



# PORTNEUF RIVER

## VISION STUDY

2016



# Purpose and Scope

The Portneuf River originates in the northern portion of the Portneuf Range, within the Fort Hall Indian Reservation, home to the Shoshone-Bannock Tribes. Meandering for 111 miles through Bingham, Caribou, Bannock, and Power Counties, its watershed drains around 1,300 square miles of land in southeastern Idaho and provides important habitat for fish and wildlife species, recreational opportunities, and irrigation for farming. However, heavy alterations to the river corridor over time have compromised the health of this ecosystem and reduced the benefits and services it provides.

The Portneuf River Vision Study integrates existing policies, plans, and innovative ideas into a single vision, outlining goals and recommendations for improved river corridor management, and identifying opportunities for improvements and restoration. Its recommendations are based on the community's ecosystem health, recreation, access, community engagement, and economic development goals.

Working in concert with other planning efforts within the watershed, the Vision Study describes a shared community vision and should be used to inform future planning and project implementation.

Recommendations are strictly voluntary, and are non-binding on landowners and land managers. Implementation is contingent on these voluntary actions, future rule-making, planning, and available funding through various governmental agencies, non-profit organizations, and public-private partnership entities.

The Vision Study is intended to be a living plan, responsive to evolving scientific understanding and changes in community attitudes and preferences.

The geographic scope of the Vision Study extends along the Portneuf River corridor from the Portneuf Gap to the Fort Hall Indian Reservation boundary upstream of Siphon Road, and includes tributary streams. Within this boundary, the River runs through the City of Pocatello and parts of Bannock and Power Counties, and includes the congressionally-authorized Portneuf Flood Reduction Project constructed by the US Army Corps of Engineers (Corps) in the 1960s. For the purposes of this Vision Study, the River has been divided into four separate river reaches.

*Our vision is to restore the Portneuf River corridor in order to revitalize environmental, recreational, and economic opportunities while increasing community pride, connectivity, and quality of life.*



Doug Lindley, Idaho State Journal | Concrete Channel



# Study Reaches

The geographic scope of the Vision Study is the Portneuf River corridor, extending from the Portneuf Gap (Fort Hall Mine Road) to the Fort Hall Indian Reservation boundary upstream of Siphon Rd.

## South

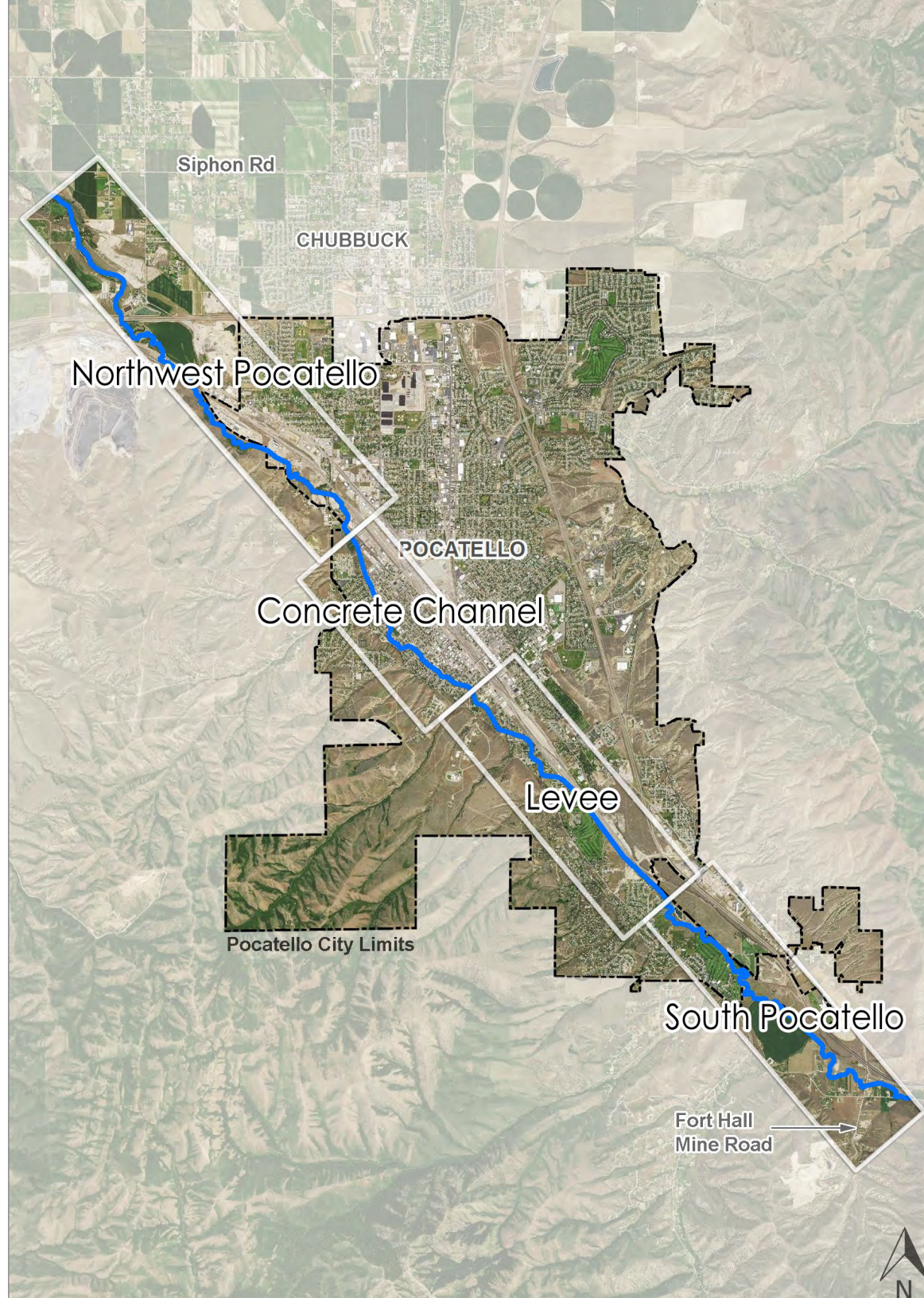
Approximately 7.5 miles in length, this reach runs north from the Portneuf Gap to Edson Fichter Nature Area (Bannock Highway and Cheyenne Avenue) through a mix of agricultural and suburban development. Mink, Gibson Jack, and Johnny Creek flow into this reach of the Portneuf.

Prior to construction of the railroad in the late 1800s, the Portneuf River meandered across the valley throughout this reach, bounded only by the lava cliffs to the east and the toe of the foothills to the west. Today the River is constricted into a much narrower band, and meanders between the railroad tracks and the toe of the west bench.

Edson Fichter Nature Area, Juniper Hills Golf Course, and an isolated stretch of the Greenway provide recreational opportunities within this River reach.



