



**NEVADA TAHOE  
CONSERVATION DISTRICT**



**FY 2017 ANNUAL REPORT  
July 1<sup>st</sup>, 2016 to June 30<sup>th</sup>, 2017**

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## **MISSION STATEMENT**

***“ TO PROMOTE THE CONSERVATION AND IMPROVEMENT OF THE LAKE TAHOE BASIN’S NATURAL RESOURCES BY PROVIDING LEADERSHIP, EDUCATION AND TECHNICAL ASSISTANCE TO ALL BASIN USERS.”***

## **VISION STATEMENTS**

### **Organization**

***“TO BE A HIGHLY RESPECTED AND EFFECTIVE CONSERVATION ORGANIZATION IN THE LAKE TAHOE BASIN WITH SUFFICIENT AND SUSTAINED FUNDING TO MEET OUR CONSERVATION EFFORTS.”***

### **Natural Resource**

***“A NEVADA LAKE TAHOE BASIN WHERE NATURAL RESOURCES AND NATURAL BEAUTY ARE PROTECTED AND ENHANCED IN HARMONY WITH THE USE AND ENJOYMENT OF RESIDENTS AND VISITORS.”***

## **DISTRICT SUPERVISORS\***

### **SUPERVISORS – EXECUTIVE COMMITTEE**

**Glen Smith, Chair**

**Doug Martin, Representing Carson City, Vice Chair**

**Cary Sarnoff, Secretary/Treasurer**

### **SUPERVISORS**

**Maureen McCarthy, PhD**

**Bob Cook**

**Barbara Perlman-Whyman**

**Marsha Berkbigler, Representing Washoe County**

**Dave Nelson, Representing Douglas County**

## **DISTRICT STAFF\***

**MEGHAN KELLY–DISTRICT MANAGER/SENIOR PROJECT ENGINEER**

**MARK THORPE - ADMINISTRATOR**

**DANA OLSON – ASSISTANT DISTRICT MANAGER**

**DOMI FELLERS – ENVIRONMENTAL SCIENTIST**

**MONICA GRAMMENOS – PROJECT ENGINEER**

**CHRISTOPHER WAETCHER – STAFF ENGINEER**

**\*NTCD Board of Supervisors and Staff as of June 30<sup>th</sup>, 2017**

# INTRODUCTION

## NEVADA TAHOE CONSERVATION DISTRICT

The Nevada Tahoe Conservation District (NTCD) is one of approximately 3,000 Conservation Districts functioning in all 50 States and U.S. Territories. Conservation Districts are subdivisions of State government and are unique locally led conservation agencies. Districts provide resource management and technical assistance to land occupiers (owners, renters, and producers) as well as work cooperatively with Federal, State, and Local governments in the delivery of conservation programs.

The Nevada Tahoe Conservation District is one of 28 Conservation Districts functioning under the auspices of Nevada Revised Statute, Chapter 548. The District is a Governmental Subdivision of the State of Nevada and a public body corporate created in 1976. Prior to July 1<sup>st</sup>, 1976 the land area that now makes up the NTCD was part of a larger Conservation District known as the Tahoe Verdi Conservation District. Local leaders realized the unique natural resource issues of the Lake Tahoe Basin and realigned District boundaries to create the NTCD. They believed the realignment would allow for more effective conservation management of Lake Tahoe's natural resources. Now the District encompasses all of the land in the Lake Tahoe Basin residing in the State of Nevada including portions of Douglas and Washoe Counties and the Carson City Rural Area.

The Nevada Tahoe Conservation District is Nevada Lake Tahoe's local conservation agency and source for technical assistance in the areas of erosion and conservation management. The District is a non-regulatory and grant funded agency that works closely with its Federal, State, and Local partners to deliver conservation programs to the Nevada Lake Tahoe Community. The District is guided by a Board of Supervisors made up of elected and appointed community leaders. The Board of Supervisors provides direction to the District's full time staff in carrying out the District's mission statement, vision statements, and guiding principles. As described in our mission statement, the District seeks to provide its constituents with superior technical assistance, educational resources, and conservation leadership with the goal of protecting Lake Tahoe's natural resources.

