

ACTION: Consider one application for Chapter 3 Emergency Mineral Royalty Grant for Teton County

AUTHORITY: W.S. § 9-4-604, SLIB Rules Chapter 3, Federal Mineral Royalty Capital Construction Account Grants and Laws 2014, Chapter 26, Section 60

ALTERNATIVES: Approve, Defer, or Deny Emergency Grant Funding Request

ANALYSIS:

Pursuant to W.S. § 9-4-604(a), the Board may award grants necessary to alleviate an emergency situation which poses a direct and immediate threat to health, safety or welfare, to comply with a federal or state mandate, or to provide an essential public service.

Chapter 3 Mineral Royalty Grant (Emergency Application)								
County	Entity	Project	App Amount	*BFY 11/12 BFY13/14 BFY 15/16 MRG	*BFY 11/12 BFY13/14 BFY 15/16 CWC	CW & DW SRF Loans	^Additional SLIB Grants	Recom- mended Amount
Teton	Teton County	Wagon Road Slide Repair	\$738,000	\$1,000,000	\$1,184,816	\$10,578,820	\$7,708,648	\$0

* Historical funding awarded in three previous bienniums
 ^Transportation Enterprise Account and Municipal Solid Waste grants

PROJECT INFORMATION:

Teton County is requesting \$738,000 in emergency grant funding to address a landslide in the Snake River Sporting Club Improvement & Service District. The downhill slope below Wagon Road experienced a rapid earth slump in early March on an approximate 100-ft section of road. The District (established April 11, 2017, prior to that the District was a Home Owner’s Association) engaged Jorgensen Associates to monitor the slide to ensure the integrity of the road and begin assessing mitigation strategies.

On March 28th, District staff noticed a second landslide, approximately 250-ft long, at the toe of an existing Hilfiker wall near the intersection of Wagon Road and Riverbend Road. Instability developed rapidly with frequent precipitation events and began to undermine the Hilfiker wall. This slide began to impact the shoulder of the pavement on April 8th, destroying an approximate 20-ft by 8-ft section of pavement by the morning of April 10th resulting in the closure of one of the Wagon Road lanes.

The District took steps to mitigate the risk of damage to the road. GeoStabilization International (GSI) from Grand Junction, Colorado, was chosen to design and install a soil nail wall stabilization system. GSI was able to begin installing structural elements on April 19th. Stabilization work on this portion of the slide was completed in late May.

The portion of the slide that slid through the centerline of the road has been repaired. Teton County is requesting one hundred percent funding from the Mineral Royalty Grant (MRG) program to finance the project. The proposed project includes reimbursement for the already performed corrective measures and repairing the rest of the slide before it also begins eroding the travel lanes. (See attachment for additional information).

STAFF ANALYSIS:

Wyoming Statute § 9-4-604(p) defines, an “essential public service” to mean “a public service facility **owned** by the applicant and available for use by the general public, including: ...” (emphasis added). The road Teton County is requesting funding for is owned by the Snake River Sporting Club Improvement & Service District, not the County. As such, this project does not meet the statutory definition of an “essential public service.”

Additionally, Chapter 3, Section 7 of the State Loan and Investment Board’s rules details the criteria that shall be utilized to evaluate applications. These include but are not limited to:

- The extent of match committed to the project from all sources;
- Whether the applicant has made a significant commitment of local resources;
- The financial need of the applicant; and,
- The percentage of the applicant’s population directly served by the project.

Several of these elements weigh against funding this application, in particular, the percentage of the population directly served by the project. Per the submitted application, only 1000 residents or 4.4 percent of the County’s population will benefit from this project. It is unknown how many individuals outside of the residents of the District and members of the Snake River Sporting Club use this road on a regular basis. The engineer associated with the project indicated that 1000 was an estimate. To arrive at the number, they took the number of residences multiplied it by 2.3, then estimated the number of members and visitors to the private club. Thus, it appears that the road in question serves a small percentage of the applicant’s population.

Likewise, upon review of the County’s June 30, 2016 audited financial statements, it appears the County has resources available that may be used for this project from either the \$11.9 million in unrestricted cash or the \$5.2 million restricted to infrastructure and public safety projects; but the County has requested a 100 percent grant from the MRG program.

Lastly, although some elements of an emergency appear to be present inasmuch as the road has been impaired, the chances of additional failure are reduced during the drier summer and fall months, which would allow the District and County time to address the situation with additional match funding and to apply for a regular MRG grant.

OUTSIDE AGENCY COMMENTS/RECOMMENDATIONS:

The Wyoming Department of Transportation (DOT) reviewed Teton County’s application and agrees with the methods taken to address the land slide. DOT also states that a portion of this project should be considered an emergency but that the chances of failure are reduced during the drier summer and fall months (See attached).

