

GRANT APPLICATION FORM

- A. Project Title Summit Drive Culvert Replacement
(Please refer to project name as listed in EIP)
- B. Environmental Improvement Program (EIP Project) # A portion of EIP # 240,
A new EIP application has been submitted to TRPA specifically for this project.
- C. Project Location (Please provide map)
The project is located on Summit Drive Drive near the intersection of Terrace
View Drive within the Kingsbury General Improvement District service
boundary, Stateline, NV
- D. Project Description: Please attach separately, and refer to Project Description Requirements (attached). Please see Item 1.0 and 2.0 "Project Description" attached.
- E. Applicant's Name and Contact Information
For: Kingsbury General Improvement District
Phone: 775-588-3548 Fax: 775-588-3541 Email cam@kgid.org
- F. Estimated Total Project Cost: \$200,000

Grant Amount Requested (Grant amounts requested from non-state agencies cannot exceed 75% of total cost of design & construction).
\$100,000
Sources and amounts of matching funds:
\$100,000
- G. Owner of Property(ies): Douglas County

If others hold any outstanding property rights (additional owners, public/private easements, etc.), attach explanation of how they will participate.
Kingsbury Grade Improvement District owns and maintains the Roadway,
water, sanitary sewer, and stormdrain infrastructure.
- H. On behalf of Kingsbury General Improvement District, I request this Application be considered for financial assistance with the Nevada Division of State Lands, Water Quality and Erosion Control Grants Program.

CAMERON MCKAY
(typed name)
[Signature]
Signature

GENERAL MANAGER 2/14/13
Title Date

**SIXTEENTH ROUND OF FUNDING AVAILABLE FOR
STATE OF NEVADA LAKE TAHOE WATER QUALITY
AND EROSION CONTROL GRANTS**

**APPLICATION FOR FUNDS AVAILABLE THROUGH
THE NEVADA DIVISION OF STATE LANDS
IN CONJUNCTION WITH MATCHING FUNDS ALREADY APPROVED
FROM THE US FOREST SERVICE**

PROJECT PROPOSAL

*Summit Drive Culvert Replacement
Portion of EIP No. 240*

New EIP Number Pending

February 15, 2013

Prepared by:

**Kingsbury General Improvement District
PO Box 2220
Stateline, NV 89449**

1.0 – Project Schedule:

Table 1. Proposed Project Schedule

Project Phases and Tasks	Dates
Project Scoping and Grant Applications	January 2013 – May 2014
Planning	January 2013 - December 2015
Surveying & Mapping	April 2013 – May 2013
Technical Advisory Committee (TAC) Kickoff	May 2013
Baseline Conditions and Report	May 2013 – June 2013
Baseline TAC Meeting	June 2013
PLRM Alternatives (FEA)	July 2013 – August 2013
NEPA Categorical Exclusion	May 2013 – August 2013
Regulatory Compliance & Permitting	September 2013 – December 2013
Design	September 2013 – March 2014
Design (30%, 60%, and 90%)	September 2013 – February 2014
Construction Plans, Specifications, & Estimates	March 2014
Advertise and Bid	April 2014 – May 2014
Construction	July 2014 – October 2015
Construction	July 2014 – October 2014
Construction Management	July 2014 – October 2014
Project Management/Coordination	January 2013 – December 2014

2.0 Project Participants

The following list identifies the project partners (individuals and organizations) and their project roles.

Project Partners:

- Cameron McKay, General Manager Kingsbury GID - Project Proponent
- Douglas County - Project Proponent
- Elizabeth Harrison, Nevada Division of State Lands (NDSL) - Funding Partner
- Genevieve Villemarie, United States Forest Service- Lake Tahoe Basin Management Unit (USFS-LTBMU) - Funding Partner
- Ed Skudlarek, Nevada Division of Environmental Protection (NDEP) - TAC Member
- Nevada Tahoe Conservation District (NTCD) - TAC Member to be determined.
- Tahoe Regional Planning Agency (TRPA) - TAC Member (EIP Staff to be determined)
- Lumos & Associates Inc. (Lumos) - Consultant

