



**TRUCKEE TAHOE AIRPORT DISTRICT
INTEROFFICE MEMORANDUM
AUGUST 27, 2014**

LANDS MANAGEMENT FUNDING RECOMMENDATION

TO: BOARD OF DIRECTORS

FROM: HARDY S. BULLOCK, DIRECTOR OF AVIATION & COMMUNITY

ATTACHMENTS:

- TRUCKEE RIVER WATERSHED COUNCIL PRESENTATION
- PHOTOS
- LETTER

The Truckee River Watershed Council began work on the Truckee Wetlands Restoration Partnership in 2010. The Truckee Tahoe Airport District has been involved in project planning since its inception. The District owns the Ponderosa golf course and the “L” shaped parcel above the old Town of Truckee Corporation yard. Six entities comprise the Truckee Wetlands Restoration Partnership:

- *Town of Truckee
- *Truckee Donner Public Utility District
- *Truckee Donner Recreation and Park District
- *Truckee Sanitation District
- *Truckee Tahoe Airport District
- *Truckee Donner land Trust

This partnership encompasses lands from the Cottonwood /Hilltop area all the way to the Town of Truckee Corporation yard and ultimately the Truckee River. The long-standing problems with this watershed complex include:

- lack of a fully functioning wetland area

- disconnected hydrology
- significant destructive storm runoff
- significant erosion
- inappropriate land use

The ultimate goal of the partnership is to create a functioning watershed, correct legacy disturbances and inappropriate land use. As a major landowner within the partnership area it is a strategic goal of the District to enhance water quality. Many of the existing problems within District owned lands will ultimately need to be corrected. The partnership offers a way to connect multiple projects on various land ownerships while handling the planning and permitting process through a lead organization; this is the Truckee River Watershed Council. Two areas of significant work within the project area owned by the District include the pond area below the golf course and the legacy access road within the l shaped parcel above the Town corporation yard. Many discussions have taken place between Truckee Donner Park and Recreation District and the Truckee Tahoe Airport District regarding the modification to the existing irrigation pond. Map number one (1) depicts District ownership in area of focus two (2) and three (3). Area two and the area surrounding the pond have tremendous potential as a community asset and interpretive area. Area three is an open space area between two neighborhoods with a legacy access road in the middle. This road is the subject of anticipated improvement and erosion control measures. Both areas two and three will need future attention from the District regardless of participation within the restoration partnership. Attached photos one, two, three show erosion on the "L" shape parcel access road. The area surrounding the pond is often the victim of careless use by vehicles and is clearly visible from Brockway Road.

The Truckee River watershed Council is requesting \$15,000 in funding toward the design of the Truckee Wetlands Restoration Project. The design budget is \$100,000, and \$75,000 has been raised thus far. Staff had discussions regarding potential project funding to complete construction activities on areas two and three. It is the opinion of staff based on past performance and project history with the Truckee River Watershed Council that successful funding is likely, ensuring responsible allocation toward the current design phase. It is the recommendation of staff to fund the Truckee Wetlands Restoration Project in the amount of \$15,000 from the current budget year. Currently land management is under budget due to permit activity on the middle Martis Restoration Project (Waddle Ranch access road improvement). Funding for this design activity is within this year's budget. Additional projects underway with the Truckee River Watershed Council include the Middle Martis Restoration and selected work in collaboration with the Truckee Donner Land Trust on the Jones and Martis Creek Estates parcels.

530.550.8760

P.O. Box 8568
Truckee, CA 96162

truckeerivwc.org



Truckee River Watershed Council

Collaborative solutions to protect, enhance and restore the Truckee River Watershed

California Department
of Fish and Wildlife

California Department
of Parks and Recreation

California Department
of Water Resources

California Fly Fisher
Magazine

Glenshire Homeowners
Association

DMB/Highlands Group, LLC

East West Partners

Friends of Squaw Creek

KidZone Museum

Lahontan Regional
Water Quality
Control Board

Mountain Area
Preservation

Nevada County

North Lake Tahoe
Resort Association

Northstar California

Placer County

Placer County Water
Agency

Sagehen Creek Field
Station - UC Berkeley

Sierra Business Council

Sierra County

Sierra Watch

Sierra Watershed
Education Partnerships

Squaw Valley and
Alpine Meadows

Tahoe Truckee
Sanitation Agency

Town of Truckee

Trout Unlimited

Truckee Donner
Land Trust

Truckee Donner Public
Utility District

Truckee Meadows
Water Authority

U.S. Army Corps of
Engineers

USDA Forest Service

August 15, 2014

Hardy Bullock
Director of Aviation & Community Services
Tahoe Truckee Airport District
10356 Truckee Airport Rd.
Truckee, CA 96160

Subject: Truckee Wetlands Restoration - Request for Project Design Cost Share

Dear Hardy,

We are requesting \$15,000 in funding toward the design of the Truckee Wetlands Restoration Project. The design budget is \$100,000 and \$75,000 had been raised.

The completed project benefits to the Truckee Tahoe Airport District by:

- Reduction of excessive erosion of upland soils along existing dirt roads supporting attainment of the Truckee River Sediment TMDL;
- Improved dirt access roads requiring less maintenance;
- Increase riparian and wetland habitat in the main drainage and around the existing pond and meadows;
- Increased attenuation of water in meadows;
- Increased awareness of wetland function via interpretive trails and signs

Project Description. The Truckee Wetlands are in the heart of the Town of Truckee surrounded by the Hilltop, the Truckee Regional Park and Rodeo Grounds, Ponderosa Golf Course, Martis Valley Estates neighborhood and the Town of Truckee Old Corporation Yard. The wetlands are severely fragmented, degraded and almost invisible. The project will reduce erosion and improve water quality and habitat by reconnecting the wetlands to the Truckee River. The project will highlight and celebrate the wetlands.

