



2013

# FLOOD FACTS

CRS Activity 330

In the early days, waterways were little more than highways and food sources. Communities developed along major rivers and streams as commerce avenues, sources of power, agricultural venues and other domestic uses. Attempts to harness or tame these waters were a natural result of development. But as development increased, so did the potential risk of flooding. Of all natural disasters, floods take more lives, cause more damage, and have longer lasting effects.



Feb. 1891: The maximum flood of record for Maricopa County occurs on the Verde, Salt and Gila rivers. The Salt River has an estimated 300,000 cubic feet per second water flow, expanding to nearly three miles wide in the Phoenix area and rising to 18 feet above the wooden Arizona Diversion Dam at the confluence with the Verde River. Adobe homes along the Salt River are demolished and the railroad bridge between Tempe and Phoenix is destroyed, leaving Phoenix without a rail connection for three months. Remarkably, no fatalities were recorded.

In 1990, the federal government unveiled a new program aimed at rewarding communities for their floodplain management efforts with a discount on their flood insurance premiums. Under the Community Rating System (CRS) communities volunteer to be rated by the federal government on their effectiveness in performing floodplain management activities. The Flood Control District of Maricopa County currently conducts floodplain management within the jurisdiction of Maricopa County (unincorporated) and 13 incorporated communities. Maricopa County has a Class 4 rating which translates to a 30% percent insurance discount for properties in a flood zone.

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# FLOOD HAZARD AND MAPPING

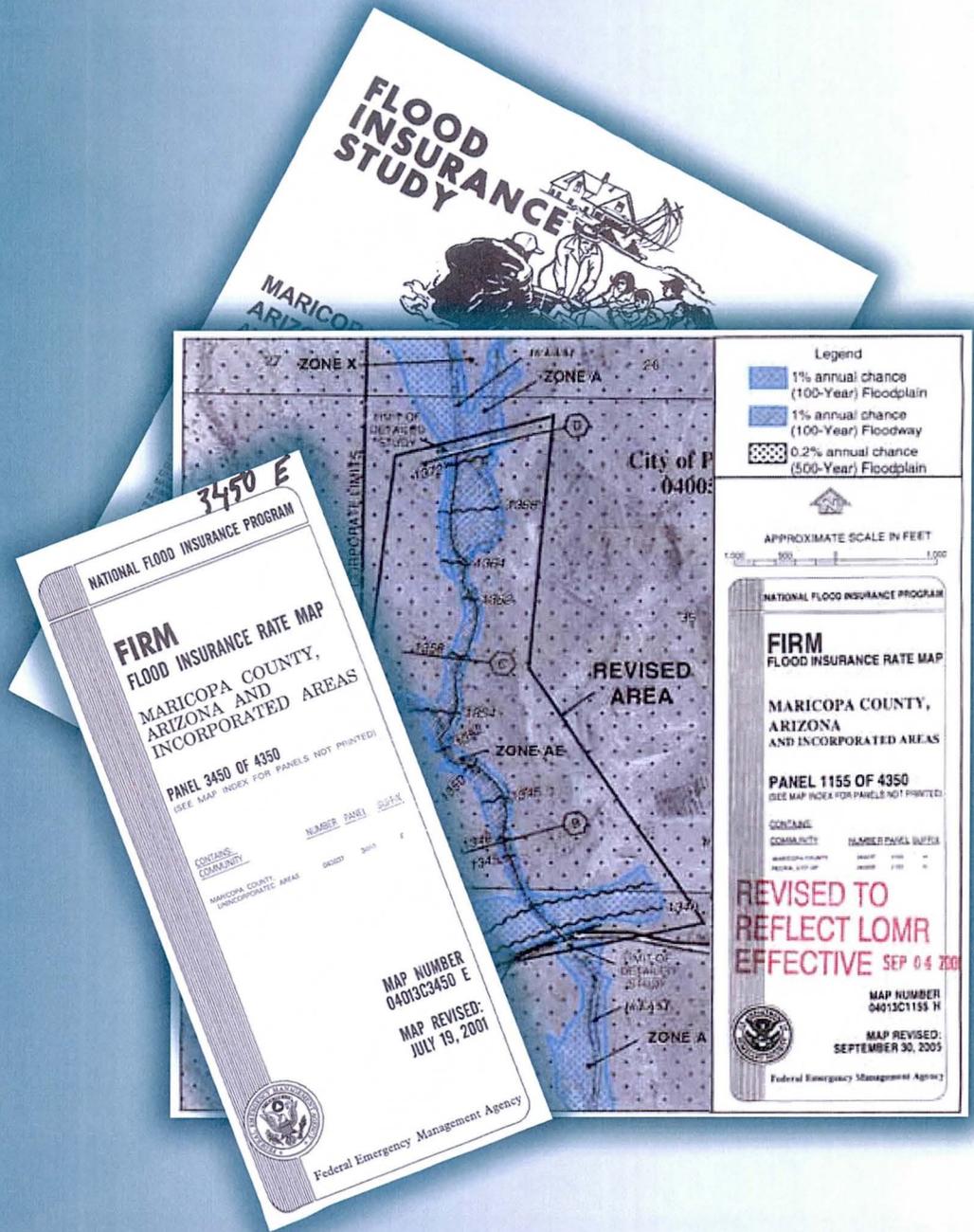
To identify a community's flood risk, the Federal Emergency Management Agency (FEMA) conducts a Flood Insurance Study (FIS). The study includes statistical data for river flow, storm tides, hydrologic/hydraulic analyses, and rainfall and topographic surveys. FEMA uses this data to create the flood hazard maps or Flood Insurance Rate Maps (FIRMs) that outline the community's different flood risk areas.