FUNDING BALANCE:

Chapter 3 MRG Funding Available (After June 15, 2017 SLIB)	\$9,035,624
Less Recommended Emergency MRG Funding (Aug 10, 2017 SLIB)	
H-1 Teton County	\$0
Balance of Available Chapter 3 Funding	\$9,035,624

DIRECTOR’S RECOMMENDATION:

The Director recommends the Board deny Teton County’s application for \$738,000 in Emergency MRG funding.

BOARD ACTION: BOARD APPROVED FUNDING IN THE AMOUNT OF \$162,500 WITH THE CONDITION THAT THE APPLICANT PROVIDE \$162,500 IN MATCHING FUNDS AND THAT THE FUNDS CANNOT BE USED TO PAY FOR PAST MITIGATION EFFORTS. THE FUNDS SHALL ONLY BE USED FOR NEW MITIGATION EFFORTS.

State of Wyoming
State Loan and Investment Board
Infrastructure Financing
Application

CWC MRG

Applicant: Teton County, Wyoming Date: 6/30/2017

Mailing Address: P.O. Box 3594 Contact Person: Sean O'Malley

City: Jackson State: WY Zip: 83001

E-Mail Address: somalley@tetonwyo.org E-Mail Address: somalley@tetonwyo.org

Phone No.: (307)733-3317 Phone No.: (307)733-3317

Fax No. : (307)734-3864 Population: 22,930

Applicant's Tax ID No.: 83-6000127 County: Teton

Type of Entity: County Joint Powers Board Municipality Special District

Other (Explain) _____

Population of Applicant: 22,930 Total Population Served By Project (Directly/Indirectly): 1,000

Percentage of applicant's population directly served by the project: 4.4

Applicant's submitting multiple applications must establish priority ranking: Priority # 1 of 1

Name of Project: Wagon Road Slide Repair

Project Schedule (Includes Planning, Design, and Construction): Start Date: 4/17/2017 End Date: 9/1/2017

List all funding sources for the project other than current request:

Funding Source (If approved, list grant/loan #)	Amount	Status		Amount Expended
		Pending	Approved	
MRG		X		\$0.00
Total				\$0.00

Amount of Funds Requested: \$738,000.00

Estimated Total Project Cost: \$738,000.00

Balance of Project Incomplete: \$738,000.00

Estimated reimbursement Rate: 100%

(Final Reimbursement Rate is Determined by Board Approved Amount)

Is project needed to meet federal or state health and/or safety
(If yes, provide specific health or safety requirement project will address)

Yes	No
	X

Do you have an Administrative Order?
(If yes, provide copy of the Administrative Order) - MRG Only

Yes	No
	X

Water and/or Sewer Project?
(If yes, complete Water/Sewer Questionnaire for project requests in excess of 50%) - MRG Only

Yes	No
	X

Street and/or Road Project?
(If yes, complete Street Questionnaire) - MRG Only

Yes	No
X	

Fire Apparatus Project?
(If yes, complete Fire Apparatus Questionnaire)

Yes	No
	X

Vehicle Project?
(If yes, complete Vehicle Replacement Certification form)

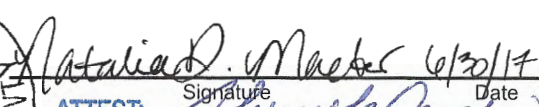
Yes	No
	X

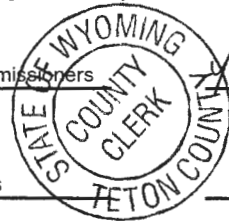
If full funding is not received, what will applicant do?
The Snake River Sporting Club Improvement Service District (ISD) which was established on April 11, 2017. As a newly formed ISD at the time of the landslide event, they are unable to assess any kind of tax until next year. They are in the process of setting up assessments, but at this time funds are limited to those that have been transferred from the existing homeowners association. The cost of the slide repairs far exceed the current balance, and as such, the current balance will be depleted and some form of special assessment will need to occur which will require significant contributions and compromise other ISD functions and needs.

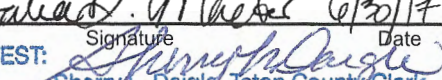
If additional funding is needed, where will the additional funds be obtained?
From members of Snake River Sporting Club Improvement Service District (ISD) if feasible.

Can the project be scaled back or phased?
(Provide explanation)
The landslide is compromising the road accessing the Snake River Sporting Club, the water tank that serves the entire ISD, and River Bend Ranch. In addition, the three phase power serving the development is in the road and is also compromised. The portion of the slide that had slid through the centerline of the road has been repaired as the most urgent need as access was nearly lost. Plans are now being formulated to repair the rest of the slide before it also begins eroding the travel lanes. This grant is essential to being able to complete these repairs. As stated, these repairs are urgent so access is not lost, and therefore cannot be phased any further than what has been accomplished to date.

