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MEMORANDUM

To: Town of Truckee, R2SC River Health and Access Action Team

From: Design Workshop, Stephanie Grigsby

Date: 10/30/2024

Project Name: Truckee Downtown River Revitalization Action Plan

Project #: 7378

Subject: Revised R2SC River Health and Access Action Team River Health Opportunities and Considerations

Copy To: Balance Hydrologics and Catherine Schnurrenberger

This memo summarizes the meeting information, discussions, considerations, and opportunities developed by the River Health and Access Action Team (RHA Action Team). The opportunities come from a series of publicly noticed meetings held from April 25, 2024, through October 10, 2024. Edits have been incorporated to reflect the comments and feedback from the River Revitalization Steering Committee (R2SC) made during the October 1, 2024, Steering Committee meeting and discussed by the RHA Action Team on October 10, 2024.

During this series of meetings, the RHA Action Team received presentations and comments from:

- Balance Hydrologics and Catherine Schnurrenberger
 - Baseline Hydrology and Ecology Assessment (presented May 9, 2024, and June 10, 2024)
 - Truckee River Downtown Ecological Features Assessment memo and recommendations (presented September 13, 2024)
- Town of Truckee Stormwater Program
 - Regulatory background, Town stormwater monitoring data, and Town stormwater infrastructure (presented August 8, 2024)
- Whitewater Park proposal (presented August 8, 2024)
 - Truckee River Whitewater Park Feasibility report (2022, AECOM)
 - Whitewater Park Studies “Research Results and Design Guidelines (2018, Colorado Parks & Wildlife).
- Truckee River Chapter of Trout Unlimited
 - Recommendations for the Truckee River within the R2SC Study Area (shared with RHA Action Team, August 5, 2024)
- Truckee River Legacy Foundation
 - Recommendations and ideas for river health and access (shared with RHA Action Team, August 6, 2024)

As an outcome of the presentations and discussions, the RHA Action Team agreed that the enhancement recommendations summarized in the Truckee River Downtown Ecological Features Assessment memo (September 18, 2024) should be incorporated into the opportunities the RHA Action Team presents to the River Revitalization Steering Committee (R2SC) for discussion and potential incorporation into the overall Truckee River Downtown Revitalization Action Plan.

The maps accompanying this memo incorporate site-specific opportunities identified both in the Ecological Features Assessment report and by the RHA Action Team. In addition to the site-specific opportunities, the Ecological Features Assessment report and the RHA Action Team also identified a series of opportunities that apply throughout the river corridor. Those opportunities are summarized in this memo.

1.0 Guiding Principle

The RHA Action Team appreciated that the ecological baseline presentations and report began with the below 2040 General Plan guiding principle related to the Conservation and Open Space Element. This principle informs the RHA Action Team's considerations.

“Preserve and expand the quality and quantity of natural systems in Truckee by promoting aquatic and terrestrial biodiversity and by implementing environmental, ecological, and conservation-minded strategies”.

2.0 River Health and Access Enhancement Opportunities

2.1 Six Categories to Support the Guiding Principle. The enhancement opportunities are organized into six categories: floodplain restoration and protection, stormwater management and monitoring, vegetation enhancement, wildlife habitat connectivity, managed access, and bike and pedestrian connectivity. For each category, the RHA Action Team discussed a series of opportunities that relate both to the entire corridor and to specific opportunity sites. The site-specific opportunities are not intended to bind a property owner to any particular action. Rather, they are presented for consideration as properties are redeveloped in order to work toward the guiding principle stated above.

2.2 Mapping Includes Donner and Trout Creeks. The mapping associated with the opportunities was expanded to show the Truckee River corridor from SR 89 to SR 267. The increased site context incorporates the RHA Action Team's recommendation to incorporate Donner Creek and Trout Creek as bookends for the corridor. It was discussed that each creek and its confluence with Truckee River present priority opportunities for water quality protection and enhancement. Both tributaries represent high quality riparian areas that could provide open space with managed access on both ends of the corridor.

2.3 Upstream Impacts Need to be Considered. When discussing the river corridor, it was also noted that roads and development located upstream (e.g., Interstate 80) impact river health. Although outside of the immediate study area, the RHA Action Team supports efforts to reduce sediment runoff from the upstream locations and supports increased monitoring of those locations.

