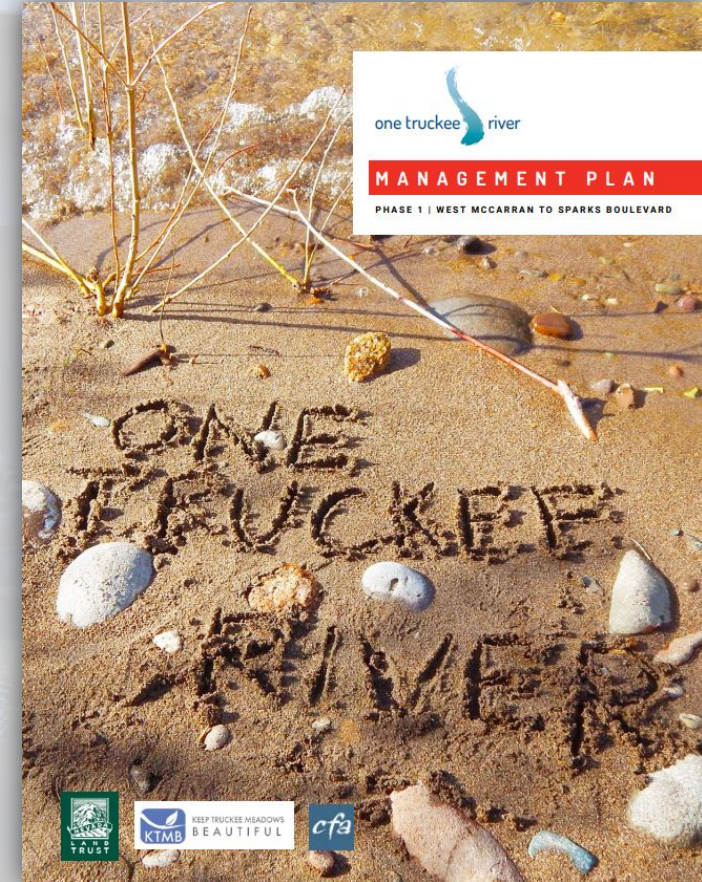


Coordinated Vegetation Management Efforts for the Truckee River River Update: Spring 2025



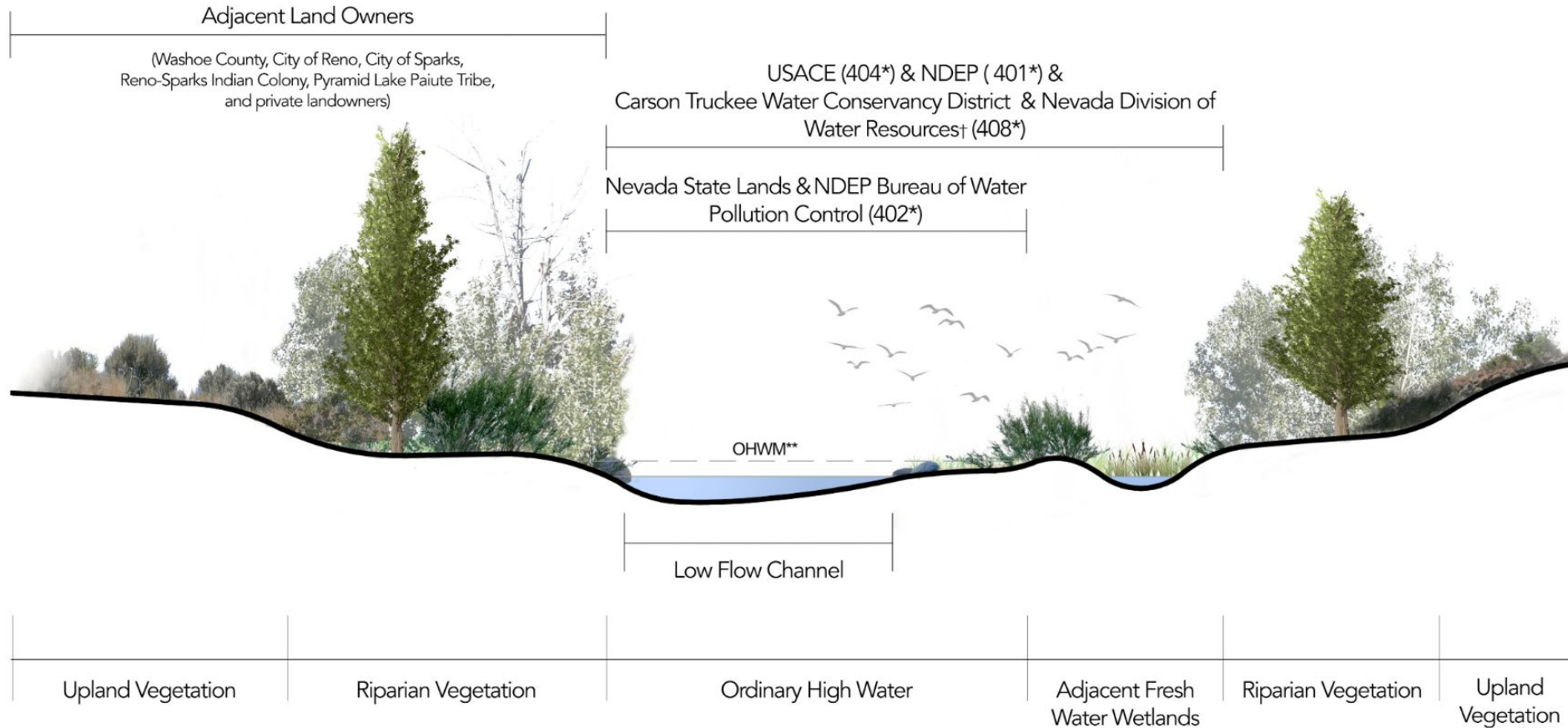
Funded by U.S. Bureau of Reclamation





Steering Committee and Technical
Working Group

(Started 2020 and Active in 2025)



* Section of the Clean Water Act

** The average height to which the river rises every 2 years

† CTWCD is sponsor up to 14,000 cfs from Stateline to Glendale & NDWR is sponsor up to 6,000 cfs from Glendale to PLPT

TYPICAL TRUCKEE RIVER FEDERAL AND NEVADA JURISDICTIONAL CROSS-SECTION

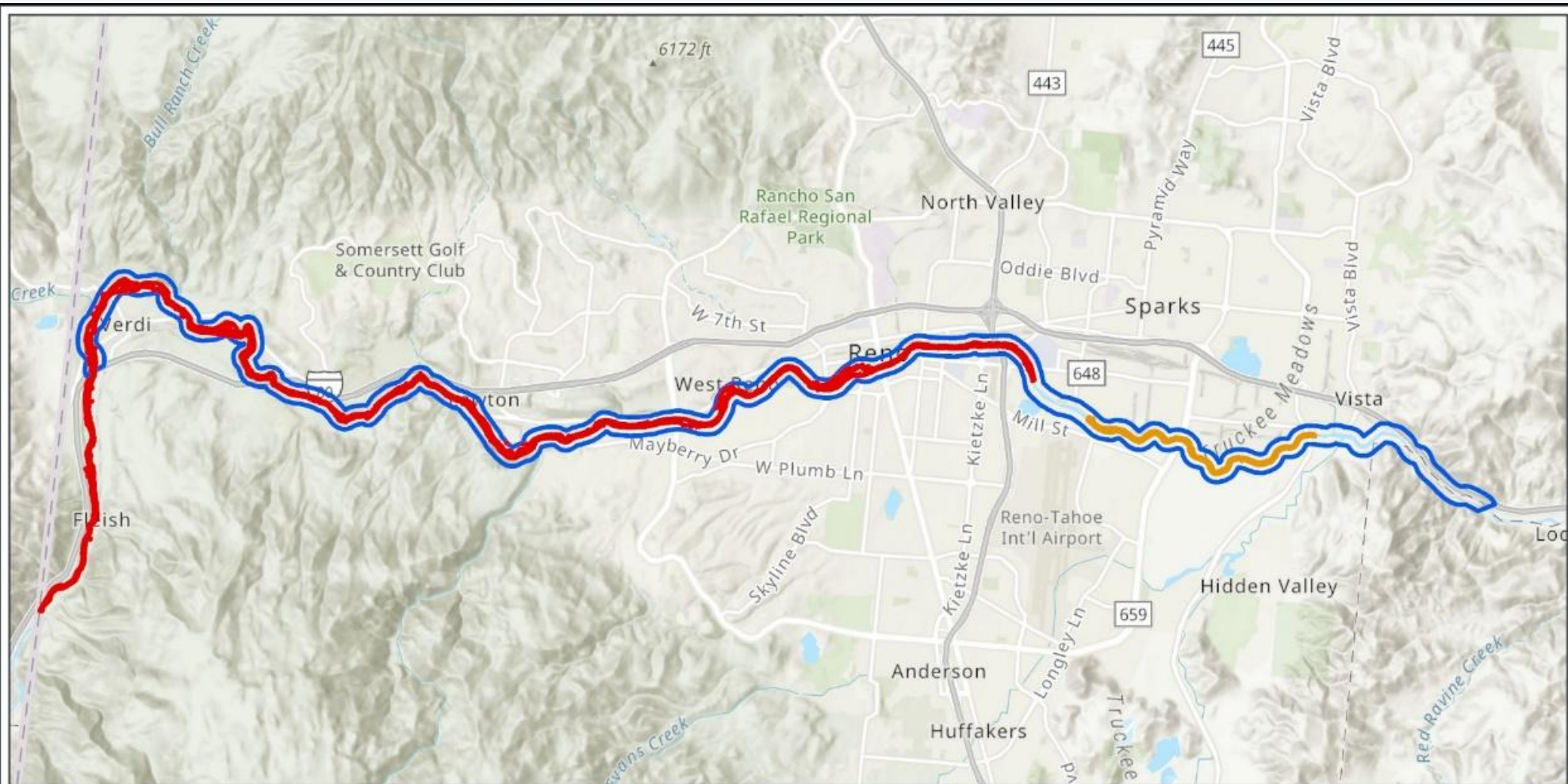
This graphic is provided for informational and educational purposes only. Any information or materials provided by One Truckee River is utilized at one's own risk, and the user expressly assumes the risk of such use. Further, One Truckee River disclaims any and all warranties whatsoever. In all cases, before engaging in any project, the user should consult with professional advisors who are familiar with her, his, or its particular situation.



Stakeholders Interviewed and/or Participating in the Technical Working Group


Stakeholder (agency or entity)

| | |
|---|----------------------------------|
| Washoe County Regional Parks and Open Space | Nevada State Lands |
| City of Reno (Utility Services and Parks and Rec) | Nevada Department of Wildlife |
| City of Sparks Public Works | Nevada Division of Forestry |
| Carson-Truckee Water Conservancy District | One Truckee River |
| Nevada Division of Water Resources | Nevada Land Trust |
| Truckee River Flood Management Authority | Great Basin Institute |
| The Nature Conservancy | Truckee Meadows Parks Foundation |




-  Project Area
-  14,000-cfs Conveyance Zone
-  6,000-cfs Conveyance Zone


Reno, Washoe County, NV
NAD 1983 UTM Zone 12N
39.5174°N 119.8334°W


SWCA
environmental consultants

Base Map: Esri ArcGIS Online,
accessed November 2021
Project No. 58424

0 5,000 10,000 Feet
0 1,000 2,000 Meters


1:140,000



Framework Vegetation Management and Restoration Plan

ONE TRUCKEE RIVER FRAMEWORK VEGETATION MANAGEMENT AND RESTORATION PLAN

DRAFT

Prepared for
One Truckee River and Nevada Land Trust
2601 Plumas Street
Reno, Nevada 89509



Prepared by
SWCA Environmental Consultants
1575 Delucchi Lane, Suite 223
Reno, Nevada 89509

One Truckee River Framework Vegetation Management and Restoration Plan - DRAFT

1 PURPOSE AND NEED

One Truckee River (OTR) is currently undertaking a master planning effort to advance sustainable vegetation management along the Truckee River to improve healthy functioning of the river system. This planning effort is focused on the middle, partially urbanized reach of the Truckee River that includes the cities of Reno and Sparks in Washoe County, Nevada, in the metropolitan area known as the Truckee Meadows (Project Area, Figure 1). This planning effort addresses OTR's prioritized action item 1.4.c—to develop and implement a coordinated vegetation management plan along the river—from OTR's *One Truckee River Management Plan* (OTR 2016).

