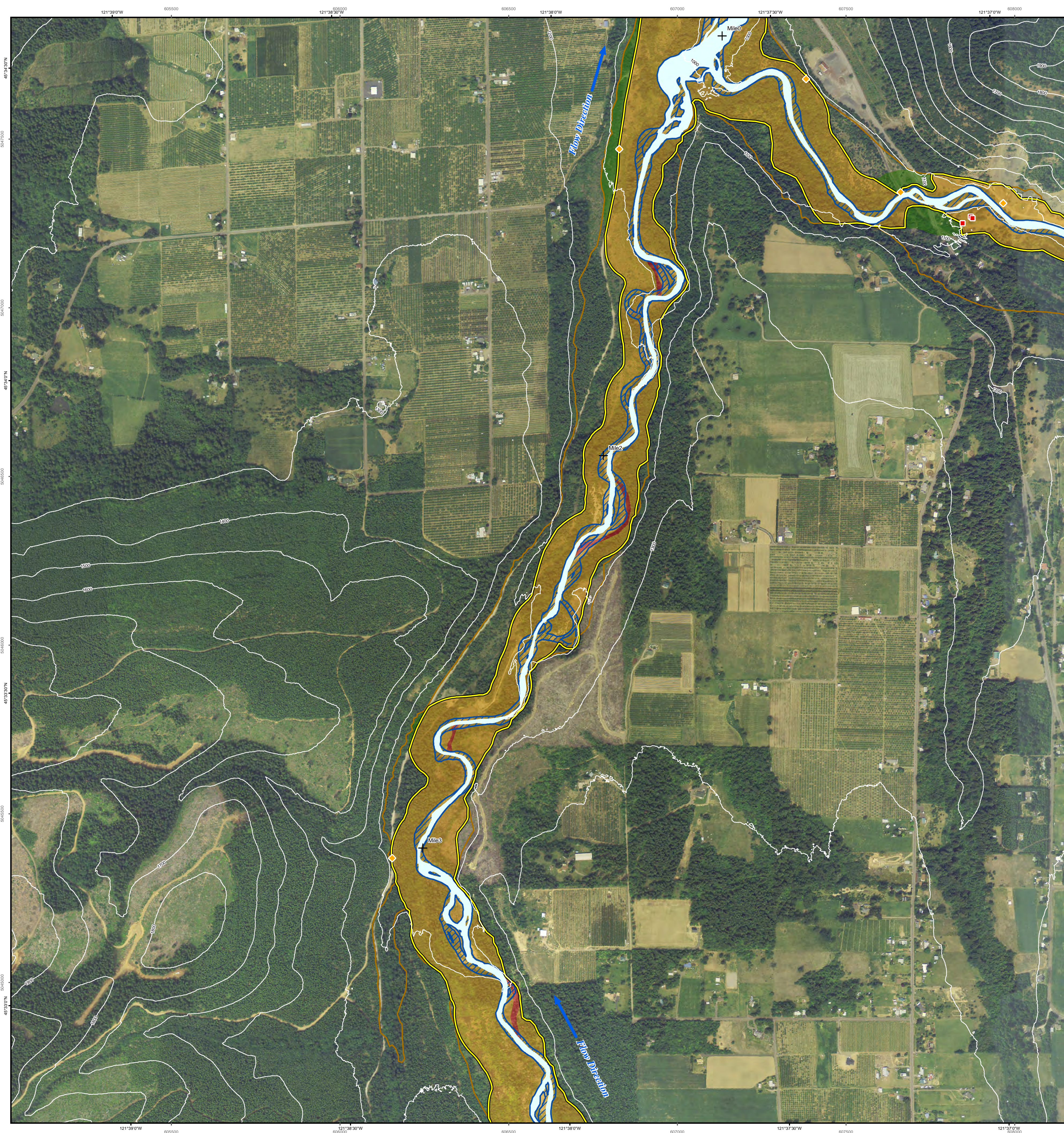


2011

Channel Migration Hazard Maps for the Hood River
Hood River County, Oregon

by John T. English, Daniel E. Coe, and Robert D. Chappel

PLATE 8



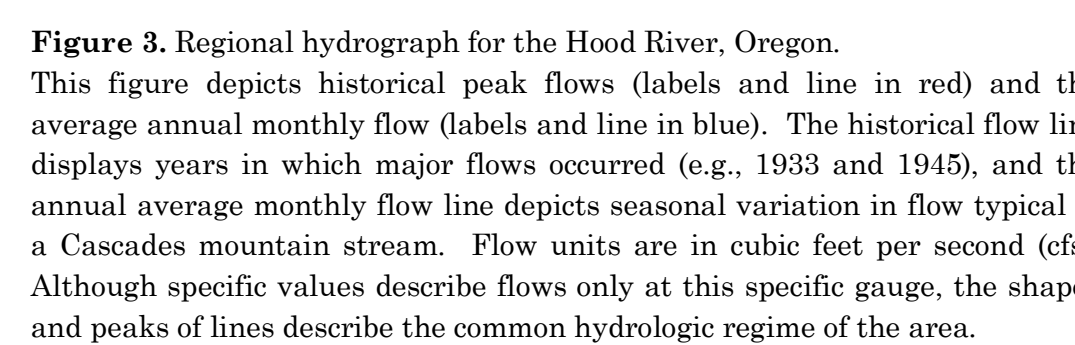
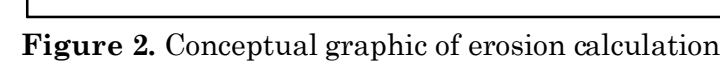
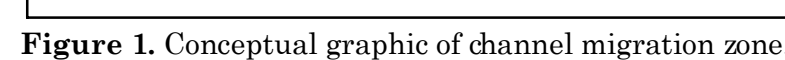
METHODS, COMPONENTS, AND LIMITATIONS OF INTERPRETATION

For more information on methodologies, see English and Coe (2011).

Software: Esri ArcGIS 10.0, Adobe Creative Suite 5.
Projection: North American Datum 1983, UTM zone 10 north. Grid ticks displayed in latitude and longitude as well as UTM coordinates.
Source data: Lidar data for publication from DQCAMI Lander Data Quadrangle LQD-2010-45121P4-White Salmon, LQD-2010-45121F5-Hood River, LQD-2010-45121F5-Parkdale, LQD-2010-45121F6-Duane. Digital elevation model (DEM) consists of a 3-foot-square source data that was converted into slope and shaded relief images. Orthophotos of Hood River County (1955, 1957, and 1975) are from University of Oregon Map Library and (2005 and 2009) National Agricultural Imagery Program (NAIP).

Disclaimer: This map depicts channel migration zones and associated hazards based on interpretation of aerial photography and lidar elevation data. Migration path/zones and hazard areas were created using methods and protocols defined by Rapp and Abbe (2008). This map cannot serve as a substitute for site-specific investigations by qualified practitioners. Site-specific data may yield results that