Charles Peterson | Looking upstream from Edson Fichter Nature Area





# Study Reaches, Continued...

## Levees

The levee reach is comprised of riprap channel and earthen levees that run about 4.7 miles from Edson Fichter Nature Area to Halliday Street, where the concrete channel begins.

Following construction of the federal flood control project in 1968, the land along this reach was transformed from agricultural to residential use, and is now removed from the 100-year floodplain. Historically, this section of the River flooded every few years during spring runoff.

The trapezoidal levees removed several river meanders and are limited in vegetation due to levee safety standards. These factors contribute to elevated water temperatures, reduced riparian habitat and sedimentation.

Edson Fichter Nature Area, Centennial/Rainey Park, Riverside Golf Course, and a section of Greenway provide recreation to the area.



Corps | Portneuf Levee

## Concrete Channel

This reach, approximately 1.5 miles in length, flows north from Halliday Street to Sacajawea Park. Development near Raymond Park and Irving Middle School encroached on the floodplain resulting in occasional but significant flooding most recently in 1962 and 1963.

In response to the flooding, in 1968 the Corps constructed a concrete flood control channel and associated levees to hold a flood up to 6,000 cfs.

Lacking vegetation, the straight, deep concrete channel provides no habitat for fish, wildlife, or other species.

Currently no access is granted to the public in this reach due to life safety risks.

Both Raymond Park and Memorial Park are within this reach, as are two sections of the Greenway (from Raymond Park to Sacajawea Park, and from Old Town to City Creek). City Creek enters the Portneuf at the upstream portion of this reach.



City of Pocatello | Portneuf Concrete Channel

## Northwest

Approximately 8 miles long, this reach encompasses Sacajawea Park (at Gathe and Oakwood Drive) to the boundary of the Fort Hall Indian Reservation. Development along this portion of the Portneuf River is a mixture of natural areas interspersed with industry, agriculture, and a few older residential homes.

Historically, a large section of this reach supported a cottonwood forest. Upstream water use, which reduces summer flows in the Portneuf by about 75% in the Pocatello area, has severely impacted the forest. Today, significant bank erosion occurs due to channelization upstream and within the reach.

Sacajawea Park, as well as Greenway trails from Sacajawea Park to the Pacific Recycling Trailhead and from the Abraszewski Trailhead to Simplot provide recreation in the area. Batiste Bridge is also a popular place to fish, due to the influx of cool spring water in this area.



City of Pocatello | Sacajawea Park Bridge



# Planning Process

The Vision Study was a collaborative planning process led by the US Army Corps of Engineers (Corps) and the City of Pocatello. Significant public input made this collective vision for the Portneuf River possible.



Corps | Working Group Meeting

Efforts to engage the public in the visioning process were diverse, numerous, and successful.

To better understand existing River conditions, public perceptions and current challenges within the Study area, stakeholder assessments and existing condition surveys were conducted. Residents engaged with and commented on this information through photos and interactive maps on the Vision Study website. Numerous presentations to residents provided additional opportunities for sharing and learning.

A Working Group of local landowners along the River, community leaders, scientists, engineers, and planners, synthesized public input gathered in winter 2016 to develop Goals and Recommendations, as well as a list of Potential Projects that would meet the community's desires for the River. The Potential Project list was refined and prioritized in spring 2016, following additional community input.

By engaging the public throughout the process, the Vision Study Working Group was able to identify issues important to the public and develop recommendations likely to succeed. Overall the Working Group strived to create a vision that accurately describes the community's needs and inspires its support.





# Public Involvement

Extensive efforts were made to involve the public throughout the duration of the visioning process. Thousands of community members participated and provided valuable input and insights about the Portneuf River's history, current conditions, and possibilities for the future.

## Summary of public engagements

### ***Presentations Given (over 600 attendees):***

- Bannock Civitans
- Pocatello City Council
- Centennial Rotary Club
- City staff
- Gate City Rotary Club
- Idaho Museum of Natural History (2)
- Levee residents
- MILES Adventure Learning teachers
- NeighborWorks Board
- New Knowledge Adventures (2)
- Old Town residents (2)
- Parks and Recreation Advisory Board
- Pocatello Rotary Club
- Sagebrush Steppe Land Trust Board
- Valley Pride

### ***Events (over 500 people engaged):***

- Welcome Back Orange and Black
- Portneuf Valley Environmental Fair
- Irving Middle School Science Fair

### ***Open Houses (over 150 attendees):***

- February 2016
- May 2016
- October 2016

### ***Online Surveys (over 1000 participants)***

- February 2016
- May 2016

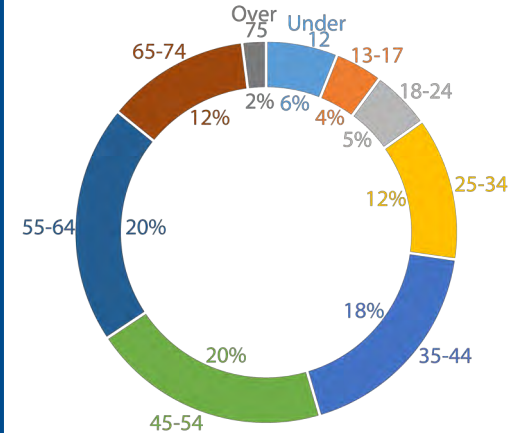
### ***Press and Additional Outreach:***

- Stakeholder Assessment
- Working Group of stakeholders
- Website and interactive map development
- 2000 flyers hung on Old Town resident doors for the 1st two Open Houses
- Letters mailed to levee residents
- Newspaper ads for each Open House
- TV ad for the 1st Open House
- Local newspaper, TV and radio coverage
- Email and social media engagement
- River Gathering and temporary art installations
- One-on-one conversations

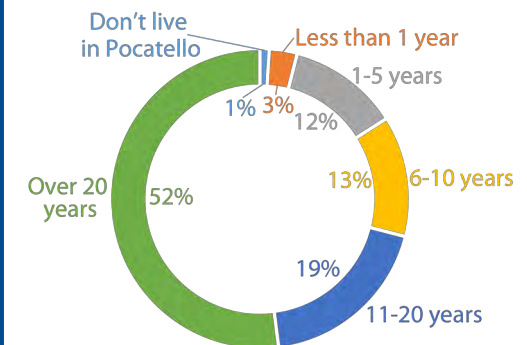


## Visual Preference Survey Demographics

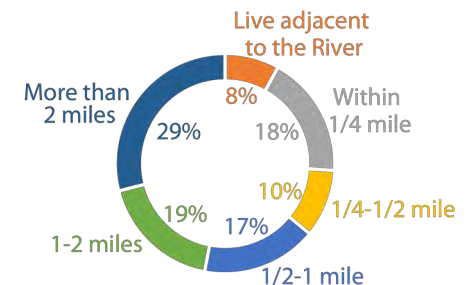
### How Old Are You?



