Geology and Slope Stability of Snodgrass Mountain Ski Area Crested Butte, CO

## CHAPTER 11-- REFERENCES

Achilleos, E. 1988, "User's Guide for **PCSTABL5M**," *Research Report*, **Purdue** University Department of Civil Engineering.

Baum, R., 1996, Slope Stability of Proposed Ski Facilities at the Southeast Side of Snodgrass Mountain, Gunnison County, Colorado: US Geological Survey Open-File Report 96-701, 10 p. (<u>http://pubs.usgs.gov/of/1996/701/</u>)

Blake, T. F, Hollingsworth, R.A. and Stewart, J.P. (eds.), 2002, Recommended procedures for implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Landslide Hazards in California: Southern California Earthquake Center, Los Angeles, CA, June 2002, 110 p. plus Appendix.

Bouwer, H. and R.. Rice, 1976. A slug test method for determining hydraulic conductivity of unconfined aquifers with completely of partially penetrating wells. Water Resources Research, vol. 12, no. 3, pp. 423-428.

Burger, H. R., 1992, Exploration Geophysics of the Shallow Subsurface: Prentice Hall Publishers, Inc.

Chen & Associates, 1981, Landslide investigation, Upper Tiehack Ski Lift No. 5, Buttermilk Ski Area, Aspen, Colorado: unpublished report submitted to the Aspen Ski Corporation by Chen and Associates Consulting Engineers, Denver, CO, Job. No. 18,737B, Aug. 28, 1981, 12 p. plus appendices.

Chen & Associates, 1985, Review of geotechnical investigation and slope monitoring, Tiehack Ski Lift no. 5, Buttermilk Ski Area, Aspen, Colorado: unpublished letter report submitted to the Aspen Ski Company by Chen and Associates Consulting Engineers, Denver, CO, Job. No. 18.737, Nov. 14, 1985, 2 p.

Chen-Northern, Inc., 1991, Geologic reconnaissance and subsoil study, proposed grading and Lift No. 4 relocation, Eagle Hill ski trail, Tiehack ski area, Pitkin County, Colorado: unpublished report submitted to Maroon Creek Development Corporation, Aspen, CO by Chen-Northern, Inc., Glenwood Springs, CO, Job. No. 4-203-90-14, Feb. 11, 1991, 9 p. plus figures.

Chleborad, A.F., 1997, Temperature, snowmelt, and the onset of spring season landslides in the central Rocky Mountains: U.S. Geological Survey Open-File Report 97-27, 35 p.

Chleborad, A.F., 1998, Use of air temperature data to anticipate the onset of snowmelt-season landslides: U.S. Geological Survey Open-File Report 98-124, 16 p.

Geology and Slope Stability of Snodgrass Mountain Ski Area Crested Butte, CO

Cooper, H.H., J.D. Bredehoeft, and I.S. Papadopulos, 1967. Response of a finite-diameter well to an instantaneous charge of water. Water Resources Research, vol. 3, pp. 263-269.

Cornforth, D., 2006, Landslides in Practice; Investigations, Analysis, and Remedial/Preventative Options in Soils: John Wiley & Sons, New York, NY, 588 p.

Cotton, W.R., 1999, Faults aren't always what they're cracked up to be, *in* Hanson, K.L., Kelson, K.I., Angell, M.A. and Lettis, W.R. (eds.), Identifying faults and determining their origins: U.S. Nuclear Regulatory Commission (NRC), NUREG/CR-5503, Appendix A, p. A27-A50.

CSA, 2006, Engineering Geologic and Geotechnical Review of Crested Butte Mountain Resort Expansion, Gunnison County, Colorado: unpublished consulting report submitted to High Country Citizen's Alliance, Gunnison, CO by Cotton, Shires & Associates, Inc., Los Gatos, CA, DATE??, Project E0166.

CTL Thompson, 1999, Geologic and geotechnical investigation, main access road, East Trade parcel, Gunnison County, Colorado: unpublished consulting report submitted to Crested Butte Mountain Resort, Mt. Crested Butte, CO by CTL Thompson, Inc., Glenwood Springs, CO, Job No. GS-2783, Nov. 24, 1999, 37 p. plus appendices.

CTL Thompson, 2000, Additional geotechnical studies and review agencies responses, East Trade parcel, Mt. Crested Butte, Colorado: unpublished consulting report submitted to Crested Butte Mountain Resort, Mt. Crested Butte, CO by CTL Thompson, Inc., Glenwood Springs, CO, Job No. GS-3103, Aug. 29, 2000, 8 p. plus appendices.