## **DISTRICT ADMINISTRATION AND OPERATIONS**

Included in our accomplishments during the past year was the completion of the FY 2017 audit. The audit showed a financial outlook for the District which continues to reflect a financial position of accountability. Internal controls are in place to insure the solvency of the District's funds.

The District submitted its Indirect Cost Rate with the Department of the Interior for the year 2018. The rate was approved in February 2017.

Other administration and operations accomplishments for fiscal year 2017:

- Successfully held eight regular board meetings.
- Participation in national and state conservation programs.
- The FY 2017 audit was completed with no findings.
- Successfully met all deliverable requirements of the Conservation Commission.
- District Staff and Supervisors continued to provide support for the NvACD.

# **FY 2017 PROJECT UPDATES**

## **WATER QUALITY AND EROSION CONTROL PROJECTS**

Scientists, researchers, and water quality specialists in the Lake Tahoe Basin have identified untreated storm water runoff, eroding soils, and impaired or disturbed stream environment zones (SEZ) as key threats to the water quality of Lake Tahoe. The District's Water Quality and Erosion Control (WQEC) Program is focused on identifying and correcting areas where point and non-point source pollution from stormwater runoff, eroding soils, and impaired SEZs are negatively impacting the quality of Nevada Lake Tahoe surface and ground waters.

In partnership with the Nevada Division of State Lands (NDSL), Nevada Division of Environmental Protection (NDEP), jurisdictions such as the Nevada Department of Transportation (NDOT) and Douglas and Washoe County, as well as other basin agencies, the District identifies and prioritizes critical areas and projects. Once projects have been identified, the District works diligently to assist project proponents in obtaining funding from Federal, State, and Local sources to design and construct the projects. During project design, the District, its grantors, and a project-specific Technical Advisory Committee provide technical oversight to ensure the project meets the natural resource, water quality, and community objectives of the WQEC Program.

NTCD continues working on several Water Quality and Restoration Projects with NDSL and under the State of Nevada Tahoe bond act, NDEP under the Nonpoint Source Program, NDOT under the gas tax funding, TRPA Mitigation funding from each Douglas and Washoe County, and federal funding sources such as the US Forest Service and Bureau of Reclamation. The cooperative effort between these agencies has led to several design and implementation projects including the Rosewood Creek Restoration Project.

### **Rosewood Creek Restoration Project - Continuation**

The purpose of the Rosewood Creek Restoration Project - Continuation is to continue to stabilize portions of the Third Creek watershed to reduce sediment loads to Lake Tahoe. Nearly a half mile of creek was restored as part of a project completed in October 2015. A new project was authorized by the Bureau of Reclamation to address a 400 foot section of creek just downstream from this restored reach. Design started on this reach in May 2017 and construction is planned for 2018. Monitoring is ongoing through FY 2020 to determine the project's contribution to water quality improvements.



**New channel, culvert, and floodplain at Rosewood Creek Area A SEZ Restoration continues to undergo monitoring**

**Burke Creek HWY 50 Crossing and Realignment Project, Phase I & II**

This project is a partnership with NTCD, USFS, NDOT and Douglas County to implement the Burke Creek HWY 50 Crossing and Realignment Project. Phase I of the Project installed a new culvert under HWY 50, improved conveyance and drainage along HWY 50, removed a portion of the Douglas County parking lot and restored the area to stream channel and floodplain, and addressed channel entrenchment and head cuts upstream. NTCD engineers and consultants completed the design of the project in May 2016 and this phase was constructed August – October 2016. Phase 1 is currently undergoing revegetation through October 2017. Phase II created a new branching channel downstream of HWY 50 on USFS land and construction stormwater treatment for NDOT runoff. USFS crews led Phase II construction, NTCD assisted with plan review and permitting. Phase 2 construction is scheduled to be completed October 2017. The Project is funded through USFS, NDOT, Douglas County and NDSL.



