

US 50 At Burke Creek: Water quality, fish passage improvements, 2006, \$425,000 (Bureau of Reclamation)

SR 28: USFS Off-road parking lots & erosion control improvements, 2006, \$500,000 (Forest Hwy).

LONG RANGE PROJECTS

SR 207 (Kingsbury Grade): Erosion control, water quality, roadway and drainage improvements. 2008-2009, \$5,000,000 (Water Quality - Tahoe Bond) \$1,237,000 (other).

SR 431 (Mount Rose Highway): Erosion control, water quality & drainage improvements. 2007-2008, \$3,000,000 (unknown) & \$1,317,000 (other).

US 50: Cut slope, erosion control, water quality and drainage improvements from 2.5 miles north of Cave Rock (MP 9.5) to Glenbrook (MP 11.5). 2010-2012, \$5,200,000 (Water Quality-Tahoe Bond) & \$14,000,000 (unknown).

SR 28: Erosion control, water quality & drainage improvements from Mount Rose Highway (SR 431) to Crystal Bay. 2008-2009, \$1,039,000 (other) & \$3,800,000 (unknown).

SR 28: Erosion control, water quality & drainage improvements near Chimney Beach to Sand Harbor. 2010-2013, \$5,117,000 (unknown).

COMPLETED PROJECTS

Since 1996, NDOT has completed 15 roadway and environmental improvement projects with a total construction cost of \$38.2 million. Of this total, \$30.8 million has been utilized to construct water quality enhancement features on nearly all the NDOT roads in the Tahoe Basin. Highlighted below are just a few of the more recently completed projects:

SR 760 Elks Point Road: Shared Use Path from Nevada Beach to US 50. Total project cost \$319,000. Completed in 2002.

SR 760 Elks Point Road: Erosion Control, drainage, water quality improvements & overlay. Total project cost, \$540,000. Completed in 2002.

US 50: Cut slope stabilization, erosion control and water quality improvements from Spooner Summit to Glenbrook. Total project cost \$4,380,864 (Federal-PLH). Completed in 2002.

US 50: Spooner Maintenance Station: Mile Post DO 12.0 Construction of New Maintenance Building and water quality improvements. \$695,210. New frontage

road, improved ingress and 0.6 acres or meadow restoration. \$42,000. Completed 2003.

SR 28: Erosion control & water quality improvements from 2 miles south of the CC/WA county line to the county line in Carson City & from Sand Harbor to Memorial Point in Washoe County. Total project cost \$5,619,136 (Federal-PLH). Completed in 2002-2003.

US 50: Bin walls 2-3 repair/replacement, erosion control, drainage and water quality improvements from Borne Meadow to Zephyr Cove. 2003-2004, \$3,500,000 (Bin walls) & \$1,500,000 (Water Quality - Tahoe Bond). Completed in 2003-2004.

US 50: Erosion control, drainage and water quality improvements from Zephyr Cove to Skyland Drive Total project cost \$439,500 (Federal-PLH), \$211,139 (Tahoe Bond). Completed in 2002.

US 50 Near Cave Rock: Bin wall 10 replacement and drainage improvements. Total project cost \$2,722,500 (State). Completed 2003.

SR 28: Maintenance repairs, erosion control, water quality & drainage improvements from Memorial Point to Lakeshore Blvd. \$550,000 (State). Completed 2003.

BMP IMPROVEMENTS

The following is a current list of BMP Improvements that have been constructed as part of the NDOT Lake Tahoe Environmental Improvement Program:

Improvements	Approximate Totals
Seeding (acres)	50
Drop Inlets (each)	240
Dikes/Curb & Gutter (linear foot)	81,735
Paved Swales (linear feet)	30,080
Pipe (linear foot)	21,125
Rip Rap (square yard)	48,000
Rockery Walls (linear feet)	6,798
Sediment Traps (each)	6
Sediment/Infiltration Basins	25
Pretreatment Vaults (each)	15
Timber Check Structure (linear foot)	5,550

EXHIBIT **E2** HLRW Document consists of **2** pages
☒ Entire document provided.
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Meeting Date **4/22/04**



2004 NDOT

LAKE TAHOE

REPORT CARD

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A view from Memorial Point

Since 1995, NDOT has had an active role in implementing state-of-the-art erosion control & water quality techniques on its roadways to preserve the delicate environment of Lake Tahoe. NDOT's goal is to minimize discharge of sediment and pollutants from our roadways to the Lake. NDOT owns and maintains 39 miles of roadway within the Tahoe Basin. In 1996, NDOT initiated an environmental improvement master plan for all its facilities in the Lake Tahoe Basin. The following is a summary of NDOT activities and accomplishments in the Tahoe Basin.

