



# Oregon

Theodore R. Kulongoski, Governor

## Department of Land Conservation and Development

635 Capitol Street, Suite 150

Salem, OR 97301-2540

(503) 373-0050

Fax (503) 378-5518

www.lcd.state.or.us

### NOTICE OF ADOPTED AMENDMENT

June 20, 2008



TO: Subscribers to Notice of Adopted Plan  
or Land Use Regulation Amendments

FROM: Mara Ulloa, Plan Amendment Program Specialist

SUBJECT: City of Oregon City Plan Amendment  
DLCD File Number 002-08

The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. A copy of the adopted plan amendment is available for review at the DLCD office in Salem and the local government office. This amendment was submitted without a signed ordinance.

Appeal Procedures\*

### **DLCD ACKNOWLEDGMENT or DEADLINE TO APPEAL: July 8, 2008**

This amendment was submitted to DLCD for review 45 days prior to adoption. Pursuant to ORS 197.830 (2)(b) only persons who participated in the local government proceedings leading to adoption of the amendment are eligible to appeal this decision to the Land Use Board of Appeals (LUBA).

If you wish to appeal, you must file a notice of intent to appeal with the Land Use Board of Appeals (LUBA) no later than 21 days from the date the decision was mailed to you by the local government. If you have questions, check with the local government to determine the appeal deadline. Copies of the notice of intent to appeal must be served upon the local government and others who received written notice of the final decision from the local government. The notice of intent to appeal must be served and filed in the form and manner prescribed by LUBA, (OAR Chapter 661, Division 10). Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

**\*NOTE: THE APPEAL DEADLINE IS BASED UPON THE DATE THE DECISION WAS MAILED BY LOCAL GOVERNMENT. A DECISION MAY HAVE BEEN MAILED TO YOU ON A DIFFERENT DATE THAN IT WAS MAILED TO DLCD. AS A RESULT YOUR APPEAL DEADLINE MAY BE EARLIER THAN THE ABOVE DATE SPECIFIED.**

Cc: Gloria Gardiner, DLCD Urban Planning Specialist  
Jennifer Donnelly, DLCD Regional Representative  
Christine Shirley, FEMA Specialist  
Tony Konkol, City of Oregon City

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PROF 2

# DLCD

## Notice of Adoption

THIS FORM MUST BE MAILED TO DLCD  
WITHIN 5 WORKING DAYS AFTER THE FINAL DECISION  
PER ORS 197.610, OAR CHAPTER 660 - DIVISION 18



Jurisdiction: City of Oregon City Local file number: L 08-02  
 Date of Adoption: 6/4/08 Date Mailed: 6/17/08  
 Date original Notice of Proposed Amendment was mailed to DLCD: 4/2/08

- |   |   |
|---|---|
| <input type="checkbox"/> Comprehensive Plan Text Amendment        | <input type="checkbox"/> Comprehensive Plan Map Amendment |
| <input checked="" type="checkbox"/> Land Use Regulation Amendment | <input type="checkbox"/> Zoning Map Amendment             |
| <input type="checkbox"/> New Land Use Regulation                  | <input type="checkbox"/> Other: _____                     |

Summarize the adopted amendment. Do not use technical terms. Do not write "See Attached".

Amend Chapter 17.42 of the Oregon City Municipal Code to update the Flood Management Overlay District Standards and map to be in compliance with FEMA requirements.

Describe how the adopted amendment differs from the proposed amendment. If it is the same, write "SAME". If you did not give Notice for the Proposed Amendment, write "N/A".

SAME

Plan Map Changed from: NA to: NA

Zone Map Changed from: NA to: NA

Location: 100-year flood plain Acres Involved: \_\_\_\_\_

Specify Density: Previous: NA New: NA

Applicable Statewide Planning Goals: 1, 2, 5, 6, 7, 9, 10, 11, 15

Was and Exception Adopted?  YES  NO

DLCD File No.: 002-08 (16815)



Did the Department of Land Conservation and Development receive a Notice of Proposed Amendment.....

**Forty-five (45) days prior to first evidentiary hearing?**

Yes  No

If no, do the statewide planning goals apply?

Yes  No

If no, did Emergency Circumstances require immediate adoption?

Yes  No

Affected State or Federal Agencies, Local Governments or Special Districts:

FEMA

Local Contact: Tony Kunkel

Phone: (503) 496-1522 Extension: \_\_\_\_\_

Address: PO Box 3040

City: Oregon City

Zip Code + 4: 97045 -

Email Address: tkunkol@ci.oregon-city.or.us

## ADOPTION SUBMITTAL REQUIREMENTS

This form **must be mailed** to DLCD **within 5 working days after the final decision**  
per ORS 197.610, OAR Chapter 660 - Division 18.

1. Send this Form and TWO (2) Copies of the Adopted Amendment to:

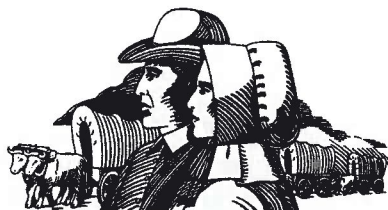
**ATTENTION: PLAN AMENDMENT SPECIALIST  
DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT  
635 CAPITOL STREET NE, SUITE 150  
SALEM, OREGON 97301-2540**

2. Submit **TWO (2) copies** the adopted material, if copies are bounded please submit **TWO (2) complete copies** of documents and maps.
3. Please Note: Adopted materials must be sent to DLCD not later than **FIVE (5) working days** following the date of the final decision on the amendment.
4. Submittal of this Notice of Adoption must include the text of the amendment plus adopted findings and supplementary information.
5. The deadline to appeal will not be extended if you submit this notice of adoption within five working days of the final decision. Appeals to LUBA may be filed within **TWENTY-ONE (21) days** of the date, the Notice of Adoption is sent to DLCD.
6. In addition to sending the Notice of Adoption to DLCD, you must notify persons who participated in the local hearing and requested notice of the final decision.
7. **Need More Copies?** You can copy this form on to 8-1/2x11 green paper only; or call the DLCD Office at (503) 373-0050; or Fax your request to:(503) 378-5518; or Email your request to **maru.ulloa@state.or.us** - ATTENTION: PLAN AMENDMENT SPECIALIST.

# CITY OF OREGON CITY

320 WARNER MILNE ROAD  
TEL 657-0891

OREGON CITY, OREGON 97045  
FAX 657-7892



## NOTICE OF DECISION

Date: June 17, 2008

**FILE NO.:** L 08-02

**APPLICATION TYPE:** Legislative

**APPLICANTS/  
OWNERS:** City of Oregon City  
PO Box 3040  
320 Warner-Milne Road  
Oregon City, Oregon 97045

**REQUEST:** Amend Chapter 17.42 – Flood Management Overlay District of the Oregon City Municipal Code and the Flood Overlay District Map in order to maintain compliance with National Flood Insurance Program and Federal Emergency Management Agency requirements.

**LOCATION:** City Wide.

**REVIEWER:** Tony Konkol, Senior Planner

**DECISION:** After reviewing all of the evidence in the record and considering all of the arguments made by the applicant and citizens, the City Commission concluded that adoption of the Flood Management Overlay District code and map amendments met all of the requirements of each applicable section of the Oregon City Municipal Code and Oregon City Comprehensive Plan and **APPROVED** Ordinance 08-1008.

Legislative actions involve the adoption or amendment of the city's land use regulations, comprehensive plan, maps, inventories and other policy documents that affect the entire city or large portions of it. Legislative actions which affect land use must begin with a public hearing before the planning commission.

### B. Planning Commission Review.

1. **Hearing Required.** The planning commission shall hold at least one public hearing before recommending action on a legislative proposal. Any interested person may appear and provide written or oral testimony on the proposal at or prior to the hearing. The planning manager shall notify the Oregon Department of Land Conservation and Development (DLCD) as required by the post-acknowledgment procedures of ORS 197.610 to 197.625, as applicable.
2. **Planning Manager's Report.** Once the planning commission hearing has been scheduled and noticed in accordance with Section 17.50.090(C) and any other applicable laws, the planning manager shall prepare and make available a report on the legislative proposal at least seven days prior to the hearing.
3. **Planning Commission Recommendation.** At the conclusion of the hearing, the planning commission shall adopt a recommendation on the proposal to the city commission. The planning commission shall make a report and recommendation to the city commission on all legislative proposals. If the planning commission recommends adoption of some form of the proposal, the planning commission shall prepare and forward to the city commission a report and recommendation to that effect.

### C. City Commission Review.


1. **City Commission Action.** Upon a recommendation from the planning commission on a legislative action, the city commission shall hold at least one public hearing on the proposal. Any interested person may provide written or oral testimony on the proposal at or prior to the hearing. At the conclusion of the hearing, the city commission may adopt, modify or reject the legislative proposal, or it may remand the matter to the planning commission for further consideration. If the decision is to adopt at least some form of the proposal, and thereby amend the city's land use regulations, comprehensive plan, official zoning maps or some component of any of these documents, the city commission decision shall be enacted as an ordinance.
2. **Notice of Final Decision.** Not later than five days following the city commission final decision, the planning manager shall mail notice of the decision to DLCD in accordance with ORS 197.615(2). (Ord. 98-1008 §1(part), 1998)

The city commission decision is the city's final decision and is appealable to the land use board of appeals (LUBA) within twenty-one days of when it becomes final. The application, decision, and supporting documents are available for inspection at the Oregon City Planning Division located at 320 Warner-Milne Road, Oregon City, OR 97045, (503) 657-0891, between the hours of 8am and 1pm. Copies of these documents are available (for a fee) upon request.



# COMMISSION REPORT: CITY OF OREGON CITY TO THE HONORABLE MAYOR AND COMMISSIONERS

320 Warner Milne Road, Oregon City, Oregon----503.657.0891

 <p style="text-align: center;">INCORPORATED 1844</p>	<b>Agenda Item No.</b>  6a	<b>Topic:</b> Ordinance No. 08-1008: Amending Chapter 17.42 – Flood Management Overlay District of the Oregon City Municipal Code and the Flood Overlay District Map and Declaring an Emergency (Planning File L 08-02).
	<b>Agenda Type:</b>  PUBLIC HEARING AND EMERGENCY ORDINANCE	
	<b>Meeting Date:</b> June 4, 2008	<b>Attachments:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Prepared By:</b> T. Konkol	<b>Reviewed By:</b> D. Drentlaw	<b>Approved By:</b> L. Patterson

## RECOMMENDATION:

Declaring an emergency and adopting Ordinance No. 08-1008: Amendments to Chapter 17.42 – Flood Management Overlay District of the Oregon City Municipal Code and the Flood Overlay District Map.

## REASON FOR RECOMMENDATION:

The proposed amendments to Chapter 17.42 and the overlay map are necessary to maintain compliance with National Flood Insurance Program and Federal Emergency Management Agency standards. The proposed changes will result in a 15% reduction in flood insurance rates for properties in the 100-year floodplain and a 5% reduction for properties outside the 100-year floodplain. There is an immediate need to enact the ordinance in order to avoid a flood insurance rate increase, which would take effect June 16<sup>th</sup>, 2008, and to implement the revised flood overlay map and development standards so as to protect public health, safety and welfare of the public.

## BACKGROUND:

The proposed amendments will be reviewed by the Planning Commission at the May 29<sup>th</sup>, 2008 hearing.

## BUDGET IMPACT:

FY(s): \_\_\_\_\_ Funding Source: \_\_\_\_\_

NA

## ATTACHMENTS:

1. Ordinance No. 08-1008: An ordinance amending Chapter 17.42 – Flood Management Overlay District of the Oregon City Municipal Code and the Flood Overlay District Map and declaring an emergency.  
Exhibit 1. Amended Chapter 17.42 – Flood Management Overlay District;  
Exhibit 2. Flood Management Overlay District Map;
2. Planning Commission Staff Report: L 08-02



**ORDINANCE NO. 08-1008**

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**AN ORDINANCE AMENDING CHAPTER 17.42 – FLOOD MANGEMENT OVERLAY DISTRICT OF THE OREGON CITY MUNICIPAL CODE AND THE FLOOD OVERLAY DISTRICT MAP AND DECLARING AN EMERGENCY.**

**WHEREAS**, the City of Oregon City participates in the National Flood Insurance Program, which is a federal program operated by the Federal Emergency Management Agency to make flood insurance available to everyone; and

**WHEREAS**, to participate, the City is required to meet minimum National Flood Insurance Program standards, which include adopting and enforcing flood plain zoning regulations consistent with the National Flood Insurance Program and Federal Emergency Management Agency requirements; and

**WHEREAS**, severe flooding has occurred on the Willamette River, Abernethy Creek and the Clackamas River that has impacted Oregon City and its surrounding areas with widespread, localized flooding that occurred due to the combined factors of rain, snowmelt, frozen ground and high tides; and

**WHEREAS**, in 1990, the National Flood Insurance Program introduced the Community Rating System, which assigned municipalities grades of 1 to 10, with the idea that if a City has taken steps to reduce the risk of flood damage in the community that goes beyond the National Flood Insurance Program's minimum requirements, that community's residents would pay less for flood insurance because of the reduced risk; and

**WHEREAS**, the proposed amendments to Chapter 17.42 and the overlay map are necessary to maintain compliance with National Flood Insurance Program and Federal Emergency Management Agency changes; and

**WHEREAS**, based on these changes, and what Oregon City has done to reduce the risk of flood damage, the National Flood Insurance Program has improved Oregon City's rating from a level 9, which is a 5% reduction in flood insurance rates, to a level 7, which is a 15% reduction in flood insurance rates for properties in the 100-year floodplain and a 5% reduction for properties outside the 100-year floodplain, and

**NOW, THEREFORE, OREGON CITY ORDAINS AS FOLLOWS:**

The recitals listed above are findings of the City Commission. The Commission further finds that:

- Section 1.** The amended Chapter 17.42 – Flood Management Overlay District of the Oregon City Municipal Code (exhibit 1) and updated Flood Management Overlay District map (exhibit 2) are hereby adopted based on the findings contained in the Legislative Staff Report L 08-02.
- Section 2.** There is an immediate need to enact the foregoing provisions to avoid a flood insurance rate increase, which would take effect June 16<sup>th</sup>, 2008, and to implement the revised flood overlay map and development standards so as to protect the public health, safety and welfare of the public. An emergency is

therefore declared. As such, this Ordinance shall take effect on the date of passage.

