Are You Prepared for a Flood?

The City of Corvallis annually updates this brochure as a reminder of the dangers related to heavy rainfall and the damage that can be caused when a flood occurs. We hope you will find information in this brochure that will help you. Being prepared is your best way to minimize your risk.

WINTER 2016

Visit our web page for more information about flooding:
www.corvallisoregon.gov/floodtips

Flood Preparation

Before a Flood:

To prepare for a flood, you should:

- Know where and how to shut off gas and electricity.
- Elevate your furnace, water heater, and electric panel if susceptible to flooding.
- Install backwater prevention devices in sewer lateral pipes to prevent floodwater from backing up into the drains of your home.
- Seal the walls in your basement with waterproofing compounds to avoid seepage.

During a Flood:

If a flood is likely in your area, you should:

- Check the radio, television or internet for more information.
- Develop and maintain an emergency preparedness kit that will get you through the first 72 hours of an event. Emergency supplies should be gathered in a portable and flood/rodent-proof container with food, water, medication, safety and hygiene supplies for all family members and pets.
- Be aware that flash flooding can occur. If there is any possibility of a flash flood, move immediately to higher ground. Do not wait for instructions to move.
- Be aware of streams, drainage channels, and other areas known to flood suddenly. Flash floods can occur in these areas with or without such typical warnings as rain clouds or heavy rain.
- Avoid moving water.

If you have to leave your home, even if only for a short trip, remember these tips:

- Do not walk through moving water. Six inches of moving water can make you fall. If you have to walk in water, walk where the water is not moving. Use a stick to check the firmness of the ground in front of you.
- Do not drive into flooded areas. If floodwaters rise around your car, abandon the car and move to higher ground if you can do so safely. You and the vehicle can be quickly swept away.

If you must prepare to evacuate, you should do the following:

- Secure your home. Move essential items to an upper floor.
- Turn off utilities at the main switches or valves. Disconnect electrical appliances.
- Do not touch electrical equipment if you are wet or standing in water.

After a Flood:

- Listen for news reports to find out if the community's water supply is not safe to drink.
- Avoid floodwaters; water may be contaminated by oil, gasoline, or raw sewage. Water may also be electrically charged from underground or downed power lines.
- Be aware of areas where floodwaters have receded. Roads may have weakened and could collapse under the weight of a car.
- Stay away from downed power lines, and report them to the power company.
- Use extreme caution when entering buildings; there may be hidden damage, particularly in foundations. Clean and disinfect everything that got wet. Mud left from floodwater can contain sewage and chemicals.

Flood Response Plan

The City of Corvallis has a Flood Response Plan to establish the actions that would be taken to respond to a flood event. The plan is only a guide for dealing with emergency situations; each event is unique.

Plan priorities are broken down into six categories:

1. Maintain the operation of streets, streams, storm and wastewater sewers to the extent possible, in order to protect the health and safety of the community.
2. Provide flood-fighting activities on City property to protect public health, safety of facilities, and the public's investment in the infrastructure.
3. Prevent or mitigate life-threatening situations by working with Police and Fire personnel on evacuations, street closures, sandbagging, etc.
4. Provide public information to assist community members in planning individualized flood response.
5. Provide flood-fighting assistance to private property owners to limit loss of life or property.
6. Provide flood-fighting assistance to other government agencies as appropriate to minimize loss of public and private property.

Flood response operations will normally be implemented in phases. The phase of operation will depend on the severity of conditions and may not necessarily be implemented in numerical order. The following is a description of each of the four phases.

Phase 1: Heavy rain over a short duration; the storm system does not keep up with water flow, and localized flooding of streets is occurring in low-lying areas.

Phase 2: Heavy rain over a longer duration; localized flooding of streets; streams and drainageways at capacity with some flooding occurring.

Phase 3: Heavy rains over a long duration; widespread flooding is occurring along streets, drainageways and adjacent private property.

Phase 4: Sustained heavy rain throughout the mid-valley region over a long duration; local flooding is occurring and the Willamette River and/or Marys River is anticipated to crest above flood stage.

