Publications of the Washington Geological Survey

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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 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]

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. 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.

PRINTED PUBLICATIONS

Our publications are no longer for sale as printed documents through the Department of Enterprise Services, 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. Printed 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.

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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. There is a fee for parking.

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.
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 pamphlet. 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).
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. 1891. 122 p. [ONLINE]


Washington Mining Bureau

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]

Washington Geological Survey

Annual Report for 1901; Volume I. 1902. 344 p. [PARTS I-II] [PARTS III-VI]

The chapters are also available separately:

- Part II. The metalliferous resources of Washington, except iron, by Henry Landes, W. S. Thyg, D. A. Lyon, and Milnor Roberts. 1902. 123 p., 4 pl. [ONLINE]
- Part III. The non-metalliferous resources of Washington, except coal, by Henry Landes. 1902. 55 p., 11 pl. [ONLINE]
- 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]
- Part VI. Bibliography of the literature referring to the geology of Washington, by Ralph Arnold. 1902. 16 p. [ONLINE]


The biennial report of the Board of Geological Survey of the State of Washington for the term 1901-1903. 1903. 7 p. [ONLINE]


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]

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]

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]

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]

The biennial report of the Board of Geological Survey of the State of Washington for the term 1919-1921. 1921. 29 p. [ONLINE]

Department of Conservation and Development*

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]


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]

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]

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]

Biennial report of Division of Geology—April 1, 1933, to November 30, 1934, by H. E. Culver. 1935. 14 p. [ONLINE]

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]

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]

Summary report of major activities, Division of Geology, for the biennium 1935-37, by H. E. Culver. 1936. 7 p. [ONLINE]

Ninth biennial report of the Department of Conservation and Development—October 1, 1936–September 30, 1938, by J. B. Fink. 1939. 115 p. [ONLINE]

[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]

Tenth biennial report of the Department of Conservation and Development, October 1, 1938–September 30, 1940, by J. B. Fink. 1941. 150 p. [ONLINE]

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]

Eleventh biennial report of the Department of Conservation and Development—October 1, 1940–September 30, 1942, by Ed Davis. 1943. 54 p. [ONLINE]

* 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.
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]

Twelfth biennial report of the Department of Conservation and Development—October 1, 1942–September 30, 1944, by Ed Davis. 1944. 52 p. [ONLINE]

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]

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]

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]

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]

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]


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]

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]


Department of Natural Resources

Division of Geology and Earth Resources


The Washington Division of Geology and Earth Resources—Geology in the public interest. 2003. 4 p. [ONLINE]

The Washington Division of Geology and Earth Resources—Geology in the public interest. 2005. 4 p. [ONLINE]

The Washington Division of Geology and Earth Resources—Geology in the public interest [short version]. 2005. 2 p. [ONLINE]

The Washington Division of Geology and Earth Resources—Geology in the public interest. 2009. 4 p. [ONLINE]
Washington Geological Survey

1. Geology and ore deposits of Republic mining district, by J. B. Umpleby. 1910. 66 p., 13 pl., 5 figs. [ONLINE]
2. The road materials of Washington, by Henry Landes. 1911. 204 p., 17 pl., 51 figs. [ONLINE]
3. The coal fields of King County, by G. W. Evans. 1912. 247 p., 23 pl., 59 figs. [ONLINE]
4. Cement materials and industry in Washington, by Solon Shedd. 1913. 268 p., 21 pl., 10 figs. [PART 1] [PART 2]
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]
6. Geology and ore deposits of the Blewett mining district, by C. E. Weaver. 1911. 104 p., 10 pl., 1 fig. [ONLINE]
7. Geology and ore deposits of the Index mining district, by C. E. Weaver. 1912. 96 p., 7 pl. [ONLINE]
8. Glaciation of the Puget Sound region, by J H. Bretz. 1913. 244 p., 24 pl., 27 figs. [ONLINE]
9. The coal fields of Kittitas County, by E. J. Saunders. 1914. 204 p., 38 pl., 52 figs. [ONLINE]
10. The coal fields of Pierce County, by Joseph Daniels. 1914. 146 p., 30 pl., 23 figs. [ONLINE]
11. The mineral resources of Washington, with statistics for 1912, by Henry Landes. 1914. 53 p., 1 pl. [ONLINE]
13. The Tertiary formations of western Washington, by C. E. Weaver. 1916. 327 p., 30 figs., 3 pl. [PART 1] [PART 2]
16. Geology and ore deposits of the Covida mining district, by C. E. Weaver. 1913. 87 p., 5 pl., 3 figs. [ONLINE]
17. A geographic dictionary of Washington, by Henry Landes. 1917. 346 p., 10 pl. [PART 1] [PART 2]
18. The country about Camp Lewis, by M. M. Leighton. 1918. 105 p., 12 pl., 6 figs. [ONLINE]
20. The mineral resources of Stevens County, by C. E. Weaver. 1920. 350 p., 20 pl., 14 figs. [PART 1] [PART 2]
23. The metal mines of Washington, by E. N. Patty. 1921. 366 p., 36 pl., 27 figs. [PART 1] [PART 2]