2.4 Recommendations Could be Higher Than CEQA and Other Regulatory Requirements. Many of the recommendations identified in this memo align with project approval requirements from CEQA and other regulatory requirements. Where additional enhancements are desired, such as removing fill in the floodplain and incorporating managed access points, incentives can be used to encourage property owners to implement those elements into projects.

2.5 Access Management and Maintenance. River access and trail alignments in the river corridor should be adaptively managed and maintained to minimize adverse impacts to riparian resources. Adaptive management is an approach used by land managers to evaluate and adjust strategies based on a set of defined performance indicators and thresholds. Tactics to address undesirable user behaviors are implemented, evaluated, and adjusted on a regular basis. For example, if the number of user-created trails exceeds a defined limit of disturbance, vegetative or physical barriers can be put in place. These strategies should be applied to access points on both the north and south side of the river and from the Legacy Trail. Where monitoring shows that social trails or user-created trails impact sensitive resources, measures should be taken to restrict river access and direct use to more desirable access locations.

2.6 Opportunities are Noted on Six (6) Maps. The site-specific opportunities summarized below reflect the discussions and feedback from the RHA Action Team. The opportunities and the recommendations from the Truckee River Downtown Ecological Features Assessment (2024, Balance Hydrologics) are summarized on the attached maps. Note that although the items below each category are numbered, the number does not indicate priority. It is included for ease of reference and discussion.

2.7 Decision-Making Criteria for Managed Access. Managed access can be incorporated into restoration actions with enhancement of stabilized access points and avoidance of sensitive communities and processes.

Access does not always need to be physical access. Viewpoints which allow community members to visually engage and appreciate the river while limiting physical access can be encouraged where physical access would impact riparian resources and habitat.

In general, fewer access points are identified along the north side of the river than the south side of the river. Along the north side, access should be coordinated with willing property owners and primarily align with existing access locations and/or with existing or new bridge crossings. Access along the south side of the river is anticipated to occur at more locations.

(Draft considerations are below for review and discussion. Note that criteria that is more objective versus subjective is helpful during permitting and approvals.)

When making decisions about access, either on the north or south sides of the river, these points should be considered:

1. Manage access while protecting riparian resources.
2. Reduce access or dissuade use where there is significant or notable erosion and degradation of riparian vegetation and habitat. For example, access should be

limited where there are sensitive riparian areas, or a condition of approval for future development projects would be to help promote riparian vegetation where appropriate.

3. Preferred access locations are those areas people are already using.
4. Consider designing and providing managed access to the river at pedestrian/bike bridge locations while mitigating and directing use to desired areas.
5. Consider trail connections and alignments when riparian and floodplain can be preserved and there are no wildlife corridor impacts.

2.8 Compliance Monitoring for the River Health and Access Recommendations in the R2SC Action Plan. We recommend staff and council members implement processes to monitor whether or not the recommendations of 1) the R2SC Action Plan are being implemented and 2) the recommendations/considerations of the RHAAT are being implemented, in particular the decision-making points regarding access.

2.9 Floodplain Restoration and Protection

- Corridor-wide Recommendations:
 1. Remove fill to expose floodplain soils to help promote riparian habitat and hydraulic connectivity.
 2. Stabilize banks using bio-engineered approaches.
 3. Reconnect river hydrology with the floodplain.
 4. Enhancements should not negatively affect flows or instream biota across all seasons.
 5. Reconnect to historic channels; for example, water could be directed to the channels via downed trees.
 6. Approach should reflect the current flood regime with a goal of having a more natural floodplain.
- Site Specific Opportunities:
 1. Opportunity for fill removal and floodplain restoration near River Park Place from River Park Place to West River Street as shown in associated map.

2.10 Stormwater Management and Monitoring

- Corridor-wide Recommendations:
 1. Provide more data, with the goal of preventing sediment from entering the Truckee River and its tributaries through the Town's stormwater management system. Develop a long-term monitoring program with data collected during non-runoff events and runoff events.
 - a. Evaluate the severity of non-point source sediment pollution in the study area, with the goal of reducing sediment and urban runoff impacts.
 - b. Sample stormwater outfalls during runoff events.
 - c. Map riverbed conditions and sediment deposition.
 - d. Conduct bioassessments and benthic macroinvertebrate surveys.

