## 510 Group

## Section 1: Flooding

The City of Cottage Grove has provided online access to mapping tools that include floodplain maps (www.cottagegrove.org). Additionally, the State Department of Geology and Mineral Industries (DOGAMI) provides the online tool HAZVU, which is available to the general public: http://www.oregongeology.org/hazvu/.

Detailed mapping resources can be found at Lane County GIS, located at: <http://www.lanecounty.org/Departments/IS/GIS/Pages/default.aspx>.

Detailed mapping resources for the City of Cottage Grove can be found at: https://lcmaps.lanecounty.org/LaneCountyMaps/CottageGrove/index.html

### Existing Flood Mitigation Activities

Flood mitigation activities listed here include current mitigation programs and activities that are being implemented by the City of Cottage Grove or other agencies or organizations.

### Flood Mitigation Projects

Cottage Grove has actively pursued several flood hazard mitigation activities in an effort to reduce vulnerability to damage and disruption from flooding events. Efforts include:

* Cottage Grove participates in the National Flood Insurance Program, which enables property and business owners to qualify for federally underwritten flood insurance.
* In 2008, the City replaced the Row River Water Treatment Facility intake structure with a flood-proof intake structure.
* The City has been working with the Coast Fork Willamette Watershed Council to pursue funding to re-connect the Row River Nature Park wetlands to the Row River to encourage riparian meandering and lessen flood hazard.
* The City has begun replacing and hardening stormwater outfalls into the Coast Fork to ensure that flood waters continue to drain into the river during high-water events.
* ~~The City has adopted a Stormwater Management Plan. The goal of this plan is to protect citizens and property from urban flooding through planning for and building adequate green and gray stormwater systems.~~
* The City has participated in dam failure scenarios with the Lane County Emergency Preparedness Coalition, South Lane County Fire & Rescue, USACE and the Cottage Grove Community Hospital.

### Flood Mitigation Objectives and Action Items

The flood mitigation Objectives and their associated Action Items below and in the appendices provide direction on specific activities that the City of Cottage Grove, organizations, and residents may undertake to reduce risk and prevent loss from flood events. Each Objective is followed by Action Items that are intended to achieve in part or in whole the Objective they are attached to. These Objectives and Actions may be used by local decision makers in pursuing strategies for implementation.

#### Agency Coordination

##### Seek training and exercise opportunities with other agencies and jurisdictions.

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| --- | --- |
| Cottage Grove has unique flood risks that staff may need to address during flood response, mitigation, recovery, or preparedness. Understanding the nuances of flood risk is required in order to be able to educate the public or answer questions accurately. | |
| Estimated Cost: | Low |
| Timeline: | Annually in January. |
| Lead: | Community Development Department (PW & D) |
| Partners: | Oregon Dept. of Transportation (ODOT); NW Natural Gas; Pacific Power; Eugene Public Utilities District (EPUD) |
| Status/Priority: | Ongoing/High |

##### Work with United States Corps of Engineers (USACE) and the Federal Emergency Management Agency (FEMA) on Upper Willamette Valley Flood Insurance Map Update project.

|  |  |
| --- | --- |
| Description: Establish a regular and direct contact | |
| Estimated Cost: | None / Staff time |
| Timeline: | 2018-2024 |
| Lead: | PW & D |
| Partners: | USACE; FEMA |
| Status/Priority: | Ongoing/Low |

##### Coordinate with Coast Fork Willamette Watershed Council, USACE, and Oregon Department of Fish and Wildlife on Row River Nature Park flood storage improvements.

|  |  |
| --- | --- |
| Description: | |
| Estimated Cost: |  |
| Timeline: | 3-5 years |
| Lead: |  |
| Partners: | Coast Fork Willamette Watershed Council, State and Federal Agencies |
| Status/Priority: | Medium/High |

##### Participate in state-wide water management group led by USACE for flood-controlled streams (join conference call held on a weekly, bi-weekly, or as needed basis). Participate in Northwest Regional Floodplain Management Association (NORFMA) and Association of State Floodplain Managers (ASFM).

|  |  |
| --- | --- |
| Description: | |
| Estimated Cost: | Low / Staff time |
| Timeline: |  |
| Lead: | PW & D |
| Partners: | NORFMA |
| Status/Priority: | Ongoing/High |

