

Existing Conditions Memo – DRAFT

March 11, 2026

Project# 32254

To: Henry Stroud, Principal Planner
Bend Park and Recreation District

From: Edward Guo, Matt Kittelson, and Nick Gross; Kittelson & Associates
Justin Mason and Nick Robertson, DOWL

RE: Deschutes River Trail South Study

Purpose of this Study

The Deschutes River Trail South Study will develop and evaluate alternative alignments for a segment of the planned Deschutes River Trail in Bend, Oregon. It will also carry out preliminary engineering feasibility analyses for two “preferred alternatives” including schematic design, order of magnitude cost estimates, a summary of the regulatory framework and permitting requirements, right of way acquisition needs and a high-level review of environmental impacts/mitigation requirements. The intent of this study is to provide the district, the public, and other stakeholders with more detailed and accurate information about the project to inform future community conversations and project design.

Purpose of this Memorandum

In response to the continued community interest in completing one of the last remaining gaps on the Deschutes River Trail and enhancing access to the Deschutes National Forest, the Board of Directors of Bend Park and Recreation District (BPRD) requested that staff collaborate with stakeholders and the community to develop and evaluate alternative trail alignments to connect the southern portion of the Deschutes River Trail to the Deschutes National Forest.

The purpose of this memorandum is to summarize the work completed to-date on the Deschutes River South, as well as pertinent baseline data, providing a common reference point for a fresh community discussion on trail alignment alternatives and a potential river crossing.

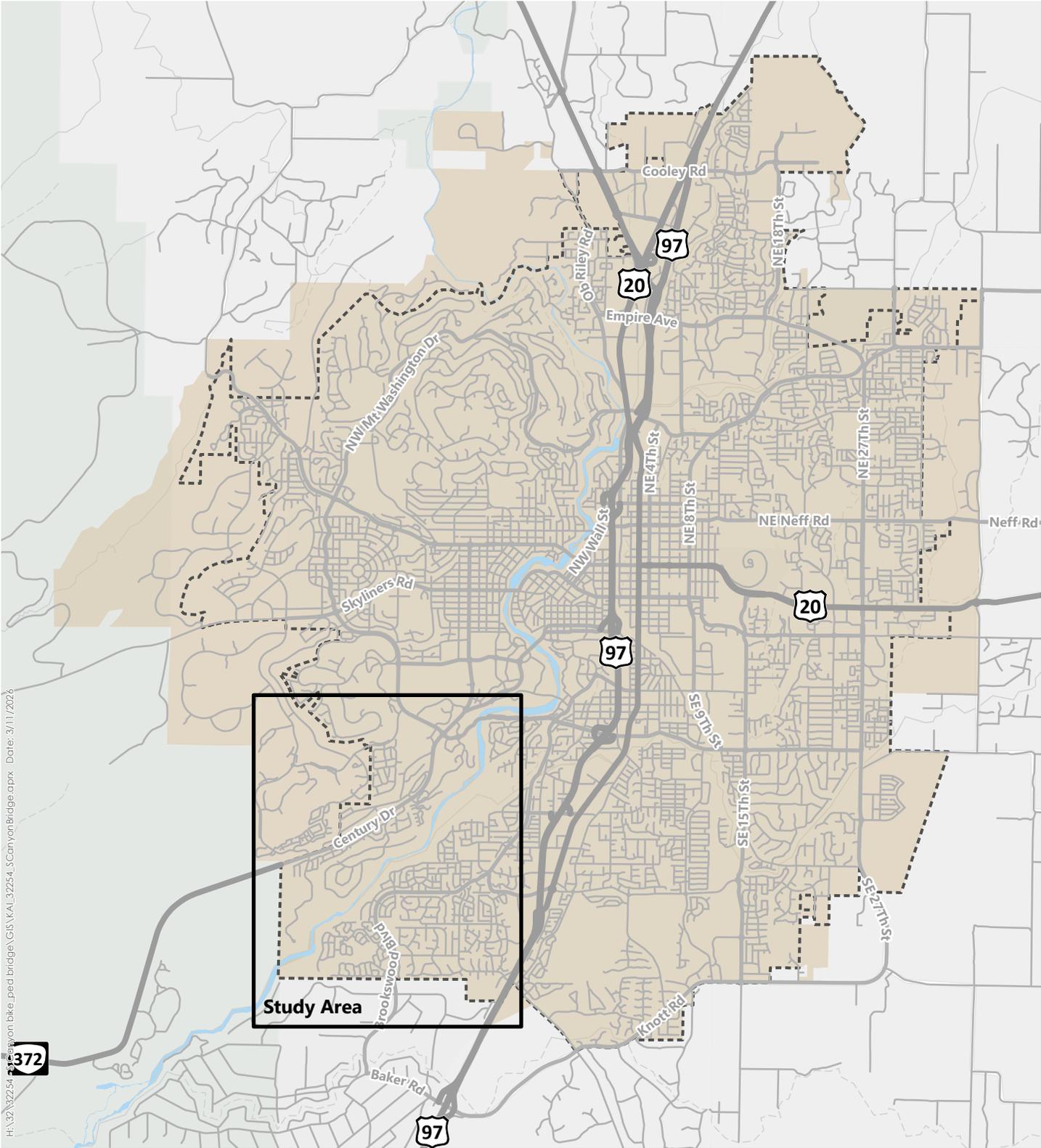
The memorandum is organized as follows:

- Background Documents
- Existing Transportation Network Conditions
- Physical Site Conditions
- Environmental Considerations
- Existing Regulatory Framework
- Property and Easements
- Summary of Considerations

Background Documents

Some form of southern trail extensions and bridge crossings have been identified in locally adopted plans since the mid-1990s, including in the City of Bend - Urban Trails Plan (1996), the City of Bend & Bend Park & Recreation District - Deschutes River Trail Action Plan (2002) and the BPRD - Trails Master Plan (2008). In 2012, BPRD began work on a study of Deschutes River Trail South after voters approved a bond measure to support the development of new parks and trails. A citizens advisory committee established by BPRD evaluated eight trail alignments and five bridge locations. The committee selected a planned trail alignment and bridge location based on an evaluation of several criteria including environmental impacts, constructability, property impacts, user experience, and connectivity. The selected bridge location was on federal property managed by the United States Forest Service (USFS) and was within a portion of the upper Deschutes River that is classified as a State Scenic Waterway and a Federal Wild and Scenic River.

The following discussion briefly outlines more recent planning efforts to address the southern trail alternative alignments and bridge crossings. Figure 1 shows the Project's study area in relation to Bend. Figure 2 shows the extent of the study area.

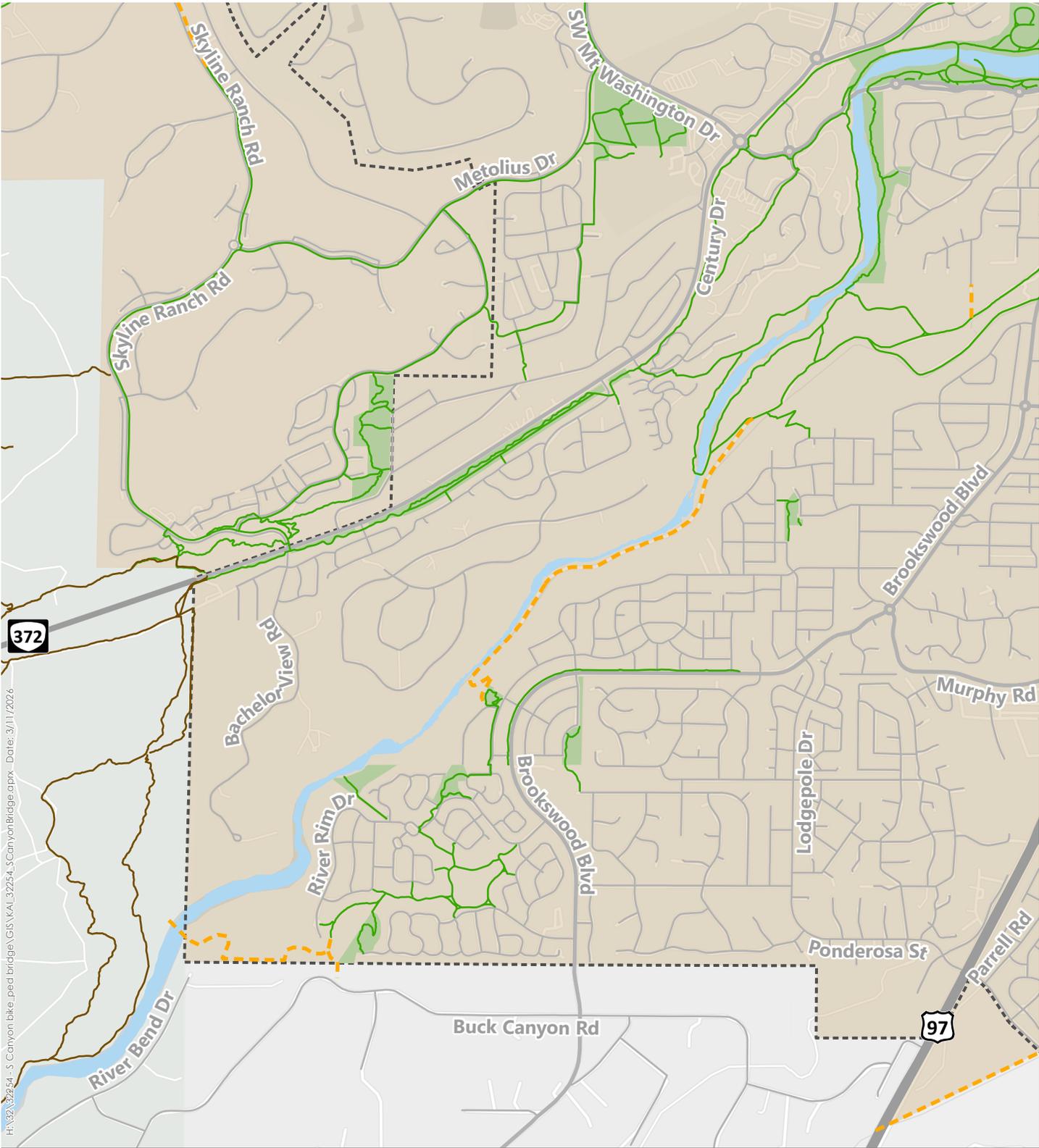


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-  Deschutes River
-  Bend City Limits
-  BPRD Boundary



Figure 1
**Bend Extent and Study Area
 Bend, OR**



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-  Deschutes River
-  USFS Existing Trails
-  Bend City Limits
-  BPRD Existing Trails
-  BPRD Boundary
-  BPRD Planned Trails
-  BPRD Parks