Division of Geology

24. Clays and shales of Washington, by S. L. Glover. 1941. 368 p., 14 pl., 6 figs. [PART 1] [PART 2]
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]
26. Underground water supply of the region about White Bluffs and Hanford, by O. P. Jenkins. 1922. 41 p., 3 pl., 1 fig. [ONLINE]
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]
34. Tungsten resources of Washington, by H. E. Culver and W. A. Broughton. 1945. 89 p., 23 pl., 9 figs. [ONLINE]

Division of Mines and Geology

37. Inventory of Washington minerals:
   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]
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 fgs. [ONLINE]

Antimony occurrences of Washington, by C. P. Purdy Jr. 1951. 186 p., 14 fgs. [ONLINE]

Geology of the Bead Lake district, Pend Oreille County, Washington, by M. C. Schroeder. 1952. 57 p., 1 pl., 6 fgs. [ONLINE]


Peat resources of Washington, by G. B. Rigg. 1958. 272 p., 1 pl., 263 fgs. [PART 1] [PART 2] [PART 3]


High-calcium limestones of eastern Washington, by J. W. Mills. 1962. 268 p., 7 pl., 64 fgs. [PART 1] [PART 2] [PART 3] [PART 4]


Barite in Washington, by W. S. Moen. 1964. 112 p., 2 pl. [ONLINE]

Limestone resources of western Washington, by W. R. Danner. 1966. 474 p. [PART 1] [PART 2] [PART 3]


Geology and mineral resources of the Kelso–Cathlamet area, Cowlitz and Wahkiakum Counties, Washington, by V. E. Livingston Jr. 1966. 110 p., 23 fgs. [ONLINE]


Chemical and physical controls for base metal deposition in the Cascade Range of Washington, by A. R. Grant. 1969. 107 p., 33 fgs. [ONLINE]


Geology and mineral resources of King County, Washington, by V. E. Livingston Jr. 1971. 200 p., 6 pl., 103 fgs. [PART 1, PART 2]


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 fgs. [ONLINE]


BULLETTNS

Contact us to see if paper copies are available (see p. 3)


77. Selected papers on the geology of Washington, edited by J. E. Schuster. 1987. 406 p. [PART 1] [PART 2] [PART 3]

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 2 PART 1] [VOL 2 PART 2] [VOL 2 PART 3] [VOL 2 PART 4]


Washington Geological Survey


DIGITAL DATA SERIES

Digital Data Series are available online only.


10. Surface geology, 1:24,000—GIS data, by Washington Division of Geology and Earth Resources. 2017. [ONLINE] Web only


15. Hazardous minerals database—GIS data, by Washington Division of Geology and Earth Resources. 2015. [ONLINE] Web only


18. Surface geology, 1:100,000—GIS data, by Washington Division of Geology and Earth Resources. 2016. [ONLINE] Web only


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**FACT SHEETS**

Fact Sheets are available online only.