PASSED AND APPROVED this 4<sup>th</sup> day of June 2008.

\_\_\_\_\_  
ALICE NORRIS, Mayor

ATTESTED to this 4<sup>th</sup> day of June 2008

\_\_\_\_\_  
NANCY IDE  
City Recorder



# NOTICE

**NOTICE IS HEREBY GIVEN** for the first and second readings of **EMERGENCY ORDINANCE NO. 08-1008** of the City of Oregon City, Clackamas County, Oregon, three copies of which are available for inspection at the Office of the City Recorder, 320 Warner Milne Road, Oregon City, Oregon.

Said Ordinance will be considered by the City Commission at its meeting on June 4, 2008, at 7:00 p.m.

The title of said Ordinance is as follows:

**ORDINANCE NO. 08-1008: AN ORDINANCE AMENDING CHAPTER 17.42 – FLOOD MANGEMENT OVERLAY DISTRICT OF THE OREGON CITY MUNICIPAL CODE AND THE FLOOD OVERLAY DISTRICT MAP AND DECLARING AN EMERGENCY**

All interested persons are invited to attend and provide input.

**POSTED** this 28th day of May 2008, by direction of the City Recorder.

Places of posting are as follows:

1. City Hall, 320 Warner Milne Road, Oregon City, Oregon.
2. Pioneer Community Center, 615 Fifth Street, Oregon City, Oregon.
3. Oregon City Library, 362 Warner Milne Road, Oregon City, Oregon.

For special assistance due to disability, please call City Hall at 503-657-0891, 48 hours prior to meeting date.

**NANCY IDE**  
City Recorder  
City of Oregon City  
320 Warner Milne Road  
Oregon City, OR 97045

**PLEASE DO NOT REMOVE PRIOR TO JUNE 5, 2008**



## CHAPTER 17.42

### FLOOD MANAGEMENT OVERLAY DISTRICT

- 17.42.010 Purpose--Findings.
- 17.42.020 Definitions.
- 17.42.030 Applicability.
- 17.42.040 Basis for establishing the areas of special flood hazard.
- 17.42.050 Compliance.
- 17.42.060 Abrogation and greater restrictions.
- 17.42.070 Warning and disclaimer of liability.
- 17.42.080 Severability.
- 17.42.090 Administration.
- 17.42.100 Building official--Duties and responsibilities.
- 17.42.110 Use of other base flood data.
- 17.42.120 Information to be obtained and maintained.
- 17.42.130 Alteration of watercourses.
- 17.42.140 Map administration.
- 17.42.150 Appeals and variance procedure.
- 17.42.160 Conditions for variances.
- 17.42.170 Flood management area standards.
- 17.42.180 Review of building permits.
- 17.42.190 Subdivision standards.
- 17.42.200 Floodways.

#### **17.42.010 Purpose--Findings.**

A. There is established in the city a flood management overlay district. The flood management overlay district is an overlay zone classification defining areas subject to periodic flooding or inundation which can result in property harm or loss, disruption of public services, hazards for public health, or added expense for public services. All conditions and restrictions of land use established by this chapter of the City's zoning ordinance shall be in addition to such restrictions and conditions as may be imposed and established in underlying zoning districts.

B. It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

1. To protect human life and health;
2. To minimize expenditure of public money and costly flood control projects;
3. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
4. To minimize prolonged business interruptions;
5. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
6. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
7. To ensure that potential buyers are notified that property is in an area of special flood hazard; and
8. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.
9. To protect Flood Management Areas, which provide the following functions:
  - a. Protect life and property from dangers associated with flooding,
  - b. Flood storage, reduction of flood velocities, reduction of flood peak,
  - c. Flows and reduction of wind and wave impacts,
  - d. Maintain water quality by reducing and sorting sediment loads,
  - e. Processing chemical and organic wastes and reducing nutrients, recharge, store and discharge groundwater, and

f. Provide plant and animal habitat, and support riparian ecosystems. (Ord. 99-1013 §8 (part), 1999)

**17.42.020 Definitions.** Unless specifically defined below, words and phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

**"Appeal"** means a request for a review of the interpretation of any provision of this ordinance or a request for a variance.

**"Architect"** means an architect licensed by the State of Oregon.

**"Area of special flood hazard"** means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on FEMA maps always includes the letters A or V.

**"Bankfull stage"** means the stage or elevation at which water overflows the natural banks of streams or other waters of this state. The bankfull stage may be approximated by using either the two-year recurrence interval flood elevation or one foot measured vertically above the ordinary mean high water line.

**"Base flood"** means the flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the one-hundred-year flood. Designation on maps always includes the letters A or V.

**"Basement"** means any area of the building having its floor subgrade (below ground level) on all sides.

**"Design flood elevation"** means the elevation of the base flood or one-hundred-year storm as defined in FEMA (Federal Emergency Management Agency) flood insurance studies, or the highest flood of record since the adoption of the flood insurance maps, or, in areas without FEMA floodplains, the elevation of the twenty-five-year storm, or the edge of mapped flood-prone soils or similar methodologies whichever is higher.

**"Development"** means any man-made change to improved or unimproved real estate, including but not limited to buildings, or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.

**"Elevated building"** for insurance purposes means a nonbasement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

**"Emergency"** means any man-made or natural event or circumstance causing or threatening loss of life, injury to person or property, and includes, but is not limited to, fire, explosion, flood, severe weather, drought, earthquake, volcanic activity, spills or releases of oil or hazardous material, contamination, utility or transportation disruptions, and disease.

**"Engineer"** means a registered professional engineer licensed by the State of Oregon.

**"Engineering geologist"** means a registered professional engineering geologist licensed by the State of Oregon.

**"Enhancement"** means the process of improving upon the natural functions and/or values of an area or feature which has been degraded by human activity. Enhancement activities may or may not return the site to a pre-disturbance condition, but create/recreate processes and features that occur naturally.

**"Existing manufactured home park or subdivision"** means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the ordinance codified in this chapter.

**"Expansion to an existing manufactured home park or subdivision"** means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

**"Fill"** means any material such as, but not limited to, sand, gravel, soil, rock or gravel that is placed for the purposes of development or redevelopment.



**"Flood" or "flooding"** means a general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland or tidal waters; and/or
2. The unusual and rapid accumulation of runoff of surface waters from any source.

**"Flood insurance rate map" or "FIRM"** means the official map or maps on which the Federal Insurance Administration has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

**"Flood insurance study"** means the official report provided by the Federal Insurance Administration that includes flood profiles, the flood boundary-floodway map, and the water surface elevation of the base flood.

**"Flood management areas"** means all lands contained within the one-hundred-year floodplain, flood area and floodway as shown on the Federal Emergency Management Agency flood insurance rate maps, floodway maps and the area of inundation for the February 1996 flood.

**"Floodplain"** means the land area identified and designated by the United States Army Corps of Engineers, the Oregon Division of State Lands, FEMA, or City of Oregon City that has been or may be covered temporarily by water as a result of a storm event of identified frequency. It is usually the flat area of land adjacent to a stream or river formed by floods.

**"Floodway"** means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

**"Floodway fringe"** means the area of the floodplain, lying outside the floodway, which does not contribute appreciably to the passage of floodwater, but serves as a retention area.

**"Local Floodplain Administrator"** means the City's Building Official.

**"Lowest floor"** means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this title found at Section 17.42.170(E)(4) or (5).

**"Manufactured home"** means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

**"Manufactured home park or subdivision"** means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

**"Metro"** means the regional government of the Portland metropolitan area and the elected Metro Council as the policy-setting body of the government.

**"Natural location"** means the location of those channels, swales, and other non-manmade conveyance systems as defined by the first documented topographic contours existing for the subject property either from maps or photographs, or such other means as appropriate.

**"New construction"** means structure for which the "start of construction" commenced on or after the effective date of the ordinance codified in this title.

**"New manufactured home park or subdivision"** means a manufactured home park subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the ordinance codified in this chapter.

**"Ordinary mean high water line"** means, as defined in OAR 141-82-005, the line on the bank or shore to which water ordinarily rises in season; synonymous with mean high water (ORS 274.005).

**"Ordinary mean low water line"** means, as defined in OAR 141-82-005, the line on the bank or shore to which water ordinarily recedes in season; synonymous with mean low water (ORS 274.005).

**"Owner or property owner"** means the person who is the legal record owner of the land, or where there is a recorded land sale contract, the purchaser thereunder.

**"Parcel"** means a single unit of land that is created by a partitioning of land. (ORS 92.010(7)).

**"Practicable"** means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose.

**"Recreational vehicle"** means a vehicle which is:

1. Built on a single chassis;



2. Four hundred square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light duty truck; and
4. Designed primarily as temporary quarters for recreational, camping, travel or seasonal use and not for use as a permanent dwelling.

**"Start of construction"** is meant to include substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within one hundred eighty days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or shed not occupied as dwelling units or not a part of the main structure.

**"Stormwater pre-treatment facility"** means any structure or drainage way that is designed, constructed, and maintained to collect and filter, retain, or detain surface water run-off during and after a storm event for the purpose of water quality improvement.

**"Stream"** means a body of running water moving over the earth's surface in a channel or bed, such as a creek, rivulet or river. It flows at least part of the year, including perennial and intermittent streams. Streams are dynamic in nature and their structure is maintained through build-up and loss of sediment.

**"Structure"** means a walled and roofed building including a gas or liquid storage tank that is principally above ground.

**"Substantial damage"** means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the assessed value of the structure before the damage occurred.

**"Substantial improvement"** means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure either:

1. Before the improvement or repair is started; or
2. If the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term does not, however, include either:

- a. Any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which has been identified by the local code enforcement official and that is the minimum necessary to assure safe living conditions; or
- b. Any alteration of a locally designated historic structure or a property located on the National Register of Historic Places, provided that the alteration will not preclude the structure's continued designation as a historic structure.

**"Utility facilities"** means buildings, structures or any constructed portion of a system which provides for the production, transmission, conveyance, delivery or furnishing of services including, but not limited to, heat, light, water, power, natural gas, sanitary sewer, stormwater, telephone and cable television. Utility facilities do not include stormwater pretreatment facilities.

**"Variance"** means a grant of relief from the requirements of this chapter which permit construction in a manner that would otherwise be prohibited by this title.

**"Water dependent"** means a structure for commerce or industry which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.

**"Watercourse"** means a channel in which a flow of water occurs, either continuously or intermittently, and if the latter, with some degree of regularity. Such flow must be in a definite direction.

**"Watershed"** means a geographic unit defined by the flows of rainwater or snowmelt. All land in a watershed drains to a common outlet, such as a stream, lake or wetland.

**"Wetlands"** means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support and, under normal circumstances, do support a

prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands are those areas identified and delineated by a qualified wetland specialist as set forth in the 1987 Corps of Engineers Wetland Delineation Manual. (Ord. 99-1013 §8 (part), 1999)

#### **17.42.030 Applicability.**

A. This chapter shall apply to development in the flood management overlay district, which may also be referred to as the "floodplain overlay district" in this code. The flood management overlay district includes all areas of special flood hazards and all flood management areas within the city. The overlay district restricts the uses that are allowed in the base zone by right, with limitations, or as provisional uses.

B. The flood management areas which have been mapped include the following locations:

1. Land contained within the one-hundred-year floodplain, flood area and floodway as shown on the Federal Emergency Management Agency flood insurance maps dated June 17, 2008, including areas of special flood hazard pursuant to Section 17.42.040 and the area of inundation for the February 1996 flood; and

2. Lands that have physical or documented evidence of flooding within recorded history based on aerial photographs of the 1996 flooding and/or the water quality and flood management areas maps.

C. The standards that apply to the flood management areas apply in addition to state or federal restrictions governing floodplains or flood management areas. (Ord. 99-1013 §8 (part), 1999)

**17.42.040 Basis for establishing the areas of special flood hazard.** The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Clackamas County, Oregon and Incorporated Areas," dated June 17, 2008, with accompanying flood insurance maps is adopted by reference and declared to be a part of this chapter. The flood insurance study is on file at the office of the city recorder in the City Hall. §8 (part), 1999).

**17.42.050 Compliance.** No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of these floodplain regulations and other applicable regulations. (Ord. 99-1013 §8 (part), 1999). Violations of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a civil infraction. Any person who violates this ordinance or fails to comply with any of its requirements shall be subject to the enforcement procedures of this code per OCMC 1.20 Civil Infractions and 1.24 Code Enforcement. Nothing herein contained shall prevent the City from taking such other lawful action as is necessary to prevent or remedy.

**17.42.060 Abrogation and Interpretation.** This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. All provisions shall be considered as minimum requirements and liberally construed in favor of the governing body. Where this chapter and another section, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restriction shall prevail. (Ord. 99-1013 §8 (part), 1999)

**17.42.070 Warning and disclaimer of liability.** The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flooding damages. This chapter shall not create liability on the part of the City, any officer or employee thereof, or the Federal Insurance Administration for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder. (Ord. 99-1013 §8 (part), 1999)



**17.42.080 Severability.** The provisions of this chapter are severable. If any section, clause or phrase of this chapter is adjudged to be invalid by a court of competent jurisdiction, the decision of that court shall not affect the validity of the remaining portions of this chapter. (Ord. 99-1013 §8 (part), 1999)

**17.42.090 Administration.** This chapter establishes a flood management overlay district, which is delineated on the water quality and flood management areas map attached and incorporated by reference as a part of this document.

A. The following maps and studies are adopted and declared to be a part of this chapter. These maps are on file in the office of the city recorder:

1. The Water Quality and Flood Management Areas Map, dated June 7, 1999;
2. The Federal Insurance Administration, Flood Insurance Rate Maps for Clackamas County, Oregon and Incorporated Areas dated June 17, 2008;
3. The Federal Insurance Administration (FIA) "Flood Insurance Rate Maps for Clackamas County, Oregon and Incorporated Areas," dated June 17, 2008;

B. Applicants are required to provide the City with a delineation of the flood management areas on the subject property as part of any application. An application shall not be complete until this delineation is submitted to the City.

C. The City shall review the water quality and flood management areas maps during periodic review as required by ORS 197.633 (1997).

D. Development Permit.

1. A development permit shall be obtained before construction or development begins within any portion of the flood management overlay district. The permit shall be for all structures, including manufactured homes and all other development, including fill and other activities, as set forth in Section 17.42.020 (Definitions).