Figure 2

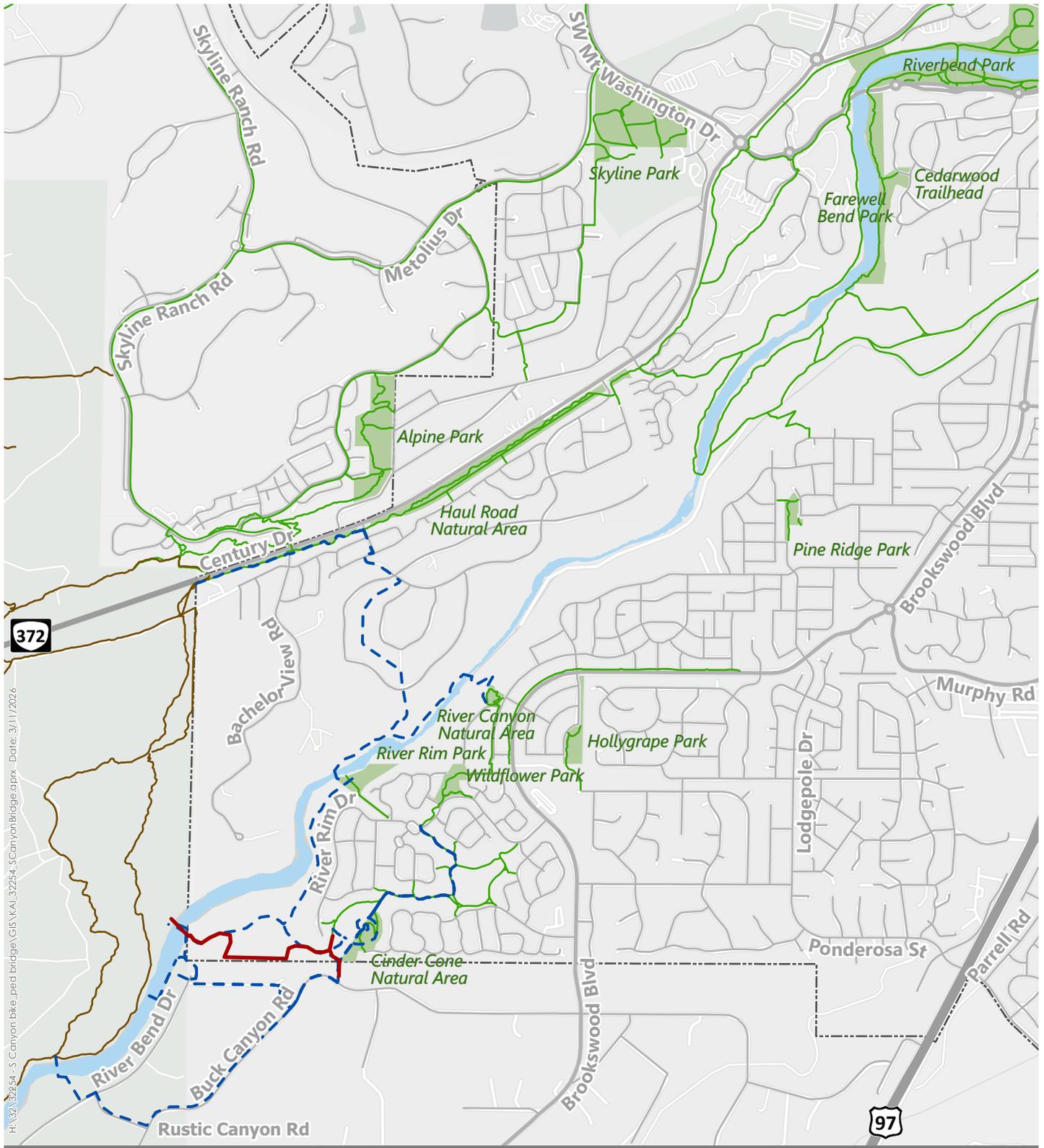
**Study Area
Bend, Oregon**

2015 ALTERNATIVES ANALYSIS

BPRD conducted an alternatives analysis in 2015 to study possible alignments for the Deschutes River Trail South trail alignment and bridge. The analysis examined five possible bridge locations combined with varying trail alignments along the river located approximately between Rustic Canyon Road and the River Canyon Natural Area. The analysis criteria included estimated wetland and riparian impact, estimated habitat impact, private property impacts, distance to public trail or park, linkages to the Deschutes National Forest (DNF) trail system, ownership of possible rights-of-way for the trail or bridge, visibility to existing properties, road surface and conditions, support for trailhead parking, adjacency to the river, and whether the alignment is located within BPRD's boundary. The criteria were unweighted and did not consider costs for property acquisition, estimated construction costs, or individual stakeholder input, as the analysis was intended to remain a high-level, objective comparison of alignment alternatives.

The 2015 Alternative Analysis shows a preferred trail connection to a potential bridge location traversing through private properties on the east side of the river. A proposed bridge at approximately the northern end of River Bend Drive was the highest ranked bridge location alternative after considering the analysis criteria. This Study builds on the 2015 alternatives analysis and focuses on analyzing the existing conditions in the updated project study area.

Figure 3 shows the alignment alternatives considered during the 2015 analysis.



- Current BPRD Comprehensive Plan Alignment
 - - - 2015 Alternatives Study Alignments
 - USFS Existing Trails
 - BPRD Existing Trails
 - █ Deschutes River
 - █ BPRD Parks
 - Bend City Limits
- 0 1,000 2,000 Feet

Figure 3

2015 Alternatives Analysis Alignments Bend, OR

2015 DESCHUTES NATIONAL FOREST ALTERNATIVE TRANSPORTATION STUDY

A southern trail extension and potential bridge crossing are identified in the DNF Alternative Transportation Study (2015), which provides recommendations to enhance non-motorized access to high-use recreational areas in the DNF.

2023 COMMUNITY NEEDS SURVEY

Community interest in trails as well as the southern trail connection has remained strong. BPRD's 2023 Community Needs Survey found that trails, both natural and paved surfaces, are the most utilized recreational facilities within its system with over 90% of community members having utilized them in the previous 12 months. Over 85% of households surveyed express need for more trails. In addition, 50% of survey respondents (n=819) were very supportive and 27% were somewhat supportive of completing the Deschutes River Trail South Study.

2024 COMPREHENSIVE PLAN UPDATE

In its 2024 [Comprehensive Plan Update](#), BPRD included a project called the "Deschutes River Trail South Urban Growth Boundary & Bike/Pedestrian Bridge."

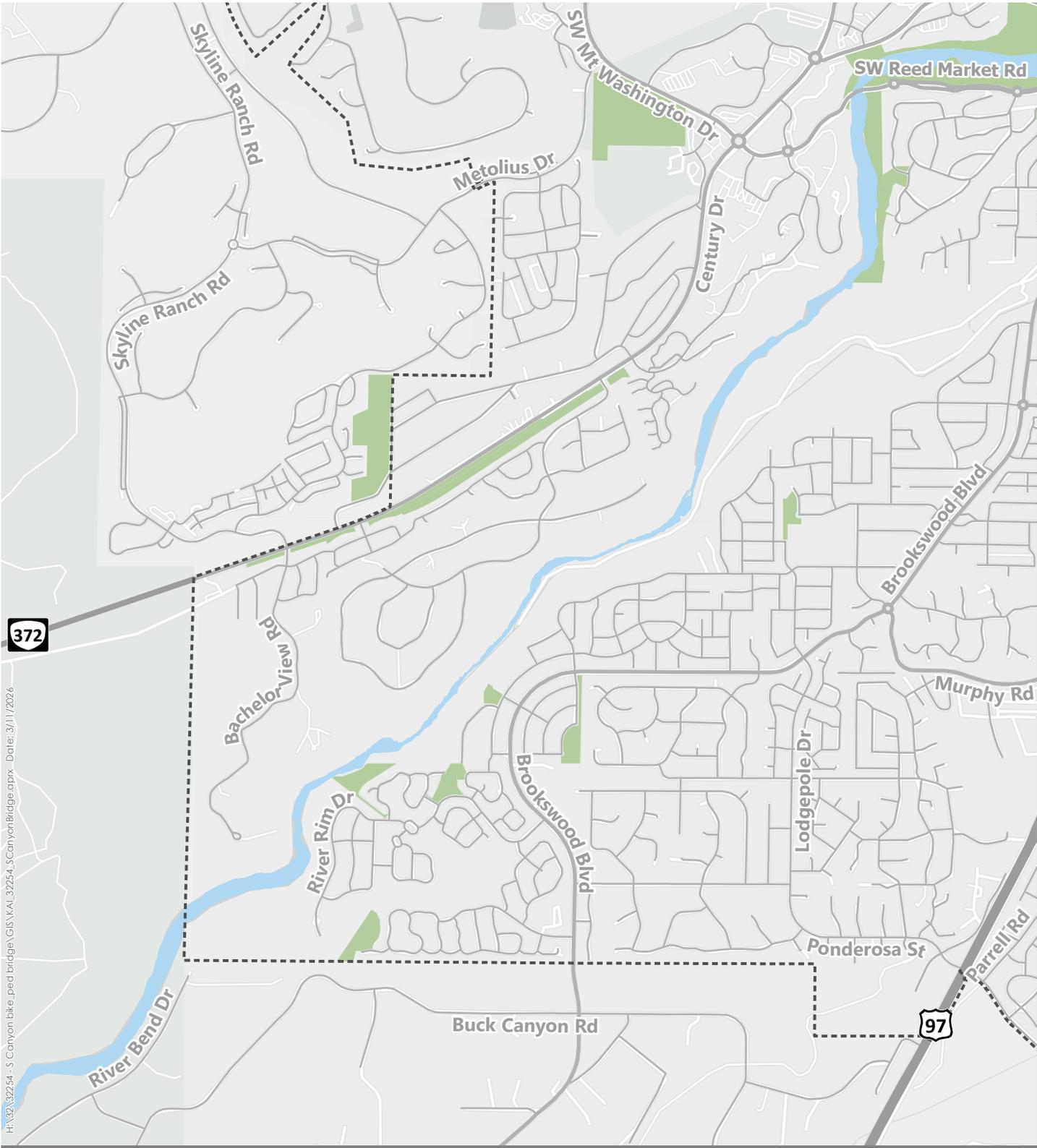
Existing Transportation Network Conditions

The existing transportation, trail, and park network in southern Bend provides limited bicycle and pedestrian connectivity across the Deschutes River. Healy Bridge (SW Reed Market Road) serves as the only vehicular crossing of the river within the study area, and trail connections near the study area remain disconnected from larger trail networks within Bend. This section describes current road, trail, and park infrastructure to illustrate existing access and to identify gaps that are relevant to evaluating potential river crossing alternatives.

MOTOR VEHICLE ROADS AND BRIDGES

The only road bridge across the Deschutes River in the study area is the Healy Bridge (SW Reed Market Road). The closest public vehicular bridge to the south of the study area is Harper Bridge (Spring River Road) in Sunriver. Both crossings are outside of the study area. River Bend Drive and River Rim Drive run along the east bank of the Deschutes River and provide road connectivity to residential properties along the river.

Figure 4 shows the existing road network within the study area.



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-  Bend City Limits
-  BPRD Parks



Figure 4
**Existing Road Network
 Bend, OR**

TRAILS AND PARKS NETWORK

BPRD's system includes over 98 miles of trails and 84 parks and natural areas throughout the city and its surrounding areas. The US Forest Service manages 4.75 miles of Rimrock Hiking Trails on its property between SW Century Drive (OR372) and the Deschutes River. The Rimrock Trails connect north and west to a wider network of trails and natural resources within the DNF.

The Deschutes River Trail runs intermittently between the River Canyon Natural Area and Cinder Cone Natural Area with portions of the trail utilizing existing City sidewalks and passing through open space managed by the River Rim Community Association. The Deschutes River Trail between the River Canyon Natural Area and south canyon footbridge exists but has been closed to public access during the last several years. BPRD has recently secured approval from the Central Oregon Irrigation District (COID) to reopen this section for public access. The study area also contains other public trails notably through the River Rim neighborhood and along Brookwood Boulevard.

The underlying ownership of existing trails within the study area varies, however all trails are open to public access either through public access easements, easements granted to BPRD, or they exist on BPRD owned property.