differ from those shown on this map. This product is for informational purposes only and is not intended to be suitable for legal, engineering, or survey purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Limitations of this study relate to the accuracy of the historical aerial photography and length of historical record. The rectification process used to co-register individual photos produced accuracies of 9-15 feet (95% confidence). Accuracies vary throughout individual photos and photo areas.



◆ **Road Asset At Risk** – road that falls within the CMZ.

Abbe, T. B., Olson, P. L., Dally, C., Locke, B., and Williams, K. 2008. Channel Migration Zonedimodeling workshop—integrating fluvial landscapes: Understanding integration between fluvial geomorphology, hydrology, geology, sedimentology and hydraulics, 3-day short course, Oct. 21-23, 2008, Paradise Valley, Mont.-Environ. Hazardment Consultants and Northwest Environmental Training Center.

English, J. T., and Coe, D. E. 2011. Channel migration historical maps, Coos County, Oregon: Oregon Department of Geology and Mineral Industries Open-File Report O-11-09, 18 p.

Ruge, C. F., and Abbe, T. B. 2003. A framework for delineating channel migration zones: Olympia, Wash., Washington State Department of Ecology Publication 03-06-027, 65 p.

Singerland, R. and Smith, N. D. 2004. *Avulsions and their densities: Annual Review of Earth and Planetary Sciences* v. 32, p. 257-295.

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