2. Application for a development permit shall be made on forms furnished by the Community Development Department. Requirements may include, but are not limited to: plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage materials, drainage facilities; and the location of the foregoing.

3. The following information is specifically required:

- a. Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;
- b. Elevation in relation to mean sea level to which any structure has been floodproofed;
- c. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the flood proofing criteria in Section 17.42.170(E)(5); and
- d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development. (Ord. 99-1013 §8 (part), 1999)

**17.42.100 Building official -- Duties and responsibilities.**

A. The City building official, defined as the Local Floodplain Administrator, is appointed to administer and implement this title by granting or denying development permit applications in accordance with its provisions.

B. Duties of the building official shall include, but not be limited to those listed in this chapter.

C. The building official shall:

1. Review all development permits to determine that the permit requirements of this title have been satisfied;
2. Review all development permits to determine that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required; and



3. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Section 17.42.200 are met. (Ord. 99-1013 §8 (part), 1999)

**17.42.110 Use of other base flood data.** When base flood elevation data has not been provided in accordance with Section 17.42.040, the building official shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer Sections 17.42.170 and 17.42.200. (Ord. 99-1013 §8 (part), 1999)

**17.42.120 Information to be obtained and maintained.** The building official shall:

A. Where base flood elevation data is provided through the Flood Insurance Study, FIRM or required as in Section 17.42.110, obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

B. For all new or substantially improved floodproofed structures where base flood elevation data is provided through the Flood Insurance Study, FIRM, or as required in Section 17.42.090:

1. Verify and record the actual elevation (in relation to mean sea level); and
2. Maintain the floodproofing certifications required in Section 17.42.090(C)(3);
3. Maintain for public inspection all records pertinent to the provisions of this

chapter. (Ord. 99-1013 §8 (part), 1999)

**17.42.130 Alteration of watercourses.**

A. Notify adjacent communities and the Department of Land Conservation and Development prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

B. Require that maintenance is provided within the altered or relocated portion of the watercourse so that the flood-carrying capacity is not diminished. (Ord. 99-1013 §8 (part), 1999)

**17.42.140 Map administration.**

A. The purpose of this section is to provide a process for interpreting and amending the water quality and flood management areas map to clarify and correct the location of flood management overlay district.

B. Interpretation of Map Boundaries. The building official shall make interpretations, where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 17.42.150.

C. Map corrections shall be processed pursuant to the requirements of Chapter 17.68:

1. Within ninety days of receiving information establishing a possible error in the existence or location of the flood management overlay district, the City shall provide notice to interested parties of a public hearing at which the City will review the information.

2. The City shall amend the water quality and flood management areas map if the information demonstrates that the boundaries of the flood management overlay district have changed since adoption of the water quality and flood management areas map by Metro (June 18, 1998) provided that, in the case of a boundary established by FEMA, a Letter of Map Amendment (LOMA) or Letter of Map Revision is obtained from FEMA prior to any map change. (Ord. 99-1013 §8 (part), 1999)

**17.42.150 Appeals and variance procedure.**

A. The purpose of this section is to ensure that compliance with this chapter does not cause unreasonable hardship. To avoid such instances, the requirements of this chapter may be varied. Variances are also allowed when strict application of this chapter would deprive an owner of all economically viable use of land.

B. This section applies to requests to vary from the standards of this chapter only. Requests to vary from other standards of this title shall be subject to the requirements of Chapter 17.60.

1. Variance applications made pursuant to this section shall follow the variance procedures outlined in Chapter 17.50.

2. In addition to the public notice requirements outlined in Section 17.50.090, Metro shall be notified within fourteen days of the City receiving an application to vary the requirements of this section and within fourteen days of a decision on the variance.

3. The requirements of Section 17.60.020 (Variances-Grounds) do not apply to requests to vary from the standards of Chapter 17.42.

4. If an application to vary from the standards of Chapter 17.42 is made in conjunction with an application to vary from other standards of this title, the variances may be processed as one application, provided the standards applicable to each variance requested must be met before the requested variance may be granted.

C. Hardship Variance. Variances to avoid unreasonable hardship caused by the strict application of this chapter are permitted subject to the criteria set forth in this section. To vary from the requirements of this chapter, the applicant must demonstrate the following:

1. The variance is the minimum necessary to allow the proposed use or activity;

2. The variance will not increase danger to life and property due to flooding or erosion;

3. The impact of the increase in flood hazard which will result from the variance will not prevent the City from meeting the requirements of this chapter. In support of this criteria the applicant shall have a qualified professional engineer document the expected height, velocity and duration of floodwaters, and estimate the rate of increase in sediment transport of the floodwaters expected both downstream and upstream as a result of the variance;

4. The variance will not increase the cost of providing and maintaining public services during and after flood conditions so as to unduly burden public agencies and taxpayers; and

5. The proposed use complies with the standards of the base zone.

D. The Planning Commission shall hear and decide appeals and requests for variances when it is alleged there is an error in any requirement, decision or determination made by the building official in the enforcement or administration of these regulations, or that enforcement of this district would result in exceptional hardship. In passing upon such applications, the Planning Commission shall consider all technical evaluations, all relevant factors, standards specified in other sections of this title, and:

1. The danger that materials may be swept onto other lands to the injury of others;

2. The danger to life and property due to flooding or erosion damage;

3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

4. The importance of the services provided by the proposed facility to the community;

5. The necessity to the facility of a waterfront location, where applicable;

6. The availability of alternative locations for the proposed use, which are not subject to flooding or erosion damage;

7. The compatibility of the proposed use with existing and anticipated development;

8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

9. The safety of access to the property in times of flood for ordinary and emergency vehicles;

10. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and



11. The cost of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

E. Upon consideration of the factors listed in subsection (D) of this section and the purposes of this district, the Planning Commission may attach such conditions to the granting of variances as it deems necessary to meet the purposes of this district.

F. The city recorder shall maintain the records of all appeal actions and the building official shall report any granted variances to the Federal Insurance Administration upon request. (Ord. 99-1013 §8 (part), 1999).

**17.42.160 Conditions for variances.** The Planning Commission, pursuant to Chapter 17.60, may impose such conditions as are deemed necessary to limit any adverse impacts that may result from granting relief. If a variance is granted pursuant to Section 17.42.150, the variance shall be subject to the conditions set out in this section. In addition to other standards listed in Section 17.42.170, the following conditions must be met:

A. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register or identified as a locally designated historic structure and without regard to the procedures set forth in the remainder of this chapter.

B. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

D. Variances shall only be issued upon a showing of good and sufficient cause.

E. A determination that failure to grant the variance would result in exceptional hardship to the applicant.

F. Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.

G. Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry-floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria as set forth in this chapter.

H. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest flood elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. (Ord. 99-1013 §8 (part), 1999)

**17.42.170 Flood management area standards.**

A. Uses Permitted Outright:

1. Excavation and fill required to plant any new trees or vegetation.

2. Restoration or enhancement of floodplains, riparian areas, wetland, upland and streams that meet federal and state standards provided that any restoration project which encroaches on the floodway complies with the requirements of Section 17.42.200 (Floodways).

B. Provisional Uses.

1. All uses allowed in the base zone or existing flood hazard overlay zone are allowed in the Flood Management Overlay District subject to compliance with the Development Standards of this section.

C. Prohibited Uses.

1. Any use prohibited in the base zone;
2. Uncontained areas of hazardous materials as defined by the Department of Environmental Quality.

D. Site Development Standards. All development in the floodplain shall conform to the following balanced cut and fill standards:

1. This subsection does not apply to work necessary to protect, repair, maintain or replace existing structures, utility facilities, roadways, driveways, accessory uses and exterior improvements in response to emergencies provided that, after the emergency has passed, adverse impacts are mitigated in accordance with applicable standards.
2. No net fill in any floodplain is allowed. All fill placed in a floodplain shall be balanced with at least an equal amount of soil material removed. For the purposes of calculating net fill, fill shall include any structure below the design flood elevation that has been floodproofed pursuant to subsection (E)(5) of this section.
3. Any excavation below bankfull stage shall not count toward compensating for fill.
4. Excavation to balance a fill shall be located on the same parcel as the fill unless it is not practicable to do so. In such cases, the excavation shall be located in the same Oregon City floodplain, so long as the proposed excavation and fill will not increase flood impacts for surrounding properties as determined through hydrologic and hydraulic analysis.
5. For excavated areas identified by the City to remain dry in the summer, such as parks or mowed areas, the lowest elevation of the excavated area shall be at least six inches above the winter "low water" elevation, and sloped at a minimum of two percent towards the protected water feature pursuant to Chapter 17.49. One percent slopes will be allowed in smaller areas.
6. For excavated areas identified by the City to remain wet in the summer, such as a constructed wetland, the grade shall be designed not to drain into the protected water feature pursuant to Chapter 17.49.
7. Parking areas in the floodplain shall be accompanied by signs that inform the public that the parking area is located in a flood management area and that care should be taken when the potential for flooding exists.
8. Temporary fills permitted during construction shall be removed at the end of construction, thirty days after subdivision acceptance or completion of the final inspection.
9. New culverts, stream crossings and transportation projects shall be designed as balanced cut and fill projects or designed not to significantly raise the design flood elevation. Such projects shall be designed to minimize the area of fill in flood management areas and to minimize erosive velocities. Stream crossings shall be as close to perpendicular to the stream as practicable. Bridges shall be used instead of culverts wherever practicable.
10. Excavation and fill required for the construction of detention facilities or structures, and other facilities, such as levees, specifically shall be designed to reduce or mitigate flood impacts and improve water quality. Levees shall not be used to create vacant buildable lands.

E. Construction Standards

1. Anchoring.
  - a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
  - b. All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movements and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebooks for additional techniques).
2. Construction Materials and Methods.
  - a. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
  - b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.



c. Electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

3. Utilities.

a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters.

c. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

4. Residential Construction.

a. New construction and substantial improvements of any residential structure shall have the lowest floor, including basement, elevated to at least one foot above the design flood elevation.

b. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited unless they are designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

i. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.

ii. The bottom of all openings shall be no higher than one foot above grade.

iii. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

5. Nonresidential Construction.

a. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to at least one foot above base flood elevation; or, together with attendant utility and sanitary facilities, shall:

i. Be floodproofed so that below the design flood level the structure is watertight with walls substantially impermeable to the passage of water provided that the requirements of subsection (D)(2) of this section are met;

ii. Have structured components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

iii. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in Section 17.42.120(B);

iv. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in subsection (E)(4)(b) of this section; and

v. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building constructed to the design flood level will be rated as one foot below that level).

6. Manufactured Homes. The following standards apply to all manufactured homes to be placed or substantially improved on sites within zone AE on the community's FIRM.

a. On sites which are (1) outside of a manufactured home park or subdivision, (2) in a new manufactured home park or subdivision, (3) in an expansion to an existing manufactured home park or subdivision, or (4) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood; the manufactured home shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot above the base flood elevation and be securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.

b. On sites within an existing manufactured home park or subdivision that are not subject to the above manufactured home provisions, the manufactured home shall be elevated so that either:

i. The lowest floor of the manufactured home is elevated one foot above the base flood elevation, or

ii. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six inches in height above grade and be securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.

F. Recreational Vehicles. Recreational vehicles placed on sites within Zones A1-30, AH and AE as shown on the flood insurance rate map shall:

1. Be on site for fewer than one hundred eighty consecutive days, and be fully licensed and ready for highway use, on its wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or

2. Meet the requirements of subsection (E)(6) of this section and the elevation and anchoring requirements for manufactured homes. (Ord. 99-1013 §8 (part), 1999)

**17.42.180 Review of building permits.** Where elevation data is not available either through the Flood Insurance Study, FIRM or from another authoritative source (Section 17.42.110), application for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness shall be made by the building official, considering use of historical data, high water marks, photographs of past floodings, etc., where available, and the provisions of this title. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates. (Ord. 99-1013 §8 (part), 1999)

#### **17.42.190 Subdivision standards.**

##### **A. Subdivision Proposals.**

1. All subdivision proposals shall be consistent with the need to minimize flood damage.

2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

4. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least fifty lots or five acres (whichever is less).

5. All structures and site grading developed or conducted in conjunction with a subdivision proposal shall comply with Section 17.42.170, Flood management area standards.

B. The purpose of this section is to allow density accruing to portions of a property within the flood management overlay district to be transferred outside the overlay district.

1. Development applications shall comply with the submittal requirements of Chapter 17.64, Planned Unit Development, if the applicant wishes to transfer density.



