Of the 26 gates in the park, BPRD staff reported that only ten gates are commonly adjusted, with the rest continually set to their high or low limit (see Appendix 3). The regularly adjusted gates are as follows:

- W5-1 through W5-6 – Modulated to control upstream water surface.
- W3-3 through W3-5 – Modulated to shape Green Wave for surfing.
- W1-3 – Raised and lowered to adjust character of Jason's Wave.

During REP's onsite inspection, inoperable and sluggish gates were observed, as well as water entering pneumatic system tubing and leaking bladders. Gates were also observed to have exposed loops of air line and rubber strapping that may pose foot entrapment hazards. Since the 2024 inspection, BPRD staff have removed and repositioned straps that could present hazards. REP staff have not independently verified the current state of all the gate straps.

Figure 32. Gate strap hazard

Erosion and Deposition Observations

Bathymetric survey data collected during the 2024 and 2025 investigations were used to create triangulated irregular network three-dimensional surface models in AutoCAD Civil 3D. 2024 and 2025 surface models were compared to determine if a pattern of deposition and erosion could be observed. Due to limitations of gathering bathymetric data in a swiftwater environment, granular details of erosion could not be determined, however, some areas displayed evidence of erosion or deposition.

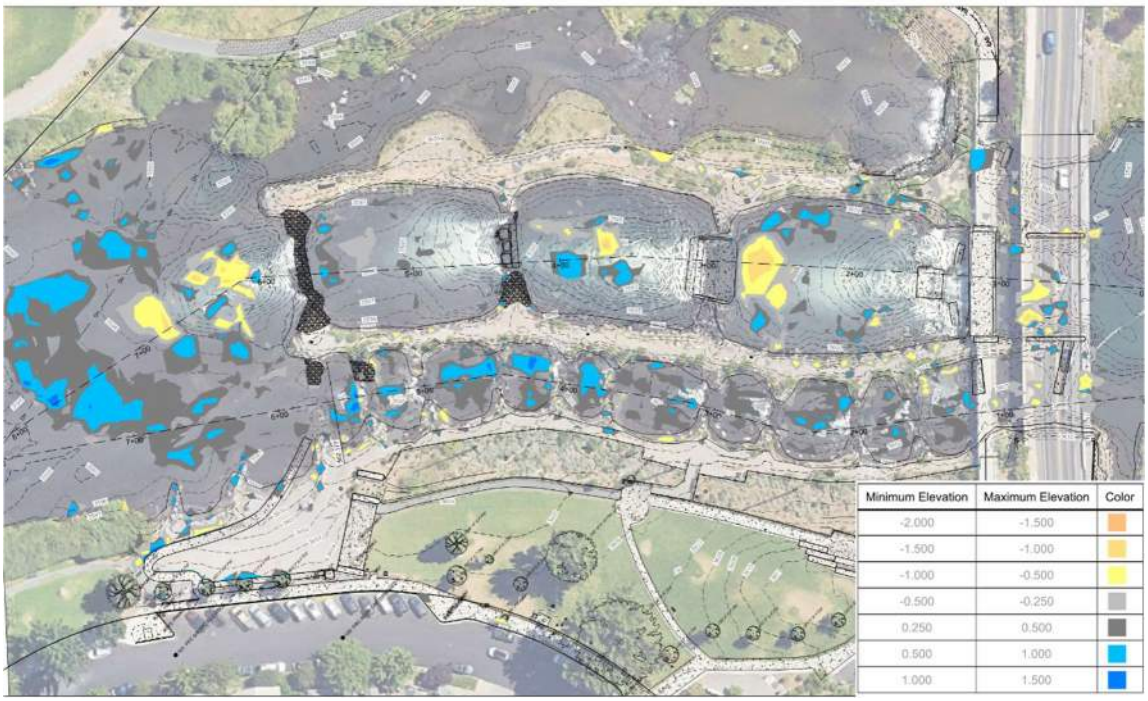


Figure 33. 2024 to 2025 Surface Model Comparison

Note: Elevation values represent the elevation of the 2025 surface model relative to the 2024 surface model. Negative values indicate scour, positive values indicate deposition. A full size version is shown in Appendix 5.

Downstream Deposition

Material has deposited in an alluvial fan shape downstream of Jason's Wave, which can be seen as a riffle present at the downstream end of the whitewater park. Comparison to the 2025 surface model to the 2024 surface model indicates that the elevation increased across the width of the downstream area, evidence that additional material was deposited during the period between the surveys.

Onsite observations determined most of the material to be predominantly small cobble and gravel. Due to upstream reservoirs and significant flat sections of river, it is assumed that the observed large diameter sediments and cobbles were not conveyed into the whitewater park from upstream, but originated from within the whitewater park channels.

Whitewater Channel
The surface comparison did not indicate definitive areas of scour in the whitewater channel, due to a lack of point density and other limitations. However, due to the lack of incoming large diameter material and amount of deposition below Jason's Wave, it is expected that the whitewater channel is continuing to erode in various locations, though the pace of erosion has likely slowed significantly since the first years after construction.

Fish Ladder Channel
The fish ladder channel appeared to experience deposition of small diameter material throughout the pools, particularly in the downstream half of the channel. This material is likely transient and continually accumulates and dissipates. The left bank was observed to have receded significantly between the 2024 and 2025 surveys, with the top of bank receding approximately three feet above SP-2. Google Earth Aerial imagery was used to track bank erosion from 2017 to 2023 and a pattern of continual bank erosion is clear.

Figure 34. Left bank line degradation over time based on Google Earth aerial imagery. Base photo 2017 from Google Earth.

User Control, Trails, and Circulation

Upstream User Guidance
Signage upstream of the park alerts river users and provides portage directions. BPRD staff have replaced the upstream signage on the Colorado Avenue bridge since REP's field investigation. Upstream users are discouraged from entering the whitewater channel by a floating boom. During the field investigation the boom appeared to be functional, and no issues were noted. Debris from mill infrastructure left in the river channel was observed upstream but has not been reported to cause issues for river users.

River Access and Portage trails
Upstream of the Colorado Avenue bridge, a portage trail directs pedestrians southwest, under Colorado Avenue, and to the McKay Park beach. This takeout has uneven rirap and has eroded, presenting a hazard to trail users. Many users access the river along the left bank directly from McKay Park, along a soft path at the side of the river, which has caused erosion of the left bank. A trail along the bank was not included in the original design, and was not designed to withstand the heavy use that occurs. Additionally, the pedestrian bridge presents a low overhead

clearance hazard for users traveling the left bank, and head injuries from hitting the low chord have been reported.

There is no dry land access from McKay Park to the whitewater channel. Whitewater channel users must paddle into the channel from upstream, wade across the fish ladder channel, or they may paddle out to Jason's Wave. Access to the island from the pedestrian bridge is available for authorized personnel only by way of a vertical ladder.

Figure 35. Put-in / take-out at portage route upstream of Colorado Ave

Spectators and Viewing

The Bend whitewater park is an attraction for both visitors and residents who may not participate in river recreation but just want to observe. Currently, a widened viewing area exists on the Colorado Avenue pedestrian bridge, over the whitewater channel. The viewing area provides an excellent view of Eddy's Wave, which is not commonly used for recreation. The Green Wave and Jason's Wave, which are currently the most used features of the whitewater channel, are not easily viewable from the bridge or left bank.

Operational Flexibility and Maintenance Concerns

Flow Diversion

The whitewater park is made up of three channels, separated by narrow islands constructed of boulders and alluvial fill. The island between the whitewater channel and habitat channel includes sheet pile for the majority of its length, no sheet pile was installed between the whitewater channel and fish ladder channel. Pneumatic gates at the top of the whitewater channel and fish passage channel control the upstream water level and flow split between channels. Inflow to the habitat channel is controlled by a set of removable stoplogs that are adjusted seasonally.

Typical operations limit the amount of flow into the fish passage channel, with the gates at the head of the channel nearly always raised. Higher flow in the fish passage channel has been observed to be challenging for floaters to navigate, and sustained high flow results in damaging erosion to the banks, channel, and drop structures. The ability to reduce flow to the whitewater

channel for repair, maintenance, or emergency access is limited to periods of low flow due to the small detention volume available upstream while adhering to the limits agreed to with USFWS and the hydraulic limitations of the fish ladder channel. BPRD staff have expressed concern that maintenance cannot be performed on the whitewater channel during current summer high flows, and that if safety issues arise closure of the whitewater channel until low flow season would result.

Figure 36. Six large steel gates (11.8' x 4.0') are primary control for upstream water surface. Here two gates are raised on either side of the whitewater channel (June 2024)

Future HCP Flow Regime

With higher winter flow releases from Wickiup Reservoir required in the HCP, the fish passage channel will be unable to accept the full river flow even during low flow season without significant degradation, eliminating the ability to perform maintenance in the whitewater channel even during the low flow season. See Appendix 1 for a detailed analysis of HCP implementation on expected flows at the whitewater park.

Risk Rating Memorandum

Subsequent to REP's initial investigation and report, BPRD requested that a rating system be developed to summarize the identified risks and assign relative severity. REP develop a risk rating methodology and register that identified risks and assigned a relative severity to each. Identified risks were given one rating for probability of occurrence, and one rating for consequence. Multiplying the probability rating and consequence rating gives the overall severity rating for the risk. Ratings were estimated based on REP's professional experience and the assessment performed. The risk ratings developed are included and described in the Risk Rating Memo included in Appendix 4.

Recommendations

Maintenance Project Objectives

Adapt to HCP

The flows in the upper Deschutes River are changing significantly from when the whitewater park was designed. Previously, summer flows at the park were regularly 1,200 to 1,500 cfs. Winter flows are typically 400 to 500 cfs. With further implementation of the Deschutes Basin Habitat Conservation Plan (HCP), the deviation between summer and winter flows will become less, with anticipated flows at the whitewater park between 700 and 1,000 cfs for the majority of the year (see Appendix 1). Some of the features were designed for higher flows that will rarely occur, and the functionality of the park at different flows will vary from original design intent. With the adoption of the HCP, there is more certainty on what the flows will be in the river through 2050. This information can be used in the design of the maintenance project and was not available when the whitewater park was originally designed.

Minimize safety hazards and increase recreational value

Minimizing current and future safety hazards is a top priority of the maintenance project. As outlined in this report, there are existing safety hazards of concern including foot entrapment hazards within the whitewater channel. In addition, there has been substantial scour and undermining of drop structures since construction that pose a future structure stability and safety risk. BPRD staff have been able to accomplish many maintenance tasks and address safety hazard concerns to the extent possible, but larger scour issues and undermining can only be addressed by a larger construction project.

To do any construction in the whitewater park is a large effort, and there is significant expense including all permitting and regulatory approvals, cofferdams / water control, and construction access. While addressing safety hazards and structural stability concerns, there will be opportunity to increase recreational value of the park. In the whitewater channel, the best opportunities are at Eddy's Wave and Kricket's Wave where there currently is lower recreational value than originally envisioned. In the fish passage channel, there may be opportunities to increase recreational value for a wide range of uses including tubing, wading / swimming, beginner kayaking, slalom kayaking, stand-up-paddle boarding, etc. This could include less linear drops, larger pools, improved river access, bank terracing, current deflectors and other features.

Figure 37. Drop structures at Rio Vista Park. San Marcos, TX

Ecological Uplift

The whitewater park provides fish passage, habitat, and upstream water surface control. A maintenance project would need to maintain and enhance the ecological benefits of the park. Without maintenance, the ability to control the upstream water surface could eventually become compromised. There is the opportunity to increase riparian vegetation and tree cover, potentially provide improved fish passage, and enhance habitat.

Ability to temporarily shift water for maintenance and safety

The existing whitewater park includes twenty-six pneumatic gates and complex drop geometry in a dynamic hydraulic environment that sees high public use. In order to perform long-term regular maintenance including addressing safety hazards, the ability to temporarily shift water between channels has been identified by BPRD staff as a high priority. Currently, during low flow winter conditions (approximately 400 cfs), the majority of the flow can be shifted to the fish passage channel, allowing temporary access to the whitewater channel with little flow (approximate maximum duration of 10 minutes). Beginning in 2028, this will no longer be possible with the required higher minimum winter releases from Wickiup Reservoir.

Accessibility and ADA Improvements

There is currently little to no accessible river access at the whitewater park. There is an ADA compliant grade concrete walk that cuts through the McKay Park beach into the river, which is often covered in sand. Along the length of the fish passage channel is an eroding soft surface trail, with many exposed rocks. No trail along the river was included in the original design. At the upstream end of the fish passage channel is the primary put-in / takeout at the top of the park, which consists of riprap and eroding soil. No access is provided to the island between the whitewater channel and fish passage channel without wading across the fish passage channel. No access is allowed in the habitat channel.

There are opportunities to greatly improve public river access at the park, including for people with disabilities. At a minimum, this should include an accessible trail along the river left bank of the fish passage channel, allowing safe pedestrian access along the bank from top to bottom of the park, including under the Colorado Ave bridge. The put-in / takeout upstream of the Colorado Ave bridge needs to be improved. The interface between the whitewater park and McKay Park should enable enjoyment of the river and be designed to withstand extremely high use without erosion. Improvements to the island between the whitewater channel and fish passage channel could include widening portions, establishing a trail, and potentially pedestrian access.

Figure 38. A riverside trail passing under a roadway bridge. Salida, CO

Recommended Improvements

Minimum recommended actions

Whitewater channel

- Jason's Wave: Address deep scour hole, structure undermining and undercuts, cover and protect exposed water line, provide sufficient structure anchoring and scour protection. Replace drop structure as needed to perform repairs; generally keeping recreational character of the existing feature intact.
- Kricket's Wave: Address structure undermining, undercuts, foot entrapment hazards, and deep scour. Extent of drop structure replacement to be determined, but it is anticipated a large portion of the structure would need to be reconstructed.
- Green Wave: Permanently fix foot entrapment hazard, reconstruct boulder wings on either side of wave. Perform maintenance activities while keeping the existing wave character intact.
- Eddy's Wave: Address undercuts, foot entrapment hazards, scour, and shallow rough flow. Maintain ability to control upstream water surface within limits prescribed by the Safe Harbor Agreement. Drop structure is anchored to previously existing dam and is expected to provide a solid foundation. There is significant hydraulic drop at this structure, the most of any of the whitewater channel drops, and careful design will be necessary to ensure a dangerous hydraulic is not formed. It is anticipated that a large portion of the drop structure would need to be reconstructed.
- Pools: Fill scour holes and provide scour protection as necessary, remove hazardous random boulders that have been dislodged, anchor undermined banks and stone.

Island between whitewater and fish passage channels

- Provide long-term stability and minimize piping, this may include installing sheet pile, island widening, grouted boulders, or a combination.
- Reconstruct downstream end to address erosion, possibly extend and/or reconfigure to prevent tubers from entering Jason's eddy.

Figure 39. Drop structures and divider island. Siloam Springs, AR

Fish passage channel

- During whitewater channel maintenance and construction activities, Deschutes River flow will need to be routed through a single channel. The existing fish passage channel cannot handle flows of that magnitude and duration and the channel will need to be temporarily modified / armored / reconstructed to allow for temporary construction flows.
- The majority of the fish passage channel will need to be reconstructed to allow for whitewater channel maintenance and construction activities. In order to provide the ability for temporary shifting of water between channels in the future, the reconstructed channel should be designed to convey 800 cfs without significant degradation. In general, the channel would need to be wider where possible to convey higher flows.
- The channel will need to be designed to enable fish passage in close coordination with Oregon Department of Fish and Wildlife (ODFW).
- The primary user group of the existing channel is people floating from the upstream calm section of river to the downstream calm section of river with tubes and other flotation craft. The channel should be designed to enable reasonable downstream passage for tubes and similar.
- An ADA accessible trail should be provided along the entire river left bank.
- The put-in / takeout just upstream of the Colorado Ave bridge should be replaced with river access designed to better facilitate and handle the amount of use. Trails, approaches and river access should be designed per ADA guidelines.

Figure 40. Durable river access. Franklin, NH

Recommended additional actions

Whitewater channel

- Kricket's Wave: The existing feature provides lower recreational value than originally envisioned, particularly with the lower summer flows that will be the norm. It is anticipated that the majority of the existing structure would need to be reconstructed to adequately address safety and maintenance concerns, and how it is reconstructed will affect its recreational value in the future. There are many ways it could be reconfigured, and community input is recommended to inform desired outcomes.
- Eddy's Wave: This feature has the most hydraulic drop yet provides the least recreational value. This is the most visible feature from the widened portion of the pedestrian bridge. Significant changes will be necessary to address the safety concerns, and any design will be a challenge to provide a reasonably safe feature given the amount of drop. Additionally, the steel gates across the crest are currently the primary control on the upstream water surface. Further analysis is necessary to determine what may be feasible at this location given the constraints. One improvement that may be necessary would be an additional row of gates upstream under the Colorado Ave bridge. These could be used as the primary control of the upstream water surface, rather than the crest gates, and would distribute some of the hydraulic drop upstream. Further analysis is necessary, but the amount of hydraulic drop and visible location at the top of the park may provide the opportunity for a high-performance recreational feature.

Figure 41. Left: Freestyle kayaking, Buena Vista, CO. Right: River surfing, Cascade, ID

Island between whitewater and fish passage channels

- Dependent on the final configuration of the fish passage channel, the island could potentially be widened in select areas to provide additional stability and more space for users of the park, including potential addition of trail, viewing space, and additional riparian vegetation.
- Currently there is no dry land access to the island besides a locked gate to a vertical ladder. It may be feasible to provide access to the island with a small pedestrian bridge over the fish passage channel for public use, maintenance and emergency access. Additional analysis is necessary to determine potential feasible alignments and elevations.

Figure 42. River access in Montrose, CO (left) and Golden, CO (right)

Fish passage channel

- With reconstruction of the fish passage channel, there are opportunities to greatly enhance the interface between McKay Park and the river. Currently, the entire frontage of McKay Park from the pedestrian bridge to the beach area is fenced off besides one gap in the center. Riverside areas and bank treatments could be designed to enhance the opportunities for public interaction with the river, including for riverside viewing and wading. Riparian vegetation can be included and protected, in areas designed to avoid heavy foot traffic. Improved public river access could include flagstone steps, riverside areas, stone bank terracing, beach area, and/or other elements.
- There is the opportunity to increase the recreational value of the fish passage channel for tubers and floaters, as well as other river users. The current configuration consists of linear, fairly regular boulder drops in quick succession. Pools are short and the drops are relatively uniform. The channel could be reconstructed with a greater diversity of drops and features, adding interest and recreational value while providing relatively smooth passage for tubers and floaters. If the channel is designed to convey up to 800 cfs, during periods of non-floater use it may be possible to increase flow and provide a quality venue for beginner kayaking, slalom kayaking, and stand-up-paddle boarding.

Figure 43. Boogie boarding. Reno, NV

General

- The maintenance project can be designed to include riparian vegetation to the extent possible, in areas designed and selected to provide protection. There is the opportunity to increase the amount of trees at the park, which would provide additional shading to the river.
- Pedestrian and river user circulation should be a primary design consideration, including providing access for people with disabilities. It is recommended that the existing portage path upstream of Colorado Ave be reconstructed for ADA compliance, in addition to the riverside trail and others proposed.
- Many of the existing pneumatic gates are located in reconstruction areas, and at a minimum will need to be removed and replaced to facilitate construction. Through the design process, gate layout and function should be assessed and modifications should be made to minimize unnecessary complexity. Gates require maintenance, and revisions should be made for the adjustability of the gate to provide a specific benefit and function, or the gate should be removed. Improvements should ensure gates, bladders, lines, and components can be accessed and maintained.

Figure 44. Pedestrian bridge and river access. Steamboat, CO

Construction Cost Estimates

Based on the recommendations above, REP developed “Rough Order of Magnitude” construction cost estimates. At this project stage, a construction cost estimate is considered a Class 5 estimate (AACE Cost Estimate Classification System), which have a typical range of +100% to -50% of actual construction costs. Actual construction costs will be highly dependent on final design approach and further analysis. The “Rough Order of Magnitude” estimated construction cost ranges are as follows:

- Minimum Recommended Actions: $4.9M to $9.1M
- All Recommended Actions: $6.6M to $12.2M

Appendix 1
Habitat Conservation Plan Hydrology Analysis

Bend Whitewater Park Maintenance Project
Deschutes River HCP Hydrology Analysis

PREPARED FOR: Bend Park & Recreation District
PREPARED BY: Recreation Engineering & Planning Inc.
DATE: October 23, 2024

Introduction

Recreation Engineering & Planning (REP) is contracted with Bend Park & Recreation District (BPRD) to evaluate existing conditions, analyze functionality, and provide recommendations for a potential maintenance project at the Bend Whitewater Park. A critical component of this analysis is assessing the effects of the U.S. Fish & Wildlife Service (USFWS) Deschutes River Basin Habitat Conservation Plan (HCP) on flows at the whitewater park. The original design and construction of the park pre-dated the HCP, and implementation of the HCP has changed the current river flows at the park and there will be further significant flow changes in future years. This has large implications for the performance of the whitewater park.

REP performed a hydrology analysis of current and future flows at the whitewater park based on available gage data and HCP requirements. This technical memorandum summarizes the analysis performed and provides estimates of expected flow in the Deschutes River currently and in future years.

Deschutes River Basin Habitat Conservation Plan (HCP)

The Deschutes Basin HCP was finalized and approved by the USFWS on December 31, 2020. The HCP includes requirements for 30 years, through 2050. Implementation of the HCP affects the amount of flow at the whitewater park primarily by requirements for flow releases from Wickiup Reservoir. Among the requirements in the HCP are minimum and maximum releases from Wickiup intended to raise winter flows and lower summer flows, more similar to the natural flows in the upper Deschutes River prior to construction of the dam and reservoir.

Conservation Measure WR-1: Wickiup Reservoir Operation provides requirements for flow releases from the reservoir, as measured at Hydromet Station WICO (Oregon Water Resources Department (OWRD) Gage 14056500) below Wickiup Dam, and Hydromet Station BENO (OWRD Gage 14064500) at Benham Falls. The conservation measure includes twelve items affecting operation throughout the year. The requirements most applicable to flows at the whitewater park are listed below and summarized in Figure 1. Note that these are simplified summaries; refer to the HCP for full description of requirements including ranges of deviation, exceptions, additional ramp up and down requirements, etc.

- Minimum winter flow from Wickiup as summarized in Table 1.
- Minimum summer flow from Wickiup (April 1 – Sept 15): 600 cfs (400 cfs may be allowed the first half of April, if allowed by USFWS)
- Maximum April flow from Wickiup: 800 cfs

- Year 8 – 12 (2028 – 2032) Maximum summer flow from Wickiup (April 1 – Sept 15): 1,400 cfs (up to 10 days may exceed maximum)
- Year 13 – 30 (2033 – 2050) Maximum summer flow from Wickiup (April 1 – Sept 15): 1,200 cfs (up to 10 days may exceed maximum)
- Minimum flow at Benham Falls BENO (OWRD Gage 14064500) July 1 – Sept 15: 1,300 cfs.

Table 1. Minimum Flow Required in Winter (September 16 – March 31) by the HCP

	MIN FLOW FROM WICKIUP (WICO)
YEARS 1-7 (2021-2027)	100 cfs
YEARS 8-12 (2028-2032)	300 cfs
YEARS 13-30 (2033-2050)	400-500 cfs*

*The actual minimum flow in 2033-2050 will be determined according to a "variable flow tool" to be developed collaboratively by USFWS and the permittees, that will establish the minimum flow each year based on available storage in Wickiup and anticipated inflow to the reservoir.

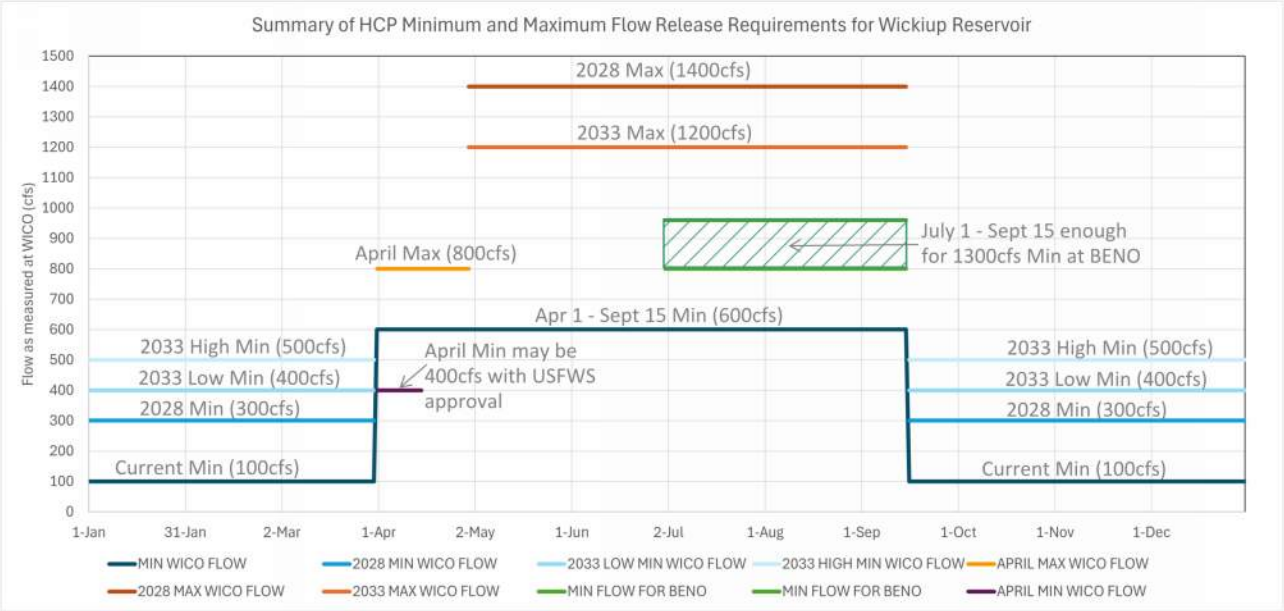


Figure 1. Plot showing minimum and maximum flow HCP requirements throughout the year at the WICO gage below Wickiup Reservoir. A range of minimum flow is shown for the 1,300 cfs minimum flow requirement at Benham Falls (BENO) based on the estimated minimum flow at WICO necessary to provide 1,300 cfs at BENO.

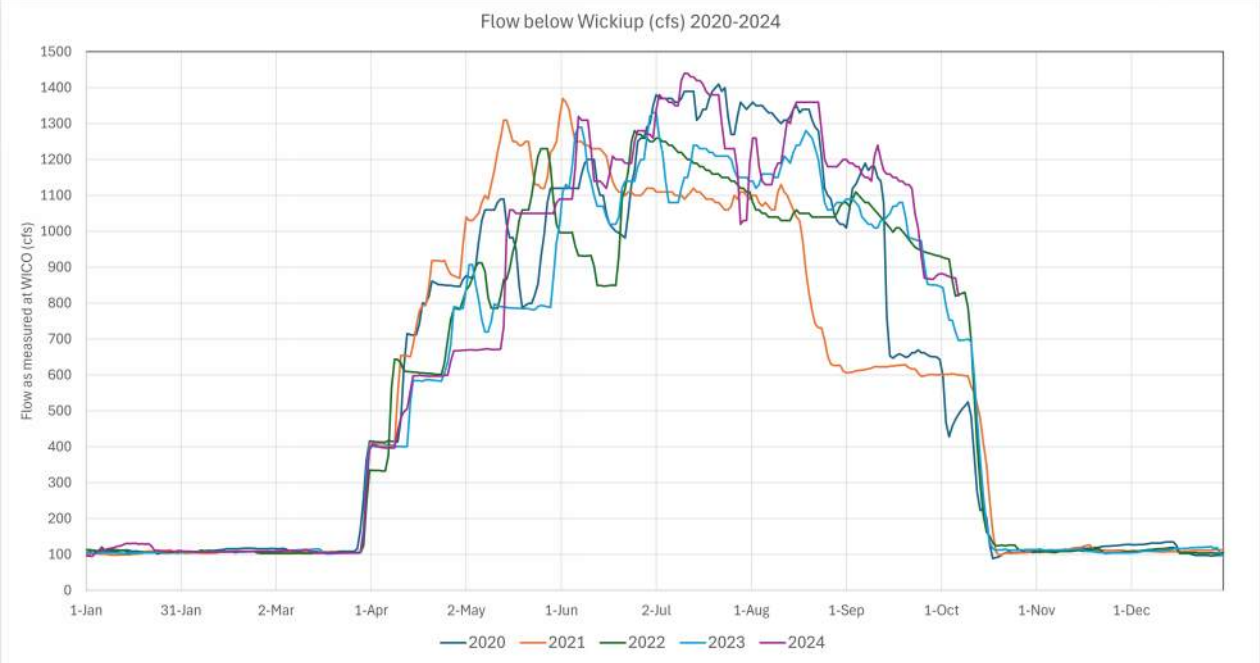


Figure 2. Deschutes River flow below Wickiup Reservoir as measured at the WICO gage for the years 2020 – 2024 to date.

Since finalization and approval of the HCP, Wickiup Reservoir has been managed to meet irrigation season needs while maintaining the minimum flow of 100 cfs required during winter months. This period has overlapped with drought conditions in the region, most acutely in 2021. In late summer 2021, discharge from Wickiup decreased and Deschutes River flow at the Benham Falls gage (BENO) fell below the 1,300 cfs minimum required in the HCP for about a month. REP does not know the details of this deviation from HCP requirements, and whether an exception was granted by USFWS due to the exceptional drought conditions.

As shown in Figure 2, from mid-October to the end of March the flow release from Wickiup has been almost exactly the minimum required 100 cfs. It is expected that the increased minimum flow required during winter months in 2028 and again in 2033 will have the greatest effect on Deschutes River flows, not only in the winter but also in summer to retain enough water volume to meet the minimum flow requirements. Summer flow releases are already within the 2028 maximum requirement.

Upper Deschutes River Hydrology

The Deschutes River historically had a relatively stable hydrograph with little seasonal fluctuation compared to typical rivers in the western US, due to porous volcanic soils and springs feeding the surface water flow. Construction of Wickiup Dam for water storage changed the hydrology of the upper Deschutes, with low flows in the winter while water is being stored in the reservoir and high flows in the summer upstream of the irrigation canal intakes.

There are two flow gages currently operated on the mainstem Deschutes River between Wickiup Reservoir and Bend. Hydromet Station WICO (OWRD Gage 14056500) is located just downstream of the dam, and Hydromet Station BENO (OWRD Gage 14064500) located just upstream Benham Falls. The BENO gage is the closest gage to the whitewater park, though several factors alter the flow in the river between the gage and the park. Downstream of the BENO gage, the river flows adjacent to a lava flow and over several waterfalls and rapids, including Benham Falls, Dillon Falls, and Lava Island Falls. A significant amount of river flow is lost to seepage in this reach. The amount of seepage is typically estimated at 7% of the total flow at the BENO gage.

Just upstream of Lava Island Falls is the Arnold Irrigation District canal diversion. The flow diverted from the river into this canal is measured by a flow gage (OWRD Gage 14065500). Downstream as the river comes into the City of Bend, there is a major diversion for the Central Oregon Irrigation District (COID). The flow in the canal is measured by a flow gage (OWRD Gage 14066500). Additional flow is diverted from the river here to supply a small hydropower plant operated by COID, but the flow diverted for hydropower reenters the river upstream of the whitewater park. The OWRD gage on the COID canal is located down canal from the plant and does not include the hydropower flow.

The whitewater park is located near the center of Bend, and additional irrigation diversions remove flow from the river downstream of the park. Tumalo Irrigation District diverts flow from just upstream of First Street Rapids Park. The largest diversion is located downstream of First Street Rapids, supplying water to Swalley Irrigation District and North Unit Irrigation District (NUID). Below this diversion, there is very little water left in the Deschutes River during irrigation season.

The flow in the Deschutes River at the whitewater park can be estimated using the Benham Falls gage (BENO), estimated flow lost to seepage (7%), flow diverted at the Arnold canal, and flow diverted at the COID canal.

Whitewater Park Flow = BENO – (7% x BENO) – (Arnold Diversion) – (COID Diversion)

Estimated flow at the whitewater park location was calculated for the last 20 years using mean daily flow gage data, as presented in Figure 3. The most recent four years (2020 – 2024) is shown in Figure 4. Note that the highest peak flow values are slightly lower than would be calculated using hourly or 15-min data, as the mean daily flow reports the average flow for the 24-hr period and would be lower than the highest peak flow that occurred over a short period (sub-day).

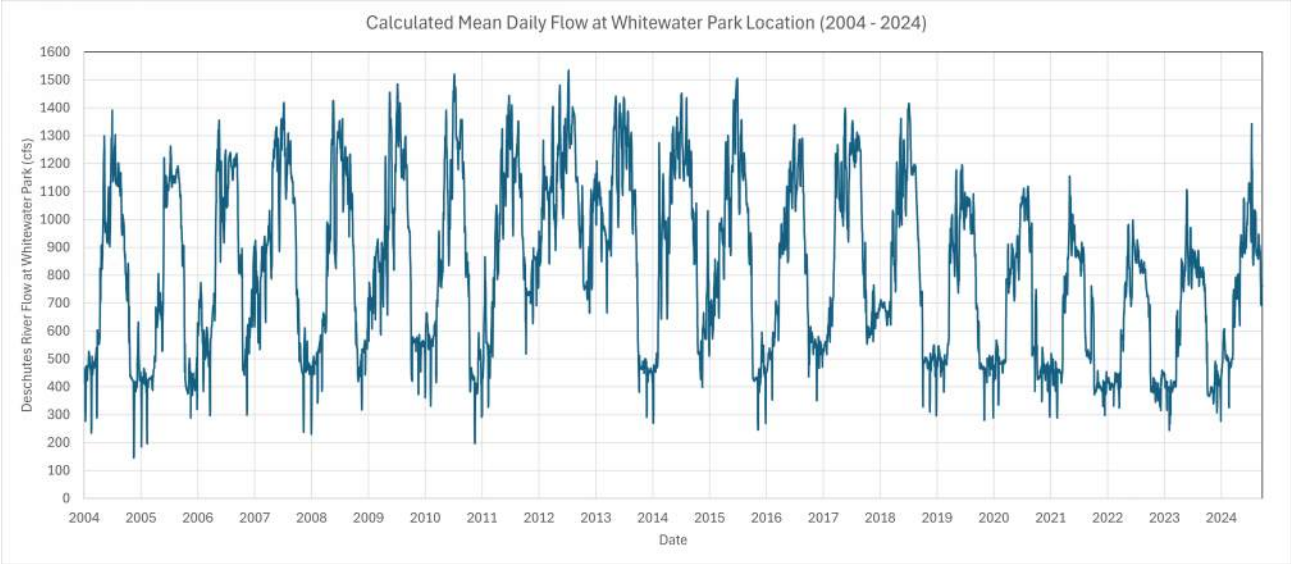


Figure 3. Time series of mean daily flow at the location of the whitewater park calculated for 2004 – 2024.

