

### NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **Floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Elevation Tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Elevation Tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Elevation Tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **Floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 16. The horizontal datum was NAD83. CRS1803 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services  
 NOAA, NWS12  
 National Geodetic Survey  
 SSMC-3, #9202  
 1215 East-West Highway  
 Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3042, or visit its website at <http://www.ngs.noaa.gov/>.

**Base map** information shown on this FIRM was provided in digital format by the Metro Data Resource Center, 600 NE Grand Avenue, Portland, OR, 97232-2735; [info@metro.dst.or.us](mailto:info@metro.dst.or.us) (503) 737-4742.

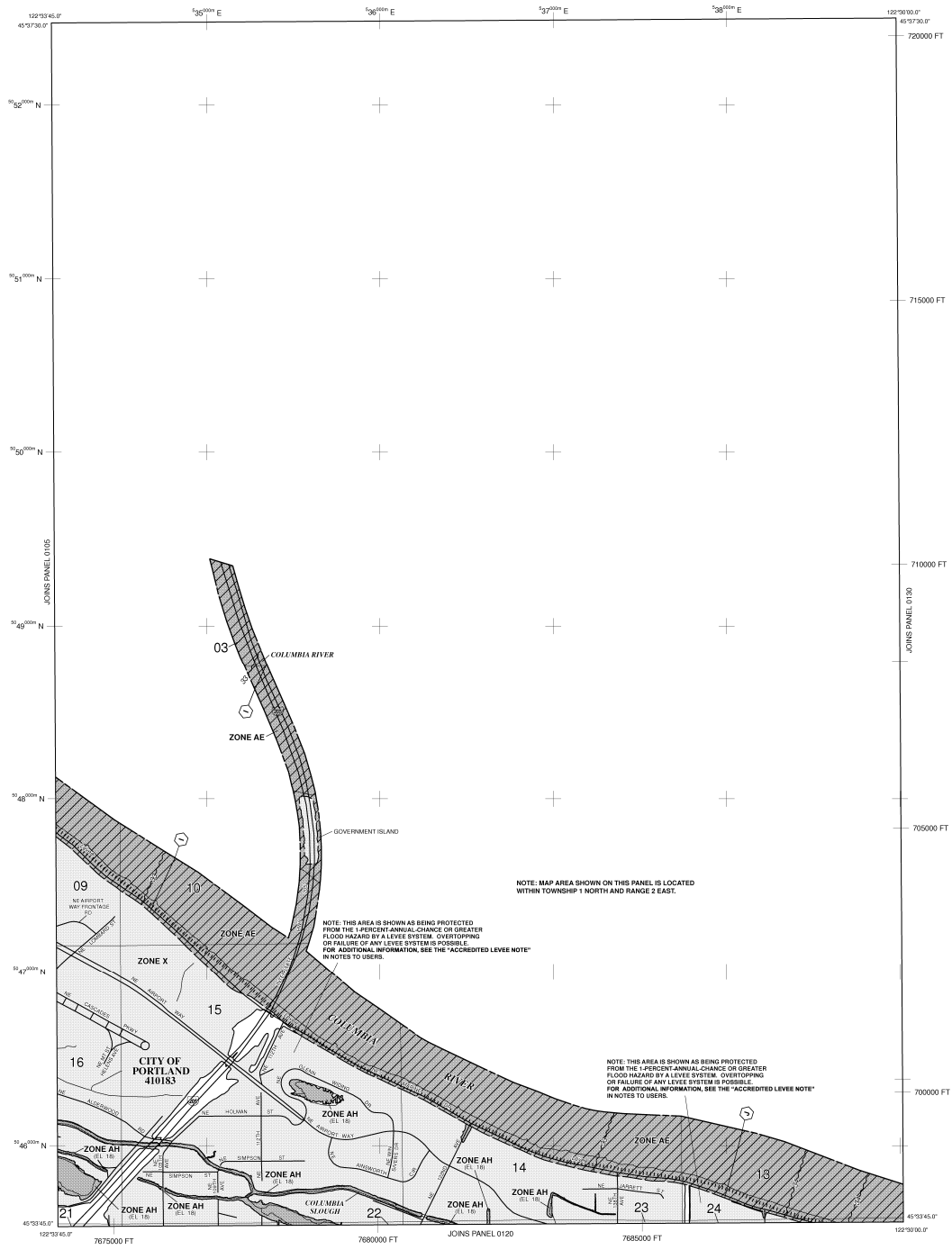
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or dis-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map showing the layout of map panels for this jurisdiction.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at <http://www.fema.gov/>.

**Accredited Levee Notes to Users:** Check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection for areas on this panel. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfp/index.shtm>.



### LEGEND

**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**  
 The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equal or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AD, AR, V, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

- ZONE A**  
No Base Flood Elevations determined.
- ZONE AE**  
Base Flood Elevations determined.
- ZONE AH**  
Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO**  
Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of actual fan flooding, velocities also determined.
- ZONE AR**  
Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently destroyed; Zone AR indicates that the former flood control system is being removed to provide protection from the 1% annual chance or greater flood.
- ZONE AV**  
Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V**  
Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE**  
Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**  
 The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**  
**ZONE X**  
 Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

**OTHER AREAS**  
**ZONE X**  
 Areas determined to be outside the 0.2% annual chance floodplain.  
**ZONE D**  
 Areas in which flood hazards are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**

**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.  
 — Floodplain boundary  
 — Floodway boundary  
 — Zone D boundary

————— CBRS and OPA boundary  
 Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

~~~~~ 613 ~~~~~ Base Flood Elevation line and value; elevation in feet<sup>1</sup>  
 (EL 987)  
 ——— Flood Elevation value where uniform within zone; elevation in feet

① ———— ① ———— Cross section line  
 ②-----②----- Transect line

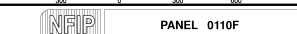
97°07', 32'23" West Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)  
 47°54'N 1000-meter Universal Transverse Mercator grid ticks; zone 16  
 600000 FT 5000-foot grid ticks; Oregon State Plane coordinate system, north zone (FIPSZONE 3661), Lambert Conformal Conic

DXK510 X Bench mark (see explanation in Notes to Users section of this FIRM panel)  
 M1.5 River Mile

**MAP REPOSITORY**  
 City of Portland, Bureau Of Environmental Services, 1201 SW 4th Avenue, Room 250, Portland, Oregon 97204 (Maps available for reference only, not for distribution)

**INITIAL NFP MAP DATE:** January 10, 1975  
**FLOOD HAZARD BOUNDARY MAP REVISIONS:** April 26, 1979  
**FLOOD INSURANCE RATE MAP EFFECTIVE DATE:** October 15, 1980  
**FLOOD INSURANCE RATE MAP REVISIONS:** October 19, 1982 January 3, 1986 November 7, 2001 October 19, 2004 November 29, 2010 (to add levee and flood events, to incorporate previously-hatched Letters of Map Revision, and to reflect updated geographic information)

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program at 1-800-368-6620.



**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0110F**

**FIRM FLOOD INSURANCE RATE MAP**

**CITY OF PORTLAND, OREGON**

**MULTNOMAH, CLACKAMAS AND WASHINGTON COUNTIES**

**PANEL 110 OF 250**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**  
 COMMUNITY NUMBER PANEL NUMBER  
 PORTLAND, CITY OF 41018 0110 F

**MAP NUMBER 4101830110F**

**MAP REVISED NOVEMBER 26, 2010**

**Federal Emergency Management Agency**