#### Critical Facilities Protection

##### Evaluate and flood-proof City-owned Critical Facilities within the 500 year floodplain.

|  |  |
| --- | --- |
| Description: Inventory City properties using GIS to cross tab properties with 500-year floodplain data. | |
| Estimated Cost: | High |
| Timeline: | Not Started |
| Lead: | PW & D |
| Partners: | Lane County GIS |
| Status/Priority: | Ongoing/Low |

#### Flood Loss Mitigation

##### Increase awareness of localized flood risk and safety

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| --- | --- |
| Use outreach programs to advise home and property owners of risks to life, property, health, and safety. Increase outreach to residential and commercial residents of the city on additional measures property owners can take to reduce their risk to flooding, and facilitate funding for mitigation measures. (Quarterly Newsletter, annual coordination with realtors and insurance agents, and Emergency Prep Fair) | |
| Estimated Cost: | Low |
| Timeline: | * Quarterly for riparian newsletter * Fall annual water bill insert * Weekly Friday Update. * Annual coordination with realtors/insurance agents |
| Lead: | PW & D |
| Partners: | CFWWC |
| Status/Priority | Ongoing/High |
|  |  |
|  |  |

##### Extend the freeboard requirement.

|  |  |
| --- | --- |
| Description: | |
| Estimated Cost: | Low |
| Timeline: | Completed |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | Ongoing/High |

##### Mitigate flooding by limiting or restricting how development occurs in flood prone areas through actions such as: Prohibit or limit floodway development through regulatory and/or incentive-based measures; Limit the density of developments in the floodplain; Require that floodways be kept as open space; Manage and enforce a riparian buffer ordinance to protect water resources and limit flood impacts; Limit fill in floodplain areas.

|  |  |
| --- | --- |
| Description: Section 14.37.200 of the CGMC | |
| Estimated Cost: | Low |
| Timeline: | 1-3 Years |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | High |

##### Develop a long-term plan for Open Space land acquisitions (purchases by the City, donations, conservation easements) for floodway protection

|  |  |
| --- | --- |
| Description: With new floodplain maps coming within the next one to two years establish a list of subject properties for acquisition. | |
| Estimated Cost: | High |
| Timeline: | 3-5 Years |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | Low |

#### Floodplain Management

##### Designate a local floodplain manager and/or CRS coordinator who achieves Certified Floodplain Manager (CFM) certification.

|  |  |
| --- | --- |
| Description: Employ a Certified Floodplain Manager | |
| Estimated Cost: | Low |
| Timeline: | Completed / Ongoing |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | Ongoing/ Medium |

##### Conduct NIFP community workshops to provide information and incentives for property owners to acquire flood insurance.

|  |  |
| --- | --- |
| Description: | |
| Estimated Cost: | Low |
| Timeline: | 1-3 Years |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | Low |

##### Require and maintain FEMA elevation certificates for all new and improved buildings located in floodplains. (Records are maintained in the Cottage Grove Community Development Office.)

|  |  |
| --- | --- |
| Description: Maintain records of all existing and new Floodplain Development Permits | |
| Estimated Cost: | Low |
| Timeline: | Completed/on-going |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | Ongoing/High |

##### Include requirements in the local floodplain ordinance for homeowners to sign non-conversion agreements for areas below base flood elevation.

|  |  |
| --- | --- |
| Description: Per CFR 44 and Subsection 14.37.200 M | |
| Estimated Cost: | None / Staff Time |
| Timeline: | Completed/On-going |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | Low |

##### Maintain and provide access to Flood Insurance Rate Maps.

|  |  |
| --- | --- |
| Description: Maintain and provide access to Flood Insurance Rate Maps via FIRMS and GIS | |
| Estimated Cost: | None/staff time |
| Timeline: | Completed/On-going |
| Lead: | PW & D |
| Partners: | Lane County |
| Status/Priority: | Ongoing/High |

##### Implement damage reduction measures for existing, publically owned, buildings such as acquisition, relocation, retrofitting, and maintenance of drainage ways and retention basins.

|  |  |
| --- | --- |
| Description: With new floodplain maps coming within the next one to two years establish a list of subject properties for acquisition, relocation, retrofitting, etc. | |
| Estimated Cost: | High |
| Timeline: | 3-5 Years |
| Lead: | PW & D |
| Partners: | Lane County GIS |
| Status/Priority: | Low |

##### Improve flood warning, emergency response, and evacuation planning. (Alert Sense)

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| --- | --- |
| Description: Advertise the City’s participation in “reverse 911” programs. | |
| Estimated Cost: | Medium |
| Timeline: |  |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | Ongoing/High |

#### Stormwater Management and Improvement

##### Integrate Natural Hazard Mitigation plan goals and policies with Total Maximum Daily Loads (TMDL) plan goals and policies.