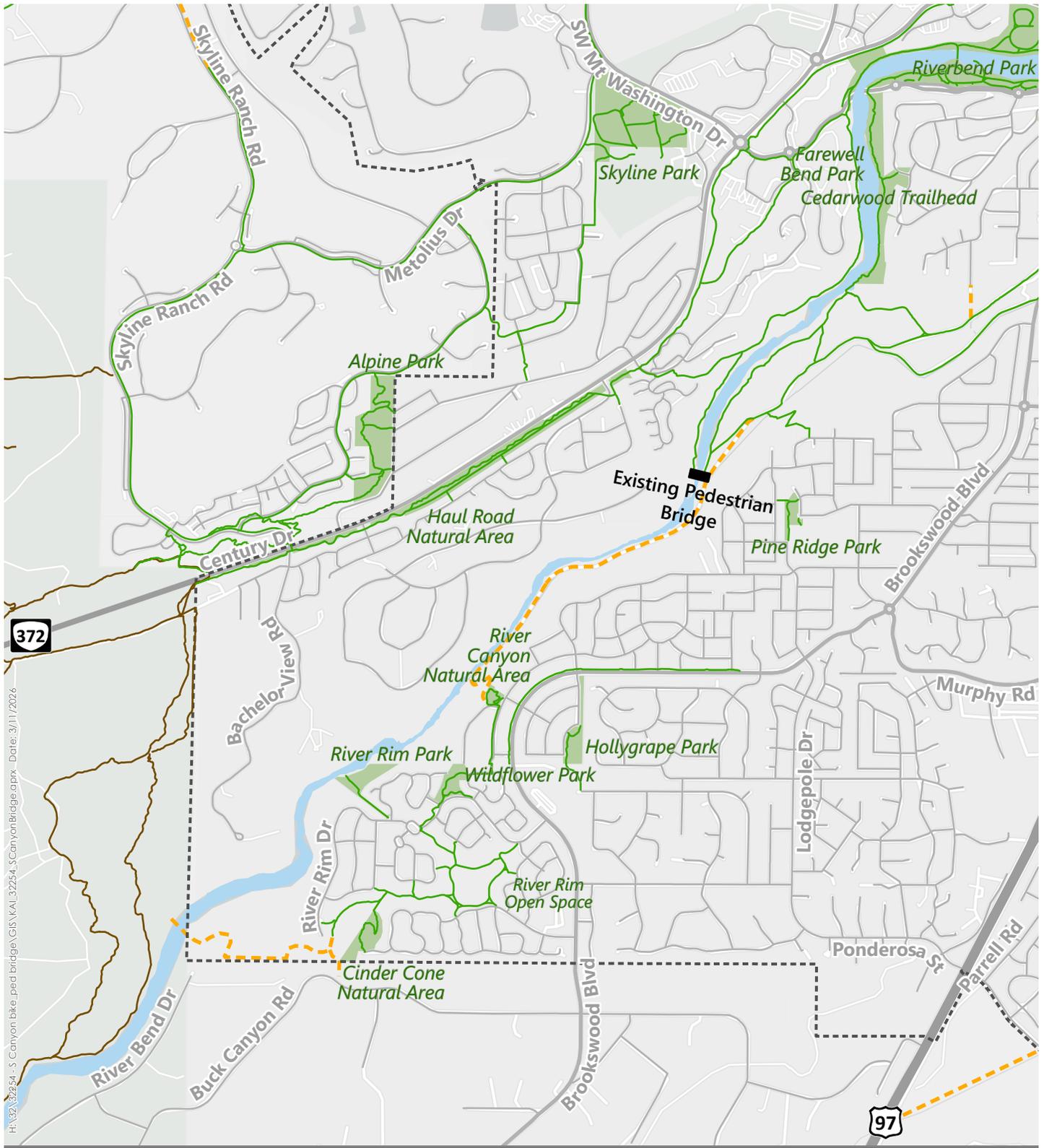
Trails within the study area are a mixture of natural surface, gravel, and paved/concrete trails. BPRD lists a planned trail connection from the Central Oregon Historic Canal Trail to the River Canyon Natural Area, as well as a planned trail across the Deschutes River from the River Rim Drive to the DNF, in its 2024 Comprehensive Plan Update.

Existing public park facilities within the study area south of the Deschutes River include Cinder Cone Natural Area, Wildflower Park, River Rim Park, River Canyon Natural Area, and Hollygrape Park. The nearby River Rim Open Space is managed by the River Rim Homeowners Association. The Meadow Day Use Area on the west side of the river is managed by the US Forest Service.

The nearest bike and pedestrian river crossing to the Study area is the pedestrian bridge located on the Deschutes River Trail – South Canyon Reach. The trails on both sides of the river leading up to the footbridge are unpaved. Bicycles are not allowed on the west side of the River Trail from just south of the Healy Bridge (SW Reed Market Road) to the South Canyon Reach river crossing¹.

Figure 5 shows the existing and planned trails and parks within the study area.

¹ The barring of bicycles on this section of trail was part of an agreement with Touchmark (an over 55 community) to reduce conflicts between users.



- BPRD Existing Trails
- USFS Existing Trails
- Planned Trails
- Deschutes River
- BPRD Parks
- Bend City Limits



Figure 5

Existing and Planned Trails and Parks Bend, OR

Physical Site Conditions

Physical characteristics of the Deschutes River corridor, including river width and steep topography, can influence where a bridge crossing could be feasibly located. Design considerations aimed at minimizing ecological disturbance and visual impacts further constrain potential options. This section summarizes key physical conditions and limitations that affect bridge span length, placement, and trail connectivity.

RIVER WIDTH CONSIDERATION

To minimize impacts to the river, its ecology, and scenic character, a single-span pedestrian bridge that avoids any structural elements within the riverbed is preferred. In-water piers represent a significant permitting challenge and can introduce impacts related to habitat disturbance, scour, debris accumulation, and construction access. A clear-span solution reduces these risks and simplifies permitting.

A previous feasibility study identified a preferred maximum span on the order of 160–165 feet, based on the design context and anticipated bridge types. While this range is reasonable and aligns well with common pedestrian bridge systems, longer single-span pedestrian bridges are technically feasible. Longer spans typically introduce increased structural depth, cost, visual prominence, and constructability considerations.

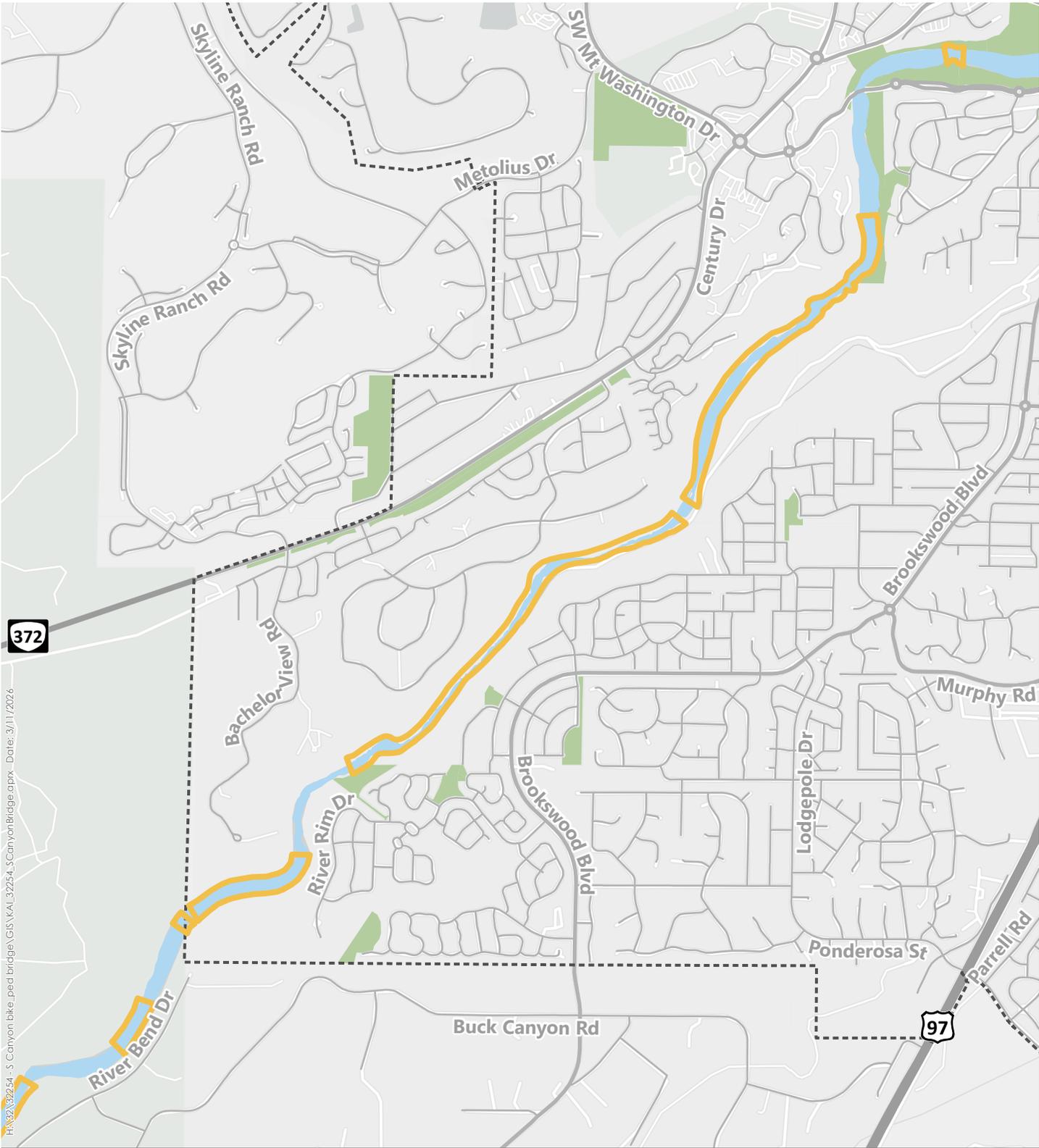
Typical span ranges for pedestrian and trail bridges include:

- Steel or prestressed concrete girder bridges are generally most efficient up to ~100–120 feet
- Prefabricated steel truss or shallow arch systems are commonly used for spans of 120–200+ feet
- Cable-supported or suspension bridge systems are capable of much longer spans, but with increased visual and structural complexity and cost.

A maximum span on the order of 220 feet is a reasonable starting point for planning efforts because it sits near the upper end of what can be achieved with conventional, prefabricated systems—such as pony trusses, or shallow tied arches—without forcing a step change in structural complexity. At this length, structural demands can typically be met using readily available member sizes and standard connections. Pushing beyond this range, however, will increase the complexity of the structural systems and will result in higher square foot costs for the bridge. In addition to more complicated structural systems these changes also result in heavier foundations, more demanding erection schemes, larger cranes or temporary works, and increased design and review effort.

Figure 6 shows the sections of the river within the study area where the 100-year flood can be spanned with a 220-foot bridge.

Final selection of bridge type and confirmation of feasible span length will depend on determination of the required bridge width, design loading, and user needs, as these factors directly influence structural efficiency and overall form. DOWL and BPRD will coordinate to confirm bridge width, bridge type, and other design considerations if the project advances.