### How Long Have you Lived in Pocatello?



### How close do you live to the Portneuf River?





# Desired Future

Consistently throughout the visioning process, residents of the Lower Portneuf Valley prioritized a future for the Portneuf River that improves water quality and ecosystem health and enhances recreation and access to the Portneuf.

Local residents want a healthy river and riparian ecosystem, with diverse recreational opportunities. Residents want trails for walking and biking as well as natural areas for viewing wildlife. Other important values include flood control, safety, and planning and development. While perceptions and rankings of various Potential Projects showed some variation between community members, there was significant consistency regarding future direction.

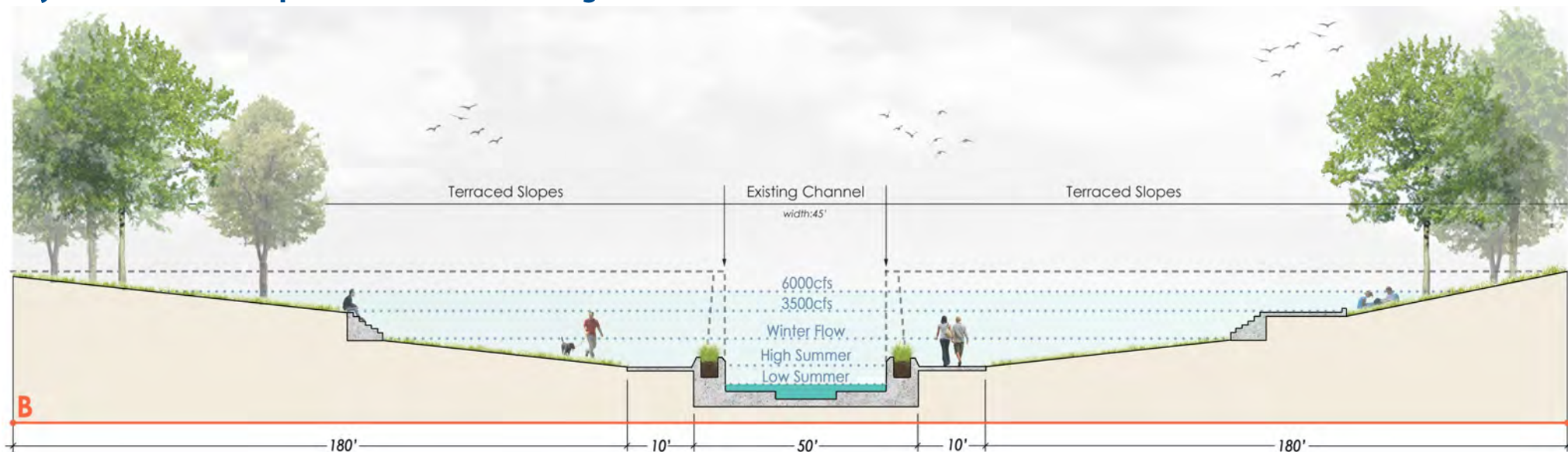
Specifically, community members feel that the City should improve the health of the Portneuf River ecosystem and increase river access and recreation opportunities, while taking care to ensure that implemented projects are feasible and fit with local community and ecosystem conditions, including winter flood events, low-water summer flows, water quality concerns, and financial and landownership constraints.



## Top Community Priorities:

1. *Water Quality and Ecosystem Health*
2. *Recreation and Access*

## Raymond Park Concept Cross Section, looking downstream

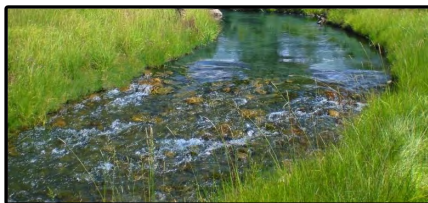




# Ecosystem Health

The future Vision of the Portneuf River is to restore a functioning River corridor that provides sustainable habitats, increases the amount of floodplain, improves water quality, and connects users with the River. In order for the Vision to be realized, natural river functions must be restored.

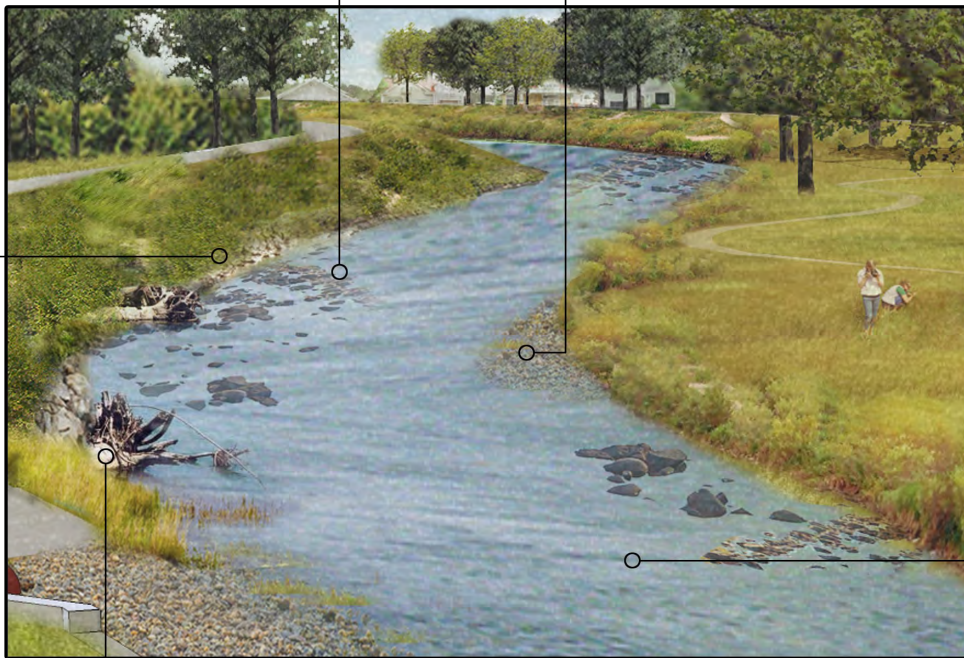
**Riffles**—Area of elevation change with swift currents that provide oxygen, critical fish spawning habitat, and aquatic insects for fish to eat.



**Point Bars**—Occur on the inside of meanders formed by the deposition of sand and gravel. Point bars offer access to the River and spots to land canoes and kayaks.



**Bioengineered Banks**—Dense plantings of native grasses, shrubs, and trees used to stabilize streambanks.



**Deep Pools**—Deeper areas of the stream that offer refuge for fish during warm weather periods and make ideal fishing spots.