**Construction on Burke Creek Crossing Project, September 2016**



Completed Burke Creek Project in May 2017, the photo on the right is the future site of Phase 2, currently underway

### **Pittman Terrace Water Quality Improvement Project**

This project is a partnership with NTCD, NDOT, Douglas County and the Pittman Terrace neighborhood to implement water quality and erosion control improvements in the Pittman Terrace community to address NDOT runoff generated from HWY 50. Funding is through NDEP, NDSL and NDOT. Funding was secured from all partners in April 2017. An alternatives analysis was completed in January 2017 and a preferred alternative was selected in Spring 2017. 50 percent design is currently underway. The project is expected to be constructed in Spring 2018.

### **Incline Village Green Infrastructure Project**

This project will result in the installation of 6 to 8 green infrastructure sites in the Washoe County Right-of-Way in Incline Village to treat stormwater runoff in high pollutant loading catchments. NTCD is using part of the hydrologic and pollutant loading knowledge gained during the Asset Inventory Project and Stormwater Load Reduction Plan Projects coupled with the LID BMP effectiveness knowledge gained from the Hybrid BMP Project to construct rain gardens and bio-swales to maximize runoff treatment. NTCD staff in FY 2017 worked on permitting, planning and design components. The goal of the project is to reduce stormwater pollutant loading to Lake Tahoe by installing distributed rain gardens in the Washoe County Right-of-Way. Construction activities are planned for Spring of 2018.

### **Zephyr Cove GID Water Quality Improvement Project**

This project resulted in the construction of new conveyance pipe and a stormwater treatment basin on USFS land to treat runoff from the NDOT right-of-way and outfall treatments to treat overflow and some runoff from the Zephyr Cove GID neighborhood. Funding is provided by USFS SNPLMA Round 12, NDSL Bond Act, NDEP, and NDOT. NTCD acted as the overall project manager and design engineer. The project was constructed in phases that occurred in September and October 2016 and May and June of 2017 and completed July 7, 2017.



**Zephyr Cove GID Water Quality Improvement Project: Left, installation of storm drain, Right, Newly constructed basin collecting runoff.**

## **MONITORING AND MODELING PROJECTS**

NTCD's environmental monitoring program is designed to provide answers to the scientific and natural resource questions of Lake Tahoe's resource managers. The program delivers these answers by the following means:

- Evaluation of environmental restoration projects
- Inventory of Basin-wide project accomplishments
- Inventory of Nevada's stormwater assets
- NDEP compliance monitoring
- Stream health and water quality
- Advanced stormwater treatment analysis
- Pollutant Load Reduction Modeling
- Sediment Load Reduction Planning

### **Lake Clarity Crediting Program Implementation & Registration**

The 2014 Stormwater Load Reduction Plans and subsequent Annual Stormwater Reports for each of the Nevada jurisdictions of Washoe County (WC), Douglas County (DC) and the Nevada Department of Transportation (NDOT) in the Lake Tahoe Basin demonstrate their capability of meeting the 5, 10 and 15 year Lake Tahoe Total Maximum Daily Load (TMDL) load reduction goals. The plans and reports were essential for laying out how each jurisdiction will meet their TMDL load reduction obligations under an Interlocal Agreement (ILA) with the Nevada Department of Environmental Protection (NDEP). The Lake Clarity Crediting Program (LCCP) Implementation & Registration project prioritized registration activities toward TMDL compliance for WC and NDOT only; Douglas County performed the registration and implementation in-house. After a steep learning curve on the steps involved in a registration for all parties (NTCD, WC, NDOT and NDEP) and a complete transfer and code re-write of the LCCP Tools (BMP RAM, Road RAM and CAP), both WC and NDOT have completed successful registrations and credit declaration. Washoe County registered road operations and 2 BMP registrations. NDOT successfully registered and declared credits for their road operations and continues to work towards a BMP registration. NTCD will complete both the Road RAM and BMP RAM requirements by September 30, 2017 for water year 2017. The project completed the

recalculation of the Baseline Pollutant Loads for both Washoe County and NDOT in September 2016.

