

Identification\_Information:

Citation:

Citation\_Information:

Originator: R.W. Givler

Originator: R.E. Wells

Publication\_Date: 2001

Title: Shaded-relief and Color Shaded-relief maps of the Willamette Valley, Oregon

Edition: 1.0

Geospatial\_Data\_Presentation\_Form: vector and raster digital data

Series\_Information:

Series\_Name: U.S. Geological Survey Open File Report

Issue\_Identification: Open File Report 01-xxx

Publication\_Information:

Publication\_Place: Menlo Park, CA

Publisher: U.S. Geological Survey

Online\_Linkage: <http://geopubs.wr.usgs.gov/open-file/of01-xxx>

Description:

Abstract: This digital dataset was compiled from newly released 10-meter digital elevation model (DEM) data, along with stream and transportation coverages previously published on the internet. This report represents the general physiography of the Willamette Valley. Contained in this dataset is: 1) 10-meter DEM data for the entire Willamette Valley, 2) the ARC/INFO grids used to create the color shaded-relief and shaded-relief images, 3) the necessary data ARC/INFO data to used to plot these data, and 4) several reports detailing the data formats (this document) and procedures used to create these datasets. The scale of the original 10-meter DEM data should not be violated. Any use of these original data smaller than the intended scale (1:24,000) will not yield more accuracy.

Purpose: This digital data set, compiled from new 10-meter digital elevation model (DEM) data, represents the physiography of the Willamette Valley, Oregon. This new physiographic data is useful because the improved resolution allows for better visualization of flood and fluvial features in the low lying areas of the Willamette Valley. Many scientist are interested in the Willamette Valley because it is subject to a variety of earthquake hazards, and its water and geologic resources are under pressure from rapid urbanization (see sheets for a brief description). Further, this Open-file report details the techniques used to create these maps. It is the author's purpose to publish these techniques and data so others may use this report to generate their own shaded-relief maps. All information about the data and methods used to create this report are in the readme.pdf file and this document.

Supplemental\_Information: Procedures\_Used: The databases in this report were compiled in ARC/INFO, a commercial Geographic Information System (Environmental Systems Research Institute, Redlands, California, with version 3.0 of the menu interface ALACARTE (Fitzgibbon and Wentworth, 1991, Fitzgibbon, 1991, Wentworth and Fitzgibbon, 1991). The files are in either GRID (ARC/INFO raster data) format or COVERAGE (ARC/INFO vector data) format. Coverages are stored in uncompressed ARC export format (ARC/INFO version 8.0.2). ARC/INFO export files (files with the .e00 extension) can be converted into ARC/INFO coverages in ARC/INFO (see below) and can be read by some other Geographic Information Systems, such as MapInfo via ArcLink and ESRI's ArcView (version 1.0 for Windows 3.1 to 3.11 is available for free from ESRI's web site: <http://www.esri.com>). The digital compilation was done in version 8.0.2 of ARC/INFO with version 3.0 of the menu interface ALACARTE (Fitzgibbon and Wentworth, 1991, Fitzgibbon, 1991, Wentworth and Fitzgibbon, 1991). Custom AMLs were written to compile the

10-meter DEM data from 7.5 minute quadrangles in large groups. The data was compiled as ARC/INFO grids and then converted to decimeter integer grids. This procedure greatly reduced the file size of the grids with out downgrading the data quality. Stream coverages were merged with the grids used to create the color shaded-relief gridcomposite. Further details on the techniques used to generate these maps is available in the readme of this report.

Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: 2001

Currentness\_Reference: publication date

Status:

Progress: Pre-Publication

Maintenance\_and\_Update\_Frequency: As needed

Spatial\_Domain:

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -123.30

East\_Bounding\_Coordinate: -122.125

North\_Bounding\_Coordinate: 45.75

South\_Bounding\_Coordinate: 43.50

Keywords:

Theme:

Theme\_Keyword\_Thesaurus: none

Theme\_Keyword: geology

Theme\_Keyword: Digital elevation model data

Theme\_Keyword: DEM

Theme\_Keyword: ARC/INFO

Theme\_Keyword: color shade-relief

Theme\_Keyword: shaded re-lief

Theme\_Keyword: Oregon Coast Range

Theme\_Keyword: Cascade Range

Theme\_Keyword: Willamette Valley, OR

Theme\_Keyword: Missoula Floods

Theme\_Keyword: Portland, Oregon

Theme\_Keyword: Columbia River Basalt Group

Theme\_Keyword: Willamette River

Theme\_Keyword: Tualatin River

Theme\_Keyword: Columbia River

Theme\_Keyword: Clackamas River

Theme\_Keyword: Calapooia River

Theme\_Keyword: McKensie River

Theme\_Keyword: Middle Fork River

Theme\_Keyword: Coast Fork River

Theme\_Keyword: Tualatin Mountains

Theme\_Keyword: Chehalem Mountains

Theme\_Keyword: Salem Hills

Place:

Place\_Keyword\_Thesaurus: none

Place\_Keyword: Willamette Valley, Oregon

Stratum:

Stratum\_Keyword\_Thesaurus: none

Access\_Constraints: none

Use\_Constraints: Uses of this digital geologic map should not violate the spatial resolution of the data. Although the digital form of the data removes the constraint imposed by the scale of a paper map, the detail and accuracy inherent in map scale are also present in the digital data. The fact that this

database was edited for a scale of 1:24,000 means that higher resolution information is not present in the dataset. Plotting at scales larger than 1:24,000 will not yield greater real detail, although it may reveal fine-scale irregularities below the intended resolution of the database. Similarly, where this database is used in combination with other data of higher resolution, the resolution of the combined output will be limited by the lower resolution of these data.

Point\_of\_Contact:

Contact\_Information:

Contact\_Organization\_Primary:

Contact\_Organization: U.S. Geological Survey

Contact\_Person: Database Coordinator

Contact\_Address:

Address\_Type: mailing address

Address: 345 Middlefield Rd. MS-975

City: Menlo Park

State\_or\_Province: CA

Postal\_Code: 94025

Country: USA

Contact\_Voice\_Telephone: 650-329-4935

Contact\_Electronic\_Mail\_Address: kwheeler@usgs.gov

Browse\_Graphic:

Browse\_Graphic\_File\_Name: wvc250.pdf

Browse\_Graphic\_File\_Description: A PDF representation of the color shaded-relief map at a scale of 1:250,000 (3.76 mb).

Browse\_Graphic\_File\_Type: PDF

Browse\_Graphic:

Browse\_Graphic\_File\_Name: wvs250.pdf

Browse\_Graphic\_File\_Description: A PDF representation of the shaded-relief map at a scale of 1:250,000 (152 kb.)

Browse\_Graphic\_File\_Type: PDF

Browse\_Graphic:

Browse\_Graphic\_File\_Name: wvc125.pdf

Browse\_Graphic\_File\_Description: A PDF representation of the color shaded-relief map at a scale of 1:250,000 (152 kb.)

Browse\_Graphic:

Browse\_Graphic\_File\_Name: wvs125.pdf

Browse\_Graphic\_File\_Description: A PDF representation of the shaded-relief map at a scale of 1:125,000 (152 kb.)

Browse\_Graphic\_File\_Type: PDF

Browse\_Graphic:

Browse\_Graphic\_File\_Name: readme.pdf

Browse\_Graphic\_File\_Description: A PDF representation of the database description or readme pamphlet. 209 kb.

Browse\_Graphic\_File\_Type: PDF

Data\_Set\_Credit: R.W. Givler and R.E. Wells

Security\_Information:

Security\_Classification\_System: None

Security\_Classification: Unclassified

Security\_Handling\_Description: None

Native\_Data\_Set\_Environment: UNIX Sun Solaris; ESRI ArcInfo 8.0.2

Data\_Quality\_Information:

Lineage:

Source\_Information:

Source\_Citation:

Citation\_Information:

Originator: Steamnet.org

Title: Compiled River Reach Stream coverages at 1:100,000 from USGS  
DLG for Oregon.