3.1 - Statement of Need:

At the upper end of Summit Drive, just above Terrace View Drive an unnamed stream crosses Summit Drive via an 18 inch diameter culvert. Downstream of this crossing, in stream grade control located on

private property causes the stream to back up towards the culvert and submerge the outlet. This backing up of the streamflow in turn causes sediment deposition in the culvert which Kingsbury GID must clean out the culvert at least once a year. In some cases during higher flow events, sediment in the culvert clogs the culvert, forcing flooding along Summit and Terrace View Drives.

Routine cleaning on the culvert stirs up sediments in the stream increasing transport downstream to Lake Tahoe. Vegetation along the streambanks where this maintenance occurs is easily disturbed, increasing erosion and mobilization of sediment. During events where the culvert gets clogged and flooding results, natural runoff from the stream comingles with urban runoff from the roads causing unnecessary pollution of the streamflow. This floodflow is conveyed along Summit Drive until it reaches downstream outfalls discharging to the same unnamed stream. This stream is perennial and is tributary to Edgewood Creek.

An Outfall Connectivity Rapid Assessment Methodology (OCRAM) model was completed for this project. For the flood runoff re-entering the unnamed Creek, this runoff is conveyed over an eroded shoulder from the curb and pipe end to the creek: The connectivity is determined as follows:

$$OC = (5ft/5ft)5 = 5$$

This discharge is considered directly connected.

The project will meet the goals and objectives of the Watershed Approach by preventing the comingling of natural runoff and urban runoff.

3.2 - Project Description:

The sediment deposition issues can be alleviated by either removing or lowering downstream grade control or by redesigning the culvert to keep sediment mobile through this reach. Kingsbury GID has already contacted the property owners about removing the grade control and has encountered resistance to this idea. Therefore, Kingsbury GID would like to redesign the culvert to raise the inlet and outlet, while increasing culvert slope, so that sediment cannot settle out in this reach. This redesign should prevent future clogging problems with this culvert.

Raising the culvert will likely require relocation of some utilities within Summit Drive. Streambank stabilization will also be required at the inlet and outlet of the culvert. Hydraulic modeling will be conducted on the upstream reach and on the culvert itself to ensure capacity of this reach is either maintained or improved.

4.0 Operations and Maintenance

Currently, KGID is forced to maintain this culvert several times a year. Some of this maintenance is proactive and some of it is reactive when flooding occurs. Improvements proposed to this culvert would reduce maintenance requirements, which would allow more time to conduct routine maintenance on other facilities under KGID's purview. KGID would still maintain this culvert along with the regularly scheduled maintenance of other facilities for the grant mandated period of 20 years. If the lifecycle of the improvements required additional maintenance beyond the 20 sunset period, KGID commits continuing this maintenance as needed.

6.0 – Goals and Objectives:

Goal #1: Prevent Comingling of Stream Water with Urban Runoff Generated in Summit and Terrace View Drives.

Prevention of the flooding issues on Summit Drive will allow “clean” stream water to stay within the streamzone and not become polluted by coming into contact with stormwater generated in Summit Drive and upstream urban areas. A minor quantity of TMDL credits may be available through the Lake Clarity Crediting Program.

Goal #2: Improve Water Quality of Urban Runoff Generated in Summit Drive

Preventing water from this stream from entering Summit Drive will dramatically decrease the volume of runoff that is captured by the existing downstream stormdrain system and treatment vaults. The treatment effectiveness of this system will dramatically increase as a result.

Goal #3: Increase Public Safety

Preventing moderate and high streamflows from flooding Summit Drive will benefit public safety. Although not an environmental goal, enhancing public safety should be a consideration of any public project.

Goal #4: Cost Effectiveness

Project alternatives will undergo a cost evaluation that compares capital and maintenance costs with BMP effectiveness to help determine the best alternatives for the project.