### **Washoe County Support Services**

Provide GIS, Inventory, and modeling support (time and materials) to Washoe County to help complete a series of products for the TMDL including defining and characterizing an Urban Planning Catchment, mapping all stormwater assets, and running several Pollutant Load Reduction Model (PLRM) configurations.

### **Rosewood Creek Water Quality Monitoring**

NTCD received additional funding to continue monitoring on Rosewood Creek with the goal of quantifying the restoration's impact on meeting the Tahoe TMDL. The sampling systems above Northwood Blvd. and below SR28 continue to be operational and are monitoring Rosewood Creek flow above and below the Area A restoration. With the new funding, an additional monitoring station above SR28 was installed to separate the impact of SR28 road runoff. These efforts continued through FY 17 with the current grant and through FY 2020 with a new grant recently awarded.

### **Invasive Weeds**

The Nevada Department of Agriculture and the Truckee River Fund funded an invasive weed project in Incline Village. The project focused on removing Spotted Knapweed, Bull thistle, and Teasel located in the Rosewood Creek and Third Creek areas of Incline Village, along with providing the Incline Village Parks & Recreation grounds crew invasive weed training to continue removing and treating the private parcels owned by the Incline Village General Improvement District. The project closed September 2016.



**Invasive Weeds - Bull Thistle**

### **Tahoe Yellow Cress**

The NTCD attended Tahoe Yellow Cress meetings. The District had limited funding for outreach and education efforts to inform lake front homeowners about Tahoe Yellow Cress. Work performed toward these efforts was funded by the Tahoe Truckee Community Foundation.

The funding pays for NTCD to conduct these activities and work with the AMWG group on the goal of maintaining habitat for Tahoe Yellow Cress. This Project assisted in protection of important Tahoe yellow cress (TYC) habitat, helping to insure enhancement, recovery, and protection of the species. In the past, NTCD provided education about TYC to the general public through 5 volunteer stewardship plantings and outreach at 9 other events. It created 10 sites specific TYC conservation plans and planted at 4 different private properties. NTCD propagated of 1500 Tahoe yellow cress plants that were used on these private and public planting for this project. All of these activities support the Tahoe yellow cress Conservation Strategy by engaging private lakefront landowners in TYC stewardship and educating the general public about TYC. Other focuses of these funds was collaboration on the conservation strategy update, work with partners on a Safe Harbor Agreement application and assistance with survey of entire lakeshore for TYC.



Tahoe Yellow Cress

### **Community Watershed Planning**

NTCD continued to make progress on this project originally funded by the United States Environmental Protection Agency (US EPA - SNPLMA) with continuation funding through 207 from the NRCS. The project's goals are to assist private property owners, commercial businesses, and local jurisdictions with TMDL implementation through a community-based watershed approach. The intent is to focus the community on implementation and maintenance of individual and merged BMPs for protection and restoration of water quality. Through an integrated strategy for community outreach, education and information sharing, the NTCD will increase the communities' knowledge of restoration objectives, opportunities for improving environmental stewardship, and continuation of the BMP retrofit program. This project aims to connect the private and public works EIP projects while being adapted to local community priorities. The NTCD continues to provide BMP assistance, BMP area planning assistance, maintenance verification protocols development and conservation planning assistance to two focus communities. Kahle Drive and the Oliver Park GID are the communities that NTCD has most recently focused efforts.

In these focus areas, project accomplishments include:

- Identified watershed stakeholders and engaged them in the community scale restoration scoping, targeting EIP and TMDL implementation. Provided coordinated outreach and education efforts within communities to avoid duplication and conflicting messages, and make the best use of available resources.
- Coordination and application of scientific information specific to the watershed areas.

- Assistance with TMDL catchment registration and tools training for such activities.

