City of Lake Oswego Comprehensive Plan

Goal 7 Areas Subject to Natural Disasters and Hazards

"To protect life and property from natural disasters and hazards"

Section 1, Flood Hazards

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the 1993 update of this element of the Comprehensive Plan.

- The Federal Emergency Management Agency (FEMA) updated floodplain information for lands within the City of Lake Oswego Urban Services Boundary in 1987.

- The City adopted "The 1987 Flood Insurance Study for the City of Lake Oswego, Oregon," and; Development Standard 17, "Floodplains" in 1988.

GOAL

The City shall protect life and property from flood hazards.

POLICES

1. Continue to participate in the National Flood Insurance Program* and comply with all Federal Emergency Management Agency (FEMA)* standards.

2. Limit new development in the FEMA-regulated floodway, including filling and removal of earth, to the following uses provided there is no increase in base-year flood levels.*

    a. Public and private open space and recreational uses;
    b. Water-dependent structures* such as docks, piers, bridges, and floating marinas; and,
    c. Public facilities including unpaved roads and private access ways.

3. Review development proposals, including public facilities, filling and grading, within areas subject to flooding to ensure:

    a. Conformance with FEMA and other regulatory agencies;
    b. Reasonable protection of public facilities;
    c. The flow, velocity and elevation of flood waters are not changed so as to endanger other property;
    d. Natural systems such as fish and wildlife habitat, vegetation, wetlands and stream corridors are protected; and,
    e. Other problems associated with flooding such as ponding, poor drainage, high water tables and unstable soils are addressed.

Reference G

4. Protect, restore and maintain the natural systems of floodplains including riparian vegetation, wooded areas, wetlands and fish and wildlife habitat.

5. Allow development density within the flood fringe to be transferred to higher portions of the development site.

6. Designate floodplains as Protection Open Space*.

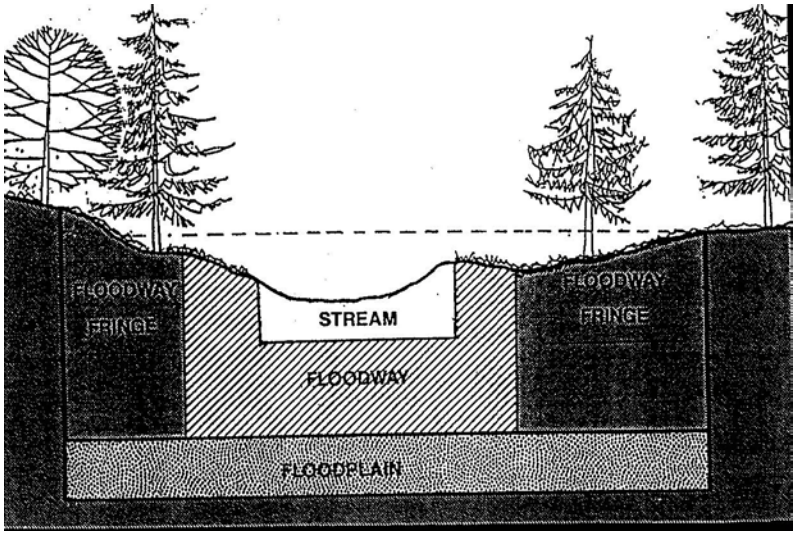
7. Prohibit the storage of hazardous substances* within the floodplain.

8. Ensure that filling in the flood fringe is conducted in accordance with City and applicable state and federal regulations, and is the minimum necessary for development to conform with FEMA standards.

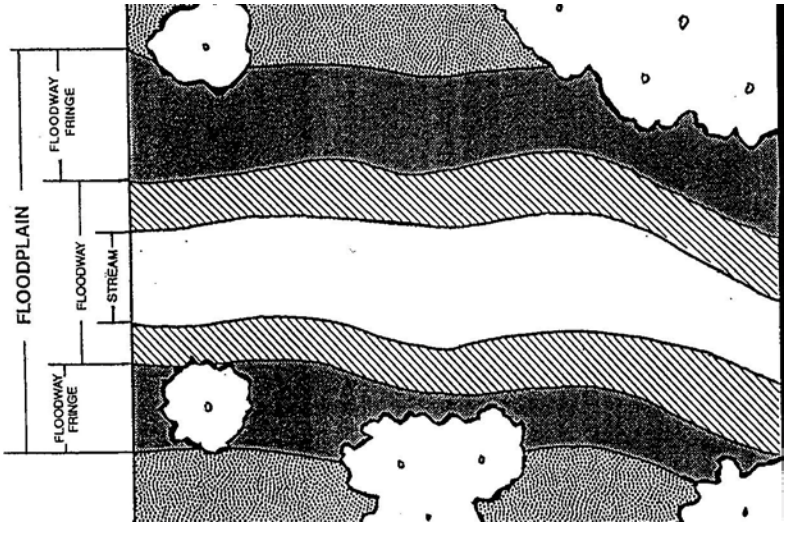
9. Protect, restore and maintain watercourses* within the floodplain.