Flood Warnings

…and watches are issued by the National Weather Service and can alert communities to the threat of hazardous weather conditions. Forecasts, advisories, watches, and warnings from the National Weather Service may be broadcast on local radio and television stations, the National Weather Service web site at **www.wrh.noaa.gov/pqr/**, or NOAA Weather Radio, which broadcasts forecasts and warnings 24 hours a day. Other local radio and television stations carry Emergency Alert System (EAS) broadcasts as well during an event. Tune your radio to 550 AM KOAC for announcements and updates about flood events.

What do the designations mean?

Advisories are issued for less serious weather conditions that cause inconvenience. Life and property are usually not at risk if caution is exercised.

Watches mean that conditions are favorable for the development of hazardous weather. Flood watches are issued 12-72 hours in advance of an event where flooding is not certain, but possible.

Warnings mean that hazardous weather is occurring or is very likely to occur, with conditions that pose a threat to life and property. Flood warnings are issued when a river is expected to reach flood stage.

Check into Flood Insurance

It's important to have protection from floods associated with heavy rains, thunderstorms and other conditions that impact the area. Standard homeowner's insurance doesn't cover flooding. If you don't have flood insurance, talk to your insurance agent. You can purchase a separate flood insurance policy backed by the federal government because Corvallis participates in the National Flood Insurance Program, and is available to properties within the Corvallis city limits.

In many instances, more damage occurs to furniture and contents than to the structure, so look into your insurance policy and make sure you have appropriate coverage.

Even if the last flood missed you, or you have done some flood-proofing, the next flood could be worse. Don't wait for the next flood to buy insurance protection. There is a 30-day waiting period before National Flood Insurance Program coverage takes effect.

BUILDING COVERAGE INCLUDES:

- The insured building and its foundation
- The electrical and plumbing system
- Central air conditioning equipment, furnaces and water heaters
- Refrigerators, cooking stoves, and built-in appliances
- Permanently installed carpeting over unfinished flooring

CONTENTS COVERAGE INCLUDES:

- Clothing, furniture, and electronic equipment
- Curtains
- Portable and window air conditioners
- Portable microwaves and dishwashers
- Carpeting that is not already included in property coverage
- Clothing washers and dryers

For more information visit **www.floodsmart.gov.**

About the National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FloodSmart.gov
The Official site of the NFIP

In 1968, Congress created the National Flood Insurance Program (NFIP) to help provide a means for property owners to financially protect themselves. The NFIP provides federally backed flood insurance to communities that enact and enforce floodplain regulations. To be eligible for this flood insurance policy, a property must be in a community that participates in the NFIP. Corvallis does participate in the program and has an adopted floodplain management ordinance to regulate development in flood hazard areas. The objective of the ordinance is to ensure that such development will not aggravate existing flooding conditions and that new buildings will be protected from flood damage.

Another part of the NFIP, the Community Rating System (CRS), offers an incentive to communities to do more than just regulate construction of new buildings to minimum national standards. Under the CRS, flood insurance premiums are lowered for communities that actively pursue programs to reduce flood damage to existing buildings, manage development in areas not mapped by the NFIP, protect new buildings beyond the minimum NFIP protection level, help insurance agents obtain flood data, and help people obtain flood insurance.

There are 10 CRS classes: Class 1 requires the most supplemental activities and gives the greatest premium reduction; Class 10 receives no premium reduction. Due to efforts of City staff, Corvallis' CRS rating was recently changed to 5, which means residents are eligible to receive a 25% discount on flood insurance rates.

Corvallis will continue to pursue credit for our local actions to maintain flood insurance premium discounts for our community. To learn more about this storm water/flood management program, contact the Development Services Division, City Hall, or call **541-766-6929**.

Wastewater Backwater Prevention

Most of the time, the City's sewer pipes have adequate capacity to carry wastewater to the treatment plant. But during heavy, extended periods of rainfall when the ground water is high, the capacity of some sections of the sewer system is exceeded. Ground water or surface water enters older sewer pipes through cracks and, added to the wastewater flow, will exceed the space available in the pipe. When these conditions occur, the water has to go somewhere. If it can't flow down the main pipe, it will back up into the service line and, possibly, all the way into your basement. A simple device in your sewer line, if properly maintained, can help prevent wastewater from backing up into your basement.