This framework vegetation management and restoration plan (Framework Plan or Plan) is the result of OTR's vegetation management master planning work and aims to address the needs and challenges of multiple entities that manage vegetation along the Truckee River in the Project Area. This Plan is intended to serve as a resource for public and private partners and to inform coordinated vegetation management planning and implementation efforts in the future.

OTR has received funding for development of this Framework Plan from the U.S. Bureau of Reclamation's WaterSMART Grant Program. Nevada Land Trust is providing administrative and stakeholder coordination support. SWCA Environmental Consultants has been selected to help OTR lead the coordination and Plan development process with technical assistance from Resource Concepts, Inc.

1.1 Goals

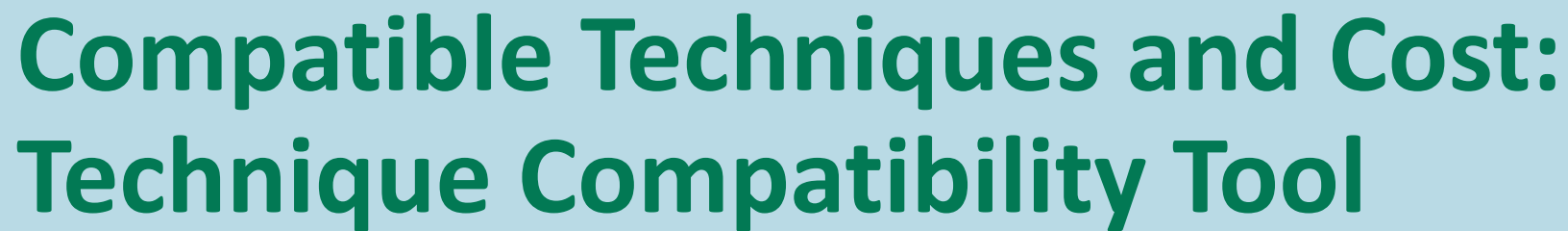
This Framework Plan addresses **three primary goals**, which were developed with stakeholder guidance and input (as described in Section 1.2 of this document):

Goal 1: Develop a coordinated vegetation management and restoration plan for the Project Area reach of the Truckee River that identifies vegetation management techniques that fit within the regulatory constraints and directives and addresses critical issues and needs along the river.



Jurisdictional Constraints and Guidance: Regulatory Framework

| River Jurisdiction or Ownership | Flow Stage Jurisdiction (if applicable) | Reference Type | Reference | Year | Full Citation or Select Articles, Titles, and Sections | URL (if applicable) | PDF Copy Available? | Topic | Ecological Zone | Findings, Restrictions, Guidance, Requirements |
|--|--|--------------------------------|--------------|------|---|---|---------------------|--------------------|--|--|
| Applies to all reaches of the Project Area | | Truckee River Water Quantity | TROA | 2008 | U.S. Bureau of Reclamation. 2008. Truckee River Operating Agreement. <i>Federal Register</i> 73 FR 74031. (January 5, 2009). | http://www.troa.net/documents/TROA_Sep2008/troa_final_09-08_full.pdf | Yes | Water quantity | Aquatic/riparian | During above average water years, water will be stored and released to enhance cottonwood and willow recruitment. This includes spring high flows followed by gradual recession of flows. See Rood et al. (2003); Rood, S.B., C.R. Goheen, J.R. Klotz, M.L. Morrison, D. Mosley, G.G. Scoppettone, S. Swanson, and P.L. Wagner. (2003). Flows for floodplain restoration. <i>BioScience</i> 53(7):647–656. |
| CTWCD, USACE (CWA 404), NDEP (CWA 401) | Up to 14,000 cfs (State Line to Glendale) | Truckee River Water Conveyance | USACE | 1973 | Martis Creek Agreement | http://www.ctwcd.com/files/Martis_Creek_Lake_Agreement_1973.pdf | yes | Flood control | Aquatic/riparian | Maintains channel capacity of 14,000 cfs (from State Line to Glendale): "Weeds and other vegetal growth shall be cut each flood season." We understand that this is interpreted by the CTWCD as restrictions of woody plants within the |
| USACE | 6,000 cfs (Glendale to PLPT) | Truckee River Water Conveyance | USACE | 1964 | U.S. Army Corps of Engineers. 1964. Operation and Maintenance Manual for Truckee River and Tributaries California and Nevada. | | Yes | Flood control | Riprap areas along the entire river corridor | Maintains channel capacity of 6,000 cfs (from Glendale to PLPT). We understand that this is interpreted by the USACE as restrictions of woody plants within the conveyance zones. Also, relevant to banks that have been riprapped by the USACE: "Trees and brush in the stone blanket should be cut or sprayed with proper herbicide when necessary." |
| Applies to all reaches of the Project Area | Flood hazard areas | GIS Resources | FEMA | 2009 | FEMA Flood Map Service Center | FEMA Flood Map Service Center | No | Flooding | Aquatic/riparian and flood-prone areas | Flood Insurance Rate Maps (FIRM), including special flood hazard areas and other areas of flood hazard. |
| USACE and CTWCD | Up to 14,000 cfs (State Line to Glendale) and 6,000 cfs (Glendale to PLPT) | GIS Resources | CTWCD | 2020 | Carson-Truckee Water Conservancy District. 2020. 14,000 cfs and 6,000 cfs Inundation Extents. GIS Geodatabase. | NA | No | Inundation extents | Aquatic/riparian | Delineates areas where vegetation is restricted according to Martis Creek Agreement (USACE 1973): up to 14,000 and 6,000 cfs (Glendale to PLPT) |
| City of Reno | | GIS Resources | City of Reno | ND | City of Reno. n.d. City of Reno Community Development Map | https://cityofreno.maps.arcgis.com/apps/MapTools/index.html?appid=de47c7ee33f04a7592219ed6bc9ced53 | No | Zoning | All | Interactive City of Reno Zoning Map |
| Applies to all reaches of the Project Area | | Regional Planning Documents | OTR | 2016 | One Truckee River (OTR). 2016. One Truckee River Management Plan. Phase 1, West McCarran to Sparks Boulevard. Reno, Nevada. | OTR-Management-Plan-2017.pdf (squarespace.com) | Yes | All | All | Prescribes creation of a coordinated vegetation management plan. Additionally, objectives to manage water quality, increase biodiversity, improve wildlife habitat, improve river function and flooding ecosystem services, and unite stakeholders. |
| Truckee Meadows (Washoe County, Cities of Reno and Sparks) | | Regional Planning Documents | TRFMA 2015 | 2015 | Truckee River Flood Management Authority (TRFMA). 2015. Flood Protection Plan. Reno, Nevada: Truckee River Flood Project. | Mapbook-6-01-14-2015-compressed.pdf (trfma.org) | Yes | Flooding | Floodplain | Spatial data of several projects approved by the TRFMA regarding topics like fish passage, bank stability, drainage, and floodplain restoration. |



| | A | B | C | D | E | F | G | H | I | J | |
|----|---|--|--|------------------------------|--------------------|--|----------------------|---|--|--------------|--|
| 1 | No. of Jurisdictional Constraints Selected (auto count) | No. of Management Opportunities Selected (auto count) | SUMMARY OF RESULTS COMPATIBILITY TOOL | | | | NOTE TO USER: | | | | |
| 2 | 3 | 1 | | | | | | Use Jurisdictional Constraints & Vegetation Management Opportunities compatible techniques. Items starting with an underscore are Jurisdictional Constraints. | | | |
| 3 | Subset of Vegetation Management Techniques that are appropriate for all selected Jurisdictional Constraints | Subset of the Vegetation Management Techniques that address one or more of the selected Management Opportunities | | Appropriate Techniques (= 1) | | | | | Jurisdictional Constraints & Vegetation Management Opportunities | | |
| 4 | | | | Category | Plant Growth Habit | Vegetation Management Technique | Relative Cost / Acre | Reno | WashoeCty | Within14Kcfs | |
| 5 | Phased project approach | Phased project approach | | All categories | - | Phased project approach | Medium | 1 | 1 | 1 | |
| 6 | Tree removal | - | | Conveyance | - | Tree removal | High | 1 | 1 | 1 | |
| 7 | Tree replacement (14,000-cfs zone) | Tree replacement (14,000-cfs zone) | | | | Tree replacement (14,000-cfs zone) | Medium | 1 | 1 | 1 | |
| 8 | - | Tree replacement (6,000-cfs zone) | | | | Tree replacement (6,000-cfs zone) | Medium | 1 | 1 | 0 | |
| 9 | Community engagement in project implementation | Community engagement in project implementation | | Human use | - | Community engagement in project implementation | Low | 1 | 1 | 1 | |
| 10 | Community engagement in project planning | - | | | | Community engagement in project planning | High | 1 | 1 | 1 | |
| 11 | Create controlled access or stable access | Create controlled access or stable access | | | | Create controlled access or stable access | High | 1 | 1 | 1 | |
| 12 | - | Fencing / hard exclosures | | | | Fencing / hard exclosures | High | 1 | 1 | 0 | |
| 13 | Manage access | Manage access | | | | Manage access | High | 1 | 1 | 1 | |
| 14 | Organize community events | Organize community events | | | | Organize community events | Medium | 1 | 1 | 1 | |
| 15 | Plant prickly low-lying plants | - | | | | Plant prickly low-lying plants | Medium | 1 | 1 | 1 | |
| 16 | Provide human services | Provide human services | | | | Provide human services | High | 1 | 1 | 1 | |
| 17 | Provide restoration job opportunities | Provide restoration job opportunities | | | | Provide restoration job opportunities | High | 1 | 1 | 1 | |
| 18 | Public park amenities | Public park amenities | | | | Public park amenities | High | 1 | 1 | 1 | |
| 19 | Rock-covered surfaces | Rock-covered surfaces | | | | Rock-covered surfaces | High | 1 | 1 | 1 | |
| 20 | Signage | Signage | | | | Signage | Medium | 1 | 1 | 1 | |
| 21 | Trails | - | | | | Trails | High | 1 | 1 | 1 | |
| 22 | Plant arrowleaf balsamroot | Plant arrowleaf balsamroot | | Planting | forb | Plant arrowleaf balsamroot | Low | 1 | 1 | 1 | |
| 23 | Plant blue flax | Plant blue flax | | | | Plant blue flax | Low | 1 | 1 | 1 | |
| 24 | Plant cobweb thistle | Plant cobweb thistle | | | | Plant cobweb thistle | Low | 1 | 1 | 1 | |
| 25 | Plant common yarrow | Plant common yarrow | | | | Plant common yarrow | Low | 1 | 1 | 1 | |
| 26 | Plant curlycup gumweed | Plant curlycup gumweed | | | | Plant curlycup gumweed | Low | 1 | 1 | 1 | |
| 27 | Plant Douglas's sagewort | Plant Douglas's sagewort | | | | Plant Douglas's sagewort | Low | 1 | 1 | 1 | |
| 28 | Plant fernleaf biscuitroot | Plant fernleaf biscuitroot | | | | Plant fernleaf biscuitroot | Low | 1 | 1 | 1 | |