- Geology in the public interest. 2015. 4 p. [ONLINE]
- The Washington Geology Library. 2015. 2 p. [ONLINE]
- Landslide hazards in Washington state. 2015. 2 p. [ONLINE]
- What are landslides and how do they occur? 2015. 2 p. [ONLINE]
- Washington State Geologic Information Portal. 2014. 2 p. [ONLINE]
- Waterfall loop tour on the historic Columbia River Highway [Oregon] [ONLINE]

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**FIELD TRIP GUIDES**

Contact us to see if paper copies are available (see p. 3)

- Waterfall loop tour on the historic Columbia River Highway [Oregon] [ONLINE]

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**GEOLOGIC MAPS**

Contact us to see if paper copies are available (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]

**Division of Mines and Geology**

Geologic map of Washington, by M. T. Huntingt, 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]

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


**Division of Geology and Earth Resources**


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]


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]


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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]

GM-64. Geologic map of the Freeeland 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]

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]


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]


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. DuFran, Jeff Vervoort, 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]

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]

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. DuFran, 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]

GM-76. Geologic map of the Clifdell 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]

Note: STATEMAP 7.5-minute quadrangles from 2012 through the present have been published under the new Map Series.
**INFORMATION CIRCULARS**

*Contact us to see if paper copies are available (see p. 3)*

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**Division of Geology**

   - Out of print

   - 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

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

   - Out of print

9. 1944 directory of Washington mining operations, by S. H. Green. 1944. 36 p. [ONLINE]
   - Out of print

    - Out of print

**Division of Mines and Geology**

    - Out of print

12. 1946 directory of Washington mining operations, by S. H. Green. 1946. 57 p. [ONLINE]
    - Out of print

    - Out of print

    - Out of print

    - Out of print

    - Out of print

17. 1948 directory of Washington mining operations, by S. H. Green. 1948. 51 p. [ONLINE]
    - Out of print

    - Out of print

    - Out of print

20. 1951 directory of Washington mining operations, by R. H. Stebbins. 1951. 75 p., 2 figs. [ONLINE]
    - Out of print

    - Out of print

22. 1953 directory of Washington mining operations, by C. P. Purdy Jr. 1953. 81 p., 2 figs. [ONLINE]
    - Out of print

23. Introduction to Washington geology and resources, by C. D. Campbell. 1953. 42 p., 5 figs. [ONLINE]
    - Out of print

    - In print

    - Out of print

    - Out of print

27. 1956 directory of Washington mining operations, by H. D. Banta. 1956. 88 p., 2 fig. [ONLINE]
    - Out of print

    - Out of print

29. 1957 directory of Washington mining operations, by V. E. Livingston Jr. 1957. 96 p., 2 figs. [ONLINE]
    - Out of print

    - Out of print

    - Out of print

32. Archeology in Washington, by Bruce Stallard. 1958. 64 p., 1 pl., 34 figs. [ONLINE]
    - Out of print

    - Out of print

    - Out of print

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### INFORMATION CIRCULARS

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#### Division of Geology and Earth Resources

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<td>50.</td>
<td>Energy resources of Washington, by Washington Division of Geology and Earth Resources staff; and others. 1974. 158 p. [ONLINE]</td>
<td>Out of print</td>
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<td>54.</td>
<td>A geologic road log over Chinook, White Pass, and Ellensburg to Yakima highways, by N. P. Campbell. 1975. 82 p., figs. [ONLINE]</td>
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<td>58.</td>
<td>Engineering geologic studies, by Washington Division of Geology and Earth Resources staff; and others. 1976. 40 p. [ONLINE]</td>
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<td>61.</td>
<td>Annotated guide to sources of information on the geology, minerals, and ground-water resources of the Puget Sound region, Washington, King County section, by W. H. Reichert, with supplemental references by D. D. Dethier. 1978. 63 p., 8 figs. [ONLINE]</td>
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<td>73.</td>
<td>Index to geologic and geophysical mapping of Washington, compiled by C. J. Manson. 1981. 63 p., 10 pl.</td>
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118. Geomorphic mapping of the Chehalis River floodplain, Cosmopolis to Pe Ell, Grays Harbor, Thurston, and Lewis Counties, Washington by S. L. Slaughter and I. J. Hubert. 2014. 61 p. [ONLINE]

119. Rock aggregate resource inventory map of Pierce County, Washington by D. W. Eungard and J. L. Czajkowski. 2015. 23 p., 1 pl., scale 1:100,000. [ONLINE]