WATER QUALITY MONITORING EFFORT

NDOT and the Desert Research Institute (DRI) are monitoring the effectiveness of erosion control and water quality facilities constructed on SR 28 in Carson City & US 50 in Douglas County. This multi-year project started in 2001. The first year of this project was funded by the U.S. Forest Service (\$178,573) and Carson City (\$100,000 Burton-Santini funds). DRI also contributed \$80,000 toward purchase of monitoring equipment for this project. The remaining efforts are funded by the U.S. Forest Service (\$90,000) and Lake Tahoe License Plate Funds (\$90,000). The BMP monitoring phase has been completed and the sediment modeling is continuing forward.

ADVISORY RADIO SYSTEM

NDOT and CalTrans joined together to create a highway advisory radio system that would provide road condition information to Lake Tahoe Basin Motorists. Currently,

California transmits on AM 1610 and Nevada transmits on AM 530.

MAINTENANCE

Currently, NDOT's annual expense in maintaining drainage, erosion control and water quality facilities is approximately \$650,000. This cost is anticipated to exceed \$1.25 million per year after completion of all EIP projects. NDOT owns and maintains 9 Road Weather Information Systems (RWIS) throughout the basin. RWIS monitors real time air and pavement temperatures, wind speed and direction and precipitation type and amount. RWIS has helped NDOT reduce application of sand/salt in the basin by approximately 73%. Currently, NDOT is looking at the use of additional testing (outside the Basin) regarding the possible use of new anti-icing chemicals.

ENHANCEMENT PROJECTS

Transportation enhancement is a federally funded program established under ISTEA and continued under TEA-21. Enhancement activities are in addition to normal transportation projects. A minimum local match of 5 percent of the project cost is required. Listed below is the current enhancement project in 2004:

Incline Village – SR 28 Tahoe Blvd.:

Construct pedestrian path from Country Club to the East terminus of Southwood Blvd. and from Centerpoint to the West terminus of Southwood Blvd. Total project cost \$504,500 (\$77,900 match from Washoe County). Construction scheduled in 2004.

MASTER PLANNING EFFORTS

In 1996 NDOT initiated an environmental improvement master planning process for all of its roadways utilizing a phased approach. In Phase I and II, NDOT completed the preliminary design on slightly more than 21 miles of SR 28, US 50 and Elks Point Road. Phase III will begin in 2004. Below is a brief description of each of the 3 phases.

Phase I (Completed 1999): Environmental improvement for State Route 28 from US 50 junction to Ponderosa Ranch.

Phase II (Completed 2003): Environmental improvement for US 50 from Spooner Summit to Kahle Dr. and Elks Point Road (SR 760). Environmental improvement for SR 28 in Incline Village from Ponderosa

Ranch to Mt. Rose Highway was completed in January 2003.

Phase III: Environmental improvements on SR 28 from Mt. Rose Highway (SR 431) to Nevada/California state line, SR 431 Mt. Rose Highway and SR 207 Kingsbury Grade.

CURRENT CONSTRUCTION PROJECTS

SR 28 in Incline Village: Erosion control, water quality, fish passage and drainage improvements from Ponderosa Ranch to Mt. Rose Highway. 2004, \$5,200,000 (Water Quality-Tahoe Bond), \$500,000 (State) & 851,000 (other).

US 50, SR 28 to Cave Rock: Guard and barrier rail additions, repaving through Cave Rock tunnels. 2004, \$2,600,000 (\$1,700,000 Federal and \$900,000 State).

US 50: Bin walls 4-5, and pavement overlay. 2004-2005, \$5,500,000 (Bin walls).

US 50, Kahle to Elks Point Road: Erosion control, drainage and water quality improvements. 2004-2005, \$538,000 (Water Quality - Tahoe Bond) & \$480,000 (Roadway).

US 50 Stateline to Kahle Drive: Paving, 3" Coldmill with 2" Plantmix Bituminous Surface with 1" Open Grade. 2004-2005, \$700,000.

FUTURE PROJECTS

Keeping the Tahoe Basin free from environmentally harmful effects is a continuous challenge. NDOT strives to improve and enhance areas that may have negative impacts on Lake Tahoe's environment. The following is a list of future projects to address some of these areas:

US 50: Bin walls 7, 8 & 9 repair/replacement, erosion control, drainage and water quality improvements from Skyland to Cave Rock Tunnel. 2005-2006, \$8,400,000 (Bin walls) & \$2,800,000, (Water Quality-Tahoe Bond).

US 50: Bin wall 1, erosion control, water quality and drainage improvements from Nevada Beach Road to Borne Meadow. 2005-2006, \$1,000,000 (Bin walls) & \$1,100,000 (Water Quality - Tahoe Bond).

US 50: Erosion control, water quality & drainage improvements from 0.5 miles north of Cave Rock to 2 miles north of Cave Rock. 2006, \$2,500,000 (Water Quality-Tahoe Bond) & \$650,000 (State).