The device is a one-way valve installed in your line to allow wastewater to flow out, but swings shut when wastewater tries to flow back in. The Public Works Department has a program that may assist homeowners with the cost of installing these backwater devices.

Your Costs May be Reimbursable?

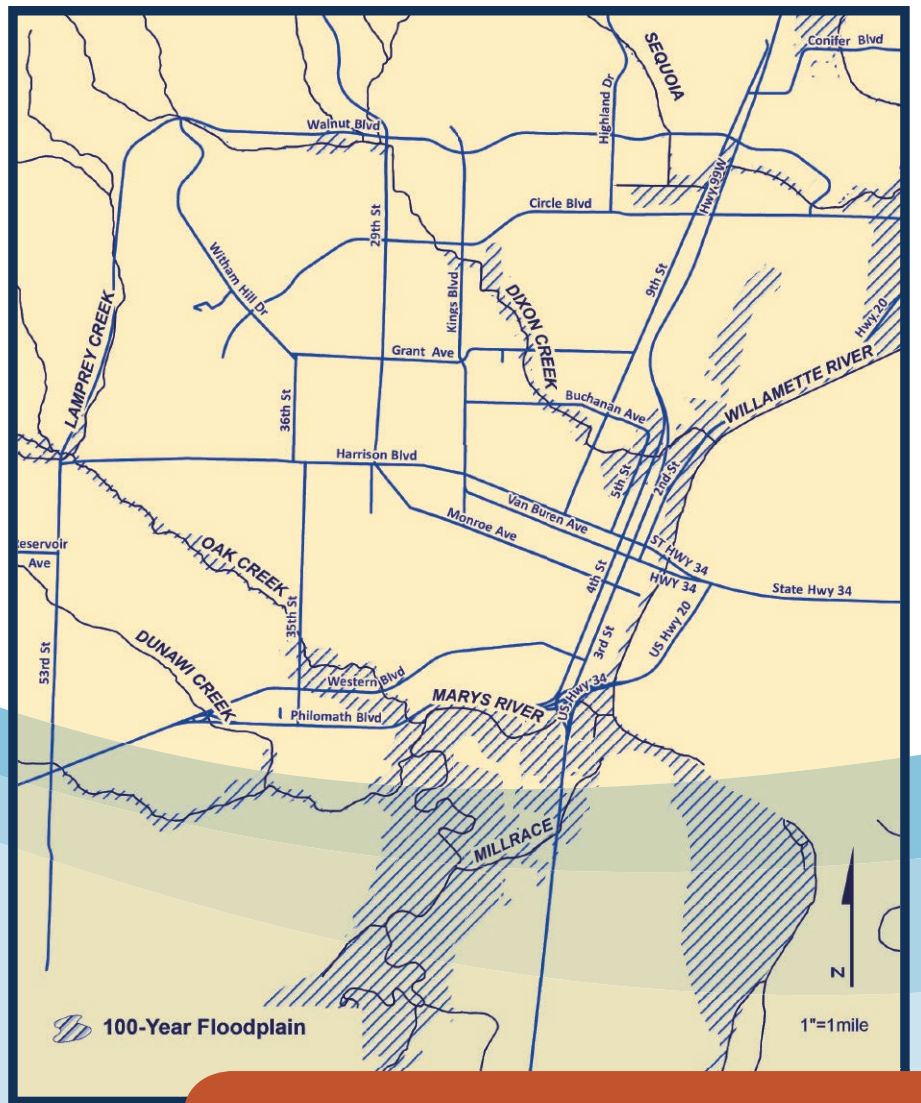
- If you have a basement, call Public Works to find out if you are in an eligible area for the program.
- You are responsible for the first $100 of the cost of installation. After that, the City will reimburse you up to $1,500 of the remaining costs.
- You will need three cost estimates from different contractors and hire the lowest estimated cost contractor.
- Call Development Services at 541-766-6929 for construction permitting requirements.
- When the project is complete and you have paid the contractor send copies of the three estimates and final invoice to Public Works for reimbursement.
- Once the copies have been received and approved, a check will be sent to you in about 45 days.

