



**NEVADA TAHOE
CONSERVATION DISTRICT**



**FY 2016 ANNUAL REPORT
July 1st, 2015 to June 30th, 2016**

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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
Barbara Perlman-Whyman, Vice Chair
Cary Sarnoff, Secretary/Treasurer

SUPERVISORS

Maureen McCarthy, PhD
Bob Cook
Doug Martin, Representing Carson City
Marsha Berkbigler, Representing Washoe County
Barry Penzel, Representing Douglas County

DISTRICT STAFF*

MEGHAN KELLY–DISTRICT MANAGER/SENIOR PROJECT ENGINEER
MARK THORPE – ADMINISTRATOR
MICHAEL POOK – ENVIRONMENTAL SCIENTIST
DOMI FELLERS – ENVIRONMENTAL SCIENTIST
MONICA GRAMMENOS – PROJECT ENGINEER

***NTCD Board of Supervisors and Staff as of June 30th, 2016**

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 1st, 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 (NTCD) 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 2015 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 2017. The rate was approved in June 2016.

Other administration and operations accomplishments for fiscal year 2016:

- Successfully held eight regular board meetings.
- Participation in national and state conservation programs.
- The FY 2015 audit was completed with no findings.
- Reduced office rent expense 43% by consolidating the office to one side of the building.
- Successfully met all deliverable requirements of the Conservation Commission.
- District Staff and Supervisors continued to provide support for the NvACD.

FY 2016 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

The purpose of the Middle Rosewood Creek Restoration Project A (Project) is to continue to stabilize portions of the Third Creek watershed to reduce sediment loads to Lake Tahoe. FY 2013 work built a new stream channel and road crossing. FY 14 work performed revegetation and monitoring activities. The project began the final active construction phase, Phase 3, on August 10th, 2014 and was completed in October 2014. Continued post construction monitoring through FY 15 shows vegetation work, completed in FY 14, was very successful and the project was deemed complete in October 2015 (FY 2015). Monitoring is ongoing through FY 2020 to determine the project's contribution to water quality improvements.



Building Channel during Phase 1 of the Rosewood Creek Area A SEZ Restoration



New channel, culvert, and floodplain at Rosewood Creek Area A SEZ Restoration

Cave Rock Erosion Control Project

The primary goal of the Cave Rock Estates GID Stormwater System Retrofit Project was to retrofit the existing detention basin to treat stormwater for the fine sediment particles (FSP) and nutrient loads of nitrogen and phosphorous and to reduce the transport of them to Lake Tahoe. This project converted the single treatment mechanism detention basin into an advanced filtration system. Design, planning and bid preparations were completed in FY 14. Construction of Phase 1 of the project began on September 2nd, 2014 and was completed in October 2014 (FY 2015). Phase 2 of the project was designed in August 2015 and construction was completed in June of 2016.



Construction on Cave Rock Erosion Control Project (Phase 1: left, Phase 2: right)

Incline Village Green Streets Project

This project resulted in the installation of 6 rain gardens in the NDOT Right-of-Way in Incline Village to treat stormwater runoff in high pollutant loading catchments as identified by PLRM modeling performed for SLRP. NTCD used part of the hydrologic and pollutant loading knowledge gained during the Asset Inventory Project and SLRP Projects coupled with the LID BMP effectiveness knowledge gained from the Hybrid BMP Project to construct rain gardens to maximize runoff treatment. NTCD staff in FY 2014 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 NDOT Right-of-Way. There were three objectives: 1. Identify treatment locations based on SLRP catchment pollutant load rates, existing stormwater infrastructure and site feasibility. 2. Design and construct rain gardens to attain optimum performance with minimal maintenance requirements. 3. Garner Lake Clarity Credits for NDOT upon catchment registration. Construction activities were complete in October 2014 with ongoing monitoring through FY 2016.