The wetlands are degraded from:

- Disconnected water flow due to Old Brockway Road, Estates Drive, Ponderosa Golf Course, and Martis Estates neighborhood, dirt roads running perpendicular to Estates Drive and along the existing detention basin just south of the Town Old Corporation Yard;
- Significant untreated storm water runoff from roads, rodeo grounds, and parking lots;
- Significant soil erosion;
- Historic land use including poorly constructed roads and development.

Accomplishments-to-Date. Since the Town of Truckee's incorporation in 1993, the wetlands have been protected from further development but have not been restored. Beginning in 2010 the Watershed Council facilitated the following:

- 1) **Partnership:** Town of Truckee, Truckee Donner Land Trust, Truckee Donner Public Utility District Truckee Sanitary District, Truckee Donner Recreation and Park District, Truckee Tahoe Airport District;
- 2) **Feasibility Study:** the study reviewed existing environmental reports and developed a list of restoration opportunities; the Partnership agreed to move ahead;
- 3) **Wetlands Assessment:** the assessment analyzed soils and hydrology and developed conceptual restoration plans for five sites; it was presented in a community meeting; again the Partners agreed to proceed; they additionally agreed to cost share in implementation and maintenance of restoration sites.

Goals and Outcomes

- Reduction of excessive erosion supporting attainment of the Truckee River Sediment TMDL;
 - Increased riparian and wetland habitat;
 - Restoration of 1,500 feet of stream and floodplain to the Truckee River;
 - Improved (slowed) water flow through the wetlands;
 - Increased awareness of wetland function via interpretive trails and signs.
- 1) **Design to Reduce Erosion and Direct Flows from Estates Drive to Truckee Pines, and through the TTAD access and drainage:** Runoff is conveyed from the natural habitat area to two shallow channels. Moderate grading will define a single drainage and eliminate flows across upland areas. The rills and eroded areas will be restored and revegetated with native plants.
 - 2) **Design to Enhance Riparian and Wet Meadow Habitat at the Town's old corporation yard.** Connect the flows from the TTAD easement land to the drainage through the old corporation yard. Water is conveyed via an underground culvert through the old yard. The culvert will be removed and a drainage course will be created to convey the runoff to the Truckee River. The new drainage will be revegetated with native riparian species creating additional habitat.
 - 3) **Design to Restore Low Floodplain Terraces.** The stream enters the Truckee River through a culvert via a concrete-lined rip-rapped swale. The natural floodplain and riparian habitat have been lost. Moderate excavation and reshaping will create a floodplain terrace to sustain mountain alder, willow, and other riparian and meadow species.

4) **Interpretative and acknowledgement signage.** Public access will be available via a walking trail. Wetland awareness and partner acknowledgement will be designed through the project area.

Coordinating with Land Use Changes. There are several near-term opportunities to include restoration as part of land use changes:

- Recent ownership of the Ponderosa Golf Course from private land owners to the Truckee Tahoe Airport District, in the mid-section of the wetlands; Trail construction on Old Brockway Road adjacent to the wetlands is allowing hydrologic re-connection;
- Development with the Hilltop Master Plan area, which is the headwaters of the wetland;
- Development of the parcels located on the southwest corner of Old Brockway Rd. and Palisades, in the mid-section of the wetlands;
- Vacating of the old Town Corporation Yard which are part-way through the wetlands.

Maintenance. The restored site will mimic natural hydrologic and vegetation and will require less maintenance than present conditions. The partners have agreed to maintain the restored site.

Next Steps.

Partners have agreed to move forward with a complete design package for implementing the Truckee Wetlands Restoration Project:

- 1) **50% Restoration Design Plans.** Formal restoration design plans which show scope and scale of the specific square footage of land to be restored and show details of restoration actions. Preliminary cost estimates, schedules, and list of required permits for implementation are included.
- 2) **100% Restoration Design Plans.** Restoration design plans with complete detail for bidding and implementation are completed. Final costs, schedules, and list of required permits are included.
- 3) **Definition of implementation measures.** Measures to define success such as: a) before-, during-, and after- photo-point monitoring; b) before- and after-vegetation transects; c) before- and after-hydrologic function (water flow effectiveness).
- 4) **Plan and design for signage and trails.** Community commitment to the wetlands will be facilitated via use of the associated trails and inclusion of site in school field trips about the environment and wetlands in particular A signage and trail plan need to be included in design plans.

Budget

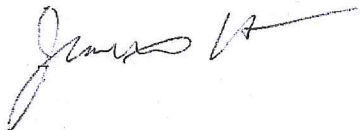
Task	Amount	Funder	Status
Feasibility Study	\$10,000	Town, Truckee Donner PUD	Completed
Assessment	\$40,000	Truckee River Fund	Completed
50% Restoration Design Plans	\$75,000	Truckee River Fund, TTCF	Completed
100% Restoration Design Plans	\$15,000	TTAD	In Progress
Construction	TBD	TBD	Not Started

Schedule

- 60% Restoration Design by March 2015
- 60% Restoration Design Partner Review by April 2015
- 100% Restoration Design by November 2015
- 100% Restoration Design Partner Review by December 2015

We appreciate the participation and support of the Truckee Tahoe Airport District over the past few years. Thank you for considering this request for cost share participation.