120. Rock aggregate resource inventory map of Lewis County, Washington by D. W. Eungard. 2015. 25 p., 1 pl., scale 1:100,000. [ONLINE]
19
2018-01 Tsunami hazard maps of southwest Washington—Model results from a ~2,500-year Cascadia subduction zone earthquake scenario, by D. W. Eungard, Corina Forson, T. J. Walsh, Edison Gica, and Diego Arcas. 2018. Six 36 x 42 in. map sheets, scale 1:48,000, with 11 p. text. [Revised 2018] [ONLINE]

2018-02 Tsunami hazard maps of the Anacortes–Bellingham area, Washington—Model results from a ~2,500-year Cascadia subduction zone earthquake scenario, by D. W. Eungard, Corina Forson, T. J. Walsh, Edison Gica, and Diego Arcas. 2018. Six 36 x 36 in. map sheets, scale 1:30,000, with 10 p. text. [ONLINE]


Most open-file reports are preliminary and have not been edited or reviewed for conformity with our standards and geographic nomenclature. Those reports marked “Lib. use only” may be inspected in the Division library in Olympia. Those marked “Web only” may be downloaded from the Division website. Where possible, larger files (20MB+) have been broken into parts for ease of downloading. 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.

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25-0. Geology and resources of the Pasco and Prosser quadrangles, by Solon Shedd. 1925. 125 p., 1 pl. [PART 1] [PART 2] [PART 3]

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69-0. Compilation of geologic mapping in Washington through 1968—A continuation of Leona Boardman’s index to geologic mapping in Washington; also, Geologic maps from theses on Washington geology, by W. H. Reichert. 1969. 43 p., 11 maps, scale 1:1,000,000.


69-2. Analyses of stream sediment samples in Washington for copper, molybdenum, lead, and zinc, by W. S. Moen. 1969. 91 p. (including 15 tables), 39 pl., scale 1:125,000. [PART 1] [PART 2] [PART 3] [PART 4] [PART 5] [PART 6] [PART 7] [PART 8] [PART 9]


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73-1. Preliminary report on the geology of southern Snohomish County, by Gerald Capps, J. D. Simmons, and F. D. Videgar. 1973. 12 p., 1 pl. [PART 1] [PART 2] [PART 3] [PART 4] [PART 5] [PART 6] [PART 7]


73-3. Preliminary geologic map of the southern Cascade Range, by P. E. Hammond. 1973. 5 pl., scales 1:24,000, 1:125,000, 1:500,000. [ONLINE]
75-12. Earthquake hazards of Clark County [Washington], by Mackey Smith. 1975. 2 p., 1 pl., scale 1:63,360. [ONLINE]

75-13. Preliminary geologic map and cross sections with emphasis on Quaternary volcanic rocks, southern Cascade mountains, Washington, by P. E. Hammond. 1975. 1 sheet, scale 1:120,000. [ONLINE]


76-0. Differential settlement hazards of the Kirkland area, Washington, by E. R. Artim. 1976. 1 sheet, scale 1:24,000. [ONLINE]


76-6. Petrogenesis of the Mount Stuart batholith plutonic equivalent of the high-alumina basalt association, by E. H. Erikson Jr. 1976. 38 p., 2 pl., scale 1:190,000. [ONLINE]


76-11. Geologic map of the Yakima area [Washington], by N. P. Campbell. 1976. 1 sheet, scale 1:24,000. [ONLINE]

76-12. Monitoring of an active fault near Lilliwaup, Mason County, Washington, by K. L. Othberg and J. B. Hall. 1976. 7 p. [ONLINE]


77-3. Whatcom County, Washington, coal reserves, by E. R. Vonheeder. 1977. 3 sheets, scale 1:130,000. [ONLINE]

77-4. Lewis County, Washington, coal resources, by E. R. Vonheeder. 1977. 7 sheets, scale 1:130,000. [ONLINE]

77-5. Cowlitz County, Washington, coal resources, by E. R. Vonheeder. 1977. 2 sheets, scale 1:130,000. [ONLINE]


77-7. Geology, relative slope stability, and flood hazards of the Selah area, Yakima County, Washington, by N. P. Campbell. 1977. 3 sheets, scale 1:24,000. [ONLINE]