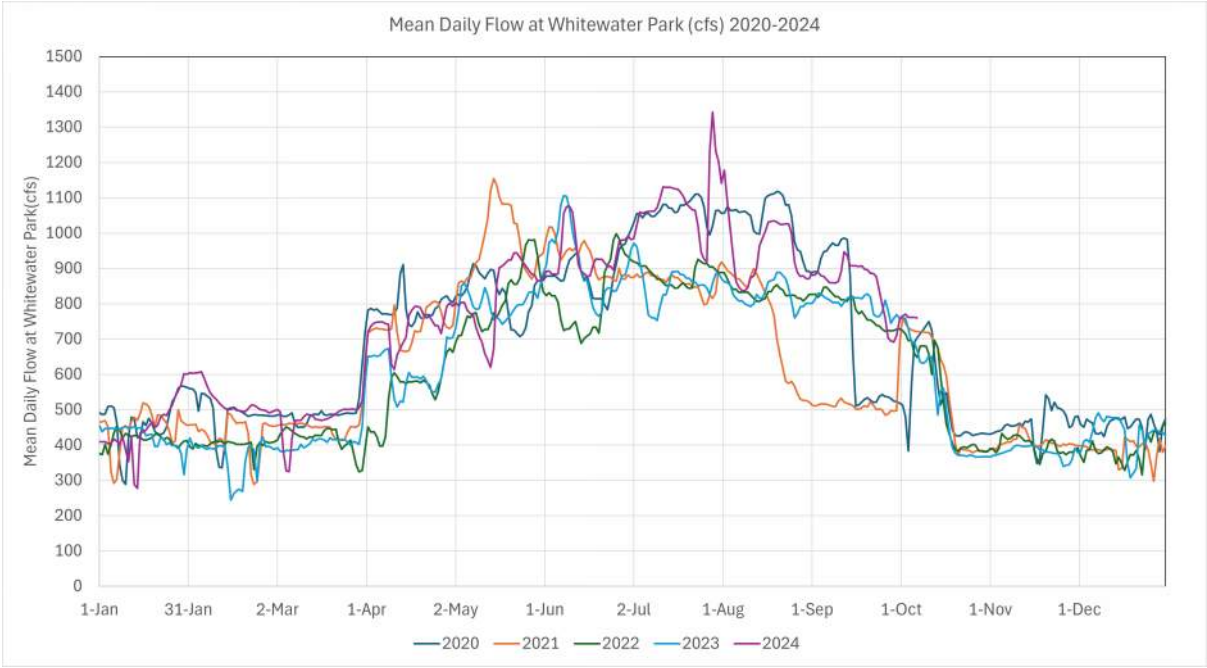


Figure 4. Mean daily flow calculated at the whitewater for 2020 - 2024.

The annual pattern of high summer flows during irrigation season and low winter flows during storage season is clear. In recent years, particularly 2019 – 2023, the summer flows are lower than the rest of the twenty-year record. There are many factors at play here, but primarily this is due to drought conditions and implementation of the HCP. Natural spring flows affecting inflow to Wickiup as well as flows into the river downstream of the reservoir were significantly lower than historic averages. Irrigation districts are implementing conservation measures and making due with less water to comply with current and upcoming HCP requirements.

There are several major tributaries to the Deschutes River between the two gages, including the Little Deschutes River, Fall River, and Spring River. These are primarily spring fed streams, though the Little Deschutes has more dramatic flow fluctuations than most streams in the region and can produce high flow events. There are several active OWRD flow gages on these tributaries including on the Fall River, Little Deschutes, and Crescent Creek (a tributary to the Little Deschutes). The flows on these tributaries are primarily unregulated, without large storage reservoirs. The exception is Crescent Lake, a natural lake with a dam added to create additional storage for Tumalo Irrigation District. Releases from Crescent Lake Reservoir are subject to requirements in the HCP, but the effects on flow at the whitewater park are expected to be minimal enough that changes in management of the Crescent Lake Dam was not included in this analysis.

The Fall River is a spring-fed stream and it can be seen in the gage data that there is little seasonal variation in flow. However, there can be variation year-to-year, as 2012 had flows approaching 140 cfs while in 2021 and 2022 flows were below 90 cfs. This is indicative of the effect drought conditions can have on springs in the region. While there may not be an immediate increase or decrease in spring flows due to precipitation, over time spring flows will change due to long periods of wet or dry conditions.

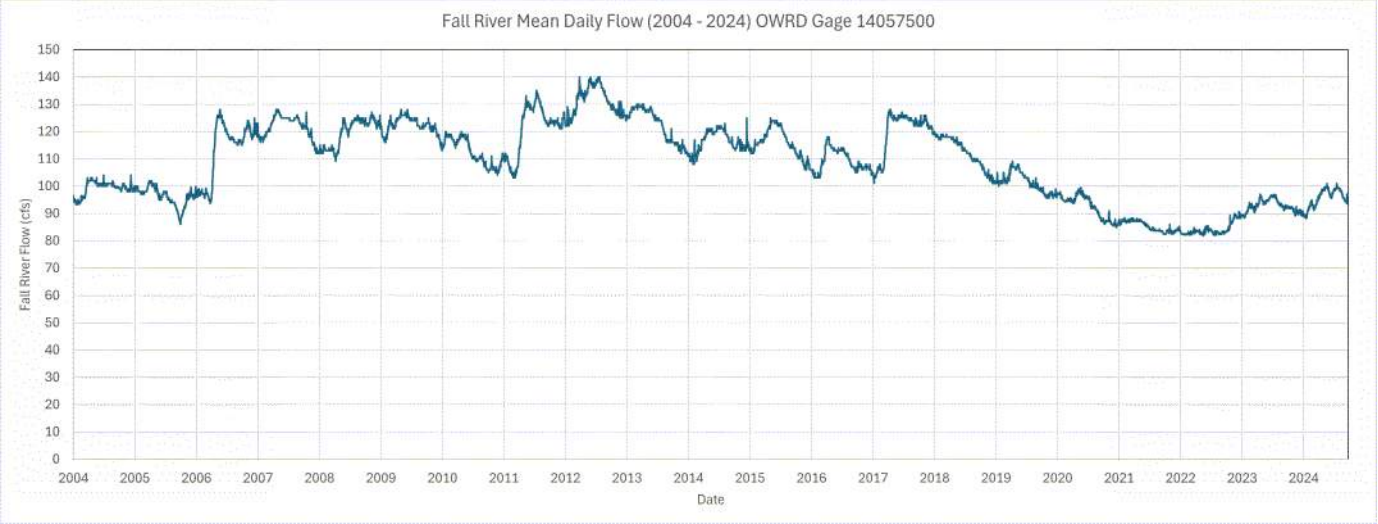


Figure 5. Fall River mean daily flow gage data from 2004 - 2024. The gage is located just downstream of the Fall River Fish Hatchery.

The Little Deschutes has much larger seasonal fluctuations in flow than the Fall River, and occasionally has significant high flow events. 2014 saw the highest such flow event in the last twenty years, due to a rain on snow event in February of that year. Manual discharge measurements at the gage location measured a peak flow of 1,420 cfs for that flow event.

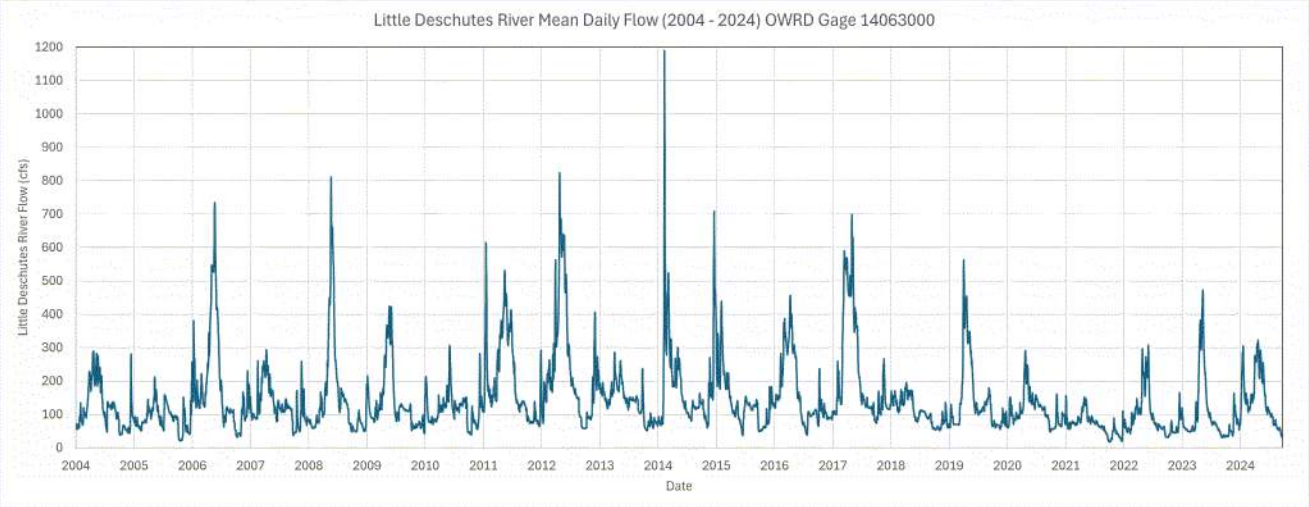


Figure 6. Little Deschutes River mean daily flow gage data from 2004 - 2024. The gage is located near La Pine at a private bridge near Burgess Road.

In order to estimate future flows at the whitewater park based on changes in Wickiup flow releases, it is necessary to determine what flow at Benham Falls can be expected for a given release flow from Wickiup. To estimate the amount of flow contributed to the Deschutes River throughout the year between Wickiup Reservoir and Benham Falls, monthly exceedance duration statistics were calculated using the BENO gage minus WICO gage mean daily flow data for the last twenty calendar years (1/1/2004 – 12/31/2023).

Table 2. Monthly statistics for mean daily flow data from 2004-2023 for BENO minus WICO

	EXCEEDANCE PROBABILITY						
	50% (Median)	25% (Upper Quartile)	75% (Lower Quartile)	10%	90%	Minimum	Maximum
JANUARY	476	583	432	675	378	287	948
FEBRUARY	501	592	428	676	335	247	1329
MARCH	534	629	434	727	376	232	959
APRIL	560	669	440	811	336	198	1050
MAY	588	708	475	890	380	250	1265
JUNE	470	630	390	792	330	170	1061
JULY	410	490	340	560	300	260	780
AUGUST	410	470	360	530	280	200	680
SEPTEMBER	451	500	390	552	279	200	827
OCTOBER	466	527	399	578	306	200	744
NOVEMBER	458	499	397	552	325	258	703
DECEMBER	459	512	408	605	335	208	1051

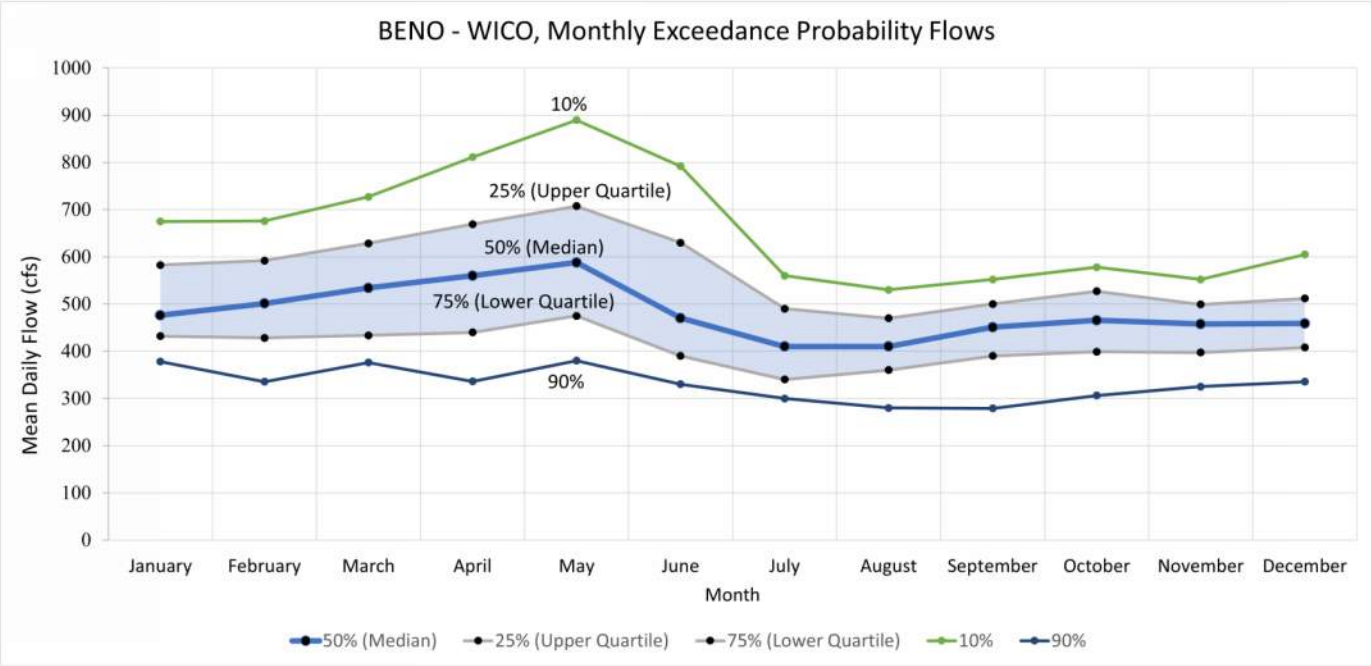


Figure 7. Monthly exceedance probability flows for mean daily flow gage data for the Benham Falls gage (BENO) minus Below Wickiup gage (WICO). The blue shaded region represents the middle 50% range.

Future Whitewater Park Flows

Winter

The flows during the winter months (mid-October through end of March) are the simplest to estimate, since during storage season there is higher certainty what the flow release from Wickiup will be (minimum required) and the irrigation canals are not diverting water (excluding stock water runs).

Deschutes River flow at the whitewater park from mid-October through the end of March can be estimated using the minimum flow release required from Wickiup in the HCP, plus the flow contributions to the mainstem river down to Benham Falls (BENO – WICO), minus seepage (7% of estimated BENO flow).

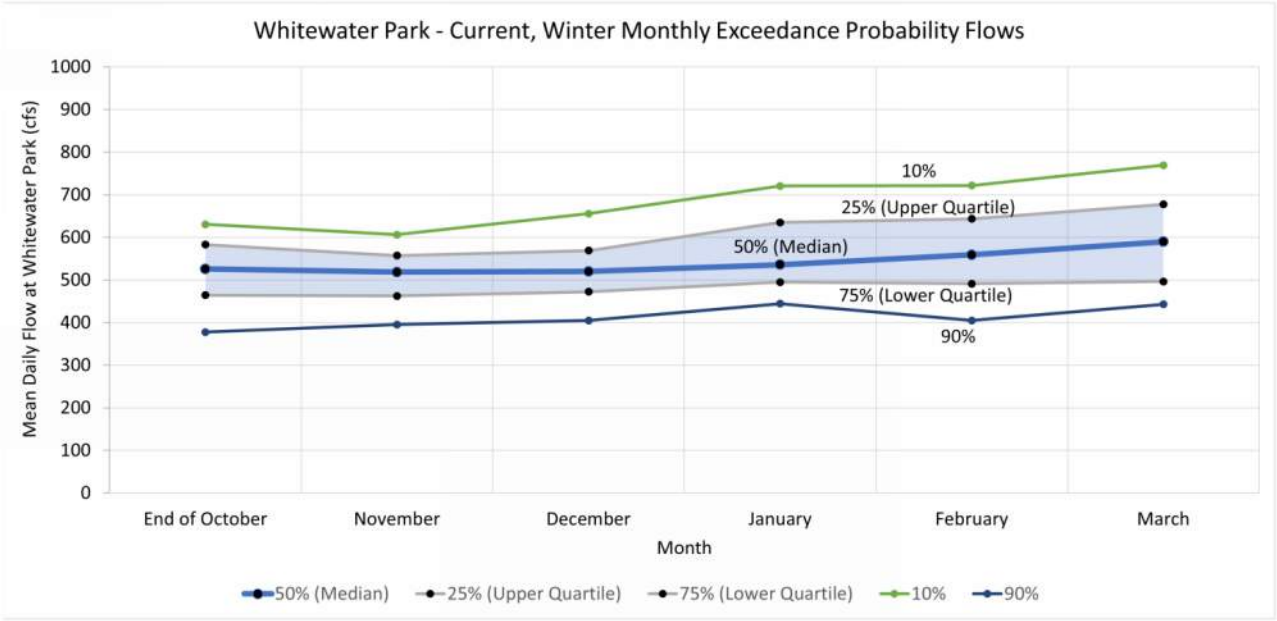


Figure 8. Monthly exceedance probability flows at the whitewater park, based on the mean daily flow gage data for most recent twenty calendar years (2004 - 2023) and a flow release from Wickiup of 100 cfs. This assumes canals are not diverting (does not account for stock water runs).

Median flows during the winter months are between 500 and 600 cfs, with highest median flow during March. The majority of flow is from natural inputs from spring-fed tributaries and the Little Deschutes. Winter flows in recent years have been significantly lower than the median flows computed. Figure 9 plots the four most recent winter flows against the monthly exceedance flows from Figure 8.

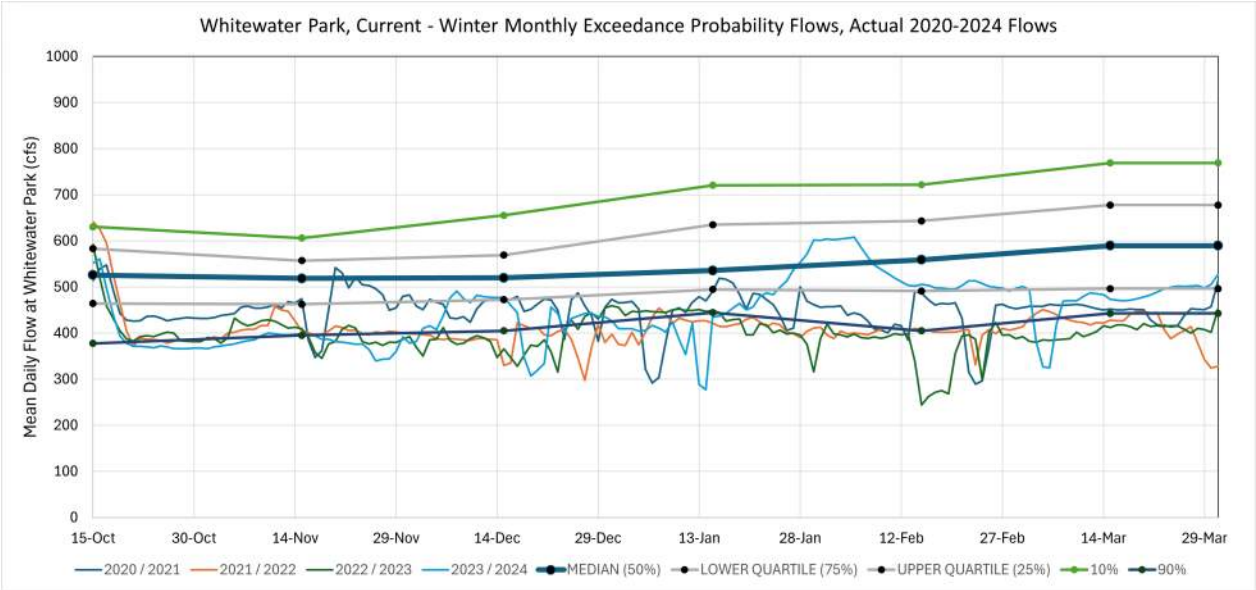


Figure 9. Actual mean daily flows at the whitewater park for the last four winters as compared to the monthly exceedance probability flows computed.

Flows from mid-October to the end of March for the last four winters have been significantly lower than the median computed based on the last twenty years. This period has coincided with a significant drought in the basin, resulting in lower flows in spring-fed tributaries and the Little Deschutes. Much of the last four winters have been at or below the 90% exceedance probability flow. It is expected that natural flows will rebound when drought conditions cease, though droughts may be more common and severe in the future due to climate change. An additional factor in the above plot is the effect of stock water runs; the temporary low flows to 300 cfs or below are due to stock water runs (short periods of irrigation canal diversion) that are not accounted for in the computed exceedance probabilities.

Future winter flow conditions were computed for 2028 – 2032 using the minimum required HCP Wickiup flow release of 300 cfs. For 2033 – 2050, the minimum required HCP Wickiup flow release will be set each year between 400 cfs and 500 cfs, based on a "variable flow tool" yet to be developed. It will be based on available storage in Wickiup and anticipated inflow to the reservoir, so it is anticipated that a lower minimum flow will be required during years coinciding with low natural flows (90% exceedance probability), and a higher minimum flow will be required during years of high natural flows (10% exceedance probability). For the purposes of this analysis, a flow from Wickiup of 400 cfs was used for the 90% exceedance probability flows, 425 cfs for the lower quartile flows (75% exceedance probability), 450 cfs for the median flows (50% exceedance probability), 475 cfs for the upper quartile flows (25% exceedance probability), and 500 cfs for the 10% exceedance probability flows.

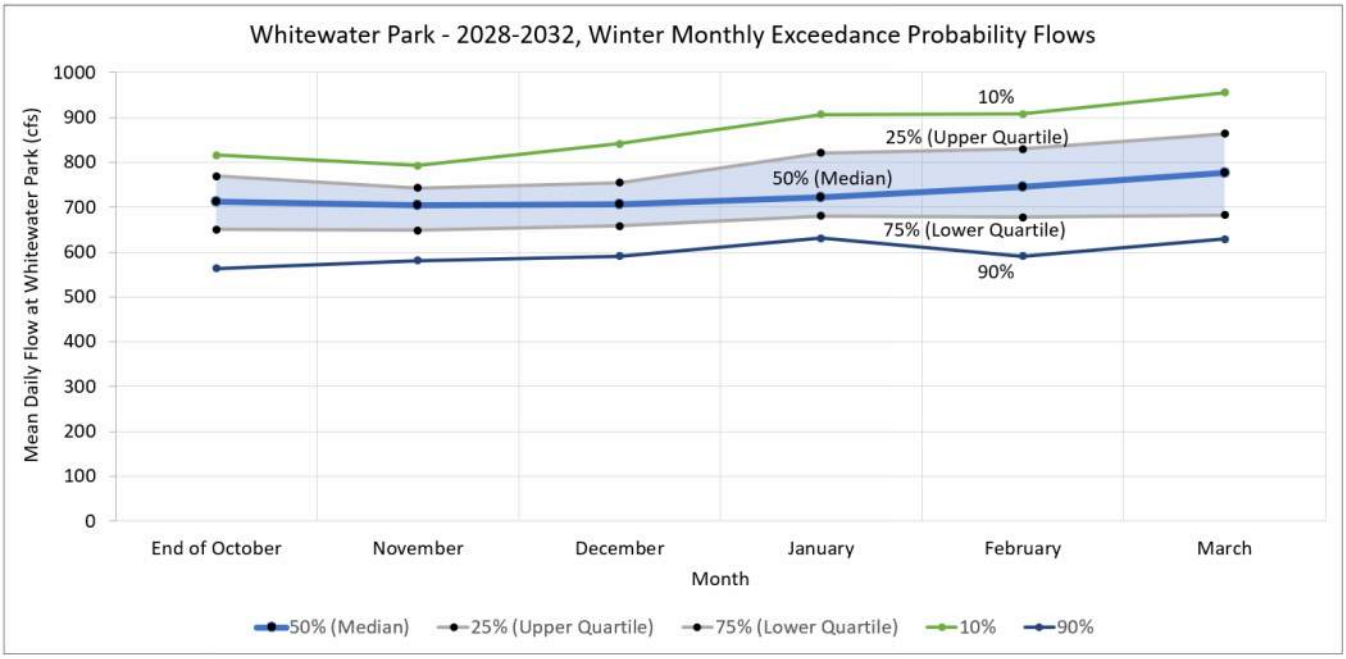


Figure 10. Monthly exceedance probability flows at the whitewater park, based on the mean daily flow gage data for most recent twenty calendar years (2004 - 2023) and a flow release from Wickiup of 300 cfs.

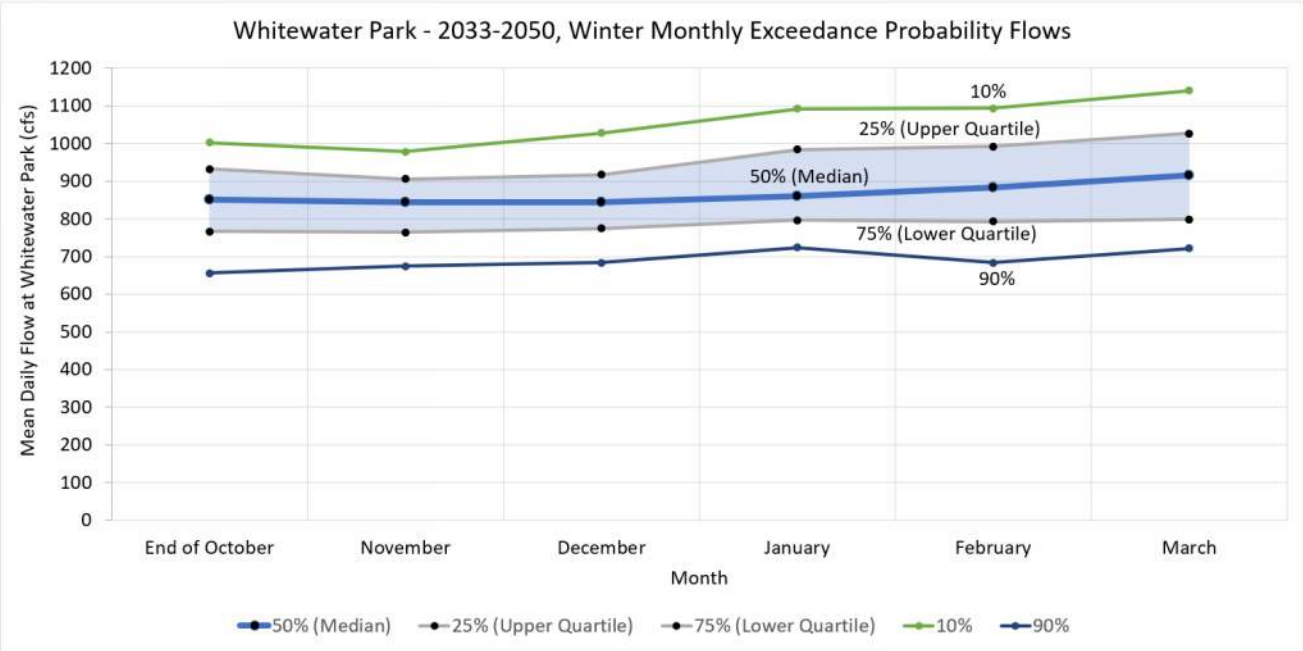


Figure 11. Monthly exceedance probability flows at the whitewater park, based on the mean daily flow gage data for most recent twenty calendar years (2004 - 2023) and a flow release from Wickiup of 400 - 500 cfs.

Based on the results of this analysis, even if drought conditions persist and flows are consistent with the 90% exceedance probability flow, during winter at the whitewater park a flow of 600 cfs can be expected from 2028 – 2032, and a flow of 700 cfs can be expected from 2033 – 2050. If drought conditions ease and natural flows are more similar to the last two decades, a median flow during the winter at the whitewater park of 700 cfs can be expected from 2028 – 2032, and a median flow of 850 cfs can be expected from 2033 – 2050. Short duration low flow periods can still be expected during stock water runs. Winter can also produce the highest flows of the year, generally coinciding with a rain on snow event in the Little Deschutes River basin. The 1% annual exceedance probability (AEP) flow (100-yr flood) at the whitewater park is 3,400 cfs. The largest flood since construction of Wickiup dam was in December 1964, with a flow of 3,470 cfs measured at the Benham Falls gage.

Summer

The future flows during the summer months are more difficult to estimate, since during irrigation season the flow release from Wickiup will be determined by irrigation demand rather than solely HCP requirements, and the irrigation canals will be diverting water. It is expected that summer flow releases will need to be reduced primarily to conserve water to meet the minimum required winter releases, rather than to stay below the maximum summer flows in the HCP since they are relatively high.

There is uncertainty in the amount of flow to be diverted for the irrigation canals in future years. While past diversion flows are relatively consistent, there are large conservation projects being undertaken by the irrigation districts, primarily piping of the open canals which is expected to conserve a significant amount of water. Additional factors include instream water rights transfers and leases, and transfers between irrigation districts. NUID has junior water rights relative to COID, and recently a water bank has been established to enable voluntary transfers between water rights holders. To meet irrigation needs as well as HCP requirements, it is expected that some COID water rights will be transferred to NUID, the scale of which is unknown. Flow that COID foregoes will result in more flow at the whitewater park, since the NUID diversion is downstream of the park. While the degree of change is uncertain, irrigation flow diversion at the COID point of diversion and Arnold point of diversion will need to be reduced to meet HCP requirements.

Mean daily flow diverted from the mainstem Deschutes to the Arnold canal and COID canal for the last twenty years are shown in Figures 12 and 13. Past peak diversion rates for COID have generally been around 500 cfs, and generally below 100 cfs for Arnold with a few exceptions. During the winter months, there is generally no flow in the canals, with the exception of stock water runs that can be seen as flow spikes in the plots during the winter months. In recent years, flow diversion has been lower than the past, likely due to a combination of drought conditions, conservation measures, and HCP requirements. The peak mean daily flow in the COID canal in 2023 was 418 cfs, and the peak mean daily flow in the Arnold canal in 2024 was 80 cfs.

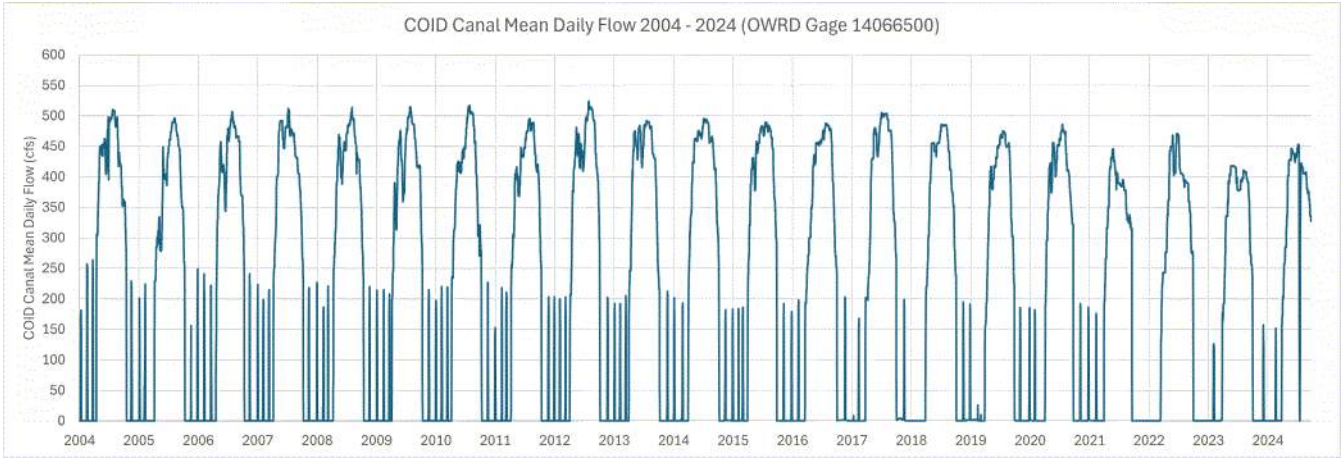


Figure 12. Mean daily flow in the COID canal as measured at OWRD Gage 14066500 from 2004 to 2024.

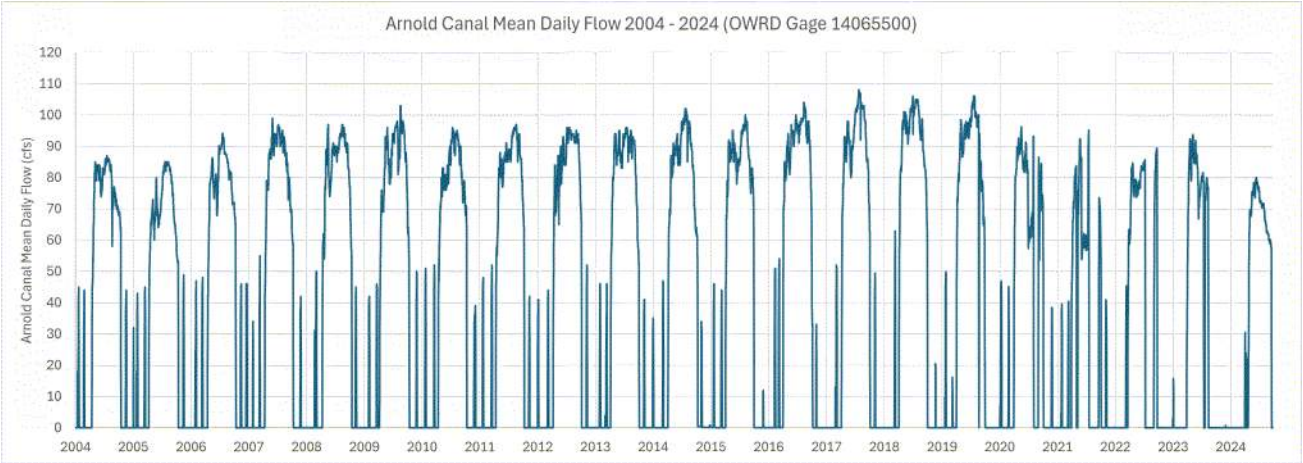


Figure 13. Mean daily flow in the Arnold canal as measured at OWRD Gage 14065500 from 2004 to 2024.