## What's New in Flood Insurance?

Starting January 1, 2013 the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12) will go into effect. The BW-12 requires FEMA to take steps to eliminate a variety of existing flood insurance subsidies and provides for long-term changes to the National Flood Insurance Program. Under the new law, rates will likely increase overall to reflect the true flood risk of your home. Changes will depend on external factors as when the Flood Insurance Rate Maps (FIRMs) are revised, elevation, flood claims filed, and buildings damaged or improved.

## What's is an Elevation Certificate?

An Elevation certificate is an important tool that documents your building's elevation. If you live in a high-risk flood zone, you should provide an Elevation Certificate to your insurance agent to obtain flood insurance and ensure that your premium accurately reflects your risk. Obtaining an Elevation Certificate also can help you make decisions about rebuilding and mitigation after a disaster.



The FIRM is the basis for floodplain management, flood hazard mitigation and insurance ratings. The FIRM is the official map on which FEMA has delineated both the Special Hazard Flood Area (SHFA) or 1% chance a year of flooding (the 100-year floodplain) and the National Flood Insurance Program risk premium that is applicable to the community.

Flood hazard areas identified on the FIRM are identified as a SFHA. SFHA is defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1% annual chance of flooding is also referred to as the base flood or 100-year flood.

Flood zones are geographic areas that FEMA has defined according to varying levels of flood risk. These zone designations indicate the magnitude of the flood hazard in specific areas of the community. Some parts of floodplains may experience frequent flooding while others are only affected by severe storms. However, areas directly outside of the SFHA may also find themselves at considerable risk.

Changing weather patterns, erosion and development can affect floodplain boundaries. The FIRMs show different degrees of risk for your community, which help determine the cost of flood insurance. For further information regarding FIRMs go to the Flood Control District of Maricopa County website at [www.fcd.maricopa.gov](http://www.fcd.maricopa.gov) or go to FEMA's websites at [www.floodsmart.gov](http://www.floodsmart.gov) or [www.fema.gov](http://www.fema.gov)