2. Density transfers shall be allowed if the applicant demonstrates compliance with the following standards:

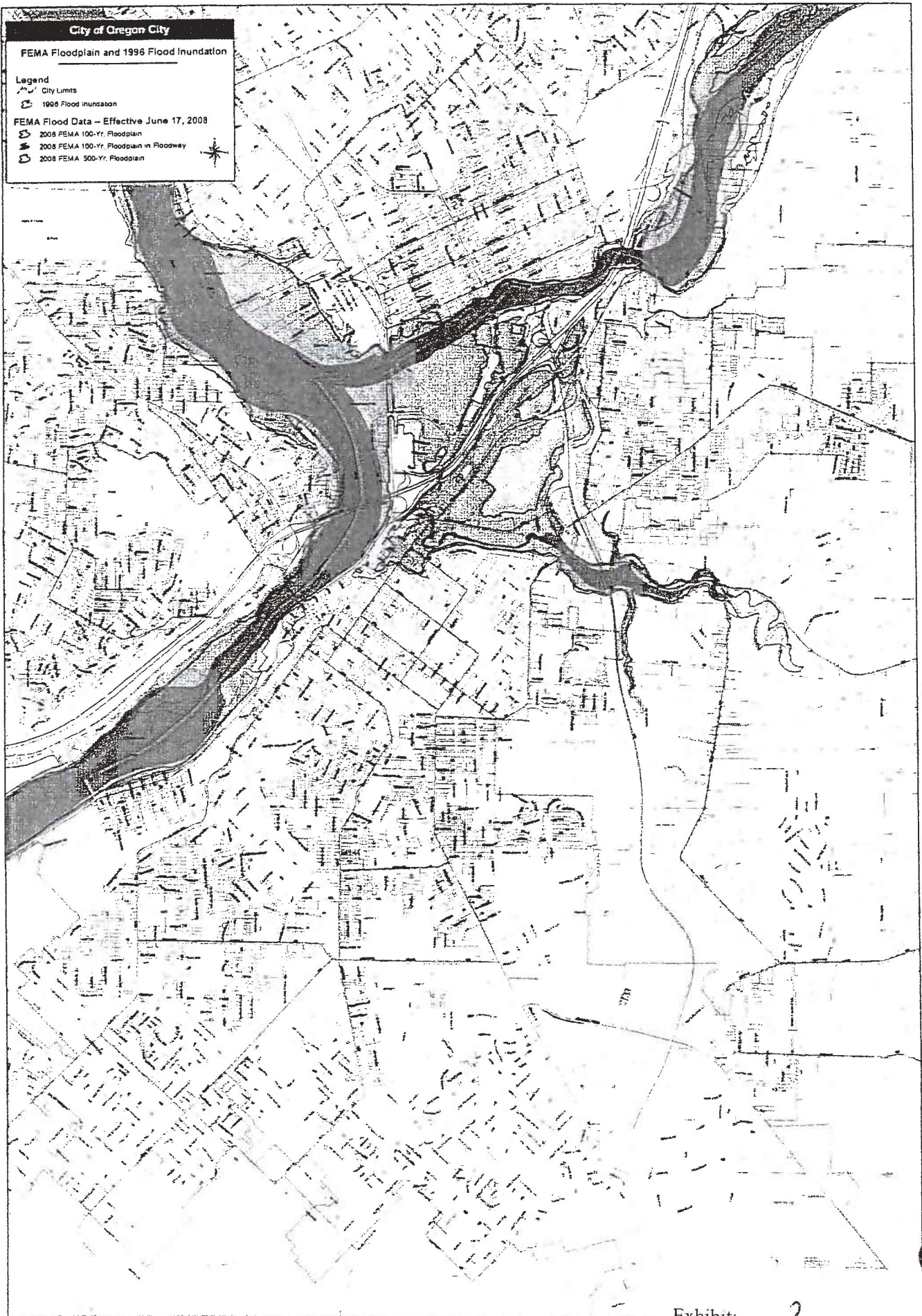
- a. The density transfer is proposed as part of a planned unit development and meets the requirements of Section 17.64.050.
- b. Minimum density standards will not increase due to the density transfers.
- c. The area of land contained in a flood management area may be excluded from the calculations for determining compliance with minimum density requirements of the zoning code. (Ord. 99-1013 §8 (part), 1999)

**17.42.200 Floodways.** Located within areas of special flood hazard established in Section 17.42.040 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following provisions apply:

A. Encroachments, including fill, new construction, substantial improvements and other development shall be prohibited unless certification by a registered professional engineer or architect is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

B. If subsection (A) of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood management area standards of Sections 17.42.170 through 17.42.200. (Ord. 99-1013 §8 (part), 1999)

C. Below-grade crawlspace construction is allowed in the floodplain in accordance with the Oregon Residential Specialty Code and the Oregon State Structural Specialty Code as adopted by local building code.



**City of Oregon City**  
**FEMA Floodplain and 1996 Flood Inundation**

**Legend**  
 City Limits  
 1996 Flood Inundation  
**FEMA Flood Data – Effective June 17, 2008**  
 2008 FEMA 100-Yr. Floodplain  
 2008 FEMA 100-Yr. Floodplain in Roadway  
 2008 FEMA 500-Yr. Floodplain

Date: 02/27/08  
 Map: 056-102-01-FEMA\_Floodplain-422114.mxd  
 Proj: 2006-10-11-01-EWA\_Floodplain-422114.dwg



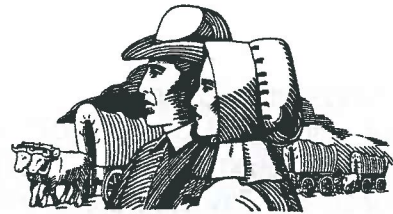
The City of Oregon City  
 Department of Public Works

Exhibit: 2  
 Attachment: 1



# CITY OF OREGON CITY

## PLANNING COMMISSION



320 WARNER MILNE ROAD  
TEL 657-0891

OREGON CITY, OREGON 97045  
FAX 657-7892

**FILE NO.:** Legislative File: L 08-02

**HEARING DATE:** May 29, 2008 - 7:00 p.m., City Hall  
320 Warner Milne Road  
Oregon City, OR 97045

**APPLICANTS/  
OWNERS:** Nancy Kraushaar – Public Works Director / City Engineer  
320 Warner Milne Road  
Oregon City, Oregon 97045

**REQUEST:** Amend Chapter 17.42 the Oregon City Municipal Code to update the Flood Management Overlay District standards and associated map for compliance with FEMA requirements.

**LOCATION:** City of Oregon City floodplain.

**REVIEWER:** Tony Konkol, Senior Planner

**RECOMMENDATION:** Staff recommends approval of this application based on the satisfaction of all required criteria for a Legislative action.

Legislative actions involve the adoption or amendment of the city's land use regulations, comprehensive plan, maps, inventories and other policy documents that affect the entire city or large portions of it. Legislative actions which affect land use must begin with a public hearing before the planning commission.

#### B. Planning Commission Review.

1. Hearing Required. The planning commission shall hold at least one public hearing before recommending action on a legislative proposal. Any interested person may appear and provide written or oral testimony on the proposal at or prior to the hearing. The planning manager shall notify the Oregon Department of Land Conservation and Development (DLCD) as required by the post-acknowledgment procedures of ORS 197.610 to 197.625, as applicable.
2. Planning Manager's Report. Once the planning commission hearing has been scheduled and noticed in accordance with Section 17.50.090(C) and any other applicable laws, the planning manager shall prepare and make available a report on the legislative proposal at least seven days prior to the hearing.
3. Planning Commission Recommendation. At the conclusion of the hearing, the planning commission shall adopt a recommendation on the proposal to the city commission. The planning commission shall make a report and recommendation to the city commission on all legislative proposals. If the planning commission recommends adoption of some form of the proposal, the planning commission shall prepare and forward to the city commission a report and recommendation to that effect.

#### C. City Commission Review.

1. City Commission Action. Upon a recommendation from the planning commission on a legislative action, the city commission shall hold at least one public hearing on the proposal. Any interested person may provide written or oral testimony on the proposal at or prior to the hearing. At the conclusion of the hearing, the city commission may adopt, modify or reject the legislative proposal, or it may remand the matter to the planning commission for further consideration. If the decision is to adopt at least some form of the proposal, and thereby amend the city's land use regulations, comprehensive plan, official zoning maps or some component of any of these documents, the city commission decision shall be enacted as an ordinance.
2. Notice of Final Decision. Not later than five days following the city commission final decision, the planning manager shall mail notice of the decision to DLCD in accordance with ORS 197.615(2). (Ord. 98-1008 §1(part), 1998)

IF YOU HAVE ANY QUESTIONS ABOUT THIS APPLICATION, PLEASE CONTACT TONY KONKOL IN THE PLANNING DIVISION OFFICE AT 657-0891.

## **I. PROPOSED PROJECT**

The proposal is to amend Chapter 17.42 – Flood Management Overlay District of the Oregon City Municipal Code. The amendments will include text changes to the existing code language and adoption of a revised Flood Overlay District. The City of Oregon City participates in the National Flood Insurance Program (NFIP), which is a federal program operated by the Federal Emergency Management Agency (FEMA) to make flood insurance available to everyone. To participate, the City is required to meet minimum NFIP standards, which include adopting and enforcing flood plain zoning regulations consistent with the NFIP and FEMA requirements.

Since 1861, severe flooding has occurred on the Willamette River in 1890, 1924, 1943, 1948, 1956, 1964 and 1996. Major floods on the Clackamas River were recorded in 1923, 1931, 1960, 1964 and 1996. In 1996, Oregon City and its surrounding areas were hit with widespread, localized flooding. The flooding occurred due to the combined factors of rain, snowmelt, frozen ground and high tides. Low lying areas along the Willamette River, Clackamas River and Abernethy Creek flooded.

In 1990, the NFIP introduced its Community Rating System (CRS) assigning municipalities grades of 1 to 10 (with 1 being the best). The idea is that if a city has taken steps to reduce the risk of flood damage in the community that goes beyond the NFIP's minimum requirements, that community's residents would pay less for flood insurance because of the reduced risk.

The proposed amendments to Chapter 17.42 are necessary to maintain compliance with NFIP and FEMA changes and continue or improved NFIP rating. Based on these changes, and what Oregon City has done to reduce the risk of flood damage, the NFIP has improved Oregon City's rating from a level 9, which is a 5% reduction in flood insurance rates, to a level 7, which is a 15% reduction in flood insurance rates for properties in the 100-year floodplain and a 5% reduction for properties outside the 100-year floodplain.

The proposed amendments to the Chapter 17.42 of the Oregon City Municipal code will impact four sections of the chapter (Exhibit 1). The changes are summarized below:

Section 17.42.020 – Definitions (Page 4 of Exhibit 1).

This section will include one new definition identifying the "Local Floodplain Administrator" as the Building Official and the "Substantial improvement" definition has been expanded to address alterations to properties on the National Register of Historic Places.

Section 17.42.050 – Compliance (Page 5 of Exhibit 1).

This section will include addition language indicating that failure to comply with the standards of the chapter shall constitute a civil infraction and is subject to the enforcement procedures of the Oregon City Municipal Code.

Section 17.42.160 – Conditions for Variances (Page 9 of Exhibit 1).

Condition A is amended to include the allowance of variances for properties listed on the National Register or identified as a locally designated historic structure. Conditions D through H are new, and include a requirement that sufficient cause must be shown, denial of the variance would cause an exceptional hardship, they pertain to the property rather than economic or financial hardships, a lesser degree of flood proofing may be allowed for non-residential properties provided there is a low damage potential and that the recipient of a variance will be given a written notice that the cost of flood insurance will commensurate with the increased risk resulting from the reduced floor elevation.

Section 17.42.200 – Floodways (Page 13 of Exhibit 1).

This section will include a new provision that will allow below-grade crawlspaces in the floodplain, provided they are in conformance with the Oregon Residential Specialty Code and the Oregon State Structural Specialty Code.

In addition to the amendments to Chapter 17.42, this action will update the Flood Management Overlay District to include the updated FEMA map (effective June 17, 2008) for the area (Exhibit 2). The new overlay zone is a



combination of the 1996 floodplain inundation line and FEMA's 100-year floodplain. The revised floodplain overlay will include 14 additional tax lots, of which, 12 are located in Canemah and 2 are located at the Redland Road / Holcomb Boulevard intersection. The addition of the tax lots are not a result of the base flood elevation (BFE) increasing, the BFE will remain at 50.7 feet. The additional tax lots are a result of more accurate information and improved data and mapping techniques performed by FEMA during the map modernization process. The following properties have been added to the overlay:

Tax Lot	Address	Tax Lot	Address
2-1E-36DD-300	No address – located at the NE corner of the intersection of Miller Street and 1 <sup>st</sup> Avenue	2-1E-36DD-1000	103 Apperson Street
2-1E-36DD-400	106 Miller Street	2-1E-36DD-1200	104 Apperson Street
2-1E-36DD-500	510 1 <sup>st</sup> Avenue	2-1E-36DD-1300	21041 Hwy. 99E
2-1E-36DD-600	516 1 <sup>st</sup> Avenue	2-1E-36DD-1400	21041 Hwy. 99E
2-1E-36DD-700	602 1 <sup>st</sup> Avenue	2-1E-36DD-1400	Union Pacific RR
2-1E-36DD-800	608 1 <sup>st</sup> Avenue	2-2E-29DA-2201	13655 Holcomb Boulevard
2-1E-36DD-900	610 1 <sup>st</sup> Avenue	2-2E-29DB-400	13665 Holcomb Boulevard

For clarification, two properties, identified as 2-2E-33A, tax lots 2900 and 3001, have been removed from the floodplain. The properties are located outside of the City limits of Oregon City and are under the jurisdiction of Clackamas County, thus they have not been discussed or identified in this staff report.

## II. FACTS

### A. Public Comment

Notice of the Planning Commission and City Commission public hearings for the proposal were published in the Clackamas Review, mailed to the affected agencies, and all property owners within 300 feet of the new floodplain overlay district. No comments were received.

## III. DECISION-MAKING CRITERIA:

### Chapter 17.68 – Zoning Changes and Amendments

#### 17.68.020 – Criteria

*A. The proposal shall be consistent with the goals and policies of the comprehensive plan.*

Section 7 – Natural Hazards of the Oregon City Comprehensive Plan includes a section titled “Flooding” (page 50) that discusses the flood history in Oregon City, the dangers and actions taken to minimize damage to citizens and property within the floodplain.

*Policy 7.1.1 – Limit loss of life and damage to property from natural hazards by regulating or prohibiting development in areas of know or potential hazards.*

*Policy 7.1.3 – Reduce risk to residents and businesses by maintaining accurate information on the existence and potential of hazards.*

*Policy 7.1.5 – Minimize the risk of loss of life and damage to property from flooding by limiting development in the 100-year floodplain and by ensuring that accepted methods of flood proofing are used.*

*Policy 7.1.6 – Encourage the use of land and design of structures that are relatively unaffected by the periodic effect of flooding, such as parking and other use not normally occupied by humans.*

*Policy 7.1.7 – Prohibit uses in areas subject to flooding that would exacerbate or contribute to hazards posed by flooding by introducing hazardous materials, filling or obstructing floodways, modifying drainage channels and other detrimental actions.*

The proposed amendments to the existing Flood Management Overlay District expand on the regulations that implement the policies of the Oregon City Comprehensive Plan. The proposed text amendments further clarify when a variance is acceptable and strength the enforcement options available to the City to ensure that development in the floodplain is consistent with the regulations and will not increase hazards to the subject site or other properties within the floodplain.

The revised overlay district adds 14 additional properties, which was created using the most update, accurate information available to FEMA during this process, and will reduce the risk of loss of life and damage to property by identifying these properties and requiring that the regulations of Chapter 17.42 be applicable when development occurs. The proposed amendments and updated flood overlay district complies with this standard.