I certify that I am authorized to sign this application on behalf of our governing body, and the applicant will comply with all appropriate requirements if approved. To the best of my knowledge and belief, the information in this application is true and correct. I understand the State may review any relevant documents of instruments relating to the analysis of this application.

Natalia Macker, Vice Chairman Teton County Commissioners Name and Title (typed)	 Signature	6/30/17 Date
Sean O'Malley, P.E., Director of Public Works Name and Title of Contact Person	(307)733-3317 Phone No.	somalley@tetonwyo.org E-mail



ATTEST: 
Sherry L. Daigle, Teton County Clerk

SUBMISSION REQUIREMENTS: ALL DOCUMENTS MUST BE PRINTED ON 8 1/2 X 14 (LEGAL) SIZE PAPER. OFFICE OF STATE LANDS AND INVESTMENTS. ATTN: GRANTS AND LOANS DEPARTMENT. HERSCHLER BUILDING 3rd WEST. 122 WEST 25th STREET.
CWC - Submit one (1) original Application and one (1) original Joint Resolution Form
MRG - Submit one (1) original and two (2) copies of Checklist, Application, Project Narrative, and Supporting Documentation.

Name of Project: Wagon Road Slide Repair

Project Narrative: Provide a brief description of the project and why applicant needs the project. Narrative must include applicable items listed in the instructions for completing the Application Form. (Attach additional pages for project description if needed, **must be legal size.**)

Number of Attached Pages: 194 (Including Financials)

The downhill slope below Wagon Road experienced a rapid earth slump and flow sometime in early March on an approximately 100-ft section of roadway. SRSC personnel noticed evidence of the landslide from across the Snake River on March 12th and informed Jorgensen Associates. Jorgensen staff began a monitoring program of the slide in order to ensure the integrity of the road and began assessing mitigation strategies.

Then, on March 28th, SRSC staff noticed a second landslide, approximately 250-ft long, at the toe of an existing Hilfiker wall near the intersection of Wagon Road and Riverbend Road. Instability developed rapidly with frequent precipitation events and began to undermine the Hilfiker wall after March 31st. This slide began to impact the shoulder of the pavement on April 8th, completely destroying an approximately 20-ft by 8-ft section of pavement by the morning April 10th resulting in a closure of one of the Wagon Road lanes.

There is only one access to the SRSC and if the second slide were to progress into the roadway further, all vehicle access would be cut off. In addition, three-phase power supplying the SRSC facilities and homes exists in the road, which is also potentially impacted by the landslide. As such, the landslide was determined an emergency and steps were taken to mitigate risk of damage to the road as quickly as possible. GeoStabilization International (GSI) from Grand Junction, Colorado, was chosen to design and install a soil nail wall stabilization system. GSI is a design-build firm with vast experience with emergency roadway design and were able to mobilize the site and beginning installing structural elements on April 19th. Stabilization work on this portion of the slide was completed in late May. In addition to the active slide, additional distress was noted adjacent to each end. These sections are showing similar characteristics to those in the active slide zone before the onset of sliding and it has been determined that these areas will slide in the very near future. Therefore, these sections have been included in this application as well.

See attached photos

- STA 2+17 to STA 2+45. The width of the failure into the roadway is approximately 10 feet as of April 10, 2017.
- Stabilization of the existing slope and wall is critical to maintain an access route and avoid losing both Riverbend Rd and Elk Ridge Rd for some period of time.
 - The current slope failure requires expedited remediation along a total of 245 lineal ft (LF) of roadway. This extent of roadway remediation is referred to as "Phase 1."
 - An additional 300 LF of existing Hilfiker wall on the outboard slope of the roadway, adjacent to the Phase 1 area, is exhibiting similar, early stage signs of failure, with slope material moving down and out away from the existing wall. This length of roadway, referred to as "Phase 2", may be added to GSI's scope of services following mobilization, and would be stabilized using the same design approach and within the same mobilization (with no delay).

Soil nail reinforcement through the existing Hilfiker wall and into the embankment, coupled with micropiles at the toe of the existing wall to mitigate against additional loss of toe and undermining, is an appropriate stabilization measure for this area. The nails and micropiles will be tied together structurally with steel-reinforced shotcrete. The outboard roadway lane and shoulder between STA 2+17 and STA 2+45 will be re-built with a geosynthetically confined soil (GCS) embankment section.