To estimate the reduction in summer flow releases from Wickiup necessary to meet winter minimum flow HCP requirements, the additional water volume to be released over the season was estimated. The minimum flow release from Wickiup is typically from mid-October to the end of March. Assuming this minimum flow release has a duration of 162 days (typical), the additional water volume necessary to release an additional 200 cfs (to meet 2028 minimum of 300 cfs, on top of the current minimum of 100 cfs) is 64,264 acre-feet of water. Wickiup Reservoir has a total storage volume of 200,000 acre-feet. To meet the 2033 minimum of 400 cfs, the total water volume of the additional 300 cfs necessary over the current minimum (100 cfs) for a 162 day duration is 96,397 acre-feet (nearly half the total storage volume of Wickiup). When the minimum release is 500 cfs, the additional total water volume over the winter season is 128,529 acre-feet. The water volume stored in Wickiup Reservoir is measured by a US Bureau of Reclamation (USBR) gage (OWRD Gage 14056000).

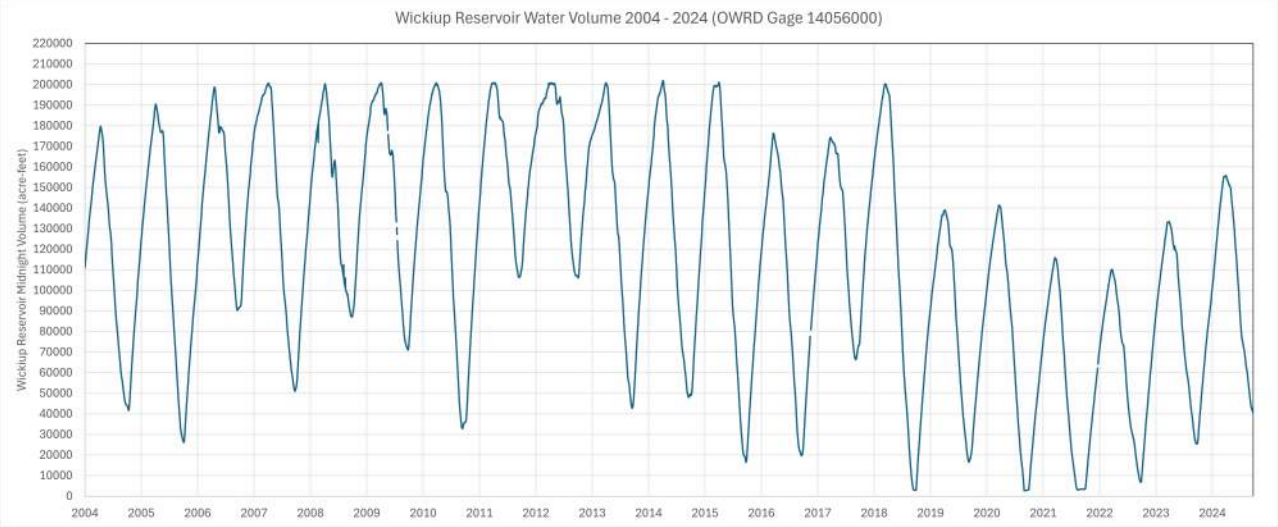


Figure 14. Volume of water stored in Wickiup Reservoir from 2004 to 2024. Total storage capacity of the reservoir is 200,000 acre-feet.

For the majority of the last twenty years, Wickiup would fill to full capacity (200,000 acre-feet) prior to the start of the irrigation season. In recent years this has not been the case, with 2018 being the only year since 2015 that Wickiup has reached full capacity. Prior to the 2022 irrigation season, Wickiup peaked at 110,200 acre-feet (55% of the total capacity). This was after the particularly severe drought year of 2021. The lower reservoir levels in recent years are primarily the result of drought conditions, however winter flow release is also a factor. Prior to the 2016 irrigation season, winter flows at WICO were often under 40 cfs, and could be as low as 20 cfs. Since then, flow releases from Wickiup have been at or near the current minimum of 100 cfs.

To gage the severity of the drought in recent years and estimate the degree of variability in inflows to the reservoir, the annual effective inflow water volume to Wickiup was estimated for the last twenty full calendar years (2004-2023). Total annual outflow water volume from the reservoir was estimated using WICO gage mean daily flow data, converting to a daily outflow volume, and summing for the year. The December 31 midnight reservoir volume of each year was used to determine the net change in water volume over the year. The annual effective inflow water volume was computed as the annual outflow volume plus or minus the change in storage over the year. The term “effective inflow” is used because the mass balance does not take into account water volume that is lost from the reservoir due to evaporation and infiltration. The actual inflow volume would be higher to make up for the evaporation and infiltration losses.

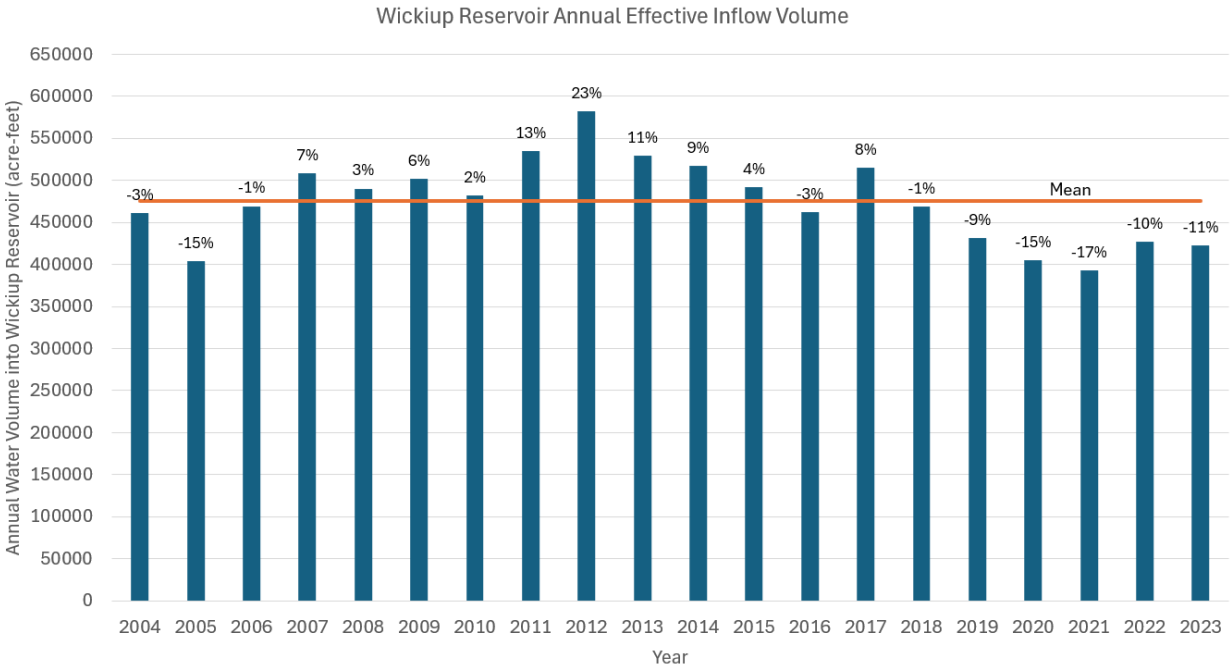


Figure 15. The effective inflow volume for the last twenty calendar years (2004-2023). The mean for the twenty years is shown as the orange line (475,043 acre-feet). The percent difference from the mean is labeled for each year.

The average (mean) annual effective inflow volume for the twenty years analyzed is 475,043 acre-feet. The effects of the drought in recent years can be seen in the lower inflow volumes, with 2021 having the lowest inflow at 17% lower than average (over 82,000 acre-feet lower). The peak inflow year was 2012 at 23% higher than average (over 107,000 acre-feet higher).

This highlights the challenges of drought in the region and affect on future flows. The amount of additional water volume necessary each year to meet the increased winter flow in 2028 is approximately 13.5% of the mean annual effective inflow volume. If the last four years (2020-2023) had mean inflow volumes, that would've provided the additional volume necessary to release 300 cfs all winter. There will be high and low inflow years, and the storage volume in Wickiup will provide a buffer to bridge occasional low water years, but multi-year droughts will be challenge.

To estimate how Wickiup may be operated to meet HCP winter flow requirements, reservoir inflow volume, outflow volume, and reservoir minimum and maximum volumes were calculated for the last four years. The minimum reservoir volume (occurring in Fall) was determined for each year, as well as the maximum reservoir volume (occurring end of March / early April) for each year. The inflow and outflow volumes were calculated for each "season" each year: summer defined as period between max and min, when reservoir is losing water volume, and winter defined as period between min and max, when reservoir is gaining water volume.

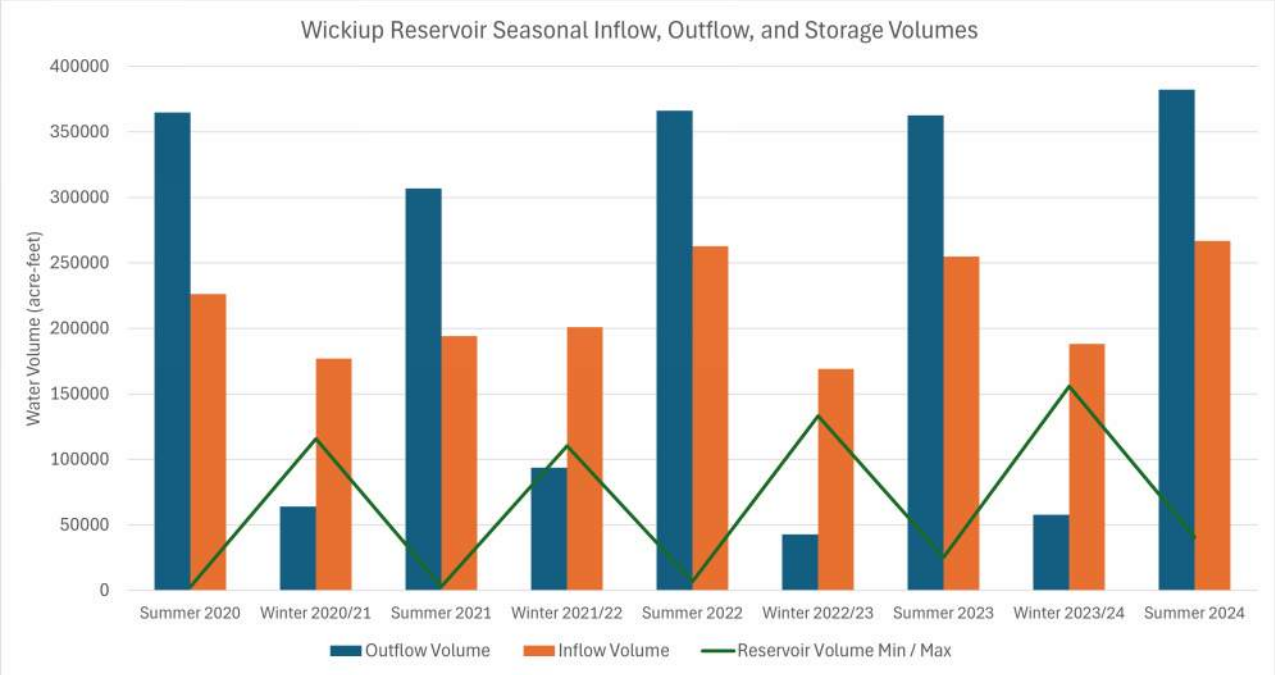


Figure 16. Outflow and effective inflow volumes calculated for each season: summer defined as when reservoir is losing volume, winter defined as when reservoir is gaining volume. The min and max reservoir volume each year is shown by the green line.

During summer when the reservoir is losing water volume, the outflow is greater than the inflow, and during winter when the reservoir is gaining water volume, the inflow is greater than the outflow. During the majority of the winter season, the reservoir flow release has been at or near 100 cfs, the current minimum required by the HCP. It can be seen that the maximum reservoir volume increases each year after 2021, even though there are drought conditions. This may be in anticipation of the upcoming increase in minimum winter flows, to build up the reservoir volume to provide resilience to adjust to the new HCP requirements.

To evaluate how Wickiup may have been managed if the flow minimum were 300 cfs, the estimated additional outflow volume required (64,264 acre-feet) was added to the winter outflow volume for each year. The prior outflow summer volume was then reduced by either the same amount, or enough to match the previous year's maximum storage volume. It is assumed that since these are drought conditions, in future years Wickiup wouldn't be managed to increase storage volume year over year during similar low inflow years. This results in the adjusted inflow and outflow volumes shown in Figure 17, along with the resulting min and max reservoir volumes.

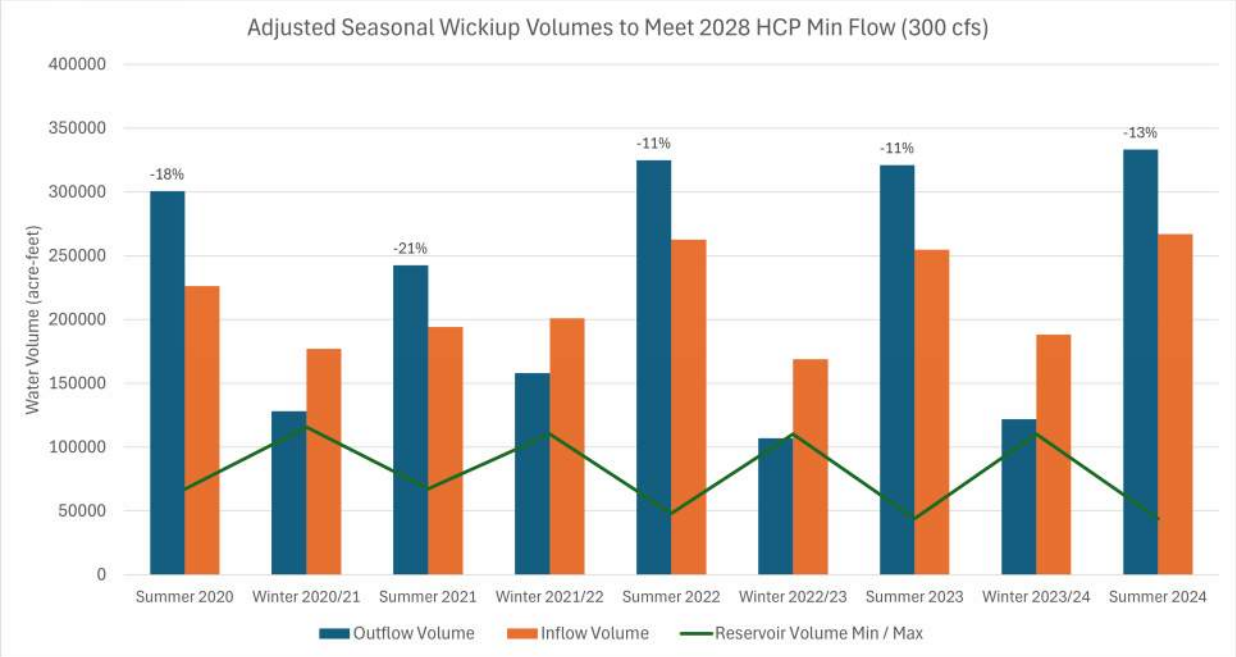


Figure 17. Volumes adjusted to allow for 300 cfs minimum flow. Summer outflow volume adjusted downward to account for larger winter outflow volume. Percentage labels show amount summer outflow volume was adjusted downward.

This is one potential scenario how the summer flow releases could be managed to meet the HCP requirements; for example summer outflows could be decreased less, resulting in less stored volume in the reservoir. The 2021 summer flows are reduced most significantly, by over 20%. This is expected to be on the high end of necessary reduction, since 2021 was the worst drought year in the last 20 years, and this scenario still retains 33% of the reservoir storage volume at the end of the summer season.

Summer 2022 and 2023 flow releases were reduced by 11%, very similar to the amount those years were below the annual effective inflow volume (10% and 11%). As a rough guide to potential summer flow releases for 2028-2032, without drawing down reservoir storage volume, flow at WICO could be similar to the 2020-2024 summers for average inflow conditions (non-drought conditions), then scaled for deviation of annual effective inflow from the mean: for example, 2023 had an annual effective inflow into Wickiup 11% below the 20-yr mean, and the summer 2023 outflow volume would need to be reduced by approximately 11% to provide sufficient volume for 300 cfs to be released all winter, without drawing down the reservoir storage volume. As discussed previously, if the annual effective inflow had instead been similar to the 20-yr mean, that additional water volume would provide nearly enough to release 300 cfs during the winter while keeping summer flow releases similar to the actual 2023 summer releases from Wickiup.

A similar analysis was performed for the minimum winter flow release of 400 cfs required beginning in 2033. Summer flows had to be adjusted approximately an additional 10% lower than the 300 cfs scenario. Outflow volumes in the summer season are still higher than inflow volumes, and lower than inflow in the winter, but the difference between the two is less resulting in significantly less seasonal change in stored water volume in the reservoir. The "variable flow tool" will determine the actual minimum winter flow required in 2033-2050 based on anticipated inflow and available reservoir storage, but it is assumed that in drought conditions such as recent years the minimum required would be closer to 400 cfs. For the 500 cfs minimum flow scenario, it is assumed that sufficient inflow and stored water would be available to provide the additional water necessary.

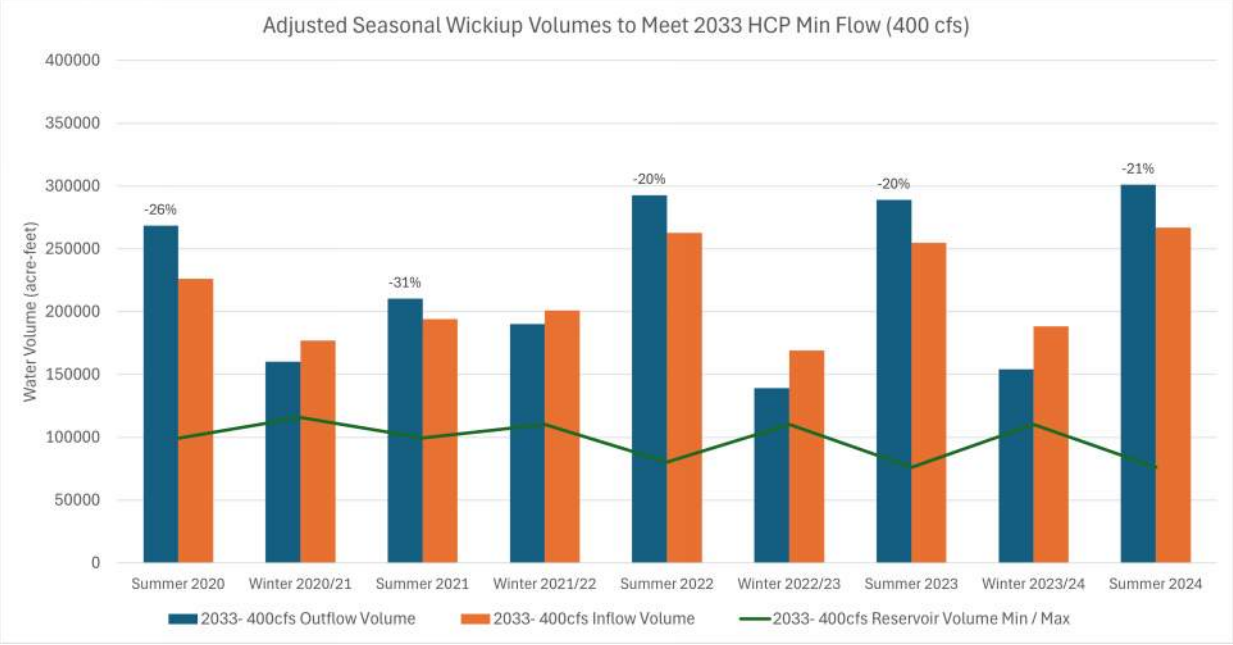


Figure 18. Volumes adjusted to allow for minimum flow of 400 cfs. Percentage labels show amount summer outflow volume was adjusted downward as compared to actual outflow volume.

Beyond the requirement for higher minimum winter flows, there are additional HCP requirements that will affect summer flows at the whitewater park. From July 1 through September 15, a minimum of 1,300 cfs is required at the Benham Falls gage (BENO). Assuming that COID continues to divert approximately 400 cfs and Arnold 80 cfs (which is conservative, since it is expected that the irrigation diversions will lessen with conservation measures and water transfers being implemented), the HCP requirement of 1,300 cfs at BENO results in a minimum flow of 730 cfs at the whitewater park.

Beginning in 2033, maximum flow from Wickiup (WICO gage) will be 1,200 cfs from April through September 15. To estimate what flow at the whitewater park would result from this flow from Wickiup, the monthly exceedance probability flows for BENO – WICO based on the last 20 years were used. A combined COID and Arnold irrigation diversion of 480 cfs was used.

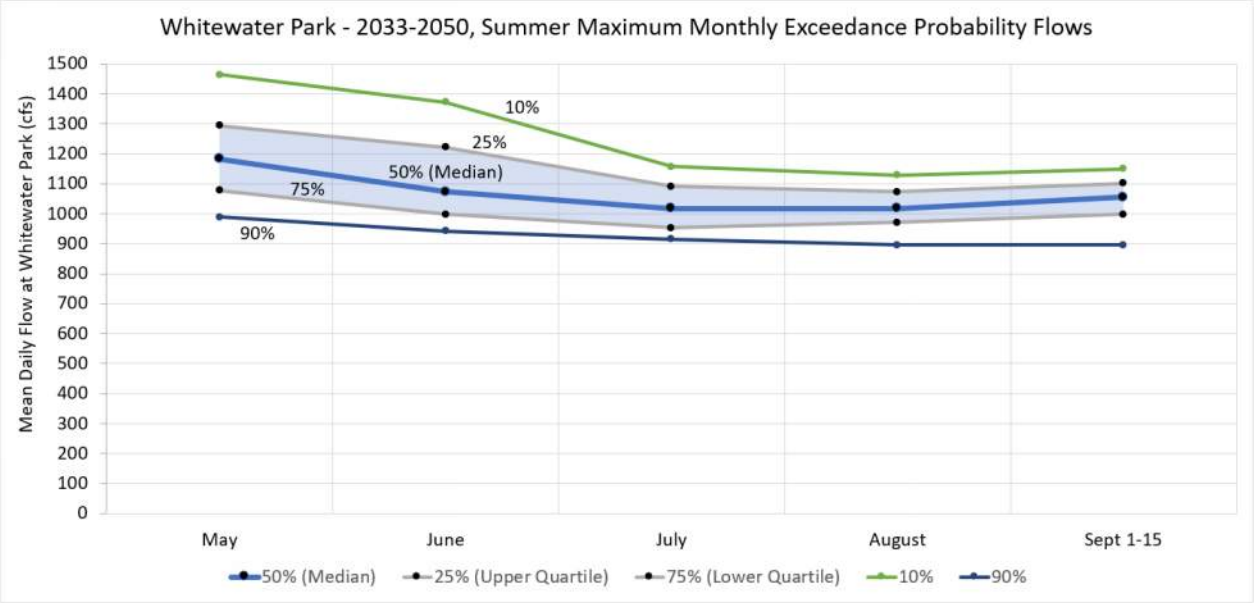


Figure 19. Monthly exceedance probability flows at the whitewater park, based on the mean daily flow gage data for most recent twenty calendar years (2004 - 2023), a flow release from Wickiup of 1,200 cfs (maximum allowed beginning in 2033), and constant combined irrigation diversion upstream of the park of 480 cfs.

If drought conditions persist and we continue to see low inflows similar to the 90% exceedance flow, the maximum summer flow in 2033-2050 expected at the whitewater park would be between 900 and 1,000 cfs. If inflows increase to the median of the last twenty years, the maximum summer flow could be expected to be between 1,000 cfs and 1,200 cfs. This does not account for any reduction in irrigation diversion from COID and Arnold, which would increase flow at the whitewater park.

Recommendations

Based on the results of this analysis, it is recommended that the design of the whitewater park maintenance project be optimized for 700 cfs to 1,000 cfs of total flow, since flows within this range can be expected for the vast majority of each year in 2028 - 2050. The park should be designed to function well down to a design low flow of 600 cfs, and up to a design high flow of 1,200 cfs.

2033 – 2050 low flow: It is expected that Deschutes River flow at the whitewater park would rarely drop below 700 cfs; for winter months, only during periods of low inflows (90% exceedance probability or below) or during short duration stock water runs. For summer months, flows will be at or above 730 cfs July 1 through September 15 if the minimum BENO flow of 1,300 cfs is maintained. The most likely period when flows may drop below 700 cfs would be April, May or June, when irrigation canals begin diverting water and before the minimum BENO flow is required.

2028 – 2032 low flow: If drought conditions persist and inflows continue near the 90% exceedance probability flow, winter flows would be near 600 cfs. The park should be designed to continue to function adequately at this time.

High flows: If drought conditions ease and conservation measures allow significant reduction in irrigation diversions, there may be summer flows that regularly reach 1,200 cfs, and the park should be designed to continue to function well at this time. Higher flows will also be possible and should be analyzed. The park will need to be designed to convey flood flows.

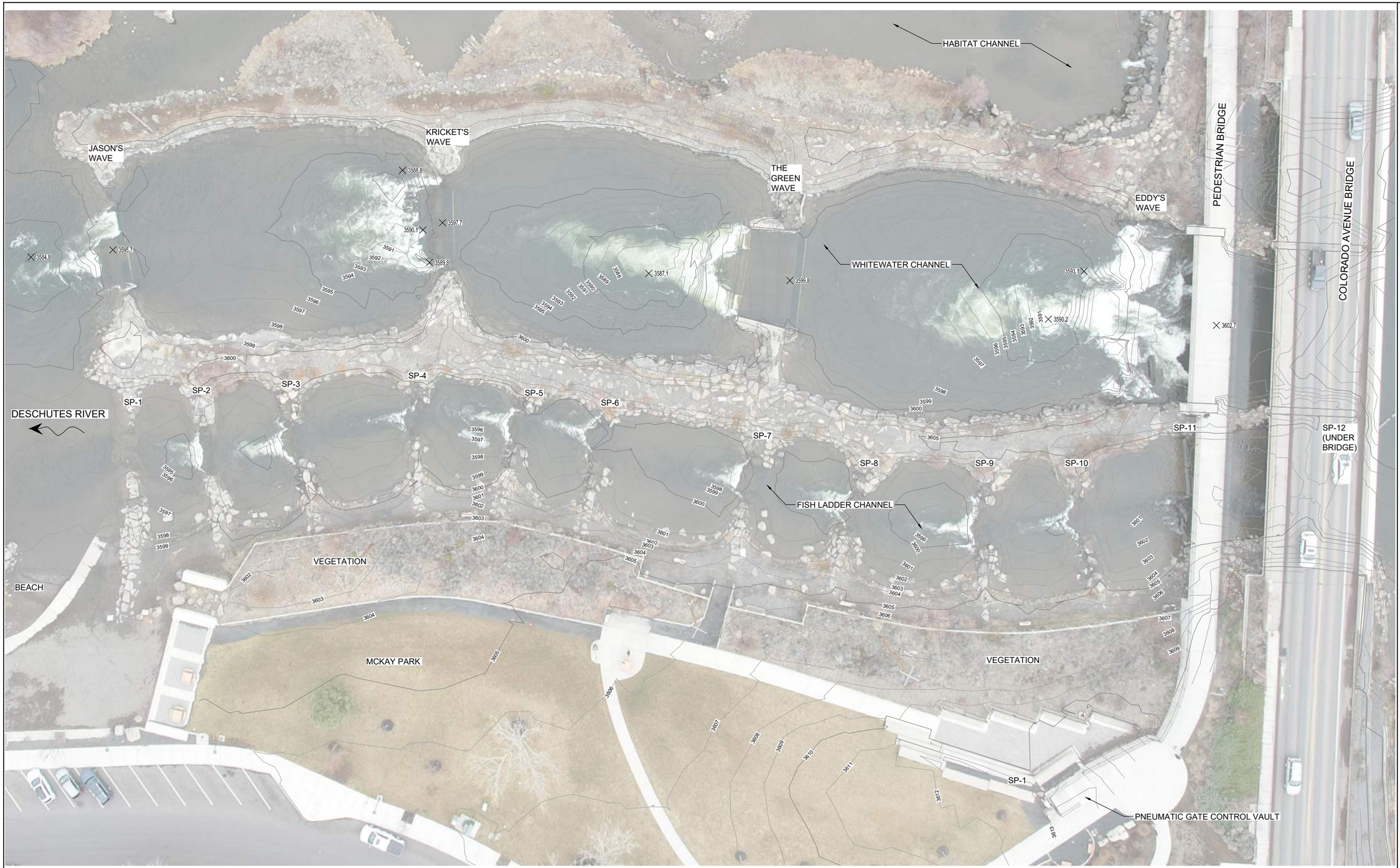
Maintenance flows: In order to allow for temporary diversion of flow out of the whitewater channel for maintenance, it is recommended that the fish passage channel be designed to convey 800 cfs without substantial degradation.

Recommended Design Flows for Whitewater Park Maintenance Project

	TOTAL DESCHUTES RIVER FLOW AT PARK
OPTIMIZED DESIGN FLOW RANGE	700 – 1,000 cfs
DESIGN LOW FLOW	600 cfs
DESIGN HIGH FLOW	1,200 cfs
1% AEP FLOW (100-YR FLOOD)	3,400 cfs

Note: Additional flows beyond those in the above table will need to be considered, analyzed, and designed for including additional flood flows (such as 0.2% AEP flow (500-yr flood)), and a full range of potential low to high flows.