**Large Woody Debris**—Helps stabilize riverbanks and provide important habitat for fish and aquatic insects.

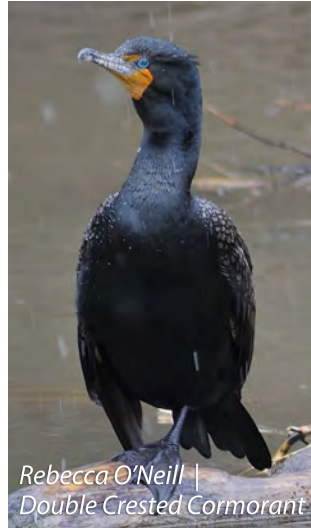


# Recreation and Access

Residents re-envisioned the future of the Portneuf River as a vibrant and valuable regional resource for all citizens to enjoy.

Popular activities include:

- Wildlife and nature viewing
- Wading
- Fishing
- Floating/tubing/kayaking/SUPing
- Biking
- Walking
- Picnicking
- Playing with family and friends
- Relaxing





# Guiding Principles

In accordance with community preferences, the Vision Study is based on four guiding principles:  
**1) ecosystem health; 2) access and recreation; 3) community engagement; and 4) economic development.**

## **Guiding Principle 1: Ecosystem Health**

As a long-term goal, the River's ecological and hydrological functions can be restored through restoration of the riparian corridor and floodplain, including removal/modification of the concrete channel through Pocatello, where feasible. Alternatives for flood risk management would be necessary to protect and maintain urban development, but removing the concrete channel would provide long-term benefits to the entire River corridor. Additionally, improvements to urban runoff and upstream water quantity and quality are critical for improving ecosystem health and associated recreational opportunities within the Vision Study area.



## **Guiding Principle 2: Access and Recreation**

Creating and extending safe public access to the Portneuf River would benefit the entire Portneuf River Valley. This includes a continuous greenway linking a series of non-motorized paths to the River, public open space, residential areas and downtown. Signage, bridges, and other such elements could help revitalize the community's perceptions of the River. Key components include visual, walking, and boating access to the river itself.





### **Guiding Principle 3: Community Engagement**

As recommendations are adopted and implementation begins, residents should participate in the community planning process to identify land uses (e.g., recreation, commercial development, or open spaces) appropriate and compatible to specific project areas.



### **Guiding Principle 4: Economic Development**

Vision Study recommendations should improve the quality of life for valley residents, enhance the attractiveness of Pocatello as a place to live and work, and increase economic prosperity.

Core elements of this idea include community empowerment by encouraging participation and consensus-building; creating opportunities for sustainable economic reinvestment; and adding value and providing an equitable distribution of opportunities to underserved neighborhoods along the Portneuf River.





# Goals and Recommendations

## *Guiding Principle 1: Ecosystem Health*

### **Goal 1.1 Appropriate Flood Risk Management**

- The City, in partnership with the Corps, will not permit improvements that compromise existing flood risk management.
- Pursue non-structural measures such as increasing floodplain acreage upstream of the City, and implement land management practices that reduce winter runoff.
- Onsite stormwater management through natural landscape features and green stormwater infrastructure (e.g. infiltration swales, gravel trenches and permeable pavement). Effectively managing stormwater onsite involves capturing, filtering, and slowly infiltrating stormwater into the ground.
- The City and Working Group recommend a reassessment of current flood control requirements along the Federal flood control channel.

### **Goal 1.2 Restore and Protect the Portneuf River Ecosystem**

- Protect and increase River channel complexity and cover, including the establishment of riffles, pools, runs, and/or a natural stream bottom, wherever feasible.
- Reduce stream width and establish low-flow channels where possible.
- Protect and increase the floodplain and wetland and riparian habitat areas, including setting back levee and channel walls and/or re-establishing stream meanders.
- Remove exotic and invasive vegetation. Plant native species to promote healthy stream function and improve the aesthetic nature of the River corridor.
- The City and Working Group recommend pursuing a levee vegetation variance from the Corps to allow more flexibility with the type of vegetation that can be planted along levee sections of the Federal flood control project. Currently, vegetation is limited along the levees, as required by Federal law.

### **Levee Setback Concept for Rainey-Centennial Park**







Confluence of Marsh Creek with the Portneuf River

Portneuf River

Marsh Creek

### Goal 1.3 Improve Water Quality and Flow

- Implement urban and agricultural land management practices to reduce the amount of sediment and other pollutants in runoff water.
- Filter fine sediments and other pollutants from stormwater and agricultural runoff with infiltration swales, constructed wetlands, and other measures.
- Reduce stream temperature by enhancing vegetative stream cover. Restoring vegetation within the federal flood control project will require additional flood capacity unless the current 6,000-cfs flow requirement is reduced. Introducing vegetation in the River bottom, for example, will require an expanded channel capacity.
- Increase in-stream flows to improve water quality and support beneficial uses of the River, including ecological systems, in-stream recreation, and aesthetics.
- Increase beaver populations, where suitable. Beavers regulate water flow and help create wetland environments for other wildlife. Wetlands are considered nature's "kidneys."

### Goal 1.4 Integrate Stormwater and Groundwater Management With the Vision

- Plan for aquifer recharge in select locations.
- Plan for regional and/or localized stormwater treatment and infiltration along the River corridor.



City of Pocatello | MLK Ave. Stormwater Swale

Learn more  
[river.pocatello.us](http://river.pocatello.us)

*At Pocatello [the Portneuf] averages about 30 feet wide, 6 inches deep and flows about 1½ feet per second. There are many deep holes or pools with sand bottom, while in the shallower reaches the bottom is of gravel and the current is more swift. The water is rather clear and cool. There appeared to be very little algae or other water vegetation in this stream. The banks were covered with a dense growth of willows, while back from the stream a short distance on either side are sagebrush plains.*

*The Portneuf River at the mouth of Mink Creek is a clear, cool stream with gravel and lime-deposit bottom in the shallower parts and mud and sand where deeper and more quiet*

*(Bulletin of the United States Fish Commission, 1894).*



## Guiding Principle 2: Access and Recreation

### Goal 2.1 Extend and Connect Greenway Trails and Open Space Along the River

- Explore and implement creative solutions for non-motorized Greenway trails within and along the River, where feasible. The Vision Study strongly supports completion of the Portneuf River Greenway to connect downtown Pocatello with parks along the River.

### Goal 2.2 Connect Neighborhoods, Shopping Areas, and Trail Systems to the Portneuf River

- Implement road, sidewalk, trail, park, landscaping, and signage recommendations from the Portneuf Valley Bicycle Plan and the Old Town Revitalization Plan.
- Improve existing and add additional pedestrian and bicycle bridges across the River and railroad in suitable locations.
- Provide consistent directional signage to, and along, the Portneuf River.