Existing Hilfiker Wall and Slope Condition from STA 1+20 (Wall Toe) Looking Northwest – April 10, 2017



Existing Roadway Condition @ STA 2+50 Looking Southeast – April 10, 2017

This estimate was prepared based on a preliminary estimate of soil nail and shotcrete quantities developed using the documents and site visit referenced above. Final quantities will be determined based on coordination with Jorgensen and final layout of the soil nail walls – at Jorgensen’s request, we provided pricing in this estimate for an additional 300 LF of roadway stabilization adjacent to the expedited repair area. Based on observations over the past week, the failure area is active and may increase in size by the time of our mobilization to site.

If contracted for this project, GSI will finalize the soil nail wall design and provide engineering design plans stamped by a professional engineer licensed in the state of Wyoming. The cost of the final engineering design is **included** in the estimated unit costs presented in this proposal.

Scope of Work

GSI will provide design, crew, materials, and equipment necessary for soil nail retaining wall construction. GSI limits its scope of work to:

- Final design of the soil nail wall;
- Drilling, installing and grouting soil nails;
- Construction of a geosynthetically confined soil (GCS) build-out; and
- Construction of rough-finish shotcrete facing (6-inch-thickness), nail bearing plates and associated hardware.
- (OPTIONAL) Sculpting the shotcrete facing. GSI understands that SRSC may be interested in a sculpted finish to the shotcrete facing resembling a large block pattern. The optional pricing provided herein includes the additional shotcrete



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Engineer's Opinion of Probable Cost SNAKE RIVER SPORTING CLUB WAGON ROAD SLIDE REPAIR

Date: APRIL 26, 2017 By: EDS

Item No.	Spec	Description	Estimated Quantity	Unit	Estimated Unit Price	Extension
SITE GRADING WORK						
1	02001	Mobilization	1	LS	\$10,000.00	\$10,000.00
2	02210	Soil Wall Stabilization	544	LF	\$869.00	\$472,736.00
3	02231	GSC Wall Build-Out	392	SF	\$51.00	\$19,992.00
4		Subcontractor Excavation	3	Day	\$2,000.00	\$6,000.00
5		Pavement Repair	1	LS	\$50,000.00	\$50,000.00
Subtotal Site Grading						\$558,728.00

PROJECT INFRASTRUCTURE COST OPINION \$558,728.00

10% CONTINGENCY \$55,872.80

TOTAL COST OPINION \$614,600.80

ENGINEERING \$122,920.16

TOTAL PROJECT COST \$737,520.96

Use \$738,000.00



Matthew H. Mead
Governor

Wyoming Department of Transportation

"Providing a safe, high quality, and efficient transportation system"

5300 Bishop Boulevard
Cheyenne, Wyoming 82009-3340



William T. Panos
Director

Elizabeth Blackwell, Grants and Loans Manager
Office of State Lands and Investments
122 West 25th Street
Cheyenne, WY 82001

July 17, 2017

Re: WYDOT Review of Wagon Road Slide Emergency Application

Dear Ms. Blackwell,

The WYDOT Geology Program has reviewed the application by Teton for emergency slide repair for the Wagon Road Slide. The photos from April 10, 2017 indicate that the roadway experienced distress and loss of support due to the failure of the slope below the Hilfiker wall along with loss of a portion of the wall. It is our understanding the phase I work as described in the proposal from Geostabilization International has been completed and the roadway has been restored to full width. This work involved the stabilization of approximately 245 feet of the retaining wall and roadway.

The pictures and description of the site indicate that there is an adjacent section of the slope approximately 300 feet long below the Hilfiker wall which is exhibiting signs of instability similar to failure that affected wall and the roadway. This situation should be considered an emergency, due to the danger if the unstable section of slope were fail it would likely result in the loss of this road which is the only access for homes in this area. It is likely that underground power line which provides electricity to this area would also be cut off. Although the chances of failure are reduced somewhat during the drier summer and fall months, a large rain event could trigger a catastrophic failure of this slope at any time. It appears in everyone's best interest to do whatever mitigation that they are going to do before next spring. Given the existing condition of this slope, it is likely that if no mitigation is done on this slope, that next spring when the snow melts and moisture conditions are high, a failure similar to the one that occurred in the spring of 2017 could occur in this section of the slope.

The use of soil nails with shotcrete facing to stabilize these types of slope failures is an accepted and proven method that has been used by many departments of transportation and private entities. The cost estimates for the installation of the soil nails and shotcrete which are outlined in the proposal are in line with costs that WYDOT has paid for similar construction. In 2017 WYDOT has had three landslides mitigated with similar soil nail/shotcrete facing systems. The overall unit cost per foot of slope stabilized was roughly the same as the costs outlined in the proposal. From a technical and cost point of view, it is the opinion of the WYDOT Geology Program, the proposed landslide remediation method and associated costs outlined in the proposal would be acceptable for use if this were a WYDOT project.

Respectfully Submitted,
Mark Falk, P.E., P.G. - Chief Engineering Geologist, WYDOT