Sincerely,



Jeannette Halderman
Program Manager

08/19/2014





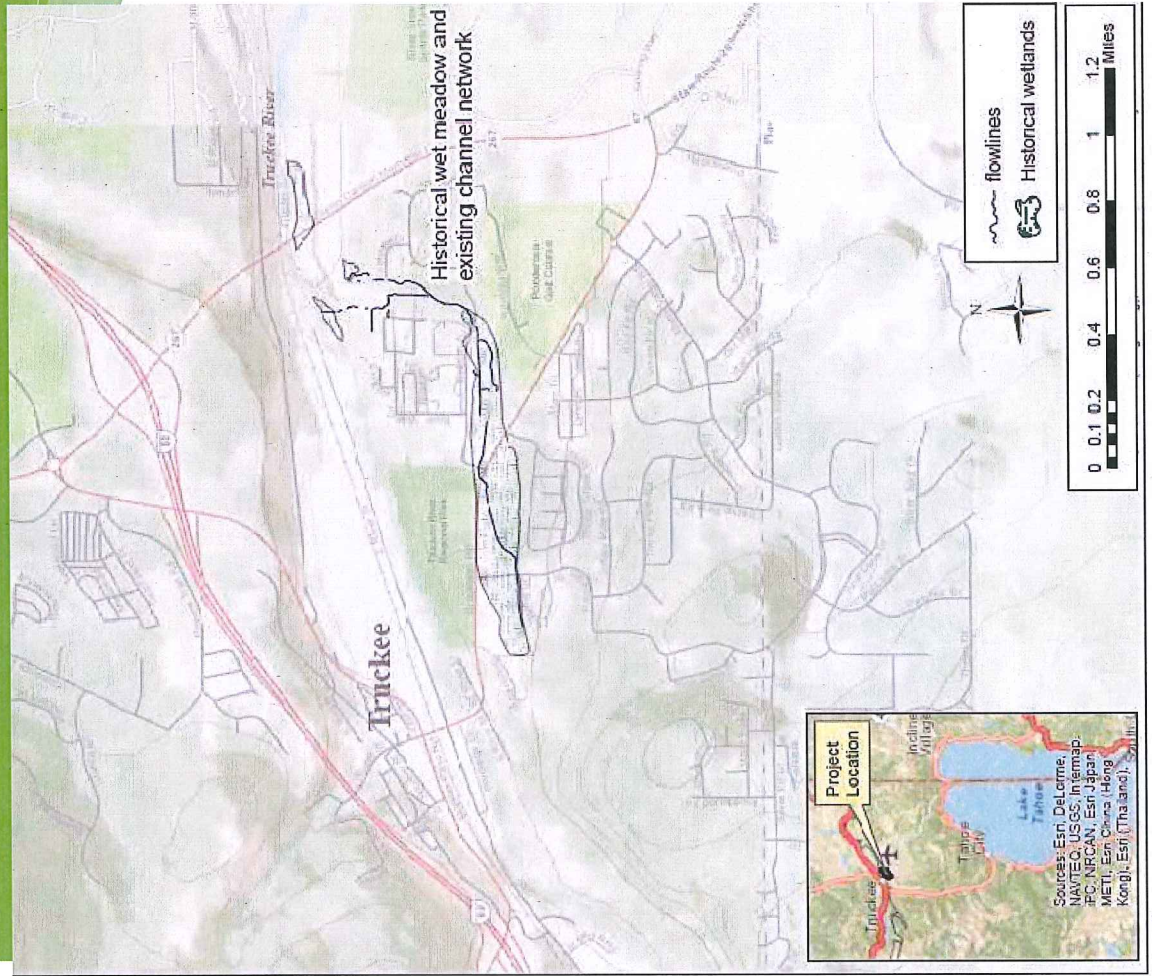
08/19/2014



08/19/2014

Truckee Wetlands Restoration Project

Presented by
Jeannette Halderman, TRWC
David Shaw, Balance Hydrologics



Thank you Truckee Wetlands Restoration Partnership

- * Town of Truckee
- * Truckee Donner Public Utility District
- * Truckee Donner Recreation and Park District
- * Truckee Sanitation District
- * Truckee Tahoe Airport District
- * Truckee Donner Land Trust

Contact with adjacent land owners

What is the Problem?

- * Fragmented wetland complex
- * None of wetlands are fully functioning
 - * Disconnected Hydrology
 - * Significant storm Runoff
 - * Significant Erosion
 - * Inappropriate Land Use

Truckee Wetlands Restoration Partnership

- * 2010 TRWC convened partnership of land managers, property owners, and stakeholders
- * Goals:
 - * Include all stakeholders
 - * Understand what restoration is achievable
 - * Work in conjunction with other projects
 - * Restore connectivity and function

