

Publications of the Washington Geological Survey

July 2017

*Some of our publications are sold through the
Washington State Department of Enterprise Services
(see p. 3)*



WASHINGTON STATE DEPT OF
**NATURAL
RESOURCES**

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■ FEATURED PRODUCTS ■

Washington State Geology News

The Survey now has a blog, called the Washington State Geology News, where we share current events within the Survey, preliminary research findings, exciting geology photography, and recent publication announcements. Once there you can subscribe to receive new blog posts automatically. [[ONLINE](#)]

Washington Geologic Information Portal

The portal allows you to access interactive earth science mapping, data, and related information. Using our interactive maps, you can create, save, and print custom maps, find out more about map features, and download map data for use in a geographic information system (GIS). In addition to a variety of geoscience layers that can be turned on and off, each interactive map has many base layers to choose from, so you can customize your map in any number of ways. [[ONLINE](#)]

Catalog of the Washington Geology Library

Looking for an obscure geologic report? This searchable database of library holdings will help you find it. The Washington Geology library contains more than 40,000 titles on the geology of Washington State, more than 3000 current and historic topographic and geologic maps, a comprehensive set of dissertations and theses, environmental impact statements and watershed analyses, and the National Tsunami Hazard Mitigation Program library collection. There are links to online publications where available. [[ONLINE](#)]

1:100,000-, 1:250,000-, and 1:500,000-scale Geologic Maps of Washington State

All of our geologic maps are now available through our website on our [Publications and Maps](#) page. Scroll down and click on “Geologic Maps”. The maps can also be found on a page-size color map that shows published geologic mapping of 30- by 60-minute topographic quadrangles in Washington State from all sources, as well as quadrant and whole state maps. Attached text lists quads alphabetically and by author, with links to online publications. [[ONLINE](#)]

1:24,000-scale (7.5-minute) Geologic Maps of Washington State

All of our geologic maps are now available through our website on our [Publications and Maps](#) page. Scroll down and click on “Geologic Maps”. The maps can also be found on a page-size color map that shows published geologic mapping of 7.5-minute topographic quadrangles in Washington State from all sources. Attached text lists quads alphabetically and by author, with links to online publications. [[ONLINE](#)]

Geoscience GIS Data

A variety of geographic information system (GIS) data is available on our website in ESRI shapefile format, including geologic coverage of the entire state of Washington at scales of 1:24,000, 1:100,000, 1:250,000, and 1:500,000. [[ONLINE](#)]

TsuInfo Alert

TsuInfo Alert is a bi-monthly newsletter that links scientists, emergency responders, and community planners to the latest tsunami research. It is published by WGS for the [National Tsunami Hazard Mitigation Program](#), a state/federal partnership funded through the National Oceanic and Atmospheric Administration. It is made possible by a grant from the Federal Emergency Management Agency via the Washington Military Department Emergency Management Division. [[ONLINE](#)]

Coal Mine Map Collection

Coal has been mined in Washington since 1853. Although current production is from surface mines, nearly all coal produced prior to about 1970 came from underground workings. Since early in this century, Washington State law has required mine operators to submit detailed plans of all underground coal operations to the state on an annual basis. About 1,100 individual maps representing about 230 mines have been scanned and are available electronically. [[ONLINE](#)]

■ HOW TO OBTAIN PUBLICATIONS ■

Publications are listed by series. This document is searchable using the Acrobat search function. Publications that are in print may be purchased from the Washington State Department of Enterprise Services (see below for details). Online publications are indicated by a hyperlink [ONLINE] at the end of the publication description. Where possible, larger files have been broken into parts for ease of downloading [PART 1] [PART 2]. For unusual cases, we have tried to make the link name descriptive enough to distinguish between files. If you need a hard copy of a large-format report, such as a map, and do not have access to a plotter, your local copy center may be able to print it out. Reports marked "Lib. use only" may be viewed in the Survey library in Olympia. All new Survey reports and maps are announced on our website.

IN-PRINT PUBLICATIONS

Publications marked 'In print' may be ordered from the Washington State Department of Enterprise Services. To order, note the publication series,

number, and title of the desired publication(s) before using the online store (<http://www.des.wa.gov>). If you use the online store, select 'SERVICES', then 'Print Online Ordering' under 'Printing & Mail', then myFULFILLMENT' in the middle of the screen. In the left panel, select 'Fulfillment (By Agency)', then 'Natural Resources (Geology Division)'. Publications in the General Store are organized by series, and listed prices include shipping and handling. Follow the website instructions to complete your purchase.

OUT-OF-PRINT PUBLICATIONS

Many of our publications are out of print and no longer for sale, but they are available online. If you can't find what you are looking for in this publications list, search our online library catalog at: <http://www.dnr.wa.gov/programs-and-services/geology/washington-geology-library>. Out-of-print items are sometimes returned to the Survey and are made available 'first-come, first-served'. Availability changes often; e-mail stephanie.earls@dnr.wa.gov for current availability.

■ CONTACT US ■

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Visitors may enter the Natural Resources Building parking lot using the Washington Street entrance. Visitor parking (VP) is on level P1. Follow the signs. The parking fee is \$1.50/hr.

The Survey is across the Rotunda, past the four elevators, on the north side of first floor. See the building directory in the lobby. Sign in at the Information Desk in the Rotunda to get a visitor's pass.

Staff List

The [Survey Staff List](#) has contact information for individual staff.



Bulletin

The subject matter of a Bulletin is of widespread interest in the geologic community and the subject matter is treated thoroughly and in a well-organized, scholarly manner. Bulletins are usually written for geologic audiences. Bulletins are peer reviewed and edited to Survey/USGS/major journal standards.

Geologic Map (GM) and Map Series (MS)

Geologic Maps (GMs) and Map Series (MS) publications are geological, geophysical, or derivative maps, with text on the map or in an accompanying pamphlets. The maps are the chief vehicles of communication. They are usually the result of original field investigations or extensive compilation and re-presentation of data in map form. Geologic Maps are peer reviewed and edited to Survey/USGS/major journal standards. Map Series are not peer reviewed, but are still edited to conform to Survey/USGS/major journal standards.

Report of Investigations (RI)

A Report of Investigations (RI) conveys the results of significant field investigations, usually by a Survey staff geologist. It may contain a map or maps larger than page size, but the report is chiefly text and page-sized figures and tables. It is usually shorter than a Bulletin and narrower in scope and more restricted in geographic coverage. It is still a thorough and often scholarly presentation that conveys important information and is complete and able to stand on its own. RIs are usually written for a geologic audience. They are peer reviewed and edited to Survey/USGS/major journal standards.

Information Circular (IC)

An Information Circular (IC) is a vehicle for all types of geologic or geology-related information, usually in 8½ x 11 in. format. Original field work may be involved but often is not. Instead, the report is usually a compilation of data or historical records, assembled because the information has geologic significance, is needed by a large number of people, or is otherwise unavailable in convenient form. An IC is sometimes written for a geologic audience, but is more often written to be useful to geologists and understandable to the general public. ICs have been catalogs (earthquake hypocenters, oil and gas exploration wells, mining operations, map indexes, theses), road logs, or reports on particular areas. An IC is edited to Survey/USGS/major journal standards, but is not always peer reviewed.

Topographic Map (TM)

The only Topographic Maps (TM) issued to date are the 1:250,000 topographic maps prepared by the Survey to serve as base maps for the southwest, northeast, and southeast quadrants of the state geologic map (GM-34, GM-39, and GM-45).

Digital Data Series (DS)

Digital Data Series (DS) present geologic data in GIS file geodatabase format. The data are available online and intended to be used interactively (that is, the data can be analyzed, displayed, or otherwise manipulated to meet the user's needs). The datasets may be updated from time to time, will not exist on paper, and are not archived; that is, when the data is updated, no copy of the previous version is kept. For DSs, there are specific hardware/software/expertise requirements. Updates are identified by a version number, typically the date. For some Digital Reports, requesters may be asked to execute a product license agreement. Digital Data Series are usually edited for conformance to Survey digital data standards.

Digital Report (DR)

Digital Reports (DR) present large data sets in electronic form. The reports are available online and intended to be used interactively (that is, the data can be sorted, subdivided, or otherwise manipulated to meet the user's needs). The reports may be updated from time to time, may not exist on paper, and are not archived; that is, when the report is updated, no copy of the previous version is kept. For some DRs, there are specific hardware/software/expertise requirements. Updates are identified by a version number, typically the date (for example, DR-1, ver. 8/26/1998). For some Digital Reports, requesters may be asked to execute a product license agreement. Digital Reports are usually not edited or peer reviewed in the usual sense. Instead they are prepared with due care and then modified or corrected as authors and (or) users find problems or errors.

Open File Report (OFR)

An Open File Report (OFR) is a body of geologic or geology-related information in map and (or) text form that is significant enough to make available to the public, but, for one reason or another, has not been prepared and released as a Bulletin, GM, RI, or IC. These reasons include: (1) the report is preliminary, (2) the report must be released quickly, (3) the report was never intended for publication, perhaps because very few copies will be needed, (4) the report is informal or doesn't lend itself to one of the formal report series, or (5) people, money, and (or) time are not available to prepare a Bulletin, GM, RI, or IC. OFRs may or may not be peer reviewed and (or) edited to Survey/USGS/major journal standards.

Field Trip Guide (FTG)

A Field Trip Guide (FTG) is just what it says it is—a field trip guide. FTGs may or may not be peer reviewed and (or) edited to Survey/USGS/major journal standards.

■ ANNUAL REPORTS ■

Annual Reports are available online only.

Washington State Geologist			
Mines and minerals of Washington—Annual report of George A. Bethune, first State Geologist, 1890, by G. A. Bethune. 1891. 122 p. [ONLINE]	Out of print	The biennial report of the Board of Geological Survey of the State of Washington for the term 1917-1919. 1919. 26 p. 3 pl. [ONLINE]	Out of print
Mines and minerals of Washington—Second annual report of George A. Bethune, State Geologist, by G. A. Bethune. 1892. 186 p. [ONLINE]	Out of print	The biennial report of the Board of Geological Survey of the State of Washington for the term 1919-1921. 1921. 29 p. [ONLINE]	Out of print
Washington Mining Bureau		Department of Conservation and Development*	
First annual report of the Mining Bureau of the State of Washington, from April 1, 1891 to April 1, 1892. 1892. 46 p., 5 pl. [ONLINE]	Out of print	Report of the Supervisor of Geology, Department of Conservation and Development, from April 1, 1921, to September 30, 1922, by Solon Shedd. 1922. 9 p. [ONLINE]	Out of print
Washington Geological Survey		Report of the Supervisor of Geology, Department of Conservation and Development, from October 1, 1922, to September 30, 1924, by Solon Shedd. 1924. 12 p. 1 pl. [ONLINE]	Out of print
Annual Report for 1901; Volume I. 1902. 344 p. [PARTS I-II] [PARTS III-VI]	Out of print	Third biennial report of the Department of Conservation and Development from April 1, 1925, to September 30, 1926, by E. J. Barnes. 1927. 93 p. 2 pl. [ONLINE]	Out of print
<i>The chapters are also available separately:</i>		Fourth biennial report of the Department of Conservation and Development from October 1, 1926, to September 30, 1928, by E. J. Barnes. 1928. 75 p. 2 pl. [ONLINE]	Out of print
Part I. Creation of a state geological survey, and, An outline of the geology of Washington, by Henry Landes. 1902. 35 p., 5 pl. [ONLINE]	Out of print	Seventh biennial report of the Department of Conservation and Development from October 1, 1932, to September 30, 1934, by E. F. Banker. 1935. 57 p. [ONLINE]	Out of print
Part II. The metalliferous resources of Washington, except coal, by Henry Landes, W. S. Thyng, D. A. Lyon, and Milnor Roberts. 1902. 123 p., 4 pl. [ONLINE]	Out of print	Biennial report of Division of Geology—April 1, 1933, to November 30, 1934, by H. E. Culver. 1935. 14 p. [ONLINE]	Out of print
Part III. The non-metalliferous resources of Washington, by Henry Landes. 1902. 55 p., 11 pl. [ONLINE]	Out of print	Eighth biennial report of the Department of Conservation and Development—October 1, 1934, to September 30, 1936, by J. B. Fink. 1937. 68 p. [ONLINE]	Out of print
Part IV. The iron ores of Washington, by Solon Shedd, and, The coal deposits of Washington, by Henry Landes. 1902. 67 p., 13 pl. [ONLINE]	Out of print	First biennial report of the Division of Mines and Mining, June 1, 1935, to December 31, 1936, by T. B. Hill. 1937. 6 p. [ONLINE]	Out of print
Part V. The water resources of Washington—Potable and mineral water, by H. G. Byers; Artesian water, by C. A. Ruddy; and, Water power, by R. E. Heine. 1902. 37 p., 7 pl. [ONLINE]	Out of print	Summary report of major activities, Division of Geology, for the biennium 1935-37, by H. E. Culver. 1936. 7 p. [ONLINE]	Out of print
Part VI. Bibliography of the literature referring to the geology of Washington, by Ralph Arnold. 1902. 16 p. [ONLINE]	Out of print	Ninth biennial report of the Department of Conservation and Development—October 1, 1936—September 30, 1938, by J. B. Fink. 1939. 115 p. [ONLINE]	Out of print
Annual report for 1902; Volume II. 1903. 277 p., 23 pl. (Contains: Part I. The building and ornamental stones of Washington, by Solon Shedd [ONLINE] ; Part II. Coal deposits of Washington, by Henry Landes and C. A. Ruddy [ONLINE])	Out of print	[Second biennial report of the] Division of Mines and Mining, January 1, 1937, to December 31, 1938, by T. B. Hill. 1939. 17 p. [ONLINE]	Out of print
The biennial report of the Board of Geological Survey of the State of Washington for the term 1901-1903. 1903. 7 p. [ONLINE]	Out of print	Tenth biennial report of the Department of Conservation and Development, October 1, 1938—September 30, 1940, by J. B. Fink. 1941. 150 p. [ONLINE]	Out of print
The biennial report of the Board of Geological Survey of the State of Washington for the term 1909-11. 1910. 24 p. 1 pl. [ONLINE]	Out of print	Third biennial report of the Division of Mines and Mining for the period commencing January 1, 1939 and ending January 1, 1941, by T. B. Hill. 1941. [ONLINE]	Out of print
The biennial report of the Board of Geological Survey of the State of Washington for the term 1911-13. 1913. 24 p. 3 pl. [ONLINE]	Out of print	Eleventh biennial report of the Department of Conservation and Development—October 1, 1940—September 30, 1942, by Ed Davis. 1943. 54 p. [ONLINE]	Out of print
The biennial report of the Board of Geological Survey of the State of Washington for the term 1913-1915. 1915. 31 p. 3 pl. [ONLINE]	Out of print		
The biennial report of the Board of Geological Survey of the State of Washington for the term 1915-1917. 1917. 29 p. 3 pl. [ONLINE]	Out of print		