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Areas Where 100-yr Flood Plain Can Be Spanned by 220-Foot Bridge



BPRD Parks



Deschutes River



Bend City Limits



Figure 6

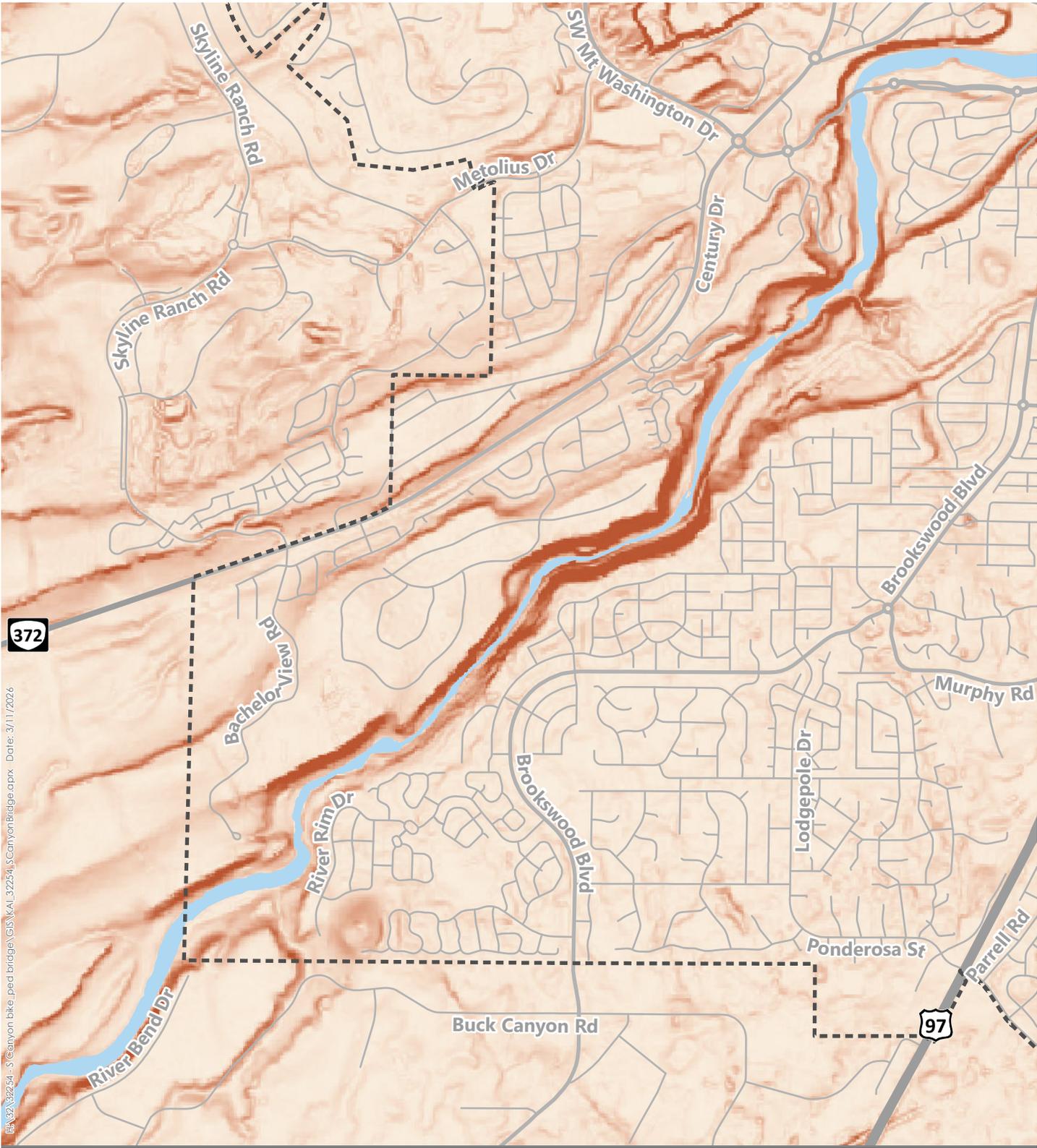
River Sections That Can Be Spanned by 220-Foot Bridge Bend, OR

STEEP TOPOGRAPHY

The banks of the Deschutes River include steep slopes that limit where a bridge crossing and associated trail connections can be established. Steep slopes along the riverbanks constrain the feasibility of ADA-compliant trail connections, as grade requirements for accessible routes may only be met without significant site modification at select locations. Within the study area, both riverbanks exhibit significant grade north of River Rim Drive. The southern bank also includes constrained topography along River Bend Drive.

Figure 7 shows the terrain slope within the study area.





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Figure 7

**Terrain Slope within Study Area
Bend, Oregon**

Environmental Conditions

The Study area includes riverine, riparian, and wetland environments that require careful consideration during planning and feasibility analysis. While no designated critical habitat overlaps the immediate study area, nearby sensitive species habitats and inventoried wetlands may add additional environmental constraints. This section identifies known environmental resources to inform trail alternative development.

ENDANGERED SPECIES

The U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) map lists the following Threatened and Endangered species potentially present in the study area:

- Gray wolf (*Canus lupus*, Endangered)
- Yellow-billed cuckoo (*Coccyzus americanus*, Threatened)
- Northwestern pond turtle (*Actinemys marmorata*, Proposed Threatened)
- Oregon spotted frog (*Rana pretiosa*, Threatened)
- Monarch butterfly (*Danaus Plexippus*, Proposed Threatened)
- Suckley's cuckoo bumble bee (*Bombus suckleyi*, Proposed Endangered)

The Oregon Department of Fish and Wildlife (ODFW) Compass Map lists at least one documented observation of Oregon spotted frog in the study area, although the date and specific location of the sighting are not provided.

The Oregon Explorer mapping service indicates the Deschutes River does not support any endangered aquatic species in the study area but does provide habitat for native red banded trout (*Oncorhynchus mykiss Gairdneri*) and non-native brown trout (*Salmo trutta*). Bull trout (*Salvelinus confluentus*, Threatened) is listed as historically present.

CRITICAL HABITAT

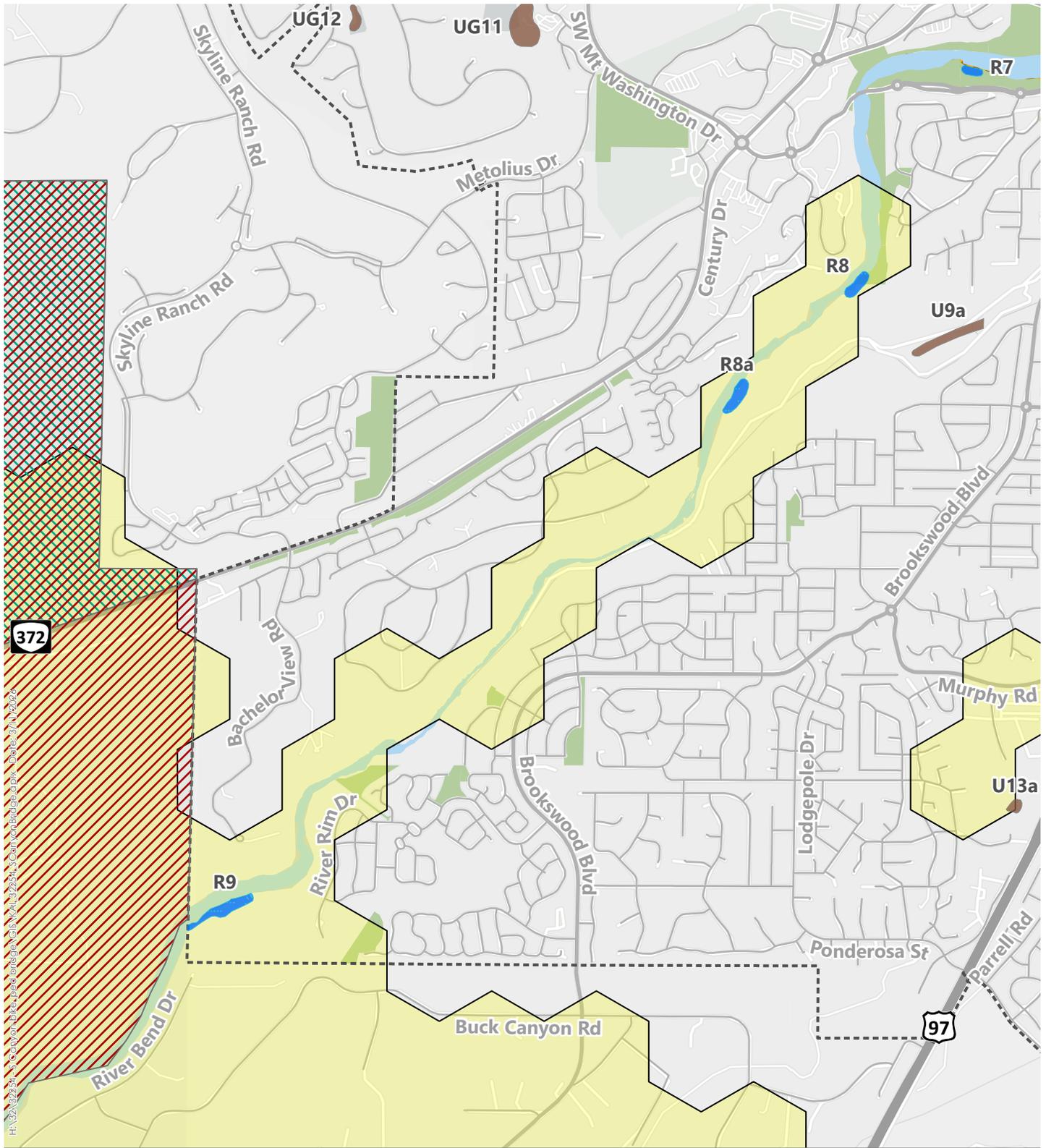
The National Marine Fisheries Service (NMFS) Essential Fish Habitat Mapper does not show any designated or proposed critical habitats for threatened or endangered species in the study area. However, the Deschutes River between SW Reed Market Road and SW Colorado Avenue (located north and outside of the study area), and the river south of Lava Island, is designated as critical habitat for Oregon spotted frog according to the USFWS Critical Habitat database.

WETLANDS AND WATERS

The Oregon Division of State Lands (DSL) maintains an inventory of wetlands called Local Wetland Inventories (LWI), which has also been adopted by the City of Bend as part of its Comprehensive Plan. The Bend LWI Inventory includes several wetlands along the Deschutes River within the Study area that are identified as significant. Any project potentially impacting these wetlands will require permitting through the State Fill and Removal Permit process, which also requires mitigation.

Figure 8 shows the environmental conditions within the study area, including the significant identified wetlands and their designated number.

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-  Non-Significant Wetlands
-  Significant Identified Wetlands
-  ODFW Priority Wildlife Connectivity Areas
-  Elk Habitat Area
-  Deer Winter Range

-  Deschutes River
-  BPRD Parks
-  Bend City Limits



Figure 8

**Environmental Conditions
Bend, OR**

OTHER WILDLIFE HABITAT CONSIDERATIONS

The Oregon Department of Fish and Wildlife (ODFW) maintains a [list of Threatened, Endangered, and Candidate species](#) protected at the state level. The ODFW Compass map does not record any observations of state-listed species in the study area, however two Species of Greatest Conservation Need – Lewis' woodpecker (*Melanerpes Lewis*) and olive-sided flycatcher (*Contopus Cooperi*) – are documented. ODFW also indicates a large part of the study area is part of the EC-R12 Priority Habitat Connectivity Area.

The [Oregon Biodiversity Data Center \(ORBIC\)](#) maintains records of known observations of state-listed rare and endangered species. A project would be required to coordinate with ORBIC to better ascertain the likely presence of state-listed species in the study area.

Portions of the study area overlap with the ODFW and Deschutes County-mapped elk range and deer winter range. The elk range is isolated to the west of SW Century Drive in the study area, while the deer winter range extends east of SW Century Drive to the western bank of the Deschutes River. Bridge construction may impact deer winter range habitat but will not impact the designated elk range.

The Priority Habitat Connectivity Area, deer winter range, and elk range are shown on Figure 8.

Environmental Regulatory Framework

Multiple layers of federal, state, and local policy govern land use and development within the Deschutes River corridor, including the State Scenic River rules, the Endangered Species Act, and wetland and waterway protections, and zoning regulations. These policies establish both prohibitions and processes that shape what types of projects may be considered and under what conditions. This section outlines the applicable regulatory framework to clarify approval pathways, limitations, and the coordination required among agencies. Additional federal regulations, including the National Environmental Policy Act (NEPA) compliance, may apply if a future project includes federal funding or the usage of federal lands. A future project will require a Wetland and Waters Delineation Report to determine the boundaries of all waters of the U.S. and/or the state within the study area to inform total project impacts and subsequent mitigation requirements.