Project Area Historical and Now

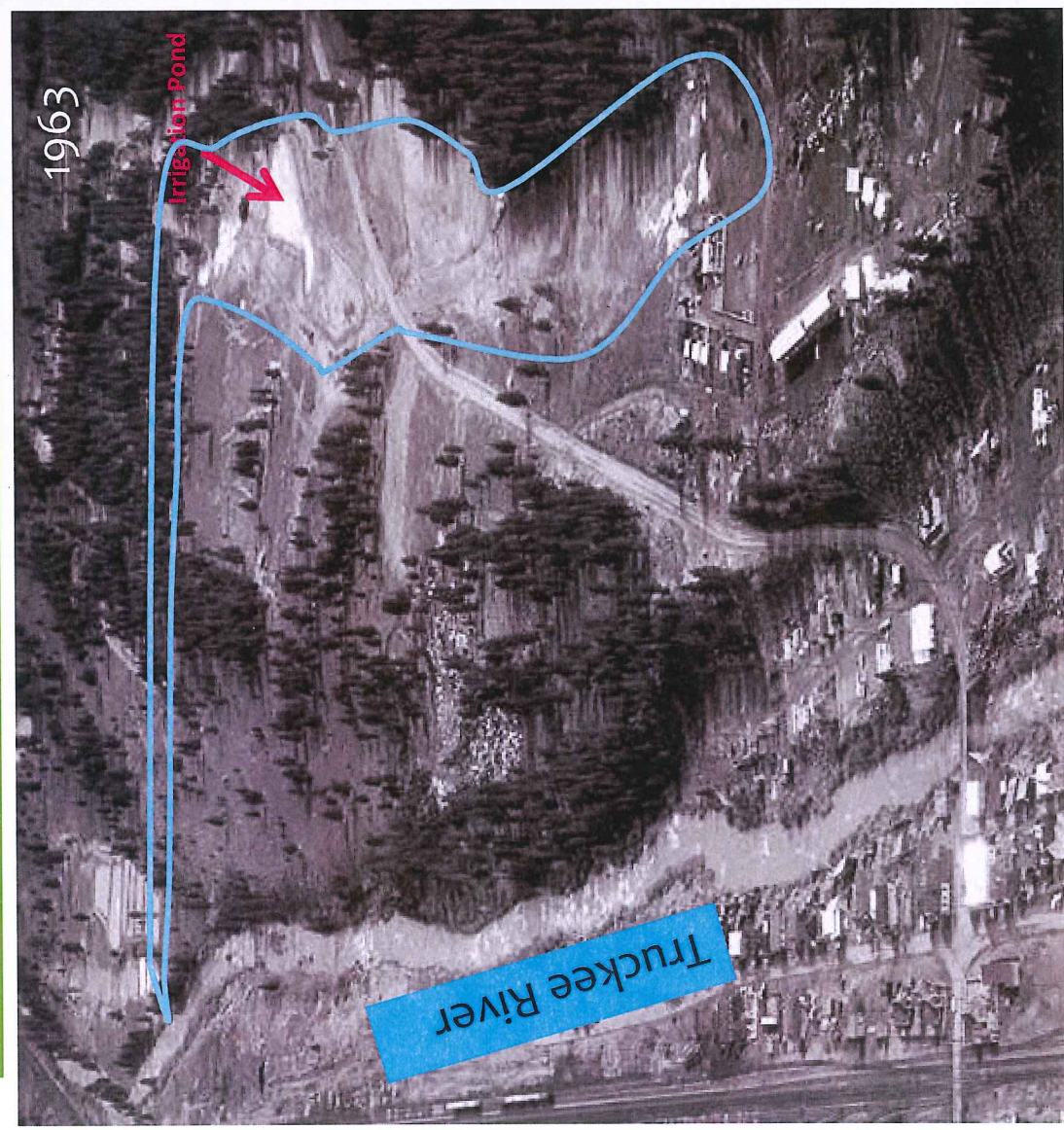
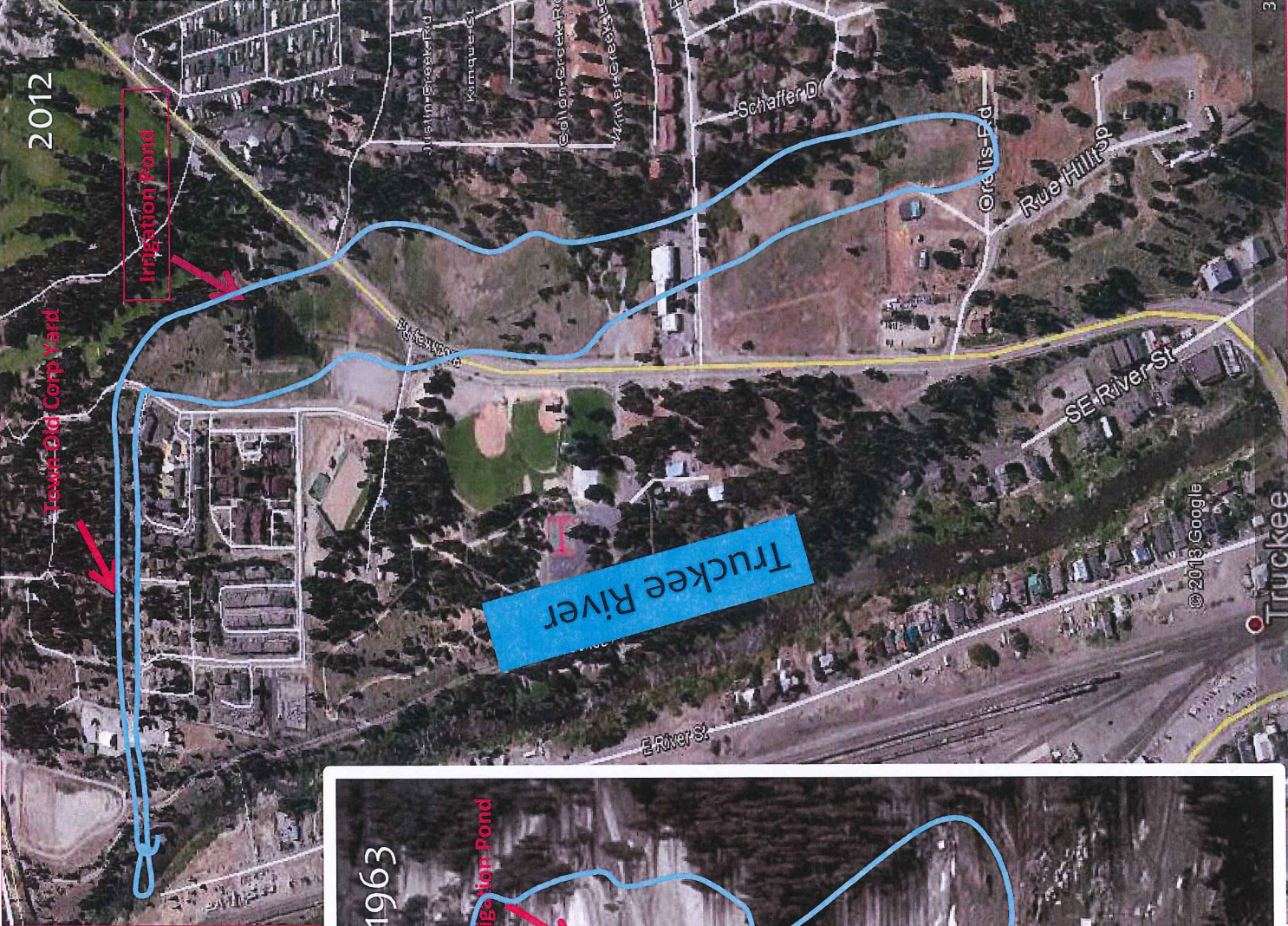