* We have published under several different names, as our organization and our parent agency have changed significantly since its inception. Former publishing names include the Department of Conservation and Development, the Division of Geology, the Division of Mines and Mining, and the Division of Mines and Geology. In 1965, the Division was made a part of the Department of Natural Resources. In 1973, the Division of Mines and Geology became the Division of Geology and Earth Resources. In 2017, we became the Washington Geological Survey.

■ ANNUAL REPORTS ■

Annual Reports are available online only.

<p>Fourth biennial report of the Division of Mines and Mining for the period commencing October 1, 1940 and ending September 30, 1942, by S. L. Glover. 1943. 9 p. [ONLINE]</p>	<p>Out of print</p>	<p>Biennial report no. 8 of the Division of Mines and Geology [for the period commencing July 1, 1958 and ending June 30, 1960], by M. T. Huntting. 1960. 26 p. [ONLINE]</p>	<p>Out of print</p>
<p>Twelfth biennial report of the Department of Conservation and Development—October 1, 1942–September 30, 1944, by Ed Davis. 1944. 52 p. [ONLINE]</p>	<p>Out of print</p>	<p>Biennial report no. 9 [of the] Division of Mines and Geology for the period commencing July 1, 1960 and ending June 30, 1962, by M. T. Huntting. 1962? 19 p. [ONLINE]</p>	<p>Out of print</p>
<p>Fifth biennial report of the Division of Mines and Mining for the period commencing October 1, 1942, and ending September 30, 1944, by S. L. Glover. 1944. 6 p. [ONLINE]</p>	<p>Out of print</p>	<p>Biennial report no. 10 [of the] Division of Mines and Geology [for the period commencing July 1, 1962 and ending June 30, 1964], by M. T. Huntting. 1964? 18 p. [ONLINE]</p>	<p>Out of print</p>
<p>Biennial report no. 1 of the Division of Mines and Geology for the period commencing October 1, 1944 and ending September 30, 1946, by S. L. Glover. 1946. 24 p. [ONLINE]</p>	<p>Out of print</p>	<p>Biennial report no. 11 [of the] Division of Mines and Geology [for the period commencing July 1, 1964 and ending June 30, 1966], by M. T. Huntting. 1966? 17 p. [ONLINE]</p>	<p>Out of print</p>
<p>Biennial report no. 2 of the Division of Mines and Geology for the period commencing October 1, 1946 and ending September 30, 1948; including a report on Washington's mineral industry, by S. L. Glover. 1948. 28 p. [ONLINE]</p>	<p>Out of print</p>	<p>[Biennial report no. 12 of the] Mines and Geology Division [1966-1968], by M. E. Felt. 1968? 5 p. [ONLINE]</p>	<p>Out of print</p>
<p>Biennial report no. 3 of the Division of Mines and Geology for the period commencing October 1, 1948 and ending September 30, 1950, by S. L. Glover. 1951. 13 p. [ONLINE]</p>	<p>Out of print</p>	<p>Department of Natural Resources Division of Geology and Earth Resources</p>	
<p>Biennial report no. 4 of the Division of Mines and Geology for the period commencing October 1, 1950 and ending September 30, 1952, by S. L. Glover. 1952. 8 p. [ONLINE]</p>	<p>Out of print</p>	<p>Geology for the decade 1980-1990, by Raymond Lasmanis. 1983. 67 p. [ONLINE]</p>	<p>Out of print</p>
<p>Biennial report no. 5 of the Division of Mines and Geology for the period commencing July 1, 1952 and ending June 30, 1954; Including a special report: One hundred years of mining, by S. L. Glover. 1954? 20 p. [ONLINE]</p>	<p>Out of print</p>	<p>The Washington Division of Geology and Earth Resources—Geology in the public interest. 2003. 4 p. [ONLINE]</p>	<p>Out of print</p>
<p>Biennial report no. 6 of the Division of Mines and Geology for the period commencing July 1, 1954 and ending June 30, 1956, by S. L. Glover. 1956? 12 p. [ONLINE]</p>	<p>Out of print</p>	<p>The Washington Division of Geology and Earth Resources—Geology in the public interest. 2005. 4 p. [ONLINE]</p>	<p>Out of print</p>
<p>Biennial report no. 7 of the Division of Mines and Geology for the period commencing July 1, 1956 and ending June 30, 1958, by M. T. Huntting. 1958. 19 p. [ONLINE]</p>	<p>Out of print</p>	<p>The Washington Division of Geology and Earth Resources—Geology in the public interest [short version]. 2005. 2 p. [ONLINE]</p>	<p>Out of print</p>
		<p>The Washington Division of Geology and Earth Resources—Geology in the public interest. 2009. 4 p. [ONLINE]</p>	<p>Out of print</p>

■ BULLETINS ■

In-print Bulletins are sold through the Washington State Department of Printing General Store (see p. 3)

Washington Geological Survey

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|-----|---|--------------|--------------------------------------|---|--------------|
| 1. | Geology and ore deposits of Republic mining district, by J. B. Umpleby. 1910. 66 p., 13 pl., 5 figs. [ONLINE] | Out of print | 21. | The mineral resources of Washington, with statistics for 1919, by E. N. Patty and S. L. Glover. 1921. 155 p., 13 pl., 3 figs. [ONLINE] | Out of print |
| 2. | The road materials of Washington, by Henry Landes. 1911. 204 p., 17 pl., 51 figs. [ONLINE] | Out of print | 22. | The road building sands and gravels of Washington, by M. M. Leighton. 1919. 307 p., 9 pl., 36 figs. [ONLINE] | Out of print |
| 3. | The coal fields of King County, by G. W. Evans. 1912. 247 p., 23 pl., 59 figs. [ONLINE] | Out of print | 23. | The metal mines of Washington, by E. N. Patty. 1921. 366 p., 36 pl., 27 figs. [PART 1] [PART 2] | Out of print |
| 4. | Cement materials and industry in Washington, by Solon Shedd. 1913. 268 p., 21 pl., 10 figs. [PART 1] [PART 2] | Out of print | Division of Geology | | |
| 5. | Part I. Geology and ore deposits of the Myers Creek mining district; Part II. Geology and ore deposits of the Oroville–Nighthawk mining district, by J. B. Umpleby. 1911. 113 p., 3 pl., 5 figs. [ONLINE] | Out of print | 24. | Clays and shales of Washington, by S. L. Glover. 1941. 368 p., 14 pl., 6 figs. [PART 1] [PART 2] | Out of print |
| 6. | Geology and ore deposits of the Blewett mining district, by C. E. Weaver. 1911. 104 p., 10 pl., 1 fig. [ONLINE] | Out of print | 25. | The magnesite deposits of Washington, their occurrence and technology, by G. E. Whitwell and E. N. Patty. 1921. 194 p., 13 pl., 5 figs. [ONLINE] | Out of print |
| 7. | Geology and ore deposits of the Index mining district, by C. E. Weaver. 1912. 96 p., 7 pl. [ONLINE] | Out of print | 26. | Underground water supply of the region about White Bluffs and Hanford, by O. P. Jenkins. 1922. 41 p., 3 pl., 1 fig. [ONLINE] | Out of print |
| 8. | Glaciation of the Puget Sound region, by J. H. Bretz. 1913. 244 p., 24 pl., 27 figs. [ONLINE] | Out of print | 27. | Iron ores, fuels, and fluxes of Washington, by Solon Shedd, O. P. Jenkins, and H. H. Cooper. 1922. 160 p., 1 pl., 11 figs. [ONLINE] | Out of print |
| 9. | The coal fields of Kittitas County, by E. J. Saunders. 1914. 204 p., 38 pl., 52 figs. [ONLINE] | Out of print | 28. | Geological investigation of the coal fields of western Whatcom County, Washington, by O. P. Jenkins. 1923. 135 p., 4 pl., 2 figs. [ONLINE] | Out of print |
| 10. | The coal fields of Pierce County, by Joseph Daniels. 1914. 146 p., 30 pl., 23 figs. [ONLINE] | Out of print | 29. | Geological investigation of the coal fields of Skagit County, Washington, by O. P. Jenkins. 1924. 63 p., 7 pl., 5 figs. [ONLINE] | Out of print |
| 11. | The mineral resources of Washington, with statistics for 1912, by Henry Landes. 1914. 53 p., 1 pl. [ONLINE] | Out of print | 30. | The mineral resources of Washington, with statistics for 1922, by Solon Shedd, with an article on coal and coke by G. W. Evans. 1924. 224 p., 3 figs. [ONLINE] | Out of print |
| 12. | Bibliography of Washington geology and geography, by Gretchen O'Donnell. 1913. 63 p.
<i>Superseded by the online bibliography.</i> | Out of print | 31. | Lead deposits of Pend Oreille and Stevens Counties, Washington, by O. P. Jenkins. 1924. 153 p., 3 pl., 15 figs. [ONLINE] | Out of print |
| 13. | The Tertiary formations of western Washington, by C. E. Weaver. 1916. 327 p., 30 figs., 3 pl. [PART 1] [PART 2] | Out of print | 32. | Geology of Washington, by H. E. Culver. (Part I: General features of Washington geology; to accompany the preliminary geologic map, 1936). 1936. 70 p. [ONLINE] | Out of print |
| 14. | A preliminary report on the Quincy Valley Irrigation Project, by Henry Landes, A. W. Mangum, H. K. Benson, E. J. Saunders, and Joseph Jacobs. 1912. 49 p., 7 pl. [ONLINE] | Out of print | 33. | Nonmetallic mineral resources of Washington, with statistics for 1933, by S. L. Glover. 1936. 135 p. [ONLINE] | Out of print |
| 15. | A preliminary report on the Tertiary paleontology of western Washington, by C. E. Weaver. 1912. 80 p., 16 pl. [ONLINE] | Out of print | 34. | Tungsten resources of Washington, by H. E. Culver and W. A. Broughton. 1945. 89 p., 23 pl., 9 figs. [ONLINE] | Out of print |
| 16. | Geology and ore deposits of the Covada mining district, by C. E. Weaver. 1913. 87 p., 5 pl., 3 figs. [ONLINE] | Out of print | 35. | Bibliography and index of geology and mineral resources of Washington, 1814–1936, by W. A. G. Bennett. 1939. 140 p.
<i>Superseded by the online bibliography.</i> | Out of print |
| 17. | A geographic dictionary of Washington, by Henry Landes. 1917. 346 p., 10 pl. [PART 1] [PART 2] | Out of print | Division of Mines and Geology | | |
| 18. | The country about Camp Lewis, by M. M. Leighton. 1918. 105 p., 12 pl., 6 figs. [ONLINE] | Out of print | 36. | Geology and ore deposits of the Sultan Basin, Snohomish County, Washington, by Ward Carithers and A. K. Guard. 1945. 90 p., 3 pl., 18 figs. [ONLINE] | Out of print |
| 19. | The coal fields of southwestern Washington, by H. E. Culver. 1919. 155 p., 24 pl., 12 figs. [ONLINE] | Out of print | 37. | Inventory of Washington minerals:
Part I. (2nd ed.) Nonmetallic minerals, by G. M. Valentine, revised by M. T. Huntting. 1960. 2 v. (v. 1, 175 p. text; v. 2, maps, 39 pl.). [TEXT] [MAPS] | In print |
| 20. | The mineral resources of Stevens County, by C. E. Weaver. 1920. 350 p., 20 pl., 14 figs. [PART 1] [PART 2] | Out of print | | Part II. Metallic minerals, by M. T. Huntting. 1956. 2 v. (v. 1, 428 p. text; v. 2, maps, 67 p. text, 27 pl.). [PART 1] , [PART 2] , [PART 3] , [PART 4] , [MAPS] | Out of print |