*B. That public facilities and services (water, sewer, storm drainage, transportation, schools, police and fire protection) are presently capable of supporting the uses allowed by the zone, or can be made available prior to issuing a certificate of occupancy. Service shall be sufficient to support the range of uses and development allowed by the zone.*

This standard is not applicable to this application. Updating Chapter 17.42 and the overlay district will not impact the level of service of the existing public facilities and services.

*C. The land uses authorized by the proposal are consistent with the existing or planned function, capacity and level of service of the transportation system serving the proposed zoning district.*

This standard is not applicable. The proposed amendments to Chapter 17.42 and the overlay district will not change the land uses authorized in the underlying zone and will not change the level of service of the transportation system.

*D. Statewide planning goals shall be addressed if the comprehensive plan does not contain specific policies or provisions which control the amendment. (Ord. 91-1007 §1 (part), 1991; prior code §11-12-2)*

The Oregon City Comprehensive Plan was adopted in June of 2004 and is consistent with the Statewide Planning Goals.

#### **IV. RECOMMENDATION**

Staff recommends that the Planning Commission recommend approval of the amendments to Chapter 17.42 of the Oregon City Municipal Code and the updated Flood Management Overlay District map to the City Commission for their consideration at the June 4, 2008 public hearing.

#### **V. EXHIBITS**

1. Amendments to the Chapter 17.42 – Flood Management Overlay District (Highlighted in blue);
2. Revised Floodplain Overlay District;
3. Department of Land Conservation and Development Adoption of Flood Plain Management Ordinance (3/25/08) and the Federal Emergency Management Policy;
4. *Be Flood Ready* article from the Winter 2007 – 2008 Trail News; and
5. Map of properties added to the Floodplain Overlay District.



## CHAPTER 17.42

### FLOOD MANAGEMENT OVERLAY DISTRICT

- 17.42.010 Purpose--Findings.
- 17.42.020 Definitions.
- 17.42.030 Applicability.
- 17.42.040 Basis for establishing the areas of special flood hazard.
- 17.42.050 Compliance.
- 17.42.060 Abrogation and greater restrictions.
- 17.42.070 Warning and disclaimer of liability.
- 17.42.080 Severability.
- 17.42.090 Administration.
- 17.42.100 Building official--Duties and responsibilities.
- 17.42.110 Use of other base flood data.
- 17.42.120 Information to be obtained and maintained.
- 17.42.130 Alteration of watercourses.
- 17.42.140 Map administration.
- 17.42.150 Appeals and variance procedure.
- 17.42.160 Conditions for variances.
- 17.42.170 Flood management area standards.
- 17.42.180 Review of building permits.
- 17.42.190 Subdivision standards.
- 17.42.200 Floodways.

#### **17.42.010 Purpose--Findings.**

A. There is established in the city a flood management overlay district. The flood management overlay district is an overlay zone classification defining areas subject to periodic flooding or inundation which can result in property harm or loss, disruption of public services, hazards for public health, or added expense for public services. All conditions and restrictions of land use established by this chapter of the City's zoning ordinance shall be in addition to such restrictions and conditions as may be imposed and established in underlying zoning districts.

B. It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

1. To protect human life and health;
2. To minimize expenditure of public money and costly flood control projects;
3. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
4. To minimize prolonged business interruptions;
5. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
6. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
7. To ensure that potential buyers are notified that property is in an area of special flood hazard; and
8. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.
9. To protect Flood Management Areas, which provide the following functions:
  - a. Protect life and property from dangers associated with flooding,
  - b. Flood storage, reduction of flood velocities, reduction of flood peak,
  - c. Flows and reduction of wind and wave impacts,
  - d. Maintain water quality by reducing and sorting sediment loads,
  - e. Processing chemical and organic wastes and reducing nutrients, recharge, store and discharge groundwater, and

- f. Provide plant and animal habitat, and support riparian ecosystems. (Ord. 99-1013 §8 (part), 1999)

**17.42.020 Definitions.** Unless specifically defined below, words and phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

**"Appeal"** means a request for a review of the interpretation of any provision of this ordinance or a request for a variance.

**"Architect"** means an architect licensed by the State of Oregon.

**"Area of special flood hazard"** means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on FEMA maps always includes the letters A or V.

**"Bankfull stage"** means the stage or elevation at which water overflows the natural banks of streams or other waters of this state. The bankfull stage may be approximated by using either the two-year recurrence interval flood elevation or one foot measured vertically above the ordinary mean high water line.

**"Base flood"** means the flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the one-hundred-year flood. Designation on maps always includes the letters A or V.

**"Basement"** means any area of the building having its floor subgrade (below ground level) on all sides.

**"Design flood elevation"** means the elevation of the base flood or one-hundred-year storm as defined in FEMA (Federal Emergency Management Agency) flood insurance studies, or the highest flood of record since the adoption of the flood insurance maps, or, in areas without FEMA floodplains, the elevation of the twenty-five-year storm, or the edge of mapped flood-prone soils or similar methodologies whichever is higher.

**"Development"** means any man-made change to improved or unimproved real estate, including but not limited to buildings, or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.

**"Elevated building"** for insurance purposes means a nonbasement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

**"Emergency"** means any man-made or natural event or circumstance causing or threatening loss of life, injury to person or property, and includes, but is not limited to, fire, explosion, flood, severe weather, drought, earthquake, volcanic activity, spills or releases of oil or hazardous material, contamination, utility or transportation disruptions, and disease.

**"Engineer"** means a registered professional engineer licensed by the State of Oregon.

**"Engineering geologist"** means a registered professional engineering geologist licensed by the State of Oregon.

**"Enhancement"** means the process of improving upon the natural functions and/or values of an area or feature which has been degraded by human activity. Enhancement activities may or may not return the site to a pre-disturbance condition, but create/recreate processes and features that occur naturally.

**"Existing manufactured home park or subdivision"** means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the ordinance codified in this chapter.

**"Expansion to an existing manufactured home park or subdivision"** means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

**"Fill"** means any material such as, but not limited to, sand, gravel, soil, rock or gravel that is placed for the purposes of development or redevelopment.



**"Flood" or "flooding"** means a general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland or tidal waters; and/or
2. The unusual and rapid accumulation of runoff of surface waters from any source.

**"Flood insurance rate map" or "FIRM"** means the official map or maps on which the Federal Insurance Administration has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

**"Flood insurance study"** means the official report provided by the Federal Insurance Administration that includes flood profiles, the flood boundary-floodway map, and the water surface elevation of the base flood.

**"Flood management areas"** means all lands contained within the one-hundred-year floodplain, flood area and floodway as shown on the Federal Emergency Management Agency flood insurance rate maps, floodway maps and the area of inundation for the February 1996 flood.

**"Floodplain"** means the land area identified and designated by the United States Army Corps of Engineers, the Oregon Division of State Lands, FEMA, or City of Oregon City that has been or may be covered temporarily by water as a result of a storm event of identified frequency. It is usually the flat area of land adjacent to a stream or river formed by floods.

**"Floodway"** means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

**"Floodway fringe"** means the area of the floodplain, lying outside the floodway, which does not contribute appreciably to the passage of floodwater, but serves as a retention area.

**"Local Floodplain Administrator"** means the City's Building Official.

**"Lowest floor"** means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this title found at Section 17.42.170(E)(4) or (5).

**"Manufactured home"** means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

**"Manufactured home park or subdivision"** means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

**"Metro"** means the regional government of the Portland metropolitan area and the elected Metro Council as the policy-setting body of the government.

**"Natural location"** means the location of those channels, swales, and other non-manmade conveyance systems as defined by the first documented topographic contours existing for the subject property either from maps or photographs, or such other means as appropriate.

**"New construction"** means structure for which the "start of construction" commenced on or after the effective date of the ordinance codified in this title.

**"New manufactured home park or subdivision"** means a manufactured home park subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the ordinance codified in this chapter.

**"Ordinary mean high water line"** means, as defined in OAR 141-82-005, the line on the bank or shore to which water ordinarily rises in season; synonymous with mean high water (ORS 274.005).

**"Ordinary mean low water line"** means, as defined in OAR 141-82-005, the line on the bank or shore to which water ordinarily recedes in season; synonymous with mean low water (ORS 274.005).

**"Owner or property owner"** means the person who is the legal record owner of the land, or where there is a recorded land sale contract, the purchaser thereunder.

**"Parcel"** means a single unit of land that is created by a partitioning of land. (ORS 92.010(7)).

**"Practicable"** means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose.

**"Recreational vehicle"** means a vehicle which is:

1. Built on a single chassis;



2. Four hundred square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light duty truck; and
4. Designed primarily as temporary quarters for recreational, camping, travel or seasonal use and not for use as a permanent dwelling.

**"Start of construction"** is meant to include substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within one hundred eighty days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or shed not occupied as dwelling units or not a part of the main structure.

**"Stormwater pre-treatment facility"** means any structure or drainage way that is designed, constructed, and maintained to collect and filter, retain, or detain surface water run-off during and after a storm event for the purpose of water quality improvement.

**"Stream"** means a body of running water moving over the earth's surface in a channel or bed, such as a creek, rivulet or river. It flows at least part of the year, including perennial and intermittent streams. Streams are dynamic in nature and their structure is maintained through build-up and loss of sediment.

**"Structure"** means a walled and roofed building including a gas or liquid storage tank that is principally above ground.

**"Substantial damage"** means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the assessed value of the structure before the damage occurred.

**"Substantial improvement"** means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure either:

1. Before the improvement or repair is started; or
2. If the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term does not, however, include either:

- a. Any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which has been identified by the local code enforcement official and that is the minimum necessary to assure safe living conditions; or
- b. Any alteration of a locally designated historic structure or a property located on the National Register of Historic Places, provided that the alteration will not preclude the structure's continued designation as a historic structure.

**"Utility facilities"** means buildings, structures or any constructed portion of a system which provides for the production, transmission, conveyance, delivery or furnishing of services including, but not limited to, heat, light, water, power, natural gas, sanitary sewer, stormwater, telephone and cable television. Utility facilities do not include stormwater pretreatment facilities.

**"Variance"** means a grant of relief from the requirements of this chapter which permit construction in a manner that would otherwise be prohibited by this title.

**"Water dependent"** means a structure for commerce or industry which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.

**"Watercourse"** means a channel in which a flow of water occurs, either continuously or intermittently, and if the latter, with some degree of regularity. Such flow must be in a definite direction.

**"Watershed"** means a geographic unit defined by the flows of rainwater or snowmelt. All land in a watershed drains to a common outlet, such as a stream, lake or wetland.

**"Wetlands"** means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support and, under normal circumstances, do support a



prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands are those areas identified and delineated by a qualified wetland specialist as set forth in the 1987 Corps of Engineers Wetland Delineation Manual. (Ord. 99-1013 §8 (part), 1999)

#### **17.42.030 Applicability.**

A. This chapter shall apply to development in the flood management overlay district, which may also be referred to as the "floodplain overlay district" in this code. The flood management overlay district includes all areas of special flood hazards and all flood management areas within the city. The overlay district restricts the uses that are allowed in the base zone by right, with limitations, or as provisional uses.

B. The flood management areas which have been mapped include the following locations:

1. Land contained within the one-hundred-year floodplain, flood area and floodway as shown on the Federal Emergency Management Agency flood insurance maps dated June 17, 2008, including areas of special flood hazard pursuant to Section 17.42.040 and the area of inundation for the February 1996 flood; and

2. Lands that have physical or documented evidence of flooding within recorded history based on aerial photographs of the 1996 flooding and/or the water quality and flood management areas maps.

C. The standards that apply to the flood management areas apply in addition to state or federal restrictions governing floodplains or flood management areas. (Ord. 99-1013 §8 (part), 1999)

**17.42.040 Basis for establishing the areas of special flood hazard.** The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Clackamas County, Oregon and Incorporated Areas," dated June 17, 2008, with accompanying flood insurance maps is adopted by reference and declared to be a part of this chapter. The flood insurance study is on file at the office of the city recorder in the City Hall. §8 (part), 1999).

**17.42.050 Compliance.** No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of these floodplain regulations and other applicable regulations. (Ord. 99-1013 §8 (part), 1999). Violations of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a civil infraction. Any person who violates this ordinance or fails to comply with any of its requirements shall be subject to the enforcement procedures of this code per OCMC 1.20 Civil Infractions and 1.24 Code Enforcement. Nothing herein contained shall prevent the City from taking such other lawful action as is necessary to prevent or remedy.

**17.42.060 Abrogation and Interpretation.** This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. All provisions shall be considered as minimum requirements and liberally construed in favor of the governing body. Where this chapter and another section, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restriction shall prevail. (Ord. 99-1013 §8 (part), 1999)

**17.42.070 Warning and disclaimer of liability.** The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flooding damages. This chapter shall not create liability on the part of the City, any officer or employee thereof, or the Federal Insurance Administration for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder. (Ord. 99-1013 §8 (part), 1999)

**17.42.080 Severability.** The provisions of this chapter are severable. If any section, clause or phrase of this chapter is adjudged to be invalid by a court of competent jurisdiction, the decision of that court shall not affect the validity of the remaining portions of this chapter. (Ord. 99-1013 §8 (part), 1999)

**17.42.090 Administration.** This chapter establishes a flood management overlay district, which is delineated on the water quality and flood management areas map attached and incorporated by reference as a part of this document.

A. The following maps and studies are adopted and declared to be a part of this chapter. These maps are on file in the office of the city recorder:

1. The Water Quality and Flood Management Areas Map, dated June 7, 1999;
2. The Federal Insurance Administration, Flood Insurance Rate Maps for Clackamas County, Oregon and Incorporated Areas dated June 17, 2008;
3. The Federal Insurance Administration (FIA) "Flood Insurance Rate Maps for Clackamas County, Oregon and Incorporated Areas," dated June 17, 2008;

B. Applicants are required to provide the City with a delineation of the flood management areas on the subject property as part of any application. An application shall not be complete until this delineation is submitted to the City.

C. The City shall review the water quality and flood management areas maps during periodic review as required by ORS 197.633 (1997).

D. Development Permit.

1. A development permit shall be obtained before construction or development begins within any portion of the flood management overlay district. The permit shall be for all structures, including manufactured homes and all other development, including fill and other activities, as set forth in Section 17.42.020 (Definitions).

2. Application for a development permit shall be made on forms furnished by the Community Development Department. Requirements may include, but are not limited to: plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage materials, drainage facilities; and the location of the foregoing.