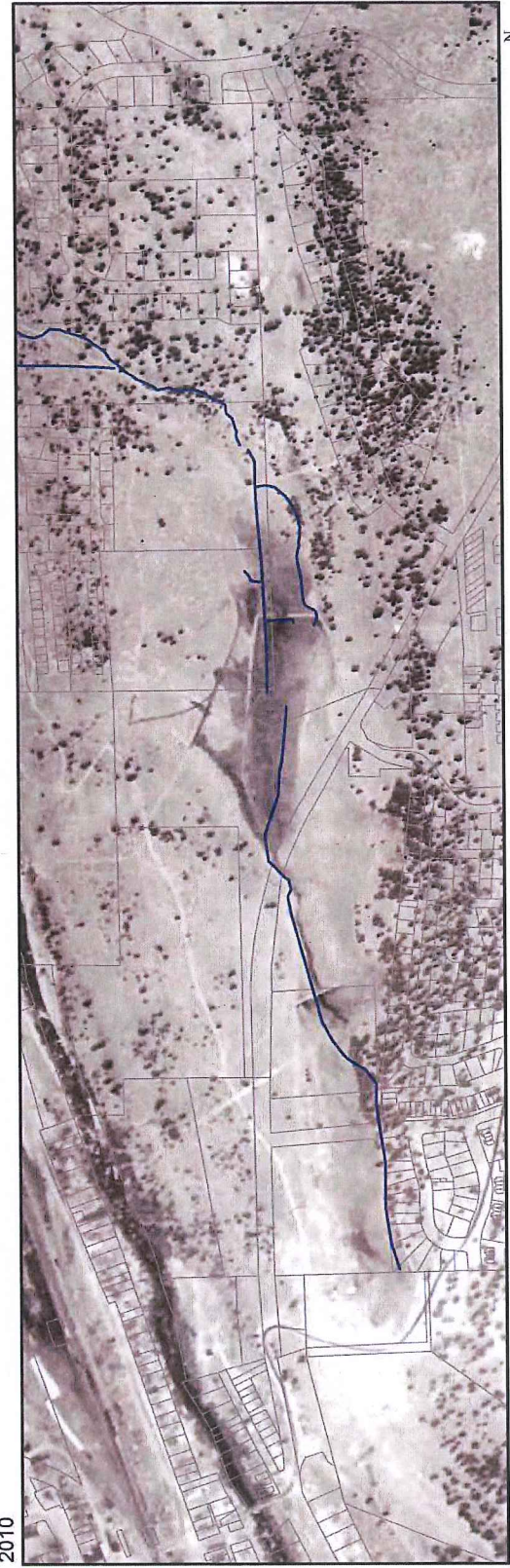
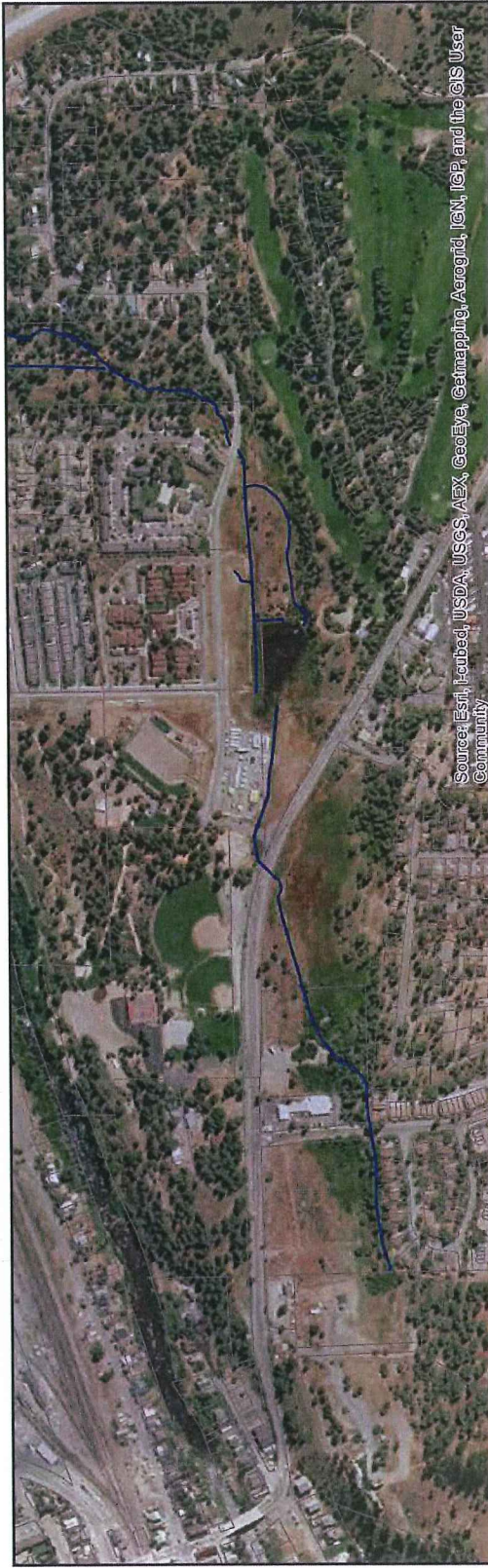