■ BULLETINS ■

In-print Bulletins are sold through the Washington State Department of Printing General Store (see p. 3)

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|-----|---|--------------|--|---|--------------|
| 38. | The place of steam-electric generating stations in the orderly program of electric power development in the Pacific Northwest, by H. H. Houston. 1950. 117 p., 1 pl., 25 figs. [ONLINE] | Out of print | 57. | Mines and mineral deposits of Whatcom County, Washington, by W. S. Moen. 1969. 134 p., 14 pl., 44 figs. [PART 1] [PART 2] | Out of print |
| 39. | Antimony occurrences of Washington, by C. P. Purdy Jr. 1951. 186 p., 14 figs. [ONLINE] | Out of print | 58. | Chemical and physical controls for base metal deposition in the Cascade Range of Washington, by A. R. Grant. 1969. 107 p., 33 figs. [ONLINE] | Out of print |
| 40. | Geology of the Bead Lake district, Pend Oreille County, Washington, by M. C. Schroeder. 1952. 57 p., 1 pl., 6 figs. [ONLINE] | Out of print | 59. | Bibliography and index of the geology and mineral resources of Washington, 1957–1962, by W. H. Reichert. 1969. 375 p.
<i>Superseded by the online bibliography.</i> | Out of print |
| 41. | An outline of mining laws of the State of Washington [includes 16 p. supplement], compiled and annotated by M. H. Van Nuys. 1953. 142 p. [ONLINE] | Out of print | 60. | Cenozoic volcanism in the Cascade Mountains of southern Washington, by W. S. Wise. 1970. 45 p., 1 pl., 14 figs. [ONLINE] | Out of print |
| 42. | Gold in Washington, by M. T. Huntting. 1955. 158 p., 2 figs. [ONLINE] | Web only | 61. | Lead-zinc deposits in the Kootenay arc, northeastern Washington and adjacent British Columbia, edited by A. E. Weissenborn, F. C. Armstrong, and J. T. Fyles. 1970. 123 p. [ONLINE] | In print |
| 43. | Eocene stratigraphy of the lower Cowlitz River–eastern Willapa Hills area, southwestern Washington, by D. A. Henriksen. 1956. 122 p. [ONLINE] | In print | 62. | Foraminifera, stratigraphy, and paleoecology of the Quinault Formation, Point Grenville–Raft River coastal area, Washington, by W. W. Rau. 1970. 41 p. [ONLINE] | In print |
| 44. | Peat resources of Washington, by G. B. Rigg. 1958. 272 p., 1 pl., 263 figs. [PART 1] [PART 2] [PART 3] | Out of print | 63. | Geology and mineral resources of King County, Washington, by V. E. Livingston Jr. 1971. 200 p., 6 pl., 103 figs. [PART 1 , PART 2] | Out of print |
| 45. | Washington’s channeled scabland, by J. H. Bretz. 1959. 57 p., 4 pl., 36 figs. [ONLINE] | Out of print | 64. | Geology and mineral deposits of the Loomis [15-minute] quadrangle, Okanogan County, Washington, by C. D. Rinehart and K. F. Fox Jr. 1972. 124 p., 3 pl. (pl. 1: 27 x 33 in. color geologic map, scale 1:62,500), 32 figs. [ONLINE] | Out of print |
| 46. | Bibliography and index of the geology and mineral resources of Washington, 1937–1956, by W. H. Reichert. 1960. 721 p.
<i>Superseded by the online bibliography.</i> | Out of print | 65. | Distribution of copper and other metals in gully sediments of part of Okanogan County, Washington, by K. F. Fox Jr., and C. D. Rinehart. 1972. 38 p., 4 pl. (pl. 1: 26 x 28 in. color geologic map, scale 1:96,000, with 2 overlays), 10 figs. [ONLINE] | In print |
| 47. | Coal reserves of Washington, by H. M. Beikman, H. D. Gower, and T. A. M. Dana. 1961. 115 p. [Reprinted with 15-p. addendum by H. W. Schasse, T. J. Walsh, and W. M. Phillips. 1984.] [ONLINE] | In print | Division of Geology and Earth Resources | | |
| 48. | High-calcium limestones of eastern Washington, by J. W. Mills. 1962. 268 p., 7 pl., 64 figs. [PART 1] [PART 2] [PART 3] [PART 4] | Out of print | 66. | Geology of the Washington coast between Point Grenville and the Hoh River, by W. W. Rau. 1973. 58 p. [ONLINE] | In print |
| 49. | Saline lake deposits in Washington, by W. A. G. Bennett. 1962. 129 p. [ONLINE] | In print | 67. | Mining laws of the State of Washington, by J. L. Neff and R. L. Magnuson. 1974. 109 p., 9 figs. [ONLINE] | Out of print |
| 50. | Geology and mineral deposits of the north half of the Van Zandt quadrangle, Whatcom County, Washington, by W. S. Moen. 1962. 129 p., 4 pl., 41 figs. [ONLINE] | Out of Print | 68. | Geology of the Methow Valley, Okanogan County, Washington, by J. D. Barksdale. 1975. 72 p., 1 pl., 17 figs. [ONLINE] | Out of print |
| 51. | Barite in Washington, by W. S. Moen. 1964. 112 p., 2 pl. [ONLINE] | In print | 69. | Silver occurrences of Washington, by W. S. Moen. 1976. 188 p. [Reprinted 1982.] [ONLINE] | In print |
| 52. | Limestone resources of western Washington, by W. R. Danner. 1966. 474 p. [PART 1] [PART 2] [PART 3] | In print | 70. | Zinc and lead ore deposits in carbonate rocks, Stevens County, Washington, by J. W. Mills. 1977. 171 p. [ONLINE] | In print |
| 53. | Stratigraphy and foraminifera of the Satsop River area, southern Olympic Peninsula, Washington, by W. W. Rau. 1966. 66 p. [ONLINE] | In print | 71. | Geology of parts of Grant, Adams, and Franklin Counties, east-central Washington, by M. J. Grolier and J. W. Bingham. 1978. 91 p., 33 figs. [ONLINE] | Out of print |
| 54. | Geology and mineral resources of the Kelso–Cathlamet area, Cowlitz and Wahkiakum Counties, Washington, by V. E. Livingston Jr. 1966. 110 p., 23 figs. [ONLINE] | Out of print | 72. | Washington coastal geology between the Hoh and Quillayute Rivers, by W. W. Rau. 1980. 57 p. [ONLINE] | In print |
| 55. | Building stone of Washington, by W. S. Moen. 1967. 85 p. [ONLINE] | In print | 73. | Myers Creek and Wauconda mining districts of northeastern Okanogan County, Washington, by W. S. Moen. 1980. 96 p., 6 pl., 36 figs. [ONLINE] | Out of print |
| 56. | Geology of the Wynoochee Valley [15-minute] quadrangle, Grays Harbor County, Washington, by W. W. Rau. 1967. 51 p., 1 pl., scale 1:62,500. [ONLINE] | In print | | | |

■ BULLETINS ■

In-print Bulletins are sold through the Washington State Department of Printing General Store (see p. 3)

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| <p>74. Reconnaissance geochemical survey of gully and stream sediments, and geologic summary, in part of the Okanogan Range, Okanogan County, Washington, by C. D. Rinehart. 1981. 24 p., 3 pl. [ONLINE]</p> <p>75. Geology of the Wenatchee and Monitor quadrangles, Chelan and Douglas Counties, Washington, by R. L. Gresens. 1983. 75 p., 3 pl., scale 1:24,000. [ONLINE]</p> <p>76. Bibliography and index of the geology and mineral resources of Washington, 1963–1980, compiled by C. J. Manson and Debbie Burnett. 1983. 398 p.
<i>Superseded by the online bibliography.</i></p> <p>77. Selected papers on the geology of Washington, edited by J. E. Schuster. 1987. 406 p. [PART 1] [PART 2] [PART 3]</p> <p>78. Engineering geology in Washington, edited by R. W. Galster, chairman. 1989. [2 v.], 1234 p. [VOL 1 PART 1] [VOL 1 PART 2] [VOL 1 PART 3], [VOL 1 PART 4] [VOL 1 PART 5] [VOL 2 PART 1] [VOL 2 PART 2] [VOL 2 PART 3] [VOL 2 PART 4]</p> | <p>In print</p> <p>In print</p> <p>Out of print</p> <p>In print</p> <p>In print</p> | <p>79. Bibliography and index of the geology and mineral resources of Washington, 1981–1985, compiled by C. J. Manson. 1990. 484 p.
<i>Superseded by the online bibliography.</i></p> <p>80. Regional Geology of Washington State, Raymond Lasmanis and E. S. Cheney, convenors. 1994. 227 p., 136 figs., 18 tables. [PART 1, PART 2]</p> <p>81. Bibliography and index of the geology and mineral resources of Washington, 1986–1990, by C. J. Manson. 1996. 476 p.
<i>Superseded by the online bibliography.</i></p> <p style="text-align: center;">Washington Geological Survey</p> <p>82. Protocol for landslide inventory mapping from lidar data in Washington State, S. L. Slaughter, W. J. Burns, K. A. Mickelson, K. E. Jacobacci, Alyssa Biel, and T. A. Contreras. 2017. 27 p., 2 ESRI geodatabases, and 1 Excel data supplement. [ONLINE]</p> | <p>Out of print</p> <p>Out of print</p> <p>Out of print</p> <p></p> <p>Web only</p> |
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■ DIGITAL DATA SERIES ■

Digital Data Series are available online only.

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| <p>1. Washington State seismogenic features database—GIS data, by J. D. Bowman and J. L. Czajkowski. 2016. [ONLINE]</p> <p>2. Washington State aeromagnetic and gravity anomaly data—GIS data, by J. D. Bowman. 2013. [ONLINE]</p> <p>3. Volcanic vents database for Washington State—GIS data, by J. L. Czajkowski and J. D. Bowman. 2013. [ONLINE]</p> <p>4. Geothermal direct-use database in Washington State—GIS data, by J. D. Bowman. 2014. [ONLINE]</p> <p>5. Washington State rock geochemistry database—GIS data, by J. D. Bowman, J. L. Czajkowski, S. P. Reidel, D. E. Boschmann, and L. A. Fusso. 2014. [ONLINE]</p> <p>6. Washington State geochronology database—GIS data, by J. L. Czajkowski. 2016. [ONLINE]</p> <p>7. Thermal and mineral springs database for Washington State—GIS data, by J. L. Czajkowski, J. D. Bowman, L.A. Fusso, and D. E. Boschmann. 2014. [ONLINE]</p> <p>8. Washington State geothermal well database—GIS data, by J. L. Czajkowski, J. D. Bowman, L. A. Fusso, and D. E. Boschmann. 2014. [ONLINE]</p> <p>9. Washington State geothermal favorability model database—GIS data, by D. E. Boshmann, J. L. Czajkowski, and J. D. Bowman. 2014. [ONLINE]</p> | <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> | <p>10. Surface geology, 1:24,000—GIS data, by Washington Division of Geology and Earth Resources. 2016. [ONLINE]</p> <p>11. Subsurface database of Washington State—GIS data, by D. A. Jeschke, D. W. Eungard, K. G. Troost, and A. P. Wisher. 2016. [ONLINE]</p> <p>12. Landslides and landforms of Washington State—GIS data, by Washington Division of Geology and Earth Resources staff. 2016. [ONLINE]</p> <p>13. Metallic minerals database—GIS data, by Washington Division of Geology and Earth Resources. 2015. [ONLINE]</p> <p>14. Nonmetallic (industrial) minerals database—GIS data, by Washington Division of Geology and Earth Resources. 2015. [ONLINE]</p> <p>15. Hazardous minerals database—GIS data, by Washington Division of Geology and Earth Resources. 2015. [ONLINE]</p> <p>16. Coal database—GIS data, by Washington Division of Geology and Earth Resources. 2015. [ONLINE]</p> <p>17. Shear Wave database—GIS data, by Washington Division of Geology and Earth Resources. 2016. [ONLINE]</p> <p>18. Surface geology, 1:100,000—GIS data, by Washington Division of Geology and Earth Resources. 2016. [ONLINE]</p> | <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> <p>Web only</p> |
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■ DIGITAL REPORTS ■

Digital Reports are available online only.