The goals above are consistent with the guidelines and objectives of the TMDL, the Watershed Approach, the Lake Tahoe Clarity Crediting program and the guidelines set forth in the USFS grant program guidelines, by addressing problem areas that are considered directly connected to Lake Tahoe and are known to contribute to the degradation of Lake Tahoe clarity.

7.0 – Project Evaluation and Monitoring:

Evaluation and monitoring of the project will be achieved by providing before and after photographs showing flooding problems prior to project implementation compared with photos after project implementation. Similar storm and runoff events will be considered for photo monitoring.

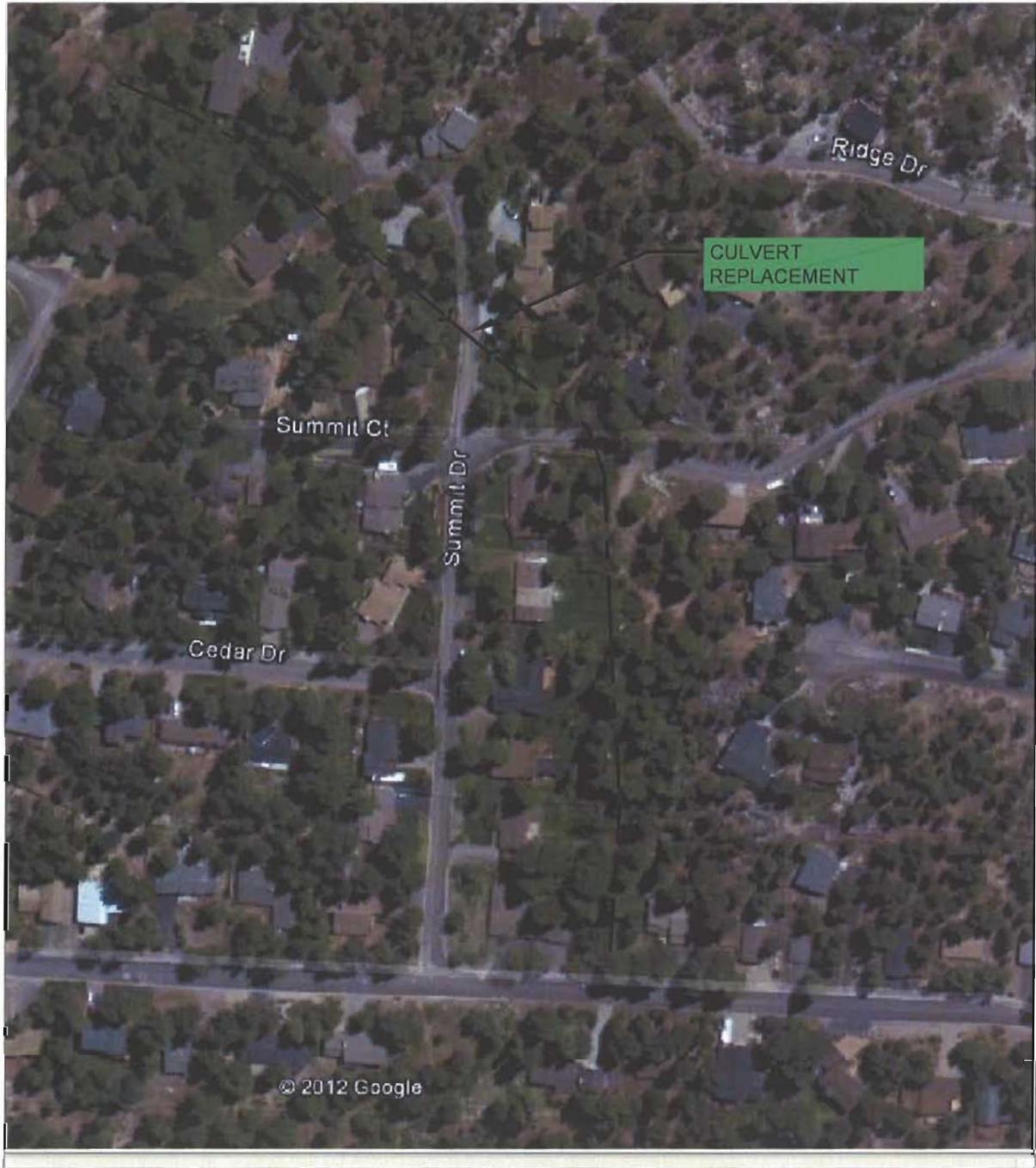
8.0 EASEMENTS/ACQUISITIONS

KGID anticipates that all improvements will be constructed within County right-of-way or on publicly owned land where water quality improvements are considered a preferred use. No permanent drainage or utility easements are anticipated to be required for this project. Temporary rights of entry and or construction easements may be required in various areas to facilitate access and construction mobility. Design of the project will consider these impacts and reduce the number of these temporary easements to a minimum, if not zero.

8.0 CONFORMITY

Throughout the planning and design process, KGID and its consultants will consider all local and regional land use plans and the requirements and guidelines set within. The East Incline WQIP will conform to these requirements and guidelines as well as to the codes and requirements of local, state, and federal jurisdictions.