FEDERAL REGULATIONS

Federal Wetland/Waterway Permitting

Section 404 of the Clean Water Act (CWA) authorizes the U.S. Army Corps of Engineers to regulate the discharge of dredged or fill material into waters of the U.S. Activities regulated under this program include fill for development and infrastructure development such as bridge abutments and piles. Projects that require a Section 404 permit also require CWA Section 401 water quality certification. CWA Section 401 permitting is administered by the Oregon Department of Environmental Quality (DEQ).

A CWA Section 404 permit will not be required if a future project avoids regulated impacts to waters of the U.S., e.g., discharge of fill material. A future project may also be permissible under a nationwide permit (NWP), such as NWP 14 for linear transportation projects.

Endangered Species Act

If a future project were to include a federal nexus and has the potential to affect ESA-listed species, it will be required to consult with USFWS and NMFS. Conversely, a no-effect memorandum can be submitted if a future project is unlikely to impact ESA-listed species.

National Historic Preservation Act Section 106

If a future project were to include a federal nexus, it must demonstrate compliance with Section 106 of the National Historic Preservation Act (NHPA). An assessment of cultural and historic resources in a project area may be required under NHPA Section 106 to evaluate potential project impacts to these resources.

STATE REGULATIONS

State Wetland/Waterway Permitting

Oregon's removal-fill law requires a removal-fill permit for most projects that add, remove, or move more than 50 cubic yards of material within waters of the state. Work within a state scenic waterway requires a permit for removal or fill of any amount of material. The removal-fill permit is administered by Oregon Department of State Lands. A removal-fill permit will not be required if a project avoids impacts to waters of the U.S. and waters of the state.

A National Pollution Discharge Elimination System (NPDES) 1200-C stormwater permit will be required if a project disturbs more than one acre of land. NPDES 1200-C permits are administered in Oregon by the Oregon Department of Environmental Quality.

Oregon Department of Fish and Wildlife Fish Passage Plan

ODFW regulates the construction of roads and bridges that cross fish-bearing stream channels. A project will be required to submit a fish passage plan to ODFW to demonstrate the bridge does not inhibit the passage of native fish species at the bridge crossing. Among other requirements under the fish passage plan, a project will need to demonstrate the bridge is at least 1.2 times the active channel width plus two feet at the proposed river crossing.

SCENIC RIVER AREA DESIGNATIONS

The Deschutes River corridor is a federally designated Wild and Scenic River, and a State of Oregon designated Scenic Waterway². The federal designation begins at Bend's southern Urban Growth Boundary and continues south along the river. The state Scenic Waterway designation begins south of the study area, and extends approximately 5,000 feet inward of the Urban Growth Boundary along the river. The federal Wild and Scenic River designation denotes that the designated area has "scenic, recreational,

² The Deschutes River south of Bend's Urban Growth Boundary is a federally designated Wild and Scenic River. This is outside of the Study area; however, bridges are also discouraged in the Wild and Scenic River designation.

cultural, geologic, wilderness, fish and wildlife as well as historic and botanical values.” The State Scenic Waterway aims designation to strike a balance between protecting the natural resources, scenic value, and recreational uses of designated rivers.

Figure 9 shows the areas under federal and State scenic river designations within the study area.

The 1996 Upper Deschutes Wild and Scenic and State Scenic Waterway Comprehensive Management Plan (CRMP) guides the management of state and federal waterways within the upper Deschutes area. The CRMP does not permit new bridges in any of the State Scenic Waterway classification areas. New bridges are also discouraged within the Federal Wild and Scenic Waterway classification areas.

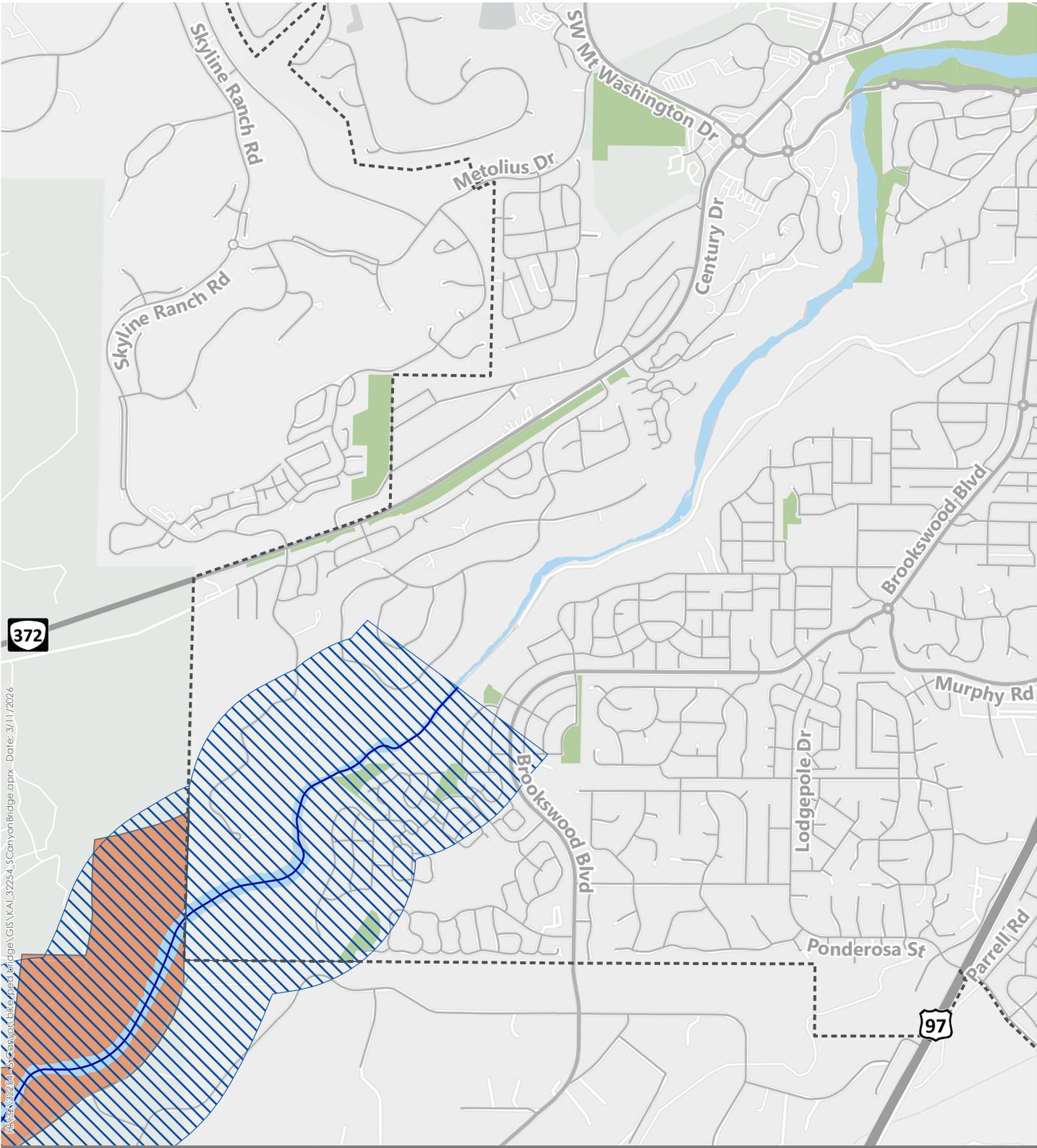
The CRMP states that within the Scenic Waterways reaches of the river, per Oregon Administrative Rule 736-040-0073 - Upper Deschutes River Scenic Waterway, “New bridges will not be permitted.”

In 2014, BPRD submitted a request to Oregon Parks and Recreation Department (OPRD), which administers the CRMP, to narrowly amend relevant Oregon Administrative Rules (OAR) to allow for the construction of “bicycle and pedestrian bridges” within the State Scenic Waterway. An OPRD advisory group recommended against amending the OAR; however, OPRD asserted that there is an existing process that allows a landowner to construct projects not permitted by the CRMP (such as bridges) by applying to OPRD. This application triggers a mandatory 12-month review period during which time OPRD works with the applicant to minimize impacts to the State Scenic Waterway or purchases the property to stop the project entirely. If no agreement is reached within a year, the project is not required to adhere to the State Scenic Waterway Rules and may proceed (Oregon Revised Statutes 390.845).

The key issue for this study is that OPRD’s decision not to open a new rule-making process effectively limits the location of the trails and bridge, since the DNF has indicated they will not apply for a bridge on their property unless the CRMP is changed to allow for the bridge.

Following the ruling by OPRD, public controversy around the bridge location intensified, including two unsuccessful legislative attempts to prohibit any new trail bridges over the Deschutes River.

In 2018, BPRD hired Oregon Consensus to conduct a conflict assessment, which found that disagreement over the Study reflected broader tensions between access and environmental protection, compounded by disputes over basic facts. In 2019, the BPRD Board concluded the project was at an impasse and directed staff to pause work and focus on other priorities.



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-  State Scenic Waterway Course
-  State Scenic Waterway Classification Area
-  Federal Wild and Scenic Rivers Area - Recreational

-  Deschutes River
-  BPRD Parks
-  Bend City Limits



Figure 9
Federal and State River Regulations Areas Bend, OR

ENVIRONMENTAL PERMITTING SUMMARY

Table 1 summarizes the environmental permits which may apply to a future project in the area, pending final bridge design and onsite field investigation:

Table 1 – Environmental Permits that May Apply to Future Project

Permit, Authorization, or Compliance Documentation	Administering Agency	Applicability
Federal Permits		
Endangered Species Act Section 7 No Effect Memo or Biological Assessment	National Marine Fisheries Service, U.S. Fish and Wildlife Service	Required if the project includes a federal nexus, e.g., a CWA Section 404 permit, to demonstrate compliance with the endangered species act.
Clean Water Act Section 404 nationwide or individual permit	U.S. Army Corps of Engineers	Required if the project results in fill within waters of the U.S. (the Deschutes River or adjacent wetlands).
Historic and Cultural Resources Report	State Historic Preservation Office	Required if the project includes a federal nexus, e.g., a CWA Section 404 permit, to demonstrate compliance with Section 106 of the National Historic Preservation Act.
State Permits		
Clean Water Act Section 401 permit	Oregon Department of Environmental Quality	Required if the project results in fill within waters of the U.S.
Removal-fill permit	Oregon Department of State Lands	Required if the project results in removal or fill within waters of the U.S. or waters of the state, including wetlands.
NPDES 1200-C permit	Oregon Department of Environmental Quality	Required if the project results in more than an acre of ground disturbance.
Fish Passage Plan	Oregon Department of Fish and Wildlife	Required to demonstrate the bridge does not inhibit the passage of native fish species at the bridge crossing.