77-8. Geology, relative slope stability, and flood hazards of the Spikes Mountain area, Yakima County, Washington, by N. P. Campbell. 1977. 3 sheets, scale 1:24,000. [ONLINE]

77-9. Geologic map of the City of Tacoma, Pierce County, Washington, by Mackey Smith. 1977. 1 sheet, scale 1:24,000. [ONLINE]


78-1. Kittitas County, Washington, coal reserves, by E. R. Vonheeder. 1978. 6 sheets including 3 maps, scale 1:130,000. [ONLINE]


78-5. Skagit County, Washington, coal reserves, by E. R. Vonheeder. 1978. 3 sheets, scale 1:130,000. [ONLINE]


79-2. An assessment of the uranium potential in the Ellensburg Formation, south-central Washington, by P. C. Milne. 1979. 32 p., 4 pl., scale 1:250,000. [PART 1] [PART 2] [PART 3] [PHOTOS]


79-4. Pierce County, Washington, coal reserves, by E. R. Vonheeder. 1979. 5 sheets, scale 1:130,000, including 6 tables. [ONLINE]


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Contact us to see if paper copies are available (see p. 3)


80-1. Geology and energy resources of the Roslyn–Cle Elum area, Kittitas County, Washington, by C. W. Walker. 1980. 59 p., 26 pl. [PART 1] [PART 2] [PART 3] [PART 4] [PART 5] [PART 6] [PART 7]

80-2. Preliminary fault map of Washington, by G. B. McLucas. 1980. 5 p., 2 pl., map scales 1:1,000,000 and 1:500,000. [ONLINE]


Note: Also released as Open File Report 81-3, Chapter IX. Superseded by Open File Report 2009-2.

Note: Chapter IX available separately as Open File Report 80-4; Table 4.1 available separately as OFR 80-11; Appendix A available separately as OFR 80-7; Appendix B available separately as OFR 80-8; Appendix D only available separately as OFR 80-9.


82-3. Table of chemical analyses for thermal and mineral spring and well waters collected in 1980 and 1981, by M. A. Korosec. 1982. 5 p. [ONLINE]


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83-17. Map of coal mine workings in part of King County, Washington, by T. J. Walsh. 1983. 1 pl., scale 1:24,000, 4-p. explanation. [ONLINE]


84-3. Geology and coal resources of central King County, Washington, by T. J. Walsh. 1984. 24 p., 3 pl. [ONLINE]


85-1. Preliminary geologic framework studies showing bathymetry, locations of geophysical track lines and exploratory wells, sea floor geology and deeper geologic structures, magnetic contours, and inferred thickness of Tertiary rocks on the continental shelf and upper continental slope off southwestern Washington between latitudes 46°N and 47°30′N and from the Washington coast to 125°20′W, by H. C. Wagner. 1985. 6 p., 5 pl., scale 1:250,000. [ONLINE]


87-12. Bibliography and index of mineral resources of the U.S. Exclusive Economic Zone west of the Washington State coastline, compiled by V. J. Taken. 1987. 151 p., 1 pl., scale 1:2,000,000. [ONLINE]


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90-1. Geologic map of the Moses Lake 1:100,000 quadrangle, Washington, compiled by C. W. Gulick. 1990. 9 p., 1 pl., scale 1:100,000. [ONLINE]

90-2. Geologic map of the Ritzville 1:100,000 quadrangle, Washington, compiled by C. W. Gulick. 1990. 7 p., 1 pl., scale 1:100,000. [ONLINE]


90-9. Geologic map of the east half of the Twisp 1:100,000 quadrangle, Washington, compiled by B. B. Bunning. 1990. 52 p., 1 pl., scale 1:100,000. [ONLINE]


90-16. Geologic map of the Nespelem 1:100,000 quadrangle, Washington, compiled by N. L. Joseph. 1990. 47 p., 1 pl., scale 1:100,000. [ONLINE]


91-4. Geologic strip map of the Ninemile Creek–Wilmont Creek–Hunters Creek area, Ferry and Stevens Counties, Washington, by M. T. Smith. 1991. 9 p., 1 pl., scale 1:24,000. [ONLINE]


92-3. Geologic and geophysical mapping of the Orofino 1:100,000 quadrangle, compiled by J. E. Schuster. 1993. 43 p., 1 pl., scale 1:100,000. [ONLINE]