Who is Responsible?

You! The backwater prevention device belongs to you, and you are responsible for continued maintenance and repair. Ask your plumbing contractor for maintenance instructions.

The City's insurance company generally does not approve payment on claims for damages caused by sewer back-ups due to excessive wet weather conditions. The City assumes no liability should the backwater device fail to prevent basement flooding.

For more information contact Public Works at **541-766-6916** or visit our web page at **www.corvallisoregon.gov/backflowvalveprogram**.



Is Your Property Within the 100-Year Floodplain?

The first step in protecting yourself and your property is to look at the map on the left to determine if you are in the 100-year floodplain.

In 1985, the Federal Emergency Management Agency (FEMA) completed a 100-year floodplain mapping of creeks and rivers in Corvallis. These maps were updated by FEMA on June 2, 2011. The Flood Insurance Rate Maps (FIRM) are used by FEMA in administering its National Flood Insurance Program.

The map to the left shows the 100-year-flood areas, identified by FEMA as those that will be inundated by a major flood. These areas typically follow the creeks within our community. As you can see, the central and southern portions of the city have larger areas of floodplain than the northern portions, due mainly to elevation and because the Marys River runs through this area.

A chain reaction occurs when river levels rise above normal. As the river rises, the water flow from creeks slows considerably and, as a result, the water levels in the creek start to rise. During heavy rains, high or overflowing creeks can actually force water back through the catch basins onto city streets.

The City has been proactively upgrading the storm water collection system through flood mitigation and creek restoration projects to alleviate problem areas along Dunawi and Sequoia Creeks, as well as the Marys River.

For more information on the 100-year floodplain, contact the City of Corvallis Development Services Division, located in City Hall at 501 SW Madison Avenue, or call **541-766-6929**. This information is available to property owners, renters, lenders, real estate and insurance agents.

To view a full scale map with more detail, go online at **www.corvallisoregon.gov**, scroll to the bottom of the page and click on Emergency Preparedness, then on FEMA Floodplain Protections Maps.

Want more information?

Floodplain maps are available for viewing through the Development Services Division located at City Hall if your property is within the Corvallis city limits. If your property is outside the Corvallis city limits, contact the Benton County Development Department at 541-766-6819.

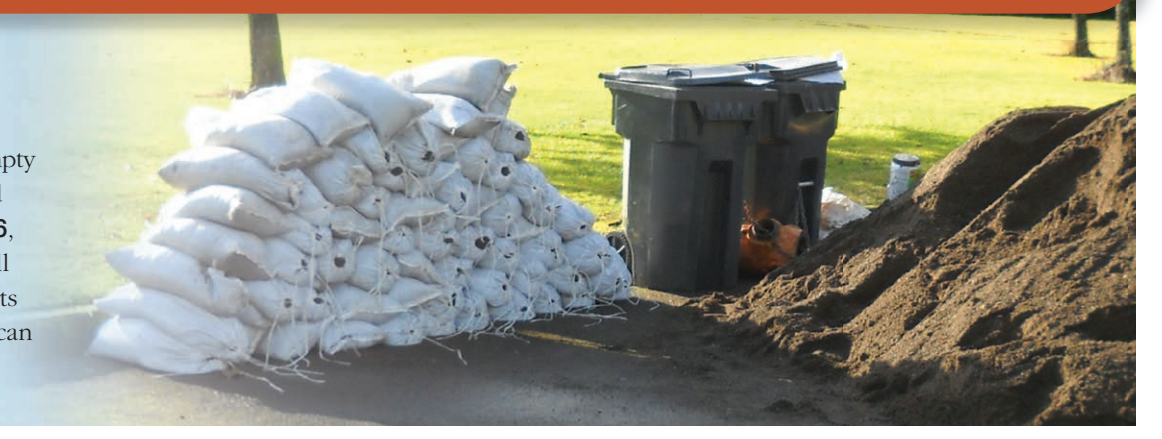
If your property in the city is located within a floodplain area, contact the Development Services Division for more information, such as the potential depth of flooding in your area and a completed FEMA elevation certificate, if one is available for your property.