2. Utilize bio-engineering design and low-impact development techniques both before and after underground stormwater infrastructure (e.g., bioswales and vegetated infiltration systems at outlets).
 3. Develop resources and identify potential funding sources to provide private property owners stormwater management recommendations that may be used to help mitigate runoff from private properties.
 4. Address stormwater from public and private properties within the entire study area. Prioritize impact mitigation based on benefit derived.
- Site Specific Opportunities:
 1. Because of the proximity to the river, stormwater runoff from West River Street public and private lands may have opportunities for treatment.
 - a. Redevelopment provides the opportunity to reduce sediment impacts from lands where such impacts might now be occurring.

2.11 Vegetation Enhancement

- Corridor-wide Recommendations:
 1. Treat noxious weeds. (A noxious weed is a plant that is legally defined as a pest and is known to be harmful to the state's public health, agriculture, wildlife, recreation, or property. Noxious weeds are usually invasive, meaning they are not native to the area and can outcompete native plants for water and nutrients.)
 2. Thin overstocked forested areas.
 3. Promote cottonwood regeneration.
 4. Protect existing stands of willow and alder along the river.
- Site Specific Opportunities:
 1. Explore if the Truckee-Tahoe Sanitary Agency ponds could serve as cottonwood nurseries while still maintaining and meeting functional requirements for overflow.
 2. Protect and enhance riparian vegetation along Donner Creek and Trout Creek.

2.12 Wildlife Habitat Connectivity

- Corridor-wide Recommendations:
 1. Enhance and restore riparian and aquatic habitat. This aligns with the 2040 General Plan, Conservation and Open Space Element guiding principle: "Preserve and expand the quantity and quality of natural systems in Truckee by promoting aquatic and terrestrial biodiversity and by implementing environmental, ecological, and conservation-minded strategies."
- Site Specific Opportunities:
 1. The stretch of river between the Foxmead boulder and the pedestrian bridge is high quality trout habitat.
 2. Reconfigure the Trout Creek railroad culvert to enhance fish movement between the creek and the Truckee River.
 3. Protect Trout Creek as a viable trout stream, with the goal of ensuring that Trout Creek can hold a sustainable population of its namesake fish.