Conditions Assessment

Gained a snapshot of riparian conditions





Project Prioritization

Ecological conditions, feasibility, and public need scores

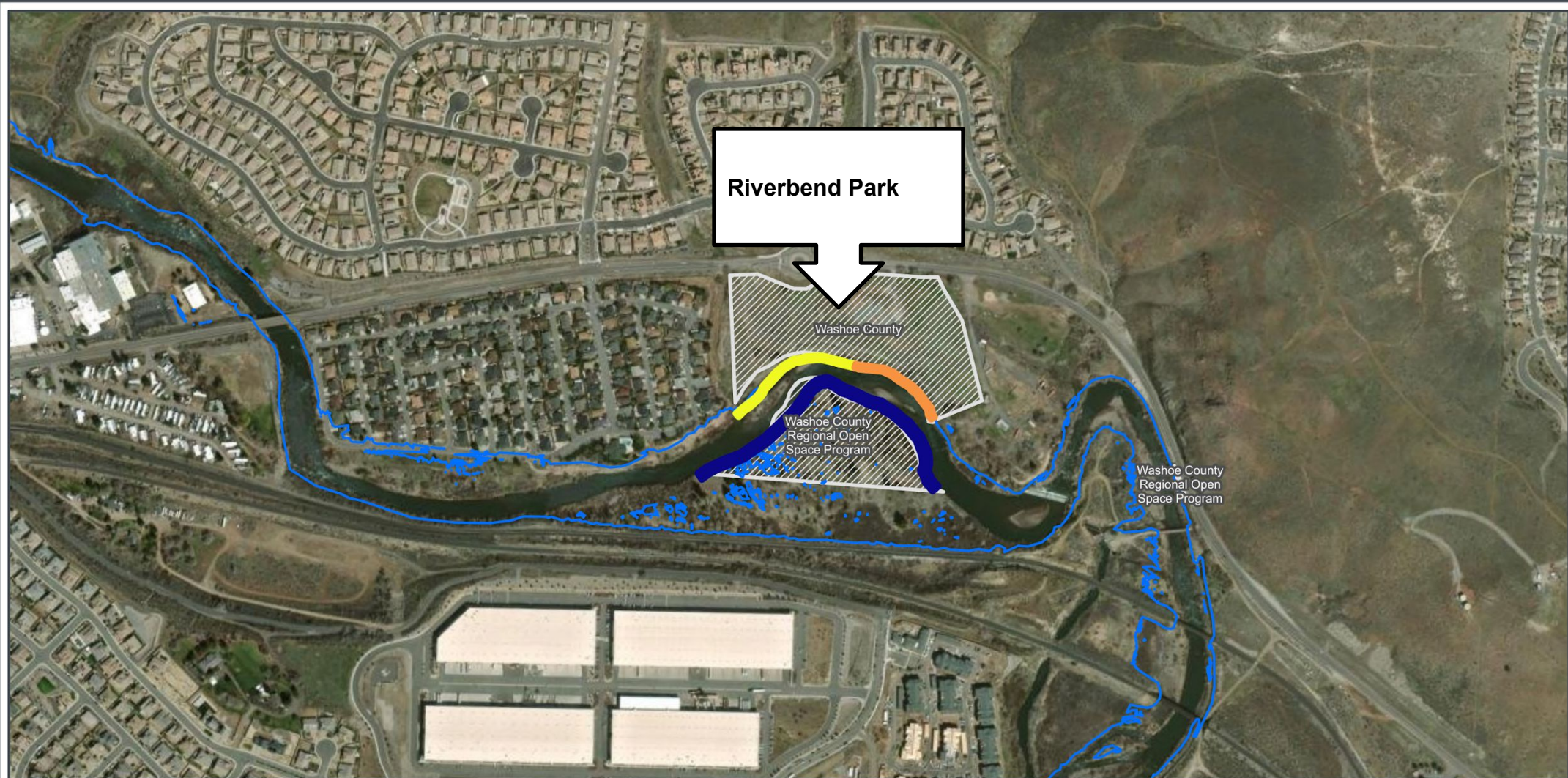
Initial

Priority Project Locations Identified by the
Technical Working Group

| Location | Location |
|-----------------------------------|-------------------------------|
| Carcione Open Space | Mayberry Park/Tom Cooke Trail |
| Idlewild Park | Lake Street to Brodhead Park |
| 2nd Street to Grand Sierra Resort | |

Priority Project Locations with **Highest Need**
based on ECI, Feasibility, and Public Need

| Location | Location |
|----------------|--------------------------------|
| Riverbend Park | TRFMA Parcel at Rock Boulevard |
| Glendale Park | |



Riverbend Park

Washoe County

Washoe County Regional Open Space Program

Washoe County Regional Open Space Program

- 14,000 CFS Flood Boundary
- Publicly Owned Parcel

Ecological Conditions Index Score

- 0.00 - 8.92
- 8.93 - 9.92
- 9.93 - 10.75
- 10.76 - 11.42
- 11.43 - 12.83



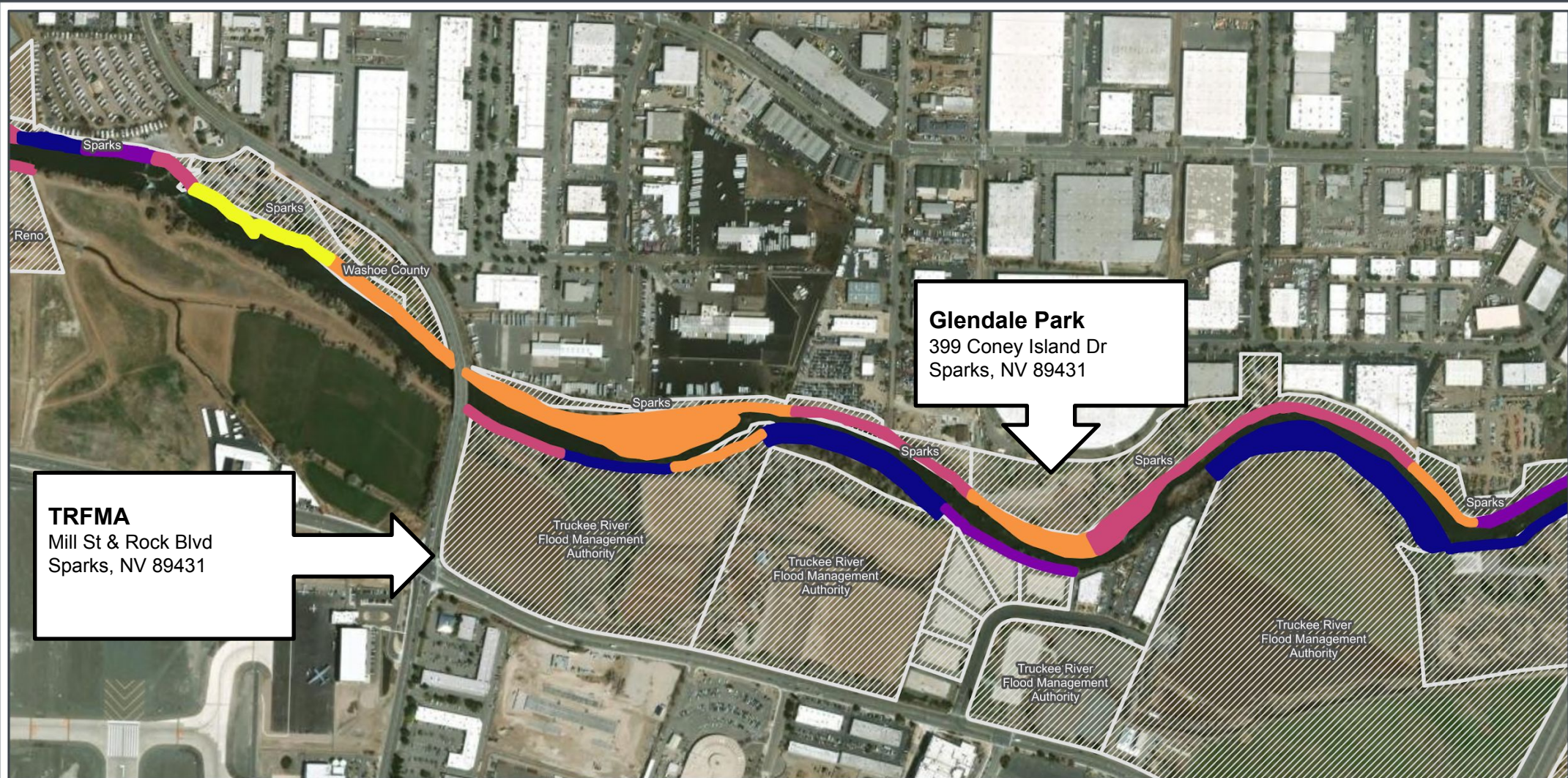
Washoe County, NV
NAD 1983 UTM Zone 11N
39.5209°N 119.9663°W



Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424



1:10,000



14,000 CFS Flood Boundary
Publicly Owned Parcel

Ecological Conditions Index Score

0.00 - 8.92
8.93 - 9.92
9.93 - 10.75
10.76 - 11.42
11.43 - 12.83



Washoe County, NV
NAD 1983 UTM Zone 11N
39.5183°N 119.7557°W

one truckee river

DRI
Desert Research Institute

TMRPA
TRUCKEE MEADOWS REGIONAL PLANNING AGENCY

SWCA
ENVIRONMENTAL CONSULTANTS

Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424

0 400 800 Feet
0 100 200 Meters



1:10,000

City of Reno Priority Project Locations with
Highest Need based on ECI, Feasibility, and Public
Need

