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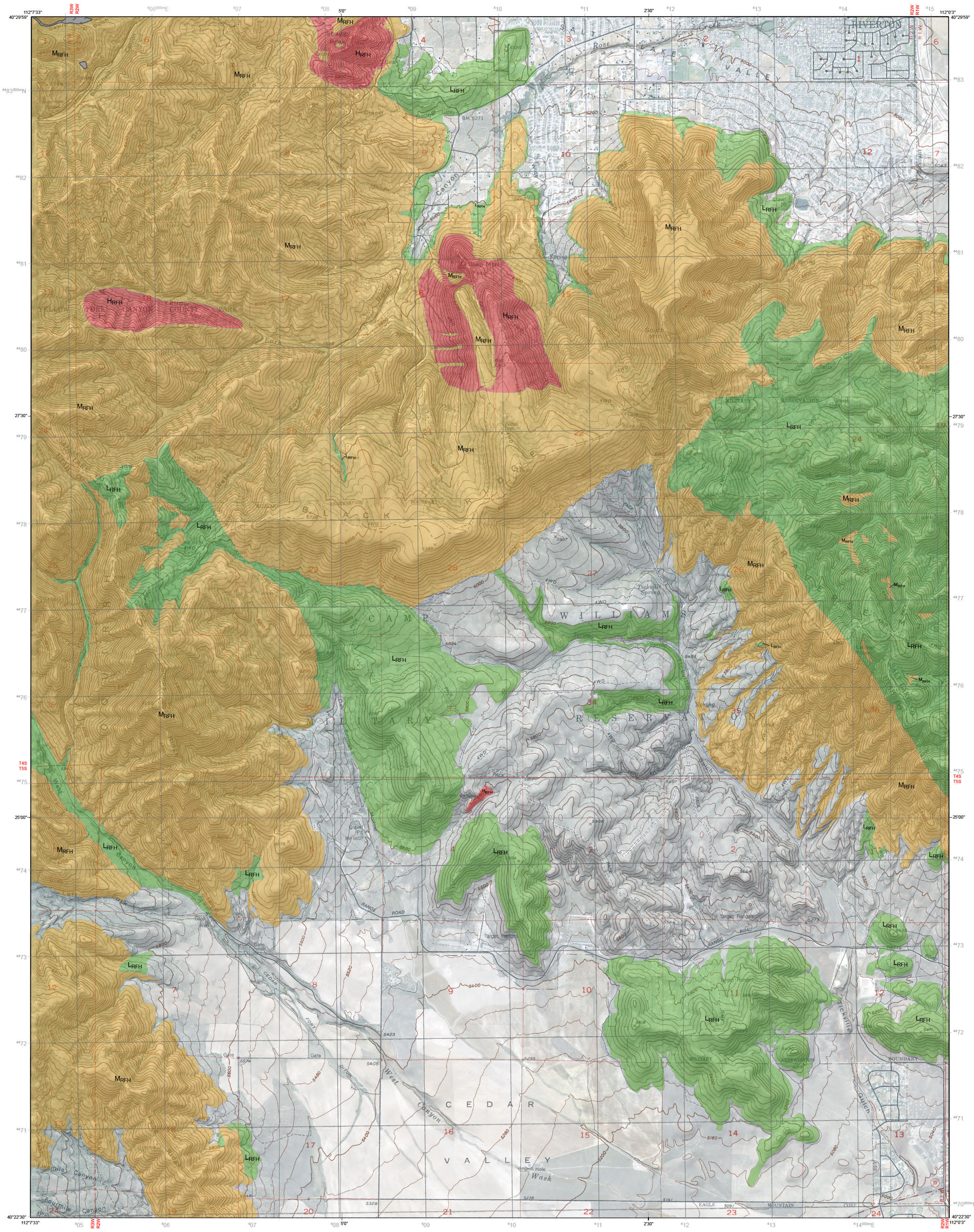

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SCALE 1:24,000

1 0.5 0 1 MILE

5000 2500 0 5000 FEET

1 0.5 0 1 KILOMETER

CONTOUR INTERVAL 40 FEET

Base from USGS Tickville Spring 7.5' quadrangle (1997).
The USGS topographic map published in 1997 conforms to the North American Datum of 1983 (NAD 83). However, the boundary of this base map conforms to the North American Datum of 1927 (NAD 27) resulting in a slight offset in boundaries and a gap on the west edge of the map with no topographic data. Imagery base from National Agriculture Imagery Program (NAIP, 2012) and hillshade derived from 2-meter bare earth lidar (2006) data from the Utah Automated Geographic Reference Center State Geographic Information Database.
Datum: NAD 1983
Spheroid: Clarke 1866

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11°24'
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 2018

ROCKFALL HAZARD MAP OF THE TICKVILLE SPRING QUADRANGLE, SALT LAKE AND UTAH COUNTIES, UTAH

by

Jessica J. Castleton, Ben A. Erickson, and Greg N. McDonald

2018

UTAH
QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

1. Bingham Canyon
2. Copperton
3. Midvale
4. Lowe Peak
5. Jordan Narrows
6. Mercur
7. Cedar Fort
8. Saratoga Springs

ADJOINING 7.5' QUADRANGLE NAMES

9 781557 919502

EXPLANATION

Not Mapped – Area not mapped due to significant and ongoing human disturbance.

ROCKFALL HAZARD CATEGORIES

HRFH **High** – Slopes that are greater than or equal to 20 degrees within a geologic unit highly susceptible to rockfall, and slopes greater than 35 degrees within a rockfall source area within a geologic unit moderately susceptible to rockfall.

MRFH **Moderate** – Slopes between 20 and 35 degrees within a geologic unit moderately susceptible to rockfalland slopes greater than 35 degrees within a rockfall source area within a geologic unit having lowsusceptibility to rockfall.

LRFH **Low** – Slopes between 20 and 35 degrees within a geologic unit having low susceptibility to rockfall. Rockfall hazard is considered negligible in the remainder of the study area if not included in one of the above hazard categories.

USING THIS MAP

This map shows areas of relative rockfall hazard in the Tickville Spring quadrangle. We recommend performing site-specific geotechnical/geologic-hazard investigations within the mapped rockfall hazard areas. These investigations can resolve uncertainties inherent in generalized hazard mapping and help ensure safety by identifying the need for rockfall-resistant design or mitigation. For most areas, site-specific assessment may only require a field geologic evaluation to determine if a rockfall source is present. However, if a source is identified, additional work to adequately assess the hazard is needed.This map is based on limited geologic and slope data, and aerial photograph analysis. The quality of the map depends on the quality of these data, which varies throughout the study area. The mapped boundaries between rockfall-hazard categories are approximate and gradational. Small, localized areas of higher or lower rockfall potential are likely to exist within any given map area, but their identification is precluded due to the generalized map scale and the relatively sparse data. This map is not intended for use at scales other than 1:24,000, and is designed for use in general planning to indicate the need for site-specific geotechnical/geologic-hazard investigations. The rockfall-hazard categories do not consider hazards caused by cuts, fills, or other alterations to the natural terrain. This map is intended primarily for planning purposes and should not be used as a substitute for site-specific geotechnical/geologic-hazard investigations conducted by qualified professionals. Site-specific geotechnical/geologic-hazard investigations are required to produce more detailed rockfall-hazard information.

For additional information about the rockfall hazard in the Tickville Spring quadrangle, refer to the accompanying report.,