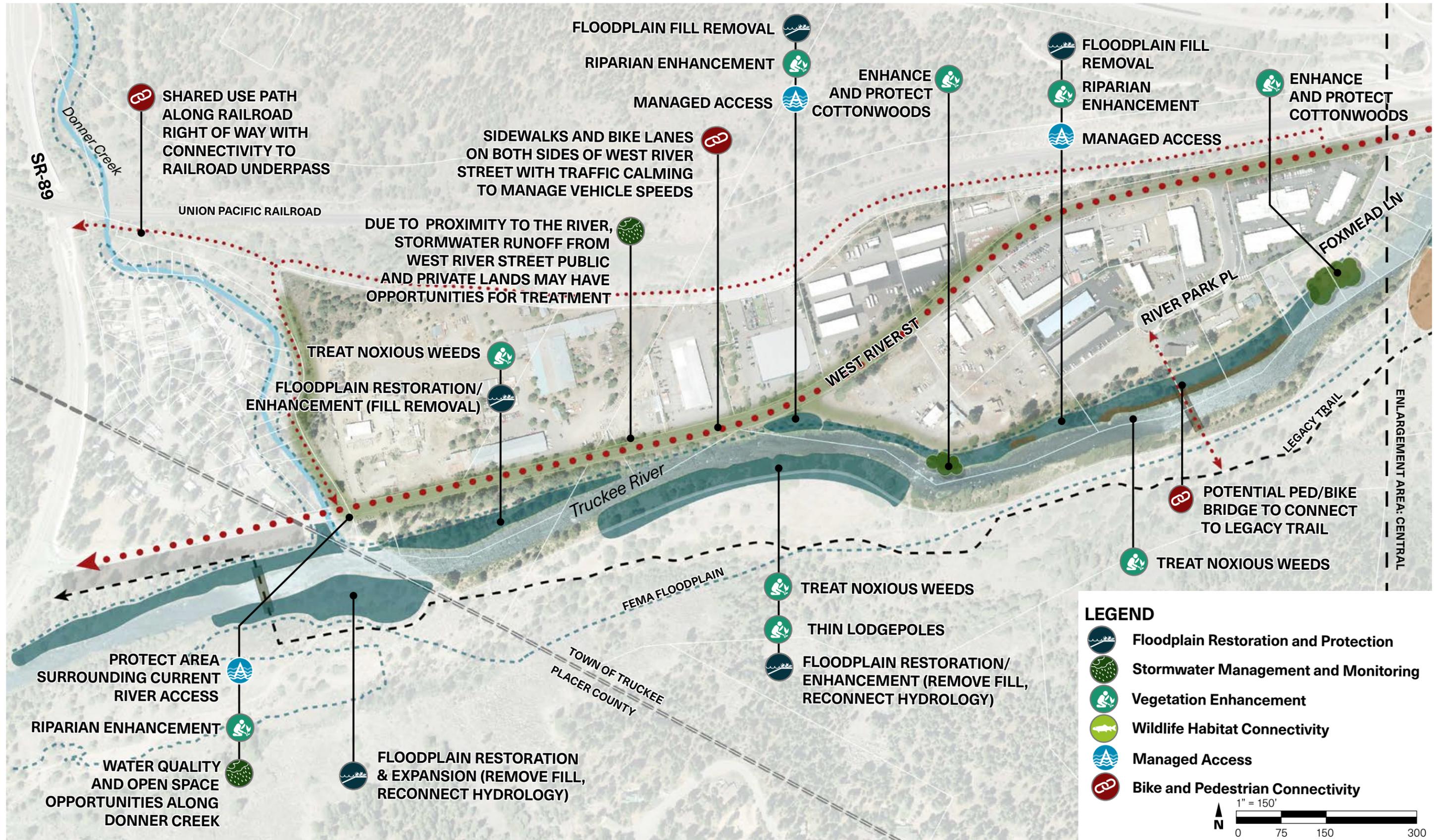
2.13 Managed Access

- Corridor-wide Recommendations:
 1. Access points should be professionally designed by a team that should at a minimum include a hydrologist. The desire is for the team to include a hydrologist, botanist, biologist, and a landscape architect, among other desired expertise.
 2. Define what is included in “open space”, “river park”, and “managed access”. Access points should accommodate or work with the river’s different flows. The below descriptions summarize how the RHA Action Team referred to the terms.
 - a. “Open spaces” are relatively undeveloped. There may be trails and some managed public access, but the majority of the site is left in a naturalized state or restored.
 - b. “River Park” is an area designed for public use. It supports recreational activities through modest development, including limited areas of hardscape and irrigated turf. A river park is anticipated to have areas of restoration and managed access.
 - c. “Managed Access” refers to carefully sited and designed places that allow public access through a site or to the river. Erosion control and protection or riparian vegetation are important components. Constructed trails provide access and strategies are implemented to discourage or prevent access to sensitive resources.
- Site Specific Opportunities:
 1. Access near Donner Creek confluence occurs on a steep slope where there are erosion concerns. Reduce impacts to natural resources while accommodating access through improved features (such as log or stone steps) that fit the natural setting. This area could be an open space park and provide access to the river.
 2. Look at opportunities to access the river from the DEWBHEYÚMUWE? PARK.
 3. Provide access at defined locations in Truckee Springs and reduce and mitigate unmanaged access (e.g. through fencing and vegetative plantings). Acknowledge existing access points from Land Trust properties.
 4. In particular, enhance access at the bridge on East River Street. Consider improved access on north and south sides of the river at bridge locations.
 5. Consider a park opportunity near the existing pedestrian/bike bridge on East River Street.
 6. Consider potential open space with managed access to the river at Trout Creek confluence. Remove fill in this area, define parking, and manage access because it is a high use area. Evaluate existing uses (e.g., short term camping) to determine appropriate types of recreation and access. Incorporate additional data on the Trout Creek culvert as part of potential enhancements in the area.
 7. Clarify areas of public use below the high-water mark for in-water and riverbank access.
 8. Potential opportunity for public access at the southwest corner of the Truckee River Partners’ property and at River Park Place by negotiating mutually beneficial easements or land purchases with property owners.

