INTRODUCTION

The U.S. Bureau of Land Management (BLM), Oregon State Lands Program Office, contracted with the Oregon Department of Geology and Geophysical Survey (DOGAM) to create a landslide inventory map for the Big Creek-Umpqua River Watershed, Douglas County, Oregon. The Landslide Inventory Map was used to assist in the preparation of the Oregon State Lands program's Washington County Comprehensive Land Use Plan.

EXPLANATION

The Landslide Inventory Map contains information from 1,734 mapped landslides in the Big Creek-Umpqua River Watershed, with 1,249 landslides located in Douglas County. The map was generated from data that include landslide inventories and additional information from aerial photography, airborne lidar, and other published data. The map also includes a summary of the landslides inventory, which provides a detailed account of the landslides.

LANDSLIDE CLASSIFICATION

The map includes a legend to help identify the various types of landslides. The classification system includes Rockslide, Rockfall, Earthfall, Debris Flow, and Channelized Debris Flow. Each type of landslide is represented with a specific color and symbol on the map.

DISTRIBUTED LANDSLIDE LOCATIONS

The map shows the locations of landslides distributed throughout the Big Creek-Umpqua River Watershed. This information is useful for understanding the spatial distribution of landslides and identifying areas with a high concentration of landslides.

Landslide data sources include the U.S. Geological Survey, the Oregon Department of Geology and Geophysical Survey, and other publicly available data. The map was created using a combination of Geographic Information System (GIS) software and aerial photography.

DATA SOURCES

The data used to create the map were sourced from a variety of organizations, including the U.S. Geological Survey, the Oregon Department of Geology and Geophysical Survey, and other publicly available data. The data were compiled and analyzed to provide a comprehensive overview of the landslide inventory in the Big Creek-Umpqua River Watershed.

METHODS

The methods used to create the landslide inventory map included the use of aerial photography, airborne lidar, and other published data. The data were compiled and analyzed to provide a comprehensive overview of the landslide inventory in the Big Creek-Umpqua River Watershed.

ACKNOWLEDGMENTS

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REFERENCES


Lidar data for this publication are from DOGAM Lidar Data Quadrangles LDQ-43123-G5 through -G8, LDQ-43123-F5 through -F8, and DOGAM Lidar Data Quadrangle LDQ-43123-E10 through -E11.

The depth of landslide failure was estimated from scarp height. Failures less than 4.5 m (15 ft) deep are classified as shallow-seated and failures greater than 4.5 m (15 ft) deep are classified as deep-seated.

HISTORIC LANDSLIDE POINTS:

These are the locations of known landslides that were recorded and included in the database. These include:

- Big Creek-Umpqua River Watershed
- Elkton-Umpqua River Watershed
- Upper Camp-Umpqua River Watershed

The map shows the locations of landslides distributed throughout the Big Creek-Umpqua River Watershed. This information is useful for understanding the spatial distribution of landslides and identifying areas with a high concentration of landslides.

The map also includes a summary of the landslides inventory, which provides a detailed account of the landslides. The summary includes information on the number of landslides, their type, and their location. The summary is useful for understanding the distribution of landslides in the Big Creek-Umpqua River Watershed.

The map was created using a combination of Geographic Information System (GIS) software and aerial photography. The data used to create the map were sourced from a variety of organizations, including the U.S. Geological Survey, the Oregon Department of Geology and Geophysical Survey, and other publicly available data. The data were compiled and analyzed to provide a comprehensive overview of the landslide inventory in the Big Creek-Umpqua River Watershed.

The project was supported in part by the U.S. Bureau of Land Management CA L14AC00345. The project was also supported by the Oregon Department of Geology and Geophysical Survey.

The Landslide Inventory Map of the Little Mill Creek-Umpqua River Watershed, Douglas County, Oregon was created by Brad Avy, State Geologist.