LOCATION

East side of Sutro
Bridge

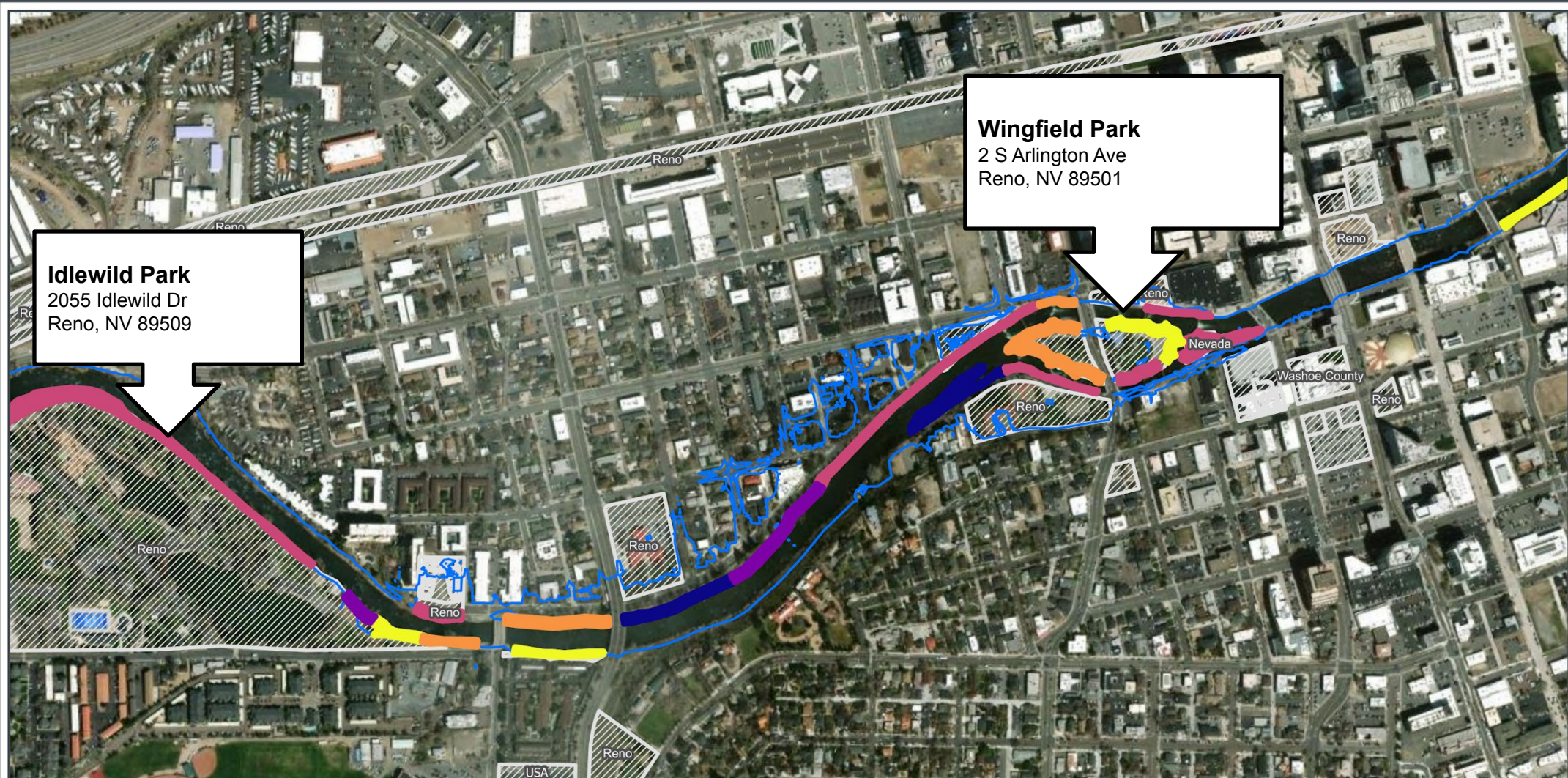
Brodhead Park

Sutro to John
Champion Park

LOCATION

Between 2nd Street and
Kuenzli Bridge

Idlewild Drive



14,000 CFS Flood Boundary
Publicly Owned Parcel

Ecological Conditions Index Score

0.00 - 8.92
8.93 - 9.92
9.93 - 10.75
10.76 - 11.42
11.43 - 12.83



Washoe County, NV
NAD 1983 UTM Zone 11N
39.5234°N 119.8216°W

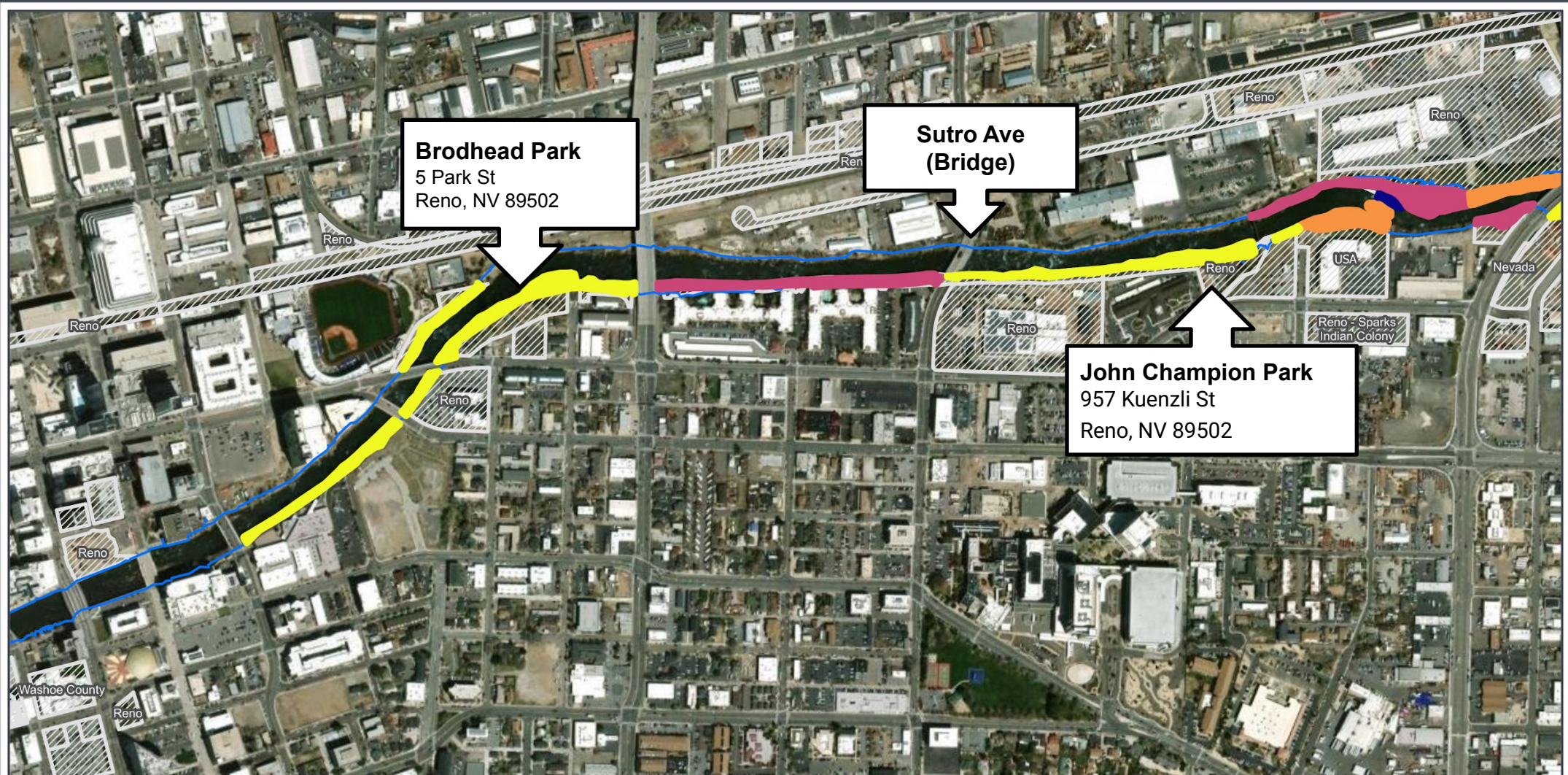


Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424

0 400 800 Feet
0 100 200 Meters



1:10,000



14,000 CFS Flood Boundary
Publicly Owned Parcel

Ecological Conditions Index Score

0.00 - 8.92
8.93 - 9.92
9.93 - 10.75
10.76 - 11.42
11.43 - 12.83



Washoe County, NV
NAD 1983 UTM Zone 11N
39.5281°N 119.8007°W

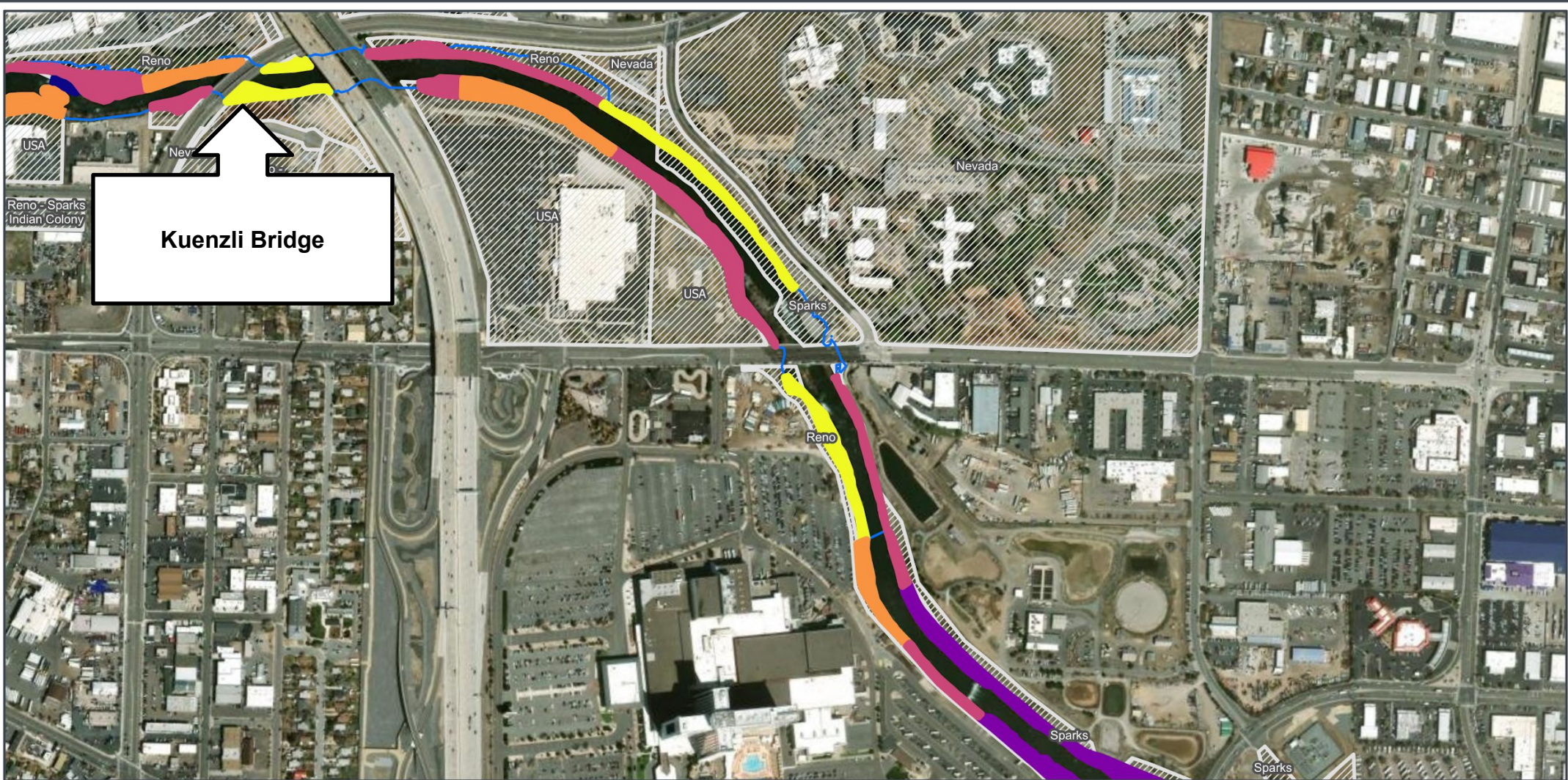


Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424


0 400 800 Feet
0 100 200 Meters



1:10,000





 14,000 CFS Flood Boundary


 Publicly Owned Parcel


Ecological Conditions Index Score

 0.00 - 8.92

 8.93 - 9.92

 9.93 - 10.75

 10.76 - 11.42

 11.43 - 12.83



Washoe County, NV
NAD 1983 UTM Zone 11N
39.5271°N 119.7784°W



Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424

0 400 800 Feet
0 100 200 Meters



1:10,000

City of Sparks Priority Project Locations with Highest Need based on ECI, Feasibility, and Public Need