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|---|------------------------------|--|---------------------|
| <p>1. Digital bibliography of the geology and mineral resources of Washington State, 1798–2000, by C. J. Manson, editor and compiler. 2010.
<i>Superseded by the online bibliography.</i></p> | <p>Lib.
use
only</p> | <p>3. Digital inventory of flood-plain mines in Washington State, by L. R. Baker, K. W. Wegmann, D. T. McKay Jr., D. K. Norman, and C. N. Johnson. 2003. Includes ArcView files plus 4 p. text as a PDF file. [ONLINE]</p> | <p>Web
only</p> |
| <p>2. Digital geologic maps of the 1:100,000 quadrangles of Washington, by Washington Division of Geology and Earth Resources staff. 2001 and 2003.
<i>Superseded by the Geologic Information Portal.</i></p> | <p>Lib.
use
only</p> | <p>4. Pacific Northwest Tertiary foraminiferal collections of the U.S. Geological Survey and the state of Washington, by W. W. Rau. 2004. 1 Microsoft Excel spreadsheet with 9 p. text as a PDF file. [ONLINE]</p> | <p>Web
only</p> |

■ FACT SHEETS ■

Fact Sheets are available online only.

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| <p>Geology in the public interest. 2015. 4 p. [ONLINE]</p> | <p>Web
only</p> | <p>What are landslides and how do they occur? 2015. 2 p. [ONLINE]</p> | <p>Web
only</p> |
| <p>The Washington Geology Library. 2015. 2 p. [ONLINE]</p> | <p>Web
only</p> | <p>Washington State Geologic Information Portal. 2014. 2 p. [ONLINE]</p> | <p>Web
only</p> |
| <p>Landslide hazards in Washington state. 2015. 2 p. [ONLINE]</p> | <p>Web
only</p> | | |

■ FIELD TRIP GUIDES ■

In-print Field Trip Guides are sold through the Washington State Department of Printing General Store (see p. 3)

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| <p>Geology of the Yakima Valley wine country—A geologic field trip guide from Stevenson to Zillah, Washington, by D. K. Norman, A. J. Busacca, and Ron Teissere. 2004. Color, 13 p. [ONLINE]</p> | <p>In
print</p> | <p>Geologic Field Trip to the Aldercrest–Banyon Landslide and Mount St. Helens, Washington, Part I—Stevenson to Castle Rock, by K. W. Wegmann. 2004. 24 p. [ONLINE]</p> | <p>Web
only</p> |
| <p>Geologic guide to the Yakima Valley wine-growing region, Benton and Yakima Counties, Washington, by D. K. Norman and A. J. Busacca. 2008. 10 p. [ONLINE]</p> | <p>Web
only</p> | <p>Waterfall loop tour on the historic Columbia River Highway [Oregon] [ONLINE]</p> | <p>Web
only</p> |

■ GEOLOGIC MAPS ■

In-print Geologic Maps are sold through the Washington State Department of Printing General Store (see p. 3)

Note: Geologic maps may also be found under other categories, such as Open File Reports, Bulletins, and Information Circulars.

Division of Geology

Preliminary geologic map, State of Washington, compiled from published and unpublished sources, edited by G. W. Stose. 1936. 53 x 35 in. color sheet, scale 1:500,000. [Accompanied by Bulletin 32, which is out of print.] [[ONLINE](#)]

Out of
print

Division of Mines and Geology

Geologic map of Washington, by M. T. Huntting, W. A. G. Bennett, V. E. Livingston Jr., and W. S. Moen. 1961. One 75 x 50 in. color sheet or two 50 x 40 in. color sheets, scale 1:500,000. [1 [SHEET](#)] [[SHEET 1 OF 2](#)] [[SHEET 2 OF 2](#)]

Out of
print

Geologic cross section to accompany the 1961 Geologic map of Washington, by V. E. Livingston, Jr. 1961. 1 sheet, scale 1:500,000. [[ONLINE](#)]

Out of
print

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| <p>GM-1. Preliminary geologic map of the Hobart and Maple Valley [7.5-minute] quadrangles, King County, Washington, by J. D. Vine. 1962. 43 x 36 in. color sheet, scale 1:24,000. [ONLINE]</p> | <p>In
print</p> |
| <p>GM-2. Preliminary geologic map of the Cumberland [7.5-minute] quadrangle, King County, Washington, by H. D. Gower and A. A. Wanek. 1963. 30 x 41 in. color sheet, scale 1:24,000. [ONLINE]</p> | <p>In
print</p> |
| <p>GM-3. Geology of the Simcoe Mountains volcanic area, Washington, by R. A. Sheppard. 1967. 43 x 23 in. sheet, scale 1:125,000. [ONLINE]</p> | <p>In
print</p> |
| <p>GM-4. Geology of the Grays River [15-minute] quadrangle, Wahkiakum and Pacific Counties, Washington, by E. W. Wolfe and E. H. McKee. 1968. 23 x 34 in. color sheet, scale 1:62,500, with 6 p. text. [ONLINE]</p> | <p>In
print</p> |

■ GEOLOGIC MAPS ■

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GM-5.	Preliminary geologic map of the Chewelah Mountain [15-minute] quadrangle, Stevens County, Washington, by L. D. Clark and F. K. Miller. 1968. Two 25 x 32 in. color sheets, scale 1:62,500, with 6 p. text. [ONLINE]	In print	GM-18.	Relative slope stability of Gig Harbor Peninsula, Pierce County, Washington, by Mackey Smith. 1976. 21 x 35 in. color sheet, scale 1:31,250. [ONLINE]	In print
GM-6.	Preliminary geologic map of the Loon Lake [15-minute] quadrangle, Stevens and Spokane Counties, Washington, by F. K. Miller. 1969. 30 x 29 in. color sheet, scale 1:62,500, with 7 p. text. [ONLINE]	In print	GM-19.	Geologic factors affecting waste disposal practices, Gig Harbor Peninsula, Pierce County, Washington, by Mackey Smith. 1976. 1 sheet (21 x 35 in.), scale 1:31,250. [ONLINE]	In print
Division of Geology and Earth Resources					
GM-7.	Preliminary geologic map of the Newport Number 1 [15-minute] quadrangle, Pend Oreille County, Washington, and Bonner County, Idaho, by F. K. Miller. 1974. 24 x 31 in. color sheet, scale 1:62,500, with 6 p. text. [ONLINE]	Out of print	GM-20.	Preliminary surficial geologic map of the Mukilteo and Everett [7.5-minute] quadrangles, Snohomish County, Washington, by Mackey Smith. 1976. 35 x 24 in. sheet, scale 1:24,000. [ONLINE]	In print
GM-8.	Preliminary geologic map of the Newport Number 2 [15-minute] quadrangle, Pend Oreille and Stevens Counties, Washington, by F. K. Miller. 1974. 22 x 32 in. color sheet, scale 1:62,500, with 6 p. text. [ONLINE]	Out of print	GM-21.	Mineral resources of the southern Hood Canal area, Washington, by Mackey Smith and R. J. Carson. 1976. 23 x 27 in. sheet, scale 1:62,500. [ONLINE]	In print
GM-9.	Preliminary geologic map of the Newport Number 3 [15-minute] quadrangle, Pend Oreille, Stevens, and Spokane Counties, Washington, by F. K. Miller. 1974. 23 x 32 in. color sheet, scale 1:62,500, with 7 p. text. [ONLINE]	Out of print	GM-22.	Mineral resource maps of Washington, by W. S. Moen. 1978. Four 28 x 19 in. color sheets, scale 1:1,000,000, with 4 p. text. [Reprinted 1986.] [ONLINE]	In print
GM-10.	Preliminary geologic map of the Newport Number 4 [15-minute] quadrangle, Spokane and Pend Oreille Counties, Washington, and Bonner County, Idaho, by F. K. Miller. 1974. 24 x 30 in. color sheet, scale 1:62,500, 6 p. text. [ONLINE]	Out of print	GM-23.	Geologic map of the Marblemount [15-minute] quadrangle, Washington, by Peter Misch. 1979. 36 x 30 in. color sheet, scale 1:48,000. [ONLINE]	In print
GM-11.	Complete Bouguer gravity anomaly map of Washington, by W. E. Bonini, D. W. Hughes, and Z. F. Daneš. 1974. 59 x 43 in. sheet, scale 1:500,000. [ONLINE]	Out of print	GM-24.	Geologic map in the vicinity of the lower Bogachiel and Hoh River valleys and the Washington coast, by W. W. Rau. 1979. 29 x 47 in. color sheet, scale 1:62,500. [ONLINE]	In print
GM-12.	Thickness of unconsolidated sediments, Puget Lowland, Washington, by J. B. Hall and K. L. Othberg. 1974. 23 x 35 in. sheet, scale 1:250,000, with 3 p. text. [ONLINE]	Out of print	GM-25.	Geothermal resources of Washington, compiled by M. A. Korosec, K. L. Kaler, J. E. Schuster, R. G. Bloomquist, S. J. Simpson, and D. D. Blackwell. 1981. 50 x 42 in. color sheet, scale 1:500,000. [ONLINE]	In print
GM-13.	Geologic map of the Destruction Island and Taholah [15-minute] quadrangles, Washington, by W. W. Rau. 1975. 36 x 47 color sheet, scale 1:62,500. [ONLINE]	Out of print	GM-26.	Geology of the Pullman, Moscow West, Colton, and Uniontown 7½-minute quadrangles, Washington and Idaho, by P. R. Hooper and G. D. Webster. 1982. 33 x 22 in. two-color sheet, scale 1:62,500. [ONLINE]	Out of print
GM-14.	Preliminary surficial geologic map of the Edmonds East and Edmonds West [7.5-minute] quadrangles, Snohomish and King Counties, Washington, by Mackey Smith. 1975. 31 x 24 in. sheet, scale 1:24,000. [ONLINE]	Out of print	GM-27.	Complete Bouguer gravity anomaly map, Cascade Mountains, Washington, by Z. F. Daneš and W. M. Phillips. 1983. Two 24 x 35 in. two-color sheets, scale 1:250,000. [ONLINE]	In print
GM-15.	Slope stability map of Thurston County, Washington, by E. R. Artim. 1976. 31 x 19 in. color sheet, scale 1:125,000. [ONLINE]	In print	GM-28.	Geologic map of the Ellensburg [15-minute] quadrangle, Washington, by R. D. Bentley and N. P. Campbell. 1983. 34 x 23 in. two-color sheet, scale 1:62,500. [ONLINE]	Out of print
GM-16.	Relative ground settlement hazards of Thurston County, Washington, by E. R. Artim. 1976. 31 x 19 in. color sheet, scale 1:125,000. [ONLINE]	In print	GM-29.	Geologic map of the Yakima quadrangle, Washington, by R. D. Bentley and N. P. Campbell. 1983. 34 x 23 in. two-color sheet, scale 1:62,500. [ONLINE]	Out of print
GM-17.	Relative potential for differential settlement, Gig Harbor Peninsula, Pierce County, Washington, by Mackey Smith. 1976. 21 x 35 in. color sheet, scale 1:31,250. [ONLINE]	In print	GM-30.	Availability of Federal land for mineral exploration and development in the State of Washington, by D. P. Banister, D. J. Barnes, and W. D. Longwill. 1984. Four 50 x 37 in. color sheets, scale 1:500,000, with 17 p. text. [ONLINE]	In print
			GM-31.	Geologic map of the Clarkston 15-minute quadrangle, Washington and Idaho, by P. R. Hooper, G. D. Webster, and V. E. Camp. 1985. 27 x 33 in. color sheet, scale 1:48,000, with 11 p. text. [ONLINE]	Out of print
			GM-32.	Geologic maps of the Marcus and Kettle Falls [7.5-minute] quadrangles, Stevens and Ferry Counties, Washington, by J. W. Mills. 1985. Two 27 x 29 in. color sheets, scale 1:24,000, with 18 p. text. [ONLINE]	In print

■ GEOLOGIC MAPS ■

In-print Geologic Maps are sold through the Washington State Department of Printing General Store (see p. 3)