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NTS

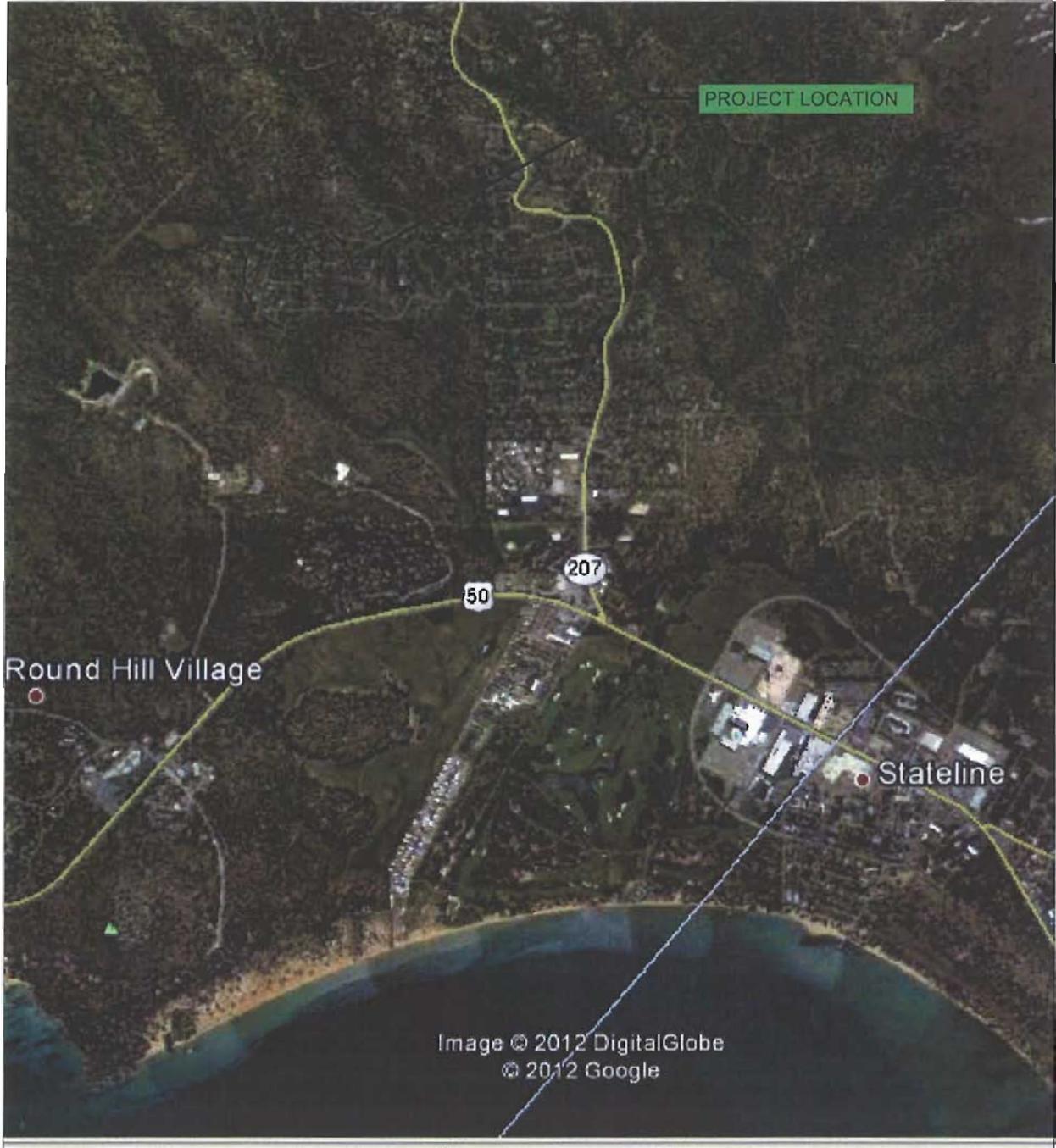


225 KINGSBURY GRADE, SUITE A, P.O. BOX 3570
 STATELINE, NEVADA 89449
 PH: (775) 588-6490 FAX (775) 588-6479

KINGSBURY GENERAL IMPROVEMENT DISTRICT

SUMMIT DRIVE CULVERT REPLACEMENT
SITE LOCATION

Date: JAN., 2012
 Scale: NTS
 Job No: NA
 FIGURE 1



NTS



225 KINGSBURY GRADE, SUITE A, P. O. BOX 3570
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KINGSBURY GENERAL IMPROVEMENT DISTRICT

SUMMIT DRIVE CULVERT REPLACEMENT
 VICINITY MAP

Date: JAN., 2012

Scale: 1=1200

Job No: NA

FIGURE 2

Summit Drive Culvert Replacement Project



Photo #1: Backed up culvert just above Summit Drive



Photo #2: Path where overflow flooding occurs



Photo #3: Backed up streamflow at culvert outlet

Summit Drive Culvert Replacement

PRELIMINARY BUDGET SPREADSHEET
 PRELIMINARY ESTIMATE OF PLANNING, DESIGN, AND CONSTRUCTION COSTS

CONSTRUCTION COST