Location

Glendale Park

West of Rock Boulevard
Bridge

East of Rock Boulevard
Bridge

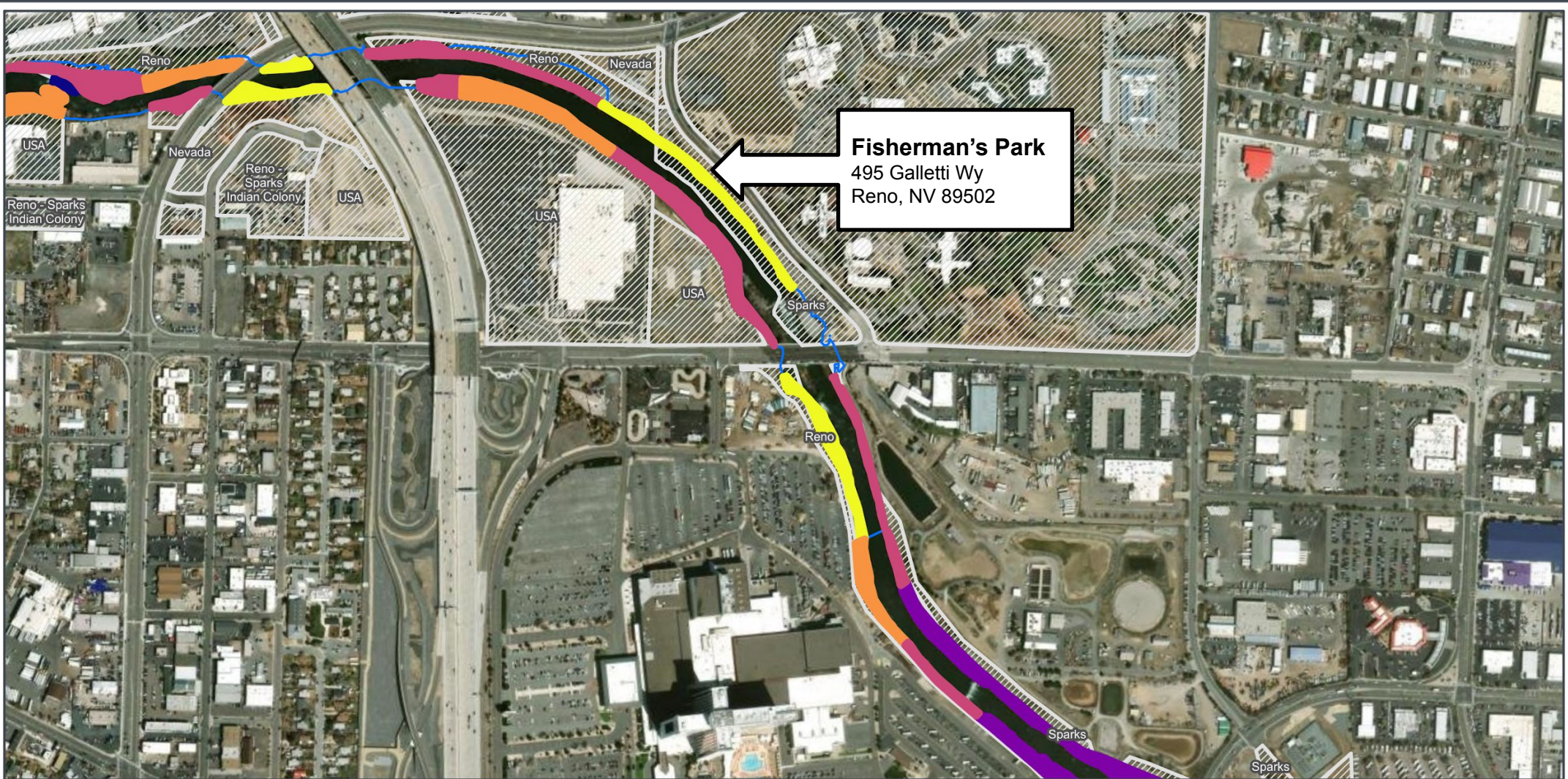
West end of Cottonwood
Park

Location

Fisherman's Park by Glendale Bridge

Rock Park

Between McCarran Boulevard and Cottonwood
Park



14,000 CFS Flood Boundary

Publicly Owned Parcel

Ecological Conditions Index Score

- 0.00 - 8.92
- 8.93 - 9.92
- 9.93 - 10.75
- 10.76 - 11.42
- 11.43 - 12.83



Washoe County, NV
NAD 1983 UTM Zone 11N
39.5271°N 119.7784°W

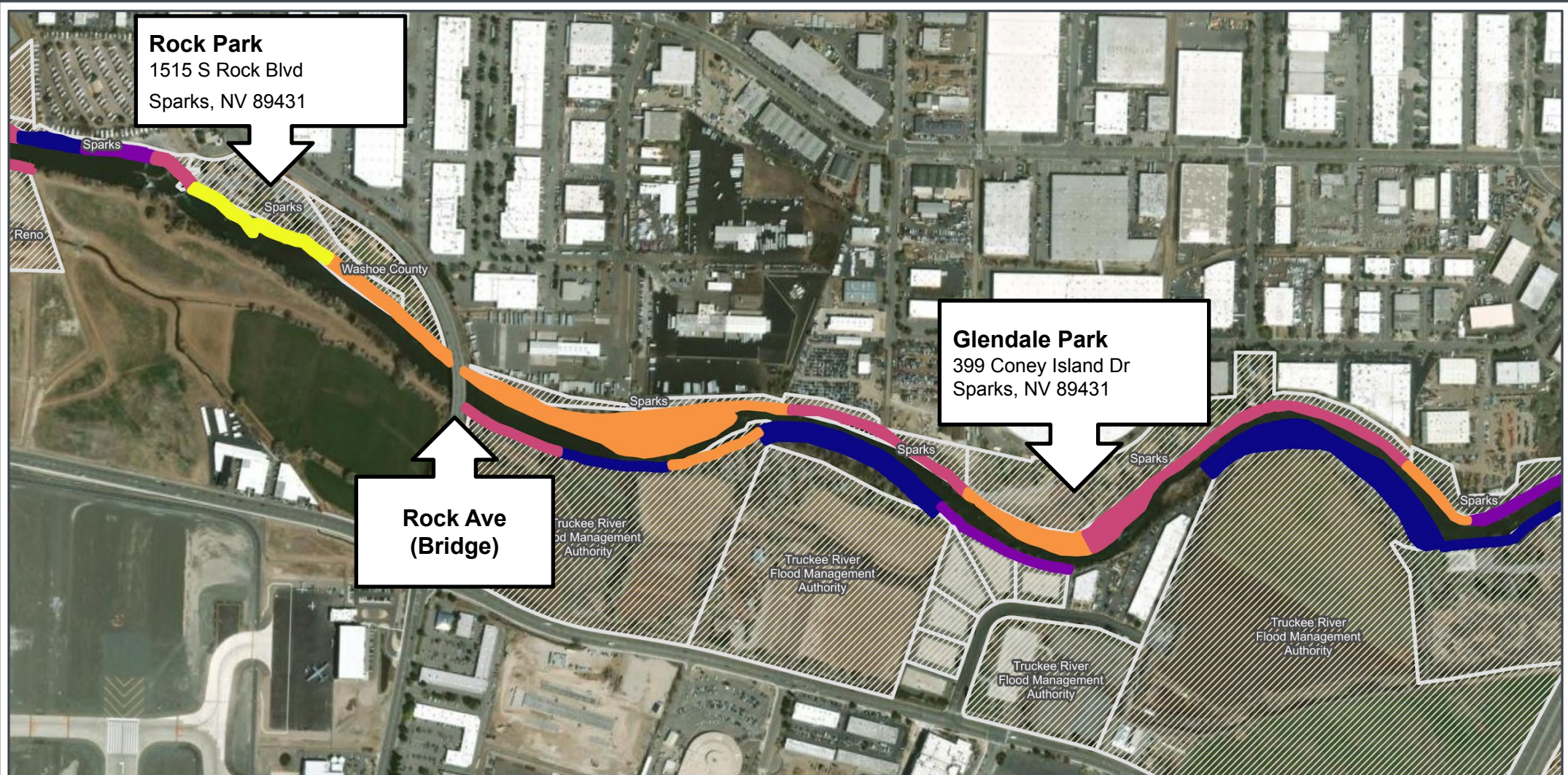


Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424

0 400 800 Feet
0 100 200 Meters



1:10,000



14,000 CFS Flood Boundary
Publicly Owned Parcel

Ecological Conditions Index Score

0.00 - 8.92
8.93 - 9.92
9.93 - 10.75
10.76 - 11.42
11.43 - 12.83



Washoe County, NV
NAD 1983 UTM Zone 11N
39.5183°N 119.7557°W

one truckee river

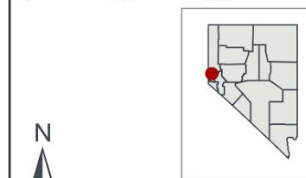
DRI
Desert Research Institute

TMRPA
TRUCKEE MEADOWS REGIONAL PLANNING AGENCY

SWCA
ENVIRONMENTAL CONSULTANTS

Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424

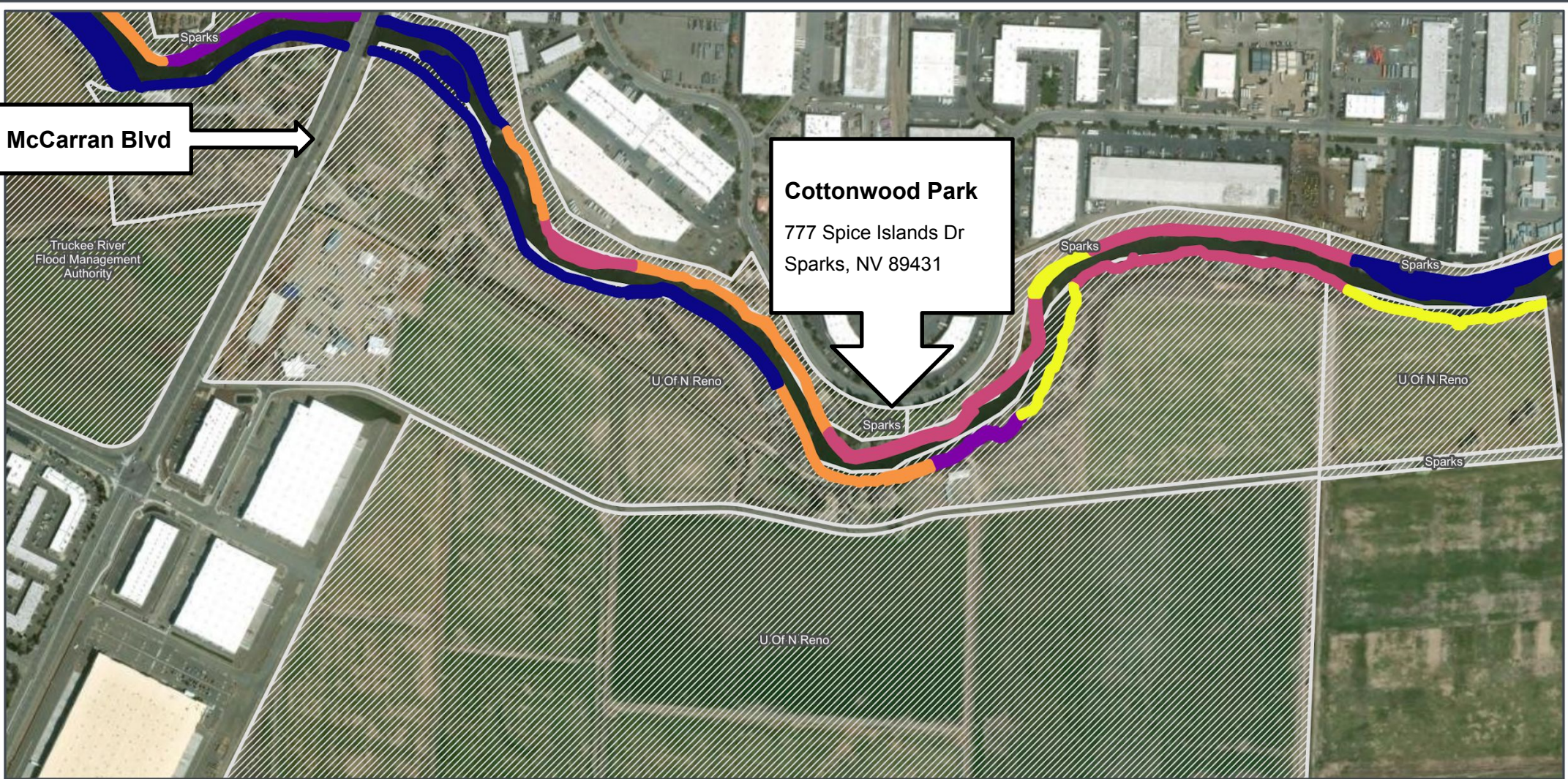
0 400 800 Feet
0 100 200 Meters



1:10,000

S McCarran Blvd

Cottonwood Park
777 Spice Islands Dr
Sparks, NV 89431



- 14,000 CFS Flood Boundary
- Publicly Owned Parcel

Ecological Conditions Index Score

- 0.00 - 8.92
- 8.93 - 9.92
- 9.93 - 10.75
- 10.76 - 11.42
- 11.43 - 12.83



Washoe County, NV
NAD 1983 UTM Zone 11N
39.5129°N 119.7336°W



Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424



1:10,000

Washoe County

Priority Project Locations
with Highest Need based on ECI, Feasibility, and Public
Need