Photo Credit CA Dept of Transportation

Feasibility Study

- * 2010 – TRWC and Balance compiled
- * Brockway Trails Geotechnical Studies
- * Historical Analysis (others and Balance Hydrologics)
- * Wetland Delineations
- * Current Conditions
- * Soils maps
- * Opportunities and constraints
- * **Recommendation: restoration is possible**

1939 Aerial Photography

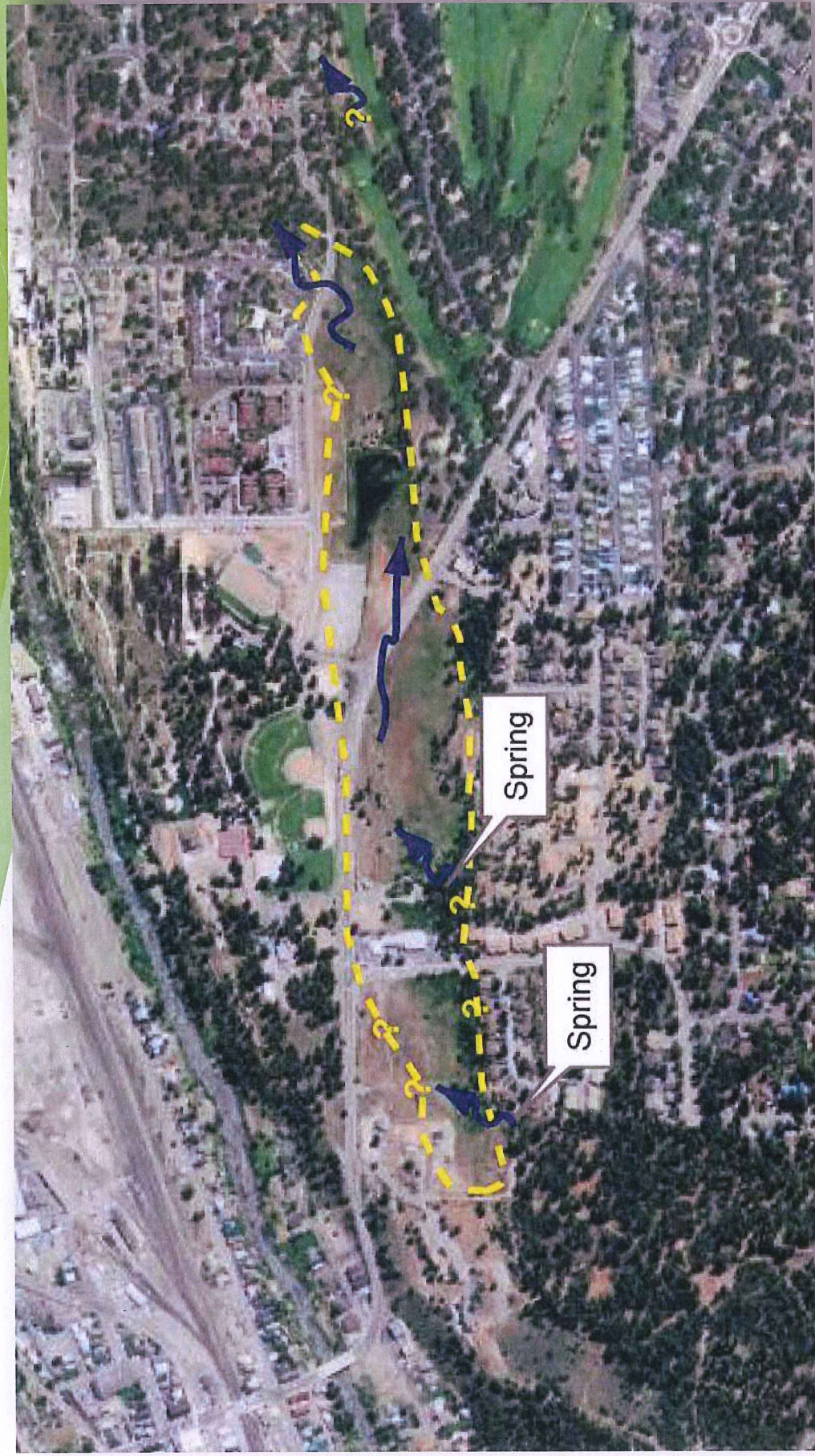


1972

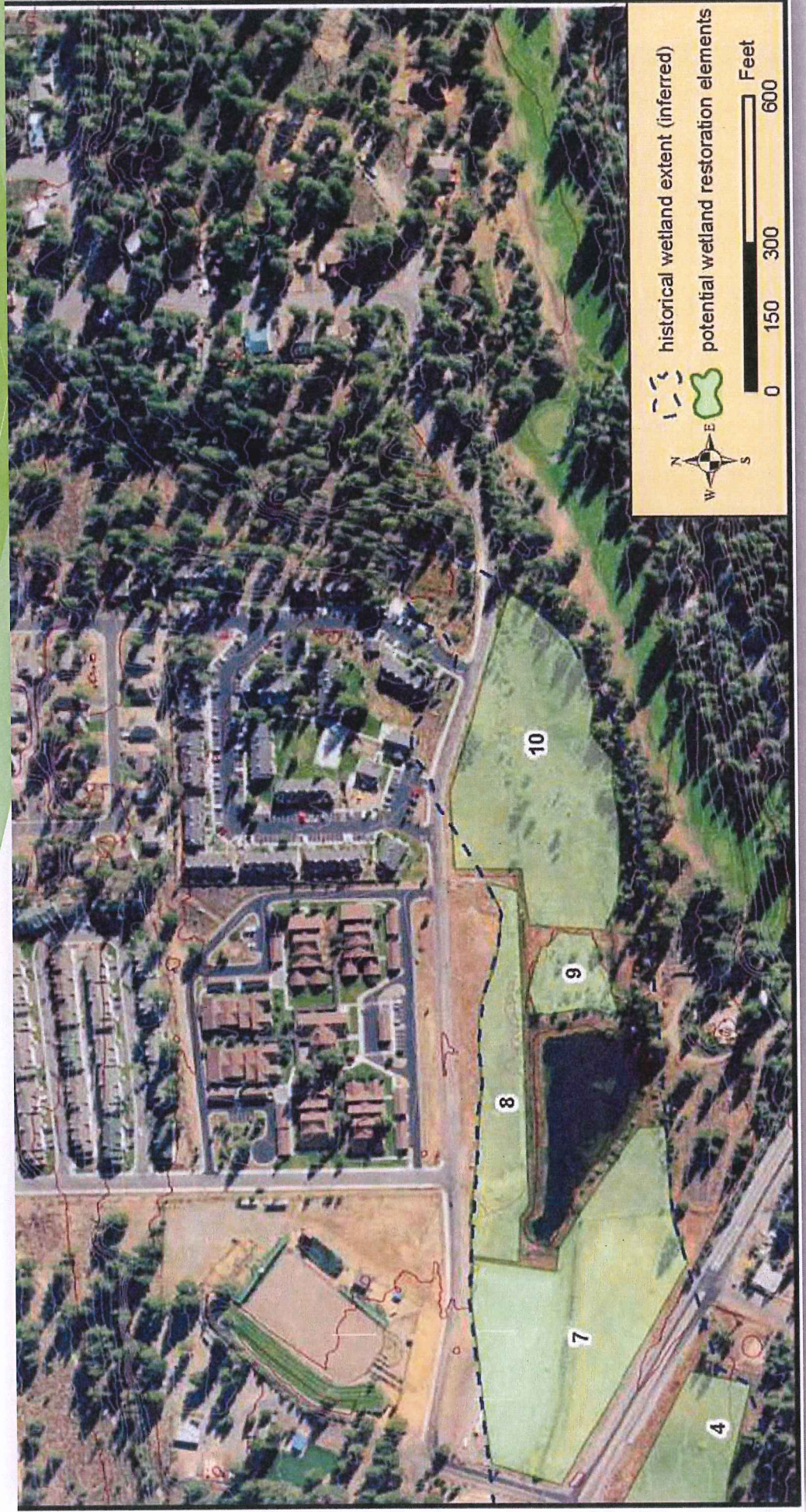


(Source: USFS)

Inferred Historical Wetland Extent