If your property is within the 100-year floodplain, it is subject to special requirements when development or redevelopment occurs. Familiarize yourself with these requirements by reviewing Chapter 2.11 Floodplain Development Permit and Chapter 4.5 Floodplain Provisions in the City's Land Development Code. Any substantial improvement (i.e. equal to 50% of the building's market value) requires the entire structure to meet the same flood protection construction requirements as new buildings. In addition, new National Flood Insurance Program (NFIP) regulations require a floodplain development permit for all proposed construction and other development within the 100-year floodplain. Contact the Development Services Division at 541-766-6929 for more information.

For information on other flood protection assistance, such as building retrofitting, contact a professional contractor, architect or engineer. You can also review development and/or construction publications available at the Corvallis-Benton County Public Library.

Availability of Sand Bags

If you live in Corvallis, you can get sandbags to protect your property. Depending on the severity of a rainfall event, the City may place sand and empty bags at various locations around the community. Locations will be determined by the type of event. During a heavy rain event, you can call **541-766-6916**, **541-754-1772**, or go to **http://www.corvallisoregon.gov/sandbags** for all locations. Be sure to bring a shovel with you to fill the bags with sand. Alerts about localized flooding or streets that have been closed due to high water can be found at **http://www.corvallisoregon.gov/emergencynews.**



Reference Numbers & Internet Addresses

Government Agencies:

City of Corvallis, Public Works Department
541-766-6916

City of Albany, Public Works Department
541-917-7600

Benton County, Public Works Department
541-766-6821

Benton County Emergency Management
541-766-6864

Corvallis Police Department
541-766-6924

Benton County Sheriff's Department
541-766-6858

Linn County Sheriff's Department
541-967-3950

Local State Police Office
541-967-2026

Road Information:
(for street closures due to flooding)

City of Corvallis (recorded message)
541-754-1772

City of Albany (weekdays 8am – 5pm)
541-917-7600

Benton County Road Closures
541-766-6821

Linn County Road Department
541-967-3919

Oregon Department of Transportation
511 or 800-977-6368

Weather Information:
National Weather Service 503-261-9246

Forecasts & Warning:
www.wrh.noaa.gov/Portland/

Road & Travel Information:
http://www.tripcheck.com

Flood Recovery Information:
http://www.fema.gov

Did you know that on-street leaf collection ends on December 16?

After the 16th, please place leaves in your yard debris cart for weekly collection by Republic Services. Leaves piled on the street after the 16th will not be picked up and may create street flooding by clogging storm drains. You can help reduce local street flooding by keeping catch basin grates free of leaves and debris. If a catch basin in your neighborhood is covered by leaves, take a moment to rake the leaves off and away from the grate. Don't lift the grate or reach into the catch basin. If raking the leaves off the top doesn't unplug the catch basin, please call Public Works at **541-766-6916**.

Streams Assist in Flood Drainage

The primary function of a stream is to remove stormwater to help control flooding. Don't place debris of any kind in an urban stream.

The Public Works Department regularly maintains the urban streams.

Always check with the City's Development Services Division at **541-766-6929** before you build on, alter, or regrade your property, especially if any work is close to an urban stream. An approved permit is generally required.

If you have any questions or concerns, or observe others dumping debris in or removing trees or vegetation from urban streams within the city limits, contact the Public Works Department at **541-766-6916**.

Stormwater Detention Facilities

Stormwater runoff can overwhelm city sewers and damage nearby streams and rivers through erosion. Handling the stormwater near its source assists in controlling flooding. One of the ways the City diverts this runoff is by creating detention ponds where water can collect and drain over time.

Public Works currently has 20 storm water detention facilities around the city and performs a variety of maintenance activities to ensure they operate at peak performance to minimize the impacts of storms and flooding on the community.

More information about urban streams can be found at **http://www.corvallisoregon.gov/urbanstreams** and **surface water management** at **http://www.corvallisoregon.gov/surfacewater** or call the Public Works Department directly at 541-766-6916.

CORVALLIS
ENHANCING COMMUNITY LIVABILITY

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