ITEM NUMBER	QTY	UNIT	DESCRIPTION	BID UNIT PRICE	SUBTOTAL
1	1	LS	MOBILIZATION AND DEMOBILIZATION	\$5,000	\$5,000
2	1	LS	TEMPORARY BMPs & POLLUTION CONTROL	\$5,000	\$5,000
3	1	LS	TRAFFIC CONTROL	\$5,000	\$5,000
4	1,000	SF	AC PAVEMENT	\$8	\$8,000
5	500	CY	EARTHWORK	\$40	\$20,000
6	1	LS	CULVERT REPLACEMENT	\$17,500	\$17,500
7	2	EA	SHOULDER STABILIZATION	\$5,000	\$10,000
8	1	LS	UTILITY RELOCATION	\$35,000	\$35,000
9	100	SY	REVEGETATION TREATMENT	\$15	\$1,500
			SUBTOTAL		\$107,000

15% CONTINGENCY \$16,050

TOTAL \$123,050

PLANNING, DESIGN, AND PERMITTING

ITEM NUMBER	TASK	
1	PLANNING TMDL BASELINE ANALYSIS AND PLRM ALTERNATIVES	\$25,000
2	DESIGN	\$30,000
3	REGULATORY COMPLIANCE & PERMITTING	\$5,000
	TOTAL	\$60,000

CONSTRUCTION MANAGEMENT

1	INSPECTIONS/TESTING/CM	\$5,000
2	PROJECT ADMINISTRATION	\$10,000
	TOTAL	\$15,000

SUMMARY

1	PLANNING, DESIGN, AND PERMITTING	\$60,000
2	CONSTRUCTION COST	\$123,050
3	CONSTRUCTION MANAGEMENT	\$15,000

TOTAL \$198,050