3. The following information is specifically required:

- a. Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;
- b. Elevation in relation to mean sea level to which any structure has been floodproofed;
- c. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the flood proofing criteria in Section 17.42.170(E)(5); and
- d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development. (Ord. 99-1013 §8 (part), 1999)

**17.42.100 Building official – Duties and responsibilities.**

A. The City building official, defined as the Local Floodplain Administrator, is appointed to administer and implement this title by granting or denying development permit applications in accordance with its provisions.

B. Duties of the building official shall include, but not be limited to those listed in this chapter.

C. The building official shall:

1. Review all development permits to determine that the permit requirements of this title have been satisfied;
2. Review all development permits to determine that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required; and



3. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Section 17.42.200 are met. (Ord. 99-1013 §8 (part), 1999)

**17.42.110 Use of other base flood data.** When base flood elevation data has not been provided in accordance with Section 17.42.040, the building official shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer Sections 17.42.170 and 17.42.200. (Ord. 99-1013 §8 (part), 1999)

**17.42.120 Information to be obtained and maintained.** The building official shall:

A. Where base flood elevation data is provided through the Flood Insurance Study, FIRM or required as in Section 17.42.110, obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

B. For all new or substantially improved floodproofed structures where base flood elevation data is provided through the Flood Insurance Study, FIRM, or as required in Section 17.42.090:

1. Verify and record the actual elevation (in relation to mean sea level); and
2. Maintain the floodproofing certifications required in Section 17.42.090(C)(3);
3. Maintain for public inspection all records pertinent to the provisions of this

chapter. (Ord. 99-1013 §8 (part), 1999)

**17.42.130 Alteration of watercourses.**

A. Notify adjacent communities and the Department of Land Conservation and Development prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

B. Require that maintenance is provided within the altered or relocated portion of the watercourse so that the flood-carrying capacity is not diminished. (Ord. 99-1013 §8 (part), 1999)

**17.42.140 Map administration.**

A. The purpose of this section is to provide a process for interpreting and amending the water quality and flood management areas map to clarify and correct the location of flood management overlay district.

B. Interpretation of Map Boundaries. The building official shall make interpretations, where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 17.42.150.

C. Map corrections shall be processed pursuant to the requirements of Chapter 17.68:

1. Within ninety days of receiving information establishing a possible error in the existence or location of the flood management overlay district, the City shall provide notice to interested parties of a public hearing at which the City will review the information.

2. The City shall amend the water quality and flood management areas map if the information demonstrates that the boundaries of the flood management overlay district have changed since adoption of the water quality and flood management areas map by Metro (June 18, 1998) provided that, in the case of a boundary established by FEMA, a Letter of Map Amendment (LOMA) or Letter of Map Revision is obtained from FEMA prior to any map change. (Ord. 99-1013 §8 (part), 1999)

**17.42.150 Appeals and variance procedure.**

A. The purpose of this section is to ensure that compliance with this chapter does not cause unreasonable hardship. To avoid such instances, the requirements of this chapter may be varied. Variances are also allowed when strict application of this chapter would deprive an owner of all economically viable use of land.

B. This section applies to requests to vary from the standards of this chapter only. Requests to vary from other standards of this title shall be subject to the requirements of Chapter 17.60.

1. Variance applications made pursuant to this section shall follow the variance procedures outlined in Chapter 17.50.

2. In addition to the public notice requirements outlined in Section 17.50.090, Metro shall be notified within fourteen days of the City receiving an application to vary the requirements of this section and within fourteen days of a decision on the variance.

3. The requirements of Section 17.60.020 (Variances-Grounds) do not apply to requests to vary from the standards of Chapter 17.42.

4. If an application to vary from the standards of Chapter 17.42 is made in conjunction with an application to vary from other standards of this title, the variances may be processed as one application, provided the standards applicable to each variance requested must be met before the requested variance may be granted.

C. Hardship Variance. Variances to avoid unreasonable hardship caused by the strict application of this chapter are permitted subject to the criteria set forth in this section. To vary from the requirements of this chapter, the applicant must demonstrate the following:

1. The variance is the minimum necessary to allow the proposed use or activity;

2. The variance will not increase danger to life and property due to flooding or erosion;

3. The impact of the increase in flood hazard which will result from the variance will not prevent the City from meeting the requirements of this chapter. In support of this criteria the applicant shall have a qualified professional engineer document the expected height, velocity and duration of floodwaters, and estimate the rate of increase in sediment transport of the floodwaters expected both downstream and upstream as a result of the variance;

4. The variance will not increase the cost of providing and maintaining public services during and after flood conditions so as to unduly burden public agencies and taxpayers; and

5. The proposed use complies with the standards of the base zone.

D. The Planning Commission shall hear and decide appeals and requests for variances when it is alleged there is an error in any requirement, decision or determination made by the building official in the enforcement or administration of these regulations, or that enforcement of this district would result in exceptional hardship. In passing upon such applications, the Planning Commission shall consider all technical evaluations, all relevant factors, standards specified in other sections of this title, and:

1. The danger that materials may be swept onto other lands to the injury of others;

2. The danger to life and property due to flooding or erosion damage;

3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

4. The importance of the services provided by the proposed facility to the community;

5. The necessity to the facility of a waterfront location, where applicable;

6. The availability of alternative locations for the proposed use, which are not subject to flooding or erosion damage;

7. The compatibility of the proposed use with existing and anticipated development;

8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

9. The safety of access to the property in times of flood for ordinary and emergency vehicles;

10. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and



11. The cost of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

E. Upon consideration of the factors listed in subsection (D) of this section and the purposes of this district, the Planning Commission may attach such conditions to the granting of variances as it deems necessary to meet the purposes of this district.

F. The city recorder shall maintain the records of all appeal actions and the building official shall report any granted variances to the Federal Insurance Administration upon request. (Ord. 99-1013 §8 (part), 1999).

**17.42.160 Conditions for variances.** The Planning Commission, pursuant to Chapter 17.60, may impose such conditions as are deemed necessary to limit any adverse impacts that may result from granting relief. If a variance is granted pursuant to Section 17.42.150, the variance shall be subject to the conditions set out in this section. In addition to other standards listed in Section 17.42.170, the following conditions must be met:

A. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register or identified as a locally designated historic structure and without regard to the procedures set forth in the remainder of this chapter.

B. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

D. Variances shall only be issued upon a showing of good and sufficient cause.

E. A determination that failure to grant the variance would result in exceptional hardship to the applicant.

F. Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece or property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.

G. Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry-floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria as set forth in this chapter.

H. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest flood elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. (Ord. 99-1013 §8 (part), 1999)

**17.42.170 Flood management area standards.**

A. Uses Permitted Outright:

1. Excavation and fill required to plant any new trees or vegetation.

2. Restoration or enhancement of floodplains, riparian areas, wetland, upland and streams that meet federal and state standards provided that any restoration project which encroaches on the floodway complies with the requirements of Section 17.42.200 (Floodways).

B. Provisional Uses.

1. All uses allowed in the base zone or existing flood hazard overlay zone are allowed in the Flood Management Overlay District subject to compliance with the Development Standards of this section.

C. Prohibited Uses.

1. Any use prohibited in the base zone;
2. Uncontained areas of hazardous materials as defined by the Department of Environmental Quality.

D. Site Development Standards. All development in the floodplain shall conform to the following balanced cut and fill standards:

1. This subsection does not apply to work necessary to protect, repair, maintain or replace existing structures, utility facilities, roadways, driveways, accessory uses and exterior improvements in response to emergencies provided that, after the emergency has passed, adverse impacts are mitigated in accordance with applicable standards.
2. No net fill in any floodplain is allowed. All fill placed in a floodplain shall be balanced with at least an equal amount of soil material removed. For the purposes of calculating net fill, fill shall include any structure below the design flood elevation that has been floodproofed pursuant to subsection (E)(5) of this section.
3. Any excavation below bankfull stage shall not count toward compensating for fill.
4. Excavation to balance a fill shall be located on the same parcel as the fill unless it is not practicable to do so. In such cases, the excavation shall be located in the same Oregon City floodplain, so long as the proposed excavation and fill will not increase flood impacts for surrounding properties as determined through hydrologic and hydraulic analysis.
5. For excavated areas identified by the City to remain dry in the summer, such as parks or mowed areas, the lowest elevation of the excavated area shall be at least six inches above the winter "low water" elevation, and sloped at a minimum of two percent towards the protected water feature pursuant to Chapter 17.49. One percent slopes will be allowed in smaller areas.
6. For excavated areas identified by the City to remain wet in the summer, such as a constructed wetland, the grade shall be designed not to drain into the protected water feature pursuant to Chapter 17.49.
7. Parking areas in the floodplain shall be accompanied by signs that inform the public that the parking area is located in a flood management area and that care should be taken when the potential for flooding exists.
8. Temporary fills permitted during construction shall be removed at the end of construction, thirty days after subdivision acceptance or completion of the final inspection.
9. New culverts, stream crossings and transportation projects shall be designed as balanced cut and fill projects or designed not to significantly raise the design flood elevation. Such projects shall be designed to minimize the area of fill in flood management areas and to minimize erosive velocities. Stream crossings shall be as close to perpendicular to the stream as practicable. Bridges shall be used instead of culverts wherever practicable.
10. Excavation and fill required for the construction of detention facilities or structures, and other facilities, such as levees, specifically shall be designed to reduce or mitigate flood impacts and improve water quality. Levees shall not be used to create vacant buildable lands.

E. Construction Standards

1. Anchoring.
  - a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
  - b. All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movements and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebooks for additional techniques).
2. Construction Materials and Methods.
  - a. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
  - b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.



c. Electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

3. Utilities.

a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters.

c. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

4. Residential Construction.

a. New construction and substantial improvements of any residential structure shall have the lowest floor, including basement, elevated to at least one foot above the design flood elevation.

b. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited unless they are designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

i. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.

ii. The bottom of all openings shall be no higher than one foot above grade.

iii. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

5. Nonresidential Construction.

a. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to at least one foot above base flood elevation; or, together with attendant utility and sanitary facilities, shall:

i. Be floodproofed so that below the design flood level the structure is watertight with walls substantially impermeable to the passage of water provided that the requirements of subsection (D)(2) of this section are met;

ii. Have structured components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

iii. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in Section 17.42.120(B);

iv. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in subsection (E)(4)(b) of this section; and

v. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building constructed to the design flood level will be rated as one foot below that level).

6. Manufactured Homes. The following standards apply to all manufactured homes to be placed or substantially improved on sites within zone AE on the community's FIRM.

a. On sites which are (1) outside of a manufactured home park or subdivision, (2) in a new manufactured home park or subdivision, (3) in an expansion to an existing manufactured home park or subdivision, or (4) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood; the manufactured home shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot above the base flood elevation and be securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.

b. On sites within an existing manufactured home park or subdivision that are not subject to the above manufactured home provisions, the manufactured home shall be elevated so that either:

i. The lowest floor of the manufactured home is elevated one foot above the base flood elevation, or

ii. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six inches in height above grade and be securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.

F. Recreational Vehicles. Recreational vehicles placed on sites within Zones A1-30, AH and AE as shown on the flood insurance rate map shall:

1. Be on site for fewer than one hundred eighty consecutive days, and be fully licensed and ready for highway use, on its wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or

2. Meet the requirements of subsection (E)(6) of this section and the elevation and anchoring requirements for manufactured homes. (Ord. 99-1013 §8 (part), 1999)

**17.42.180 Review of building permits.** Where elevation data is not available either through the Flood Insurance Study, FIRM or from another authoritative source (Section 17.42.110), application for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness shall be made by the building official, considering use of historical data, high water marks, photographs of past floodings, etc., where available, and the provisions of this title. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates. (Ord. 99-1013 §8 (part), 1999)

#### **17.42.190 Subdivision standards.**

A. Subdivision Proposals.

1. All subdivision proposals shall be consistent with the need to minimize flood damage.

2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

4. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least fifty lots or five acres (whichever is less).

5. All structures and site grading developed or conducted in conjunction with a subdivision proposal shall comply with Section 17.42.170, Flood management area standards.

B. The purpose of this section is to allow density accruing to portions of a property within the flood management overlay district to be transferred outside the overlay district.

1. Development applications shall comply with the submittal requirements of Chapter 17.64, Planned Unit Development, if the applicant wishes to transfer density.



2. Density transfers shall be allowed if the applicant demonstrates compliance with the following standards:

- a. The density transfer is proposed as part of a planned unit development and meets the requirements of Section 17.64.050.
- b. Minimum density standards will not increase due to the density transfers.
- c. The area of land contained in a flood management area may be excluded from the calculations for determining compliance with minimum density requirements of the zoning code. (Ord. 99-1013 §8 (part), 1999)

**17.42.200 Floodways.** Located within areas of special flood hazard established in Section 17.42.040 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following provisions apply:

A. Encroachments, including fill, new construction, substantial improvements and other development shall be prohibited unless certification by a registered professional engineer or architect is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.




B. If subsection (A) of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood management area standards of Sections 17.42.170 through 17.42.200. (Ord. 99-1013 §8 (part), 1999)

C. Below-grade crawlspace construction is allowed in the floodplain in accordance with the Oregon Residential Specialty Code and the Oregon State Structural Specialty Code as adopted by local building code.