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| <p>GM-33. Geologic map of the Humptulips [15-minute] quadrangle and adjacent areas, Grays Harbor County, Washington, by W. W. Rau. 1986. 31 x 41 in. color sheet, scale 1:62,500. [ONLINE]</p> | In
print | <p>GM-45. Geologic map of Washington—Southeast quadrant, by J. E. Schuster, C. W. Gulick, S. P. Reidel, K. R. Fecht, and Stephanie Zurenko. 1997. 62 x 39 in. color sheet, scale 1:250,000, and accompanying explanatory sheet (38 x 31 in.) with bedrock geology and tectonic map at 1:625,000, with 20 p. text. [ONLINE]</p> | In
print |
| <p>GM-34. Geologic map of Washington—Southwest quadrant, by T. J. Walsh, M. A. Korosec, W. M. Phillips, R. L. Logan, and H. W. Schasse. 1987. 54 x 39 in. color sheet, scale 1:250,000, and accompanying explanatory sheet (63 x 40 in.), with 28 p. text. [ONLINE]</p> | In
print | <p>GM-46. Geologic map and bedrock history of the Gilbert 7.5-minute quadrangle, Chelan and Okanogan Counties, Washington, by J. D. Dragovich, D. K. Norman, R. A. Haugerud, and R. B. Miller. 1997. 40 x 28 in. two-color sheet, scale 1:24,000, with 67 p. text. [ONLINE]</p> | In
print |
| <p>GM-35. Geologic map of the Bluelight 15-minute quadrangle, Washington, by R. D. Bentley, N. P. Campbell, and J. E. Powell. 1988. 25 x 37 in. two-color sheet, scale 1:48,000. [ONLINE]</p> | In
print | <p>GM-47. Geologic folio of the Olympia–Lacey–Tumwater urban area, Washington—Liquefaction susceptibility map, by S. P. Palmer, T. J. Walsh, and W. G. Gerstel. 1999. 31 x 27 in. color sheet, scale 1:48,000, with 16 p. text. [ONLINE]</p> | Out of
print |
| <p>GM-36. Geologic map of the Poisel Butte 15-minute quadrangle, Washington, by R. D. Bentley, N. P. Campbell, and J. E. Powell. 1988. 25 x 37 in. two-color sheet, scale 1:48,000. [ONLINE]</p> | In
print | <p>GM-48. Liquefaction susceptibility of the greater Eastside area, King County, Washington, by S. P. Palmer, B. D. Evans, and H. W. Schasse. 2002. 29 x 36 in. color sheet, scale 1:36,000, with 14 p. text. [ONLINE]</p> | In
print |
| <p>GM-37. Geologic map of the Logy Creek 15-minute quadrangle, Washington, by R. D. Bentley, N. P. Campbell, and J. E. Powell. 1988. 26 x 37 in. two-color sheet, scale 1:48,000. [ONLINE]</p> | In
print | <p>GM-49. Tsunami hazard map of the southern Washington coast—Modeled tsunami inundation from a Cascadia subduction zone earthquake, by T. J. Walsh, C. G. Caruthers, A. C. Heinitz, E. P. Myers III, A. M. Baptista, G. B. Erdakos, and R. A. Kamphaus. 2000. 26 x 52 color sheet, scale 1:100,000, with 12 p. text. [ONLINE]</p> | In
print |
| <p>GM-38. Geologic map of the Saddle Mountains, Washington, by S. P. Reidel. 1988. 28 p., 5 pl. (3 two-color)(pl. 1 & 2, 25 x 16 in.; pl. 3, 18 x 27 in.; pl. 4, 27 x 19 in.; pl. 5, 25 x 21 in.), scale 1:48,000. [ONLINE]</p> | In
print | <p>GM-50. Geologic map of Washington—Northwest quadrant, by J. D. Dragovich, R. L. Logan, H. W. Schasse, T. J. Walsh, W. S. Lingley Jr., D. K. Norman, W. J. Gerstel, T. J. Lapen, J. E. Schuster, and K. D. Meyers. 2002. 62 x 45 in. color sheet, scale 1:250,000, and two accompanying explanatory sheets (52 x 36 in. and 40 x 33 in.), with 72 p. text. [ONLINE]</p> | In
print |
| <p>GM-39. Geologic map of Washington—Northeast quadrant, by K. L. Stoffel, N. L. Joseph, S. Z. Waggoner, C. W. Gulick, M. A. Korosec, and B. B. Bunning. 1991. 62 x 39 in. color sheet, scale 1:250,000, and two accompanying explanatory sheets (57 x 39 in. and 46 x 39 in.), including a bedrock geologic and tectonic map at 1:625,000 scale, with 36 p. text. [ONLINE]</p> | In
print | <p>GM-51. Liquefaction susceptibility of the greater Tacoma urban area, Pierce and King Counties, Washington, by S. P. Palmer, W. J. Perkins, and W. P. Grant. 2003. 48 x 36 in. color pl., scale 1:30,000, with 11 p. text. [ONLINE]</p> | In
print |
| <p>GM-40. Geologic map of southeast Asotin County, Washington, by S. P. Reidel, P. R. Hooper, G. D. Webster, and V. E. Camp. 1992. 27 x 38 in. two-color sheet, scale 1:48,000, with 22 p. text. [ONLINE]</p> | In
print | <p>GM-52. Tectonic elements and evolution of northwest Washington, by E. H. Brown and J. D. Dragovich. 2003. 38 x 36 in. color sheet, scale 1:625,000, with 12 p. text. [ONLINE]</p> | In
print |
| <p>GM-41. Liquefaction susceptibility for the Des Moines and Renton 7.5-minute quadrangles, Washington, by S. P. Palmer, H. W. Schasse, and D. K. Norman. 1994. Two 28 x 27 in. color sheets, scale 1:24,000, with 15 p. text. [ONLINE]</p> | In
print | <p>GM-53. Geologic map of Washington State, by J. E. Schuster. 2005. 55.5 x 36 in. color sheet, scale 1:500,000, with 44 p. text. [ONLINE]</p> | In
print |
| <p>GM-42. Relative earthquake hazard map for the Vancouver, Washington, urban region, by M. A. Mabey, I. P. Madin, and S. P. Palmer. 1994. Two color sheets (28 x 30 in. and 28 x 32 in.), scale 1:24,000, with 5 p. text. [ONLINE]</p> | In
print | <p>GM-54. Geologic map of the Deer Park 7.5-minute quadrangle, Spokane County, Washington, by R. E. Derkey, M. M. Hamilton, and D. F. Stradling. 2005. 36 x 42 in. color sheet, scale 1:24,000. [ONLINE]</p> | In
print |
| <p>GM-43. Liquefaction susceptibility for the Auburn and Poverty Bay 7.5-minute quadrangles, Washington, by S. P. Palmer, T. J. Walsh, R. L. Logan, and W. G. Gerstel. 1995. Two 24 x 26 in. color sheets, scale 1:24,000, with 15 p. text. [ONLINE]</p> | In
print | <p>GM-55. Geologic map of the Chattaroy 7.5-minute quadrangle, Spokane County, Washington, by R. E. Derkey, M. M. Hamilton, and D. F. Stradling. 2005. 36 x 42 in. color sheet, scale 1:24,000. [ONLINE]</p> | In
print |
| <p>GM-44. Liquefaction susceptibility for the Sumner 7.5-minute quadrangles, Washington, by J. D. Dragovich and P. T. Pringle, with a section on liquefaction by S. P. Palmer. 1995. 24 x 26 in. color sheet, scale 1:24,000, with 26 p. text. [ONLINE]</p> | In
print | <p>GM-56. Geologic map of the East Olympia 7.5-minute quadrangle, Thurston County, Washington, by T. J. Walsh and R. L. Logan. 2005. 42 x 36 in. color sheet, scale 1:24,000. [ONLINE]</p> | In
print |

■ GEOLOGIC MAPS ■

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GM-57. Geologic map of the Port Townsend South and part of the Port Townsend North 7.5-minute quadrangles, Jefferson County, Washington, by H. W. Schasse and S. L. Slaughter. 2005. 42 x 36 in. color sheet, scale 1:24,000. [ONLINE]	In print	GM-67. Geologic map of the Fall City 7.5-minute quadrangle, King County, Washington, by J. D. Dragovich, M. L. Anderson, T. J. Walsh, B. L. Johnson, and T. L. Adams. 2007. 42 x 36 in. color sheet, scale 1:24,000, with 16 p. text. [ONLINE]	In print
GM-58. Geologic map of the Coupeville and part of the Port Townsend North 7.5-minute quadrangles, Island County, Washington, by Michael Polenz, S. L. Slaughter, and G. W. Thorsen. 2005. 50 x 36 in. color sheet, scale 1:24,000. [ONLINE]	In print	GM-68. Geologic map of the Camano 7.5-minute quadrangle, Island County, Washington, by Michael Polenz, H. W. Schasse, M. L. Kalk, and B. B. Petersen. 2009. 48 x 36 in. color sheet, scale 1:24,000. [ONLINE]	In print
GM-59. Geologic map of the Oak Harbor, Crescent Harbor, and part of the Smith Island 7.5-minute quadrangles, Island County, Washington, by J. D. Dragovich, G. T. Petro, G. W. Thorsen, S. L. Larson, G. R. Foster, and D. K. Norman. 2005. Two 42 x 36 in. color sheets, scale 1:24,000. [ONLINE]	In print	GM-69. Geologic map of the Langley and western part of the Tulalip 7.5-minute quadrangles, Island County, Washington, by H. W. Schasse, M. L. Kalk, B. B. Petersen, and Michael Polenz, 2009. 47 x 36 in. color sheet, scale 1:24,000. [ONLINE]	In print
GM-60. Geologic map of the Timberwolf Mountain 7.5-minute quadrangle, Yakima County, Washington, by P. E. Hammond. 2005. 48 x 36 in. color sheet, scale 1:24,000. Additional information available as Open File Report 2005-5. [ONLINE]	In print	GM-70. Geologic map of the Juniper Beach 7.5-minute quadrangle, Island County, Washington, by H. W. Schasse, M. L. Kalk, and Michael Polenz. 2009. 39 x 36 in. color sheet, scale 1:24,000. [ONLINE]	In print
GM-61. Geologic map of the McMurray 7.5-minute quadrangle, Skagit and Snohomish Counties, Washington, with a discussion of the evidence for Holocene activity on the Darrington–Devils Mountain fault zone, by J. D. Dragovich and A. J. DeOme. 2006. 33 x 36 in. color sheet, scale 1:24,000, with 18 p. text. [ONLINE]	In print	GM-71. Geologic map of the Olsen Canyon 7.5-minute quadrangle, Lincoln and Stevens Counties, Washington, by R. E. Derkey and M. M. Hamilton. 2009. 42 x 36 in. color sheet, scale 1:24,000. [ONLINE]	In print
GM-62. Geologic map of the College Place and Walla Walla 7.5-minute quadrangles, Walla Walla County, Washington, and Umatilla County, Oregon, by R. E. Derkey, D. F. Stradling, K. A. Lindsey, and T. L. Tolan. 2006. 46 x 36 in. color sheet, scale 1:24,000. [ONLINE]	In print	GM-72. Geologic map of the Maytown 7.5-minute quadrangle, Thurston County, Washington, by R. L. Logan, T. J. Walsh, B. W. Stanton, and I. Y. Sarikhan. 2009. 42 x 36 in. color sheet, scale 1:24,000. [ONLINE]	In print
GM-63. Geologic map of the Fox Island 7.5-minute quadrangle, Pierce County, Washington, by R. L. Logan, T. J. Walsh, and K. G. Troost. 2006. 33 x 36 in. color sheet, scale 1:24,000. [ONLINE]	In print	GM-73. Geologic map of the North Bend 7.5-minute quadrangle, King County, Washington, with a discussion of major faults, folds, and basins in the map area, by J. D. Dragovich, T. J. Walsh, M. L. Anderson, Renate Hartog, S. A. DuFrane, Jeff Vervoot, S. A. Williams, Recep Cakir, K. D. Stanton, F. E. Wolff, and D. K. Norman. 2009. 38 x 36 in. color sheet, scale 1:24,000, with 39 p. text. [ONLINE]	In print
GM-64. Geologic map of the Freeland and northern part of the Hansville 7.5-minute quadrangles, Island County, Washington, by Michael Polenz, H. W. Schasse, and B. B. Petersen. 2006. 46 x 36 in. color sheet, scale 1:24,000. [ONLINE]	In print	GM-74. Geologic map of the Meeks Table and western two-thirds of the Nile 7.5-minute quadrangles, Yakima County, Washington, by P. E. Hammond. 2009. 36 x 38 in. color sheet, scale 1:24,000, with 12 p. text. [ONLINE]	In print
GM-65. Geologic map of the Vaughn 7.5-minute quadrangle, Pierce and Mason Counties, Washington, by R. L. Logan and T. J. Walsh. 2007. 42 x 36 in. color sheet, scale 1:24,000. [ONLINE].	In print	GM-75. Geologic map of the Snoqualmie 7.5-minute quadrangle, King County, Washington, by J. D. Dragovich, H. A. Littke, M. L. Anderson, Renate Hartog, G. R. Wessel, S. A. DuFrane, T. J. Walsh, J. H. MacDonald Jr., J. F. Mangano, and Recep Cakir. 2009. Two 42 x 36 in. color sheets, scale 1:24,000. [ONLINE]	In print
GM-66. Geologic map of the Four Mound Prairie 7.5-minute quadrangle, Spokane and Stevens Counties, Washington, by R. E. Derkey and M. M. Hamilton. 2007. 42 x 36 in. color sheet, scale 1:24,000. [ONLINE]	In print	GM-76. Geologic map of the Cliffdell and western two-thirds of the Manastash Lake 7.5-minute quadrangles, Yakima and Kittitas Counties, Washington, by P. E. Hammond. 2010. 36 x 48 in. color sheet, scale 1:24,000, with 11 p. text. [ONLINE]	In print
		<i>Note:</i> STATEMAP 7.5-minute quadrangles from 2012 through the present have been published under the new Map Series .	

