PIPING, EROSION, AND WIND-BLOWN-SAND SUSCEPTIBILITY
STATE ROUTE 9 CORRIDOR GEOLOGIC-HAZARD STUDY AREA
WASHINGTON COUNTY, UTAH

Tyler R. Kembrul and William R. Land
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**INTRODUCTION**

**Flushing**

Flushing refers to the upheaval of material, primarily fine-grained, unconsolidated or poorly consolidated, material. Flushing may result from the direct impact of water or the backpressure of jetted water. Flushing leads to the erosion of the material and may result in failures, such as landslides or mudflows. Flushing is a common occurrence in areas with a high water table, such as near rivers or lakes.

**Source of Flushing**

Flushing occurs due to the movement of water, either from natural sources or human activities. Natural sources include rainfall, runoff, and groundwater. Human activities that can cause flushing include the construction of embankments, the use of pumps to extract water, and the creation of artificial waterways. Flushing can also occur due to the presence of underground water systems that are disrupted by human activities.

**Description**

**Flushing and Erosion**

Flushing and erosion are two processes that are closely related. Flushing refers to the movement of water and the loosening of material, while erosion refers to the physical wear away of material by water. Flushing can lead to erosion if the material is not properly consolidated or if the water pressure is too high. Erosion can also lead to flushing if the material is not properly consolidated or if the water pressure is too low. Flushing and erosion are important processes in the study of soil and rock susceptibility to piping and erosion.

**Figure 5.**

This map shows the location of highly erodible soil and bedrock deposits susceptible to piping and erosion. The map is based on limited geologic and geotechnical data; site-specific investigations are recommended to determine the presence of soil or rock susceptible to piping or rapid erosion and/or wind-blown sand. The map is intended to aid in the planning and design of public works projects to mitigate potential problems.

**References**

Bryce, B.L., and Jackson, L.R., 1972, Climate of geology: U.S. Geological Survey Professional Paper 695-A.


**Maps**

**Map 1.**

This map shows the location of highly erodible soil and bedrock deposits susceptible to piping and erosion. The map is based on limited geologic and geotechnical data; site-specific investigations are recommended to determine the presence of soil or rock susceptible to piping or rapid erosion and/or wind-blown sand. The map is intended to aid in the planning and design of public works projects to mitigate potential problems.

**Map 2.**

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**Map 3.**

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**Map 4.**

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