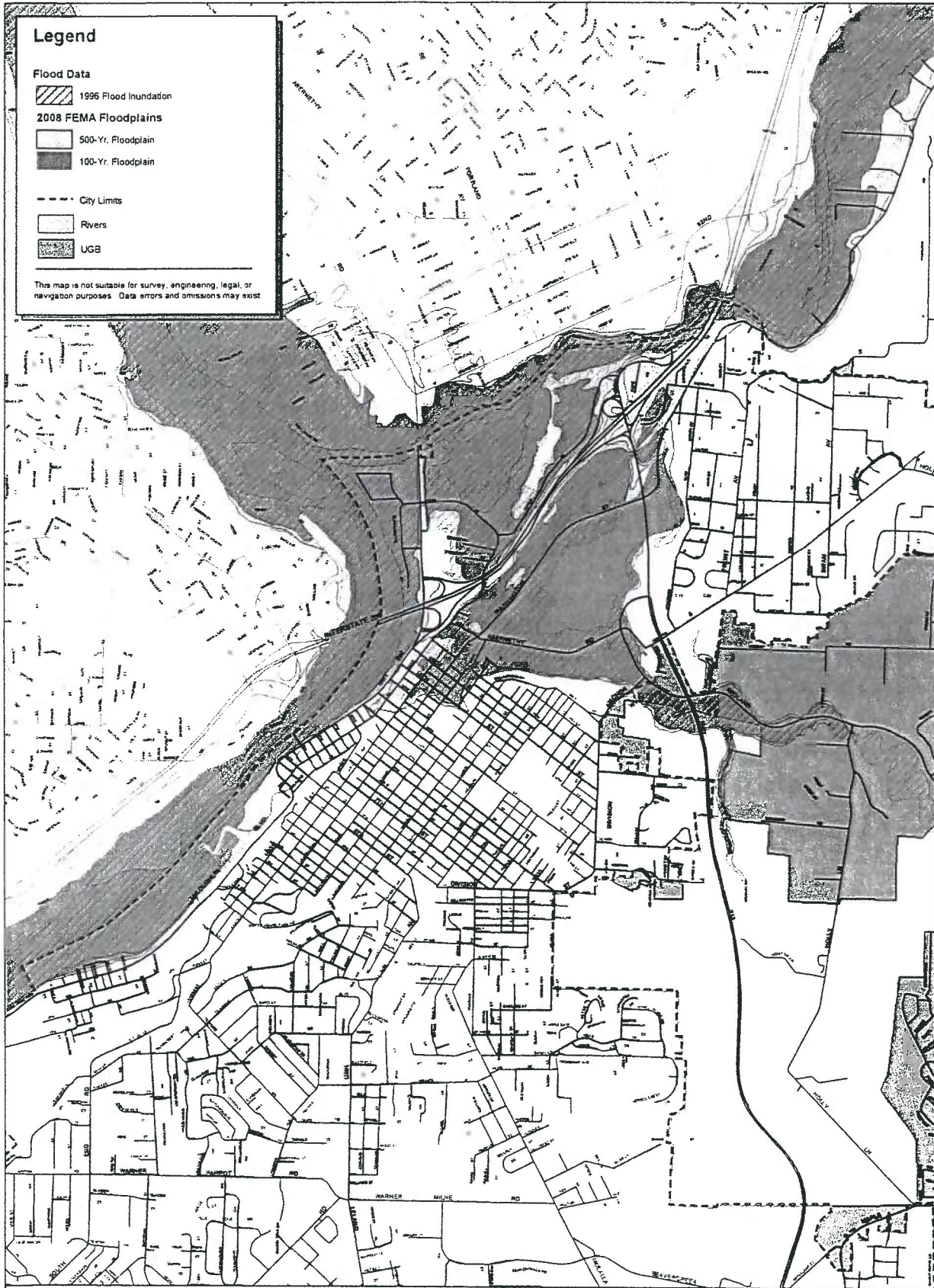
**Legend**

**Flood Data**

-  1996 Flood Inundation
- 2008 FEMA Floodplains**
-  500-Yr. Floodplain
-  100-Yr. Floodplain

-  City Limits
-  Rivers
-  UGB

This map is not suitable for survey, engineering, legal, or navigation purposes. Data errors and omissions may exist.



# City of Oregon City FEMA Information Map



City of Oregon City  
Geographic Information Systems  
320 Warner Milne Rd  
Oregon City, OR 97045  
503-657-0891  
[www.ci.oregon-city.or.us](http://www.ci.oregon-city.or.us)



Map Date: 4/19/2008  
Map File: FEMA\_1996\_Floodplain\_Map1x117P.mxd  
Plot File: FEMA\_1996\_Floodplain\_Map\_closeup1x117P\_30080410.pdf





# Oregon

Theodore R. Kulongoski, Governor

March 25, 2008

## Department of Land Conservation and Development

635 Capitol Street NE, Suite 150

Salem, Oregon 97301-2524

Phone: (503) 373-0050

First Floor/Coastal Fax: (503) 378-6033

Second Floor/Director's Office: (503) 378-5518

Web Address: <http://www.oregon.gov/LCD>

Community Floodplain Managers,  
Planners, et al.



### Subject: Adoption of Floodplain Management Ordinances

To Whom It May Concern:

This letter does not implement any new requirements. It is simply a reminder. Your community has received a recent letter from FEMA Headquarters notifying you of the final flood elevation determination for Clackamas County and Incorporated Areas. This letter is also referred to as the Letter of Final Determination (LFD). The letter also states that **the FIRMs will become effective June 17, 2008** and prior to that date communities must adopt floodplain management regulations [ordinances] that are compliant with 44 CFR Section 60.3 of the National Flood Insurance Program (NFIP). **Because FEMA must record your adoption date prior to June 17, please immediately notify Ryan Miller or Christine Shirley at the Oregon Department of Land Conservation and Development of the date your community has adopted the necessary regulations.**

Under Map Modernization, FEMA has updated and/or digitized the flood hazard maps for most communities. Flood data has been provided to communities in the form of a Flood Insurance Rate Map (FIRM) and a Flood Insurance Study. Maps provide states and communities with the information needed for land use planning and to reduce flood risk to floodplain development and implement other health and safety requirements through codes and regulations. Each time FEMA provides your community with additional flood hazard data, your community must adopt new floodplain management regulations or amend existing regulations to incorporate the new data and meet any additional requirements that result from any changes in the data.

To remain in the National Flood Insurance Program, your community must adopt an updated ordinance referencing the study and newly digitized maps prior to the map effective date. Until these maps are adopted, your community should continue to keep printed copies of the effective maps for reference and use in responding to flood insurance questions from residents and other property owners. **If the study and maps are not adopted by June 17, 2008, your community risks suspension from the NFIP.** If suspended, flood insurance policies can not be written or renewed. Meeting this very important deadline protects your community and citizens in the floodplain. We are available to assist you in any way possible to ensure that this deadline is met.

Sincerely,

Ryan Miller, Map Modernization Coordinator  
[ryan.miller@state.or.us](mailto:ryan.miller@state.or.us) 503-373-0050 ext. 242



# Federal Emergency Management Agency

Washington, D.C. 20472

## FREQUENTLY ASKED QUESTIONS REGARDING THE EFFECT THAT REVISED FLOOD HAZARDS HAVE ON EXISTING STRUCTURES

### *What factors determine flood insurance premiums?*

A number of factors determine premiums for National Flood Insurance Program (NFIP) flood insurance coverage. Major factors include the amount of coverage purchased; the deductible and the location, age, occupancy, and type of building. For newer buildings in floodplains, the elevation of the lowest floor relative to the elevation of the 1-percent-annual-chance flood can also be used to rate the policy.

### *My house is not in a floodplain according to the current map, but the new map will show it as being in a floodplain. Will I have to purchase flood insurance when the new map officially takes effect?*

If you have Federal or federally related financing for the property in question and you do not already have flood insurance, your lender may contact you once the new map takes effect and require that you purchase the insurance. If you do not purchase flood insurance within 45 days after being informed that flood insurance is required, the lender can force place the insurance and charge you for the cost of it. If you dispute the lender's determination that your property is located in a floodplain, you and your lender can jointly request a Letter of Determination Review from the Federal Emergency Management Agency (FEMA) within 45 days of being informed by your lender that your property is located in a floodplain.

If you have insurance before the new maps take effect, the basis for rating that policy remains unchanged (i.e., you can use the rate that was charged to you when your property was located outside the floodplain).

### *I have flood insurance, and my house is in a floodplain according to the current map. The new map, however, will show my house as being outside the floodplain. Will I have to continue carrying flood insurance when the new map officially takes effect?*

If you have Federal or federally related financing for the property in question, you will no longer have a Federal requirement to purchase flood insurance when the new maps take effect; however, lenders retain the prerogative to require flood insurance, even for property that is not in a floodplain. If you wish to continue coverage once the new maps take effect, you may be eligible for preferred risk rates based on your property being outside the floodplain. You should have your policy re-rated using the new map, which should lower your premium. Even if you are not required to purchase flood insurance, FEMA encourages homeowners to continue coverage at the preferred risk rates, because you may be flooded by an event greater than the 1-percent-annual-chance event.

### *My house was built to the flood elevation shown on the current map (or a previous map). On the new map, my house will remain in the floodplain, but the flood elevation will increase. What will happen to my insurance premium when the new map officially takes effect?*



If you can show that your house was built in compliance with local floodplain management regulations and the map in effect at the time of construction, the basis for rating your policy does not change and your premium will be the same. If you cannot show that your house was built in the compliance at the time of construction, your policy will be re-rated using the new map, which may raise your premium. However, if you can show that your home has been continuously insured since before the map change, your premium will not be affected. If you do not have Federal or federally related financing, you are not required by Federal regulations to have flood insurance, although it is available to you.

*My house was built to the flood elevation shown on the current map (or a previous map). On the new map, my house will remain in the floodplain,, but the flood elevation will decrease. What will happen to my insurance premium when the new map officially takes effect?*

You should contact your insurance agent to ensure that the policy is re-rated when the new map officially takes effect. The lower flood elevation may result in a lower premium.

*My house is in a floodplain according to the current map. On the new map,, my house will remain in the floodplain, but the flood elevation will be increased. Will my house be considered to be in violation of NFIP regulations when the new map officially takes effect?*

Any house that can be shown to have been built in compliance with local floodplain management regulations and the map that was effective at the time of construction will continue to be considered compliant, even if the new map will show an increase in flood elevation or a change to a more restrictive zone designation. However, should your house be substantially damaged (damage is 50 percent or more of the pre-damage market value) and you wish to repair it, you will be required to bring the entire structure into compliance with the zone designation and flood elevations shown on the map that is in effect at the time the repairs take place. If the house is less than substantially damaged you do not need to refer to the map when repairing damages. Please note, however, that there may be more stringent state or local requirements that take precedence over those stated here. Regardless of whether your house is substantially damaged, you will likely need a building permit to make repairs and therefore, will need to contact your local building official.

*My house is in a floodplain. What do I do if I want to build an addition or otherwise improve it?*

If the value of the addition or improvement to the residential structure is less than 50 percent of the market value of the existing structure, you need only make sure that the improvement meets or exceeds the standards that were used in constructing the existing structure (assuming the existing structure was built in compliance at the time it was constructed). Additions or other improvements valued at 50 percent or more of the market value of the existing structure are considered substantial improvements. In such cases, the entire structure must be brought into compliance with the elevations on the map in effect at the time the improvement begins. Under certain circumstances, only the addition needs to be elevated tot the flood elevations shown on that map. Please note, however, that there may be more stringent state or local requirements that take precedence over those stated here. Regardless of whether your building is substantially improved, you will likely need a building permit to make the improvement and need to contact your local building official.

MT-TS-HS-3/19/99



## BE FLOOD READY!

*Protect your Family and Property from Flood Hazards.*

### A History of Flooding in Oregon City

In February and November of 1996, Oregon City and its surrounding area were hit with widespread, localized flooding. The flooding occurred due to the combined factors of rain, snowmelt, frozen ground and high tides. Low lying areas along the Willamette River, Clackamas River and Abernethy Creek flooded.

1996 was not the first time Oregon City sustained flooding. History shows that the main streets of Oregon City were flooded as early as 1861, when the Willamette River overtopped and inundated the streets with four feet of water.

Since 1861, severe riverine flooding on the Willamette occurred in 1890, 1924, 1943, 1948, 1956, 1964 and 1996. Major floods on the Clackamas were recorded in 1923, 1931, 1960, 1964 and 1996.

### Types of Flooding

River channels, ditches and other watercourses can only carry so much water. When precipitation brings more water (or when a blockage occurs in the water course) the surrounding land is flooded. In the Pacific Northwest, flooding is most common from October through April. Oregon City is subject to two types of flooding: riverine and local drainage.

Riverine flooding occurs along our three major waterways: the Willamette River, the Clackamas River and Abernethy Creek. Riverine flooding is a threat to life and safety. It can endanger people either when a flash flood hits an area with no warning, or when floodwaters slowly rise and people ignore basic safety precautions.

Local drainage flooding occurs along smaller creeks and drainage ways throughout the City. Local drainage flooding is more likely to create smaller scale inundations of roads or properties. There are three general types of problems:

1. High water tables after local storms sometimes mean wet crawlspaces, yards and basements.
2. In some areas, the lay of the land means surface water doesn't drain quickly to a receiving stream or storm sewer.
3. Storm sewers and culverts may be too small to convey heavier flows.

Life and safety threats from flooding include impassibility of roads and bridges, electrocution, contaminated water and damage to emergency services and public health facilities. More people are killed in their vehicles by floods than in any other location because the driver ignores warning signs or barriers, and tries to travel a road or cross a bridge.

### Natural and Beneficial Functions of Flooding

Flooding is a natural process that helps restore a river's health, clean its sediments, create critical aquatic and streamside habitat,

exchange nutrients between the river and floodplain and renew its fisheries. Floods can clean out accumulations of large wood. They can also bring leaves, needles, wood and dissolved nutrients into the river giving aquatic communities access to new habitats and increase food supplies.

- Floodplains in their natural and relatively undisturbed state provide numerous beneficial natural resource functions and values, including: moderation of floods, flood storage, water quality maintenance and groundwater recharge; habitat value for plants and animals; and scientific, historic, agricultural, recreational and aesthetic values.

### Flood Warning

When high intensity storms move through the Willamette Valley, the Portland River Forecast Center and the National Weather Service of the National Oceanic and Atmospheric Administration are responsible for river stage forecasting on both the Willamette and Clackamas

Rivers. Forecasts and flood warnings prepared by the center are disseminated through the City of Oregon City, Clackamas County Emergency Services, radio, television and website updates.

### Surviving a Flood

Preparing for a flood before it occurs can prevent loss of property, possessions and, in the worst situation, lives. Follow these tips to prepare a storm before it becomes an emergency.

1. Know the safest route from your home or business to high, safe ground.
2. Monitor local weather forecasts.
3. Put insurance policies and lists of personal property in a safe place, such as a safe deposit box.
4. Prepare a family disaster supply kit. It should contain items such as:
  - Flashlight
  - Portable, battery-operated radio
  - Extra batteries
  - First aid kit and manual
  - Essential medications
  - Blankets
  - Cash and credit cards
  - Emergency food and water
  - Non-electric can opener
  - Sturdy shoes and warm outer wear for your family

Floodwaters can rise rapidly. Be prepared for evacuation procedures before the water level reaches your property.