### Flood Hazard – Check before you buy

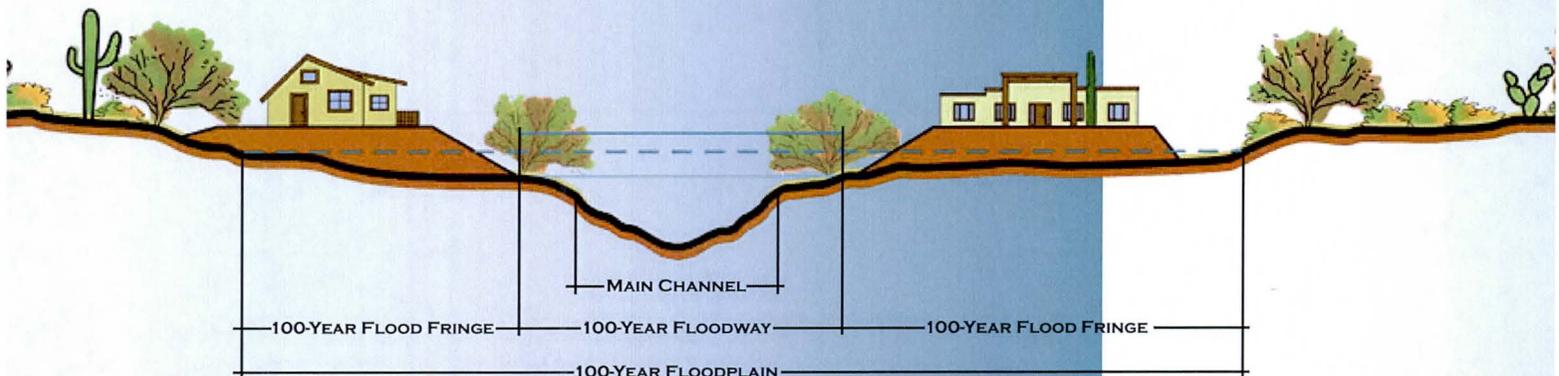
Before you commit yourself to buying property take time to do the following:

- Ask the real estate agent if property is in a SFHA, ever been flooded, if it is subject to any hazards and what building or zoning regulations apply.
- If the property is located in a SFHA, flood insurance will be required by most federally-backed lenders.

### What's New in Mapping?

In the last quarter of 2013 revised FIRMs will be issued by FEMA for Maricopa County. These new maps will be using the elevation reference Vertical Datum 1988. A vertical datum is a set of constants that defines a system for comparing elevations. If someone were to measure the height of the ground you are standing on, they would need a point of reference, or a zero (0.0) point, to measure from. But where is that zero point? A vertical datum establishes a consistent zero point so elevations can be compared with one another even if the elevation measurements are taken by different people at different times or in different parts of the state.

One of the main goals of this effort is to more accurately define the boundaries of flood hazard areas, which are determined by comparing flood elevations with digital elevation data. Also, incorporated into the new maps will be current District floodplain delineation study information. Some residents and businesses may find themselves in or out of a previously mapped floodway and zones may be revised.