### Goal 2.3 Enable Safe Public Access

- Create River access at public parks adjacent to the River. Appropriate measures may include endorsing common design standards for channel modifications (e.g., stepped or terraced access, ramp intervals, and safety fencing). This will allow people to reach the water's edge and easily exit in the event of a flood.
- Install launch and take-out facilities for various boating and floating watercraft along the River. These facilities will be developed with safe, flexible, functional, and ADA-compliant designs that meet user needs at various flow levels.
- Within the concrete channel, provide safe entry and exit points where feasible.
- Establish a flood warning system in the event of high flow conditions.
- Ensure ADA-compliant accessibility to the River.
- Ensure existing flood risk management capability is maintained.



**Water Trail Access Concept For Raymond Park**



### Goal 2.4 Increase Recreational Opportunities

- Modify select riverfront property to create a variety of public spaces, including natural areas, grassy parks, and recreational facilities. Recreational facilities should respond to specific neighborhood needs, but fit with River habitat restoration plans. Riverfront parks should seek to improve water quality by using best management practices and treating stormwater onsite.
- Establish a water trail for tubing, canoeing, etc., with multiple boat launches and take-outs. Discontinuous trail segments, fractured by hazards and the lack of launches and take-outs within the River, currently prevent users from enjoying a continuous trip on the Portneuf River.
- Establish swimming areas, fishing holes, and kayak/stand up paddle board parks.



### Goal 2.5 Incorporate Educational Resources

- Install interpretive signage, incorporating natural or cultural information.
- Modify select riverfront property to support use as an outdoor classroom for student engagement with the Portneuf River. Several schools are within close walking distance, and this offers the potential to create joint-use parks and outdoor classrooms to provide the schools with space for ecological class- and fieldwork (e.g., water quality monitoring).
- Improve transportation options, including non-motorized paths, between the Portneuf River (and its tributaries) and local schools. All cross-connections between the community and the River should ensure safe accommodations of multiple modes (motorized traffic, pedestrians, and cyclists, etc.).

### Goal 2.6 Incorporate Public Art and Signage to Celebrate the Natural and Cultural Heritage of the Portneuf River

- Heighten awareness of the River corridor by using signature elements (e.g., signage, gateways, and innovative bridges).
- Facilitate public art projects along the River corridor that celebrate the Portneuf River, create a sense of place, and integrate with the surrounding environment. The identity and awareness of the River within the community can be improved by encouraging, supporting, and maintaining art that improves the beauty of the River setting and inspires people.





*Our vision is to restore the Portneuf River corridor in order to revitalize environmental, recreational, and economic opportunities while increasing community pride, connectivity, and quality of life.*



**Raymond Park Concept, looking downstream**

## ***Guiding Principle 3: Community Engagement***

### **Goal 3.1 Make the Portneuf River a Focus of Activity**

- Design riverfront space for multipurpose use that will support diverse community events and activities. River parks and spaces should be designed to improve the River corridor. When possible, park land adjacent to the River should be used to expand the River's floodplain. Recreation facilities should respond to specific neighborhood needs, balanced with water quality and the restoration of wildlife habitat.
- Support events and activities that bring residents in contact with the Portneuf River. Event programming can help improve public perception of the River. Both regional and local event planning can enliven the community and provide new visibility and attention to the River.

### **Goal 3.2 Engage Residents in Project Planning and Implementation**

- Capture community River history and values at the beginning of the planning process.
- Engage with riverfront residents in their neighborhoods and in partnership with neighborhood organizations.
- Provide multiple opportunities and levels for residents to engage in project planning and implementation.
- Prioritize engagement efforts with citizens from neighborhoods near the River.



# Guiding Principle 4: Economic Development

## Goal 4.1 Improve Public Health and Quality of Life

- Develop events and programs that encourage physical activity along the River corridor.
- Design riverfront space to facilitate walking and biking for recreation and transportation. Neighborhood walking and biking loops can assist with making the River a continuous route safely connecting users to recreational opportunities.



Portneuf Greenway Foundation | Roger's Reach

## Goal 4.2 Increase Employment, Housing, and Retail Space Opportunities

- Incentivize development projects that increase pedestrian activity, reduce crime, and increase property values.

## Goal 4.3 Promote Public and Private Riverfront Development and Open Space Acquisition in Suitable Areas

- Identify parcels suitable for open space acquisition or development. The Greenway should expand by acquiring new open spaces that, where feasible, can be restored. Areas outside of the River corridor should be explored by protecting, reclaiming, and restoring them as parks and open space that connect wildlife habitats.
- Develop and implement standards for streamside buffers based on land use and streamside conditions. Buffers should be applied to all new open

space or park lands created along the River. Buffers provide multiple benefits, including recreation and water quality improvements.

- Incentivize mixed-use development opportunities (industrial, retail, residential) in suitable areas (e.g., density bonuses, expedited approvals, or relocation requirements and benefits, etc.).
- Develop and implement complementary and sustainable design standards for riverfront neighborhoods. Improving standards near the River will benefit the City through improved River health and quality of life. Good development practices can mitigate impacts on habitat and water quality in both existing communities and new development areas.
- Retain and celebrate neighborhoods and community history through context sensitive development.

## Goal 4.4 Focus Attention on Affordable Neighborhoods Along the River

- Prioritize projects that improve linkages between housing, transportation, and parks along the River.
- Plan and implement projects in a socially, culturally, and geographically equitable manner.
- During project planning, ensure areas with lower-income populations receive opportunities and amenities consistent with higher-income areas.



Craig Kuhner, Sasaki Associates Inc. | Wilkes-Barre Riverfront, PA



# Potential Projects

During the planning phase of the Vision Study, many potential projects were identified and prioritized by the community.

Achieving the long-term goal of restoring the Portneuf River riparian corridor and ecological function may take generations to achieve. In the meantime, the Vision Study recommends identifying and phasing improvements for the short-term in order to maintain momentum and demonstrate ecological and public-access benefits of long-term restoration.

**Short-Term Projects** - are defined as those that could be designed, developed, and executed within 5 years following completion and adoption of the Vision Study. Short-term projects are typically those with fewer legal or real estate constraints and are less costly to construct, operate, and maintain than long-term projects.

- 1. Portneuf River Water Trail and River Clean-Up**
- 3. Portneuf River Streambank Restoration**
- 4. Tributary Stream Restoration**
- 10. Rainey-Centennial Parks**
- 16. Sacajawea Park**
- 19. West Side Parks**
- 20. Simplot Trailhead**
- 22. Install Signage and Wayfinding to the Portneuf River and Access Points**
- 23. Concrete Channel Art and Seating**

**Long-Term Projects** - are those requiring greater planning, design, and development to complete. They are anticipated to take anywhere from 5 to more than 20 years to implement. Long-term projects are those with greater legal or real estate constraints, and more costly to construct, operate, and maintain than proposed short-term projects.