Location

Northeast side of Dorostkar
Park

Ambrose Park

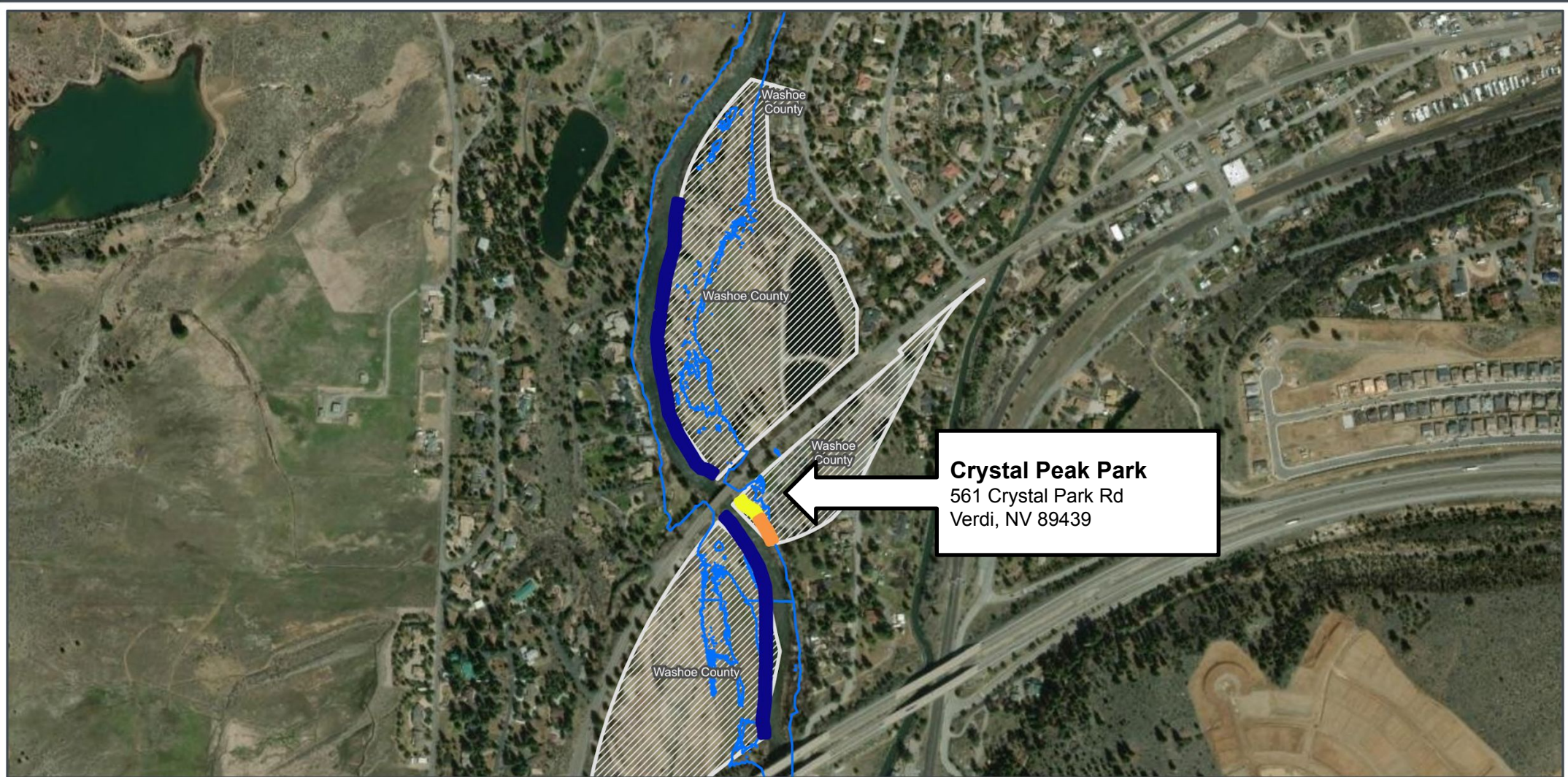
Mayberry Park

Location

North side of Crystal Peak
Park






Riverbend Park

Dorostkar – Main Park



-  14,000 CFS Flood Boundary
-  Publicly Owned Parcel

Ecological Conditions Index Score

-  0.00 - 8.92
-  8.93 - 9.92
-  9.93 - 10.75
-  10.76 - 11.42
-  11.43 - 12.83



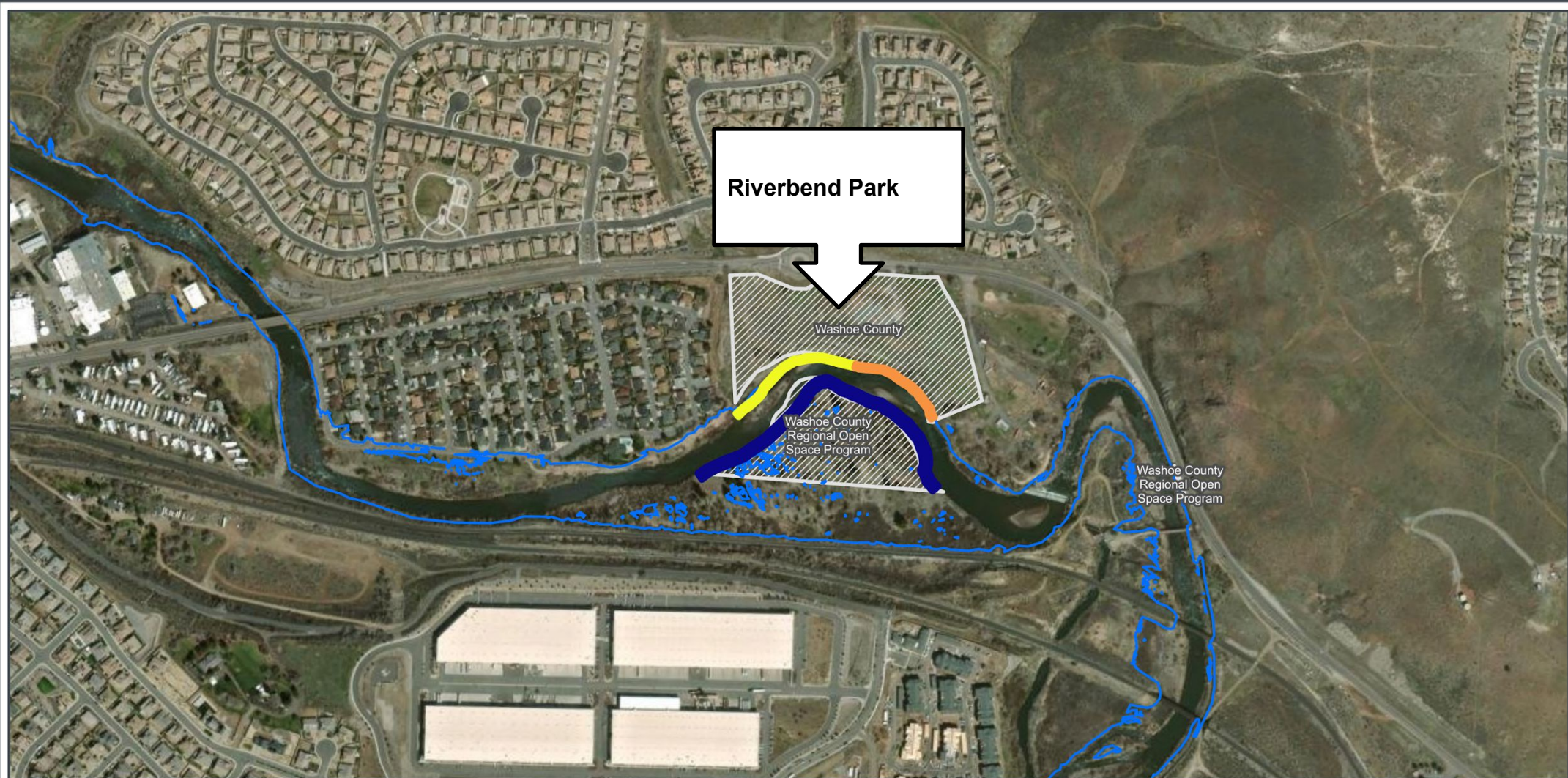
Washoe County, NV
NAD 1983 UTM Zone 11N
39.5151°N 119.9958°W



Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424



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Riverbend Park

Washoe County

Washoe County Regional Open Space Program

Washoe County Regional Open Space Program

- 14,000 CFS Flood Boundary
- Publicly Owned Parcel

Ecological Conditions Index Score

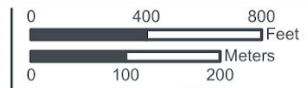
- 0.00 - 8.92
- 8.93 - 9.92
- 9.93 - 10.75
- 10.76 - 11.42
- 11.43 - 12.83



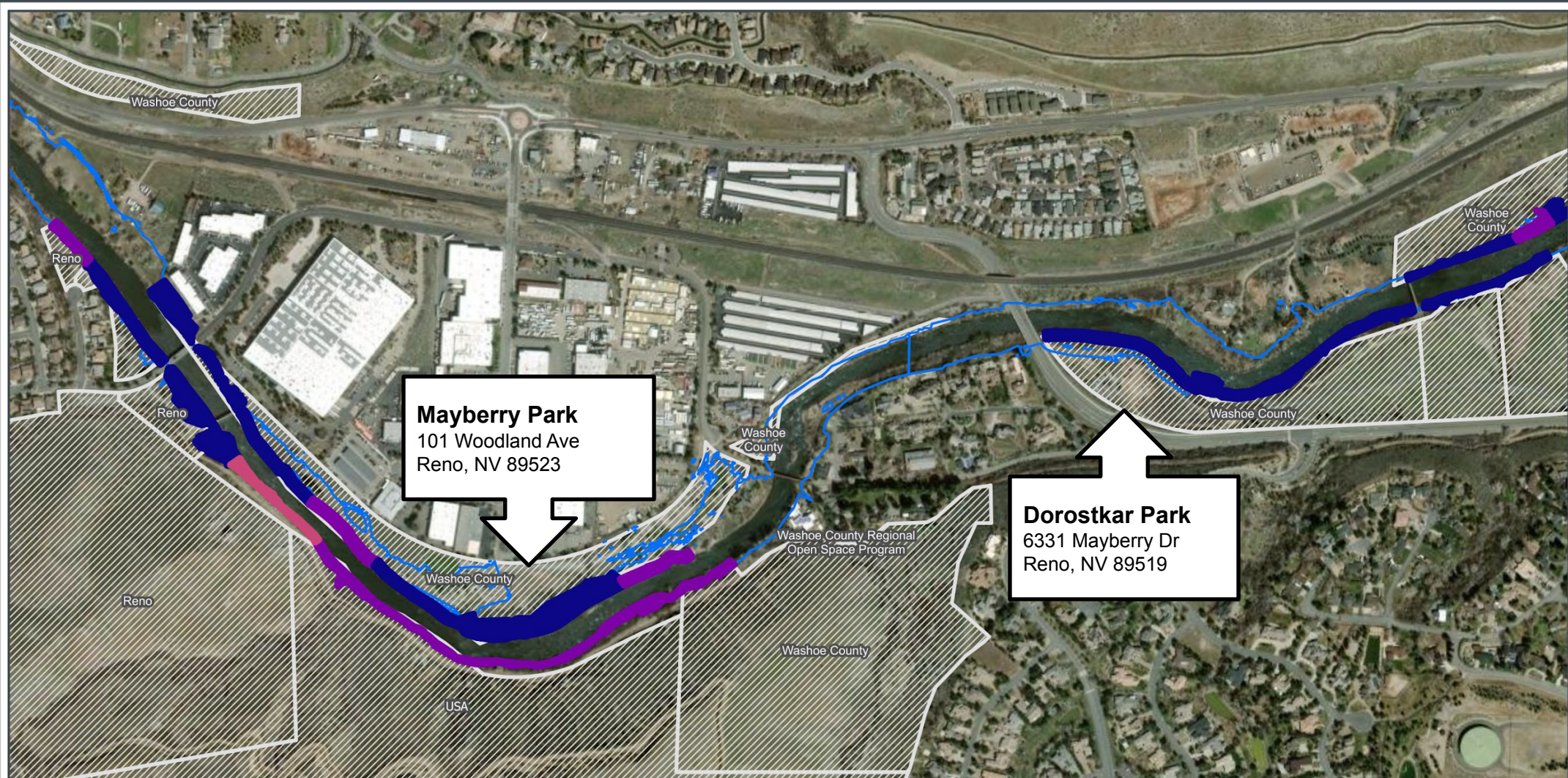
Washoe County, NV
NAD 1983 UTM Zone 11N
39.5209°N 119.9663°W



Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424








1:10,000



 14,000 CFS Flood Boundary
 Publicly Owned Parcel

Ecological Conditions Index Score

 0.00 - 8.92
 8.93 - 9.92
 9.93 - 10.75
 10.76 - 11.42
 11.43 - 12.83



Washoe County, NV
 NAD 1983 UTM Zone 11N
 39.5057°N 119.8919°W



Base Map: Esri ArcGIS Online,
 accessed February 2025
 Project No. 58424

0 400 800 Feet
 0 100 200 Meters



1:10,000



14,000 CFS Flood Boundary

Publicly Owned Parcel

Ecological Conditions Index Score

0.00 - 8.92

8.93 - 9.92

9.93 - 10.75

10.76 - 11.42

11.43 - 12.83



Washoe County, NV
NAD 1983 UTM Zone 11N
39.5097°N 119.8694°W

one truckee river

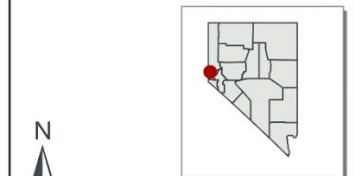
DRI
Desert Research Institute

TMRPA
TRUCKEE MEADOWS REGIONAL PLANNING AGENCY

SWCA
ENVIRONMENTAL CONSULTANTS

Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424

0 400 800 Feet
0 100 200 Meters



1:10,000

Reno-Sparks Indian Colony Priority Project Locations with Highest Need based on ECI, Feasibility, and Public Need