Impaired Areas



Impaired Areas



Truckee Wetlands Restoration Project Assessment

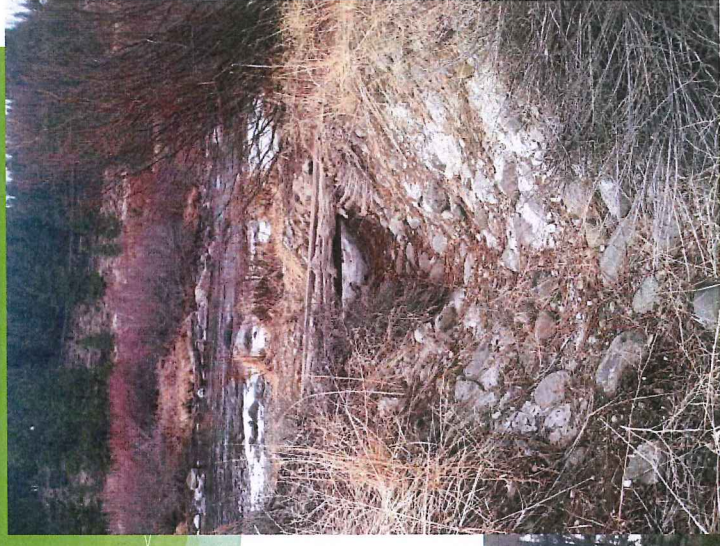
- * Truckee Wetlands Restoration Feasibility Study
- * Soil and Hydrology
- * Analysis of Irrigation
- * Conceptual Design
- * Continued partner meetings

Soils and Hydrology

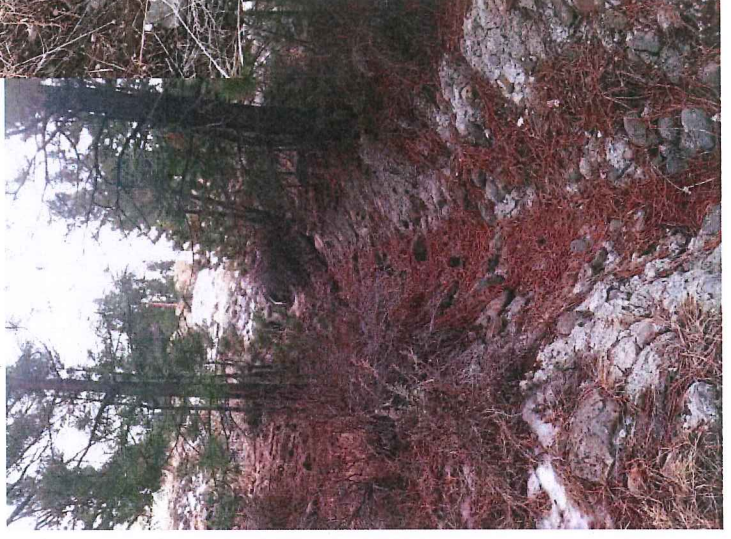
- * Evaluate soils and their water-holding properties
- * Estimate water volumes and expected flow rates
- *
- * Evaluate surface and groundwater interaction
- * Collect baseline data