- 2. Greenway Extension**
- 5. Church Farm**
- 6. Historic Meanders**
- 7. Country Club**

- 8. Levee Setbacks**
- 9. Ross Park**
- 11. Concrete Channel Streambank Restoration and Greenway**
- 12. Concrete Channel Greenway Trail Extension (street level)**
- 13. Center Street Riverfront Shopping Area**
- 14. Memorial Park**
- 15. Raymond Park**
- 17. Pacific Recycling Trailhead**
- 18. Zweigart Park**
- 21. Add Pedestrian/Bicycle Bridges across Railroad and River**

**Additional Projects** - In addition to the short-and long-term projects, several additional projects were proposed. These projects support the Guiding Principles and Goals, and consist of additional planning studies, policy creation, continued actions, and determinations from federal agencies. They should be considered as time and funding allows. Some of these projects are already in progress.

- 24. Seek Levee Vegetation Variance**
- 25. Develop a Portneuf River Zoning Overlay District**
- 26. Reassess Current Flood Control Project Capacity Requirements**
- 27. Reduce Volume of Urban Runoff Water Flowing into the Portneuf River**
- 28. Increase In-Stream Flows Using Water Bond Funds**
- 29. Identify and Purchase Greenway Easements and Flood-Prone Homes from Willing Sellers**
- 30. Improve Upstream Water Quality**





Rebecca O'Neill | Yellow Warbler, Edson Fichter Nature Area

*The Portneuf Vision Study is intended to be a living plan, responsive, to evolving scientific understanding and changes in community attitudes and preferences.*