10. Require new or replacement water and sanitary sewer systems within the floodplain, constructed to prevent infiltration of floodwaters and discharge of untreated waste water during flooding.

Figure 6
Floodplain Cross Section



Floodplain Overhead View



Section 2, Earthquake Hazards

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan:

- The Oregon Structural Code was updated in 1993, upgrading the level of structural design to that required by Zone 3, for western Oregon.

- The Oregon Seismic Safety Policy Advisory Commission concluded in its 1992 report that additional research and assessments of seismic hazards are needed to develop informed policy decisions for land use planning in response to earthquake hazards.

- In 1993 The City of Lake Oswego completed its "earthquake annex" to add to its Emergency Operation Plan. This plan outlines the City's disaster response and recovery plan for earthquake events.

- DOGAMI mapped faults and areas of seismic activity in Oregon in 1993.

GOAL
The city shall protect life and property from earthquake hazards.

POLICIES
1. Cooperate with the DOGAMI in the delineation of areas of relatively greater hazard due to potential damage from earthquakes.

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2. Enact regulations governing the location of structures and land uses, as new seismic information becomes available.

3. Coordinate adequate earthquake emergency response with the Federal Emergency Management Agency, Clackamas County Emergency Operations and other appropriate government agencies.

4. Require compliance with the current edition of the Oregon Structural Specialty Code regarding building design for earthquake resistance.

5. Provide education and public awareness of earthquake risks and public safety.

Section 3, Landslides, Erosion and Unstable Soils
Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- LOC 15.005, Erosion Control, was adopted in 1993 to minimize the amount of sediment and other pollutants reaching the surface water management system.

- LOC 16.005, Hillside Protection Standard was adopted in 1992 and revised in 1993 to prevent hazards associated with building on steep slopes.

- LOC 13.005, Weak Foundation Soils was adopted in 1986, to identify in more detail and to minimize hazards associated with development in areas with unstable soils.

GOAL
The City shall protect life and property, from hazards associated with landslides, soil erosion and unstable soils.

POLICIES
1. Identify areas within the Lake Oswego Urban Services Boundary with a potential for soil erosion hazard, landslide hazard and unstable soils, including the degree of potential hazard.

2. Regulate density and intensity of land use in areas with the potential for unstable soils, known or potential landslide hazards and soil erosion hazard areas, in accord with the degree of hazard.

3. Enact and maintain regulations and standards which require:

a. Appropriate engineering and site development measures to prevent damage from hazards associated with erosion, landslides and unstable soils;
b. Protection and restoration of natural and topographic features such as ridge lines and vegetation to preserve slope and soil stability;
c. Open space preservation of slopes which cannot be developed because of severe landslide and erosion hazard;
d. Protection of natural resources associated with steep slopes such as stream corridors, trees and other vegetation and wildlife habitat; and,
e. Erosion control measures.

4. Control erosion at its source through minimizing the disturbance of existing vegetation.

5. Require property owners to include erosion and drainage control measures in site planning, during and after development, to prevent increases in surface water runoff, erosion and siltation.

6. Require that land identified with a potential for high erosion hazard will be maintained in open space, unless appropriate evidence demonstrates that engineering can effectively overcome soil and slope limitations.

7. Allow development density proposed on steep slopes and on lands with unstable soils to be transferred to stable portions of the site when these areas are preserved as open space.

8. Allow innovative site and building design, including the clustering of buildings, to avoid development in hazard areas and encourage steep slopes to be used for open space uses.

9. Ensure that public facilities and services are planned to be located in non-hazard areas, where possible. When hazard areas are unavoidable, ensure that public facilities and services are designed to withstand movement of soil and rock.

10. Require the review of any development proposal by the appropriate local, state and federal agencies.

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