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2. Summary report on Washington minerals, production and resources, by S. L. Glover. 1935. 10 p. [[ONLINE](#)] Out of print
3. State publications in geology, issued by the First State Geologist, 1890-1892, the Washington Geological Survey, 1901-1902, the Division of Geology, 1921—, compiled by S. L. Glover. 1937. 5 p. [[ONLINE](#)] Out of print

Division of Mines and Mining

1. Directory of Washington mines 1938, compiled by the Division of Mines and Mining. 1938. 15 p. [[ONLINE](#)] Out of print
1. Summary of state and federal mining laws relating to federal lands and mining laws relating to state lands, compiled by the Washington State Library. 1935. 8 p. [Reprinted 1938.] [[ONLINE](#)] Out of print
2. Directory of Washington mines, 1939, compiled by the Division of Mines and Mining. 1939. 21 p. [[ONLINE](#)] Out of print
3. January, 1940, supplement to directory of Washington mines, 1939, compiled by the Division of Mines and Mining. 1940. 3 p. [[ONLINE](#)] Out of print
4. Preliminary report on strategic metals in Washington, by the Division of Mines and Mining. 1940. 7 p. [[ONLINE](#)] Out of print
5. Directory of Washington metallic mining properties, by the Division of Mines and Mining. 1940. 72 p. [[ONLINE](#)] Out of print
6. Summary of information on iron ore deposits of Washington, by the Division of Mines and Mining. 1940. 11 p. [[ONLINE](#)] Out of print
7. Directory of Washington metallic mining properties, by Division of Mines and Mining. 1941. 74 p. [[ONLINE](#)] Out of print
8. Directory of Washington mining operations, by Ward Carithers. 1943. 36 p. [[ONLINE](#)] Out of print
9. 1944 directory of Washington mining operations, by S. H. Green. 1944. 36 p. [[ONLINE](#)] Out of print
10. Geologic factors of quarrying, by S. L. Glover and W. A. G. Bennett. 1944. 18 p., 5 figs. [[ONLINE](#)] Out of print

Division of Mines and Geology

11. 1945 directory of Washington mining operations, by S. H. Green and Ward Carithers. 1945. 48 p. [[ONLINE](#)] Out of print
12. 1946 directory of Washington mining operations, by S. H. Green. 1946. 57 p. [[ONLINE](#)] Out of print
13. 1947 directory of Washington mining operations, by S. H. Green. 1947. 59 p. [[ONLINE](#)] Out of print
14. Excerpts from "Washington fuel requirements and supplies", Battelle Memorial Institute survey report to Washington State Department of Conservation and Development, compiled by R. J. Lund and J. D. Sullivan. 1947. 19 p. [[ONLINE](#)] Out of print
15. Oil and gas exploration in Washington, by S. L. Glover. 1947. 49 p., 3 figs. [[ONLINE](#)] Out of print

15. Wells drilled for oil or gas in Washington from 1945 to July 1953 inclusive; Supplement to Information Circular 15, by S. L. Glover. 1953. 9 p. (table). [[ONLINE](#)] Out of print
16. 1948 directory of Washington mining operations, by S. H. Green. 1948. 51 p. [[ONLINE](#)] Out of print
17. 1949 directory of Washington mining operations, by M. T. Huntting. 1949. 62 p. [[ONLINE](#)] Out of print
18. 1950 directory of Washington mining operations, by M. T. Huntting. 1950. 67 p. [[ONLINE](#)] Out of print
19. 1951 directory of Washington mining operations, by R. H. Stebbins. 1951. 75 p., 2 figs. [[ONLINE](#)] Out of print
20. 1952 directory of Washington mining operations, by C. P. Purdy Jr. 1952. 75 p., 2 figs. [[ONLINE](#)] Out of print
21. 1953 directory of Washington mining operations, by C. P. Purdy Jr. 1953. 81 p., 2 figs. [[ONLINE](#)] Out of print
22. Introduction to Washington geology and resources, by C. D. Campbell. 1953. 42 p., 5 figs. [[ONLINE](#)] Out of print
- 22R. Introduction to Washington geology and resources, revised by C. D. Campbell. 44 p., 5 figs. [Revised 1962.] [[ONLINE](#)] In print
23. 1954 directory of Washington mining operations, by C. P. Purdy Jr. 1954. 73 p., 2 figs. [[ONLINE](#)] Out of print
24. 1955 directory of Washington mining operations, by M. T. Huntting. 1955. 80 p., 2 figs. [[ONLINE](#)] Out of print
25. 1956 directory of Washington mining operations, by H. D. Banta. 1956. 88 p., 2 fig. [[ONLINE](#)] Out of print
26. Uranium in Washington (an extract from Bulletin 37, Part II), by M. T. Huntting. 1957. 10 p., 1 pl. [[ONLINE](#)] Out of print
27. 1957 directory of Washington mining operations, by V. E. Livingston Jr. 1957. 96 p., 2 figs. [[ONLINE](#)] Out of print
28. 1958 directory of Washington mining operations, by W. S. Moen, V. E. Livingston Jr., and G. W. Thorsen. 1958. 76 p., 2 figs. [[ONLINE](#)] Out of print
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35. 1960 directory of Washington mining operations, by G. W. Thorsen. 1961. 84 p., 2 figs. [[ONLINE](#)] Out of print
36. Mineral rights and land ownership in Washington, by W. S. Moen. 1962. 23 p., 1 pl., 2 figs. [[ONLINE](#)] Out of print
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| <p>53. Compilation of earthquake hypocenters in western Washington [July 1970–Dec. 1972], by R. S. Crosson. 1974. 26 p., 6 figs. [ONLINE]</p> | In print | <p><i>Superseded by the online bibliography.</i></p> | |
| <p>54. A geologic road log over Chinook, White Pass, and Ellensburg to Yakima highways, by N. P. Campbell. 1975. 82 p., figs. [ONLINE]</p> | In print | <p>71. The 1980 eruption of Mount St. Helens, Washington, Part I: March 20–May 19, 1980, by M. A. Korosec, J. G. Rigby, and K. L. Stoffel. 1980. 27 p., 4 figs. [ONLINE]</p> | Out of print |
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| <p>56. Compilation of earthquake hypocenters in western Washington—1974, by R. S. Crosson and R. C. Millard. 1975. 14 p., 2 figs. [ONLINE]</p> | Out of print | <p>73. Index to geologic and geophysical mapping of Washington, compiled by C. J. Manson. 1981. 63 p., 10 pl.</p> | Out of print |
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| 76. Mount St. Helens—Annotated index to video archives, by R. L. Logan and C. J. Manson. 1983. 51 p. [Note: the videos were 3/4-inch broadcast tapes. The collection was sent to the Smithsonian for preservation.] [ONLINE] | In
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<i>Superseded by Open File Report 2010-7.</i> | In
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| 79. Compilation of earthquake hypocenters in western Washington—1979, by L. L. Noson, R. S. Ludwin, and R. S. Crosson. 1985. 19 p., 4 figs. [ONLINE] | In
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| 83. Earthquake hypocenters in Washington and northern Oregon—1981, compiled by Anthony Qamar, Anne Rathbun, R. S. Ludwin, L. L. Noson, R. S. Crosson, and S. D. Malone. 1987. 50 p., 8 figs. [ONLINE] | In
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| 84. Earthquake hypocenters in Washington and northern Oregon—1982–1986, compiled by Anthony Qamar, R. S. Ludwin, R. S. Crosson, and S. D. Malone. 1987. 78 p., 10 figs. [ONLINE] | Out of
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| <p>33. Late Pleistocene stratigraphy in the south-central Puget Lowland, Pierce County, Washington, by R. K. Borden and K. G. Troost. 2001. 33 p., 29 figs., 3 tables. [ONLINE]</p> | In
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| <p>34. Digital landslide inventory for the Cowlitz County urban corridor—Kelso to Woodland (Coweeman River to Lewis River), Cowlitz County, Washington, by K. W. Wegmann. 2003. Consists of a GIS inventory of landslides as ArcView shapefiles, a Microsoft Access database, a Microsoft Excel spreadsheet version of the database, digital photographs of individual landslides, associated metadata, 1:24,000-scale landslide inventory maps for 7.5-minute quadrangles in the inventory area, and 20 p. text. 1 CD-ROM.
<i>Superseded by Report of Investigations 35.</i></p> | Out of
print | <p>Washington Geological Survey</p> | |
| <p>35. Digital landslide inventory for the Cowlitz County urban corridor, Washington, by K. W. Wegmann. 2006. Consists of a GIS inventory of landslides as ESRI shapefiles with associated metadata, digital photographs of individual landslides, 1:24,000-scale landslide inventory maps for 7.5-minute quadrangles in the inventory area, and a 24 p. text. 1 CD-ROM. [ONLINE]
<i>Supersedes Report of Investigations 34.</i></p> | In
print | <p>39. Landslide inventory, susceptibility, and exposure analysis of Pierce County, Washington, by K. A. Mickelson, K. E. Jacobacci, T. A. Contreras, A. Biel, and S. L. Slaughter. 2017. 26 p. text, 2 ESRI geodatabases, and 1 Microsoft Excel file. [ONLINE]</p> | Web
only |

■ REPRINTS ■

Reprints are available online only

- | | | | |
|---|-------------|--|-------------|
| <p>1. Ringold Formation of Pleistocene age in type locality, the White Bluffs, Washington, by R. C. Newcomb. 1958. 14 p. [ONLINE]</p> | Web
only | <p>6. Geology of the Jumbo Mountain nickel deposit, Snohomish County, Washington, by J. W. Mills. 1960. 4 p. [ONLINE]</p> | Web
only |
| <p>2. Pleistocene sequence in southeastern part of the Puget Sound lowland, Washington, by D. R. Crandell, D. R. Mullineaux, and H. H. Waldron. 1958. 15 p. [ONLINE]</p> | Web
only | <p>7. Mineralogy and geochemistry of the Read magnetite deposit, southwestern Stevens County, Washington, by W. A. G. Bennett; and Ludwigite from the Read magnetite deposit, Stevens County, Washington, by W. T. Schaller and A. C. Vlisidis. 1962. 13 p. [ONLINE]</p> | Web
only |
| <p>3. Tertiary stratigraphic papers, southwestern Washington: McIntosh formation, Centralia-Chehalis coal district, Washington, by P. D. Snavely, Jr., W. W. Rau, Linn Hoover, Jr., and A. E. Roberts; Lyre formation (redefinition), northern Olympic Peninsula, Washington, by R. D. Brown, Jr., P. D. Snavely, Jr., and H. D. Gower; Twin River formation (redefinition), northern Olympic Peninsula, Washington, by R. D. Brown, Jr., and H. D. Gower. 1959. 50 p. [ONLINE]</p> | Web
only | <p>8. Emplacement of the Twin Sisters Dunite, Washington, by D. M. Ragan. 1963. 16 p. [ONLINE]</p> | Web
only |
| <p>4. Nickel-gold ore of the Mackinaw mine, Snohomish County, Washington, by Charles Milton and D. J. Milton. 1959. 22 p. [ONLINE]</p> | Web
only | <p>9. Mineral and water resources of Washington, by the U.S. Geological Survey and others. 1966. 436 p. [ONLINE]</p> | Web
only |
| <p>5. What are the prospects in Washington State?, by F. H. Wurden; and Puget Sound area has several prospective oil and gas basins, by J. Q. Anderson. 1959. 10 p. [ONLINE]</p> | Web
only | <p>10. Washington mineral deposits, by M. T. Huntting. 1966. 7 p. [ONLINE]</p> | Web
only |
| | | <p>11. The search for hot rocks—Geothermal exploration, Northwest, by J. E. Schuster. 1973. 3 p. [ONLINE]</p> | Web
only |
| | | <p>12. Geology of Washington, by the U.S. Geological Survey. 1978. 51 p., 1 pl. [ONLINE]</p> | Web
only |
| | | <p>13. An assessment of the oil and gas potential of the Washington outer continental shelf, by S. P. Palmer and W. S. Lingley, Jr. 1989. 83 p., 12 pl. [ONLINE]</p> | Web
only |

■ RESOURCE MAPS ■

Resource Maps are sold through the Washington State Department of Printing General Store (see p. 3)

- | | | | |
|---|-------------|--|-------------|
| <p>1. Rock aggregate resource lands inventory map for Clark County, Washington, by C. N. Johnson, S. P. Palmer, and J. L. Poelstra. 2005. 36 x 36 in. color sheet, scale 1:100,000. [ONLINE]</p> | In
print | <p>3. Potential growing areas for wine grapes in the Yakima Valley, Washington, by D. K. Norman, A. J. Busacca, and Wade Wolfe. 2009. 48 x 36 in. color sheet, scale 1:110,000. [ONLINE]</p> | In
print |
| <p>2. Rock aggregate resource lands inventory map for Yakima County, Washington, by S. P. Palmer, J. L. Poelstra, and C. N. Johnson. 2005. 38 x 36 in. color sheet, scale 1:200,000. [ONLINE]</p> | In
print | | |