Wenk Associates | Steamboat Springs Burgess Creek Promenade



City of Pocatello | Ammon Park



Rebecca O'Neill | Coyote, Sacajawea Park



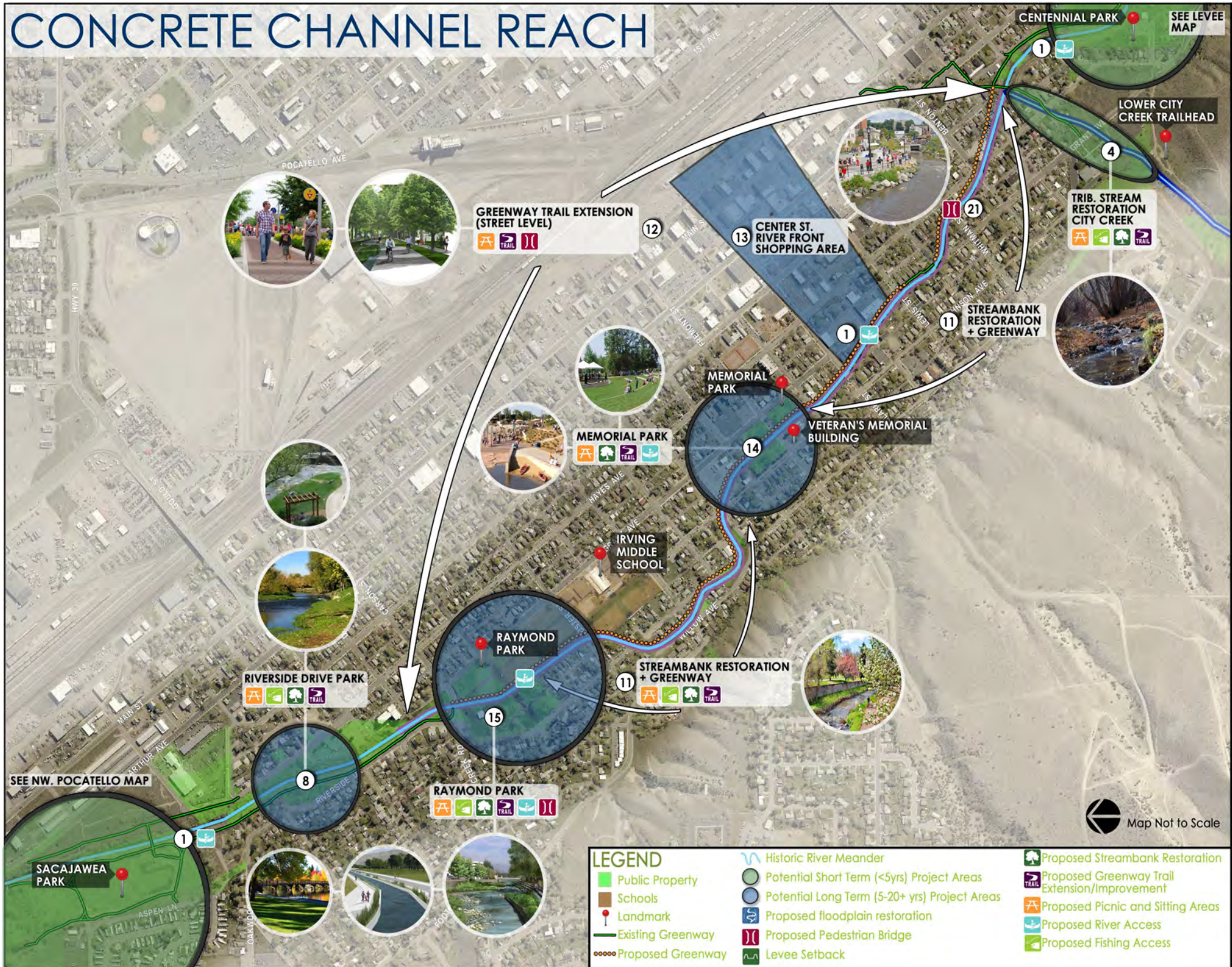


# NORTHWEST POCATELLO REACH





# CONCRETE CHANNEL REACH



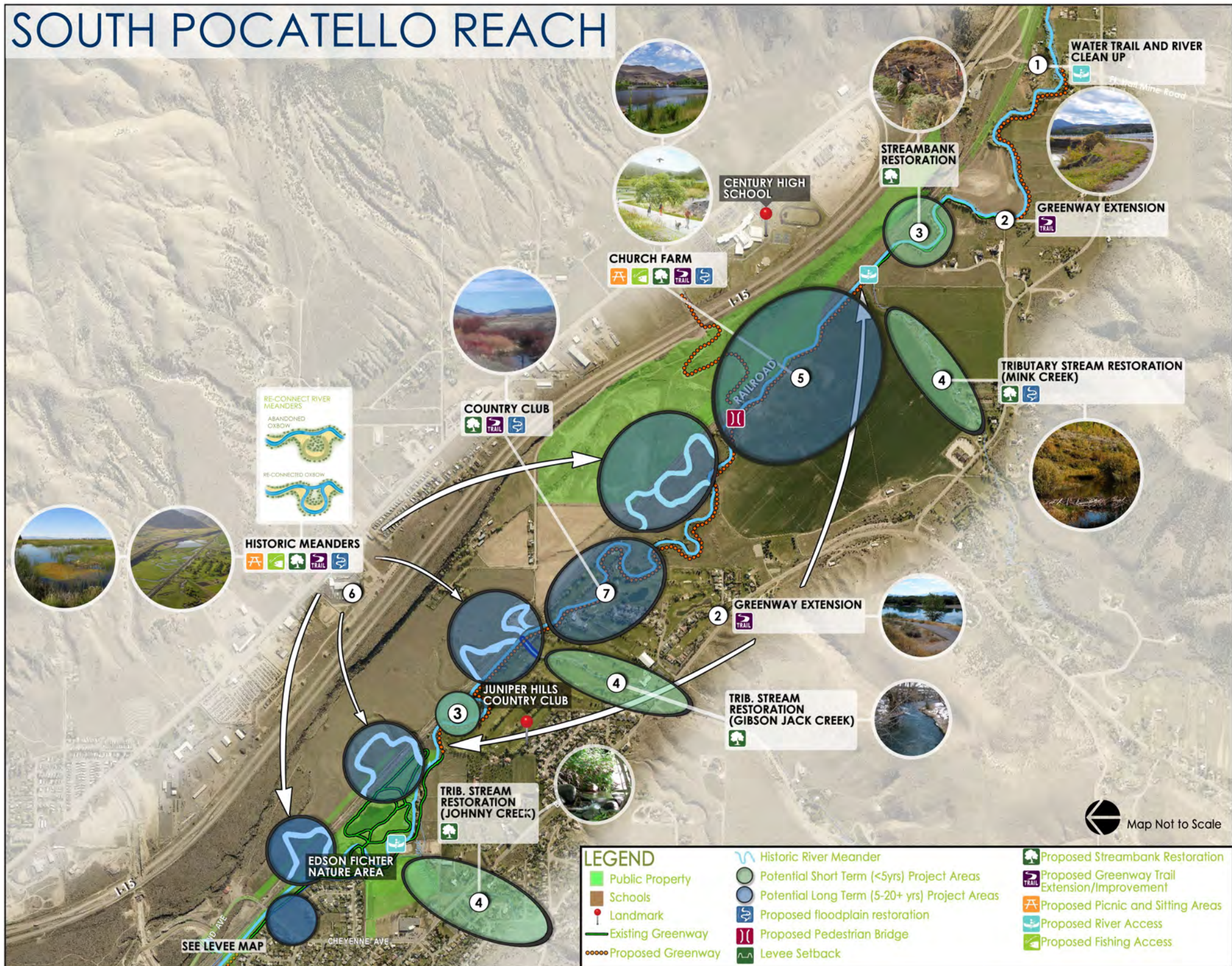


# LEVEE REACH





# SOUTH POCAATELLO REACH





# Priority Projects

Once a cohesive list of potential projects had been generated, community members voted for their top priority projects and the Working Group analyzed how well each potential project aligned with the Guiding Principles, Goals, and Recommendations of the Vision Study. The following projects rose to the top:

## Short-Term Projects

**1. Portneuf River Water Trail and River Clean-Up**—Develop a water trail for canoes/kayaks and other non-motorized watercraft with a series of accessible put-ins, take-outs, and other necessary infrastructure (parking lots, restrooms, etc.) from Fort Hall Mine Road to the Fort Hall Indian Reservation Boundary near Siphon Road. Remove debris jams, trash, fallen logs, and other obstructions that currently create hazards and impede travel along the Portneuf River.

**3. Portneuf River Streambank Restoration**—Restore eroded streambanks and plant native vegetation along degraded areas of the Portneuf River in the Study area. Develop and implement a phased approach to removing invasive vegetation and restoring degraded streambanks.

**10. Rainey-Centennial Parks**—Setback levees to create room for water trail access, fishing, riparian habitat and floodplain restoration, a seasonal wetland, Greenway trail extension, neighborhood connections, interpretive and educational signage, and picnic area development.

**16. Sacajawea Park**—Create canoe and tubing access points, reconnect the River with historic meanders at the north end of the park, and restore eroding streambanks. Improve parking, picnic areas, signage, and neighborhood connections.

**22. Install Signage and Wayfinding to the Portneuf River and Access Points**—Develop and install wayfinding and signage, including maps and directional markers to introduce, educate, and guide users to the Portneuf River and its associated amenities.



Marjanna Hulet | Portneuf River Cleanup



Land Planning and Design Assoc. | Downing Farm Canoe Launch, Warren County VA



# Long-Term Projects

**2. Greenway Extension**—Develop a continuous Greenway from Fort Hall Mine Road to the Fort Hall Indian Reservation boundary by Siphon Road. Creativity with alignment and design will help reduce adverse impacts to the natural environment and the privacy and property rights of homeowners along the River. Along the levees and concrete channel, trails could be at street level, on top of levees, or within the levees and concrete channel where feasible.

**6. Historic Meanders**—Return the river to its historic channel east of the railroad tracks in the southern part of the valley, north of the old Highway Pond. Prior to construction of the railroad, these meanders of the Portneuf River provided valuable riparian and aquatic habitat as well as floodplain access. Installing culverts to pipe the River under the railroad tracks (and back) and into the historic meanders would give the River access to the floodplain and would create valuable fish and wildlife habitat.

**8. Levee Setbacks**—Relocate the levees back from the River's edge to encourage natural floodplain processes (e.g., floodplain storage, river meandering, and riparian habitat establishment). Several locations along the existing levees have potential for levee setbacks, including from the South Valley Connector to Tech Farm Road, through Riverside Golf Course, and along Riverside Drive.

