

# **Last Chance Grade**

## ***A Closer Look at a Vital Segment of US Highway 101***



Located on US Highway 101 in Del Norte County, from Wilson Creek to 9 miles south of Crescent City, Last Chance Grade is an area of highway prone to geological activity. A 2000 geological study conducted by the California Geological Survey mapped over 200 active landslides within the corridor between Wilson Creek and Crescent City. Caltrans has performed both maintenance and construction activities on US Highway 101 designed to keep this vital route open connecting Del Norte County with areas south. The “Last Chance” name has been used since the early twentieth century when the location was referred to as “Last Chance Slide.” Below are some frequently asked questions regarding Last Chance Grade.

### **What is the currently being done by Caltrans at Last Chance Grade?**

Currently, a construction project located at postmile 15.3 is underway. The objectives of the project are to slow the movement of a slipout within the larger Last Chance Grade slide complex, protect an existing wall completed in 2010 from further damage, and reduce the frequency of repairs and delays to the traveling public. This \$4.8 million project began in November 2012 and has a target completion of fall 2013. Traffic impacts include signalized one-way traffic control. The project includes constructing a 180-foot long and 40 foot high retaining wall, reconstructing portions of the roadway surface, and repairing drainage facilities damaged by the slipout. The contractor is CalEx Engineering Company.

### **What projects are proposed in the future at Last Chance Grade?**

Future projects include the repair of two slipouts, and a project to restore shoulder width:

- As a result of the March 2011 federally declared storm event, two slipouts near postmile 15.1 occurred that resulted in the failure of a portion of roadway shoulder, and loss of embankment fill below the roadway. The repair at this location will likely consist of construction of a soil nail wall. Construction is planned for summer 2016.
- The location of a project to restore shoulder width (postmile 15.0) is the same location where a soil nail wall was constructed to prevent loss of the roadway in 2012. The purpose of this project is to regain roadway shoulder width that was lost during the March 2012 storms. This will be accomplished through construction of a soldier pile ground anchor wall in front of the soil nail wall that was constructed in 2012. Construction is planned for 2017.

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### **Is there a cost estimate of past projects and maintenance at Last Chance Grade?**

Since 1997, it is estimated that project and repair costs for Last Chance Grade have been \$29.3 million dollars.

### **What is being done to look into alternatives for Last Chance Grade?**

An engineered feasibility study for Last Chance Grade was announced in July 2013. The Last Chance Grade Engineered Feasibility Study will examine prior studies of the area, available data, and the information gathered by earlier projects for the development and exploration of alternatives to the existing process of rebuilding and repairing the roadway. The study seeks to minimize the risk of failure at this vital US Highway 101 corridor and to reduce maintenance costs.

An engineered feasibility study is a detailed investigation that considers a full range of needs, options, ideas, opportunities, and constraints. Once completed, an engineered feasibility study can be used as a reference document identifying potential improvement projects, enabling Caltrans to respond to and compete for various project funding sources as they become available.

The study acknowledges the need for a long term solution to roadway failures at Last Chance Grade. Without a detour available, complete failure would isolate Del Norte County from the County's smaller communities to the south as well as the north coast of California. Additionally, a completed study would contribute to the timely development of an emergency project should complete failure occur.

### **What studies have already been done at this location?**

This area has been the subject of numerous reviews and studies. Here is a partial listing by date:

- 1987 - Wilson Creek Bluffs Project Study Report
- 1992 - Geotechnical Report
- 1993 - US Route 101 in Del Norte County: A Corridor Study
- 1995 - Last Chance Grade Project Study Report
- 2000 - California Geological Survey of Landslides (Special Report 184)
- 2001 - Preliminary Geotechnical Report – Last Chance Grade Correction and Tunnel Study
- 2003 - Value Analysis Report

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### **When is the anticipated completion date for the study?**

The Last Chance Grade Engineered Feasibility Study is intended to be concluded by June 2015.

### **What environmental and economic considerations are included in the study?**

The Last Chance Grade Engineered Feasibility Study will evaluate current conditions, gather data, and review prior studies in order to develop a range of alternatives that could potentially reduce maintenance costs and provide a more permanent solution to regular roadway failures along the geologically active segment of highway. All alternatives looked at in the past will be reevaluated to determine their feasibility under current conditions. New alternatives will also be developed and explored in-depth when determined to be economically and environmentally feasible. The sensitivity of environmental resources in the area will require careful consideration, such as the old growth redwood trees, wetland and riparian areas, and marbled murrelet and spotted owl foraging habitats.

US Route 101 is the primary link from the south to Del Norte County and Crescent City. A catastrophic failure at Last Chance Grade would likely result in significant economic impacts for Del Norte County, greatly impacting the traveling public. A permanent closure would isolate Crescent City from the rest of California. For example, the travel time and distance from Crescent City to Eureka would increase from 84 miles (1.5 hours) to 408 miles (7.5 hours). These environmental and economic factors would receive considerable evaluation in the Last Chance Grade Engineered Feasibility Study.

### **Where can I learn more about progress at Last Chance Grade?**

Caltrans has a web page that is updated as new information about Last Chance Grade projects and studies become available:

[www.dot.ca.gov/dist1/d1projects/last\\_chance\\_grade/](http://www.dot.ca.gov/dist1/d1projects/last_chance_grade/)