Location

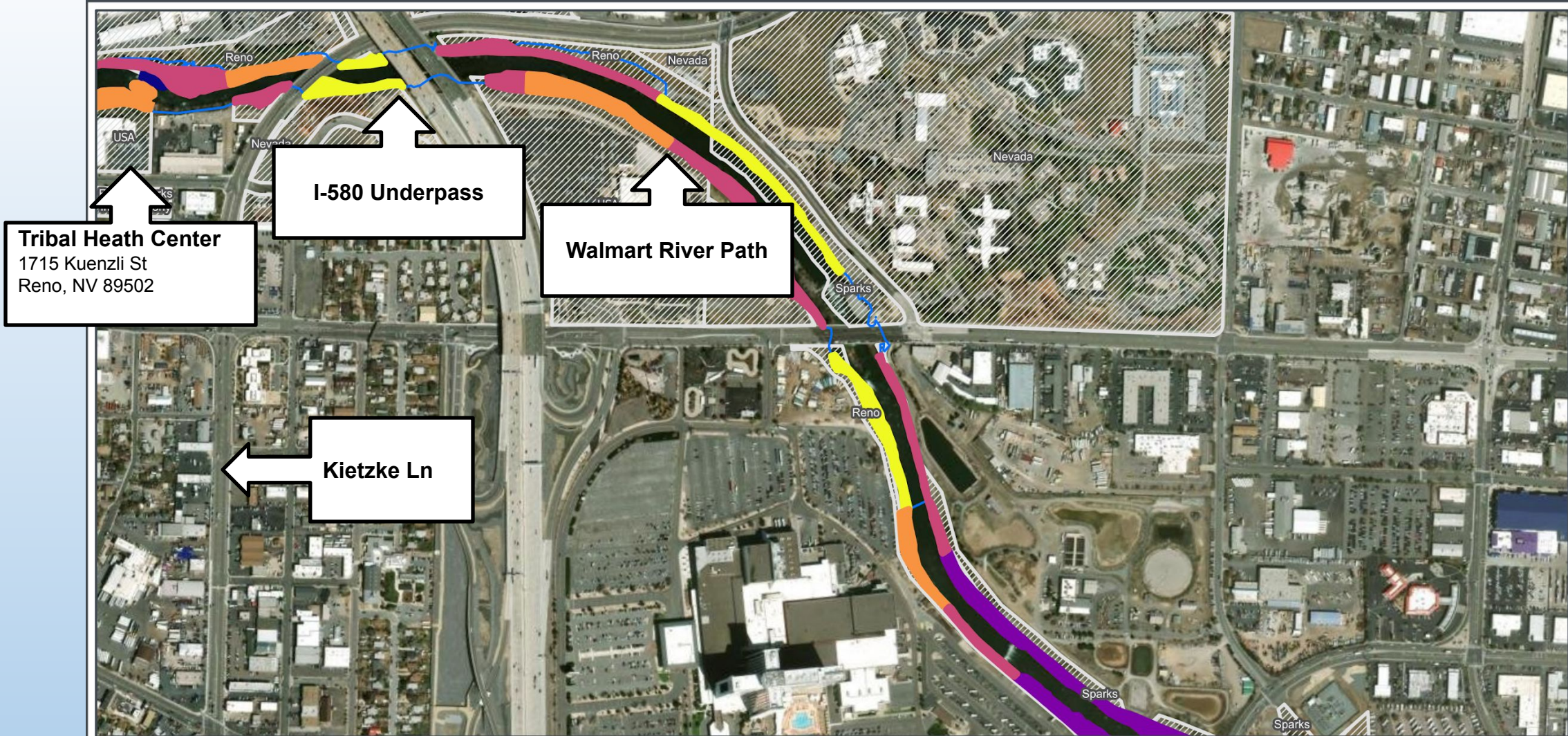
East of I-580
Underpass

Walmart River Path

Location

Tribal Health Center

Kietzke Lane to I-580
Underpass



14,000 CFS Flood Boundary
Publicly Owned Parcel

Ecological Conditions Index Score

0.00 - 8.92
8.93 - 9.92
9.93 - 10.75
10.76 - 11.42
11.43 - 12.83



Washoe County, NV
NAD 1983 UTM Zone 11N
39.5271°N 119.7784°W

one truckee river

DRI
Desert Research Institute

TMRPA
TRUCKEE MEADOWS REGIONAL PLANNING AGENCY

SWCA
ENVIRONMENTAL CONSULTANTS

Base Map: Esri ArcGIS Online,
accessed February 2025
Project No. 58424

0 400 800 Feet
0 100 200 Meters

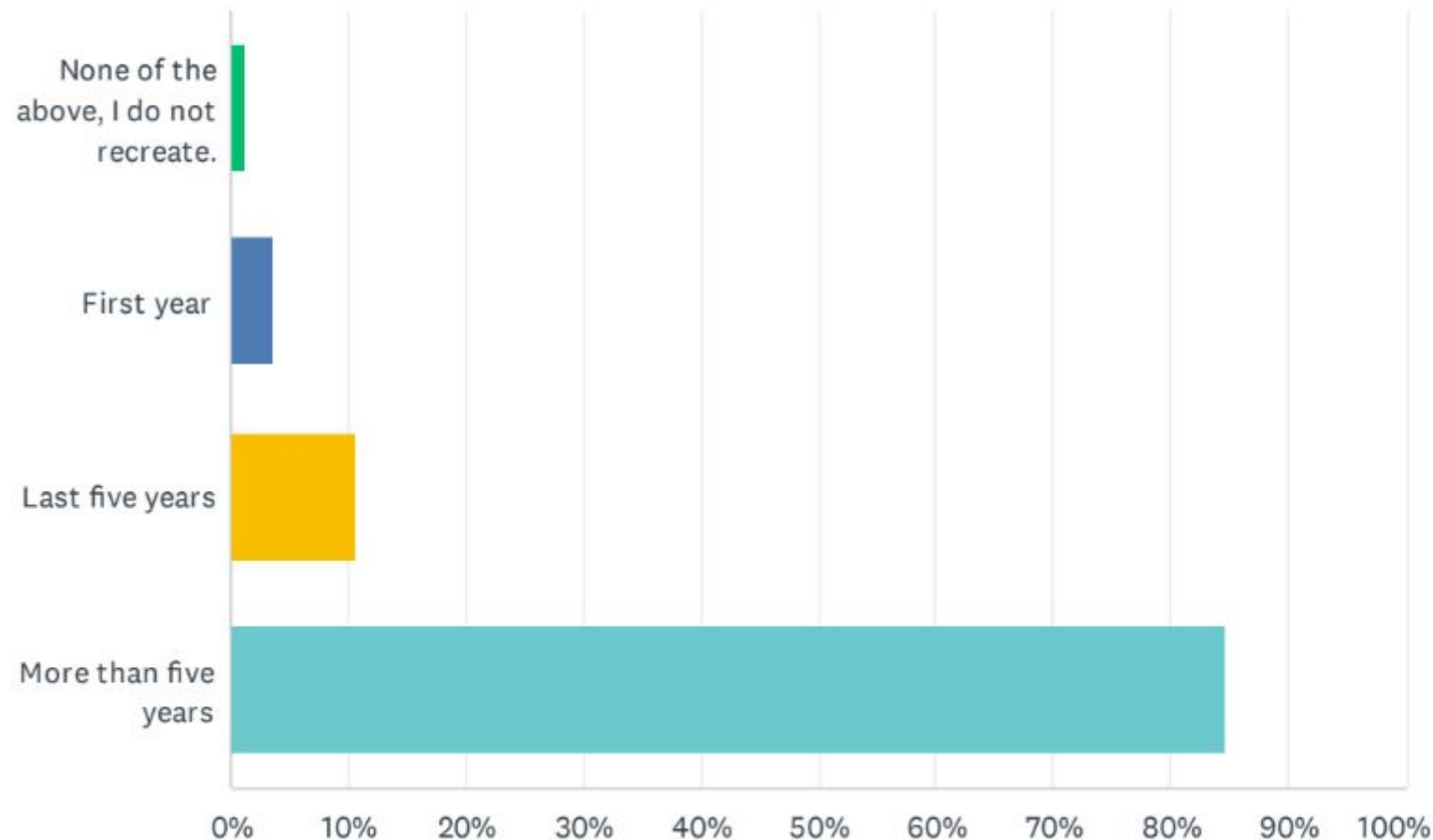


1:10,000



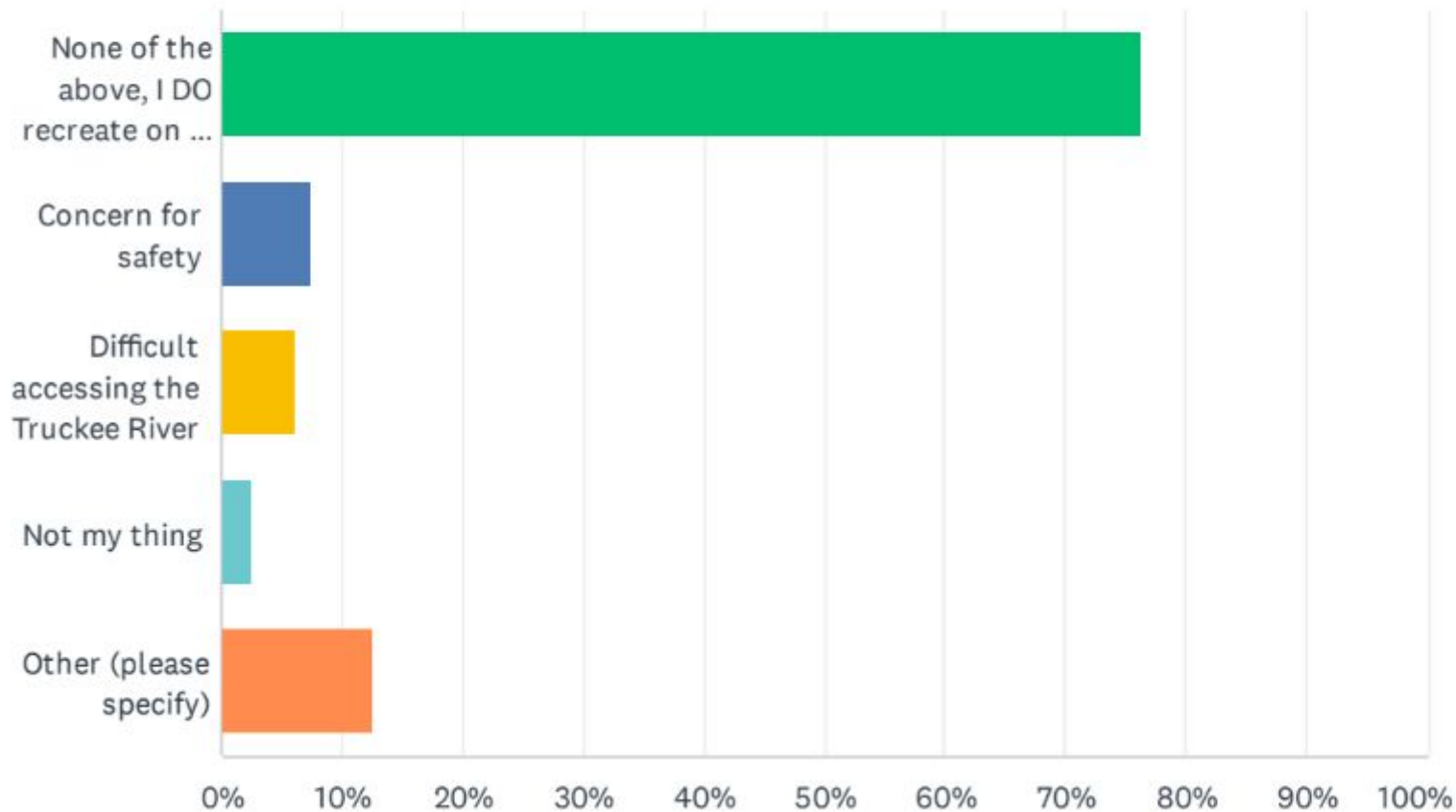
Do you recreate along the Truckee River? If yes, how long have you been recreating along the Truckee River?

Answered: 85 Skipped: 0



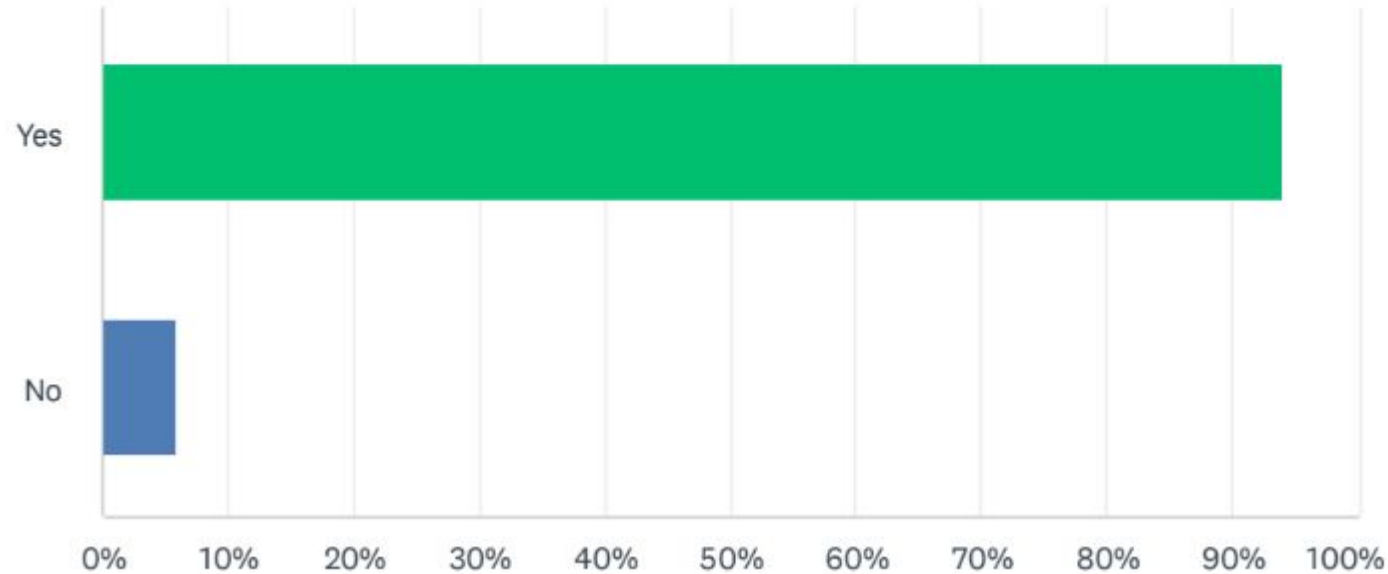
If no, what are the reasons you don't recreate along the Truckee River?

Answered: 80 Skipped: 5



Do you feel that the community needs to do more to address the health and safety of the river?

Answered: 85 Skipped: 0



FINDING THE BALANCE

Line of Sight

Public Safety

Cleanliness

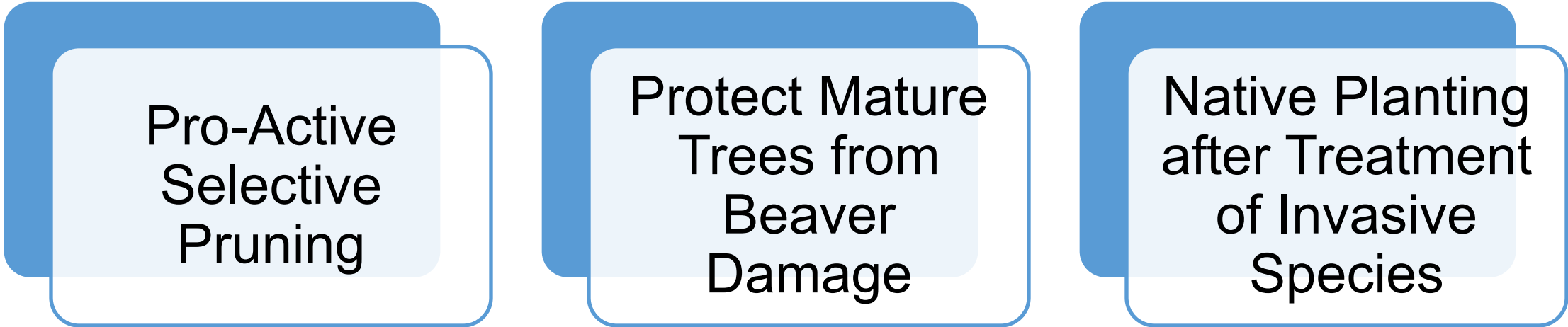
Thriving Vegetation

Protection of Water Quality

Aesthetics

(beauty through nature)

Vegetation Management Methods



Pro-Active
Selective
Pruning

Protect Mature
Trees from
Beaver
Damage

Native Planting
after Treatment
of Invasive
Species

Possible Next Steps



Policy
Level Work

Targeted
Trainings

New
Funding
Sources

The Truckee River Vision Plan

*Prepared for The City of Reno & Washoe County, Nevada
August 2024*



Collaboratively Steward The River

Collaboratively Engage Stakeholders

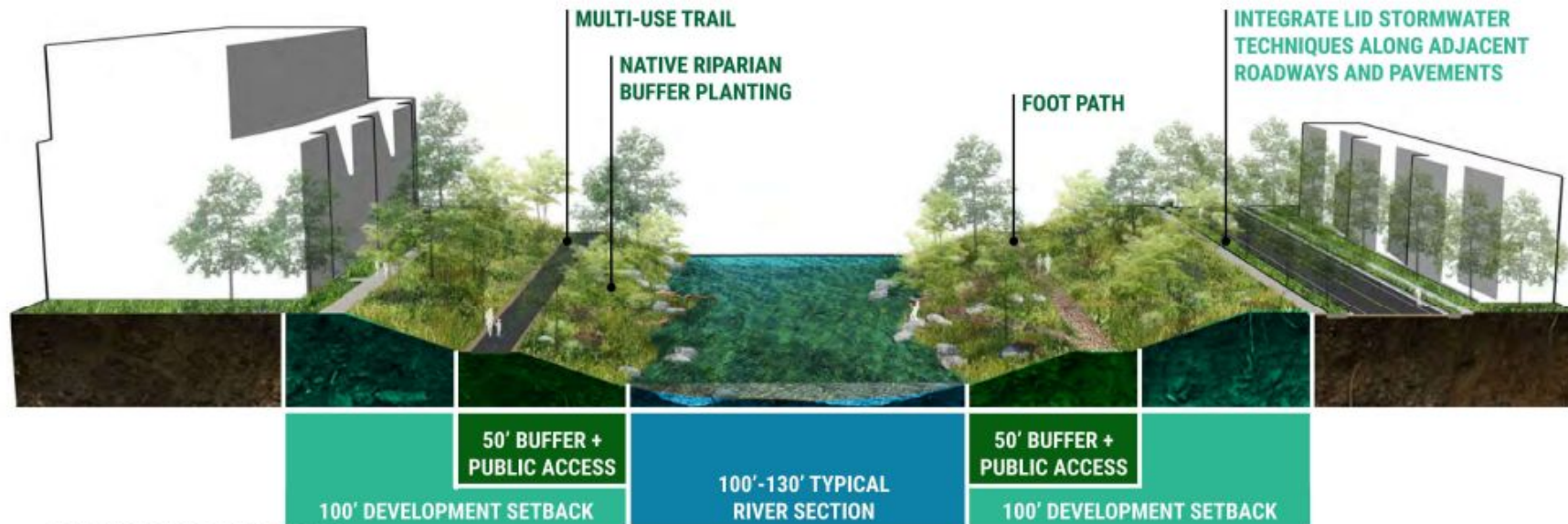
The City of Reno collaborates with many agencies and organizations to manage the floodplains, water quality, banks, and ecology of the Truckee River. **This vision plan aims to support and uplift that body of work** and has recommended the integration of multiple identified plan improvements and approaches within City projects.

Regulate Riverside Development

As recommended in the Land Use & Design section, a river overlay zone should be created that encompasses 200' on either side of the Truckee River and guides riverside development and land use. Guidelines will be developed based on technical analysis and engagement of relevant experts and stakeholders.

Preliminary recommendations include:

- Purchase or acquire easements for land at least 50' back from the edge of river on both sides to ensure continuous public access
- Develop standard riparian buffer regulations and suggested plant species based on land use and topography types
- Restrict development of new structures within 100' of the river edge
- Review existing development codes among jurisdictions and provide direction for Low Impact Development (LID) within overlay
- Plan land use based on the 100-year floodplain as updated on upcoming FEMA maps



One Truckee River Funders

Carson-Truckee Water Conservation District

Nevada Division of Environmental Protection

Nevada Division of Forestry

Nevada Land Trust/ U.S. Bureau of Reclamation

USDA Forest Service/River Network

NV Department of Transportation/Regional Transportation Commission

Truckee River Fund and Truckee Meadows Water Authority

Western Regional Water Commission/Northern NV Water Planning Commission

One Truckee River Board of Directors and other private donors





Thoughts and Input