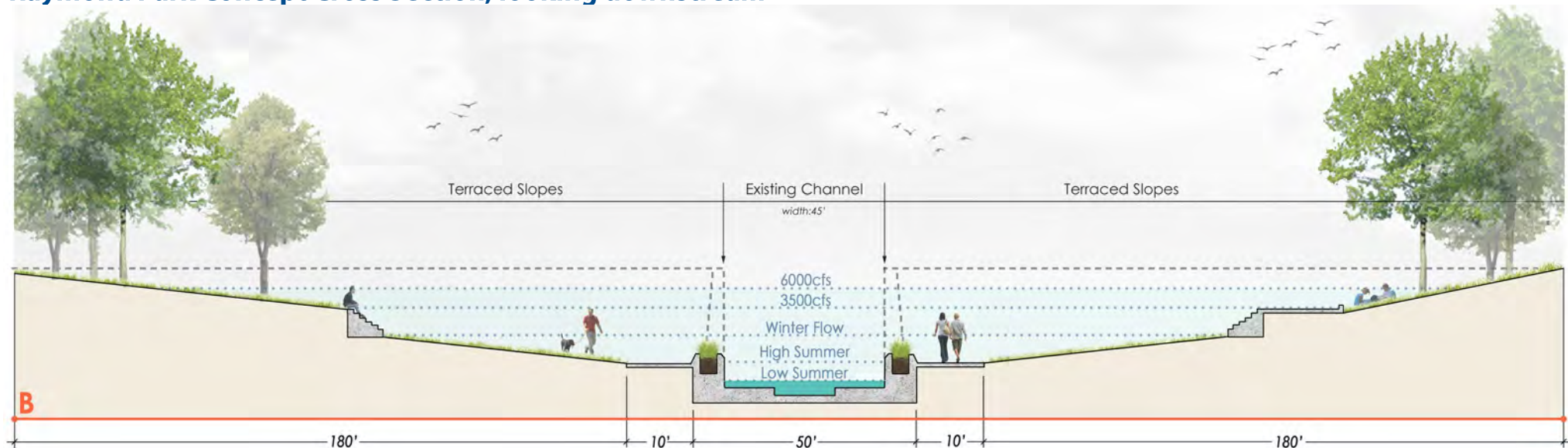
**11. Concrete Channel Streambank Restoration and Greenway**—Construct a meandering low flow channel, with natural stream characteristics (e.g., riffles, runs, pools), within the concrete channel. Install riparian plantings on wide overbanks and add containerized plantings. Create a recreation trail along the River's edge that may be closed for safety reasons during high flow events.

**13. Center Street Riverfront Shopping Area**—Develop a mixed-use district with gathering spaces and outdoor café tables facing the River near Center Street. Connect the Portneuf River to Old Town Pocatello with a pedestrian mall or similar feature.

**14. Memorial Park**—Modify the concrete channel and existing park to accommodate an amphitheater, picnic areas, water trail and River access, and an extension of the Greenway. The park and its associated features may be closed for safety reasons during high flow events.

**15. Raymond Park**—Modify the concrete channel and Raymond Park to provide access to the Portneuf River. Create an amphitheater, picnic areas, splash pad, water trail, and River access points. Extend the Greenway trail along the River edge.

## Raymond Park Concept Cross Section, looking downstream





# Additional Projects

**24. Seek Levee Vegetation Variance**—Apply for a levee vegetation variance from the Corps. Currently, the City is required to remove vegetation from the levee portion of the flood control project. If a variance is approved, the City would be allowed to grow specific types of riparian vegetation on the levees. Additional existing levees could be modified to allow vegetation to be planted on the landward side of the levee, in accordance with Corps levee vegetation regulations.

**25. Develop a Portneuf River Zoning Overlay District**—Enact zoning regulations along the river that support implementation of the Vision Study goals.

## **26. Reassess Current Flood Control Project Capacity**

**Requirements**—Request the Corps to reassess flood risk and capacity requirements to determine if the current level of protection required is still appropriate. Currently, the City of Pocatello is required to maintain the flood control project to safely convey flood flows of 6,000 cfs. According to the Annual Peak Discharge Frequency Curve developed by the Corps, the 6,000-cfs is a 500-year event for the Portneuf River at Pocatello, while a 3,300-cfs flood event is equivalent to the 100-year flood.

## **27. Reduce Volume of Urban Runoff Water Flowing into the Portneuf River**

—Seek opportunities to keep urban runoff (stormwater) out of the Portneuf River wherever possible, and to improve its quality.

**28. Increase In-Stream Flows**—Continue to actively purchase available water rights. Pursue all available mechanisms to keep water within the Portneuf River to support fish and other aquatic species, and to improve recreation opportunities.

## **29. Identify and Purchase Greenway Easements and Flood-Prone Homes from Willing Sellers**

—As willing sellers are found, purchase homes and property prone to frequent flooding. Additionally, work with willing sellers to purchase Greenway trail easements.

**30. Improve Upstream Water Quality**—Continue collaboration and support of environmental improvements along Marsh Creek and other tributaries to reduce sediment load and pollutants from being deposited into the Portneuf River upstream of Pocatello.





# Implementing the Vision

Ongoing engagement and support from landowners, government agencies, and many community members and organizations will be required if the Vision Study's recommendations are to come to fruition.

Implementation of the Vision Study's recommendations is intended to occur over time as funding and opportunities arise. It is anticipated that many interested and invested parties will work together to help implement the recommendations. Additionally, environmental review, documentation, and permits will be required. For example, projects that seek to alter the original flood control project will require extensive coordination with the Corps.

Funding for projects listed within this study document is likely to come from many different sources. It is unlikely that any one entity can bear responsibility for even a single project.

## Essential steps for implementation are straightforward

- Develop a Vision;
- Draft an Implementation Plan;
- Identify necessary human and financial resources;
- Implement through ongoing community involvement and support.

## Pre-Conditions for Implementation

- Support and leadership from the City of Pocatello's Mayor, City Council, and leadership staff;
- A project manager and organizational entity (governmental or non-governmental) to coordinate necessary planning, engineering, community engagement, fundraising, construction, etc.;
- Technical support from a Mayor's advisory committee and/or non-profit organization;
- Continued community support, including volunteerism;
- Concept plans and engineering designs (with community input), grant writing, any necessary land acquisition, and construction;
- Funding and land;
- Continued comprehensive planning for the Portneuf River, including tributaries, water quality, and certain land use planning and policy-making to establish long-term improvements that move the community toward an integrated watershed approach.

## Implementation Recommendations

### *Bannock County Commissioners*

- Adopt the Portneuf River Vision Study via resolution.

### *Pocatello City Council*

- Adopt the Portneuf River Vision Study via resolution;
- Declare its intent to have the City of Pocatello spearhead implementation of the Vision Study's goals and recommendations, as funding and other resources allow;
- Direct the Mayor to allocate sufficient staff resources for project management of the implementation of the Vision Study;
- Ensure City staff leadership understands and supports the Portneuf River Vision Study, and ensure other City operations/activities are not in conflict with the Vision Study's recommendations;
- Create a Mayor's advisory committee to provide technical assistance with activities such as assist project planning, design, and outreach. Committee members, appointed by the Mayor, should include balanced representation from groups with interests in environmental, recreational, and development opportunities. The committee should include scientists, conservationists, recreational advocates, community leaders, planners, economic development specialists/business owners, and neighborhood representatives.

### *Existing non-profits:*

- Identify projects where they can take the lead, solicit funds and volunteers, purchase land and easements and/or advocate;
- Identify how they can best work with the City and evaluate the need for a dedicated 'Friends of the River' non-profit.



# Acknowledgements

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**View the Portneuf River Vision Study and its supporting documents at: <http://river.pocatello.us>**