Cruden, D.M. and Varnes D. J. ,1996, Landslide types and processes, <u>in</u> Turner, A.K. and Schuster, R.L. (eds.), Landslides: Investigation and Mitigation: Transportation Research Board, Spec. Report 247, pp 36-75.

Darcy, H., 1856. Les Fontaines Publiques de la Ville de Dijon. Victor Dalmont, Paris

Freeze, R.A. and J.A. Cherry, 1975. Groundwater. Prentice-Hall Pub.

Gaskill, D. at al., 1967, Geologic Map of the Oh-Be-Joyful Quadrangle, Gunnison County, Colorado: US Geological Survey Map GQ-578, scale 1:24,000. (<u>http://pubs.er.usgs.gov/usgspubs/gq/gq578</u>)

Gaskill, D. et al., 1991, Geologic Map of the Gothic Quadrangle, Gunnison County, Colorado: US Geological Survey Map GQ-1689, scale 1:24,000. (<u>http://pubs.er.usgs.gov/usgspubs/gq/gq1689</u>)

Geology and Slope Stability of Snodgrass Mountain Ski Area Crested Butte, CO

GEO-HAZ, 2007, Progress report on Slope Stability and Hydrology Issues on Snodgrass Mountain, Crested Butte Ski Area: unpublished consulting report submitted to Crested Butte Mountain Resort., Mt. Crested Butte, CO by GEO-HAZ Consulting, Inc., Crestone CO, Job No. 2085, March 29, 2007, 78 p.

Hvorslev, M.J., 1951. Time lag and soil permeability in ground-water observations, bul. no. 26, Waterways Experimental Station, Corps of Engineers, U.S. Army, Vicksburg, Mississippi.

IBC 2000, International Building Code®, International Code Council, Falls Church, VA, 2000; See Table 1615.1.1 for Shear wave velocity site class

Irish, R. J., 1996, Geologic Hazard Study Zones 3-A and 3-B Crested Butte Mountain Resort Expansion Area Snodgrass Mountain, Gunnison County, Colorado; unpublished consulting report submitted to Pioneer Environmental Services, Inc., Logan, UT by R.J. Irish, Consulting Engineering Geologist, Denver, CO, Job No. 403, June 12, 1996, 14 p.

Keefer, D.K., 1984, Landslides caused by earthquakes: Geological Society of America Bulletin, v. 95, p. 406-421.

Lambert & Associates, 1998, Geotechnical engineering study, the Reserve Subdivision, Mt. Crested Butte, CO: unpublished consulting report submitted to Crested Butte Mountain Resort, Mt. Crested Butte, CO by Lambert & Associates, Montrose, CO, May 4, 1998, Project No. M98036GRE, 39 p. plus appendices.

Louie, John N., 2001, Faster, better: shear-wave velocity to 100 meters depth from refraction microtremor arrays: Bull. Seismol. Soc. Amer., 91, no. 2 (April), 347-364.<u>http://optimsoftware.com/white\_papers/images/remi.pdf</u>

Madole, R.F., 1996, Preliminary chronology of the Slumgullion landslide, Hinsdale County, Colorado, in Varnes, D.J., Savage and W.Z. (eds.), The Slumgullion Earthflow; a large-scale natural laboratory: U.S. Geological Survey, Bulletin 2130, p.5-7.

Maidment, D.R., 1992, Handbook of Hydrology, David R. Maidment Editor in Chief, McGraw-Hill Publisher.

McCalpin, J. P., 1984, Preliminary Age Classification of Landslides for Inventory Mapping: Proceedings of the 21st Annual Engineering Geology and Soils Engineering Symposium, p. 99-111.

McCalpin, J.P., 2002, Common slope stability problems at Colorado ski areas: Geol. Soc. Amer., Abstracts with Programs, v. 34, no. 5. (http://gsa.confex.com/gsa/2002RM/finalprogram/abstract\_33905.htm National Resource Conservation Service (NRCS), 2007. Independence Pass Snotel Data.

ftp://ftp.wcc.nrcs.usda.gov/data/climate/mtn\_prec/table/history/colorado/06k04s.t xt

Pullammanappallil, S.K., and Louie, J.N., 1993, Inversion of seismic reflection traveltimes using a nonlinear optimization scheme: Geophysics, v. 58, p. 1607-1620.