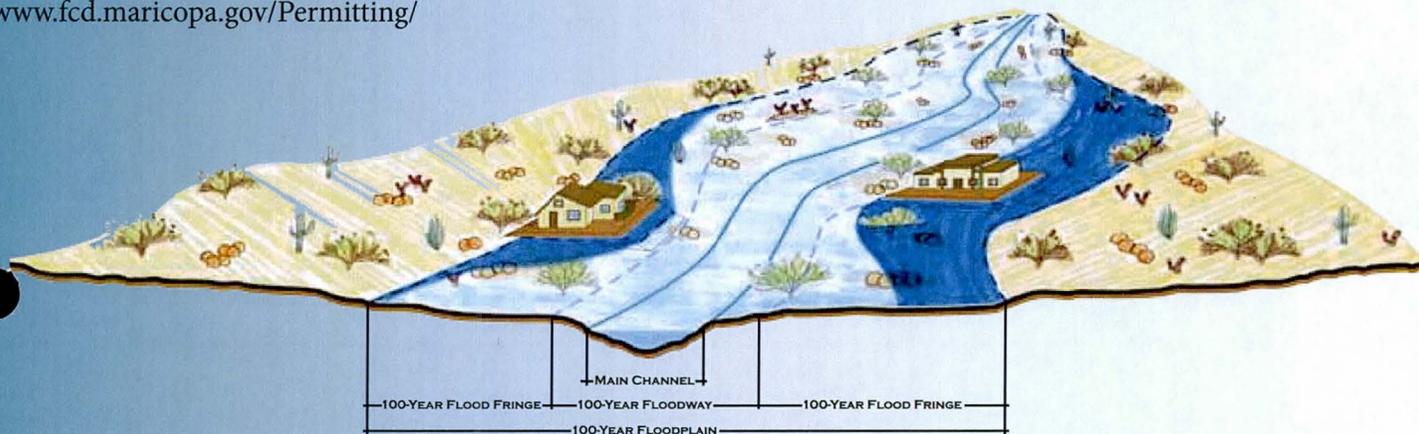


# FLOODPLAIN REGULATIONS

The Flood Control District of Maricopa County Board of Directors has adopted and enforced Floodplain Regulations since February 25, 1974. Procedures are established by which the Floodplain Regulations, the State Flood Control Statutes (Title 48), the Community Rating System (CRS Program) and the Nation Flood Insurance Program (NFIP) shall be administered and enforced to regulate floodplain development.

These Floodplain Regulations require the property owner to obtain a Floodplain Use Permit for improvements, modifications, reconstruction, repair or additions to existing buildings. Regulation compliance is required when improvements, modifications, additions to build, add, grade, install walls or fencing.

The Regulations do allow for development within a watercourse or areas as a Special Flood Hazard Area or 1% chance a year of flood (100-year floodplain). To build in these areas requires a Floodplain Use Permit with specifications to comply with the Floodplain Regulations. For further information regarding the Floodplain Regulations go to [www.fcd.maricopa.gov/Permitting/](http://www.fcd.maricopa.gov/Permitting/)



## FLOODPLAIN DEVELOPMENT & PERMIT REQUIREMENTS

The previous article has explained that FEMA conducts a Flood Insurance Study to determine the flood risk when building in certain areas. FEMA uses this data to create the FIRMs that outline your communities' different flood risk areas and zone designations. These floodplain boundaries can be affected by changing weather patterns, erosion and development.

If your property is located within a SHFA or has a 1% chance of flooding a year and you want to make changes to the land, regulations require you to obtain a Floodplain Use Permit before you build, add, grad, install walls or fencing. The permit requirement aims to minimize flood damage potential to your property without increasing the flood risk to your neighbors' property. A map application can be found at the Flood Control District website [www.fcd.maricopa.gov/GIS/maps.aspx](http://www.fcd.maricopa.gov/GIS/maps.aspx) that is designed to give you an idea if your property is in a floodplain. **IT IS NOT AN OFFICIAL DOCUMENT TO BE USED FOR FLOODPLAIN DETERMINATION.**

New maps, current studies, erosion setbacks and other factors may also affect the floodplain status of the property. To obtain an official floodplain determination call (602) 506-1501 (ask for the Floodplain Management & Services Division), go to the District website at [www.fcd.maricopa.gov](http://www.fcd.maricopa.gov) or stop by at the Flood Control District office located at 2801 W. Durango Street, Phoenix.

# PROPERTY PROTECTION

Flood proofing buildings can help reduce the potential for flood damages to the structure and contents. Most communities have building codes and ordinances to guide construction practices. Many of these are designed to mitigate your risks from all types of hazards including floods. Building materials are considered flood resistant if they can withstand direct contact with flood waters for at least 72 hours without being significantly damaged. Incorporating proper grading in your landscape can improve drainage. If you have questions about mitigation effort to your home or business, contact a professional or your community building official. Other sources of information available are as follows:

Federal Emergency Management Agency (FEMA)  
Flood Control District of Maricopa County  
Maricopa County Planning & Development  
Local Community Building Officials:  
Local Library

[www.fema.gov](http://www.fema.gov)  
[www.fcd.maricopa.gov](http://www.fcd.maricopa.gov)  
[www.maricopa.gov/planning](http://www.maricopa.gov/planning)  
Your City Website  
City or County Websites

Additional information whether your property is in the SHFA or has a 1% percent chance a year of flood (100-year floodplain) can be obtained by stopping at the Flood Control District office located at 2801 W. Durango Street, Phoenix; by calling 506-1501 (ask for the Floodplain Management & Services Division), or visit [www.fcd.maricopa.gov](http://www.fcd.maricopa.gov)



East Pecos Road, 2012

## Drainage System Maintenance

The Maricopa County Board of Supervisors revised and adopted the Maricopa County Drainage Regulations in November 2010. These regulations apply throughout the unincorporated areas of the County and are administered by the County's Planning and Development Department. The Drainage Regulations pertain to all land development and conditions that may affect drainage systems and patterns.