94-10. Geologic map of the east half of the Toppenish 1:100,000 quadrangle, Washington, compiled by J. E. Schuster. 1994. 1 sheet, scale 1:100,000, with 15 p. text. [ONLINE]


94-12. Geologic map of the east half of the Yakima 1:100,000 quadrangle, Washington, compiled by J. E. Schuster. 1994. 1 sheet, scale 1:100,000, with 22 p. text. [ONLINE]


95-1. Landslide map and inventory, Tilton River—Mineral Creek area, Lewis County, Washington by J. D. Dragovich and M. J. Brunengo. 1995. 165 p., 3 pl., scale 1:36,000. [TEXT] [PLATES]


95-3. Geologic map of the west half of the Twisp 1:100,000 quadrangle, Washington, compiled by J. D. Dragovich and D. K. Norman. 1995. 63 p., 1 pl. [ONLINE]


96-5. Geologic map of the Pomeroy area, southeastern Washington, compiled by P. R. Hooper and B. A. Gillespie. 1996. 26 p., 1 pl., scale 1:38,520. [ONLINE]


96-7. Maps of the surficial geology and depth to bedrock of False Bay, Friday Harbor, Richardson, and Shaw Island 7.5-minute quadrangles, San Juan County, Washington, by D. P. Dethier, D. P. White, and C. M. Brookfield. 1996. 7 p., 2 pl. [ONLINE]


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2002-1. Tsunami inundation map of the Port Angeles, Washington, area, by T. J. Walsh, E. P. Myers III, and A. M. Baptista. 2002. 48 x 36 in. color sheet, scale 1:24,000. [ONLINE]


2003-1. Tsunami inundation map of the Quileute, Washington, area, by T. J. Walsh, E. P. Myers III, and A. M. Baptista. 2003. 44 x 36 in. color sheet, scale 1:24,000. [ONLINE]


2003-4. Geologic map of the Mount Olympus 1:100,000 quadrangle, Washington, by W. J. Gerstel and W. S. Lingley Jr. 2003. 52 x 36 in. color sheet, scale 1:100,000. [ONLINE]

2003-5. Geologic map of the Washington portion of the Cape Flattery 1:100,000 quadrangle, by H. W. Schasse. 2003. 45 x 36 in. color sheet, scale 1:100,000. [ONLINE]

2003-6. Geologic map of the Washington portion of the Port Angeles 1:100,000 quadrangle, by H. W. Schasse. 2003. 45 x 36 in. color sheet, scale 1:100,000. [ONLINE]


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2005-4. Development of design guidelines for structures that serve as tsunami vertical evacuation sites, by Harry Yeh, Ian Robertson, and Jane Preuss. 2005. 34 p. [ONLINE]

2005-5. Supplement to Geologic Map GM-60, Geologic map of the Timberwolf Mountain 7.5-minute quadrangle, Yakima County, Washington, by P. E. Hammond. 2005. Contains description and location of sample sites by map unit, analyses of samples, $^{40}$Ar/$^{39}$Ar age dates, and $^{40}$Ar/$^{39}$Ar age plateau and inverse isochron diagrams in Microsoft Excel and Adobe PDF formats. [ONLINE]


2007-3. Sand point count and geochemical data in the Fall City and Carnation 7.5-minute quadrangles, King County, Washington, by J. D. Dravogich. 2007. 2 Microsoft Excel files with 6 p. text. [ONLINE]

2007-4. Seismic design category maps for residential construction in Washington, by Recep Cakir and T. J. Walsh. 2007. 2 color sheets, 58 x 36 in., scale 1:500,000. [ONLINE]

2007-5. Development of design guidelines for structures that serve as tsunami vertical evacuation sites, by Harry Yeh, Ian Robertson, and Jane Preuss. 2005. 13 p. [ONLINE]


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2008-3. Data supplement to 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. 1 Microsoft Excel file. [ONLINE]


2008-6. Geologic map of the Belfair 7.5-minute quadrangle, Mason County, Washington, by J. D. Dravogich and T. J. Walsh. 2007. 60 x 36 in. color sheet. [ONLINE]