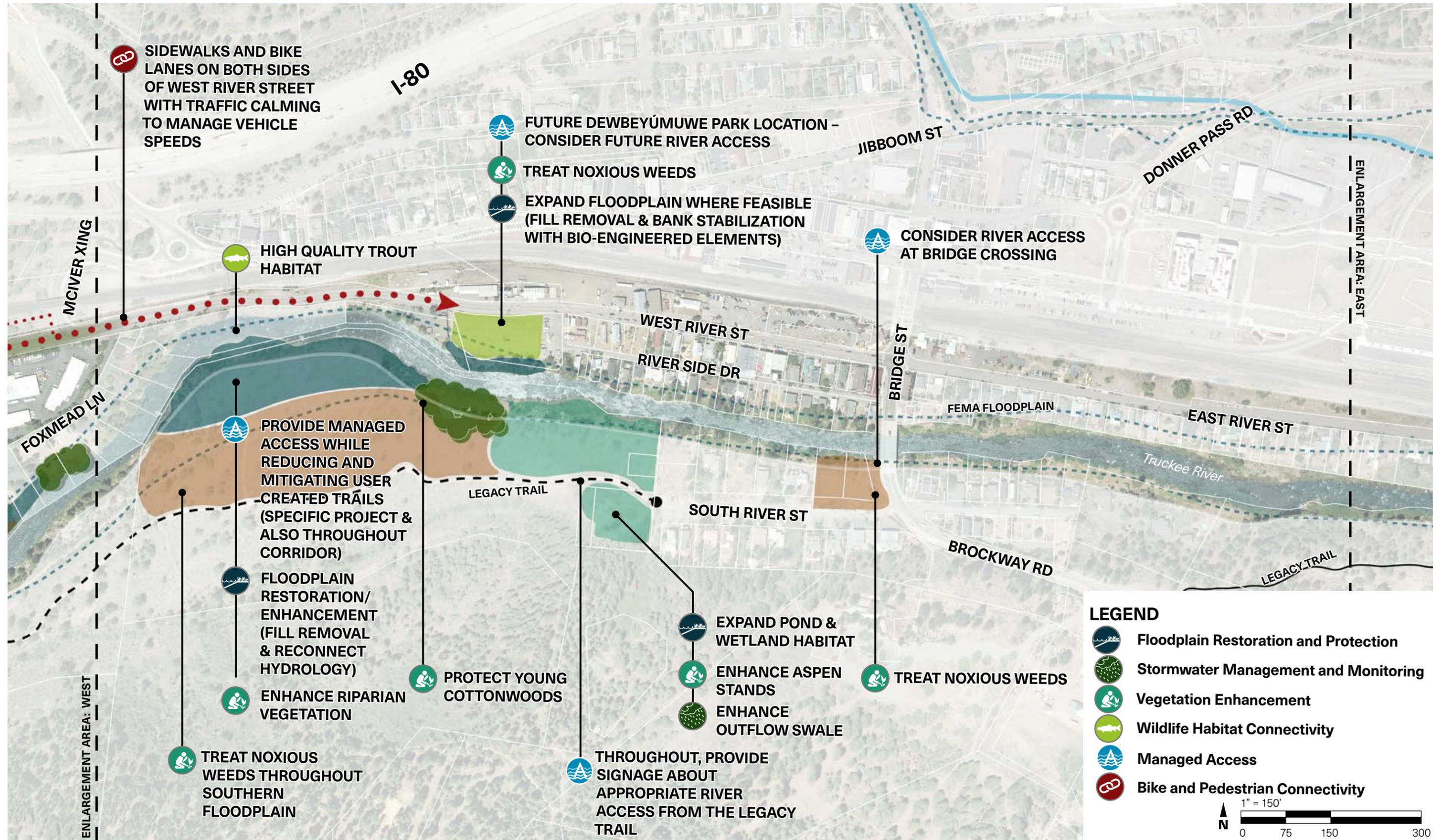
2.14 Bike and Pedestrian Connectivity

- Site Specific Opportunities:
 1. Add bike lanes and sidewalks to both sides of West River Street. However, use traffic engineering methods to help reduce vehicle speeds when bike lanes are added.
 2. Incorporate a potential Class 1 trail/shared use path along the railroad alignment in the West River Street area.
 3. Connect to the Legacy Trail at River Park Place – consider acquiring an easement to develop a share use path connection and pedestrian/bike bridge with public access to the river.
 4. Incorporate signage along the Legacy Trail to inform users of appropriate river access locations.
 5. Consider pedestrian/bike bridge to connect East River Street to the Regional Park near existing parking area in the Regional Park.
 6. If riparian and floodplain can be preserved, and there are no wildlife corridor impacts, consider providing trail connectivity along Donner Creek in addition to existing bike paths. Connection could be to the existing railroad underpass along SR 89.

RIVER HEALTH AND ACCESS OPPORTUNITIES | WESTERN AREA



RIVER HEALTH AND ACCESS OPPORTUNITIES | CENTRAL AREA



RIVER HEALTH AND ACCESS OPPORTUNITIES | EASTERN AREA