Source:

<https://www.epa.gov/cwa-404/overview-clean-water-act-section-404>
<https://www.epa.gov/cwa-404/further-revisions-clean-water-act-regulatory-definition-discharge-dredged-material>
<https://www.epa.gov/cwa-404/final-revisions-clean-water-act-regulatory-definitions-fill-material-and-discharge-fill-0>
<https://www.epa.gov/node/176979/>
<https://www.epa.gov/cwa-404/nationwide-permits-chronology-and-related-materials>
https://www.oregonlegislature.gov/bills_laws/ors/ors196.html

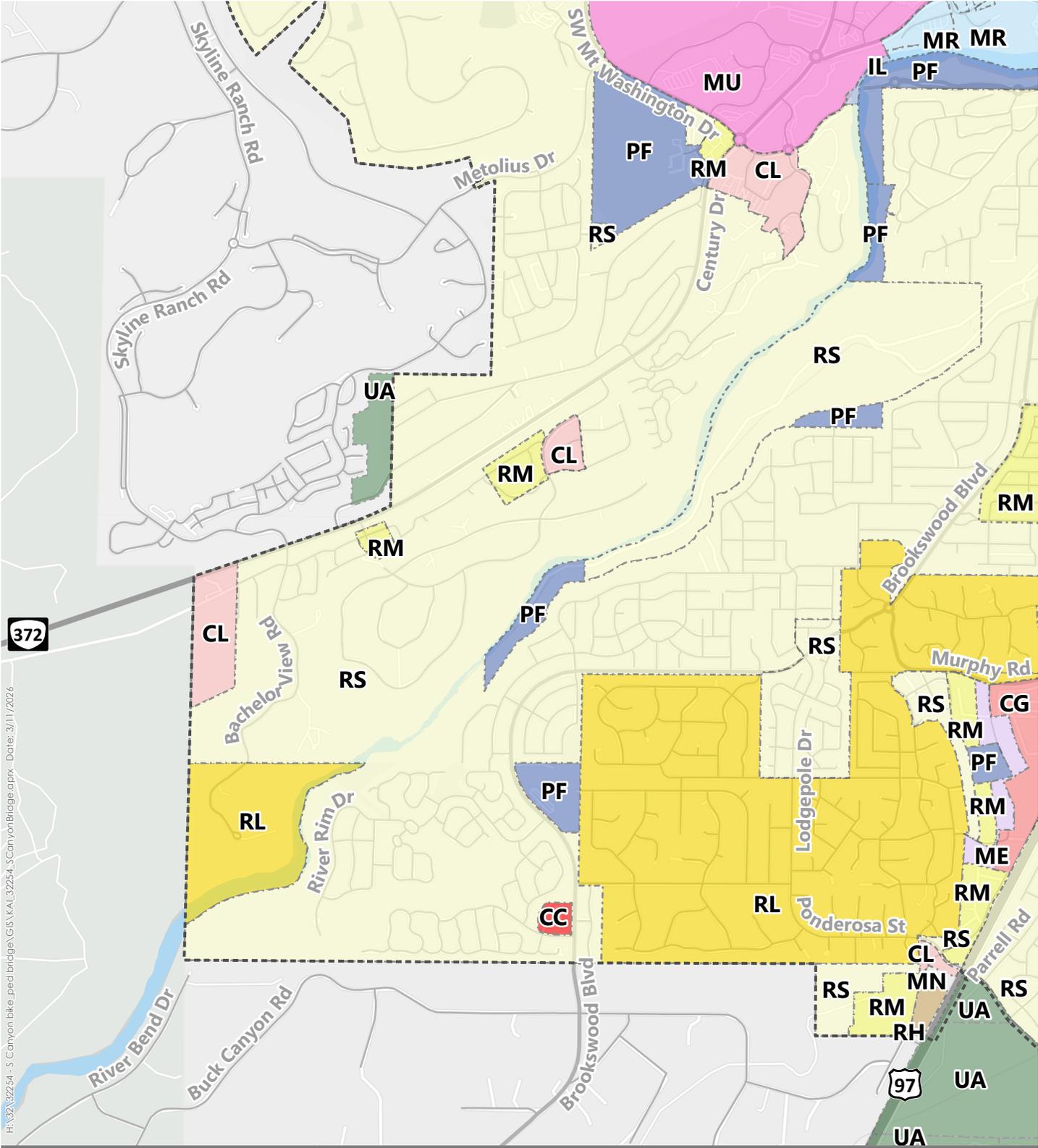
ZONING AND LAND USE REGULATIONS

The area within and around the study area is primarily zoned residential. The area encompasses several overlay zones that set strict guidelines on land use, including bridges. However, the zoning districts generally have special provisions or exemptions that would allow projects such as a bridge to be constructed, provided certain rules and processes are followed.

Figure 10A to 10D shows the City of Bend zoning districts, City of Bend zoning overlays, unincorporated Deschutes County zoning districts, and unincorporated Deschutes County zoning overlays, respectively.

Federally owned properties are not required to adhere to local zoning regulations. Per the Oregon Revised Statutes 227.286, city ordinances regulating the location, construction, maintenance, repair, alteration, use and occupancy of land and buildings and other structures apply to publicly owned property, except as the ordinances prescribe to the contrary.

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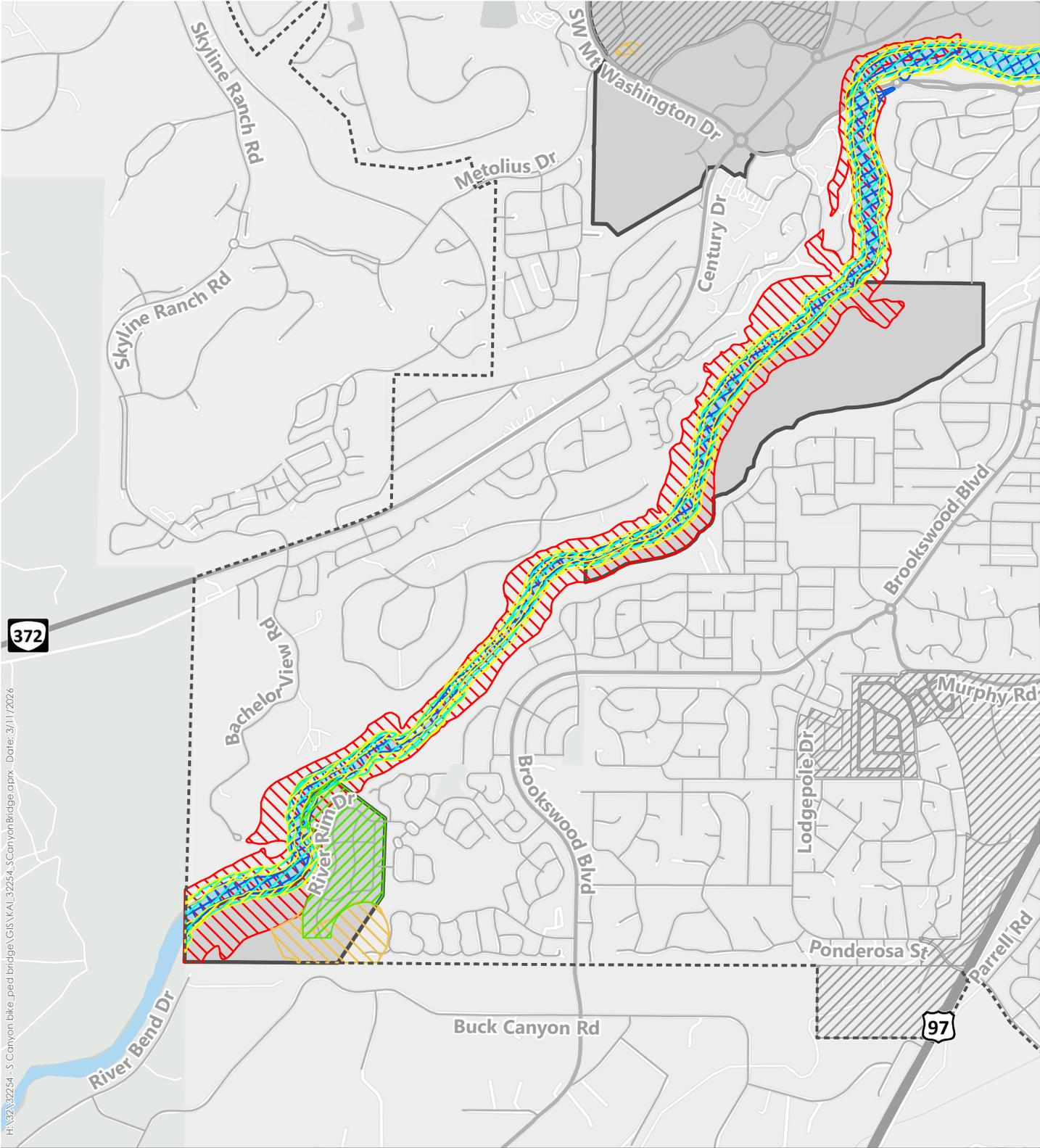


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- | | | |
|-----------------------------|-----------------------------------|---------------------------------|
| Convenience Commercial (CC) | Mixed-Use Riverfront (MR) | Medium Density Residential (RM) |
| General Commercial (CG) | Mixed-Use Urban (MU) | High Density Residential (RH) |
| Limited Commercial (CL) | Public Facilities (PF) | Urbanizable Area (UA) |
| Light Industrial (IL) | Low Density Residential (RL) | Bend City Limits |
| Mixed Employment (ME) | Standard Density Residential (RS) | |



Figure 10A
City of Bend Zoning Districts
 Bend, OR



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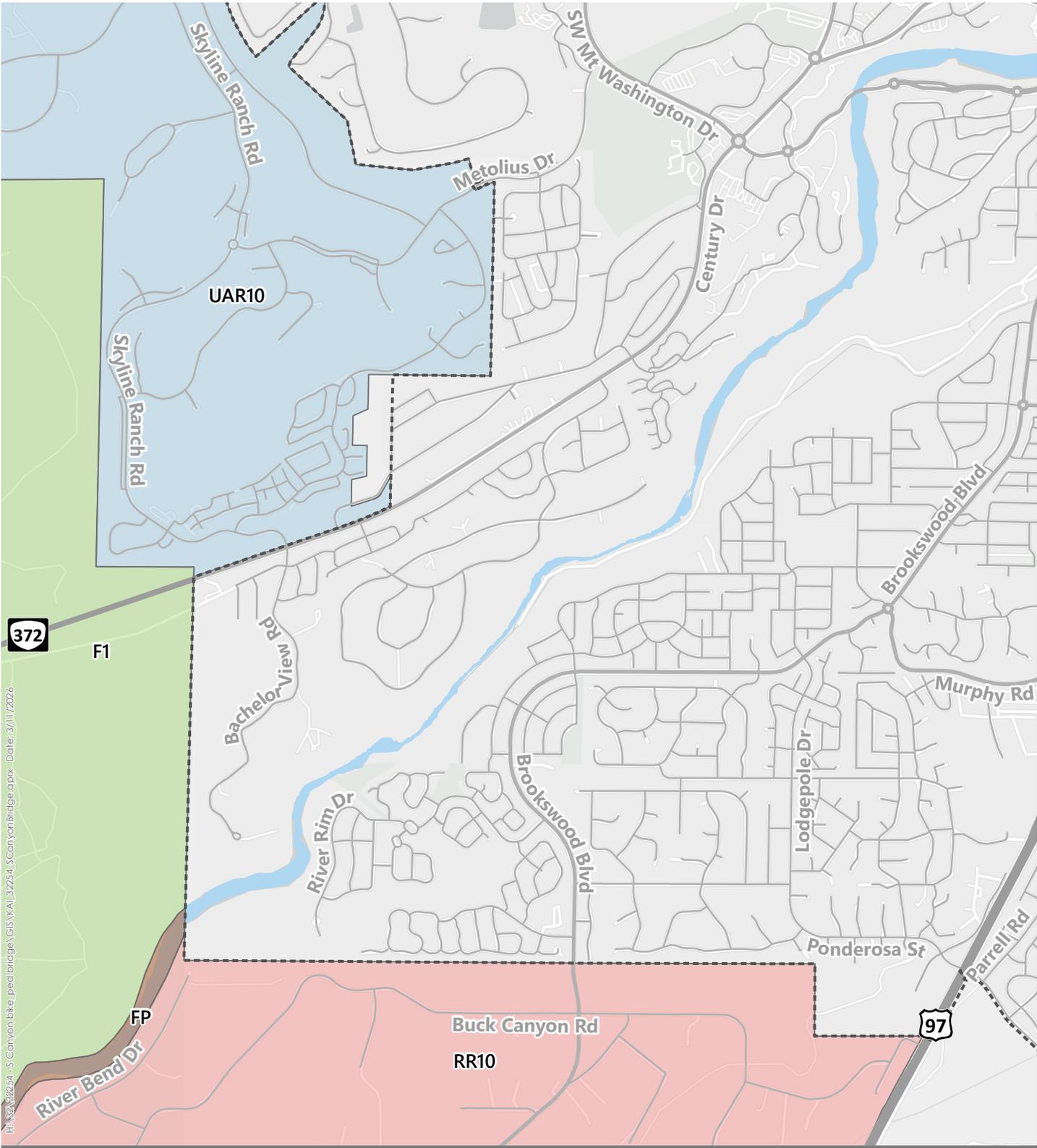
-  ASI - River
-  ASI - Upland
-  Floodplain
-  Riparian Corridor
-  Waterway Overlay Zone