Appendix 2
Existing Conditions Drawings



EXISTING CONDITIONS - PRELIMINARY

NOTE:
THESE ARE PRELIMINARY SHEETS ONLY FOR THE PURPOSE OF DISCUSSION.
CONTOURS SHOWN ARE BASED ON SURVEY PERFORMED BY BECON. AERIAL IMAGERY FROM REP (2024-03-11)

N

SCALE BAR 1"=20'
20 0 20

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PROJECT OWNER:
BEND PARKS AND RECREATION DISTRICT
799 SW COLUMBIA ST
BEND, OR 97702

BEND WHITEWATER PARK
BEND, OREGON
DESCHUTES RIVER
CONDITION ASSESSMENT
EXISTING CONDITIONS

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PLOT DATE: 10/29/2024

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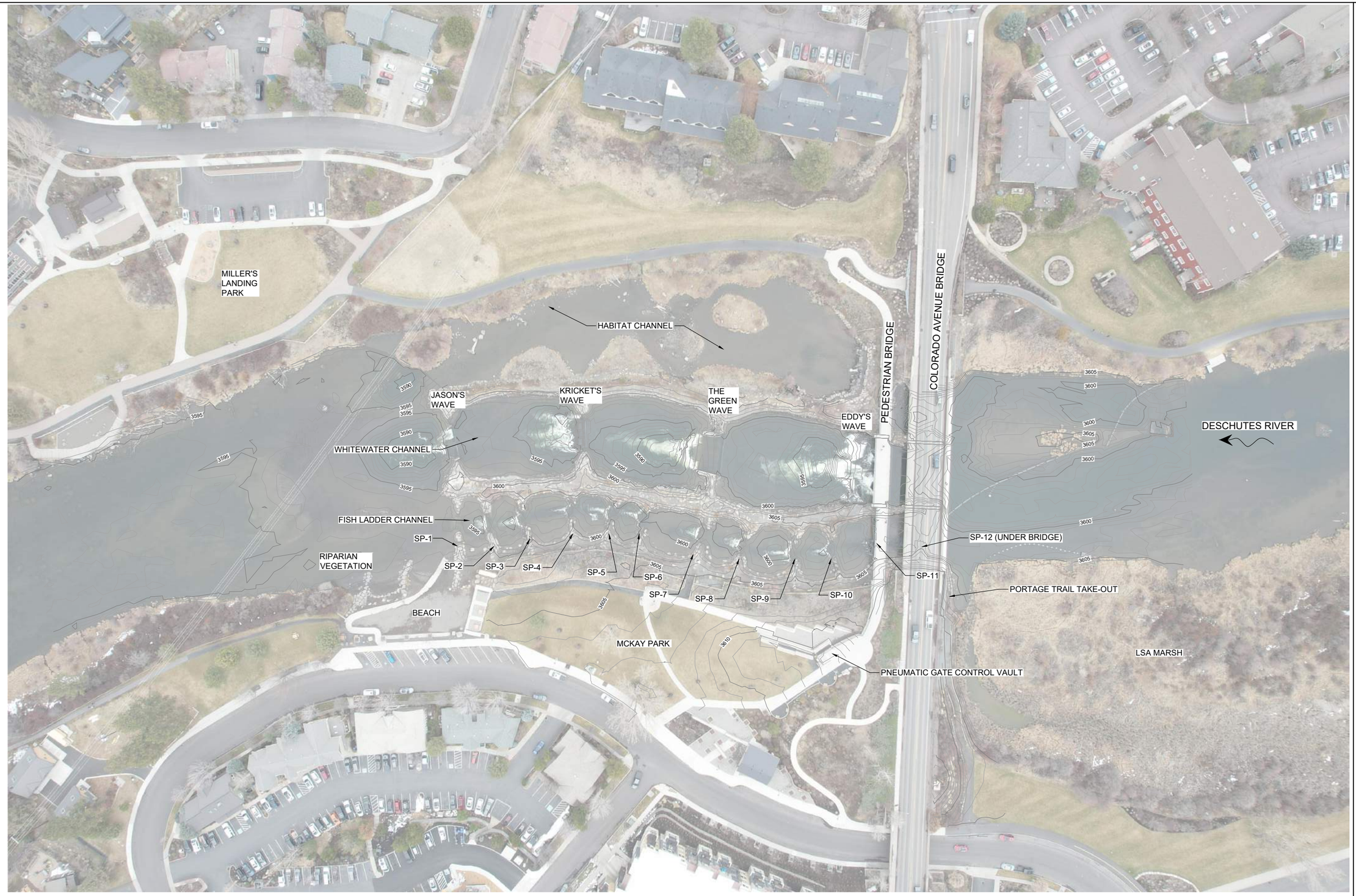
SHEET 1 OF 6



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SCALE BAR 1"=50'
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EXISTING CONDITIONS 50 SCALE

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NOTE:
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N

SCALE BAR 1"=5'
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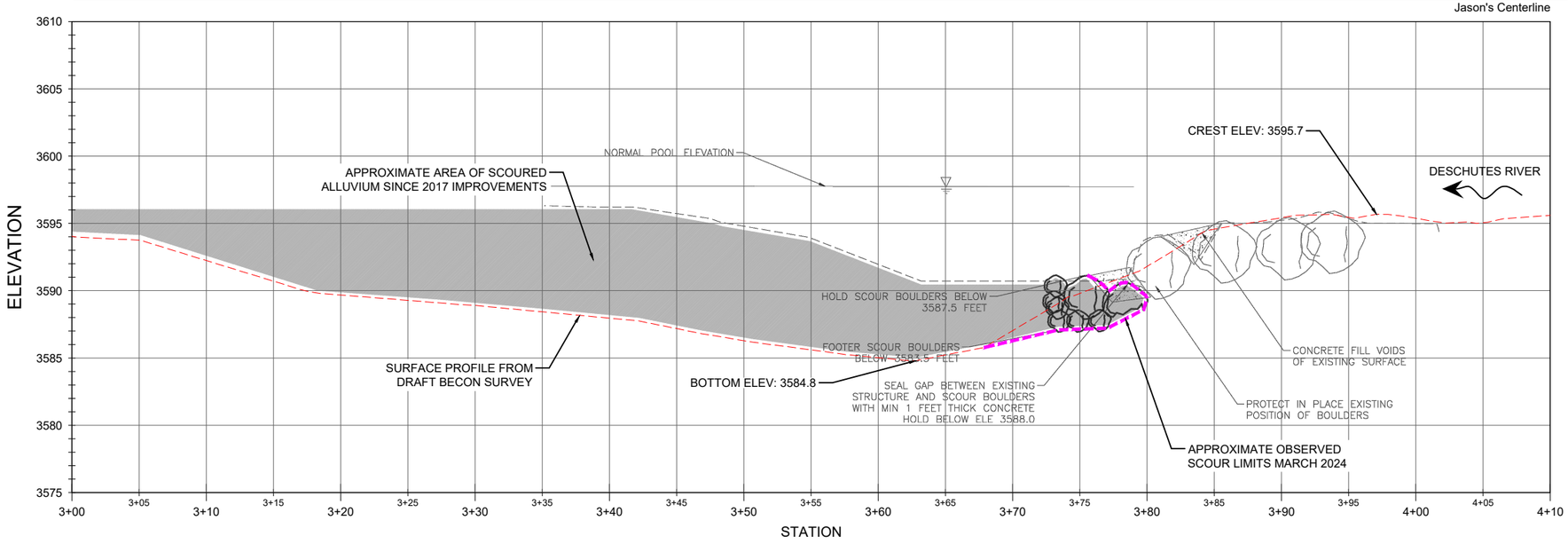
Jason's Centerline



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CONDITION ASSESSMENT

EXISTING PROFILE - JASON'S

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SHEET 3 OF 6

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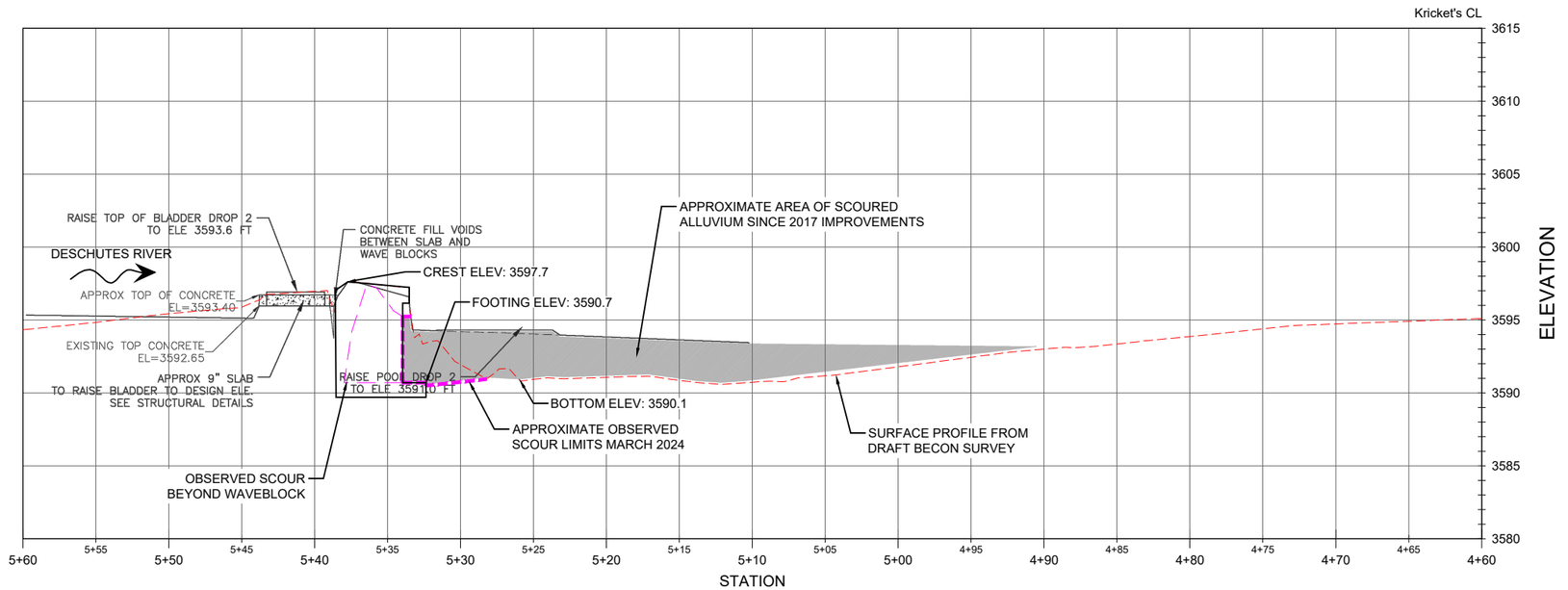

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CONDITION ASSESSMENT
EXISTING PROFILE - KRICKET'S

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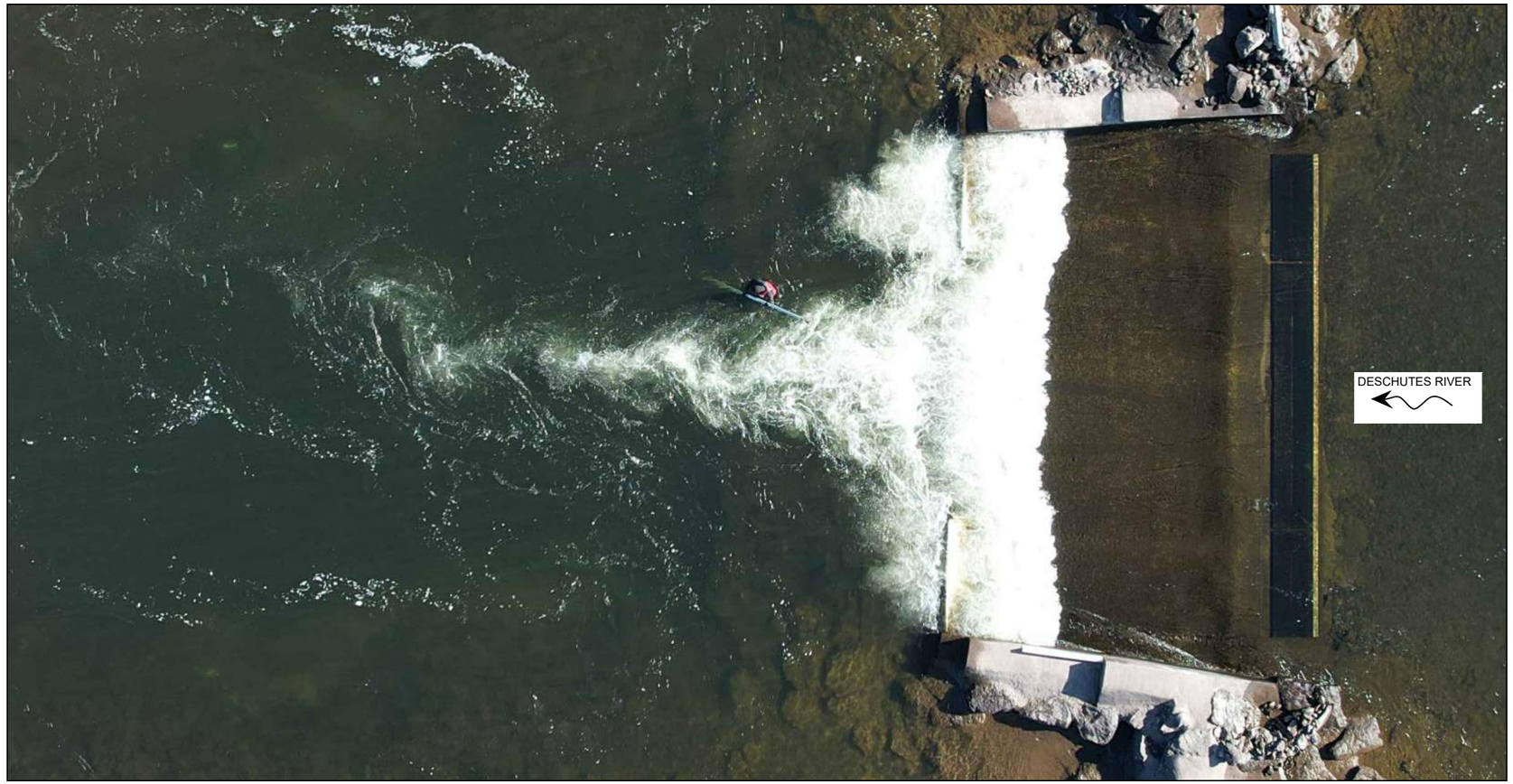
SHEET 4 OF 6



NOTE:
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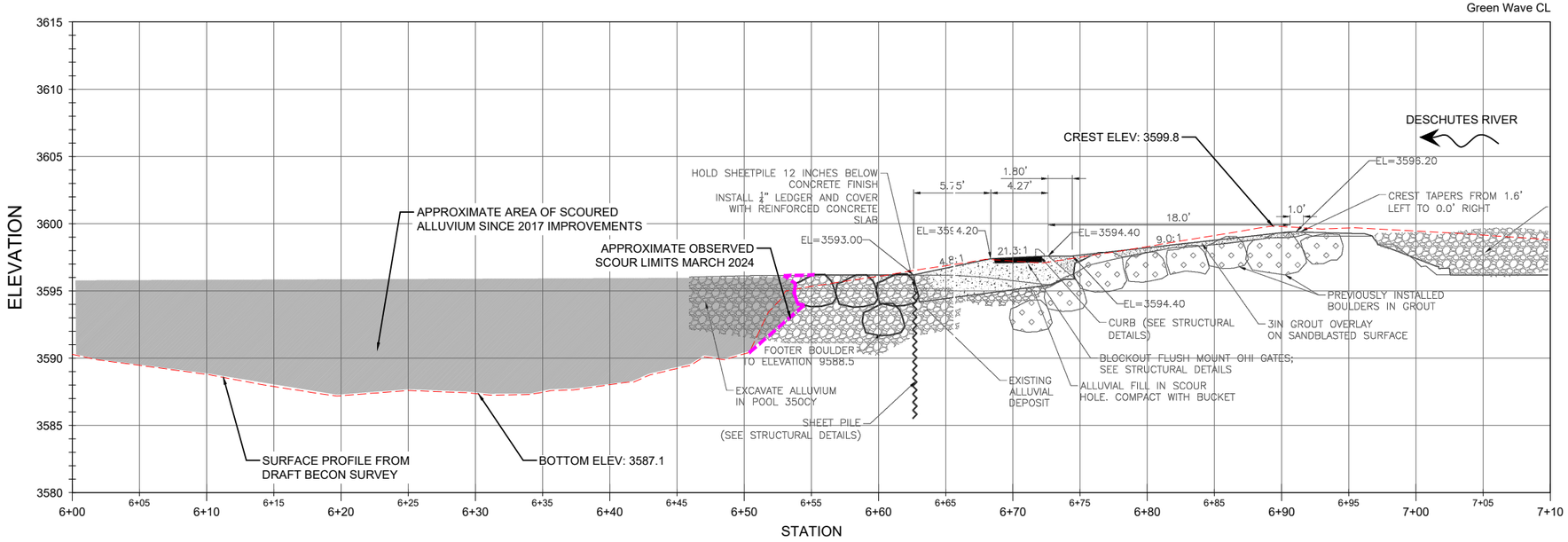

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CONDITION ASSESSMENT

EXISTING PROFILE - GREEN WAVE

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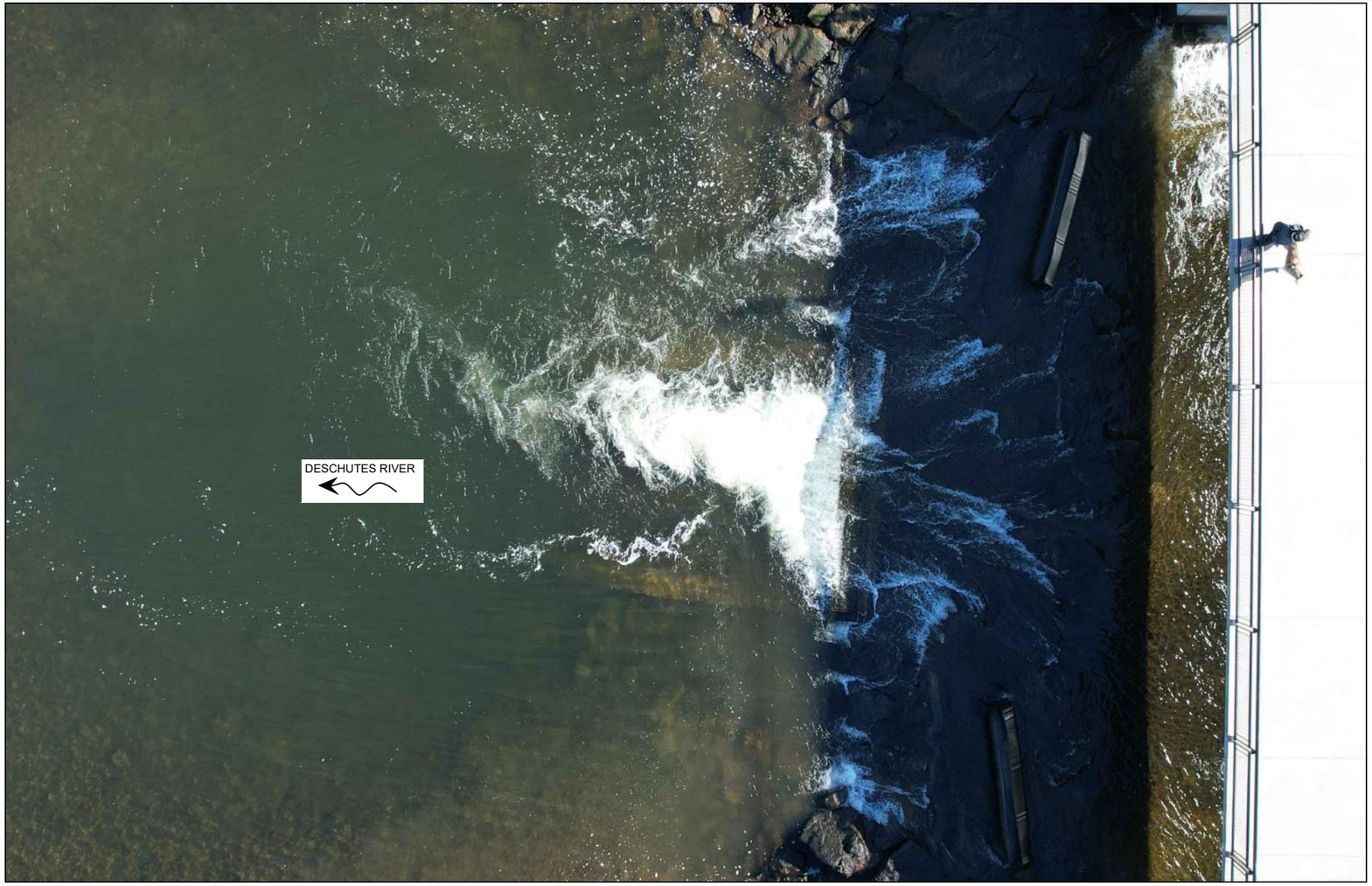
SHEET 5 OF 6



NOTE:
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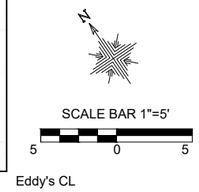
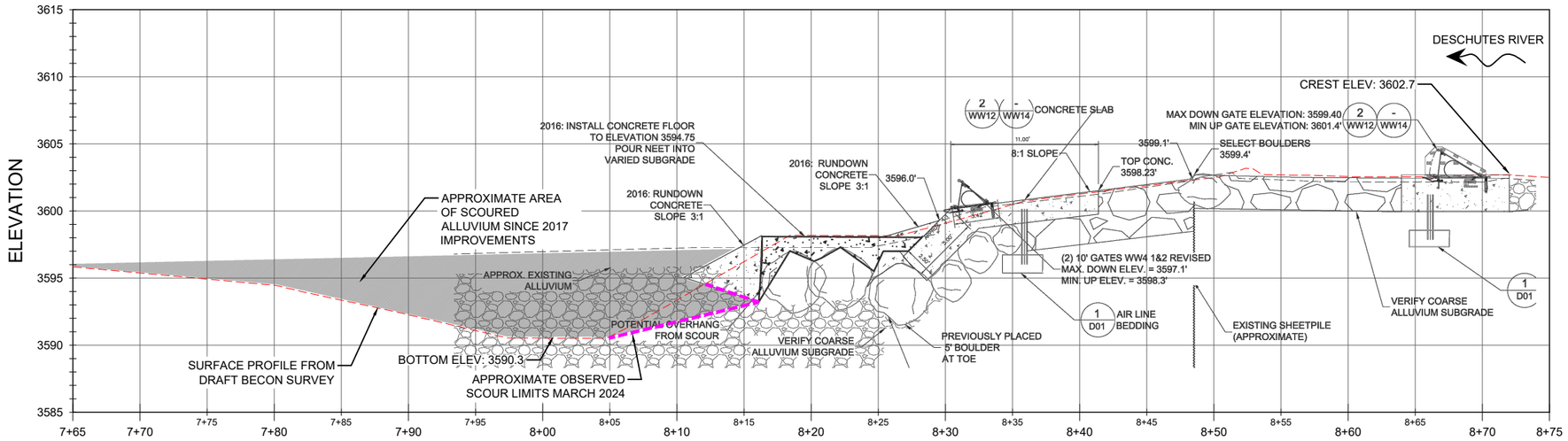


Eddy's CL



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CONDITION ASSESSMENT
EXISTING PROFILE - EDDY'S

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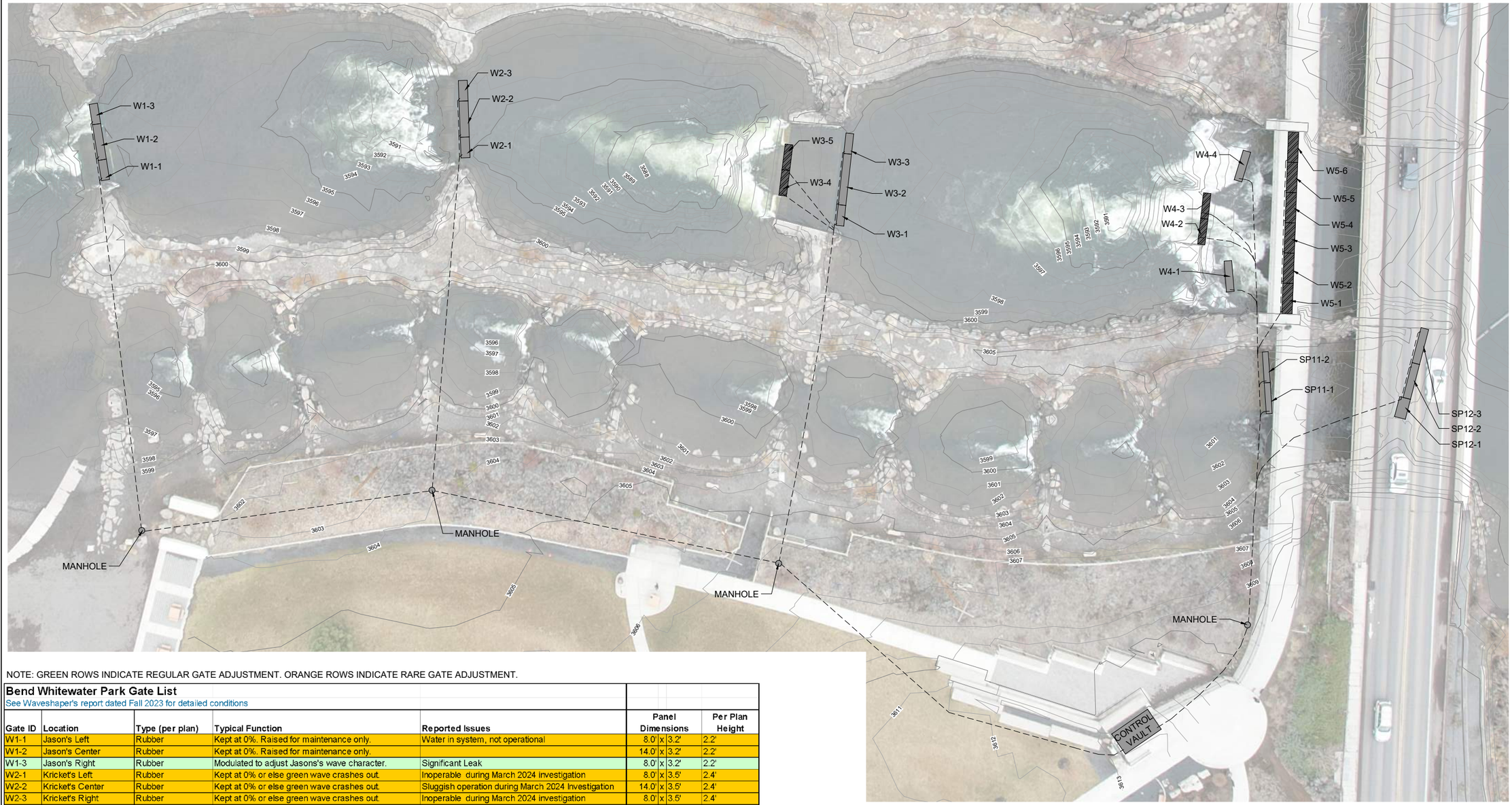
Appendix 3
Pneumatic Gate Layout



PNEUMATIC GATES LAYOUT

NOTE: GREEN ROWS INDICATE REGULAR GATE ADJUSTMENT. ORANGE ROWS INDICATE RARE GATE ADJUSTMENT.

Bend Whitewater Park Gate List

See Waveshaper's report dated Fall 2023 for detailed conditions

Gate ID	Location	Type (per plan)	Typical Function	Reported Issues	Panel Dimensions	Per Plan Height
W1-1	Jason's Left	Rubber	Kept at 0%. Raised for maintenance only.	Water in system, not operational	8.0' x 3.2'	2.2'
W1-2	Jason's Center	Rubber	Kept at 0%. Raised for maintenance only.		14.0' x 3.2'	2.2'
W1-3	Jason's Right	Rubber	Modulated to adjust Jasons's wave character.	Significant Leak	8.0' x 3.2'	2.2'
W2-1	Kricket's Left	Rubber	Kept at 0% or else green wave crashes out.	Inoperable during March 2024 investigation	8.0' x 3.5'	2.4'
W2-2	Kricket's Center	Rubber	Kept at 0% or else green wave crashes out.	Sluggish operation during March 2024 Investigation	14.0' x 3.5'	2.4'
W2-3	Kricket's Right	Rubber	Kept at 0% or else green wave crashes out.	Inoperable during March 2024 investigation	8.0' x 3.5'	2.4'
W3-1	Green Wave Left	Rubber	Kept at 0%. Raised for maintenance only.		8.0' x 3.0'	2.0'
W3-2	Green Wave Center	Rubber	Kept at 0%. Raised for maintenance only.		20.0' x 3.0'	2.0'
W3-3	Green Wave Right	Rubber	Modulated to shape green wave.		8.0' x 3.0'	2.0'
W3-4	Green Wave Shaper 1	S teel	Modulated to shape green wave.		10.0' x 3.0'	3.0'
W3-5	Green Wave Shaper 2	Steel	Modulated to shape green wave.	New Leak as of Summer 2024	10.0' x 3.0'	3.0'
W4-1	Shock Wave Left	Rubber	Kept at 100%		10.0' x 2.8'	2.8'
W4-2	Kicker Left	Steel	Kept at 0%		10.0' x 2.8'	2.8'
W4-3	Kicker Right	Steel	Kept at 0%		12.0' x 3.0'	2.0'
W4-4	Shock Wave Right	Rubber	Kept at 100%		12.0' x 3.0'	2.0'
W5-1	Head gate Left	Steel	Modulated to control upstream WSE.		11.8' x 4.0'	2.0'
W5-2	↓	Steel	Modulated to control upstream WSE.		11.8' x 4.0'	2.0'
W5-3		Steel	Modulated to control upstream WSE.		11.8' x 4.0'	2.0'
W5-4		Steel	Modulated to control upstream WSE.		11.8' x 4.0'	2.0'
W5-5		Steel	Modulated to control upstream WSE.		11.8' x 4.0'	2.0'
W5-6	Head gate Right	Steel	Modulated to control upstream WSE.		11.8' x 4.0'	2.0'
SP11-1	Drop 11 Left	Rubber	Kept at 100% to maintain tailwater at drop 12.	Moderate Leak	12.0' x 2.3'	1.5'
SP11-2	Drop 11 Right	Rubber	Kept at 100% to maintain tailwater at drop 12.	Moderate Leak	12.0' x 2.3'	1.5'
SP12-1	Head gate left	Rubber	Kept at 100% to limit flow for safer tuber passage.		8.0' x 4.3'	3.0'
SP12-2	Head gate center	Rubber	Kept at 100% to limit flow for safer tuber passage.		14.0' x 3.0'	2.0'
SP12-3	Head gate right	Rubber	Kept at 100% to limit flow for safer tuber passage.	Minor Leak	14.0' x 3.0'	2.0'

PNEUMATIC GATE DATA

NOTES:
1. THESE ARE PRELIMINARY SHEETS ONLY FOR THE PURPOSE OF DISCUSSION. CONTOURS SHOWN ARE BASED ON SURVEY PERFORMED BY BECON. AERIAL IMAGERY FROM REP (2024-03-11)
2. AIR LINE LAYOUT IS ASSUMED FROM CONSTRUCTION PHOTOS, ONSITE OBSERVATIONS OF ABOVE GROUND FEATURES, AND BPRD INPUT.

SCALE BAR 1"=20'
20 0 20

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BEND WHITEWATER PARK
BEND, OREGON
DESCHUTES RIVER
CONDITION ASSESSMENT
PNEUMATIC SYSTEM LAYOUT

REVISIONS:

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SHEET 1 OF 1

Appendix 4
Risk Rating Memo

Original: January 24, 2025
Updated: June 3, 2025

Bend Park & Recreation District
799 SW Columbia Street, Bend, OR 97702

Bend Whitewater Park Condition Assessment Risk Rating Memo

Introduction

Recreation Engineering and Planning (REP) was previously contracted by Bend Park and Recreation District (BPRD) to perform an existing conditions assessment of the Bend Whitewater Park. The results of the assessment and REP's recommendations are summarized in the report "Bend Whitewater Park – Condition Assessment Report". The report documents the assessment performed, safety, operational, and structural deficiencies at the existing park, and recommended actions.

Subsequent to the development of the Condition Assessment Report, BPRD requested that a rating system be developed to summarize the identified risks and assign relative severity. The purpose of this memo is to present the risk ratings developed. This memo should not be viewed as a stand-alone document – it should be viewed in conjunction with the Condition Assessment Report, as the report includes substantial additional relevant information, context, and recommendations.

Scope

The scope of the risks identified in this memo only includes elements which were part of the original design and intent of the Bend Whitewater Park. Additional risks exist at the whitewater park that were identified by REP as part of the condition assessment, but are not included since they were not included in the original whitewater park design. For example, the trail along the left bank of the fish ladder channel is eroding significantly presenting tripping hazards and access issues, but is not included in this memo since the trail was not included in the design or intent of the original construction. Additionally, the Habitat Conservation Plan (HCP) will significantly alter future river flows at the whitewater park presenting additional risks, but are not presented in this memo since the original whitewater park predates the HCP. The Condition Assessment Report includes information and discussion of these risks.

Opportunities are not included in this memo. If a construction project is undertaken to address the identified risks, there are opportunities to greatly improve the usability and accessibility of the park for a wide range of uses and abilities. Discussion of identified opportunities is included in the Condition Assessment Report.

Disclaimer

The risks identified and ratings developed are based on REP's field investigations, review of documentation, experience on similar projects, and best professional judgement. There may be additional risks that have not been identified, and further risks may develop over time. This memo does not guarantee nor warrant in any way whatsoever that there are not additional risks beyond those identified.

Swiftwater Safety

The Bend Whitewater Park is located in the Deschutes River, subject to many of the inherent risks in any river with swift current. Certain risks cannot be removed from the environment and cannot be uncoupled from the factors that provide significant recreational and community benefit. Things such as swift current, varying flows, cold water, hard surfaces, and relatively deep water areas can present hazards to unprepared users. These inherent risks can be reasonably mitigated with appropriate equipment and preparation. Appropriate equipment includes a personal flotation device (PFD) (life jacket), helmet, proper footwear, and clothing appropriate for the conditions. Appropriate preparation includes being sober, having a basic knowledge of river currents and hazards, and following swiftwater swimming guidelines such as not attempting to stand up in swift current.

There is a separate set of river hazards that can exist in natural rivers but are not inherent to a swiftwater environment, present a hazard even to properly equipped and prepared users, and don't provide a recreational benefit. These hazards include bodily entrapment (foot entrapment), sieves, strainers, and reverse roller (low head dam) hydraulics. These hazards can drown a person even if wearing a life jacket and helmet. In a constructed whitewater park, these hazards can be removed from the built environment at no detriment to the recreational experience.

Attached to this memo is a description of river hazards prepared by American Whitewater (funded by the US Coast Guard), Section 4 of the "American Whitewater Safety Code", updated in 2024. This includes illustrations and descriptions of various river hazards in terms accessible to the layperson. Not all of the hazards described are present at the whitewater park. Only Section 4 – River Hazards is attached, but the full "Safety Code" is recommended as a reference for safety guidelines for river recreation.

Tubing with helmets and life jackets

Risk Rating Methodology

Identified risks were given one rating for probability of occurrence, and one rating for consequence. Multiplying the probability rating and consequence rating gives the overall severity rating for the risk. Ratings were estimated based on REP's professional experience and the assessment performed. Ratings are a simplistic tool designed to be a convenient way to quickly visualize relative risk, but in no way capture the full context and complexity of each risk, especially in a dynamic river environment.

Probability

A probability rating of 1-5 was assigned for each risk. The estimated probability is as follows:

Probability Rating					
Rating	**1**	**2**	**3**	**4**	**5**
Probability	Low	Medium-Low	Medium	Medium-High	High

Consequence

A consequence rating of 1-5 was assigned for each risk. The estimated consequence is as follows:

Consequence Rating					
Rating	**1**	**2**	**3**	**4**	**5**
Consequence	Low	Medium-Low	Medium	Medium-High	High

Severity

A severity rating was calculated by multiplying the probability and consequence ratings and can range from 1 to 25. The severity rating is simply a combination of the probability and consequence ratings and does not include any additional input.

Probability	Low	Med-Low	Med	Med-High	High
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5
	1	2	3	4	5

Consequence

1-2: Low severity
3-5: Medium-Low severity
6-10: Medium severity
12-16: Medium-High Severity
20-25: High Severity

Risk Categories

Structural

Structural concerns include possible movement of large rock and structural concrete components of drop structures. Movement may be caused by scour, undermining, or degradation. Significant movement could cause structural failure. Failure of a structure which is significant for whitewater park hydraulics could create significant operational and safety hazards.

Operations

The Bend Whitewater Park includes pneumatic gates operated by BPRD staff that function to control the river flow and upstream water levels. Upstream water levels are mandated by the draft Safe Harbor Agreement (SHA) between BPRD and USFWS, which has been adopted by BPRD and regulates conservation actions for the recovery of the Oregon Spotted Frog. Operational failure could also create safety hazards and negatively impact the recreational value of the park.

Safety

Safety hazards identified are focused on elements in the built environment that can be mitigated. Swiftwater recreation includes inherent risks which can be reasonably mitigated using proper equipment and preparation as discussed previously. The hazards and risks identified in this assessment are not necessary in a constructed project such as a whitewater park and can be eliminated without a detriment to recreational value.

Condition Assessment Risks

Identified risks are numbered alphabetically. A reference map is attached showing the approximate locations of the identified risks.

1. Air Line Maintenance - Operations

Probability	Consequence	Severity
4	1	4

Air lines buried under the Fish Ladder channel have no maintenance access beyond the manholes located left of the river. As-built conditions were poorly documented, leading to difficulty in diagnosis and repair of gates.

Probability: Air line maintenance will be required. Air leaks have been identified, diagnosing location of leak difficult since cannot isolate lines.

Consequence: Magnitude and location of leaks will affect consequence, but generally leaks can be overcome with air compressor.

2. Divider Island Piping - Structural

Probability	Consequence	Severity
2	5	10

The divider island between the Fish Ladder channel and whitewater channel has muliple locations of observed piping. Continued erosion by piping could result in structural failure of the island.

Probability: Relatively low likelihood of complete failure of island due to large boulders, but continued scour of whitewater channel could dislodge boulders and increase likelihood of failure.

Consequence: Failure of the island would cause failure of both whitewater and Fish Ladder channels, cause additional structural concerns and safety hazards, and would require immediate maintenance.

3. Eddy's Wave - Exit Scour - Structural

Probability	Consequence	Severity
1	3	3

The structure exit and ramp were undercut by scour, with the exit ramp having large undercuts. Due to the size of the drop structure and anchoring to the old dam, piping under the drop structure from crest to exit is not expected to be a concern.