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 will install a new culvert under HWY 50, improve conveyance and drainage along HWY 50, remove a portion of the Douglas County parking lot and restore the area to stream channel and floodplain and address channel entrenchment and head cuts upstream adjacent to the Kahle ballfields. Phase II will create new channel downstream of HWY 50 on USFS land and construction stormwater treatment for NDOT runoff. USFS crews will spearhead Phase II construction. NTCD engineers and consultants completed the design of the project in May 2016. Phase I construction is schedule to be completed October 2016. The Project is funded through USFS, NDOT, Douglas County and NDSL.



Construction on Burke Creek Crossing Project, September 2016

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. As of June 30, 2016, only NDEP funding has been secured. NDSL and NDOT funds are expected in Fall 2016. The Project has not commenced until match funds (NDSL or NDOT) are secured.

Zephyr Cove GID Water Quality Improvement Project

This project will result in the construction of 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 is the overall project manager and will bid the project once 100 percent design and permitting is completed (expected November 2016 permitting completion). NTCD will provide modeling data to NDOT and Douglas County for the Lake Clarity Crediting Program. NTCD's team of engineers completed the design work and is planning Phase 1 of construction in September and October 2016 and Phase 2 of construction in May 2017.



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 Stormwater Load Reduction Plans were the final step towards implementation of the Lake Tahoe Total Maximum Daily Load (TMDL) for the Nevada jurisdictions of Washoe County (WC), Douglas County (DC), and the Nevada Department of Transportation (NDOT) in the Lake Tahoe Basin. The Stormwater Load Reduction Plans for each jurisdiction demonstrates their capability to meet the 5, 10 and 15 year TMDL load reduction goals. These Plans were essential for laying out how jurisdictions will meet their TMDL load reduction obligations under an Interlocal Agreement (ILA) with the Nevada Department of Environmental Protection. The Lake Clarity Crediting Program Implementation & Registration prioritized registration activities toward TMDL compliance. The project will register both road operations and BMP registrations for Washoe

County and NDOT, along with conducting the Road RAM and BMP RAM inspection requirements. The project also recalculated the Baseline Pollutant Loads for both Washoe County and NDOT.

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

The sampling system above Northwood Blvd. is operational and is monitoring Rosewood Creek flow above the new channel construction. Combined with an identical monitoring system operated by DRI downstream of SR28 and below the new channel construction, the data collected will help determine the water quality benefit of constructing the restoration. 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. The current project is scheduled to be complete 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 the United States Environmental Protection Agency (US EPA - SNPLMA) funded project. 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. Lower Country Club and Cave Rock are the communities that NTCD has focused efforts.

In these focus areas, project accomplishments include:

- Provided solutions for sediment control, fire defensible space, water conservation and drinking water protection, invasive and noxious weeds, and other pertinent resource issues within the focus areas.
- 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.
- Planning for the transfer of practices, methodology, lessons learned, etc to other key watersheds in the Tahoe Basin.
- Coordination on the development of required BMP maintenance measures as required by TRPA. This task included match from Washoe and Douglas Counties
- 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 2016, 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 \$10,000 from the Board of Douglas County Commissioners for general assistance funding.

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 provides NTCD with legal support through its District Attorney's office. During the past year the District worked closely with the District Attorney's office to develop cooperative agreements and contracts which were used to provide funding to many of our local partners.

THE FUNDING PROVIDED BY WASHOE AND DOUGLAS COUNTIES AND CARSON CITY IS AN ESSENTIAL PART OF THE NEVADA TAHOE CONSERVATION DISTRICT'S ABILITY TO CONTINUE OPERATIONS AND WE CAN NOT THANK THEM ENOUGH FOR THEIR SUPPORT.

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 NTCD is actively involved with. Our current participation includes:

- Lake Tahoe Interagency Monitoring Program
- Lake Tahoe Environmental Education Coalition
- Lake Tahoe 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
- UNCE
- Parasol Foundation
- Tahoe Yellow Cress Working Group and Executive Committee.

FUNDING

Nevada Tahoe Conservation District funding during FY 2016 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 Forestry
NV Department of Agriculture
California Department of Transportation

FEDERAL

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

Private

Stateline Stormwater Association
The Parasol Foundation
Truckee River Fund

A comprehensive overview of the District's finances is available in our FY – 2015 annual audit. A copy of which is available at the district.