-  River Vale Master Planned Community
-  Other Special Planned Districts
-  Opportunity Areas
-  Bend City Limits



Figure 10B

**City of Bend Zoning Overlays
Bend, OR**



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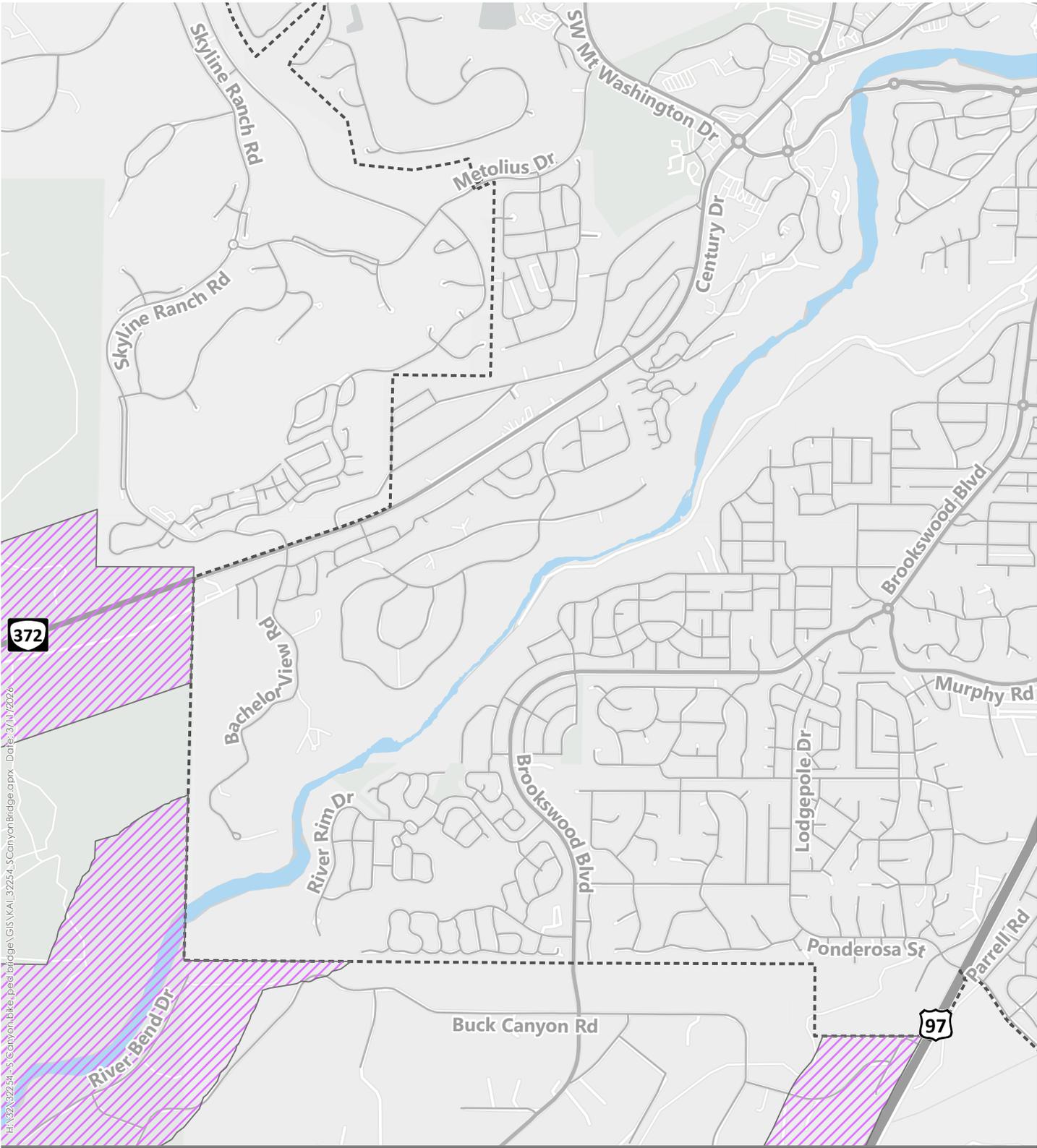
- Flood Plain (FP)
- Forest Use 1 (F1)
- Rural Residential (RR10)
- Urban Area Reserve (UAR10)

Bend City Limits



Figure 10C

**Unincorporated Deschutes County
Zoning Districts
Bend, OR**



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 Landscape Management Combining Zone

 Bend City Limits
 Deschutes River

0 1,000 2,000 Feet 

Figure 10D

**Unincorporated Deschutes County
 Zoning Overlays
 Bend, OR**

STANDARD DENSITY RESIDENTIAL

Within Bend's Urban Growth Boundary on the south side of the river, the land is zoned Standard Density Residential (RS) by the City of Bend. This zoning district is intended to provide opportunities for a wide variety of residential housing types at the most common residential densities in places where community sewer and water services are available. The residential density range in this district is 4.0 to 7.3 dwelling units per gross acre. Permitted uses are mainly residential and park space.

LOW DENSITY RESIDENTIAL

Within Bend's Urban Growth Boundary on the north side of the river, the land is zoned Low Density Residential (RL) by the City of Bend. This zoning district generally consists of large urban residential lots that are served with a community water system, private on-site septic systems, or municipal sewer systems. The residential density range in this district is 1.1 to 4.0 dwelling units per gross acre. Permitted uses are mainly residential and park space.

RURAL RESIDENTIAL

Outside Bend's Urban Growth Boundary on the south side of the river, the land is zoned as Rural Residential (RR10) by Deschutes County. The purposes of the Rural Residential Zone are to provide rural residential living environments; to provide standards for rural land use and development consistent with desired rural character and the capability of the land and natural resources; to manage the extension of public services; to provide for public review of nonresidential uses; and to balance the public's interest in the management of community growth with the protection of individual property rights through review procedures and standards. Various residential uses are permitted outright. Public park, recreation facility, fill or removal within the bed and banks of a stream or river or in a wetland area are conditional uses subject to review.

Additionally, all structures, buildings, or similar permanent fixtures shall be set back from the ordinary high water mark along all rivers, streams, or lakes a minimum of 100 feet measured at right angles to the ordinary high water mark.

FLOOD PLAIN

The Deschutes County Flood Plain Zone is intended to protect the public from the hazards associated with flooding, to conserve important riparian areas along rivers, and to preserve scenic and natural resources. Uses permitted outright include agricultural and forest uses, open space, residential uses that do not require structures and certain road projects. Conditional uses include single-family dwellings, agricultural accessory buildings, hydroelectric facilities, excavation/grading/fill/removal activities, subdividing or partitioning of land, expansion or substantial improvement of existing structures, boat docks and piers, and certain recreational uses.

FOREST USE 1

The Forest Use 1 Zone of Deschutes County is intended to conserve forest land. Forest operations along with select forestry-related activities are permitted uses. Construction of transportation improvements on

rural lands and of parks are conditional uses. Structures should be set back from the ordinary high water mark along rivers, and should be set back from rimrock.

ZONING OVERLAYS

The Deschutes River corridor within Bend's Urban Growth Boundary is generally within the City of Bend's Waterway Overlay Zone (WOZ), which is designed to conserve and enhance the natural resource values of areas along the Deschutes River. The Study area is also located within four sub-zones of the Waterway Overlay Zone: the Riparian Corridor Sub-Zone, the River Corridor Areas of Special Interest Sub-Zone, the Floodplain Zone, and the Deschutes River Corridor Design Review Combining Zone. In the Waterway Overlay Zone, removal of trees greater than four inches of diameter at breast height requires review.

Three other overlay zones are located in the vicinity of the Study area: the Upland Areas of Special Interest, the River Vale Master Planned Development, and City of Bend's Opportunity Areas overlay.

The Deschutes River corridor outside Bend's Urban Growth Boundary is governed by an additional Deschutes County Landscape Management Combining Zone that limits placement of buildings within 100 feet of rimrock.

Riparian Corridor Sub-Zone

Within the Riparian Corridor Sub-Zone, trails may be approved after review. The construction of a new bridge may be approved as a land use action within this Sub-Zone if all State and Federal permits have been or will be obtained, and if it can be demonstrated that the proposed development or activity is designed and constructed to minimize intrusion into the riparian corridor.

River Corridor Areas of Special Interest Sub-Zone

Within the River Corridor Areas of Special Interest Sub-Zone, a proposed development or land use action should be designed and constructed so as to maintain the integrity of the existing natural features and biological system while minimizing removal of native vegetation. A public or private river crossing may be placed within a River Corridor Area of Special Interest to access development activities if it is shown that no other practical method of access exists, provided that roads and driveways are designed to be the minimum width necessary and the minimum intrusion into the River Corridor Area of Special Interest. An exception to the provisions of the River Corridor Areas of Special Interest sub-zone may be permitted for the construction of public trails or paths that provide public access into the preserved River Corridor Areas of Special Interest. A proposed development or land use action within this sub-zone may trigger a requirement for mitigation of visual resources lost during the development activity.

Floodplain Zone

Within the Floodplain Zone, a development permit must be obtained before construction or development begins within any area horizontally within the special flood hazard area, and the various standards for flood hazard reduction apply.

Deschutes River Corridor Design Review Combining Zone

Within the Deschutes River Corridor Design Review Combining Zone, all new developments and structures are subject to a design review process. The City may approve streets and bridges crossing the river, among other features to enhance public use, within the building setback area within the zone, but these

features must comply with various site and design review criteria that require the features to conserve natural features and be compatible with existing area.

Upland Areas of Special Interest

The Upland Areas of Special Interest Overlay Zone is intended to protect valuable natural resources within the City of Bend's Urban Growth Boundary while ensuring reasonable use of the property. Land use activities such as partitioning and subdividing land, developing new structures, expanding of buildings or structures, removing trees, and modifying the site's grade require a permit.

The construction of public trails or paths that provide public access into the preserved Upland Areas of Special Interest is a permitted exception to zoning restrictions, provided such exceptions are necessary to allow reasonable economic use of the subject property or to provide public benefit. Special development standards and mitigation standards apply in the zone.

River Vale Master Planned Development

The River Vale Master Planned Development creates overlay development standards that supersede the development standards of the underlying Residential Urban Standard Density zoning district within the master plan boundaries. The Master Planned Development also creates its own Street Standards.

Opportunity Areas

Bend's Comprehensive Plan Figure 11-1 shows designated Opportunity Areas that are determined to be appropriate to focus new growth due to their location, zoning (existing or planned), amount of vacant or underdeveloped land, and/or proximity to urban services. Within the Opportunity Areas, a maximum of 20 acres of residential designated land proposed for public and institutional uses and miscellaneous uses may be excluded from the density calculation and housing mix. Two Opportunity Areas, COID Property and River Rim, are located within the study area. The River Rim Opportunity Area has been developed as the River Vale Master Plan.

Landscape Management Combining Zone

The Landscape Management Combining Zone is an overlay zone with the purpose of protecting and enhancing scenic vistas as seen from designated roads and rivers. New structures within the zone need to obtain site plan approval, unless the structures or the lots they are located on are not visible from the designated roadway, river, or stream and are assured of remaining not visible due to vegetation, topography, or existing development. New structures in the zone are expected to have a minimum setback of 100 feet from the edge of the ordinary high water line, and a minimum setback of 50 feet from the rimrock. Exceptions to the rimrock setback may be granted under certain conditions.