Probability: Exit ramp seems to be supported by large boulders unlikely to dislodge. Very unlikely piping from crest to exit of drop structure would occur.

Consequence: Failure of the exit ramp could cause potential safety hazards.

4. Eddy's Wave - Foot Entrapment Hazards, Various Locations - Safety

Probability	Consequence	Severity
2	5	10

Investigation of the drop structure face and banks found multiple large voids, holes, and gaps between boulders. Several of these voids present foot entrapment hazards.

Probability: Likelihood of foot entrapment is low, primarily due to location at top of park resulting in few swimmers passing over.

Consequence: Foot entrapment could result in drowning.

5. Eddy's Wave - Impact Hazards - Safety

Probability	Consequence	Severity
3	3	9

The left and right faces and sides of the drop below the midway gates present shallow, rocky hazards to swimmers.

Probability: Not many swimmers over Eddy's, but impact hazard relatively likely. BPRD staff operate gates to minimize flow to sides with greatest hazard.

Consequence: Minor injuries likely. Greatest hazard if not wearing a helmet.

6. Eddy's Wave – Piping - Structural

Probability	Consequence	Severity
1	3	3

Piping between all three channels was observed in multiple locations around Eddy's Wave. Excessive piping could result in the movement of material and structural degradation of the channels.

Probability: Large boulders minimize likelihood of significant progression.

Consequence: Additional piping could occur and not cause structural failure. Piping to the point of breaching island would be severe.

7. Eddy's Wave – Recirculation Hazards - Safety

Probability	Consequence	Severity
1	5	5

The exit ledges on the left and right sides create recirculating hydraulics at high flows depending on gate operation. BPRD staff operate the gates to minimize the hazard.

Probability: High flows are a rare occurrence, and BPRD staff operate gates to avoid dangerous hydraulics.

Consequence: Recirculating reverse roller hydraulic, when present, can be extremely dangerous.

8. Fish Ladder Bank Erosion - Structural

Probability	Consequence	Severity
1	4	4

River left bank is severely eroded. If erosion continues at a high rate, eventually the channel end-running one of the drops could become a concern.

Probability: Bank erosion to the extent for end-running to occur is unlikely.

Consequence: Structure failure would cause hazards and require immediate maintenance.

9. Fish Ladder Drop SP-2 Undercutting - Structural

Probability	Consequence	Severity
2	4	8

Underwater investigation found SP-2 to have undercutting at the grouted drop face on the upstream and downstream sides. The undercutting did not appear to be piping at the time of investigation.

Probability: Due to the managed low flows in the Fish Ladder, significant additional undercutting is unlikely.

Consequence: Structure failure would cause hazards and require immediate maintenance.

10. Fish Ladder Drop SP-3 Undercutting and Wing Boulders - Structural

Probability	Consequence	Severity
1	5	5

Drop SP-3 has undercutting present across the exit of the drop but does not appear to be at risk of piping through to structure crest. Loose boulders on the left wing of SP-3 could present a sieve

hazard at higher flows. The channel is currently limited to low flows, where this is not a significant hazard.

Probability: Due to the managed low flows in the Fish Ladder, significant additional undercutting is unlikely.

Consequence: Structure failure would cause hazards and require immediate maintenance.

11. Gate Strap Hazards - Safety

Probability	Consequence	Severity
1	5	5

Gates were observed to have exposed loops of air line and rubber strapping that may pose foot entrapment hazards. Since the inspection, BPRD staff have removed and repositioned straps that could present hazards. REP staff have not independently verified the current state of all the gate straps.

Probability: Likelihood of foot entrapment in the strap loops is low.

Consequence: In the event of foot entrapment, drowning could result.

12. Grate Inlet – Habitat Channel - Safety

Probability	Consequence	Severity
1	5	5

The inlet structure bar screen may present a sieve hazard when significant flow as passing into the pipes.

Probability: River users are rarely in the vicinity of the inlet, boulders are located upstream of the inlet, and the pipes are not always flowing full.

Consequence: The sieve hazard is correlated to the flow into the culverts. When flowing full, it is expected that the suction may be strong enough to entrap a small person.

13. Green Wave - Left Eddy Boulders - Structural

Probability	Consequence	Severity
2	1	2

Boulders in the left eddy were found to be undercut and may fall away from the island creating voids at the left bank.

Probability: Additional scour and erosion could cause several boulders to dislocate.

Consequence: Boulders falling into the pool may not cause significant issues. The resulting voids may weaken the divider island and increase likelihood of island breaching.

14. Green Wave – Plastic Spacer Failure/Loss - Safety

Probability	Consequence	Severity
2	5	10

Temporary plastic spacers were installed by BPRD staff between the static aluminum kickers and pneumatic gates in response to a foot entrapment hazard. These spacers were installed with screws into the existing aluminum and a single anchor bolt to the concrete drop face. The longevity of these spacers is unknown, and replacement would not be feasible during the high flow season.

Probability: The installation of the spacers is relatively robust, but not expected to be a permanent solution.

Consequence: Failure or loss would open a known foot entrapment hazard in a high use area of the park. Replacement of the spacer would not likely be possible except for under low flow conditions.

15. Green Wave – Right Wing - Structural

Probability	Consequence	Severity
1	3	3

River right wing is low and has minimal grout and concrete. Significant erosion is observed between existing wing boulders, additional significant erosion could result in end-run.

Probability: High flows are rare, and significant additional erosion in this area is relatively unlikely.

Consequence: Significant flow through the wing could cause issues with the Green Wave, result in safety hazards, and cause additional structural concerns.

16. Green Wave – Impact Hazards - Safety

Probability	Consequence	Severity
3	3	9

Rocks located on either side of the wave in eddy seams are regularly impacted by surfers, and have caused injuries previously. Many surfers dive headfirst from wave into these areas. Additionally, boulders in the river right wing would present impact hazard to users when significant flow is present over the wing.

Probability: Impacting the rocks in the eddy seams happens regularly. Flows over the right wing sufficient to cause impact hazard are uncommon.

Consequence: Minor injuries likely, more serious injuries possible. Greatest hazard if not wearing a helmet.

17. Inability to Maintain Mandated Upstream Water Surface Elevations - Operations

Probability	Consequence	Severity
2	4	8

Maintaining upstream water levels as agreed to in the SHA is a critical function of the whitewater park, and guides operation of the pneumatic gates in the whitewater and fish ladder channels. If there is a severe gate operation issue with the top gates at the head of the whitewater channel, performing maintenance on the gates may not be possible without constructing cofferdams.

Probability: It is anticipated that at some point in the life of the park replacement of the pneumatic bladders and / or other critical gate components will be necessary. If gate failure occurs, replacement of gate components may need to happen in a short timeframe.

Consequence: Maintenance requiring cofferdams is subject to permitting and can take a long time to plan and approve. Depending on the nature of the gate failure and flows in the river, maintaining water surface elevations as agreed to may not be possible.

18. Jason's Wave – Eddy / Island Erosion - Safety

Probability	Consequence	Severity
2	2	4

Significant erosion / degradation of the downstream end of the divider island observed, including several dislocated boulders. Pipe to water level device exposed. Island degradation may contribute to river left eddy issue. The river left eddy below Jason's Wave can pull tubers from the end of the fish passage channel into the deep pool, towards the wave. Many tubers have been observed stuck in this area, where it is too deep to touch bottom and the tubes get stuck in a circular pattern. A boom has been placed here that has worked well to mitigate the problem.

Probability: Previously high probability of tubers stuck in this area, lower likelihood with boom.

Consequence: Unprepared users unintentionally stuck in an area of deep water and swift current.

19. Jason's Wave - Exit Scour – Structural

Probability	Consequence	Severity
2	4	8

Scour was observed at the exit of the grouted boulder drop face, and the exit is undercut. No undercutting was observed at the structure crest and the structure does not appear to be at risk of developing a sieve opening or piping from crest to exit.

Probability: Low likelihood of additional scour to the point of structural concern.

Consequence: Lower boulders could dislocate without significant hazard. Major additional undermining could lead to structural concern / failure.

20. Jason's Wave – Right Side Hazards - Safety

Probability	Consequence	Severity
2	3	6

Right side presents hazards including impact risk. At certain flows and gate configurations, recirculating hydraulics may develop.

Probability: Low likelihood of flows and gate configurations to form significant hazards.

Consequence: Minor injuries from impact hazard, dangerous conditions if hydraulic roller present.

21. Kricket's Wave – Impact Hazard - Safety

Probability	Consequence	Severity
4	3	12

Location below green wave means that fallen surfers commonly swim over Kricket's wave. Users have reported injuries from impacts and pinned surfboards. BPRD staff report a broken back injury occurred here.

Probability: Due to location just downstream of Green Wave, many users swim over this location and are exposed to impact hazards.

Consequence: Minor injuries likely, more serious injuries have been reported.

22. Kricket's Wave – Left Side Scour, Undercut, and Opening - Safety

Probability	Consequence	Severity
3	5	15

The river left side of the left wave block scour cave was found to have an open window to the drop face. The undercuts and scour hole along the river left side of the drop present foot entrapment hazards.

Probability: Due to location just downstream of Green Wave, many users swim over this location. Foot entrapment is generally unlikely, especially if following swiftwater swimming guidelines, but possible.

Consequence: Foot entrapment at this location would likely result in a drowning.

23. Kricket's Wave – Downstream Scour and Undercut - Structural

Probability	Consequence	Severity
1	5	5

Significant scour of the downstream pool has occurred since construction, exposing foundation of wave blocks. Caves and undercuts are apparent on the downstream edge of the drop structure, but currently does not appear at risk of structural failure. Continued degradation could lead to structural concerns.

Probability: Current likelihood of continued scour to the point of structural failure is low.

Consequence: Progression to the point of structural failure would cause major hazards and require immediate maintenance.

24. Portage Route – Access - Safety

Probability	Consequence	Severity
5	1	5

Uneven riprap and severe erosion makes accessing portage route from upstream difficult, and leads to trips, falls, twisted ankles, etc.

Probability: High summer use in this area results in common occurrence.

Consequence: Minor injuries, difficult access.

25. Sluggish Gate Operation – Operations

Probability	Consequence	Severity
5	1	5

The original pneumatic bladder installation method may have left debris in air bladders which can block air inlet/outlet port causing sluggish operation.

Probability: Commonly occurs when operating some gates.

Consequence: Difficulty raising / lowering gates at times.

26. Waterline – Structural

Probability	Consequence	Severity
3	2	6

Significant scour in the pool downstream of Jason's Wave has exposed an active City of Bend waterline.

Probability: Likelihood of debris wracking or hydraulics causing pipe failure is low, though existing condition does not meet standards.

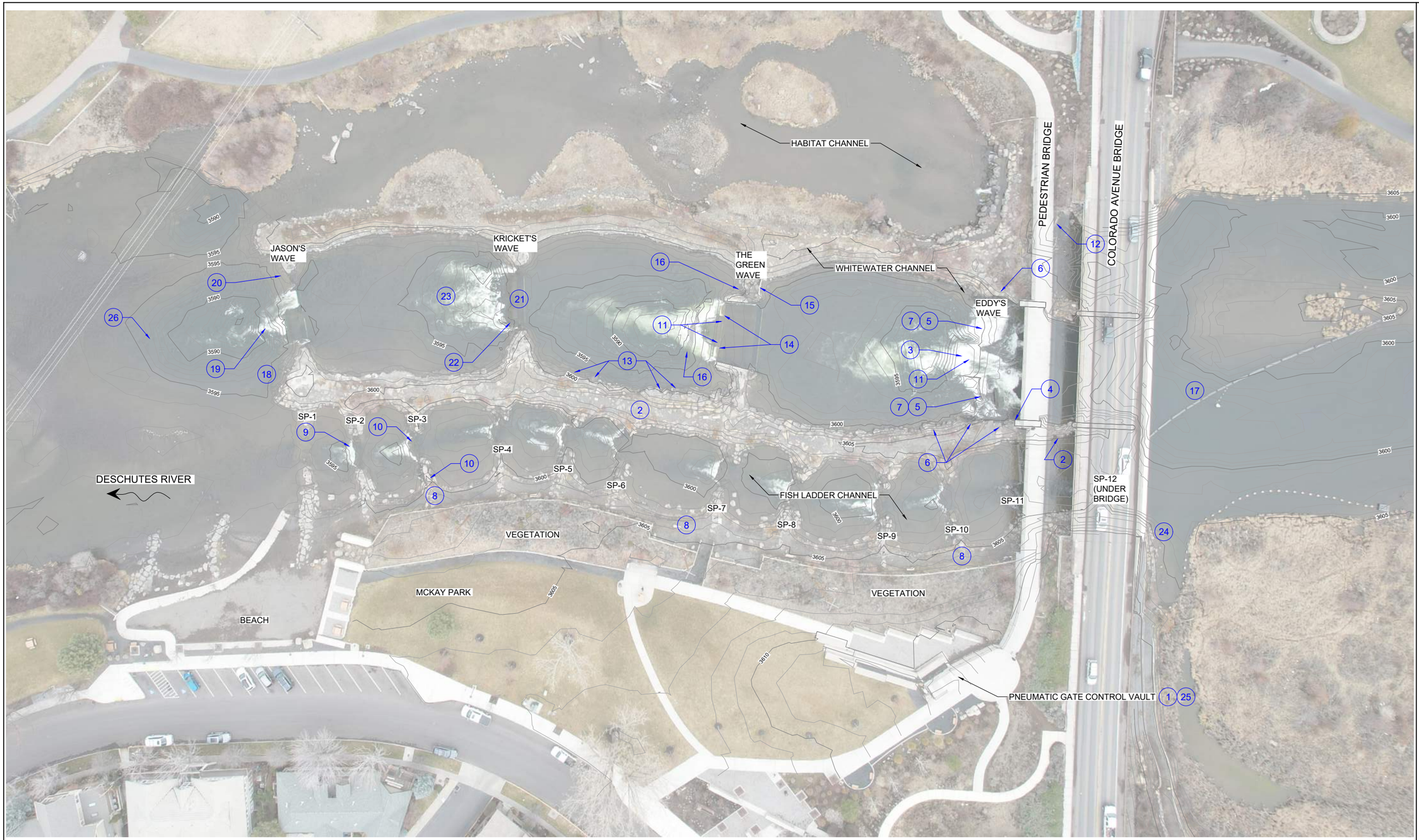
Consequence: Waterline rupture would require urgent maintenance.

Attachments

Attachment 1 – Risk Register Reference Map

Attachment 2 – Risk Register (in order of Severity)

Attachment 3 – American Whitewater Safety Code, Section 4 – River Hazards



RISK REGISTER REFERENCE PLAN

NOTE:
THESE ARE PRELIMINARY SHEETS ONLY FOR THE PURPOSE OF DISCUSSION.
CONTOURS SHOWN ARE BASED ON SURVEY PERFORMED BY BECON. AERIAL IMAGERY FROM REP (2024-03-11)

N

SCALE BAR 1"=30'
30 0 30

Recreation Engineering & Planning
RECREATION ENGINEERING AND PLANNING
485 ARAPAHOE AVE.
BOULDER | CO | 80302
WWW.BOATERPARKS.COM

PROJECT OWNER:
BEND PARKS AND RECREATION DISTRICT
799 SW COLUMBIA ST
BEND, OR 97702

BEND WHITEWATER PARK
BEND, OREGON
DESCHUTES RIVER
CONDITION ASSESSMENT
RISK REGISTER REFERENCE PLAN

REVISIONS:

NO.	DATE

DESIGNED: ML
DRAFTED: JK
CHECKED:
PLOT DATE: 1/24/2025

DRAWING NO.

Bend Whitewater Park Risk Register

#	Category	Risk Name	Detailed Description	Probability (1 - 5)	Consequence (1-5)	Severity	Comments
22	Safety	Kricket's Wave - Left Side Scour, Undercut, and "Window"	The river left side of the left wave block scour cave was found to have an open window to the drop face, and protruding steel reinforcement was found in the scour pocket. The undercuts and scour hole along the river left side of the drop present foot entrapment hazards.	3	5	15	
21	Safety	Kricket's Wave - Impact Hazard	Location of wave below green wave means that fallen surfers commonly swim over the wave. Users have reported injuries from impacts and pinned surfboards. BPRD staff report a broken back injury occurred here.	4	3	12	
2	Structural	Divider Island Piping	The divider island between the Fish Ladder channel and whitewater channel has muliple locations of observed piping. Continued erosion by piping could result in structural failure of the island.	2	5	10	
4	Safety	Eddy's Wave - Foot Entrapment Hazards, Various Locations	Investigation of the drop structure face and banks found multiple large voids, holes, and gaps between boulders. Several of these voids present foot entrapment hazards.	2	5	10	
14	Safety	Green Wave - Plastic Spacer Failure/Loss	Temporary plastic spacers were installed by BPRD staff between the static aluminum kickers and pneumatic gates in response to a foot entrapment hazard. These spacers were installed with screws into the existing aluminum and a single anchor bolt to the concrete drop face. The longevity of these spacers is unknown, and replacement would not be feasible during the high flow season.	2	5	10	Known foot entrapment hazard. At future HCP mandated low flows, spacer replacement may not be feasible anytime.

5	Safety	Eddy's Wave - Impact Hazards	The left and right faces and sides of the drop below the midway gates present shallow, rocky hazards to swimmers.	3	3	9	
16	Safety	Green Wave - Impact Hazards	Rocks located on either side of the wave in eddy seams are regularly impacted by surfers, and have caused injuries previously. Many surfers dive headfirst from wave into these areas. The right side stone wing is lower than the left side and can have substantial flow over the wing. Park users have placed debris on the wing to direct flow, including a large wooden beam. If removed, significant flow over the wing would present impact hazard to users, potential seive	3	3	9	
9	Structural	Fish Ladder Drop SP-2 Undercutting	Underwater investigation found SP-2 to have undercutting at the grouted drop face on the upstream and downstream sides. The undercutting did not appear to be piping at the time of investigation.	2	4	8	Observe drop for signs of further degradation
17	Operations	Inability to Maintain Mandated Upstream Water Surface Elevations	Maintaining upstream water levels as agreed to in the SHA is a critical function of the whitewater park, and guides operation of the pneumatic gates in the whitewater and fish ladder channels. If there is a severe gate operation issue with the top gates at the head of the whitewater channel, performing maintenance on the gates may not be possible without constructing cofferdams. It is anticipated that at some point in the life of the park replacement of the pneumatic bladders and / or other critical gate components will be necessary.	2	4	8	
19	Structural	Jason's Wave - Exit Scour	Scour was observed at the exit of the grouted boulder drop face, and the exit is undercut. It is assumed that previously grouted boulders have moved out from under the grout due to the depth of scour observed. No undercutting was observed at the structure crest and the structure does not appear to be at risk of developing a sieve opening or piping from crest to exit at this time.	2	4	8	
20	Safety	Jason's Wave - Right Side Hazards	Right side presents hazards including impact risk. At certain flows and gate configurations, recirculating hydraulics may develop.	2	3	6	
26	Structural	Waterline	Significant scour in the pool downstream of Jason's Wave has exposed an active City of Bend waterline.	3	2	6	

7	Safety	Eddy's Wave - Recirculation Hazards	The exit ledges on the left and right sides create recirculating hydraulics at high flows depending on gate operation. BPRD staff operate the gates to minimize the hazard	1	5	5	
10	Structural	Fish Ladder Drop SP-3 - Undercutting and Wing Boulders	Drop SP-3 has undercutting present across the exit of the drop but does not appear to be at risk of piping through to structure crest. Loose boulders on the left wing of SP-3 could present a sieve hazard at higher flows. The channel is currently limited to low flows, where this is not a significant hazard.	1	5	5	
11	Safety	Gate Strap Hazards	Gates were observed to have exposed loops of air line and rubber strapping that may pose foot entrapment hazards. Since the inspection, BPRD staff have removed and repositioned straps that could present hazards. REP staff have not independently verified the current state of all the gate straps.	1	5	5	
12	Safety	Grate Inlet - Habitat Channel	The inlet structure bar screen may present a sieve hazard when significant flow as passing into the pipes.	1	5	5	
23	Structural	Kricket's Wave - Downstream Scour and Undercut	Significant scour of the downstream pool has occurred since construction, exposing foundation of wave blocks. Caves and undercuts are apparent on the downstream edge of the drop structure, but currently does not appear at risk of structural failure. Continued degradation could lead to structural concerns.	1	5	5	
24	Safety	Portage Route - Access	Uneven riprap and severe erosion makes accessing portage route from upstream difficult, and leads to trips, falls, twisted ankles, etc.	5	1	5	
25	Operations	Sluggish Gate Operation	The original pneumatic bladder installation method may have left debris in air bladders which can block air inlet/outlet port causing sluggish operation.	5	1	5	

1	Operations	Air Line Maintenance	Air lines buried under the Fish Ladder channel have no maintenance access beyond the manholes located left of the river. As-built conditions were poorly documented leading to difficulty in diagnosis and repair of gates.	4	1	4	
8	Structural	Fish Ladder Bank Erosion	River left bank is severely eroded. If erosion continues at a high rate, eventually the channel end-running one of the drops could become a concern.	1	4	4	
18	Safety	Jason's Wave - Eddy / Island Erosion	Significant erosion / degradation of the downstream end of the divider island observed, including several dislocated boulders. Pipe to water level device exposed. Island degradation may contribute to river left eddy issue. The river left eddy below Jason's Wave can pull tubers from the end of the fish passage channel into the deep pool, towards the wave. Many tubers have been observed stuck in this area, where it is too deep to touch bottom and the tubes get stuck in a circular pattern. A boom has been placed here that has worked well to mitigate the problem.	2	2	4	
3	Structural	Eddy's Wave - Exit Scour	The structure exit and ramp were undercut by scour, with the exit ramp having large undercuts. Due to the size of the drop structure and anchoring to the old dam, piping under the drop structure from crest to exit is not expected to be a concern. The exit ramp may be at risk of failure.	1	3	3	
6	Structural	Eddy's Wave - Piping	Piping between all three channels was observed in multiple locations around Eddy's Wave. Excessive piping could result in the movement of material and structural degradation of the channels and divider islands. No piping was observed underneath the actual drop structure.	1	3	3	
15	Structural	Green Wave - Right Wing	River right wing is low and has minimal grout and concrete. Significant erosion is observed between existing wing boulders, additional significant erosion could result in end-run.	1	3	3	
13	Structural	Green Wave - Left Eddy Boulders	Boulders in the left eddy were found to be undercut and may fall away from the island creating voids at the left bank.	2	1	2	

SECTION 4

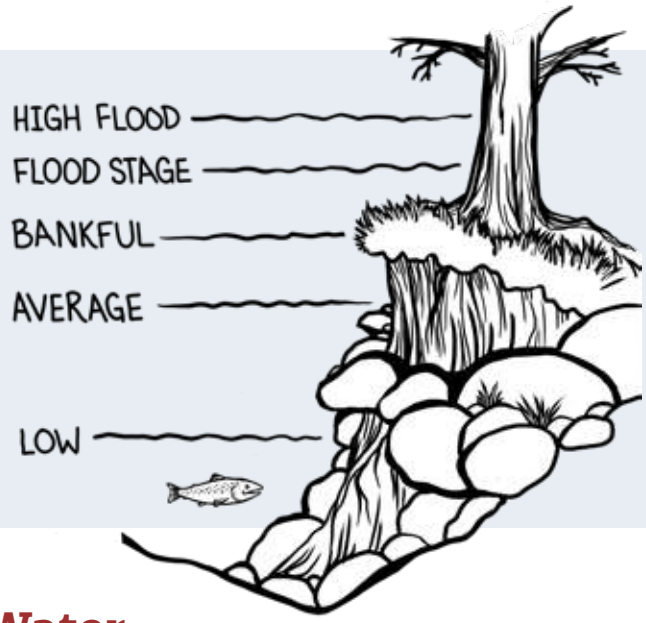
RIVER HAZARDS

Whitewater rivers contain many hazards, some of which are not easily recognized. The following are the most common.

High Water and Flooding

The river's speed and power increase tremendously as the flow increases, raising the difficulty of most rapids and reducing the number of eddies/stopping points. Rescue becomes progressively harder as the water rises, adding to the danger. Floating debris and strainers make even easy rapids quite hazardous.

It is often misleading to judge the river level at the put-in, since a small rise in a wide and shallow channel will be multiplied where the river narrows. Use reliable gage information whenever possible, and be aware that sun on snowpack, hard rain, and upstream dam releases may greatly increase the flow after you have started a run.



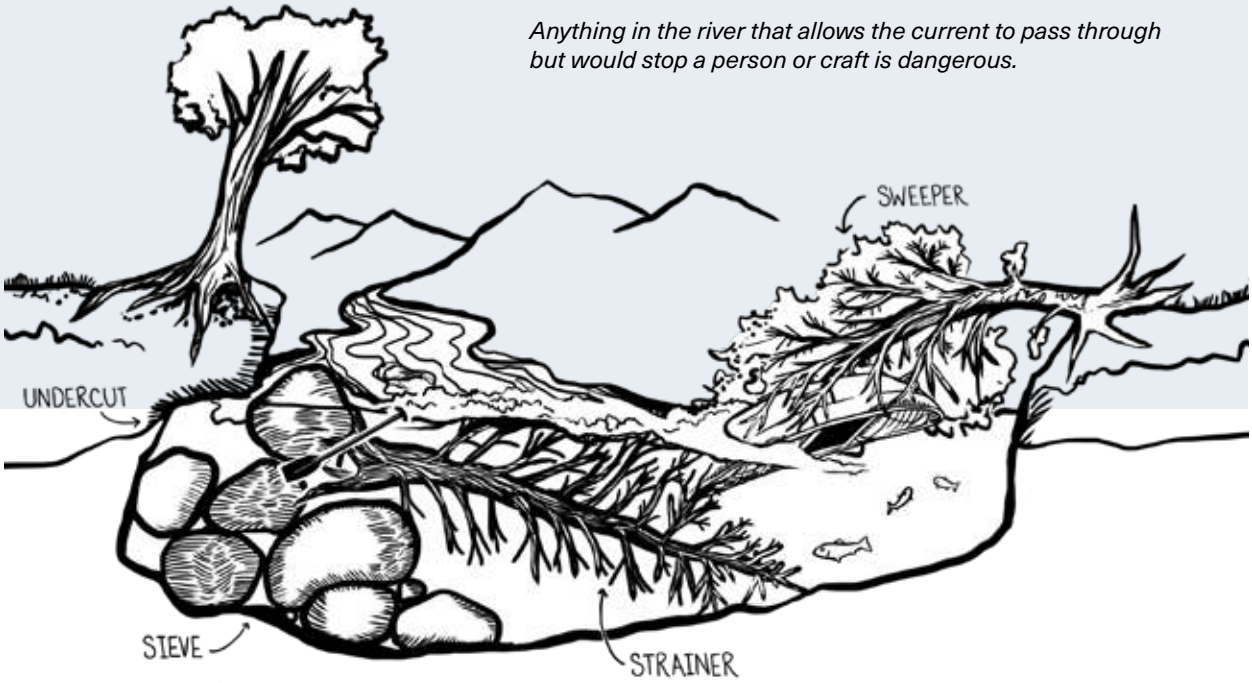
Use all available information to judge the water level and associated hazard: the height of the water in the river compared to surrounding vegetation and known markers, gauge information, and weather data.

In remote and fluctuating rivers, the water levels associated with each gauge height can change year-to-year.

Cold Water

Cold water drains your strength and robs you of the ability to make sound decisions on matters affecting your survival. Cold-water immersion is especially dangerous because of the initial shock and rapid heat loss.

Dress appropriately for sudden immersion in the water. When the water temperature is below 50ºF, a wetsuit or drysuit is essential. The next best option (if a drysuit or wetsuit is unavailable) is wool or synthetic (non-cotton) clothing. However, your layers will become immediately saturated if you swim, making the swim more difficult. If, after prolonged exposure, a person experiences uncontrollable shaking, loss of coordination, or difficulty speaking, they may be hypothermic.



Anything in the river that allows the current to pass through but would stop a person or craft is dangerous.

Wood Hazards: Sweepers and Strainers

Avoid trees, logs, brush, and roots in the water. Water can pin crafts and people against wood hazards with thousands of pounds of force. Rescue is often extremely difficult. Pinning may occur in fast currents with little or no whitewater to warn of the danger. The three most common forms of wood hazards are:

- **Sweepers:** Trees hanging over the river.
- **Strainers:** Trees at river level and underneath the water.
- **Submerged wood:** Waterlogged wood built up at the base of large rocks.

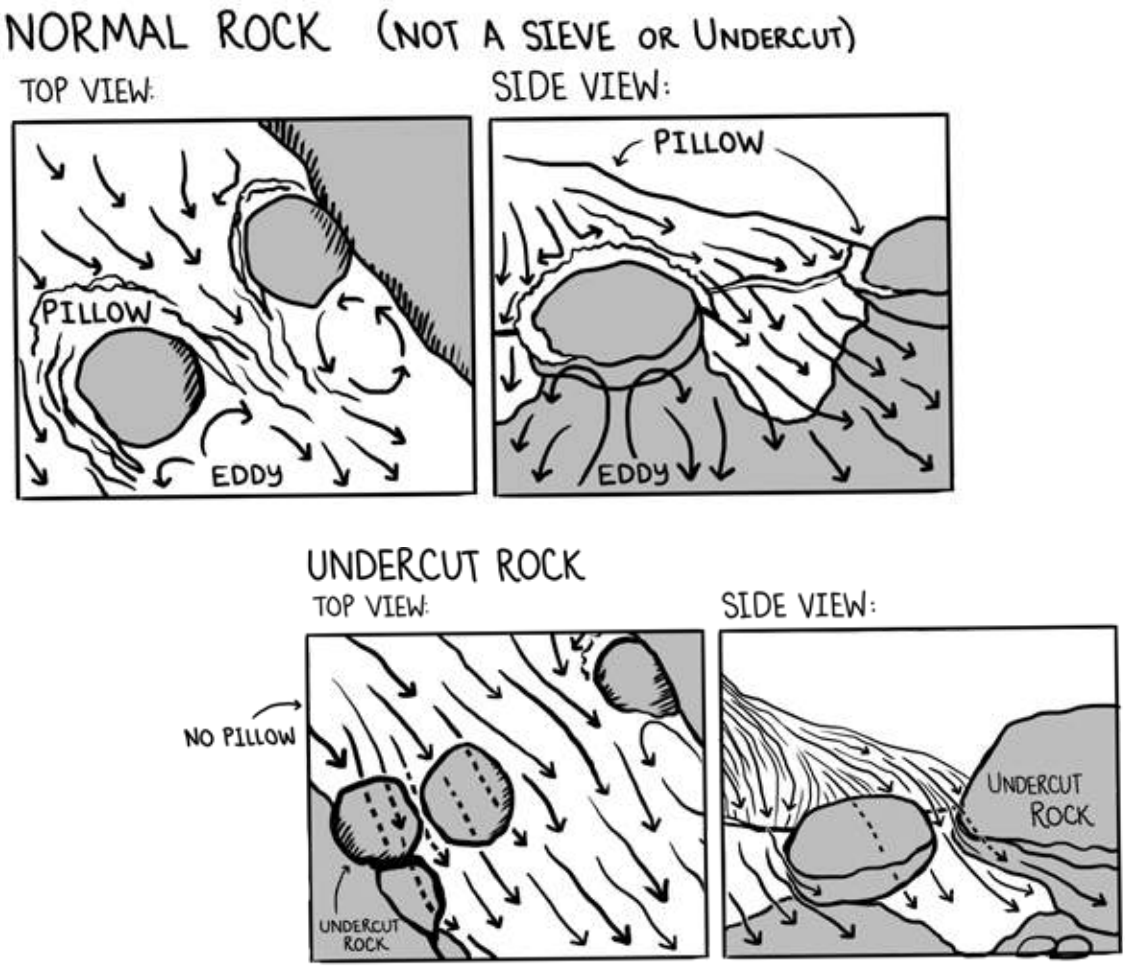
Note that bridge pylons and other river debris can pose similar threats as wood hazards.

Avoid trees, logs, brush, and roots in the water, whether in the form of a sweeper (hanging over the river) or strainer (underneath the water).