2008-7. Geologic map of the Lake Wooten 7.5-minute quadrangle, King County, Washington, by J. D. Dravogich and T. J. Walsh. 2007. 2 color sheets, 58 x 36 in. (scale 1:24,000). [ONLINE]

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2013-01 Passive seismic analyses in the Sultan 7.5-Minute quadrangle, King and Snohomish Counties, Washington, by Koichi Hayashi, Recep Cakir, J. D. Dragovich, B. A. Stoker, T. J. Walsh, and H. A. Littke. 2013. 9 p. [ONLINE]


2014-02 Geothermal favorability model of Washington State, by D. E. Boschmann, J. L. Czajkowski, and J. D. Bowman. 2014. 20 p. with 48 x 36 in. color plate, scale 1:900,000. [ONLINE]

2014-03 Tsunami hazard map of Everett, Washington: Model results for magnitude 7.3 and 6.7 Seattle fault earthquakes, by T. J. Walsh, Diego Arcas, V. V. Titov, and C. C. Chamberlin 2014. 50 x 36 in. color sheet, scale 1:32,000. [ONLINE]


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1. Olympic Peninsula manganese, by J. W. Melrose. 1940. 50 p. [ONLINE]
2. Washington iron ores, a summary report, by S. L. Glover. 1942. 23 p. [ONLINE]
5. Memorandum report on iron ores of the Cle Elum district, Washington, by Carl Zappfe. 1944. 27 p., 2 pl., 5 figs. [ONLINE]

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1. Abstract of the report [by Solon Shedd] on the geology and resources of the Pasco and Prosser quadrangles, by H. E. Culver. 1926. 7 p., 1 pl., 29 x 22 in., scale 1:125,000. [ONLINE]
2. Oil and gas possibilities of western Whatcom County, by S. L. Glover. 1935. 69 p., 1 pl., 1 fig. [ONLINE]
3. A report on a geologic reconnaissance of the St. Helens mining district, Washington, by Everett Houglund. 1935. 4 p., 1 fig., 1 pl., 18 x 19 in. [ONLINE]
6. Inventory of mineral properties in Snohomish County, Washington, by W. A. Broughton. 1942. 64 p., 1 pl. [Accompanied by Index to mineral properties of Snohomish County. 1942. 8 p., tables.] [ONLINE]
7. Character and tonnage of the Turk magnesite deposit, by W. A. G. Bennett. 1943. 22 p., 1 pl., 1 fig. [ONLINE]
8. The Buckhorn iron deposits of Okanogan County, Washington; Results of a magnetic survey, by W. A. Broughton. 1943. 21 p., 4 pl., 4 figs. [ONLINE]
10. The Blewett iron deposit, Chelan County, Washington (with preliminary tonnage estimates), by W. A. Broughton. 1943. 17 p., 1 pl., 2 figs. [ONLINE]
15. Pumice and pumiceous occurrences of Washington, by Ward Carithers. 1946. 78 p., 6 pl., 7 figs. [ONLINE]
17. Perlite and other volcanic glass occurrences in Washington, by M. T. Hunting. 1949. 32 p. [ONLINE]
21. Stratigraphy of Eocene rocks in a part of King County, Washington, by J. D. Vine. 1962. 20 p., 3 figs. [ONLINE]

Division of Geology and Earth Resources

32. Liquefaction features from a subduction zone earthquake—Preserved examples from the 1964 Alaska earthquake, by T. J. Walsh, R. A. Combellick, and G. L. Black. 1995. 80 p., 75 figs., 3 tables. [ONLINE]  
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. Superseded by Report of Investigations 35.  
41. Landslide inventory of western King County, by K. A. Mickelson, K. E. Jacobacci, T. A. Contreras, W. N. Gallin, and S. L. Slaughter. 2019. 7 p. text and 1 ESRI geodatabase. [ONLINE]


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]


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**RESOURCE MAPS**

Contact us to see if paper copies are available (see p. 3)


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**TOPOGRAPHIC MAPS**

Topographic Maps are available online only.