Property and Easements

Property ownership within and around the Study area is divided among private landowners and public agencies, with limited existing public access across parcels. Potential bridge and trail connections would likely require new or expanded easements across private property to provide public access to any crossing. This section summarizes ownership patterns and known easements to identify access constraints relevant to feasibility and alternative evaluation.

PROPERTY OWNERSHIP

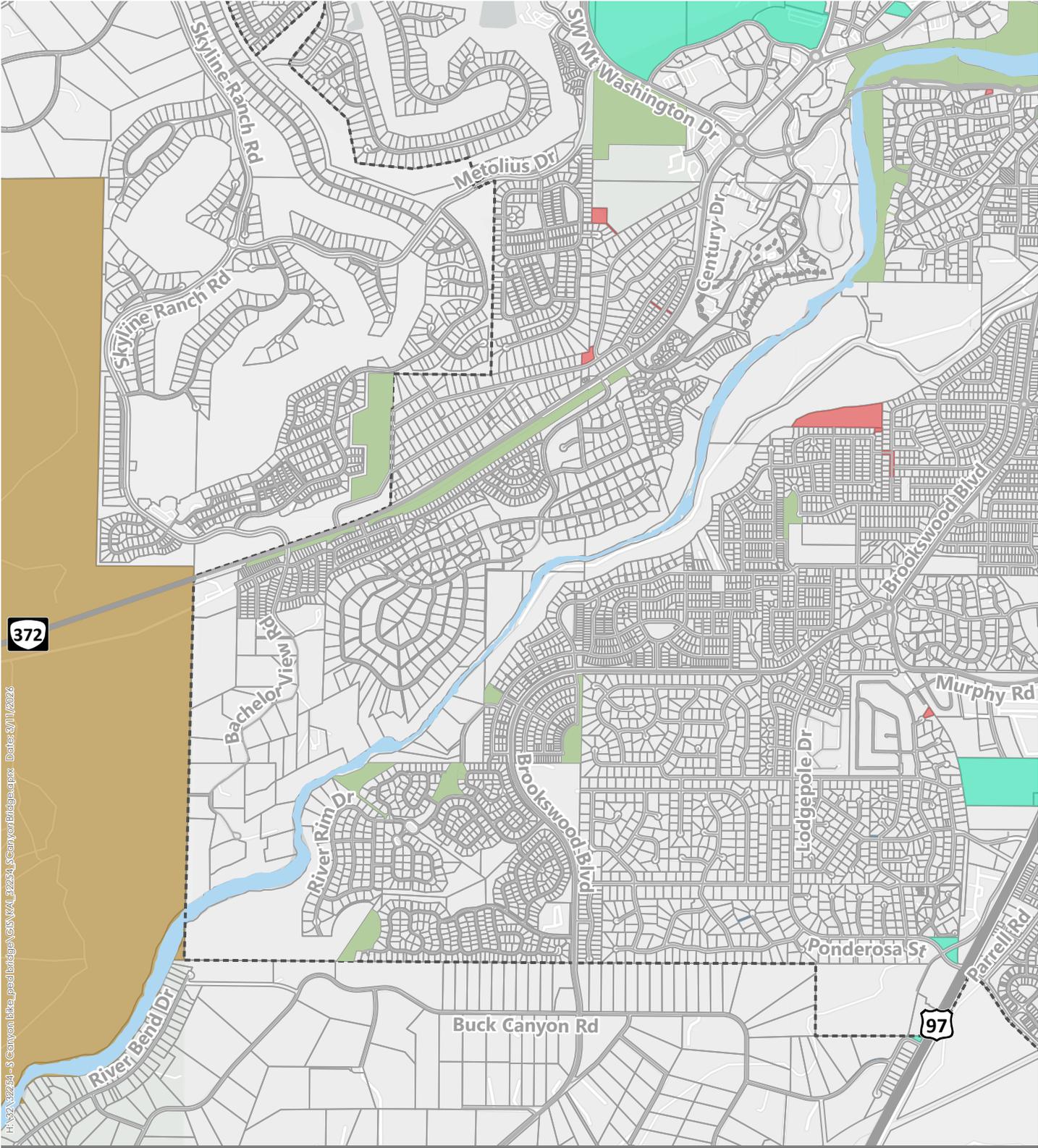
On the north side of the river, properties east of Bend's Urban Growth Boundary (UGB) are privately owned. Property west of the UGB is owned by the US Forest Service.

On the south side of the river, properties along the river and with the UGB are privately owned. Properties outside the UGB are also privately owned, except for a small triangle of landlocked parcel directly adjacent to the UGB owned by the US Forest Service.

Within the study area on the south side of the river, accessing the US Forest Service land would require one or more easements across privately owned property.

Figure 11 shows property ownership within the study area.

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- City Land
- County Land
- Federal Land
- State Land
- Private Land

- Deschutes River
- BPRD Parks
- Bend City Limits



Figure 11

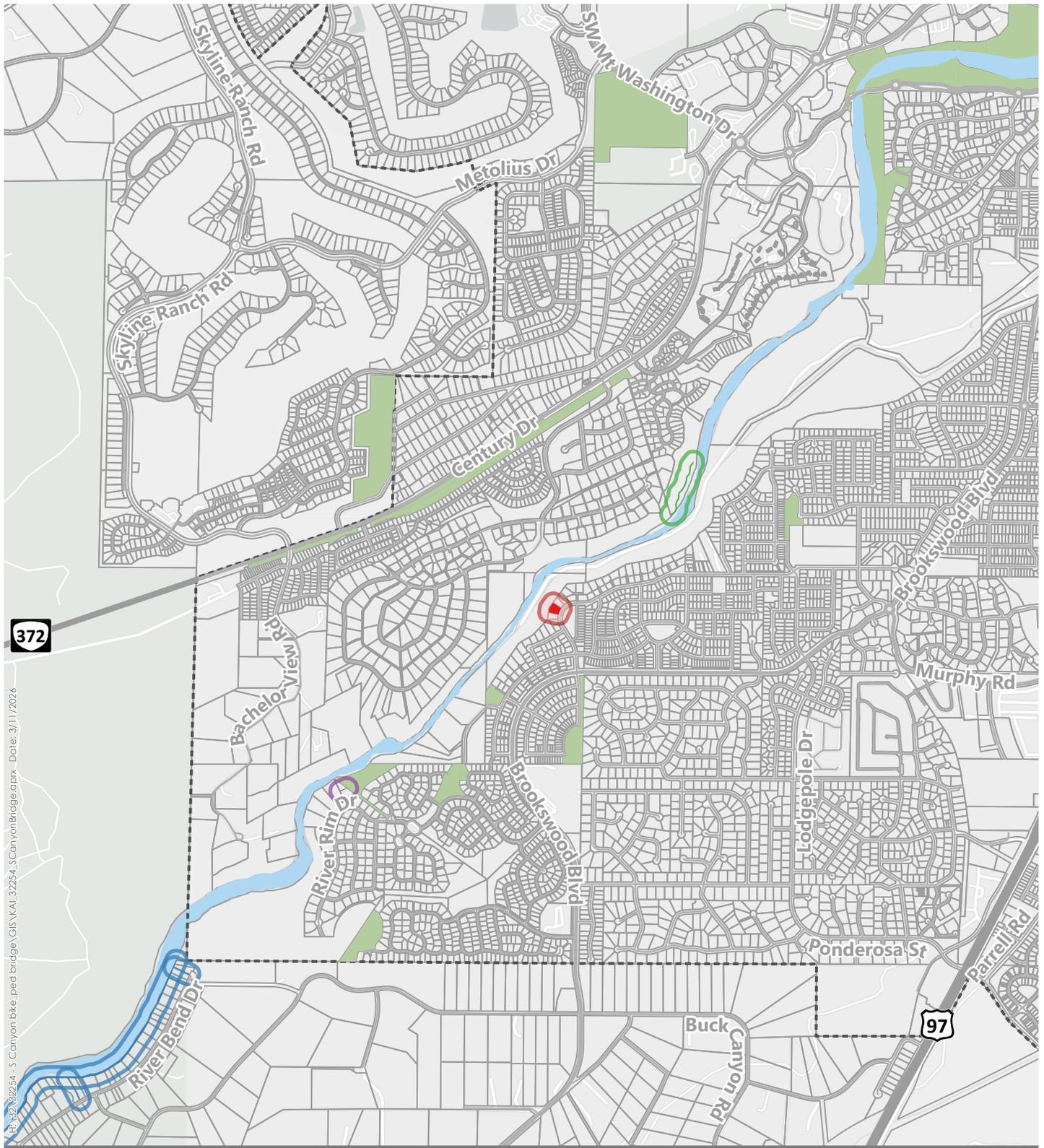
**Property Ownership
Bend, OR**

EASEMENTS

The study area contains a number of easements that grants BPRD or the public access through certain private properties and to the riverfront. The easement along the Deschutes River at the southern end of the study area was granted to the general public for fishing access, and BPRD has no rights to place a trail through the easement. Overall, the existing easements in the study area are unlikely to significantly impact trail alignment.

Figure 12 shows the existing easements in the study area.

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-  Public Access Easement to BPRD (Trail Development Permission Unclear)
-  Public Access Easement Only
-  Public Foot Traffic Only Easement to BPRD
-  Trail Easement to BPRD
-  BPRD Parks
-  Bend City Limits
-  Private Land
-  Deschutes River



Figure 12

**Existing Easement
Bend, OR**

Summary of Considerations

Based on a review of background material and work completed to-date, the following bullets summarize key considerations for the project:

- The nearest existing full access river crossing is the SW Reed Market Road. The nearest pedestrian crossing is at the DRT–South Canyon Reach bridge, approximately one mile south of the Reed Market Road bridge. There are no other river crossing locations within the study area, and pedestrians and cyclists from southeast Bend need to travel out of direction to cross the Deschutes River. Existing connectivity to trails and parks in the study area is limited, and no trail connections currently exist between the study area, the riverfront, and the Deschutes National Forest.
- Steep slopes along the river, combined with a desire to protect the river ecology and natural beauty, limits the maximum river width the bridge can cross to around 220 feet based on reasonable engineering and cost considerations. This constraints bridge placement.
- Land use regulations and restrictions within and around the project area are complicated due to federal and State Wild and Scenic River Areas designations and local zoning regulations. However, there are processes that can be followed to potentially obtain permission for bridge construction. Navigating the policy restrictions would require continued coordination between multiple agencies across various levels of the government.
- The project area has a mixture of privately and publicly owned land and accessing a potential bridge within the project area would likely necessitate obtaining easement through private properties.

NEXT STEPS

While no single consideration in the above section is determinative for the trail alignment, these considerations combine to narrow the options of where a bicycle and pedestrian crossing of the Deschutes River and the associated trail connections could be located. These constraints inform the next steps, which will involve developing feasible alternatives and engaging stakeholders and the community around clearly defined options.

Identify Viable Alternatives and Options for Trail River Crossing

Building on this Existing Conditions review, the project team will develop up to five conceptual trail and river crossing alternatives, including a no-build option. Alternatives will take into account the identified physical, environmental, regulatory, and property constraints; meet applicable accessibility standards; and conform to best practices for multi-use trail design. Concepts will describe approximate alignments, crossing types and various trail characteristics. These concepts will serve as the basis for the Preliminary Feasibility Studies phase of the project, in which two alternatives will advance to schematic design and order-of-magnitude cost and constructability analysis.

Engage with the Public and Stakeholders to Ensure Alignment

Structured engagement with stakeholders and the public will be conducted throughout the Alternatives Development and Analysis phases of the project to ensure a shared understanding of project purpose, constraints, and tradeoffs between BPRD, the project team, stakeholders, and the general public.

Engagement will include facilitated touchpoints to review existing conditions, alternative concepts, and evaluation criteria, with feedback documented and used to inform refinement of alternatives and support transparent and fact-based decision-making.

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