Direct project benefits will include source control, assisting jurisdictions in meeting environmental standards, and enhancement of natural/pre-development hydrologic cycle. Secondary effects/benefits include increased understanding and awareness of local environmental issues amongst community members, ability to transfer technology across sub-watersheds, and promoting regional stormwater management approaches where these are superior to individual parcel-based BMP retrofits.

## **COMMUNITY PARTNERSHIPS**

During Fiscal Year 2017, funding was provided by each of the three local county governments within NTCD's boundaries to support NTCD's conservation efforts. The funds provided by Douglas and Washoe Counties, and Carson City has and will continue to be essential to NTCD operations.

### **DOUGLAS COUNTY BOARD OF COMMISSIONERS**

NTCD received \$25,000 from the Board of Douglas County Commissioners for general assistance funding. Douglas County also provides NTCD with legal support through its District Attorney's office.

### **CARSON CITY BOARD OF SUPERVISORS**

Although there are very few developed areas within the Carson City Rural Area, the Board of Supervisors has recognized the benefits of protecting Lake Tahoe Basin natural resources, for the thousands of residents and visitors who vacation and recreate in the basin. The District supports the City's engineering department with residential BMP information.

### **WASHOE COUNTY BOARD OF COMMISSIONERS**

Washoe County continues to partner with NTCD on various projects in the Lake Tahoe Basin including the new Incline Village Green Infrastructure Project and Catchment Registration Projects.

The general fund funding provided by Douglas County enables NTCD to leverage a small amount of funding into larger projects such as the Burke Creek Highway 50 Crossing and Realignment Project and the upcoming Kahle Water Quality Basin Implementation Project. NTCD would like Washoe County to reinstate general fund assistance and has presented to the Washoe County Board of County Commissioners in February 2017 on the matter. General fund assistance is critical for activities like grant writing and project planning.

### **OTHER PARTNERS**

NTCD is involved in several other partnerships in addition to our Community Partnerships. NTCD currently has Memorandums of Understanding or contracts with the USDA Natural Resources Conservation Service, the United States Environmental Protection Agency, the Nevada Division of Environmental Protection, the Nevada Division of State Lands, and the Tahoe Regional Planning Agency. We are fortunate to have such a diverse and engaged group of partners who are dedicated to natural resource issues at Lake Tahoe.

Working groups are also an important partnership NTCDD is actively involved with. Our current participation includes:

- Lake Tahoe Interagency Monitoring Program
- South Tahoe Environmental Education Coalition
- Lake Tahoe Basin Weed Coordinating Group
- Stormwater Quality Improvement Committee
- Nevada Tahoe Water Suppliers Association
- TRPA Pathway Technical Working Groups
- TRPA Pathway Forum
- Lake Tahoe Federal Advisory Committee
- Nevada Stormwater Association
- Tahoe Interagency Executive Committee
- Washoe Tribe of Nevada
- University of Nevada Cooperative Extension
- Parasol Foundation
- Tahoe Yellow Cross Adaptive Management Working Group and Executive Committee.

## **FUNDING**

Nevada Tahoe Conservation District funding during FY 2017 was provided by Local, State and Federal partners including:

### **LOCAL**

Washoe County  
Douglas County  
Carson City  
Cave Rock Estates GID  
Tahoe Truckee Community Foundation  
Tahoe Resource Conservation District

### **STATE**

NV Division of State Lands  
NV Division of Conservation Districts  
NV Division of Environmental Protection  
NV Division of State Lands  
NV Division of Forestry  
NV Department of Agriculture  
NV Department of Transportation  
California Department of Transportation

### **FEDERAL**

USDI Bureau of Reclamation  
USDA Natural Resource Conservation Service  
USDA Forest Service  
US Environmental Protection Agency

### **Private**

Truckee River Fund  
Zephyr Cove GID  
Wildscape Engineering, Inc.

A comprehensive overview of the District's finances is available in our FY – 2017 annual audit. A copy of which is available at the district.