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]

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]

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]

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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]

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Thunder Creek basin, Skagit County—Report of DNR Study Team, by Jerry Thorsen. 1989. 33 p. [ONLINE]


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Tumtum Mountain [Clark County]—A potential source of feldspar, by W. A. G. Bennett. 1964. 5 p. [ONLINE]

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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]


State Department of Conservation has record year [1962], by M. T. Huntting. 1963. 7 p. [ONLINE]

Preliminary report on mineral resources of the Cougar Lake limited area [Yakima County], by W. S. Moen. 1962. 9 p. [ONLINE]


Preliminary surveys for highway salvage archeology in the State of Washington—A final report, by Bruce Stallard. 1958. 23 p. [ONLINE]

Mining in Washington, by C. P. Purdy, Jr. 1953. 3 p. [ONLINE]

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Preliminary report on the mines and prospects of the upper Methow region, Okanogan and Whatcom Counties, by Ward Carithers. 1946. 40 p. [ONLINE]


Oil and gas studies by the Division of Geology, by S. L. Glover. 1936. 8 p. [ONLINE]

Report of natural resources survey from October 1, 1933, to March 1, 1935, by T. B. Hill. 1935. 30 p. [ONLINE]

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Mining in the Pacific Northwest, by L. K. Hodges. 1897. 183 p. [ONLINE]
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

**Auburn**
USGS GQ 406—Mullineaux and others, 1961

**Belfair**
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**Black Diamond**
USGS GQ 407—Mullineaux and others, 1965

**Brinnon**
WGS Map Series 2012-02—Polenz and others, 2012

**Buckley**
USGS PP 388A—Crandell and others, 1959

**Burley**
WGS Open File Report 2009-8—Polenz and others, 2009

**Camano**
WGS Geologic Map 68—Polenz and others, 2009

**Carnation**
WGS Open File Report 2010-02—Dragovich and others, 2010

**Center**
WGS Map Series 2014-02—Hanson and others, 1976

**Chattaroy**
WGS Geologic Map 55—Hamilton and others, 2005

**Cliffdell and Manastash Lake**
WGS Geologic Map 76—Hammond and others, 2010

**College Place and Walla Walla**
WGS Geologic Map 62—Derkey and others, 2006

**Coupeville**
WGS Geologic Map 58—Polenz and others, 2005

**Crescent Harbor**
WGS Geologic Map 59—Dragovich and others, 2005

**Darrington**
WGS Open File Report 2002-7—Dragovich and others, 2002

**Deer Island**
WGS Geologic Map 54—Evarts and others, 2002

**East Olympia**
WGS Geologic Map 56—Walsh and others, 2005

**Eldon**
WGS Map Series 2012-03—Contreras and others, 2012

**Elwha and Angeles Point**
WGS Open File Report 2004-14—Polenz and others, 2004

**Fall City**
WGS Geologic Map 67—Dragovich and others, 2007

**Fortson**
WGS Open File Report 2002-6—Dragovich and others, 2002

**Four Lakes**
WGS Open File Report 2004-2—Hamilton and others, 2004

**Four Mound Prairie**
WGS Geologic Map 66—Derkey and others, 2007

**Fox Island**
WGS Geologic Map 63—Logan and others, 2006

**Freeland and Hansville**
WGS Geologic Map 64—Polenz and others, 2006

**Greencraces**

**Holly**
WGS Open File Report 2011-6—Contreras and others, 2012

**Hoodsport**
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**Juniper Beach**
WGS Geologic Map 70—Schasse and others, 2009

**Lacey**

**Lake Chaplain**
WGS Map Series 2014-01—Dragovich and others, 2014

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**Lake Wooten**
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**Langley**
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**Liberty Lake and Newman Lake**
WGS Open File Report 2004-12—Derkey and others, 2004

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**Lofall**
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**Longbranch**

**Mason Lake**
WGS Open File Report 2009-6—Derkey and others, 2009

**Maytown**
WGS Geologic Map 72—Logan and others, 2009

**McMurray**
WGS Geologic Map 61—Dragovich and others, 2006

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**Meeks Table and Nile**
WGS Geologic Map 74—Hammond and others, 2009

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WGS Open File Report 2002-8—Schasse and others, 2002

**Mt Higgins**

**Nine Mile Falls**

**Nisqually**

**North Bend**
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<td>Wilkeson</td>
<td>USGS PP 388A—Crandell and others, 1959</td>
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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. [ONLINE]

**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**

**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].