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| --- | --- |
| Description: Crosswalk the proposed mitigation actions of the NHMP with requirements for TMDL compliance to maximize program efficacy. | |
| Estimated Cost: | Low |
| Timeline: | During NHMP update |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | Ongoing/Medium |

##### Rehabilitate and manage riparian areas under city ownership to improve function; utilize stream restoration to ensure adequate drainage and diversion of stormwater; and protect and enhance landforms that serve as natural mitigation features (i.e., riverbanks, wetlands, buffers etc.).

|  |  |
| --- | --- |
| Description: | |
| Estimated Cost: | High TBD |
| Timeline: | Ongoing 🡪 3-5 Years |
| Lead: | PW & D |
| Partners: | CFWWC |
| Status/Priority: | Low |

##### Obtain and install a River Flow Gauge at the mouth of Mosby Creek at confluence of Row River.

|  |  |
| --- | --- |
| Description: | |
| Estimated Cost: | Medium |
| Timeline: | Complteted/On-going |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | High |

##### Pursue funding for culvert resizing.

|  |  |
| --- | --- |
| Description: Evaluate existing culverts for capacity and pursue funding as needed. | |
| Estimated Cost: | High |
| Timeline: | 2-5 years |
| Lead: | Public Works; PW & D |
| Partners: |  |
| Status/Priority: | Ongoing/Medium |

##### Develop stormwater management standards in Development Code.

|  |  |
| --- | --- |
| Goal is to have Low Impact Development standards in place by September 30, 2022. Draft plan in created. | |
| Estimated Cost: | Medium |
| Timeline: | 0-12 months |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | In-Process/High |

##### Enforce Riparian Development standards.

|  |  |
| --- | --- |
| Description: Section 14.37.300 of the CGDC | |
| Estimated Cost: | Low |
| Timeline: | On-Going |
| Lead: | Public Works; PW & D, Coast Fork Willamette Watershed Council |
| Partners: |  |
| Status/Priority: | Ongoing/Medium |

##### Coordinate with Coast Fork Watershed Council on riparian area restoration and education programs.

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| --- | --- |
| Created a plan for X park, plantings by water treatment and planning for behind MS. | |
| Estimated Cost: | Low |
| Timeline: | 1-3 years |
| Lead: | PW & D |
| Partners: | CFWWC |
| Status/Priority: | Ongoing/Low |

##### Join or schedule yearly (or bi-annual) river/stream cleanup projects with the public at-large, and facilitate debris removal activities with Coast Fork Watershed Council and United States Forest Service (USFS) to use debris removed from the Coast Fork and Row Rivers for wildlife habitat in the Row River Nature Park.

|  |  |
| --- | --- |
| Description: Partner with CFWWC for program support | |
| Estimated Cost: | Low |
| Timeline: | Annual / Biannual basis |
| Lead: | PW & D |
| Partners: | CFWWC |
| Status/Priority: | Medium |

##### Develop an open space acquisition, reuse, and preservation plan targeting hazard areas.

|  |  |
| --- | --- |
| Description: Identify potential properties | |
| Estimated Cost: | Low / Staff Time |
| Timeline: | 3-5 Years |
| Lead: | PW & D |
| Partners: | CFWWC |
| Status/Priority: | Medium |

##### Compensate an owner for partial rights, such as easement or development rights, to prevent a property from being developed.

|  |  |
| --- | --- |
| Description: Explore options for funding a program targeting areas of the SFHA where development should be limited. | |
| Estimated Cost: | High |
| Timeline: | Long Term |
| Lead: | PW & D |
| Partners: |  |
| Status/Priority: | Low |