■ TOPOGRAPHIC MAPS ■

In-print Topographic Maps are sold through the Washington State Department of Printing General Store (see p. 3)

- | | | | |
|--|-------------|---|-------------|
| <p>TM-1. State of Washington—Southwest quadrant, prepared by Division of Geology and Earth Resources staff. 1987. 1 sheet, scale 1:250,000. [Available rolled (R) or folded (F).] [ONLINE]</p> | In
print | <p>TM-3. Topographic map, State of Washington—Southeast quadrant, prepared by Division of Geology and Earth Resources staff. 1997. 1 sheet, scale 1:250,000. [Available rolled (R) or folded (F).] [ONLINE]</p> | In
print |
| <p>TM-2. State of Washington—Northeast quadrant, prepared by Division of Geology and Earth Resources staff. 1991. 1 sheet, scale 1:250,000. [Available rolled (R) or folded (F).] [ONLINE]</p> | In
print | | |

■ TSUNAMI EVACUATION BROCHURES AND INUNDATION MAPS ■

*Tsunami inundation maps and evacuation brochures are available for many areas on Washington's outer coast, the Strait of Juan de Fuca, and Puget Sound. The most complete listing of these maps is on the [Geologic Hazard Maps](#) page at our website. The *Tsunami Evacuation* theme on the *Geologic Information Portal* allows you to search for evacuation routes by address. See also the [Washington Emergency Management Division](#) website.*

EVACUATION BROCHURES

Tsunami! Evacuation map for Port Townsend and vicinity. 2003. [ONLINE]	Web only	Tsunami! Evacuation map for Tahola Ocean Tracts and Point Grenville. 2011. [ONLINE]	Web only
Tsunami! Evacuation map for Bay Center and vicinity. 2007. [ONLINE]	Web only	Tsunami! Evacuation map for Aberdeen and Hoquiam. 2012. [ONLINE]	Web only
Tsunami! Evacuation map for Bellingham. 2007. [ONLINE]	Web only	Tsunami! Evacuation map for Clallam Bay and vicinity. 2012. [ONLINE]	Web only
Tsunami! Evacuation map for Cosmopolis and South Aberdeen. 2007. [ONLINE]	Web only	Tsunami! Evacuation map for La Push and Vicinity. 2012. [ONLINE]	Web only
Tsunami! Evacuation map for Long Beach and Ilwaco. 2007. [ONLINE]	Web only	Tsunami! Evacuation map for Lummi Island. 2012. [ONLINE]	Web only
Tsunami! Evacuation map for Lummi Reservation. 2007. [ONLINE]	Web only	Tsunami! Evacuation map for Neah Bay and Vicinity. 2012. [ONLINE]	Web only
Tsunami! Evacuation map for North Cove and Tokeland. 2007. [ONLINE]	Web only	Tsunami! Evacuation map for Port Angeles and vicinity. 2012. [ONLINE]	Web only
Tsunami! Evacuation map for Ocean City, Copalis Beach, Pacific Beach, and Moclips. 2007. [ONLINE]	Web only	Tsunami! Evacuation map for Birch Bay and Blaine. 2014. [ONLINE]	Web only
Tsunami! Evacuation map for Ocean Park and vicinity. 2007. [ONLINE]	Web only	Tsunami! Evacuation map for Chinook and vicinity. 2014. [ONLINE]	Web only
Tsunami! Evacuation map for Ocean Shores and vicinity. 2007. [ONLINE]	Web only		
Tsunami! Evacuation map for Point Roberts. 2007. [ONLINE]	Web only		
Tsunami! Evacuation map for Raymond and South Bend. 2007. [ONLINE]	Web only		
Tsunami! Evacuation map for Sandy Point. 2007. [ONLINE]	Web only		
Tsunami! Evacuation map for the Hoh Reservation. 2007. [ONLINE]	Web only		
Tsunami! Evacuation map for Westport, Grayland, and Ocosta. 2007. [ONLINE]	Web only		
General Evacuation map for Taholah Ocean Tracts and Point Grenville. 2011. [ONLINE]	Web only		
General Evacuation map for Taholah Village. 2011. [ONLINE]	Web only		
General Evacuation map for Amanda Park Village. 2011. [ONLINE]	Web only		
General Evacuation map for Tsa'alal Village. 2011. [ONLINE]	Web only		
General Evacuation map for Queets. 2011. [ONLINE]	Web only		
Tsunami! Evacuation map for Queets. 2011. [ONLINE]	Web only		
Tsunami! Evacuation map for Tahola Village. 2011. [ONLINE]	Web only		

INUNDATION MAPS

GM-49	Tsunami hazard map of the southern Washington coast--Modeled tsunami inundation from a Cascadia subduction zone earthquake. 2000. [ONLINE]	Web only
OFR 2002-1	Tsunami inundation map of the Port Angeles, Washington, area. 2002. [ONLINE]	Web only
OFR 2002-2	Tsunami inundation map of the Port Townsend, Washington, area. 2002. [ONLINE]	Web only
OFR 2003-1	Tsunami inundation map of the Quileute, Washington, area. 2003. [ONLINE]	Web only
OFR 2003-2	Tsunami inundation map of the Neah Bay, Washington, area. 2003. [ONLINE]	Web only
OFR 2003-14	Tsunami hazard map of the Elliott Bay area, Seattle, Washington Modeled tsunami inundation from a Seattle fault earthquake. 2003. [ONLINE]	Web only
OFR 2004-15	Tsunami hazard map of the Bellingham area, Washington Modeled tsunami inundation from a Cascadia subduction zone earthquake. 2004. [ONLINE]	Web only
OFR 2005-1	Tsunami hazard map of the Anacortes-Whidbey Island area, Washington--Modeled tsunami inundation from a Cascadia subduction zone earthquake. 2005. [ONLINE]	Web only
OFR 2009-9	Tsunami hazard map of Tacoma, Washington--Model results for Seattle Fault and Tacoma Fault earthquake tsunami. 2009. [ONLINE]	Web only
OFR 2014-3	Tsunami hazard map of Everett, Washington: Model results for magnitude 7.3 and 6.7 Seattle fault earthquakes. 2014. [ONLINE]	Web only

■ MISCELLANEOUS REPORTS ■

Miscellaneous Reports are available online only.

Quick report for the Ledgewood–Bonair landslide, Whidbey Island, Island County, Washington, by Stephen Slaughter, Isabelle Sarikhan, Michael Polenz, and Tim Walsh. 2013. [7 p.] [ONLINE]	Web only	Mount St. Helens—A bibliography of geoscience literature, 1882–1986, by C. J. Manson, C. H. Messick, and G. M. Sinnott. 1987. 205 p. [AUTHOR] [SUBJECT]	Web only
Strategies for establishing a Washington State post-earthquake information clearinghouse: A report to the Washington Emergency Management Division, by T. J. Walsh and Recep Cakir. 2013. [20 p.] [ONLINE]	Web only	Notes on division history, by J. E. Schuster. 1986. 9 p. [ONLINE]	Web only
Shallow seismic site characterizations at 25 ANSS/PNSN stations and compilation of site-specific data for the entire strongmotion network in Washington and Oregon, by Recep Cakir and T. J. Walsh. 2012. 61 p. [ONLINE]	Web only	Gems and minerals of Washington, by Bob Pattie. 1985. 1 sheet, scale 1:443,520. [ONLINE]	Web only
Shallow seismic site characterizations at 23 strong-motion station sites in and near Washington State, by Recep Cakir and T. J. Walsh. 2011. 101 p. [ONLINE]	Web only	Washington’s coal—History and future development potential, by Raymond Lasmanis and H. W. Schasse. 1982. 24 p. [ONLINE]	Web only
Shallow-seismic site characterizations of near-surface geology at 20 strongmotion stations in Washington State, by Recep Cakir and T. J. Walsh. 2010. 39 p. [ONLINE]	Web only	Forest Slope Stability Project, Phase II, by A. J. Fiksdal and M. J. Brunengo. 1981. 2 v. [ONLINE]	Web only
Liquefaction susceptibility mapping for selected urban areas in the central Puget Sound region, Washington—Final technical report, by S. P. Palmer, W. J. Perkins, and W. P. Grant. 2004. 1 v. [ONLINE]	Web only	Forest Slope Stability Project, Phase I, by A. J. Fiksdal and M. J. Brunengo. 1980. 18 p., 7 pl. [ONLINE]	Web only
Holocene geologic history and sedimentology of the Duwamish and Puyallup valleys, Washington, by S. P. Palmer. 1997. 32 p. [ONLINE]	Web only	A pre-1980 eruption description of Mount St. Helens, by the Washington Division of Geology and Earth Resources. 1980. 10 p. [ONLINE]	Web only
Reconnaissance geology of the Matheny Ridge–Higley Peak areas, Olympic Peninsula, Washington, by W. S. Lingley, Jr., R. L. Logan, T. J. Walsh, W. J. Gerstel, H. W. Schasse. 1996. 31 p., 1 pl., scale 1:62,500. [ONLINE]	Web only	Bibliography of Snohomish County geology, with an index to geologic mapping, by S. J. Simpson. 1979. 81 p., 6 pl. [ONLINE]	Web only
Capitol campus greenhouse soil stability investigation status report, by S. P. Palmer and W. J. Gerstel. 1995. 1 v. [ONLINE]	Web only	Photographic guide keyed to 15-minute quadrangles [supplement to OFR 79-2. An assessment of the uranium potential in the Ellensburg Formation, south-central Washington], by P. C. Milne. 1979. [47 p.] [ONLINE]	Web only
Petroleum potential and probability of renewed mineral-rights leasing in the Columbia Basin, Washington, by W. S. Lingley, Jr. 1995. 43 p. [ONLINE]	Web only	A learning guide on the geology of the Cispus Environmental Center area, Lewis County, Washington, by J. E. Schuster. 1973. 53 p. [ONLINE]	Web only
Cyanide heap leaching—A report to the Legislature, by D. K. Norman and R. L. Raforth. 1994. 28 p. [ONLINE]	Web only	Geothermal energy—Questions and answers, by J. E. Schuster. 1972. 4 p. [ONLINE]	Web only
Fundamentals of blasting and reclamation workshop, by A. E. Teller. 1994. [ONLINE]	Web only	Holden tailings [Holden mine, Chelan County], by G. W. Thorsen. 1970. 20 p. [ONLINE]	Web only
Index of geotechnical studies of the Washington State capitol campus and vicinity, by R. A. Christie. 1993. 4 p., 1 pl. [ONLINE]	Web only	Landslide of January 1967 which diverted the North Fork of the Stillaguamish River near Hazel [Snohomish County], by G. W. Thorsen. 1970. 8 p. [ONLINE]	Web only
General geology and paleontology of the Harsha 7.5 quadrangle, by P. K. Spencer. 1992? 14 p. [ONLINE]	Web only	Surface-mined land reclamation act training session, by M. T. Huntting, D. M. Ford, and John Griffiths. 1970. 1 v., 76 p. [ONLINE]	Web only
Thunder Creek basin, Skagit County—Report of DNR Study Team, by Jerry Thorsen. 1989. 33 p. [ONLINE]	Web only	Ghost town references, by the State of Washington Board of Natural Resources. 1968? 3 p. [ONLINE]	Web only
The Culver System in Washington State, by J. E. Schuster. 1988. [ONLINE]	Web only	Mineral resources in the Puget Sound area, by the U.S. Bureau of Mines; Washington Division of Mines and Geology; Washington Department of Natural Resources. 1968. 150 p. [ONLINE]	Web only
Guide to production of 1:100,000-series open file reports, by Bill Phillips. 1988. 17 p. [ONLINE]	Web only	State mineral production near record level in 1966, by M. T. Huntting. 1967? 9 p. [ONLINE]	Web only
Introduction to the petroleum geology of the Olympic coast of Washington and adjacent portions of the continental shelf—A road log—Ocean Shores to Kalaloch guidebook, by Washington Division of Geology and Earth Resources staff. 1988. 46 p. [ONLINE]	Web only	Mine production record set in 1965, by M. T. Huntting. 1966? 3 p. [ONLINE]	Web only
		Mining developments and future needs of Washington, by M. T. Huntting. 1965. 6 p. [ONLINE]	Web only
		State mineral production at all time high in 1964, by M. T. Huntting. 1965? 4 p. [ONLINE]	Web only
		“Firsts,” 1957–1964—Division of Mines and Geology, by M. T. Huntting? 1964? 2 p. [ONLINE]	Web only

■ MISCELLANEOUS REPORTS ■

Miscellaneous Reports are available online only.