Restoration Objectives & Concept Design

- * 5 Areas of focus
- * Improve hydrology of meadow (remove ditches/channels)
- * Attenuation
- * Expand meadow and riparian habitat area
- * Reduce Erosion/sedimentation
- * Create recreation/education opportunities



Outfall at Truckee River



Culverts under Legacy Trail - Outfall at Truckee River

5 Areas of Focus



Focus Area 3 - Restored Condition



MATCHLINE - SEE SHEET L-1.4

MATCHLINE - SEE SHEET L-1.2

Project: TRUCKEE WETLAND RESTORATION PARTNERSHIP
 Site: BUCKWY ROAD WETLAND, TRUCKEE, CALIFORNIA
 Balance Hydrologics, Inc.
 17025 Buckeye Peak Road, Suite 81
 Truckee, CA 96161
 530.833.8776
 www.balancehydrologics.com

L+P DesignWorks
 LANDSCAPE ARCHITECTURE PLANNING + DESIGN
 13000 Donner Pass Road, Suite 81
 Truckee, CA 96161
 Phone: (530) 937-8170
 Fax: (530) 937-8170
 www.l+pdesignworks.com

CONCEPTUAL DESIGN CHANNEL TO THE TRUCKEE RIVER

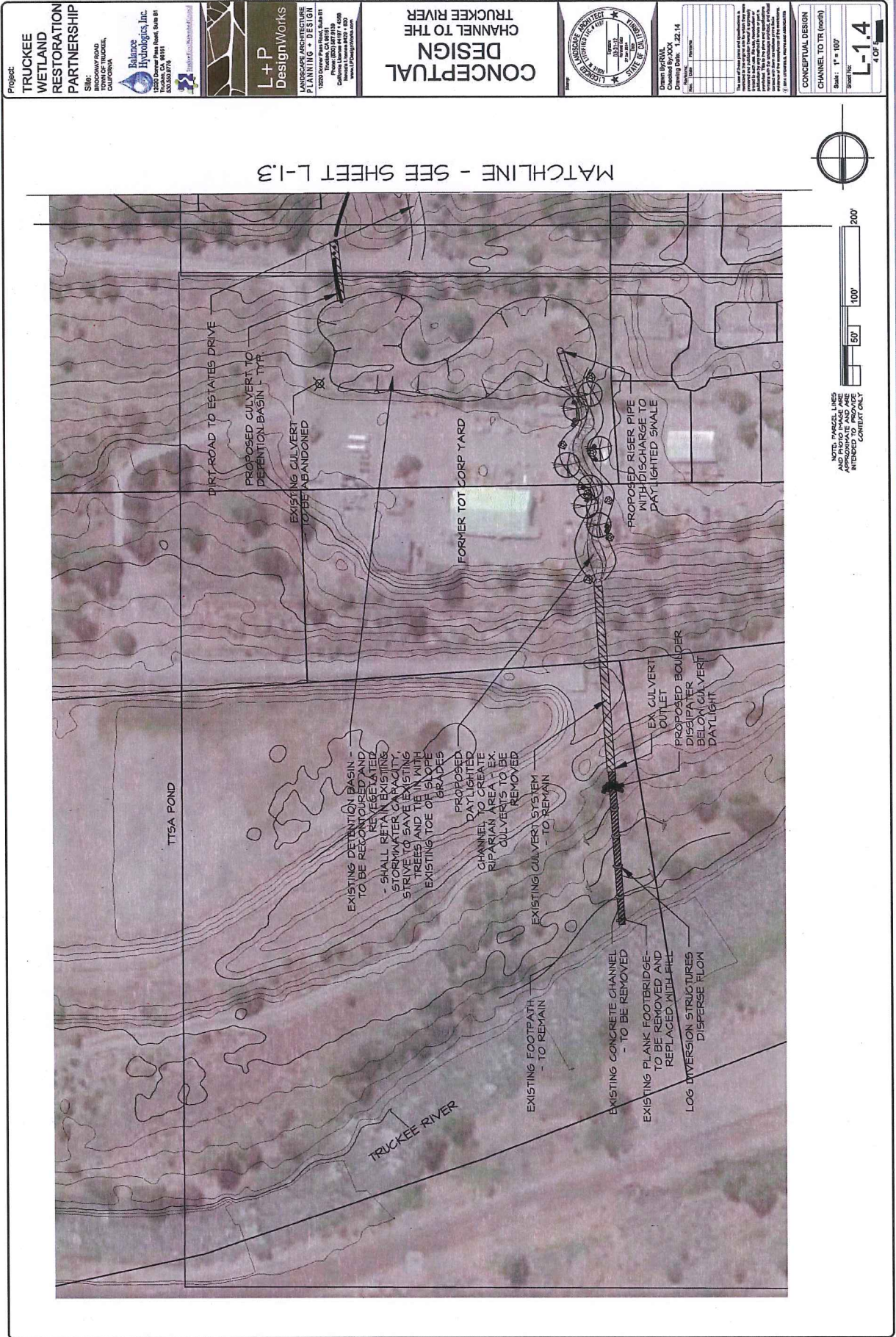
Drawn By: BAWL
 Checked By: BALANCE
 Date: 11/22/14

Scale: 1" = 50'

Sheet No. L-1.3

CONCEPTUAL DESIGN CHANNEL TO TR (South)

Focus Areas 3, 4 & 5 - Restored Condition



Next Steps

- * 2014/2015 Design
- * 2015-2018 Phased Implementation
 - * Focus Area 1, 2 & 3
 - * Focus Area 4
 - * Focus Area 5
- * 2015-2023 Post-Implementation Monitoring