Rocks

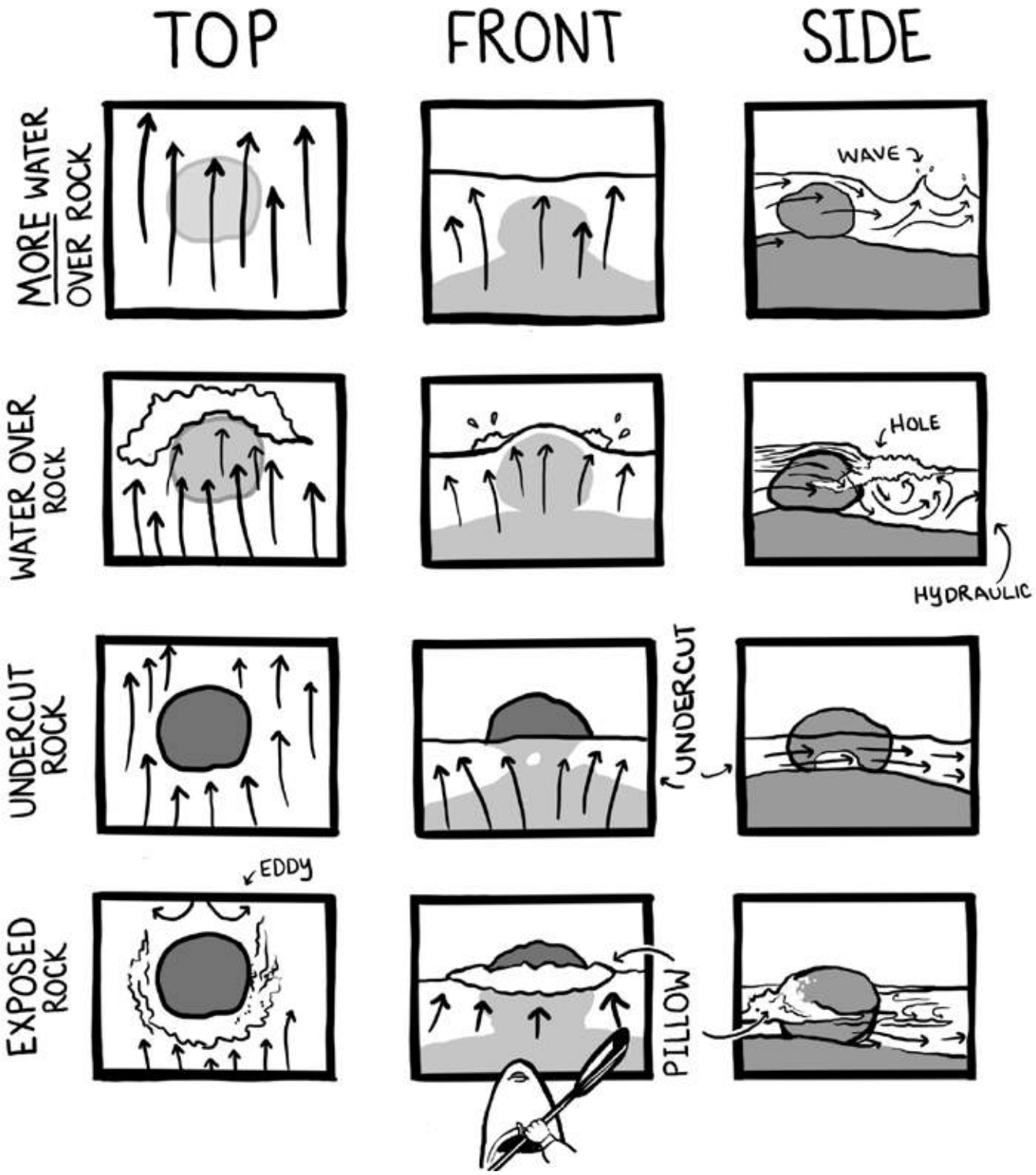
Avoid running into rocks and cliff walls, whether in your craft or swimming. Running into rocks head-on can damage crafts, send river runners into the river, and cause injury. Rocks can form dangerous formations such as the following:

- **Rock sieves:** Rock sieves, or siphons, are created when a rock formation allows water to pass below and between boulders, but the rocks are too close together to allow a human or boats to pass downstream. Sieves are extremely dangerous drowning hazards and should be avoided.
- **Undercut rocks:** An undercut occurs when water flows into a cave under the riverbank or the sloping side of a boulder or bedrock. If a swimmer gets pushed into an undercut, they can become pinned underwater by the force of the current.



ROCK FEATURES

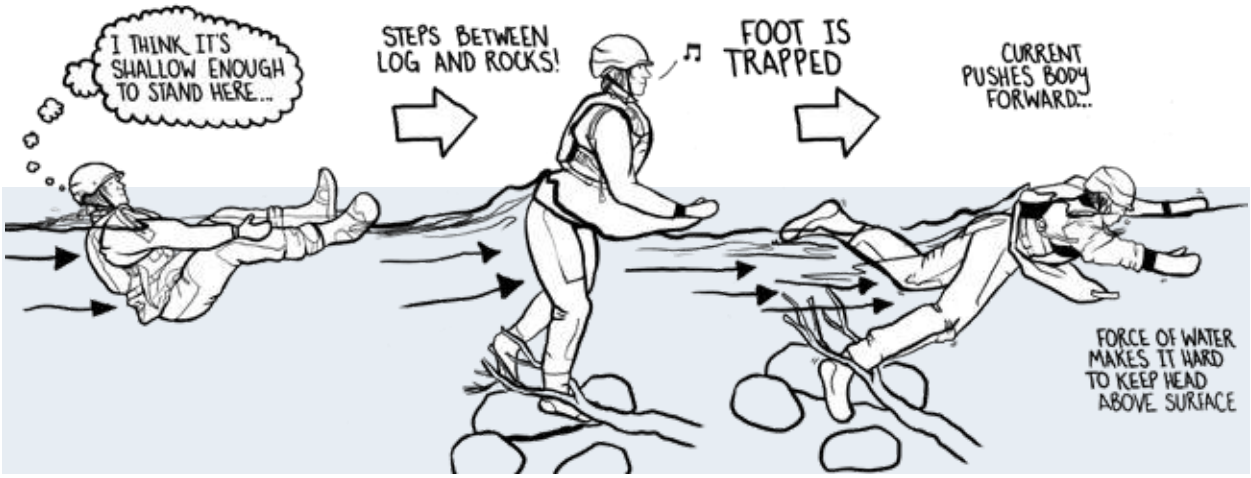
As Determined by Relative Water Level



AMERICAN Whitewater

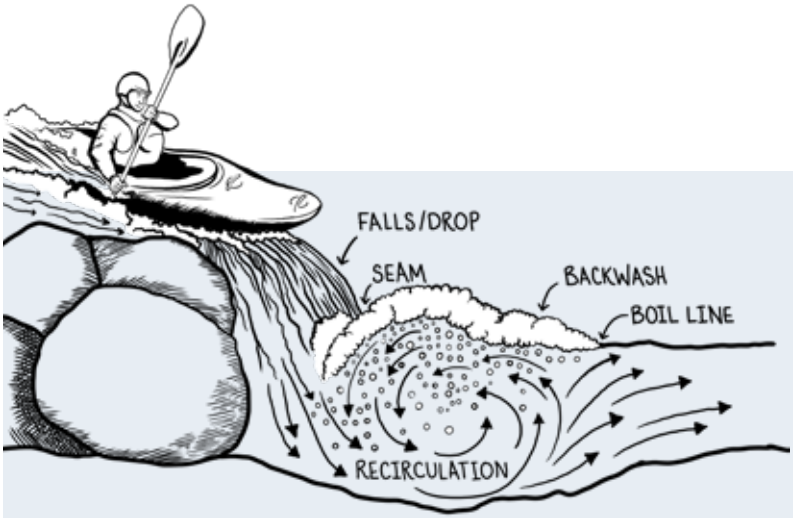
Foot Entrapment

Your foot can wedge between rocks, logs, or in crevices in the bedrock on the bottom of the river, which combined with current can push you under and keep you there. Do not attempt to stand in fast-moving water. Swim to slow-moving water (little to no current) or very shallow water (below your knee) before attempting to stand.



Hydraulics and Holes

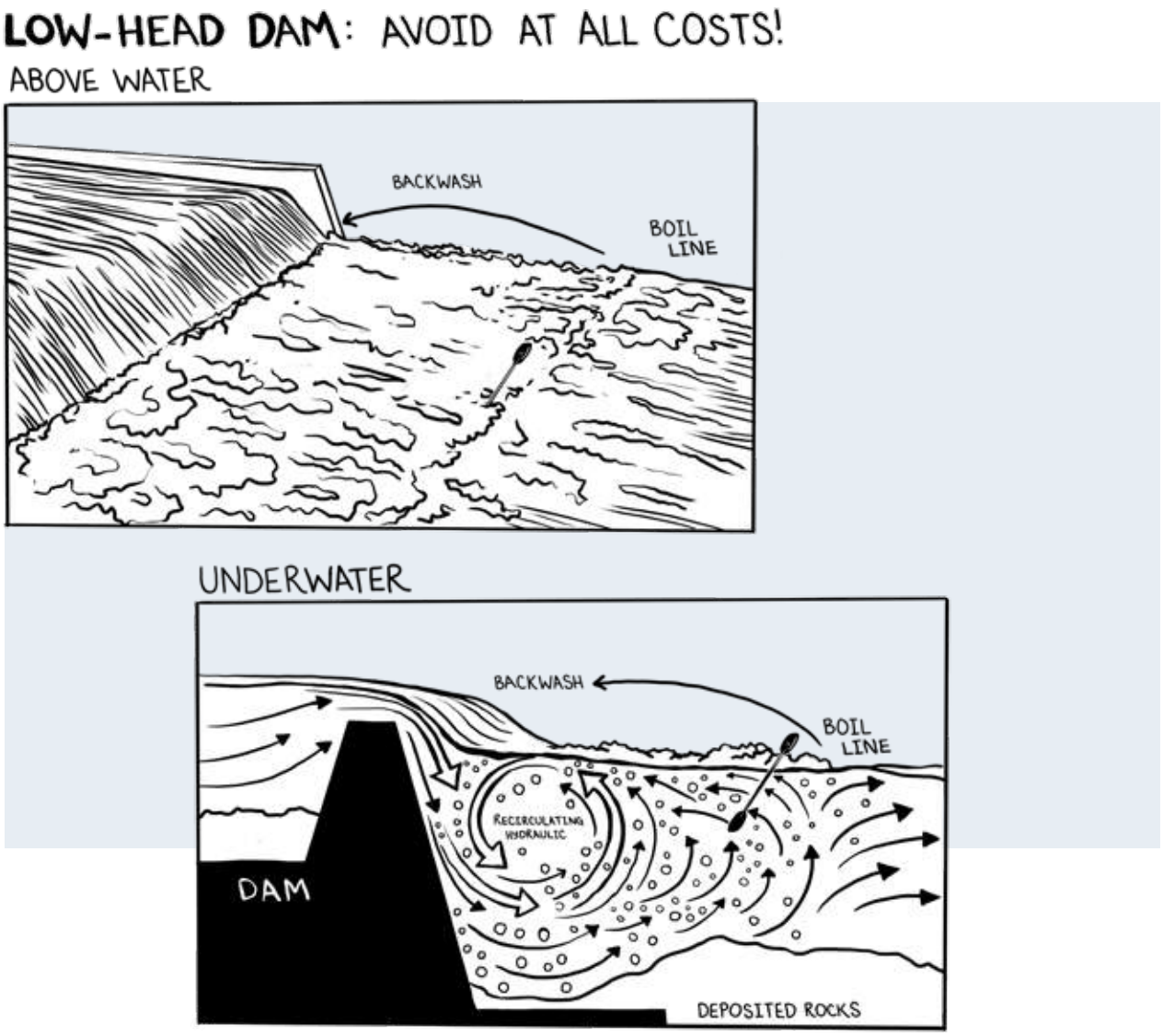
When water drops over an obstacle, it curls back on itself, forming a strong upstream current capable of recirculating a boat or swimmer. Natural and human-made river features such as dams, weirs, ledges, reversals, and holes can all be dangerous hydraulics. Some holes make excellent features to play in. Others are proven killers. River runners who cannot recognize the difference should avoid all but the smallest holes.



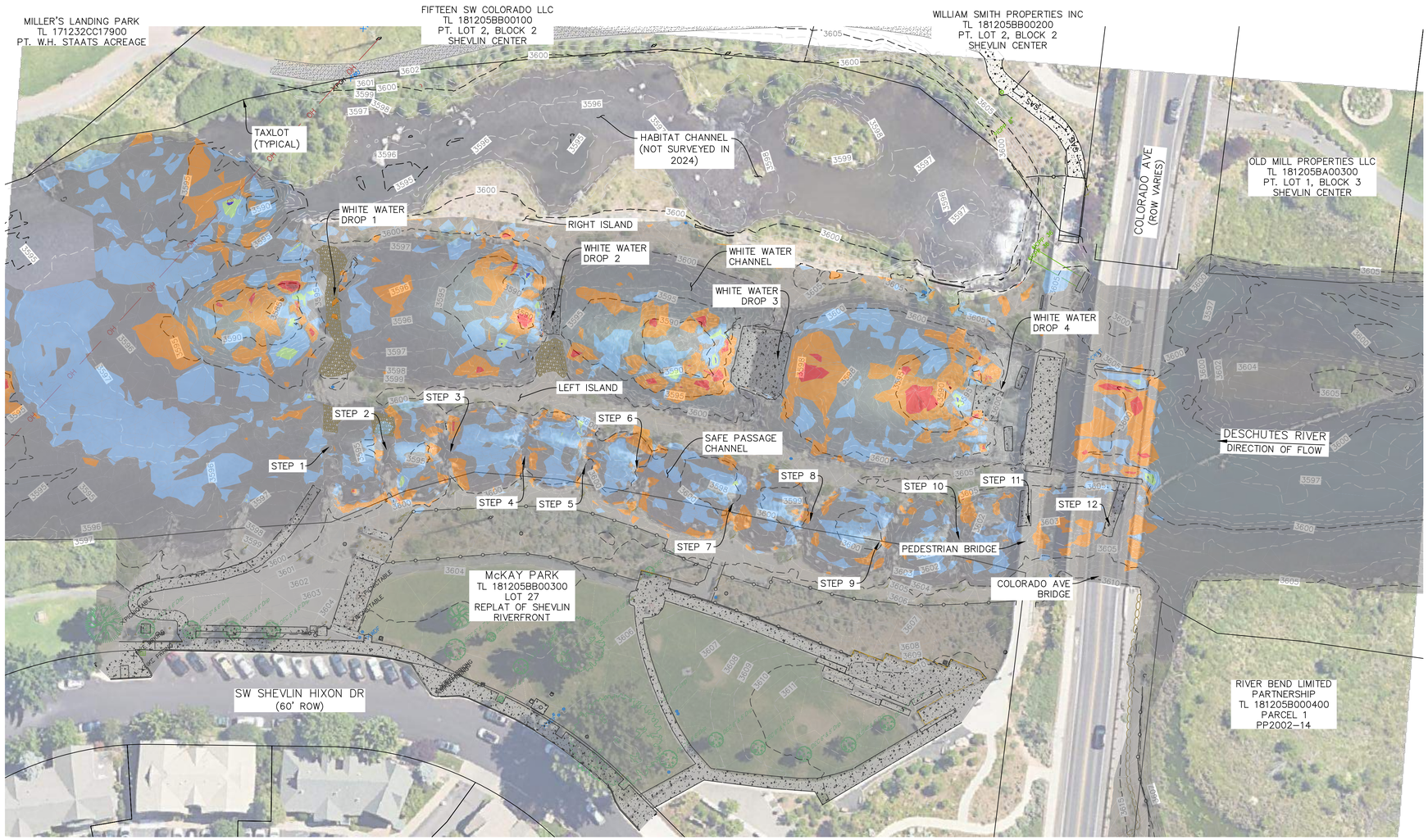
The further downstream the zone of recirculation, the stickier the hole.

Low-head Dams

Hydraulics around man-made dams must be treated with extra caution and the utmost respect, regardless of their height or the level of flow in the river. Despite their benign appearance, low-head dams can create an escape-proof trap. The swimmer's only exit is to swim back into the curtain of water forming the hydraulic, ball up, and allow themselves to be pushed towards the river bottom where the current flows downstream. This technique also works for exiting strong, naturally-forming hydraulics.



Appendix 5
2024 to 2025 Survey Surface Comparison



0 40' 80' 1"=40'

LEGEND

- CONCRETE
- ASPHALT PAVEMENT
- GROUTED ROCK
- MAJOR CONTOUR
- MINOR CONTOUR
- FENCE
- RAIL FENCE
- HAND RAIL

ELEVATIONS TABLE			
#	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
1	−4.821	−2.250	
2	−2.250	−1.250	
3	−1.250	−0.250	
4	−0.250	0.250	
5	0.250	1.250	
6	1.250	2.250	
7	2.250	3.870	

NOTE: TABLE SHOWS THE DIFFERENCE IN FEET BETWEEN THE 2024 SURFACE AND THE UPDATED SURFACE AS OF FEBRUARY 2025.

VOLUMES:

CUT: 511.63 CUBIC YARDS
FILL: 718.71 CUBIC YARDS
NET: 207.08 CUBIC YARDS

EXISTING CONDITIONS AND EROSION ANALYSIS

1" = 40'

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
DEC. 16, 2009
ERIK J. HUFFMAN
70814
RENEWS: JUNE 30, 2025

REC. ENG. & PLANNING
BEND WHITEWATER PARK

EX. COND. & EROSION ANALYSIS

CITY OF BEND, DESCHUTES COUNTY, OREGON

REVISIONS:
1
2
3

BECON
CIVIL ENGINEERING & LAND SURVEYING
549 SW MILL VIEW WAY
SUITE 100
BEND, OREGON 97702
(541) 633-3140
www.beconeng.com

DESIGNED BY: EJH
DRAWN BY: AJH
SCALE: 1" = 40'
FILE: 24018
DATE: 03/11/2025

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: C1

1 of 1

PERMIT#

Bend Whitewater Park Timeline/History

(pre-1900 to current)

Long before Bend was a city, the Deschutes River was the region's lifeline. From pre-history to today, the Deschutes River has played a critical role in the lives of the community members who inhabited our watershed. Archaeological finds such as stone tools, pictographs, ancient hearths show that people were fishing, hunting, and gathering in Central Oregon at least 10,000+ years ago.

The Northern Paiute and other tribes followed the water along the Klamath Trail, moving seasonally between the Klamath Basin and The Dalles. The Deschutes River provided, among other things, game, fish, berries, roots, and medicinal plants. That relationship never ended as treaty rights signed in 1855 still protect these traditional uses today.

(1907 – 1916)

As Bend's founders scouted for industry, they saw in the Deschutes a ready-made log pond. City boosters promoted a low head dam that could corral floating ponderosa pine and lure investors.

In August 1915 a six-foot concrete dam, wooden trestle, and bridge rose at Colorado Avenue, flooding about 80 acres into a millpond. By 1916 two companies, Brooks-Scanlon and Shevlin-Hixon—were sawing logs around the clock. Rail spurs, dredging, and log drives reshaped the banks; wildlife habitat gave way to the sound of saws and steam whistles.

(1916 – 1993)

Through the 1920s Bend called itself the "largest pine-lumber town on Earth." Smokestacks, three of which are still standing today within the building home to REI, became part of the skyline. But by mid-century the easy timber was gone; Shevlin-Hixon sold out in 1950, and when Brooks-Scanlon's Mill B shut its gates in 1993, the millpond silted in, and willows filled the slack water.

The mill buildings came down in the 1980s and '90s, yet the dam remained. It was a major obstacle for fish and wildlife and forced river users to portage their watercraft around its drop.

(1996 – 2006)

Developer Bill Smith began transforming the run-down riverfront into the Old Mill District, preserving the three smokestacks as industrial sculpture and working on habitat improvements to benefit native wildlife and visitors alike. At the same time, BPRD opened McKay Park downstream and Farewell Bend Park upstream, and floating the river began to rise in popularity.

(2007 – 2012)

2007

A survey completed as part of the 2005 Parks, Recreation and Green Spaces Comprehensive plan indicated a strong public need for river access. There had been an increase in river use by the public, and a continuous water trail could encourage users to experience the river from the water by improving the safety of the Deschutes, providing quality whitewater features, and allowing fish passage upstream.

Recreation Engineering and Planning was tasked by BPRD and the Bend Paddle Trail Alliance (BPTA) with studying the feasibility of constructing a continuous water trail along the Deschutes River within the park district boundaries in Bend. The study labeled Colorado Dam "Priority #1" and first envisioned the three side-by-side channels, one for habitat, one for fish and human passage, and one for whitewater play, that make up the Bend Whitewater Park today.

2010

After preliminary design workshops with multiple user groups and agencies, a preferred option was chosen - a Habitat Channel (river right), a Passage Channel (river left), and a center Whitewater Channel with adjustable waves—plus a new pedestrian bridge offering a viewing platform and connection to the trail system on either side of the river.

(2013 – 2014)

Funding the Bend Whitewater Park required a multifaceted approach. A community capital campaign, led by BPTA, raised over $1.1 million; a voter approved bond measure, and district property taxes all contributed towards the design and construction of the park.

Construction began in October 2014:

- Removed the old dam (some parts remain, integrated into the upper drops)
- Constructed the three channels
- Installed 26 pneumatic bladders
- Set a 215-foot steel truss bridge
- Planted thousands of native shrubs

(2015 – 2020)

2015

With construction on the park completed, The Bend Whitewater Park originally opened to the public in September 2015. The park was immediately popular, drawing 250,000+ visitors a year. Soon after being constructed, fish and wildlife were moving through 12 riffle-pools in The Fish Ladder (passage channel), osprey began to nest on poles installed along the habitat channel, and new vegetation began to establish along the new riverbanks.

2016-17

Over the winter of 2016-17, the Bend Whitewater Park was closed for five months for maintenance and construction modification work. These adjustments solved early scouring, widened surfable faces, and reduced flip and entrapment hazards—setting the template for today's adaptive-management approach.

- Whitewater Channel – Crews re-shaped all four surf drops to boost safety and reliability:
    - Eddy's Wave: poured a concrete apron to stop scouring and steady the wave.
    - The Green Wave: added "kicker" blocks at both edges, widening the ride from wall to wall.
    - Kricket's Wave: lifted the gate slab 9 inches and raised the rock shoulders to deepen the upstream pool and soften swimmer landings.
    - Jason's Wave: raised shoulders for a cleaner eddy and set a new row of boulders below the ramp to guard against scour.
- The Fish Ladder – Strategically placed boulders at drops 2, 3, 7 & 8 to keep floaters in the center of the channel, grouted voids at drop 12, and filled potential foot-entrapment gaps along every riffle.
    - Upstream Reach – Installed soil anchors in the LSA marsh to hold safety buoys that guide floaters to the take-out.

2020

A basin-wide Habitat Conservation Plan approved by the U.S Fish and Wildlife Service has been adopted, which will change dam releases at Wickiup, shifting seasonal flows for which the original design of the Bend Whitewater Park could not have anticipated.

(2024-present)

Please see June 17, 2025, Board Agenda for current background and information.

BOARD AGENDA COMMUNICATION

AGENDA DATE:	June 17, 2025
SUBJECT:	Recreation Programming Plan
STAFF RESOURCE:	Matt Mercer, Recreation Services Director
PREVIOUS BOARD ACTION:	April 1, 2025 – Received board input on priorities June 3, 2025 – Review draft Plan
ACTION PROPOSED:	Approve Recreation Programming Plan
STRATEGIC PLAN:	
Priority:	Service
Goal:	Support the recreational needs of an evolving community through programming, parks, trails and facilities
Strategy:	Monitor and adapt programming to meet community needs

BACKGROUND

The Recreation Programming Plan ("Plan") is an overarching planning document that guides district recreation programming priorities over the next five years. It is complementary document to the district Comprehensive Plan which focuses on infrastructure needs. The Plan also complements and supports the district Strategic Plan which is more internally focused and district-wide in scope. The Plan is also a best practice and is required for CAPRA accreditation.

The board has previously provided input into priorities and goals and reviewed a draft of the plan. Staff presented an overview of the final plan at the June 3 board meeting. Staff received one board suggestion and that was to ensure the plan recognized that meeting the needs of youth remained a priority. Staff has incorporated this into the final plan, adding the following to the Major Priorities and Goals Section:

> **Continue to prioritize serving youth.** Community input has consistently placed a high priority on serving youth in recreation programs. This should remain a high priority for the district, even though youth population growth is slowing some. This includes better meeting community needs for high demand and high importance programs such as afterschool care, swim lessons and summer camps.

The final plan is available for view in the following link: https://www.bendparksandrec.org/wp-content/uploads/2025/05/Recreation-Programming-Plan-2025-2030.pdf

BUDGETARY IMPACT

The district invested $25,000 in the Community Recreation Programming Survey which was included in the adopted Fiscal Year 24-25 budget. There are no other direct costs associated with plan as it was developed and produced in-house.

STAFF RECOMMENDATION

None

MOTION

I move to approve the Recreation Programming Plan for 2025-2030.

ATTACHMENTS

A. Recreation Plan: https://www.bendparksandrec.org/wp-content/uploads/2025/06/Recreation-Programming-Plan-2025-2030.pdf

BOARD AGENDA COMMUNICATION

AGENDA DATE:	June 17, 2025
SUBJECT:	Public Hearing and First Reading of Ordinance No. 14 Park Rules and Regulations
STAFF RESOURCE:	Joel Lee, Park Stewardship Manager Julie Brown, Community Engagement Director
GUEST PRESENTER:	Paul Taylor, Bryant, Lovlien & Jarvis
PREVIOUS BOARD ACTION:	Adopted Ordinance No. 11 Park Rules and Regulations September 4, 2018; Work session updates Oct. 1, 2024 and Feb. 4, 2025
ACTION PROPOSED:	Public Hearing and First Reading of Ordinance No. 14
STRATEGIC PLAN:	
Priority:	Team
Goal:	Support the well-being and safety of all district employees
Strategy:	Identify opportunities to enhance a welcoming, safe and inclusive work environment

BACKGROUND

Over the past year, district staff has been researching and updating the District's park rules and regulations. The district's park rules and regulations are codified through District Ordinance No. 11, which was adopted in 2018.

The district's legal counsel drafted the proposed park rules and regulations to address new issues in parks and to simplify existing language for overall clarity. If approved, the proposed Ordinance No. 14 - Park Rules and Regulations (Attachment A) would replace the district's current Ordinance No. 11 (Attachment B).

Legal counsel drafted Ordinance No. 14. The rules were compared to the City of Bend Ordinances and State laws that govern various sections of the rules to ensure consistency. In addition, staff researched other park agencies in considering inclusion of new rules.

Because the changes to the rules in content and formation did not make redlining feasible, we have attached both versions for review. New or revised sections include:

- New definitions section.

- New Waters and Waterways section.
- Animals section – added maximum length of leash to be 15 feet. Clarify “Only Assistance Animals” are allowed in facilities.
- Vehicles section – new language to address e-bikes and other rolling devices. Proposed to continue allowing pedal-assist bicycles on trails and in parks; throttle-assist electric bicycles for parking areas only like a motorized vehicle.
- Restrooms section – ordinance to include temporary rules in effect since July 2024.
- Updates to business operations and organized events to reflect current permit practices.
- Exclusion and appeal process has more details.

Draft Ordinance No. 14 incorporates updates following the February 4, 2025 work session discussion, including definitions for caregiver, ponds, gender identity and wildlife. Staff and legal counsel also added language about riparian area closures, public displays, use and possession of weapons (consistent with city and county regulations), bicycles, electric-assisted bicycles, or other rolling devices, and animals.

STAFF RECOMMENDATION

Staff recommend that the board conduct a public hearing and a first reading of Ordinance No. 14 - Park Rules and Regulations. The Board may choose to direct the first reading of the ordinance be done by title only. A second reading of the ordinance and adoption is scheduled for July 1, 2025.

BUDGETARY IMPACT

None

MOTION

1. ***I move to conduct the first reading of Ordinance No. 14 by title only.***

2. ***I move to accept the first reading by title only.***

ATTACHMENT

Attachment A: Ordinance No. 14 – Park Rules and Regulations (2025)
Attachment B: Ordinance No. 11 – Paul Rules and Regulations (2018)

BEND PARK & RECREATION DISTRICT

ORDINANCE 14

RULES AND REGULATIONS

Table of Contents

Date Adopted: _____

ARTICLE 1. PREAMBLE

1.1 Bend Park and Recreation District is an Oregon special district authorized to provide park and recreation services by ORS 266.410. The District Board of Directors, in accordance with ORS 266.410(7)(b), has adopted the following rules and regulations to ensure that Bend's park and recreation system remains inviting for residents' and visitors' safe use and enjoyment. These rules and regulations apply to and shall be enforced at all properties owned or managed by District.

1.2 Through these rules and regulations, District aims to promote and protect the health, welfare and safety of all patrons at District properties.

1.3 District strives to be a responsible steward of public resources by preserving the system's health and integrity from overuse and abuse to ensure that future generations have access to the same exemplary park system that Bend enjoys today.

1.4 District wants everyone to feel welcome and invited into environments where all individuals are treated with respect and dignity and hold those responsible when these essential tenets are violated.

ARTICLE 2. DEFINITIONS

2.1 "Assistance Animal" has the meaning assigned to that term in ORS 659A.143.

2.2 "Campsite" means a place where any bedding, sleeping bag or other material used for bedding purposes or any tent or other shelter is placed for the purpose of maintaining a temporary place to live or sleep.

2.3 "Caregiver" is a person who provides care for a person who needs help such as a child, person with disabilities or older adult. Caregivers can be family members, friends, neighbors or professionals.

2.4 "Chair of the Exclusion Appeals Panel" means the returning member from the most recent prior second appeal hearing, whose role is to issue written decisions of second appeals from the Exclusion Appeals Panel.

2.5 "City" means the City of Bend.

2.6 "Decisionmaker" means the deciding person or Panel at the applicable level of the appeals process as further described in Articles 16.5 and 16.6.

2.7 "District" means Bend Park and Recreation District.

2.8 "District Facility" means any building, structure or improved property leased, managed, owned or operated by the District.

2.9 "District Park" means any neighborhood park, community park, regional park, special use park, plaza, trail, path, athletic field, sports complex or undeveloped property leased, managed, owned or operated by the District.

2.10 "District Program" means any recreational program, activity or special event sponsored by the District.

2.11 "District Property" means all real and personal property owned or in which the District has a property interest, including as an easement holder, or over which the District has a management responsibility.

2.12 "District Waters" means all rivers, streams, ponds, irrigation sources and other waters and waterways: (a) located on District Property; or (b) over which the District has management authority pursuant to a public easement or other agreement.

2.13 "Ejection" means a directive that a person temporarily (i.e., for the remainder of the day or less) leave District Property.

2.14 "Enforcement Officer" means any peace officer, park steward, executive director, or a designee, or any other person with authority to enforce these Rules.

2.15 "Exclusion" means an order excluding a person from all or a portion of District Parks, Facilities and Programs pursuant to Article 15 of these Rules.

2.16 "Exclusion Appeals Panel" means the appeal Decisionmaker as further defined in Article 16.6.

2.17 "Excluded Person" means a person who is denied access to or barred from all or part of District Property for a length of time.

2.18 "Executive Director" means District's Executive Director, who has been appointed and designated by the Board of Directors as the District's chief executive officer. Unless otherwise stated, for the purposes of these Rules Executive Director includes an Enforcement Officer.

2.19 "Fireworks" has the meaning assigned to that term in ORS 480.111(7).

2.20 "Gender identity" means an individual's gender-related identity, appearance, expression or behavior, regardless of whether the identity, appearance, expression or behavior differs from that associated with the gender assigned to the individual at birth.

2.21 "Notice of Exclusion" means a notice issued pursuant to Article 15 of these Rules excluding an individual from all or part of District Property, Parks, Facilities or Programs for a period of time.

2.22 "Owner" means an animal's legal owner or handler.

2.23 "Rolling Device" means a bicycle, skateboard, scooter, inline skates, e-bike, e-scooter or other electric micromobility device that uses wheels for movement.

2.24 "Rules" means these District rules and regulations.

2.25 "Smoking Instrument" has the meaning assigned to that term in OAR 333-015-0030(23).

2.26 "Inhalant Delivery System" has the meaning assigned to that term in OAR 333-015-0030(14)(a).

2.27 "Weapon" has the meaning given that term in ORS 166.360(10).

2.28 "Wildlife" means animals, including mammals and birds, that are neither human nor domesticated, excluding fish.

ARTICLE 3. GENERAL CONDUCT RULES

3.1 District Property shall be used in accordance with these Rules and all applicable city, county, state or federal laws, ordinances and regulations. Criminal activity on District Property will be reported to the Bend Police Department or Deschutes County Sheriff's Office. Violations of these Rules are subject to enforcement by an Enforcement Officer.

3.2 Without limiting the generality of Article 3.1, while on District Property, no person shall:

A. Discriminate against, disturb, disrupt, harass or otherwise endanger the comfort, health, peace or safety of another person, including by engaging in any behavior that is threatening, intimidating, abusive or harassing of others.

B. Disobey a site-specific code of conduct, any posted signs and notices, or any reasonable written directive of the Enforcement Officer.

C. Disobey any reasonable verbal directive or request of the Enforcement Officer based on District policies or during an emergency.

D. Possess or consume alcoholic beverages without a permit.

E. Damage, remove, tamper with, modify or deface District Property, including vegetation, dirt, equipment and rocks, except in designated play areas.

F. Litter or otherwise deposit or abandon any garbage, waste or other materials except in receptacles specifically provided for such purposes. Garbage, yard debris and other refuse shall not be brought on to District Property for disposal.

G. Sleep overnight or establish a Campsite on District Property. The Campsite owner or occupant will either be notified to remove the Campsite or the camping materials will be removed in accordance with state law.

H. Connect to District utilities for personal use.

I. Walk, stand, sit, climb on, or jump from any monument, statue, building, fountain, railing, fence, roof or other structure not intended for that purpose.

J. Use a Smoking Instrument or Inhalant Delivery System of any kind on District Property.

K. Create or maintain any open flame, to include charcoal barbeques. Portable propane camp stoves and gas barbeques are permitted to the extent that they are operated in a safe manner and do not damage District Property or present a fire danger.

3.3 The Executive Director has authority to implement these Rules as follows:

A. The Executive Director may adopt a location-specific code of conduct when necessary to interpret or clarify these Rules or to protect the health, welfare and safety of all persons or property at a District Park or District Facility. The Executive Director's authority to adopt a location-specific code of conduct may not be delegated.

B. The Executive Director may grant exceptions to any of these Rules in a permit or lease issued pursuant to Article 12.

ARTICLE 4. WATERS AND WATERWAYS

4.1 All District Waters shall be accessed at designated locations and used in accordance with applicable Oregon State Marine Board rules and regulations.

4.2 No person shall anchor or tie watercraft to any bridges, structures or landforms located in or adjacent to District Waters.

4.3 No person shall bathe, wash clothing or other materials, or clean fish in District Waters.

4.4 No person shall jump, dive or otherwise propel themselves or any other person or object into District Waters from any tree, bridge or other structure.

4.5 No person shall use surfboard or bodyboard leashes while surfing in the Bend Whitewater Park.

4.6 No person shall possess glass containers while in, on or around District Waters.

4.7 No person shall disregard temporary or permanent closures for riparian repair and restoration.

ARTICLE 5. DISPLAYS

5.1 No person shall display sexually explicit material, as defined by Oregon law, in view of minors.

5.2 No person or group, whether or not engaging in an authorized event, shall display or perform sexually explicit artwork, artwork that is threatening or incites violence, or other obscene material in a manner that reasonably might interfere with other persons' enjoyment of District Property.

5.3 Artwork, displays or performances shall be located so as to minimize disturbance to those wishing to avoid such displays or performances, minimize congestion, and promote the flow of foot traffic through District Properties.

5.4 No unattended or staked signs may be placed on District Property.

ARTICLE 6. WEAPONS, HUNTING AND FIREWORKS

6.1 No person shall possess a loaded firearm on District Property within City limits except in accordance with state and federal law.

6.2 No person shall fire or discharge any weapon which acts by force of an explosive on District Property within Deschutes County limits except in accordance with Deschutes County Code 9.08.040.