Pullammanappallil, S. K. and J. N. Louie, 1994, A generalized simulatedannealing optimization for inversion of first-arrival times, Bull. Seismol. Soc. Amer., v. 84, p.1397 - 1409.

Radbruch-Hall, D. H ,1978, Large-scale gravitational creep of rock masses on slopes, *in* Voight, Barry, ed., Rockslides and avalanches: Natural phenomena: Amsterdam, Elsevier, 1, p. 607-657.

Radbruch-Hall, D. H., Varnes, D. J., and Savage, W. Z., 1976b, Gravitational spreading of steep-sided ridges ("sackungen") in western United States: International Association of Engineering Geology Bulletin 14, p. 28 – 85

RCE, 1995, Geologic Hazard Assessment and Mitigation Planning for Crested Butte Mountain Resort, Gunnison County, Colorado: unpublished consulting report submitted to Pioneer Environmental Services, Inc., Logan, UT, by Resource Consultants & Engineers, Ft. Collins, CO, Project No. 34-0151.01, draft report, Dec. 1994, 39 p. plus appendices.

Resource Engineering, Inc. (REI), 2007. Email from Graham Gilbert of REI to Joe Frank of HydroGeo, October 7, 2007.

Saito, M., 1988, Compound matrix method for the calculation of spheroidal oscillation of the Earth: Seismol. Res. Lett., v. 59, p. 29.

Schmueser, Gordon, Meyer Engineers and Surveyors (SGM), 2007. Unpublished Survey Data. Prepared for Crested Butte Mountain Resort.

Sidle, R.C. and Ochiai, H, 2006, Landslides; Processes, Prediction, and Land Use: American Geophysical Union, Water Resources Monograph, Vol. 18, 312 p.

Soule, J. M, 1976, Geologic Hazards in the Crested Butte-Gunnison Area, Gunnison County, Colorado: Colorado Geological Survey, Information Series #5, 34 p.

Geology and Slope Stability of Snodgrass Mountain Ski Area Crested Butte, CO

Swanson, F.J. and Dryness, C.T., 1975, Impact of clear-cutting and road construction on soil erosion by landslides in the western Cascade Range, Oregon: Geology, v. 3, no. 7, p. 393-396.

Swanston, D.N. and Swanson, F.J., 1976, Timber harvesting, mass erosion, and steepland forest geomorphology in the Pacific Northwest, in Coates, D.R. (ed.), Geomorphology and Engineering: Dowden, Hutchinson & Ross, p. 199-221,

USFS, 2006, Snodgrass Mountain geologic hazards and assessment of potential effects of ski area development on slope stability: unpublished report, U.S. Forest Service, Grand Mesa, Uncompany and Gunnison (GMUG) and San Juan National Forests; draft report, Sept 22, 2006; final report, Oct., 71 p. plus Appendices.

U.S. Forest Service (USFS), 2007. Decision Memo, Snodgrass Mountain Geological Study, USDA Forest Service, Grand Mesa, Uncompany, and Gunnison National Forests, Gunnison Ranger District, November 13, 2006.

Walton, W.C., 1970. Groundwater Resource Evaluation. McGraw Hill Publisher

Waterloo Hydrogeologic, AquiferTest, version 3.5. Waterloo Ontario, Canada.

Western Engineers, 1986, Geophysical and subsurface explorations at the proposed Mt. Crested Butte Municipal Reservoir site: unpublished consulting report submitted to Mt. Crested Butte Water & Sanitation District, Mt. Crested Butte, CO, by Western Engineering, Inc., Grand Junction, CO, Work Order # 1753.01, September 1986, 10 p. plus appendices.

Whiteman, Ed W., 2004, Application of Geophysical Methods to Highway Related Problems; Pub. No. FHWA-IF-04-021, p. 177-188.

Wieczorek, G.F., 1984, Preparing a detailed landslide-inventory map for hazard evaluation and reduction: Association of Engineering Geologists Bulletin, v. 21, no. 3, p. 337-342.

Wright, K.R. and Rold, J. W., 1996, Report on the Aspen Music School debris flow investigation (draft): unpublished report submitted by Wright Water Engineers, Inc., Denver, CO to Fireman's Fund Insurance Company, Denver, CO, May 1996, 17 p. plus appendices