- Move to higher ground if you can do so safely—DO NOT attempt to walk through moving water.
- Do not drive in flooded areas.
- Do not remove manhole covers or drain gates.
- If you are caught at home by rising water, move to the second floor or the roof. Take your disaster supplies kit with you. Wait for help—don't try to swim to safety.
- Beware of downed power lines.
- If you come in contact with floodwaters, wash hands with soap and clean water.
- Stay out of disaster areas unless authorities give you permission to enter.



Flooding in 2006





## Are You in a Flood Zone?

A 100-year floodplain is an area that has a one-percent chance of flooding in any given year. These areas in Oregon City have been mapped by the Federal Emergency Management Agency (FEMA) for the National Flood Insurance Program (NFIP).

However, additional areas were also flooded by the February 1996 flood, which is classified as the highest flood area of record. Together, the FEMA-mapped and February 1996 flood areas comprise the City's flood management overlay district. The Oregon City flood management overlay district is subject to development. These areas are known as Special Flood Hazard Areas (SFHA). To find out if your property is in a SFHA, go to the FEMA Flood Insurance Program and click on the "Find a Floodmap" link from <http://www.fema.gov/plan/prevent/fhm/index.shtm>.

## Flood Insurance

The City of Oregon City participates in the National Flood Insurance Program (NFIP), which is a federal program operated by FEMA to make flood insurance available to everyone. To participate, the City has met minimum NFIP standards, which include adopting and enforcing flood plain zoning regulations.

In 1990, the NFIP introduced its Community Rating System (CRS) assigning municipalities grades of 1 to 10 (with 1 being the best). The idea is that if a city has taken steps to reduce the risk of flood damage in the community that goes beyond the NFIP's minimum requirements, that community's residents should pay less for flood insurance because of the reduced risk.

For many people, their home and its contents represent their greatest investment. If you are located within an SFHA, don't wait for the next flood to buy insurance protection. Your homeowner's insurance policy will not cover losses due to flooding and there is a 30-day waiting period before NFIP coverage can take effect. Contact your insurance agent for more information about flood insurance, rates and coverage. Property owners can insure their buildings and contents, and renters can insure their possessions. Currently, FEMA's records show that 55 flood insurance policies are active in Oregon City. Remember, you do not have to live in the floodplain to suffer flood damage or to qualify for flood insurance.

## A History of Flood Loss Claims

Following the February 1996 flood, 300 Oregon City households applied for FEMA disaster assistance. Of those, 206 received a total of \$1,336,500 in assistance. In contrast to the FEMA figures, there were only 12 flood insurance claim policies. Two of these claims were for residential properties located outside the mapped floodplain, but apparently were subject to local drainage problems. The 12 insured properties received \$969,000. These figures show that the few who were insured received much higher payments than those who received disaster assistance.

In addition to Oregon City property losses that occurred in 1996, one flood insurance payout occurred in 1982 and several claims were paid in 1997.

## Protecting Property

When flooding occurs, there is not only the threat to life and safety, but also property. Within the 100-year floodplain in Oregon City there are over 250 buildings that are subject to over-bank flooding. Most of these buildings are located in the lowest part of the City, where the three waterways converge. Proactive steps taken before a flood can help protect your property during a flood.

Stock up on sandbags before the rainy season begins, and sandbag around your structures when flooding is imminent. Sand bag materials are available at the Public Works Operations Building at 122 S. Center Street. Sandbags are also available inexpensively at retail sites across the county, including home improvement stores

such as Home Depot. Keep materials such as plywood, plastic sheeting and lumber on hand. To be effective, sandbags must be properly stacked. Check with local home improvement stores for sandbag demonstrations.

There are other steps that can be taken to protect your property from flood damage. Consider elevating your house above the flood hazard or diverting possible floodwaters around your structures.

Property owners are responsible for maintenance activities for their own property, but if you think the main-

tenance requirement is within the city-wide drainage system, call the Oregon City Public Works Stormwater Management Division at 503-657-8241. We'll send a crew to evaluate the problem.

## Floodplain Development Requirements

All construction or fill within a floodplain (except normal farming activities) require a grading or fill permit and a floodplain management permit. If you plan on building or grading within the floodplain or drainage swale, please contact the Oregon City Community Development Department at 503-657-0891. If you know of any non-permitted floodplain construction or fill, please contact the Oregon City Public Works Code Enforcement Group at 503-496-1559.

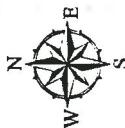
All new structures constructed within a flood hazard area are required to be constructed such that the lowest floor of the structure is at least one foot above the flood hazard. Substantially damaged or improved structures have the same elevation requirements as new construction. A substantially improved/damaged structure is where the cost of the improvement/damage is equal to or greater than 50 percent of the fair value of the structure, before the improvements are made or the damage occurred.

### Good News for Flood Insurance Buyers!

*Based on what the City of Oregon City has done to reduce the risk of flood damage, the NFIP has just improved Oregon City's rating from a Level 9 (5% reduction in flood insurance rates) to a Level 7 (15% reduction in flood insurance rates for properties in the 100-year floodplain; 5% reduction for properties outside the 100-year floodplain). Please check with your insurance agent and make sure they are aware of this change and are giving you this discount.*



# L 08-02 Flood Overlay District: Properties Added

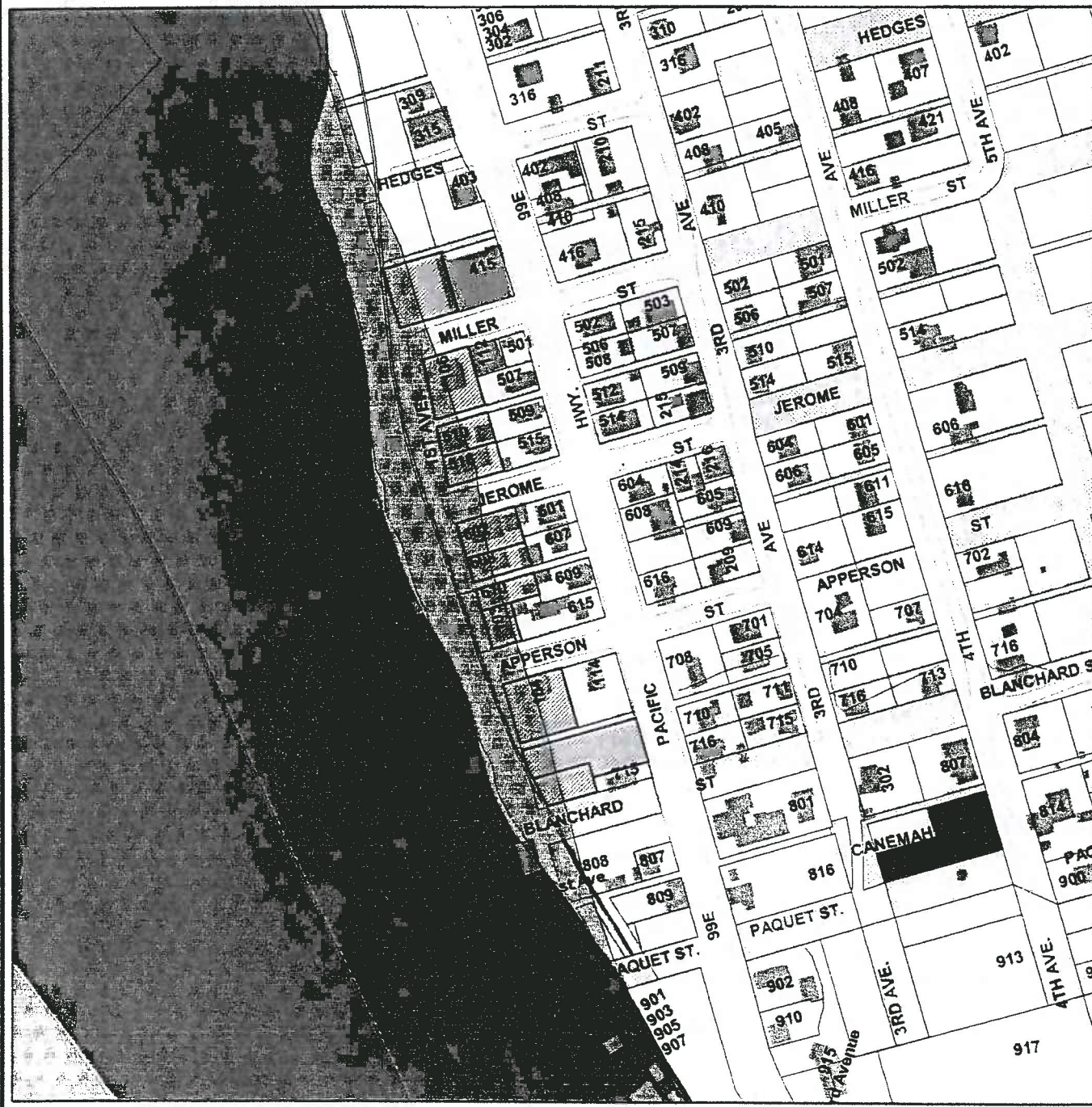


City of Oregon City  
P.O. Box 3040  
320 Warner Milline Rd  
Oregon City, OR 97045  
(503) 657-0891  
www.orcity.org

This map is not suitable for survey, engineering, legal, or navigation purposes. Errors and omissions may exist.

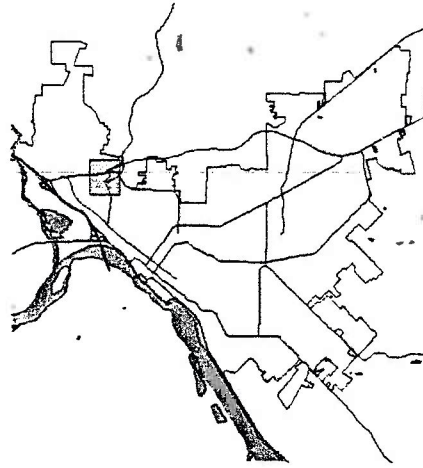
Map created with OCMap 2008

05/09/2008





# L 08-02 Flood Overlay District: Properties added.

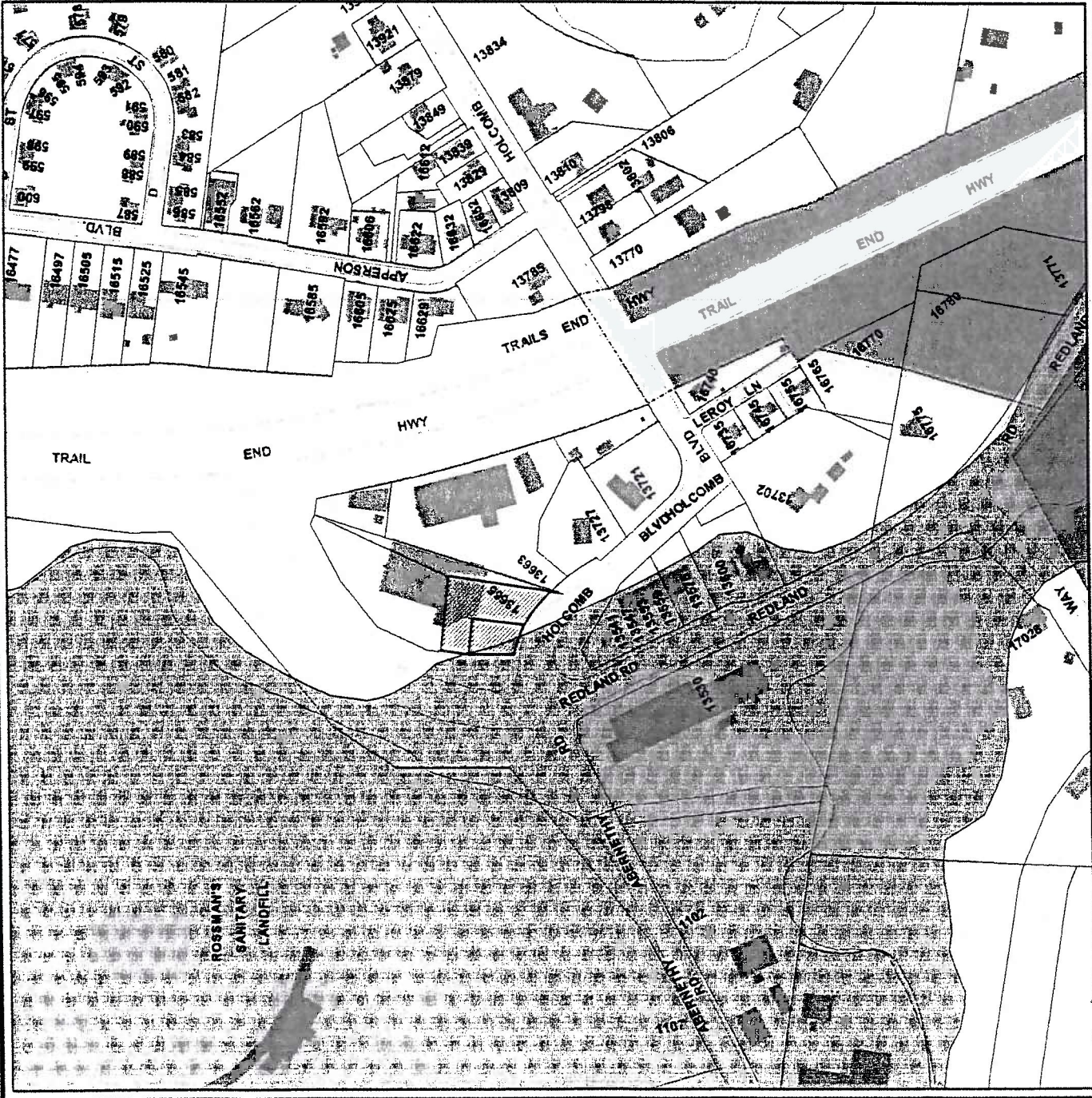


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**CITY OF OREGON CITY**

P.O. Box 3040

Oregon City, OR 97045-0304

Address Correction Requested

Department of Land  
Conservation & Development  
635 Capitol St NE Suite 200  
Salem OR 97301-2540

**PRESERVING OUR PAST. BUILDING OUR FUTURE**