It is important that these systems are maintained and it is illegal to dump trash/debris in ditches, gutters, storm drains, local channels, private easements and washes.

- Elevate your structures and utilities/meter
- Purchase flood and contents insurance
- Construct natural barriers/berms and grade correctly
- Install sewer backflow valves
- Build with flood damage resistant materials
- Be prepared to evacuate your home
- Move furniture to higher levels during flood
- Sandbags are available at your local fire department

For more information regarding the Maricopa County Drainage Regulations go to [www.maricopa.gov/planning/Resources/Regulations/](http://www.maricopa.gov/planning/Resources/Regulations/) or call (602) 506-3301

# FLOOD WARNING SYSTEM

For further information on rainfall, weather or ALERT system go to [www.fcd.maricopa.gov/Rainfall/rainfall.aspx](http://www.fcd.maricopa.gov/Rainfall/rainfall.aspx)

## Flash Flooding

Flash flooding in Maricopa County typically results from intense short duration rainfall events, such as during summer monsoon storms. There may be little or no time for a warning other than a general alert from the National Weather Service. The District operates a 24-hour rain, stream and weather gage network which provides “real-time” information to the County and many other agencies about rainfall, floods and weather conditions in Maricopa County. This system is referred to as ALERT and is an acronym for Automated Local Evaluation in Real Time.

Heavy rainfall can generate stream flows which significantly impact Maricopa County and flood control facilities/structures such as dams, channels and levees. Different combinations of temperature, humidity, dew point, barometric pressure, solar radiation and wind speed/direction are measured by the gages and transmitted to the District every 15 or 30 minutes. Each gage is programmed with an alarm setting that notifies the District, other County departments, and the National Weather Service. Currently the District has 304 automatic rain gages, 167 automatic stream gages and 133 automatic weather stations throughout Maricopa and neighboring counties.

## Dam Safety

Dams can provide vital benefits like flood protection, water supply, hydropower, irrigation and recreation. The District operates and maintains 22 dams solely for flood control purposes and these dams only hold/contain water (impound) during flood events. However, in Maricopa County there are also dams the impound water all year long. Most dams that impact Maricopa County have been designed for the 1% chance a year flood event or greater.

While failure of a dam is a rare event, in order to be prepared, Emergency Action Plans (EAPs) have been developed for most dams that impact Maricopa County. While there are many variations in the individual plans, in general all the plans call for the public to be primarily notified through local media and by direct means like a reverse 911 system. These notifications will include specific information about safety measures and possible evacuation routes.

Additional information about dams can be found in publication published by The Association of State Dam Safety Officials entitled “Living With Dams: Know Your Risks” which can be found at [www.damsafety.org/media/Documents/DownloadableDocuments/LivingWithDams\\_ASDSO2012.pdf](http://www.damsafety.org/media/Documents/DownloadableDocuments/LivingWithDams_ASDSO2012.pdf).



New River Dam

## Levee Safety

Most people are unaware that there are levees along some of the rivers and watercourses in Maricopa County. When properly built and maintained, levees can reduce flood risk but they don't eliminate it. For the last several years the District has been working with FEMA in order to have our levees continued to be accredited as providing protection during the 1% chance a year flood event. One way to find where levees are located is by going to the National Levee Database at <http://nld.usace.army.mil>