Publication\_Date: August 2001

Series\_Information:

Series\_Name: Streamnet.org (on-line data)

Issue\_Identification:

Source\_Scale\_Denominator: 100,000

Type\_of\_Source\_Media: digital

Source\_Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: 1998

Source\_Currentness\_Reference: publication date

Source\_Citation\_Abbreviation: steamnet.org (2001)

Source\_Contribution: Dixonville quadrangle

Lineage:

Source\_Information:

Source\_Citation:

Citation\_Information:

Originator: U.S. Geological Survey

Publication\_Date: 1995

Title: 1:2,000,000-scale Digital Line Graph Data - Roads

Publication\_Information:

Publication\_Place: Reston, VA

Publisher: U.S. Geological Survey

Source\_Scale\_Denominator: 2000000

Type\_of\_Source\_Media: on-line data

Source\_Time\_Period\_of\_Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: 1970

Ending\_Date: 1995

Source\_Currentness\_Reference: ground condition

Source\_Citation\_Abbreviation: 2MILRD

Source\_Contribution: spatial and attribute information

Process\_Step:

Process\_Description:

The databases in this report were compiled in ARC/INFO, a commercial Geographic Information System (Environmental Systems Research Institute, Redlands, California, with version 3.0 of the menu interface ALACARTE (Fitzgibbon and Wentworth, 1991, Fitzgibbon, 1991, Wentworth and Fitzgibbon, 1991). The files are in either GRID (ARC/INFO raster data) format or COVERAGE (ARC/INFO vector data) format. Coverages are stored in uncompressed ARC export format (ARC/INFO version 8.0.2). ARC/INFO export files (files with the .e00 extension) can be converted into ARC/INFO coverages in ARC/INFO (see below) and can be read by some other Geographic Information Systems, such as MapInfo via ArcLink and ESRI's ArcView (version 1.0 for Windows 3.1 to 3.11 is available for free from ESRI's web site: <http://www.esri.com>). The digital compilation was done in version 8.0.2 of ARC/INFO with version 3.0 of the menu interface ALACARTE (Fitzgibbon and Wentworth, 1991, Fitzgibbon, 1991, Wentworth and Fitzgibbon, 1991). The geologic map information was digitized from stable original

Process\_Date: 2000 - 2001  
Spatial\_Data\_Organization\_Information:  
  Direct\_Spatial\_Reference\_Method: Vector  
  Point\_and\_Vector\_Object\_Information:  
    SDTS\_Terms\_Description:  
      SDTS\_Point\_and\_Vector\_Object\_Type: Complete chain  
      Point\_and\_Vector\_Object\_Count: 611  
    SDTS\_Terms\_Description:  
      SDTS\_Point\_and\_Vector\_Object\_Type: Entity point  
      Point\_and\_Vector\_Object\_Count: 252  
    SDTS\_Terms\_Description:  
      SDTS\_Point\_and\_Vector\_Object\_Type: GT-polygon composed of chains  
      Point\_and\_Vector\_Object\_Count: 252  
    SDTS\_Terms\_Description:  
      SDTS\_Point\_and\_Vector\_Object\_Type: Point  
      Point\_and\_Vector\_Object\_Count: 16

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Spatial\_Reference\_Information:  
  Horizontal coordinate system Projected coordinate system name:  
  PCS\_Transverse\_Mercator Geographic coordinate system name:  
  GCS\_North\_American\_1927  
    Map\_Projection\_Name: Transverse Mercator  
    Scale\_Factor\_at\_Central\_Meridian: 0.999600  
    Longitude\_of\_Central\_Meridian : -123.000000  
    False\_Easting: 500000.000000  
    False\_Northing: 0.000000  
  Planar\_Coordinate\_Information  
    Coordinate\_Encoding\_Method: coordinate pair  
    Coordinate\_Representation  
      Abscissa\_Resolution: 0.000512  
      Ordinate\_Resolution: 0.000512  
    Planar\_Distance\_Units: meters  
  Geodetic\_Model  
    Horizontal\_Datum\_Name: North American Datum of 1927  
    Ellipsoid\_Name: Clarke 1866  
    Semi-major\_Axis: 6378206.400000  
    Denominator\_of\_Flattening\_Ratio: 294.978698 \_\_\_\_\_

Entity\_and\_Attribute\_Information:

  Overview\_Description:

    Entity\_and\_Attribute\_Overview:

    Because these data were created in Arc/Info, polygons are described by tables fitting the pattern cover.pat (here and after, "cover" refers to the name of the Arc/Info coverage). These contain the general attributes AREA, PERIMETER, cover#, and cover-ID. Likewise, lines are described by tables named cover.aat, and contain topological as well as general attributes FNODE#, TNODE#, LPOLY#, RPOLY#, LENGTH, cover#, and cover-ID.