6.3 No person shall possess a loaded or unloaded firearm, firearm replica or any other instrument used as a dangerous weapon while in or on a public building as defined in ORS 166.360(9), except as permitted by ORS 166.370.

6.4 No person shall use a Weapon while on District Property except as authorized pursuant to state law.

6.5 Fishing is permitted on District Property consistent with state law, to include state licensing requirements described in ORS Chapter 497.

6.6 No person shall hunt, trap or remove any Wildlife from District Property.

6.7 No person shall possess or use Fireworks or other explosives on District Property unless express written permission is granted by Executive Director and the State Fire Marshall.

ARTICLE 7. ANIMALS

7.1 Feeding waterfowl and other Wildlife is prohibited.

7.2 No person shall damage, harm, injure, molest or otherwise disturb any Wildlife or Wildlife dwelling.

7.3 Horses and other stock animals are prohibited.

7.4 An animal's Owner is responsible and liable for the animal's actions. An animal or its Owner may be excluded from District Property for failure to abide by District Rules, including for harm threatened or caused by Owner's animal.

7.5 A dog's Owner shall maintain control of the dog by securely holding onto a physical leash (not an electronic control device) that is attached to the dog, except when in a designated off-leash area. The leash must be no longer than 15 feet in length. Dogs may not be secured to a stationary object and left unattended.

7.6 Owners shall promptly pick up and dispose of animal waste in proper receptacles. Bags containing animal waste shall not be left unattended to be removed later.

7.7 An animal's Owner shall not allow the animal to: (a) harass, threaten, injure or fight with a person or another animal for any reason; or (b) damage District Property or another person's property, including by digging or burrowing.

7.8 Any dog that has a set of permanent canine teeth or that is six months of age or older, whichever comes first, must be licensed and current in vaccinations in accordance with state and county law. A dog's Owner shall be found in violation of this rule if the dog is not wearing its collar and tag.

7.9 Dogs are not permitted in ponds on District Property.

7.10 Owners shall comply with all site-specific rules and guidelines posted at off-leash dog areas.

7.11 Only Assistance Animals are allowed in District Facilities.

ARTICLE 8. VEHICLES

8.1 All vehicles must be operated in accordance with the Oregon Vehicle Code while on District Property. This Article shall be interpreted in concordance with Oregon Vehicle Code.

8.2 No person shall operate a motor vehicle, bicycle, electric-assisted bicycle or other Rolling Device in a manner that endangers or would be likely to endanger any person or property.

8.3 No person on a bicycle, electric-assisted bicycles or other Rolling Devices shall fail to yield the right of way to all pedestrians, fail to give an audible warning before overtaking and passing a pedestrian, or operate an electric-assisted bicycle on a sidewalk in violation of ORS 814.410.

8.4 Motor vehicles, including electric-assisted bicycles with throttles, are prohibited except in roadways and parking areas designated for motor vehicles, except as otherwise allowed by state law, these Rules or applicable permit. The foregoing shall not apply to District or public safety vehicles.

8.5 Bicycles, pedal-assist electric-assisted bicycles and other Rolling Devices are permitted on pedestrian trails and pathways unless prohibited by the Executive Director to ensure the safety of District users.

8.6 Except where expressly permitted, such as at skate and bike parks, bicycles, electric-assisted bicycles, or other Rolling Devices are not permitted on any plazas, retaining walls, furniture, stairs, handrails, sports fields, swimming pools, sports courts, playgrounds, off-leash areas, recreation facilities, areas reserved for special events, and other areas as prohibited by site-specific rules.

8.7 Bicycles, electric-assisted bicycles, or other Rolling Devices may only be locked to designated bicycle racks, and not to trees, benches or other amenities not designated for that purpose.

8.8 Motor vehicles shall only be parked in designated parking spaces, and shall not be parked on vegetated areas including, but not limited to, grass, shrubbery, or other landscaping not intended for parking. Parking lots on District Property shall be used strictly in accordance with posted site-specific rules, such as those designating loading zones, time limits, spaces for District staff only, and handicapped spots.

8.9 No person shall use District parking spaces except while they are lawfully using District Property.

8.10 No vehicle may be parked on District property between 10:00 p.m. and 5:00 a.m., except during District Program or Facility operating hours; or in parking lots as otherwise posted (e.g., designated sunrise to sunset hours).

8.11 Vehicles parked on District Property in violation of these Rules or state law may be towed in accordance with state law.

8.12 No person shall drive a motor vehicle or a combination of motor vehicles in a manner that impedes or blocks the normal and reasonable movement of traffic.

ARTICLE 9. RESTROOMS

9.1 Park restrooms and portable toilets are to be used for their intended purposes of the promotion of personal hygiene, hand washing and elimination of human waste.

9.2 Individual restrooms, changing rooms and restroom stalls are not to be occupied by more than one person and for no longer than 10 minutes, except for those with a disability or who are accompanied by a Caregiver.

9.3 Facility locker rooms are provided only to clean one's body and to store personal belongings for the time when the facility user is inside the building.

9.4 Any person over the age of six must use the restroom, locker room or changing room that corresponds to their gender identity. Nongendered restrooms, locker rooms and changing rooms are available to all users. Persons may request reasonable accommodation from District staff as needed.

9.5 No person shall use a cell phone, camera, recording device or other photographic equipment inside a restroom facility, locker room or changing area.

9.6 No person shall urinate or defecate on District Property except in restroom toilets or portable toilets.

9.7 Persons must abide by posted restroom hours.

9.8 Restrooms and portable toilets shall not be used to store belongings.

ARTICLE 10. SPECIFIC RECREATIONAL ACTIVITIES

10.1 The use of metal detectors is prohibited on District Property.

10.2 Slacklines, hammocks and similar devices are permitted to the extent that their use is consistent with District Rules, site-specific rules, and respectful of persons and property. Guidelines are available on District's website or by contacting Park Stewards.

10.3 Geocaching/letterboxing is permitted to the extent that the activity is consistent with District Rules, site-specific rules, and respectful of persons and property. Guidelines are available on District's website or by contacting Park Stewards.

10.4 Activities involving the use of airborne projectiles that may harm people or property are prohibited. This prohibition includes, without limitation, golfing, archery, discus, javelin, shotput and model rockets.

10.5 Unmanned aerial vehicles (e.g., drones) and other remote-controlled devices are permitted to the extent that they do not endanger the comfort, health, peace, or safety of others or cause harm to District Property. To the extent permitted by applicable law, the Executive Director may prohibit the use of an unmanned aerial vehicle on District Property that endangers persons or property. Such devices shall be operated in accordance with state and federal law and such guidelines as may be adopted by the Executive Director. Guidelines are available on District's website or by contacting Park Stewards.

10.6 No person shall intentionally tether, launch or land a hot air balloon, paraglider, hang glider, parachute or other similar device on District Property.

ARTICLE 11. BUSINESS OPERATIONS AND ORGANIZED EVENTS

11.1 Business Operations on District Property require a permit obtained through District reservation system as described in the Business Operations in Parks and Facilities Policy. Business activities are defined to include concession sales, equipment rental, instructional activities, or other programmed activities under the organization, direction, or supervision of an individual or organization including:

A. Operating a fixed or mobile concession; or

B. Soliciting, selling, offering for sale, peddling, hawking, advertising or vending any goods or services; or

C. Displaying commercial advertisements, leafleting, signs, or business cards on facility bulletin boards or elsewhere on District Property.

11.2 No person shall organize, conduct or participate in any organized event or other scheduled activity that is publicly advertised without prior authorization from the Executive Director. An organized event or other scheduled activity that is publicly advertised on District Property requires a reservation obtained through the District reservation system as described in the Event Rentals in Parks Policy.

ARTICLE 12. PERMITS

12.1 The Executive Director shall have the authority to issue permits or to grant exceptions or waivers to any of the terms of these Rules for certain events and activities and in cases where District Property is leased to a third party to operate.

12.2 Permit-holders shall keep the permit on their person at all times while engaging in the permitted activity.

12.3 Permit-holders must abide by all District Rules unless granted an exception or waiver by the terms of the permit. Permit-holders are required to abide by all permit conditions at all times.

12.4 Permit-holders shall be liable for any loss, damage, or injury to any person or property caused by a permit-holder's use of District Property pursuant to the permit.

12.5 The Executive Director has the authority to revoke a permit upon finding of a violation of any of these Rules, laws, or other authority, or, in his or her sole discretion, to promote safety and welfare in the District.

ARTICLE 13. CLOSURES

13.1 District Property is closed to the public from 10:00 p.m. until 5:00 a.m. except during District Program or Facility operating hours, as otherwise posted, or as authorized by the Executive Director. Parking lots at Shevlin Park, Sawyer Park, Riley Ranch Nature Reserve, and others as designated by the Executive Director are closed from sunset until sunrise. It shall be unlawful to enter or remain on District Property during closed hours, except:

A. A person may enter upon a closed District Property for a reasonable amount of time to retrieve their personal property or vehicle; or

B. Pedestrians or bicyclists may travel through District Property on designated trails or walkways to destinations outside of District Property; or

C. By permit.

13.2 The Executive Director may close or limit the use of District Property to ensure the safety and security of people and property or to curtail misuse or Rules violations.

13.3 No person shall refuse an order to evacuate District Property in case of an emergency.

ARTICLE 14. ENFORCEMENT OF RULES AND REGULATIONS

14.1 Nothing in this section shall be constituted to authorize the Ejection or Exclusion of person for lawfully exercising free speech rights or other rights protected by the state or federal constitutions. A person lawfully exercising these protected rights but who commits an act that is not protected can be subject to Ejection or Exclusion as provided for in this section.

14.2 The Enforcement Officer is vested with authority to enforce these Rules and to take the following action:

A. Issue Ejections, citations or Exclusions as provided by these Rules to any person who violates any provision of the District Rules; or

B. Refuse entrance to a District Facility or Program, or to require a person to leave a District Property, Facility or Program.

14.3 No person shall refuse to leave any District Property, Facility or Program after being directed to leave by an Enforcement Officer. Entering or remaining unlawfully in or upon District Property may subject a person to Exclusion or arrest and prosecution for criminal trespass.

14.4 Any Enforcement Officer may protect the safety or health of the public or protect District Property. This authority includes actions that temporarily:

A. Permit or limit specific activities or uses in designated portion of a District Property;

B. Designate a location within a District Property for a single use to avoid conflicts between users;

C. Restrict access to or close a portion of a District Property; or

D. Exclude a person from District Property.

14.5 No person shall interfere with any Enforcement Officer enforcing these Rules. Interference with an Enforcement Officer may result in Exclusion.

14.6 Pursuant to ORS 266.450, violation of these Rules is punishable by Exclusion; or a misdemeanor punishable by a fine not to exceed $100 or imprisonment not to exceed five days, or both.

14.7 Action to impose punishment shall be brought in the name of the District in any court having jurisdiction of misdemeanors under state law. The action shall be brought in the County in which the District, or greater portion of the area of the District, is located pursuant to ORS 198.600(2).

ARTICLE 15. EXCLUSIONS

15.1 ORS 266.410(8) established the authority for District to exclude a person for violations of any District Rule.

15.2 An Enforcement Officer may direct any person to temporarily leave District Property (i.e., an Ejection) for a minor violation, disruptive conduct or violation of these Rules, city or county code or state law, or in emergency situations where the person needs to leave the area, for their safety

or the safety of others, for the remainder of the day. An Ejection does not constitute a formal Exclusion as defined in this policy and this policy does not require that the Ejection be in writing.

15.3 An Enforcement Officer may exclude a person from District Property, subject to state law, for any of the following:

A. Violation of District Rule;

B. The person is subject to civil exclusion from District Property pursuant to Bend Municipal Code 5.40.010 et seq.; or

C. As ordered by a court of law.

15.4 If an Excluded Person violates a written Exclusion, local law enforcement may be called and the person may be arrested for criminal trespass.

15.5 Exclusions are effective as of the date indicated in the Notice of Exclusion.

15.6 An Enforcement Officer may exclude any person who violates any provision of District Rules from any District Facility, Program or Property. There are four classes of Exclusion based on the severity, frequency and number of violations as stated below, or other mitigation or enhancement factors, such as compliance with Enforcement Officers' directives, likelihood of recurrent violations, or risk to persons' safety. Additional information gathered after the initial exclusion decision may result in a modification that increases or decreases the longer length of exclusion.

15.7 Class 1 Exclusion: The length of Exclusion from District Property shall be 30 days for:

A. Violations resulting in minimal impact on persons and property.

15.8 Class 2 Exclusion: The length of Exclusion shall be between 31 and 90 days for:

A. Multiple violations supporting the Exclusion or repeated Class 1 Violation with minimal impact to people and property;

B. Violation of a Class 1 Exclusion; or

C. Failure to comply with an Enforcement Officer's directives.

15.9 Class 3 Exclusion: The length of Exclusion shall be between 91 and 180 days for:

A. Violations significantly impacting persons or property, such as threatening language, vandalism, theft or threat of bodily harm to another person;

B. Behavior that evidences criminal activity;

C. Violation of Class 2 Exclusion; or

D. Failure to comply with Enforcement Officers' directives.

15.10 Class 4 Exclusion: The length of Exclusion shall be between 181 days and one year for:

A. Activity that is the basis for serious criminal charges;

B. Actual violence or harm to people or property;

C. Evidence of bias crime as described by ORS 147.380; or

D. Failure to comply with Enforcement Officers' directives.

15.11 The places to which an Exclusion applies shall be determined based on the nature of the violation and the interest of protecting persons and District Property and shall be in the sole discretion of the Enforcement Officer.

15.12 The Enforcement Officer issuing the Exclusion shall fill out and sign the Notice of Exclusion using the District's approved form. The Enforcement Officer shall make a reasonable attempt to deliver the Notice of Exclusion to the Excluded Person. A refusal to accept delivery where actual notice has occurred shall not exempt the Excluded Person from the Exclusion. The Notice of Exclusion shall contain the following:

A. The date of the violation, start date of the Exclusion, length of Exclusion, place of Exclusion, and the class of Exclusion;

B. Information on the right to an appeal and how to request an appeal; and

C. A warning of the consequence for failure to comply.

ARTICLE 16. APPEALS

16.1 Timeline and Notice:

A. The Excluded Person must postmark or send via email a written appeal within 10 calendar days of the effective date of the Notice of Exclusion to appeal the Exclusion. Appeals must be addressed or delivered to: District Office, Attention: Park Stewards, 799 SW Columbia Street Bend, OR 97702 or emailed to exclusions@bendparksandrec.org.

B. The Decisionmaker must issue a written decision upholding, overturning or modifying the Exclusion within 30 days of the Decisionmaker's receipt of the written appeal.

C. If the appeal contains a request that the Exclusion be stayed pending appeal, the Decisionmaker must issue a response within 10 days of the Decisionmaker's receipt of the written appeal containing the request for the stay.

16.2 Content of Request for Appeal: The request for appeal must contain a statement setting forth the reasons that the Exclusion is invalid or otherwise improper, any evidence the appellant believes will be useful to the Decisionmaker in making a decision, a current address, and email or telephone number in order to be notified of the decision, and, if a stay is requested, any reasons the Exclusion should be stayed pending appeal. The appellant may request to participate in the hearing by telephone or by video.

16.3 Evidence on Appeal:

A. On appeal, the Decisionmaker shall consider: if the preponderance of evidence (i.e., more than likely not) shows that the person committed the violation for which the person was excluded; the seriousness of the Rules violation for which the person has been excluded, including whether the conduct rose to criminal conduct; prior incidences of violation; the

impact of the violation on persons and property; any mitigating factors; and any other criteria the Decisionmaker determines to be relevant.

B. The Decisionmaker may rely upon any evidence that a reasonable person would deem as appropriate, including testimony from the Enforcement Officer who issued the Exclusion, witnesses, and from the Excluded Person. Evidence may be presented in person, via telephone, video, email, or letter at the discretion of the person providing the evidence.

16.4 Review of Stay of Exclusion: In reviewing the stay of an Exclusion pending appeal, the Decisionmaker shall consider all of the criteria described in Article 16.3 as well as any reason that the Excluded Person may need to be in a District Property pending appeal.

16.5 Appeal Decisionmaker:

A. Class 1 Exclusions are appealed to the Park Steward Manager, if the Exclusion is issued by an Enforcement Officer other than the Park Steward Manager. In the event the Park Steward Manager issues the Notice of Exclusion, then the appeal shall be heard by the Community Engagement Director.

B. Class 2, 3, and 4 Exclusions are appealed to the Exclusion Appeals Panel.

16.6 Exclusion Appeal Panel: The Exclusion Appeals Panel shall consist of three District employees who are not Park Stewards, Enforcement Officers, or employees directly employed by the department to which the appeal applies. There shall be one returning member from the most recent appeals panel hearing. The carryover member will serve as the Chair of the Exclusion Appeals Panel and shall write its final decision. In the event that no carryover members are available, the panel shall be comprised of available staff, who shall elect a member from amongst themselves to serve as the Chair. Exclusion Appeals Panel members shall not serve on more than two consecutive appeal panels. The decision of the Exclusion Appeals Panel shall be by a majority vote.

16.7 Written Decision: The Decisionmaker shall issue a written decision per the timeline described in Article 16.1. The decision shall either uphold the Exclusion, overturn the Exclusion, or modify the Exclusion by shortening the Exclusion period or limiting the places the Exclusion affects.

ARTICLE 17. INTERPRETATION; SEVERABILITY; CORRECTIONS

All pronouns contained in these Rules and any variations of such pronouns will be deemed to refer to the masculine, feminine, or neutral, singular or plural, as the applicable context may require. The singular includes the plural, and the plural includes the singular. The word “or” is not exclusive. The words “include,” “includes” and “including” are not limiting. Any reference to a particular law, statute, rule, regulation, code or resolution includes the law, statute, rule, regulation, code or resolution now in force or as later amended. The provisions of these Rules are declared to be severable. If any section, subsection, sentence, clause or portion of these Rules is for any reason held invalid, unenforceable or unconstitutional, such invalid, unenforceable or unconstitutional section, subsection, sentence, clause or portion will (a) yield to a construction permitting enforcement these Rules to the maximum extent permitted by applicable law, and (b) not affect the validity, enforceability, or constitutionality of the remaining portions of these Rules. These Rules may be corrected at any time by resolution of the Board to cure editorial or clerical errors, or to comply with applicable law.

ORDINANCE No. 11

BEFORE THE BOARD OF DIRECTORS OF THE BEND PARK AND RECREATION DISTRICT AN ORDINANCE REPLACING ORDINANCE NO. 9, PARK RULES AND REGULATIONS, GOVERNING THE CONDUCT OF THE USERS OF THE FACILITIES OF LAKES, PARKS, RECREATIONAL GROUNDS AND BUILDINGS WITHIN THE DISTRICT PURSUANT TO ORS 266.410(7)(B).

WHEREAS, ORS 266.410(7)(b) empowers park and recreation districts such as the Bend Park and Recreation District (the "District") to make and enforce regulations governing the conduct of the users of the facilities of lakes, parks, recreational grounds and buildings within the District; and

WHEREAS, the Board of Directors of the Bend Park and Recreation District (the "Board of Directors") has held public hearings in Deschutes County consistent with the requirements of state law; and

WHEREAS, the Board of Directors deems it necessary and advisable to amend and replace the District's rules and regulations governing the conduct of the users of the District's facilities.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE BEND PARK AND RECREATION DISTRICT ORDAINS as follows:

Section 1. Findings. The above stated findings contained in this Ordinance No. 11 (this "Ordinance") are hereby adopted.

Section 2. Purpose. The purpose of this Ordinance is to adopt regulations governing conduct within and the use of property, parks, facilities, buildings, and recreation grounds within the District.

Section 3. Rules and Regulations. The rules and regulations contained in Exhibit A (the "Rules and Regulations"), which is attached to this Ordinance and incorporated herein by reference, are hereby adopted as the District's regulations governing the conduct of the users of the facilities of lakes, parks, recreational grounds, and buildings within the District. This Ordinance amends, replaces, and supersedes Ordinance No. 9 in its entirety and all ordinances, resolutions, and/or policies in conflict with the Rules and Regulations. Nothing in this Ordinance affects the validity of any criminal or civil enforcement actions commenced prior to the adoption of this Ordinance; all District ordinances existing at the time that such actions were filed will remain valid and in full force and effect for purposes of those actions.

Section 4. Severability Clause. All pronouns contained in this Ordinance and any variations thereof will be deemed to refer to the masculine, feminine, or neutral, singular or plural, as the identity of the parties may require. The singular includes the plural and the plural includes the singular. The word "or" is not exclusive. The words "include," "includes," and "including" are not limiting. Any reference to a particular law, statute, rule, regulation, code, or ordinance includes the law, statute, rule, regulation, code, or ordinance as now in force and hereafter amended. If any section, subsection, sentence, clause, and/or portion of this Ordinance is for any reason held invalid, unenforceable, and/or unconstitutional, such invalid, unenforceable, and/or unconstitutional section, subsection, sentence, clause, and/or portion will (a) yield to a construction permitting enforcement to the maximum extent permitted by applicable law, and (b) not affect the validity, enforceability, and/or constitutionality of the remaining portion of this Ordinance. This Ordinance may be corrected by resolution of the Board to cure editorial and/or clerical errors.

Read for the first time the 21 day of August, 2018.

Read for the second time the 4 day of September, 2018.

Placed upon its passage this 4 day of September, 2018.

Yes 4 No Ø

Authenticated by the Chairman of the Board this 4 day of SEPT, 2018

R Brady Fuller

Brady Fuller, Board Chair

Attested by:

D. Horton

Don Horton, Recording Secretary

BEND PARK & RECREATION DISTRICT

RULES AND REGULATIONS

Table of Contents

ARTICLE 1. PREAMBLE

1.1 The Bend Park and Recreation District ("District") is a Special District of Oregon authorized to provide park and recreation services by ORS 266.410. The District Board of Directors, in accordance with ORS 266.410(7)(b), has adopted the following rules and regulations to ensure that Bend's park and recreation system remains beautiful, inviting, and safe for the community and our visitors. We ask for your cooperation to ensure the integrity of the park system remains intact. If you have specific questions, please call Park Services at (541) 388-5435.

1.2 Unless otherwise authorized by the Executive Director or a Designee, the following rules and regulations govern the conduct of the users of the parks, trails, natural areas, and recreation facilities located on District property within the City of Bend and Deschutes County. In addition to these rules, the Executive Director is authorized to establish rules and regulations applicable to specific District properties or facilities in any manner that provides for the productive, sustainable, and safe operation and use of District resources.

1.3 The term "Executive Director" means the District's Executive Director who has been appointed and designated by the Board of Directors as the registered agent of the District. The term "Designee" means those persons designated by the Executive Director from time to time to monitor and enforce the District's rules and regulations and include, but are not limited to: department directors, park stewards, facility managers, life guards, program staff, and contract security officers. "Parks", "facilities", "recreation areas" and "programs" means and refers to all property or programs owned or controlled by the District and operated for the public's recreational use.

ARTICLE 2. CONDUCT ON DISTRICT PROPERTY

2.1 No person shall disturb or otherwise endanger the comfort, health, peace, or safety of others.

2.2 No person shall violate any city, county, state, or federal laws, ordinances, or regulations while on District property. Criminal activity on District property will be reported to the Bend Police Department or Deschutes County Sheriff's Department.

2.3 No person shall damage, remove, tamper with, modify, or deface District property, including vegetation, dirt, and rocks.

2.4 Open fires and charcoal barbeques are prohibited. Portable propane camp stoves and gas barbeques are permitted to the extent that they are operated in a safe manner.

2.5 No person shall litter on District property. Garbage and refuse shall not be brought to District property for disposal. Persons may not deposit or abandon any garbage, refuse, trash, waste, or other materials except in receptacles specifically provided for such purposes.

2.6 No person shall camp or sleep overnight on District property. To "camp" means to set up or to remain in or at a campsite. "Campsite" means a place where any bedding, sleeping bag, or other material used for bedding purposes, or any stove or fire is placed, established, or maintained for

the purpose of maintaining a temporary place to live, whether or not such place incorporates the use of any tent, lean-to, shack, or any other structure, or any vehicle or part thereof.

2.7 No person shall create a noise, within District property, by use of a sound-amplifying device or otherwise, that is unnecessarily loud at a distance of 50 feet from the source except as authorized by the Executive Director or a Designee. A noise is "unnecessarily loud" if it interferes with normal spoken communication or could reasonably disturb sleep.

2.8 No person shall possess or consume alcoholic beverages on District property except as authorized by the Executive Director or a Designee.

2.9 Glass containers are prohibited on District property.

2.10 Smoking, vaping, and the use of tobacco or marijuana in any form is prohibited on District property, whether or not in a vehicle.

2.11 The following rules and regulations apply to the use of restrooms, changing areas and locker facilities:

a. No person over the age of six years shall enter a restroom, washroom, or locker facility designated for the opposite gender. However, those who need assistance and are accompanied by a parent, legal guardian, or caregiver may enter the restroom, washroom, or locker facility that aligns with the gender of the parent, legal guardian, or caregiver.

b. No person shall use a cell phone, camera, recording device, or other photographic equipment inside a restroom facility, dressing room, or changing area.

c. No person shall urinate or defecate on District property except in restroom toilets or portable toilets provided for that purpose.

2.12 The following rules and regulations apply to bodies of water located within District property:

a. No person shall anchor in those portions of the Deschutes River located within District property.

b. No person shall bathe (unless in designated showers), wash clothing or other materials, or clean fish in streams, ponds, pools, or restrooms.

c. No person shall jump, dive, or otherwise launch oneself or any other person or object off any bridge into a river, canal, pond, or any other body of water.

d. Dogs are not permitted in ponds on District property except as authorized by the Executive Director or a Designee.

e. In addition to these rules, all persons shall obey rules posted at particular bodies of water.

2.13 The following rules and regulations apply to displays in parks and facilities:

a. No person shall display sexually explicit material, as defined by Oregon law, in view of minors.

b. No person or group engaging in an authorized event shall display sexually explicit artwork or similar displays or performances that may interfere with other patrons' enjoyment of District facilities.

c. Artwork, displays, or performances shall be located so as to minimize disturbance to those wishing to avoid such displays or performances, minimize congestion, and promote the flow of foot traffic through the park or facility. All displays shall be placed in areas designated for that purpose.

ARTICLE 3. HUNTING, FIREARMS & FIREWORKS

3.1 No person shall possess a loaded firearm on District property within the City of Bend city limits, except in accordance with Oregon and Federal law.

3.2 No person shall intentionally possess a loaded or unloaded firearm or any other instrument used as a dangerous weapon, while in or on a public building as defined in ORS 166.360(9), except as allowed under ORS 166.370.

3.3 No person shall use a weapon, as defined in ORS 166.360, except as authorized under Oregon law.

3.4 Fishing is permitted on District property consistent with the Oregon law, including licensing requirements under ORS Chapter 497.

3.5 Hunting, trapping, or removing any wild animal is prohibited unless authorized by the Executive Director, a Designee, or other government agency with jurisdiction.

3.6 No person shall possess or use fireworks or other explosives.

ARTICLE 4. ANIMALS

4.1 No person shall feed waterfowl or other wildlife.

4.2 No person shall damage, harm, injure, molest, or otherwise disturb any wildlife or wildlife dwelling except as authorized by the Executive Director, a Designee, or other government agency with jurisdiction.

4.3 Horses and other stock animals are prohibited, except as authorized by the Executive Director or a designee.

4.4 Owners or keepers of an animal (hereinafter referred to as "Owners") are responsible and liable for the animal's actions. Animals or Owners may be excluded from District property for failure to abide by District rules.

4.5 Owners shall maintain control of dogs by securely holding onto a physical leash (not an electronic control device) that is attached to the dog, except when in a designated off-leash area. Dogs may not be secured to a stationary object and left unattended on District property.

4.6 Owners shall promptly pick up and dispose of animal waste in proper receptacles.

4.7 Owners shall not allow an animal to damage the property of another, including by digging or burrowing, or to harass, threaten, injure, or fight with an animal or person.

4.8 Any dog that has a set of permanent canine teeth or that is six months of age or older, whichever comes first, must be licensed and current in vaccinations. Owners shall be found in violation of this rule if a dog is not wearing its collar and tag.

4.9 Owners shall also comply with all rules and guidelines posted at off-leash dog areas.

ARTICLE 5. VEHICLES

5.1 Motorized vehicles are prohibited except in roadways, parking areas designated for motorized vehicles, as needed for public safety purposes, or by permit.

5.2 Electric assisted bicycles, as defined in ORS 801.258, and when operated in accordance with these rules, are permitted on trails and pathways except as prohibited by the Executive Director or a Designee. Electric assisted bicycles are subject to all District rules applicable to bicycles.

5.3 No vehicle shall be parked in a loading zone on District property for more than the posted time limit.

5.4 No person shall park a vehicle on District property unless the operator or passengers are using District facilities or participating in District programs. No person shall park a vehicle on District property for the purpose of offering the vehicle for sale.

5.5 No person shall block the flow of traffic in a parking lot, or prevent emergency vehicle access, by double parking or blocking a fire hydrant, driveway or entry gate, or parking in an undesignated space.

5.6 No vehicle may be parked on District property between 10:00 pm and 5:00 am, except:

a. As authorized by the Executive Director or a Designee;

b. During District program or operating hours; or

c. In parking lots designated as having sunrise to sunset hours.

5.7 Vehicles left upon District property in violation of these rules or in violation of Oregon law may be towed in accordance with Oregon law.

ARTICLE 6. BUSINESS OPERATIONS, LEAFLETING, AND ORGANIZED EVENTS

6.1 The following activities are prohibited on District property unless specifically authorized by the Executive Director or a Designee and with evidence of such permission on their person:

a. Operating a fixed or mobile concession.

b. Soliciting, selling, offering for sale, peddling, hawking, advertising, or vending any goods or services.

c. Displaying commercial advertisements, signs or business cards on facility bulletin boards or elsewhere on District property without prior approval.

6.2 Hand-billing and leafleting is permitted as long as the method of distribution does not violate District rules and regulations.

6.3 No person shall organize, conduct, or participate in any event or other scheduled activity that is publicly advertised without prior authorization from the Executive Director or a Designee. All business activities on park property require a permit obtained through the District reservation system as described in the Business Operations Policy. Business activities are defined to include camps, classes, exercise classes, sale of merchandise or services, or other programmed activities under the organization, direction or supervision of an individual or organization. Scheduled District activities have priority use of District facilities.

ARTICLE 7. SPECIFIC RECREATIONAL ACTIVITIES

7.1 The use of metal detectors is prohibited on District property unless pursuant to a permit.

7.2 Slacklines, hammocks, and similar devices are permitted to the extent that their use is consistent with District rules, guidelines, and regulations protecting people and property. Guidelines specific to slacklines, hammocks, and similar devices are available on the District's website or by contacting Park Services.

7.3 Geocaching/letterboxing is permitted to the extent that the activity is consistent with District rules, guidelines, and regulations protecting people and property. Guidelines specific to geocaching/letterboxing are available on the District's website or by contacting Park Services.

7.4 Activities involving the use of airborne projectiles that may harm people or property is prohibited except as authorized by the Executive Director or a Designee. This prohibition includes, without limitation, golfing, archery, discus, javelin, shotput, and model rockets.

7.5 Unmanned aerial vehicles (e.g., drones) and other remote-controlled devices are permitted, except as prohibited by the Executive Director or a Designee, to the extent that they do not endanger the comfort, health, peace, or safety of others or cause harm to District property. Such devices shall be operated in accordance with such guidelines as may be adopted by the Executive Director from time to time.

7.6 No person shall use any rolling device including, but not limited to, bicycles, skateboards, scooters, or inline skates, in a manner that could potentially harm people, pets, wildlife, or property. Such rolling devices are not permitted on any plazas, park furniture or retaining walls, stairs or handrails, sports fields, sports courts, playgrounds, off-leash areas, areas reserved for special events, and other areas as designated by the Executive Director or a Designee.

7.7 No person shall tether, launch or land a hot air balloon, paraglider, parachute, or other similar device unless authorized by the Executive Director or a Designee.

7.8 No person shall tether, tie, or otherwise attach any device to any District bridge except as authorized by the Executive Director or a Designee.

ARTICLE 8. PERMITS

8.1 The Executive Director or a Designee shall have the authority to issue permits, or to grant exceptions or waivers to any of the terms of these rules and regulations for authorized events and activities.

8.2 Permit-holders shall keep the permit on their person at all times while engaging in the permitted activity.

8.3 Permit-holders must abide by all District rules and regulations unless granted an exception or waiver by the terms of the permit. Permit-holders are required to abide by the conditions of the permit at all times.

8.4 Permit-holders shall be liable for any loss, damage, or injury to any person, or property caused by a permit-holder's use of District facilities pursuant to the permit.

8.5 The Executive Director or a Designee has the authority to revoke a permit upon finding of violation of any rule, regulation or ordinance, or for other cause.

ARTICLE 9. CLOSURES

9.1 Parks are closed from 10:00 pm until 5:00 am unless otherwise posted. Parking lots at Shevlin Park, Sawyer Park, Riley Ranch Nature Reserve, and others as designated by the Executive Director or a Designee are closed from sunset until sunrise. It shall be unlawful to enter or remain on District Property during closed hours, except:

a. A person may enter upon a closed District property for a reasonable amount of time to retrieve their personal property or vehicle;

b. Pedestrians may travel through District property to destinations outside of District property;

c. District staff and emergency responders may enter closed areas in the course of executing their duties; or

d. By permit.

9.2 The Executive Director or a Designee may close or limit the use of District property to ensure the safety and security of the public and property when fires or other hazardous conditions exist.

9.3 No person shall refuse an order to evacuate District property in time of an emergency.

ARTICLE 10. EXCLUSIONS

10.1 A peace officer or the Executive Director or a Designee may exclude a person from District property, subject to Oregon law, for any of the following:

a. Violation of District rules and regulations;

b. The person has been cited to appear, arrested, or otherwise taken into custody in a "Civil Exclusion Zone" for any of the offenses contained in the City of Bend Code;

c. As ordered by a court of law; or

d. The person is deemed a public threat to visitors or to any District staff or property.

10.2 The Executive Director or a Designee shall determine the length of the exclusion period. If an excluded person violates the exclusion order, local law enforcement may be called, and the person may be arrested for criminal trespass.