Mine resource programs—Present and future, by M. T. Huntting. 1964. 3 p. [ONLINE]	Web only	Preliminary surveys for highway salvage archeology in the State of Washington—A final report, by Bruce Stallard. 1958. 23 p. [ONLINE]	Web only
Origin of Dry Falls [Grant County], by V. E. Livingston, Jr. 1964. 4 p. [ONLINE]	Web only	Mining in Washington, by C. P. Purdy, Jr. 1953. 3 p. [ONLINE]	Web only
Tumtum Mountain [Clark County]—A potential source of feldspar, by W. A. G. Bennett. 1964. 5 p. [ONLINE]	Web only	Steilacoom gravel, by S. H. Green and M. T. Huntting. 1948. 9 p. [ONLINE]	Web only
Annotated bibliography of Washington clays, by W. H. Reichert. 1963. 19 p. [ONLINE]	Web only	A factual review of mining developments in the State of Washington in 1947, by S. H. Green. 1947. 4 p. [ONLINE]	Web only
Dolomite and andalusite deposits of northern Stevens County, by W. S. Moen and W. A. G. Bennett. 1963. 4 sheets, scale 1:62,500. [ONLINE]	Web only	Preliminary report on the mines and prospects of the upper Methow region, Okanogan and Whatcom Counties, by Ward Carithers. 1946. 40 p. [ONLINE]	Web only
A set of Washington rocks and minerals for schools, by Washington Division of Mines and Geology; Washington State Superintendent of Public Instruction. 1963. 13 p. [ONLINE]	Web only	An outline of mining laws of the State of Washington, compiled and annotated, by M. H. Van Nuys. 1940. 55 p. [ONLINE]	Web only
State Department of Conservation has record year [1962], by M. T. Huntting. 1963. 7 p. [ONLINE]	Web only	<i>Superseded by Bulletin 41.</i>	
Preliminary report on mineral resources of the Cougar Lake limited area [Yakima County], by W. S. Moen. 1962. 9 p. [ONLINE]	Web only	Oil and gas studies by the Division of Geology, by S. L. Glover. 1936. 8 p. [ONLINE]	Web only
Mineral exploration in Washington—1960, by M. T. Huntting. 1961? 2 p. [ONLINE]	Web only	Report of natural resources survey from October 1, 1933, to March 1, 1935, by T. B. Hill. 1935. 30 p. [ONLINE]	Web only
Washington mineral industry—1960, by M. T. Huntting. 1961? 5 p. [ONLINE]	Web only	Colloidal fuel, by M. C. Butler. 1934. 9 p. [ONLINE]	Web only
		Mining in the Pacific Northwest, by L. K. Hodges. 1897. 183 p. [ONLINE]	Web only





















■ 3D PDFS—7.5-MINUTE QUADRANGLES ■

*The following geologic maps have been processed and converted into 3D models.
The listed publisher, series, author, and year are for the original publication.*

Airway Heights WGS Open File Report 2004-1—Derkey and others, 2004	↓	Freeland and Hansville WGS Geologic Map 64—Polenz and others, 2006	↓
Auburn USGS GQ 406—Mullineaux and others, 1961	↓	Greenacres WGS Open File Report 2004-11—Derkey and others, 2004	↓
Belfair WGS Open File Report 2009-7—Polenz and others, 2009	↓	Holly WGS Open File Report 2011-6—Contreras and others, 2012	↓
Black Diamond USGS GQ 407—Mullineaux and others, 1965	↓	Hoodspport WGS Open File Report 2011-3—Polenz and others, 2012	↓
Brinnon WGS Map Series 2012-02—Polenz and others, 2012	↓	Juniper Beach WGS Geologic Map 70—Schasse and others, 2009	↓
Buckley USGS PP 388A—Crandell and others, 1959	↓	Lacey WGS Open File Report 2003-9—Logan and others, 2003	↓
Burley WGS Open File Report 2009-8—Polenz and others, 2009	↓	Lake Chaplain WGS Map Series 2014-01—Dragovich and others, 2014	↓
Camano WGS Geologic Map 68—Polenz and others, 2009	↓	Lake Joy WGS Map Series 2012-01—Dragovich and others, 2012	↓
Carnation WGS Open File Report 2010-02—Dragovich and others, 2010	↓	Lake Wooten WGS Open File Report 2009-5—O'Neal and others, 2005	↓
Center WGS Map Series 2014-02—Hanson and others, 1976	↓	Langley WGS Geologic Map 69—Schasse and others, 2009	↓
Chattaroy WGS Geologic Map 55—Hamilton and others, 2005	↓	Liberty Lake and Newman Lake WGS Open File Report 2004-12—Derkey and others, 2004	↓
Cliffdell and Manastash Lake WGS Geologic Map 76—Hammond and others, 2010	↓	Lilliwaup WGS Open File Report 2010-4—O'Neal and others, 2005	↓
College Place and Walla Walla WGS Geologic Map 62—Derkey and others, 2006	↓	Lofall WGS Map Series 2013-03—Contreras and others, 2013	↓
Coupeville WGS Geologic Map 58—Polenz and others, 2005	↓	Longbranch WGS Open File Report 2003-21—Logan and others, 2003	↓
Crescent Harbor WGS Geologic Map 59—Dragovich and others, 2005	↓	Mason Lake WGS Open File Report 2009-6—Derkey and others, 2009	↓
Darrington WGS Open File Report 2002-7—Dragovich and others, 2002	↓	Maytown WGS Geologic Map 72—Logan and others, 2009	↓
Deer Island WGS Geologic Map 54—Evarts and others, 2002	↓	McMurray WGS Geologic Map 61—Dragovich and others, 2006	↓
East Olympia WGS Geologic Map 56—Walsh and others, 2005	↓	McNeil Island WGS Open File Report 2003-22—Walsh and others, 2003	↓
Eldon WGS Map Series 2012-03—Contreras and others, 2012	↓	Meeks Table and Nile WGS Geologic Map 74—Hammond and others, 2009	↓
Elwha and Angeles Point WGS Open File Report 2004-14—Polenz and others, 2004	↓	Monroe WGS Open File Report 2011-1—Capps and others, 1973	↓
Fall City WGS Geologic Map 67—Dragovich and others, 2007	↓	Morse Creek WGS Open File Report 2002-8—Schasse and others, 2002	↓
Fortson WGS Open File Report 2002-6—Dragovich and others, 2002	↓	Mt Higgins WGS Open File Report 2003-12—Dragovich and others, 2003	↓
Four Lakes WGS Open File Report 2004-2—Hamilton and others, 2004	↓	Nine Mile Falls WGS Open File Report 2003-8—Derkey and others, 2003	↓
Four Mound Prairie WGS Geologic Map 66—Derkey and others, 2007	↓	Nisqually WGS Open File Report 2003-10—Walsh and others, 2003	↓
Fox Island WGS Geologic Map 63—Logan and others, 2006	↓	North Bend WGS Geologic Map 73—Dragovich and others, 2009	↓

■ **3D PDFS—7.5-MINUTE QUADRANGLES** ■

*The following geologic maps have been processed and converted into 3D models.
The listed publisher, series, author, and year are for the original publication.*

Oak Harbor WGS Geologic Map 59—Dragovich and others, 2005		Spokane SW WGS Open File Report 2004-4—Hamilton and others, 2004	
Olsen Canyon WGS Geologic Map 71—Derkey and others, 2009		Squaxin Island WGS Open File Report 2003-23—Logan and others, 2003	
Orting USGS PP 388A—Crandell and others, 1959		Stimson Hill WGS Open File Report 2004-9—Dethier and others, 1980	
Port Angeles and Ediz Hook WGS Open File Report 2004-13—Schasse and others, 2004		Sultan WGS Map Series 2013-01—Dragovich and others, 2013	
Port Townsend South WGS Geologic Map 57—Schasse and others, 2005		Summit Lake WGS Open File Report 2004-10—Logan and others, 2004	
Quilcene WGS Map Series 2014-03—Hanson and others, 1976		Timberwolf Mtn WGS Geologic Map 60—Hammond and others, 2005	
Seabeck and Poulsbo WGS Map Series 2013-02—Polenz and others, 2013		Tumwater WGS Open File Report 2003-25—Walsh and others, 2003	
Shelton WGS Open File Report 2003-24—Schasse and others, 2003		Utslady and Conway WGS Open File Report 2002-5—Dragovich and others, 2002	
Skokomish Valley and Union WGS Open File Report 2010-03—Polenz and others, 2011		Vaughn WGS Geologic Map 65—Logan and others, 2007	
Snoqualmie WGS Geologic Map 75—Dragovich and others, 2009		Wilkenson USGS PP 388A—Crandell and others, 1959	
Spokane NW WGS Open File Report 2004-3—Derkey and others, 2004			

■ OTHER PUBLICATIONS ■

Other publications are available online only.

Color Page-Size Geologic Map of Washington

This 8½ x 14 in. map, compiled by J. E. Schuster, includes a brief description of the geologic history of Washington. Scale 1:2,250,000 (or 1 in. ≈ 37 mi). Revised 2013. *Available through the Washington State Department of Printing (see p. 3).* [ONLINE]

Color Postcard Geologic Map of Washington

This 5 x 7 in. postcard is a reduced version of the map below. Revised 2009. *Available through the Washington State Department of Printing (see p. 3).*

Mining Districts of Washington

A map (circa 1980?) of the named mining districts. This map is not definitive—names have changed over the years. [ONLINE]

Mount St. Helens Slide Sets

Two sets of slides of the eruptions and short descriptions of the scenes are available:

Set 1 contains 20 slides and covers the period from March through June 1980. This slide set was digitally remastered in 2015. [ONLINE]

Set 2 contains 20 slides and covers the period from May 18, 1980, to May 13, 1981. This slide set was digitally remastered in 2015. [ONLINE]

Set 3 contains 16 digitally remastered photographs and slides of the eruption and its aftermath. [ONLINE]

DGER News

DGER News was an electronic-only newsletter about the activities of the Survey. It was published quarterly from 2003 to 2007 and is available in PDF format. [ONLINE]

Washington Geology Journal

Washington Geology was published about four times a year from 1973 to 2002. It is currently on hiatus. All issues are available in PDF format. Articles cover topics of interest to both geologists and the general public. [ONLINE]

GEOLOGY RECREATION AND EDUCATION

Fossil and Mineral Collecting

Information on fossil and mineral collecting in Washington, includes [Fossils in Washington](#), [Gems and Minerals of Washington](#), and [Mineral Checklist](#).

Geology Resources for Teachers

Selected information about earth science for teachers, including online sources. [ONLINE]

Gold Panning

Information on recreational placer gold mining and mining claims procedures (both state and federal), includes [Mining Claims and Sites on Federal Lands](#), [Small Scale Prospecting and Placer Mining in Washington](#), [Boundaries of State-owned Aquatic Lands](#), [Recreational Gold Panning](#), and the “Gold & Fish” brochure.

REGULATORY INFORMATION

Rules, Regulations and Forms – Surface Mining Reclamation and Oil and Gas Conservation Acts and accompanying rules, regulations, fees, and forms. [ONLINE]

SCENARIO EARTHQUAKES FOR WASHINGTON STATE

Emergency management experts have created a series of reports on seismic zones at risk of a major earthquake in Washington State. These reports discuss the most likely size and type of earthquake and the amount and location of damage expected. The most up-to-date version of these data can be found in our [Geologic Hazard Maps](#) page on our website. Reports are available for the following:

[Boulder Creek](#) in Whatcom County (M6.8)
[Canyon River–Saddle Mountain](#) in Mason County (M7.4)
[Cascadia](#) (M9.0)
[Cascadia North](#) (M8.3)
[Chelan](#) (M7.2)
[Cle Elum](#) (M6.8)
[Darrington–Devils Mountain](#) (M7.1)
[Darrington–Devils Mountain West](#) (M7.4)
[Hite](#) in Walla Walla County (M6.8)
[Lake Creek–Boundary Creek](#) in Clallam County (M6.8)
[Mill Creek](#) in Yakima County (M7.1)
[Nisqually](#) (M7.2)
[Olympia](#) (M5.7)
[Saddle Mountain](#) in south-central Washington (M7.4)
[SeaTac](#) (M7.2)
[Seattle](#) (M7.2)
[Latah](#) in Spokane County (M5.5)
[Mount St. Helens](#) (M7.0)
[southern Whidbey Island](#) (M7.4)
[Tacoma](#) (M7.1)

TOPOGRAPHIC INDEXES FOR WASHINGTON STATE

We have scanned our collection of U.S. Geological Survey topographic quadrangle indexes and catalogs for Washington State. Some quadrangle names have changed over the years. These indexes provide a historical record of the evolution of topographic mapping in Washington State. [1996] [1987] [1983] [1982] [1980] [1976] [1974] [1973] [1965] [1960] [1959] [1958] [1957] [1956] [1955] [1953] [1941] [1933] [1914] [1903]

Washington State Historic Topographic Maps—Inventory held by the Washington Geology Library. This is a list of topographic maps by the USGS and Army Map Service at scales of 1:24,000, 1:25,000, 1:62,500, and 1:125,000. The maps themselves are not online, but the inventory will tell you what we have on hand before you make the trip to Olympia. [ONLINE]

You may be able to find scans of historic topographic maps at the USGS Historical Topographic Map Collection at <http://nationalmap.gov/historical/>.

For more information on the topographic mapping of Washington State, see the article in *Washington Geology* [v. 20, no. 1, p. 41].