    Because these data were created using Alacarte, the feature attribute tables also include the attributes LTYPE for lines and PTYPE for points and polygons, as well as SEL, which is used internally by Alacarte to mark features that are selected, and SYMB, which is used internally by Alacarte to symbolize the features for display. Additional attributes that contain

scientific information may also be present, and are described in detail here.

Entity\_and\_Attribute\_Detail\_Citation: <http://geopubs.wr.usgs.gov/open-file/of01-226/geol.pdf>

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: will\_clip.pat

Entity\_Type\_Definition: polygons

Attribute:

Attribute\_Label: PTYPE

Attribute\_Definition: unit labels

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: Yes

Enumerated\_Domain\_Value\_Definition: marks polygons inside map

boundary

Enumerated\_Domain:

Enumerated\_Domain\_Value: No

Enumerated\_Domain\_Value\_Definition: marks polygons inside map

boundary

Entity\_Type:

Entity\_Type\_Label: will\_clip1.pat

Entity\_Type\_Definition: polygons

Attribute:

Attribute\_Label: PTYPE

Attribute\_Definition: unit labels

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: Yes

Enumerated\_Domain\_Value\_Definition: marks polygons inside map

boundary

Enumerated\_Domain:

Enumerated\_Domain\_Value: No

Enumerated\_Domain\_Value\_Definition: marks polygons inside map

boundary

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: will\_clip.aat

Attribute:

Attribute\_Label: LTYPE

Attribute\_Type\_Definition: Map boundaries

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: Map boundary

Enumerated\_Domain:

Enumerated\_Domain\_Value: outside boundary

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: will\_clip1.aat

Attribute:

Attribute\_Label: LTYPE

Attribute\_Type\_Definition: Map boundaries

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: Map boundary

Enumerated\_Domain:

Enumerated\_Domain\_Value: outside boundary  
Distribution\_Information:  
Distributor:  
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Contact\_Organization\_Primary:  
Contact\_Organization: USGS Western Publications Group  
Contact\_Address:  
Address\_Type: mailing and physical address  
Address: 345 Middlefield Road, Mail Stop 951  
City: Menlo Park  
State\_or\_Province: CA  
Postal\_Code: 94025  
Country: US  
Contact\_Voice\_Telephone: 650-329-5057  
Resource\_Description: USGS Open-File Report 01-xxx  
Distribution\_Liability:  
This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic Code. Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.  
Standard\_Order\_Process:  
Digital\_Form:  
Digital\_Transfer\_Information:  
Format\_Name: Arc/Info export  
Format\_Version\_Number: 8.0.2  
File-Decompression\_Technique: gzip -d and tar -xvf  
Format\_Information\_Content: Exported coverages will\_clip, will\_clip1, and supporting files  
Transfer\_Size: ??? megabytes  
Digital\_Transfer\_Option:  
Online\_Option:  
Computer\_Contact\_Information:  
Network\_Address:  
Network\_Resource\_Name:  
<http://geopubs.wr.usgs.gov/open-file/of01-xxx/md.tar.gz>  
Fees: none  
Metadata\_Reference\_Information:  
Metadata\_Date: 20010823  
Metadata\_Review\_Date:  
Metadata\_Contact:  
Contact\_Information:  
Contact\_Person\_Primary:  
Contact\_Person: Karen L. Wheeler  
Contact\_Organization: U.S. Geological Survey  
Contact\_Position: Geologist/GIS  
Contact\_Address:  
Address\_Type: mailing and physical address  
Address:  
U.S. Geological Survey  
Western Earth Surface Processes Team  
345 Middlefield Road, Mail Stop 975  
City: Menlo Park  
State\_or\_Province: CA  
Postal\_Code: 94025  
Country: USA  
Contact\_Voice\_Telephone: 650-329-4935

Contact\_Facsimile\_Telephone: 650-329-4936

Contact\_Electronic\_Mail\_Address: kwheeler@usgs.gov

Metadata\_Standard\_Name: Content Standard for Digital Geospatial Metadata

Metadata\_Standard\_Version: FGDC-STD-001-1998