10.3 Verbal or written exclusions will begin immediately. The excluded person will have 10 calendar days from the effective date of the notice to appeal the exclusion. Appeals are governed by the District's Exclusion Policy, which is available by contacting Park Services. The appeal must be in writing and delivered to the District Exclusion Appeals Hearing Panel ("Panel"). The appeal shall set forth the reason(s) that the exclusion is invalid or improper and shall request a written review. The Panel shall issue a written decision no later than 30 calendar days following receipt of the appeal.

10.4 If, as part of a written appeal, the excluded person requests a hearing, it shall be conducted by the Panel within 30 calendar days of the request. The Panel will render the final decision in writing within 15 business days of the hearing date. If a hearing is requested, no written decision shall be issued until after the hearing.

10.5 At any time during the exclusion, an excluded person may submit a petition in writing to the Panel for a temporary waiver of the exclusion.

ARTICLE 11. ENFORCEMENT OF RULES AND REGULATIONS

11.1 The Executive Director, a Designee, or any peace officer as defined under ORS 133.005(3) is vested with authority to enforce these rules and regulations and to take the following action:

a. Issue citations or exclusions as provided by the District's Park Conduct and Exclusion Policy and Oregon law to any person who violates any provision of the District's rules and regulations.

b. Refuse entrance to a District facility or program, or to require a person to leave a District property, facility, or program.

11.2 No person shall refuse to leave any District property, facility, or program after being directed to leave by a peace officer or the Executive Director or a Designee. Entering or remaining unlawfully in or upon District property may subject a person to exclusion or prosecution for criminal trespass in the second degree pursuant to ORS 164.245.

11.3 No person shall interfere with any District personnel or peace officer enforcing these rules and regulations. Intentionally acting in a manner that prevents or attempts to prevent District personnel or a peace officer from enforcing these rules and regulations may subject a person to exclusion or prosecution pursuant to ORS 162.247.

11.4 Pursuant to ORS 266.450, violation of these regulations is a misdemeanor punishable by exclusion; or upon conviction by a fine not to exceed $100 or imprisonment not to exceed five days, or both.

11.5 Should any word, sentence, paragraph, clause or phrase of this ordinance be adjudged or held to be void or unconstitutional, the same shall not affect the validity of the remaining portions of

this ordinance, which shall remain in full force and effect.

BOARD AGENDA COMMUNICATION

AGENDA DATE:	June 17, 2025
SUBJECT:	Athletic Facility and Sports Program Guidelines Policy
STAFF RESOURCE:	Becky Rexford, Sports Manager Matt Mercer, Recreation Services Director
PREVIOUS BOARD ACTION:	December 18, 2018 – Approved Athletic Facility and Sports Program Guidelines Policy
ACTION PROPOSED:	Approve Updated Athletic Facility and Sports Program Guidelines Policy
STRATEGIC PLAN:	
Priority:	Service
Goal:	Support the recreational needs of an evolving community through programming, parks, trails and facilities
Strategy:	Monitor and adapt programming to meet community needs

BACKGROUND

The board approved the current Athletic Facility and Sports Program Guidelines Policy on December 18, 2018. The policy was scheduled for review this year as part of the CAPRA re-accreditation process. Staff thoroughly reviewed the policy and made several edits to align it with current practices and other related policies. Staff also took the opportunity to revise the section addressing long-term user groups (formerly affiliate organizations) to clarify roles and relationships between the district and potential long-term user groups. The updated policy and current policy are attached (attachments A and B). The following is a summary of the substantive changes.

Section 2 – District Role in the Provision of Athletic Fields for Recreation and Competitive Uses

The guiding principle related to the specific percentage allocation of field capacity to recreation and competitive use was removed. The reason for the removal is that allocation of field space is addressed more comprehensively in Section 6 and, in practice, the 70% allocation for district use cannot be exceeded due to seasonality of programming.

Section 3 – Guidelines for Determining Future Athletic Field Development

Guidelines were reordered and updated to reflect current practices and data tracking. Needs assessment is now listed first, as it is the primary source of data consulted when determining athletic field development. Field use hours and participation remain, with funding being listed fourth as it is an essential determinant in field development. “Meeting the design needs of the community users who support the district through taxes” was changed to “Recreation versus tournament use” to reflect the sentiment of the guideline. “Unfulfilled needs” replaced the guideline related to requests that were not accommodated. In practice, almost all requests were

accommodated, even if it was with an alternative option, so this was not a useful metric. Instead, data will be periodically collected related to field use that cannot be fully accommodated to understand what needs are not being met.

Section 4 – Use of Park Without Designated Athletic Fields
This section was shortened to include only the guideline related to the use of parks without designated athletic fields (e.g., Orchard Park, Discovery Park, Farewell Bend Park). The other guidance listed in the current policy related to preferred time and place for scheduling is more operational in nature and unnecessary for policy.

Section 5: Reservations for Organized Use (previously Section 7).
Moved to a more logical place with minor updates to language to reflect current practices

Sections 6-10 – Athletic Facility Scheduling Priority & Use Classifications (previously Sections 5-6)
This section has been updated to reflect current practices, including revised user descriptions for the different classification of user groups. "Affiliate Organizations" are now titled "Long-Term User Groups" to reflect the intended relationship between the district and long-term user groups. Updated Long-Term User Group definition, requirements and selection process. Added definitions for Seasonal User Groups, Short-Term Rental Groups and Private and Commercial Use.

BUDGETARY IMPACT
There are no direct budget impacts of the updated policy. Generally, even with updated user classifications, users will remain in their current user classification.

STAFF RECOMMENDATION
Staff recommends that the board approve the updated Athletic Facility and Sports Program Guidelines Policy.

MOTION
I move to approve the Athletic Facility and Sports Guidelines Policy dated June 17, 2025.

ATTACHMENTS
Attachment A – Athletic Facility and Sports Program Guidelines Policy
Attachment B - Existing Athletic Facility and Sports Program Guidelines Policy

Board Policy
Athletic Facility and Sports Program Guidelines
Approved Date: June 17, 2025

_____
Jodie Schiffman, Chair

Athletic Facility and Sports Program Guidelines

Purpose

To establish Board policy guidelines for operating district athletic fields and programs. The guidelines are intended to articulate the district's philosophy regarding team sports programming, field allocation and scheduling, general operating practices and future athletic field development. Some of these policy guidelines also apply to other district-operated recreation facilities used for organized sports programs.

Definitions

For purposes of this policy, the following definitions are used.

Athletic Fields include all facilities designed and designated for field sports use, including those at sports complexes and community and neighborhood parks. Large turf areas in neighborhood and community parks may also function for sports practices, but are not considered athletic fields.

Athletic Facilities refer to athletic fields and other facilities used for organized sports programs, including swimming pools, ice skating rinks, tennis, pickleball and other courts, and disc golf courses.

Organized Use is any group or team practicing, playing contests, or conducting drills, camps, or other programmed activities under the direction or supervision of an individual or organization.

Unorganized Use includes individual and small group drop-in use, as well as informal gatherings such as unscheduled pick-up games and family gatherings where no organization is sponsoring and no fee is charged.

Recreation Programs are activities that adhere to all or most of the following:

- No tryouts or skill level requirement to participate
- Emphasis on equal playing time regardless of ability
- Local competition only - no travel out of Central Oregon required
- Single season per year commitment
- No financial requirements except for the registration fee for the program

Reviewer:
Last Review Date:
Next Review Date:
Review Schedule: 5 years

Competitive Programs are activities that require one or more of the following:

- Tryouts or other restrictions to participate
- Playing time based on skill, talent or commitment
- Travel out of Central Oregon for competitions
- Multiple-season per year participation
- Contract and/or ongoing dues
- Membership in a national governing organization separate from fees

Policy Guidelines

1. District Role in Sports Programming

The district's primary role is to provide recreational opportunities to all who want to participate, regardless of their experience, talents and abilities. District sports offerings include diverse recreational sports leagues, instructional classes and developmental camps for youth and adults based on community interest and district resources. District programs generally include all abilities, skill levels and experience, emphasizing personal development, fitness, teamwork, sportsmanship and fun. In some cases, the district may offer skill-based levels in a league or program to ensure the safety and enjoyment of all participants and provide progressive skill development. The district does not offer competitive club-based programs such as travel teams, select leagues or elite camps. Private or not-for-profit club sports organizations typically provide these programs.

2. District Role in the Provision of Athletic Fields for Recreational and Competitive Uses

The district's primary role in providing athletic fields is to meet the needs of recreation programs and leagues offered by the district and other not-for-profit local sports organizations offering recreation-based programs. The district understands that competitive, club-based sports organizations and groups look to the district (as well as Bend-La Pine Schools) for athletic fields to conduct practices, games and tournaments. To the extent feasible, the district will make fields available to accommodate these organizations and uses.

3. **Guidelines for Determining Future Athletic Field Development**

The district will consider the following factors to help determine the future need for athletic fields:

A. **Needs assessment information from community surveys.** The district periodically conducts community surveys to assess the community's need for different amenities and how well these needs are currently being met. This will help inform the district of the need for future athletic fields.

B. **Field use hours.** The actual hours that fields are used are the most direct indicator of the demand for athletic field space. The district will track the scheduled use of athletic fields to identify trends.

C. **Participation.** Participation in programs and leagues using athletic fields is also a direct indicator of the demand for athletic field space. The district will maintain participation numbers for district programs to identify participation trends. The district will also attempt to collect participant numbers from other users.

D. **Funding**. Athletic fields require considerable capital investment and ongoing operational funding for maintenance and must be considered in relation to all district needs and priorities.

E. **Recreational versus tournament use.** The district designs and develops athletic fields to meet the needs of district residents for recreational use. The district acknowledges that athletic complexes can provide economic benefits by attracting out-of-town visitors to larger tournaments and events. However, district residents have not, overall, indicated support for using district resources to promote tourism and economic development. As a result, the district will not consider larger tournaments and events in its design of athletic field complexes. However, tournaments will be accommodated if there is available capacity after meeting resident needs and the facilities are suitable for tournament play.

F. **Unfulfilled needs.** The district will periodically inventory and evaluate field use it cannot fully accommodate to understand what needs are not being met for the district and other organizations.

G. **Opportunity**. Athletic fields require large and relatively flat spaces that can be difficult to find and acquire. As such, opportunity will always be a significant consideration in identifying potential athletic field developments.

4. Use of Parks Without Designated Athletic Fields

To support the desire to schedule practices close to where participants live and attend school, and to utilize existing turf space, the district will schedule youth and adult practices at parks that do not have designated athletic fields. Parks will be evaluated based on the configuration and carrying capacity of the turf, the availability of support amenities, including on- and off-street parking, and the potential impact on other park uses to determine if they are suitable for a practice site. Limitations on practice schedules may also be implemented to ensure opportunities for passive park users and mitigate potential impacts. Games will not be scheduled at these locations.

5. Reservations for Organized Use

All organized use of athletic facilities requires a reservation through the district's rental program. The purpose of the reservation system is to facilitate the efficient use of available facility space, minimize potential conflicts and provide accurate information on facility use. Reservations are not required for unorganized use, including informal gatherings such as unscheduled pick-up games or family get-togethers.

6. Athletic Facility Scheduling Priority and User Classifications

The district allocates facility use according to the user categories outlined below, in order of priority. While priority categories guide scheduling decisions, the district will make reasonable efforts to accommodate all user groups by providing some field access whenever possible. Scheduling will be based on requests submitted by the established deadline and will follow the priority framework to ensure the most effective use of available field space. All facility use is contingent upon the availability of necessary resources, including appropriate staffing and facility readiness.

1. **Bend Park & Recreation District Programs:** District leagues, classes and camps, and public drop-in times
2. **Bend-La Pine Schools Programs:** Sanctioned Bend-La Pine Schools' programs as defined by the Intergovernmental Agreement (IGA)
3. **Long-Term User Groups:** Local, not-for-profit sports organizations that have long-term facility use agreements for up to three years and meet qualifications described in Section 7
4. **Seasonal User Groups:** Local, not-for-profit sports organizations and groups that have facility use agreements of a minimum of six days to a maximum of one year
5. **Short-Term Rental Groups:** Not-for-profit sports organizations and groups that have rental agreements for uses up to six days
6. **Private and Commercial Use:** Private, commercial and for-profit uses, including private sports organizations and tournaments provided by for-profit companies

Other priority considerations within each category:

- Youth programs will generally be given priority over adult programs
- Recreational programs will generally be given priority over competitive programs
- Where two or more organizations are requesting similar space, the organization with the longest rental history with the district will have priority.

7. Long-Term User Groups

The designation of long-term user groups is intended to maximize the use of district facilities while promoting and supporting a high standard for organizations that use district facilities and serve the community, thereby providing additional stability for these organizations.

Definition

Long-term user groups are local, not-for-profit sports organizations that primarily serve Bend Park and Recreation District residents with a minimum of three years of rental history with the district and have met all standards and requirements outlined below. Organizations may offer club-level competitive and travel team programs, as well as recreational programs, that the district does not already offer. These groups are eligible for three-year facility use agreements.

Long-Term User Group Selection

Long-term user groups will be selected by a district staff committee consisting of at least three people. The district must have the capacity to provide a reasonable amount of field space for a period of at least three years. Prospective long-term user groups must meet the following minimum qualifications:

- Must be a local, not-for-profit organization governed by an elected board of directors of at least five members, of which four must be City of Bend residents
- Demonstrate that it is meeting a significant community need that the district or other long-term user group is not already meeting
- Have organizational bylaws which include organizational mission, board positions, terms, elections, responsibilities, etc.
- Have a dispute resolution process that provides members a safe and constructive way to address issues and concerns regarding staff, other members and the board of directors

- Conduct an annual confidential member satisfaction survey that addresses all aspects of the organization (general direction, coaching, development, culture, etc.)
- Implement US Center for SafeSport policies and practices, including Minor Athletic Abuse Prevention Policies (MAAPP) for youth organizations, or equivalent nationally recognized program
- Conduct background checks on all staff and volunteers who have access to minors
- Provide all required trainings, including mandatory reporter training and concussion training
- Implement a code of conduct for players, parents and coaches
- Have clear disciplinary policies and procedures for participants and members
- Have an emergency action plan and procedures, and training to support, including CPR/first aid training
- Provide a scholarship or financial assistance program that allows people to participate regardless of financial resources. Financial assistance and/or fee waivers budget must be at least 5% of the annual fee collection.
- Adopt policies, practices and trainings to ensure programs are inclusive to all, including zero tolerance for discriminatory language and/or actions
- Meet and maintain insurance requirements, including providing a certificate of insurance

8. Seasonal User Groups

Seasonal user groups are local, not-for-profit sports organizations that primarily serve Bend Park and Recreation District residents. Organizations may offer club-level competitive, travel team, and/or recreational programs. No previous rental history is required; however, priority will be given to seasonal user groups with a rental history in the district. These groups are eligible for one-year facility use agreements and must utilize a minimum of six rental dates within one year.

9. Short-Term Rental Groups

Short-term rental groups are not-for-profit sports organizations that may offer club-level competitive, travel team, and/or recreational programs. These groups are eligible for short-term rental agreements of up to six rental dates within a one-year period. No previous rental history with the district is required.

10. Private and Commercial Use

Private and commercial use refers to activities that are either private or commercial in nature or are offered by private or commercial organizations or groups. Groups in this category may include private sports organizations renting a field for practices or games, private or commercial organizations hosting tournaments, or private groups wishing to use a field for social purposes.

11. Guidelines Applicable to Other Recreation Facilities

Guidelines 1, 5, 6, 7, 8, 9 and 10 also apply to other district recreation facilities used for organized sports programs, including swimming pools and ice skating rinks.

Athletic Facility and Sports Program Guidelines

Purpose

To establish Board policy guidelines for the development and operations of District athletic fields and programs. The guidelines are intended to articulate the District philosophy regarding team sports programming, future athletic field development needs, allocation and scheduling of fields and general operating practices. Some of these policy guidelines also apply to other District-operated recreation facilities that are used for organized sport programs.

Definitions

For purposes of these guidelines, the following definitions are used.

Athletic Fields include all facilities designed and designated for field sports use including those at sports complexes and at community and neighborhood parks. Large turf areas in neighborhood and community parks may also function for sports practices but are not considered athletic fields.

Athletic Facilities refers to athletic fields and other facilities that are used for organized sport programs including: swimming pools, ice skating rink, tennis, pickleball and other courts

Organized Sports Users are considered any group or team practicing, playing contests, or conducting drills, camps or other programmed activities under the organization, direction or supervision of an individual or organization.

Unorganized Sports Users include: individual and small group drop-in use and informal gatherings, such as unscheduled pick-up games and family gatherings where no organization is sponsoring and no fee is charged.

Recreation Programs are activities that adhere to all or most of the following:

- No tryouts or skill level requirement to participate
- Emphasis on equal playing time regardless of ability
- Local competition only - no travel out of Central Oregon required
- Single season per year commitment
- No financial requirements except for registration fee for program

Reviewer: Director of Recreation
Last Review Date: December 2018
Next Review Date: December 2023
Review Schedule: 5 years

Competitive Programs are activities that require one or more of the following:

- Tryouts or other restrictions to participate
- Playing time based on skill, talent and commitment
- Travel out of Central Oregon for competitions
- Multiple-season per year participation
- Contract and/or ongoing dues
- Membership in national governing organization separate from fees

Policy Guidelines

1. District Role in Sports Programming

The primary role of the District is to provide recreational opportunities to all that want to participate regardless of their talents and abilities. District sports offerings include a diverse array of recreational sports leagues, instructional classes and developmental camps for youth and adults based on community interest and District resources. District programs are generally inclusive of all abilities, skill levels and experience, and emphasize personal development, fitness, teamwork, sportsmanship and fun. The District does not provide competitive club-based programs such as travel teams, select leagues or elite camps. These programs are typically provided by private or non-profit club sports organizations.

In some cases, the District may offer skill or talent-based levels in a league or program in order to ensure the safety and enjoyment of all participants, provide progressive skill development and challenge participants. Examples of this include swim and ice skating lesson programs that consist of several progressive levels, adult hockey league that offers multiple divisions and adult softball where participants can select from non-officiated recreation leagues to officiated leagues. In each of these cases, the activity remains open to all who want to participate and the different levels or leagues are a way of providing a better experience and match for all.

2. District Role in the Provision of Athletic Fields for Recreational and Competitive Uses

The District's primary role in the provision of athletic fields is to meet the needs of recreation programs and leagues offered by the District and other non-profit local sports organizations offering recreation-based programs. The District understands that competitive, club-based sports organizations and groups look to the District (as well as Bend-La Pine Schools) for athletic fields to conduct practices, games and tournaments. To the extent feasible, the District will make fields available to accommodate these organization and uses.

As a guiding principle and to provide reasonable access for all, the District will generally allocate no more than 70% of optimum field capacity for recreation programs and leagues, leaving 30% for the more competitive, club-based uses. (Optimum field space is defined as Monday-Thursday afterschool to dusk, and weekends 8:00am-6:00pm. Where fields are lit, optimal time will be extended to 10:00pm on weekdays.)

3. Guidelines for Determining Future Athletic Field Development

The District will consider the following factors to help determine the future need for athletic fields:

A. **Past and projected growth in actual hours of field use.** Actual hours that fields are used are the most direct indicator of the demand for athletic field space. The District will track scheduled use of athletic fields in order to identify trends and plan for future needs.

B. **Past and projected growth in participation in programs and leagues requiring athletic fields.** Growth in participation in programs and leagues using athletic fields is also a direct indicator of the demand for athletic field space. The District will maintain participation numbers for District programs and obtain participation numbers from other local sports organizations in order to identify trends in participation and plan for future needs.

C. **The number and type of requests that the District is unable to accommodate.** The District will maintain an inventory of field requests that are denied due to the lack of field availability (not just the unavailability of the desired time and location). This will help the District understand specific types of needs that are not currently being met.

D. **Needs assessment information from community surveys.** The District will continue to include athletic fields in future community surveys that focus on facility needs. This will inform the District of the overall community need for athletic fields and how well these needs are currently being met.

E. **Meeting the design needs of the community users who support the District through taxes.** The District designs and develops athletic fields at a level of service conducive to recreation and developmental play and secondarily for highly competitive and tournament play. The District acknowledges that athletic complexes can provide economic benefits by attracting out of town visitors to larger tournaments and events; however, District residents have not indicated support for using District resources to promote tourism and economic development. As a result, the District will not consider larger tournament and event use in its level of service or design of athletic field complexes, although tournaments will be accommodated if there is available capacity after meeting resident needs and the facilities are suitable for tournament play.

F. **Opportunity.** Athletic fields require large and relatively flat spaces that can be difficult to find and acquire so opportunity will always be a large consideration in identifying potential athletic field developments.

G. **Funding.** Athletic fields require considerable capital investment as well as ongoing operational funding for maintenance. Athletic fields must be considered in relation to all District needs and priorities when determining available funding resources.

4. Guidelines for the General Use of Athletic Fields

The following policy guidelines provide direction on the general use and operation of athletic fields. These guidelines, along with those listed in 3 above, will also help inform athletic field development needs and priorities.

A. To the extent feasible, weekday practice and game times for recreational youth leagues will be scheduled after school and during early evening hours before 7:30pm. Youth competitive teams and middle and high school age programs may be scheduled at later times when necessary.

B. To the extent feasible, weekday practices for recreational youth leagues will be provided in locations close to participants' homes or schools. This includes the use of elementary school sites provided through the Intergovernmental Agreement with Bend-La Pine Schools, and use of District neighborhood and community parks both with and without designated athletic fields.

C. To support the desire to schedule practices close to where participants live and go to school and to make use of already available turf space, the District may schedule youth and adult practices at parks that do not have designated athletic fields. Parks will be evaluated based on the configuration and carrying capacity of the turf, the availability of support amenities including on and off street parking and the potential impact on other park uses to determine if they are suitable for a practice site. Limitations on practice schedules may also be implemented to ensure opportunities for passive park users and mitigate potential impacts.

D. The District will maintain updated maintenance standards for athletic fields that identify the level of service or play desired for different field types. Game fields at athletic field complexes will be maintained at a higher level than practice fields in neighborhood and community parks. In order to maintain the desired level of play, particularly for game fields, some scheduled field rest and recovery is needed. The desired level of play and the need for rest and recovery will be considered in both the need for athletic fields and the scheduling practices.

5. Affiliate Organizations

The District uses affiliate organizations as a part of the prioritization of athletic facility space. The purpose of designating affiliate organizations is to provide a more formal and transparent way of recognizing "partnerships" in the priority scheduling process. The District has consistently prioritized organizations that are the primary provider of a particular sport and in most cases have a long history of serving the community and working closely with the District. In some cases, these organizations may provide a recreation-based program that the District would otherwise likely provide, while in other cases the affiliate organization is providing a service that is not within the District's mission to provide (i.e. clubs offering a higher level of competitive sports). By recognizing these relationships in the form of affiliates, the District can facilitate a broader range of services to the community, enhance the stability of affiliate organizations, provide an additional level of accountability to non-profit sports organizations and promote increased coordination and collaboration.

The number of affiliates that the District recognizes will be based on District facility capacity, community demand and the needs of the District. Where multiple organizations serve the same basic community need and the District does not have the capacity to meet all of the organizations' demands, the District will normally affiliate with the organization that serves the most people and has the longest history in the community and with the District, provided that they continue to meet affiliate requirements. Where multiple organizations coordinate to provide a community need (whether by geographical boundaries, level of play or other coordinated criteria), the District will normally recognize the coordinating organizations as affiliates, providing that they continue to meet affiliate requirements and coordinate their services.

Affiliates are subject to Affiliate Agreements which detail the expectations, terms and conditions of being a recognized affiliate. These agreements and supporting documentation are reviewed annually to ensure compliance with the expectations, terms and conditions. Minimum requirements to be an Affiliate will include, but not be limited to the following:

- Local, non-profit organization with a minimum 2-year history of successfully supporting their primary role in the community
- Serving primarily District residents (80% or greater are District residents)
- Governed by volunteer board (at least 80% of which are District residents)
- Compliance with all applicable laws including those associated with non-profit status, concussion and mandatory reporter laws, etc.
- Policies and procedures protecting participants including background checks, coaches training, code of conduct agreements, emergency action plan, etc.
- Scholarship or financial assistance plan
- Demonstration of financial sustainability and payment of fees
- Proof of liability and other required insurance
- Compliance with all applicable District rules, regulations and procedures including the reservation and use of fields

6. Athletic Facility Scheduling Priority

The District schedules facility use based on the user categories listed below in priority order. To the extent feasible, the District will attempt to accommodate all users regardless of priority. To do this, the District will consider all requests received by the deadline and then schedule time based on the priority order that makes the best use of available field space.

1. **Bend Park & Recreation District Programs:** First priority scheduling consideration is for District-offered recreation leagues, classes and camps and public drop-in times.

2. **Bend-La Pine School District Programs:** Second priority scheduling consideration is given to sanctioned BLP Schools' programs pursuant to the Intergovernmental Agreement (IGA).

3. **Affiliate Youth Sports Organizations:** Third priority scheduling consideration is provided for local youth sports organizations that are District-recognized affiliate organizations.

4. **Affiliate Adult Sports Organizations:** Fourth priority scheduling consideration is provided for local adult sports organizations that are District-recognized affiliate organizations.

5. **Non-Affiliate Youth and Adult Sports Organizations:** Fifth priority scheduling consideration is provided to youth and adult sports organizations and groups that are not District-recognized affiliate organizations. The District cannot guarantee regular or ongoing use to any groups in this category but will provide space on an as available basis.

6. **Private and Commercial Use:** Final priority consideration is given to private, commercial and for-profit uses. This includes tournaments provided by for-profit companies.

The District will also consider the primary sports seasons as an additional determinant of field priority when necessary to determine priority within a user classification. The District will use current OSAA guidelines (fall: soccer, football; spring: baseball, softball, lacrosse). For example, if there is a competing request between two affiliate youth sports organizations requests, priority will be given to the sport that is in its primary season)

7. Reservations and Permits for Use

All organized sports program use of athletic facilities requires a permit obtained through the District reservation system. Organized sports program use is defined as any time a group or team is practicing, playing contests, conducting drills, camps or other programmed activities under the organization, direction or supervision of an individual or organization. Reservations are not required for informal gatherings such as unorganized individual or small group use, unscheduled pick-up games and family gatherings although use cannot be guaranteed without a reservation. The purpose of the reservation and permit system is to facilitate the efficient use of available facility space, minimize potential conflicts and provide accurate information on facility use.

8. Guidelines Applicable to Other Recreation Facilities

Some of these policy guidelines apply to other types of District recreation facilities used for organized sport programs including: swimming pools, ice skating rinks, tennis courts, pickleball courts and other sports courts. The policy guidelines that apply to these facilities and related sport activities are summarized below.

Policy Guideline #1	District Role in Sport Programming
Policy Guideline #5	Affiliate Organizations
Policy Guideline #6	Scheduling Priory
Policy Guideline #7	Reservations and Permits for Use

Board of Directors Meeting Summary

June 3, 2025

District Office Building | 799 SW Columbia | Bend, Oregon

BOARD PRESENT

Donna Owens
Cary Schneider
Deb Schoen
Nathan Hovekamp
Jodie Schiffman

The BPRD board of directors met June 3 and approved the budget, project list and tax assessments for the next fiscal year. They also adopted an updated system development charges ordinance and approved a contract for a future replacement of the Juniper Swim & Fitness Center pool cover. A video recording of the meeting is available.

Budget approval

The board adopted Resolution No. 2025-09, adopting the budget and making appropriations for fiscal year 2025-26. The board also adopted Resolution No. 2025-10, imposing and categorizing taxes for fiscal year 2025-26 for the district's permanent rate tax and for debt service for general obligation bonds.

The Fiscal Year 2025-26 budget is a balanced budget with healthy reserves for planned future projects and maintaining assets. The proposed budget is anticipating $50.4 million in revenues and $75.5 million in expenditures for total budgeted requirements of $119 million, which includes contingencies and reserves. This budget will support 301 full-time equivalent (FTE) employees for $27.6 million and has $36.2 million in capital spending.

Director Owens made a motion to adopt Resolution No. 2025-09 Adopting the Budget and Making Appropriations for Fiscal Year 2025-26. Director Hovekamp seconded. The motion passed unanimously 5-0. (Hovekamp, Schoen, Schneider, Owens, Schiffman)

Director Schneider made a motion to adopt Resolution No. 2025-10 Imposing and Categorizing Taxes for Fiscal Year 2025-26. Director Schoen seconded. The motion passed unanimously 5-0. (Hovekamp, Schoen, Schneider, Owens, Schiffman)

System Development Charges ordinance

System Development Charges (SDCs) are the main source of funding for the development of parks, trails and recreation facilities to serve growth. They support the district's goals of maintaining the same level of service as population increases. The SDC methodology establishes the SDC fees, which influence future revenues for SDC eligible projects in the district's adopted Capital Improvement Plan.

The Board conducted a public hearing and the first reading of Ordinance No. 13 – System Development Charges on May 20, 2025. The public hearing was opened and closed on May 20; no members of the public commented during the public hearing. In addition, the district received no public comments on the SDC methodology report during the 60-day review period (March 19 – May 20, 2025).

The Board adopted Ordinance No. 13 at this meeting. Adoption of the Ordinance and the five associated resolutions allow for the new SDC methodology to be implemented beginning July 1, 2025.

Director Schoen made a motion to conduct the second reading of Ordinance No. 13 – System Development Charges by title only. Director Owens seconded. The motion passed unanimously 5-0. (Hovekamp, Schoen, Schneider, Owens, Schiffman)

Director Schneider made a motion to adopt Ordinance No. 13 – System Development Charges, replacing Ordinance No. 12. Director Hovekamp seconded. The motion passed unanimously 5-0. (Hovekamp, Schoen, Schneider, Owens, Schiffman)

Capital Improvement Plan

The district's Capital Improvement Plan (CIP) identifies and summarizes all approved and proposed district capital expenditures and revenue sources for a period of five years into the future. The board of directors revises and adopts the district's five-year CIP during the annual budget process.

The 2026-2030 Capital Improvement Plan totals $86,674,713 in planned capital expenditures. $51,434,154 (59%) is funded with System Development Charge revenues, $31,359,923 (36%) is funded with property tax revenues, and $3,880,636 (5%) is funded with alternative funding.

Director Schoen made a motion to adopt Resolution No. 2025-11, adopting the Five-Year Capital Improvement Plan for fiscal years ending 2026-2030. Director Hovekamp seconded. The motion passed unanimously 5-0. (Hovekamp, Schoen, Schneider, Owens, Schiffman)

Juniper Swim & Fitness Center pool cover project

The board authorized the executive director to award a progressive design-build contract to Pence Contractors for design and construction of the Juniper Swim and Fitness Outdoor Pool Structure Replacement and Renovation project with a preconstruction services fee of $355,576, and to approve an additional 10% preconstruction contingency of $35,558, for a total preconstruction budget not to exceed $391,134.

The framed-fabric structure covering the 50-meter pool at Juniper Swim & Fitness Center was first installed in 1997 over an old outdoor 40-yard pool. Due to the age of the structure, increasing problems with the installing and removing panels, and the fact that the original manufacturer is no longer in business, the district considered options for replacement. The project work is to be designed and constructed in two phases, preconstruction and construction. Timing will to be determined.

Director Owens made a motion to authorize the executive director to award a progressive design-build contract to Pence Contractors for design and construction of the Juniper Swim and Fitness Outdoor Pool Structure Replacement and Renovation project with a preconstruction services fee of $355,576, and to approve an additional 10% preconstruction contingency of $35,558, for a total preconstruction budget not to exceed $391,134. Director Schneider seconded. The motion passed unanimously 5-0. (Hovekamp, Schoen, Schneider, Owens, Schiffman)

Recreation Programming Plan

Matt Mercer, recreation services director, presented in work session about the Recreation Programming Plan. The plan is an overarching planning document that guides district recreation programming priorities over the next five years. It is complementary document to the district's Comprehensive Plan, which focuses on infrastructure needs, and the Strategic Plan, which is more internally focused and district-wide in scope. The full plan is available for view in the following link: https://www.bendparksandrec.org/wp-content/uploads/2025/05/Recreation-Programming-Plan2025-2030.pdf.

Employee engagement survey results

The district partnered with the Institute for Public Sector Employee Engagement, a division of CPS HR Consulting, to administer an employee engagement survey. CPS HR specializes in helping public agencies measure and improve employee engagement through confidential surveys. Janelle Callahan from CPS presented the survey results during the board meeting. The

2025 survey results reflect current staff feedback and include a comparison to the previous survey conducted in 2022.

All responses are anonymous and managed exclusively by CPS HR. In addition to survey administration, CPS HR conducts research and provides benchmark data across local, state, and national government agencies, as well as private industry.

The next board of directors meeting is June 17.

Board Calendar
2025-2026
This working calendar of goals/projects is intended as a guide for the board and subject to change.

JULY 1
EMPLOYEEE RECOGNITION
Michelle Healy
- Matt Mercer

WORK SESSION
- Visit Bend Economic Reports Review – *Rachel Colton, Jeff Knapp, Nate Wyeth, Mark Buckley (30 min)*

BUSINESS SESSION
- Elect Board Chair and Vice-Chair
- Appoint Board Secretary
- Appoint Budget Officer
- Approve board meeting dates and time
- Second Reading and Approval of Park Rules Ordinance No. 14 – *Joel Lee (10 min)*
- Approve Executive Director's Evaluation

REPORTS:
Recreation Spring Report

JULY 15
STAFF INTRODUCTIONS
Shannon Gilman
- Leigh Anne Dennis

WORK SESSION
Goose Program Update – *Sasha Sulia and Zara Hickman (30 min)*
BUSINESS SESSION
- NUID Miles Fox Property Acquisition – *Henry Stroud (10 min)*

AUGUST 5
EXECUTIVE SESSION
WORK SESSION
BUSINESS SESSION
- Award Construction Contract for Pine Nursery Phase 5 – *Bronwen Mastro/Jason Powell (15 min)*

Future Topics
Website Update/Data Sharing – *Julie Brown*
IGA with NUID for canal trail – *Henry Stroud*
Approve SE Neighborhood Park Purchase and Sale Agreement – *Henry Stroud (20 min)*
DEI Update – *Bronwen Mastro*
Park Services Report: Hard surface Program – *Andy Sommerville and Jason Monaghan (15 min)*