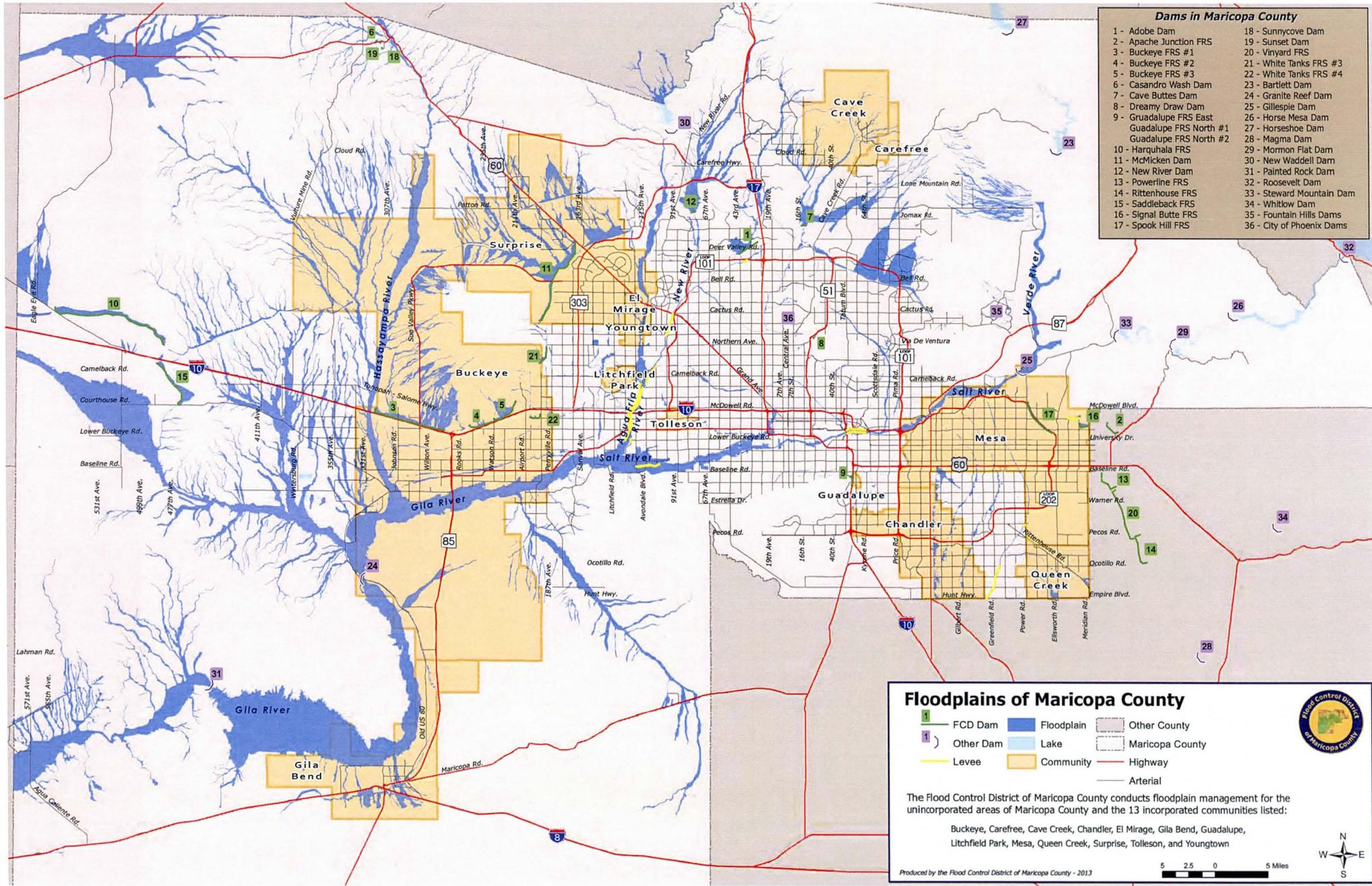
People who live or work behind levees should be aware of where levees are located and how to be prepared if flooding should occur. One thing that property owners should consider doing is following the United States Army Corps of Engineers (USACE) recommendation that everyone in a leveed area have flood insurance. During flood events you should pay attention to local radio and TV, in the unlikely event there ever is a problem with a levee, notices will be provided to local media and specific notifications and directions for impacted areas will also be disbursed through a reverse 911 system. These notices will include information about the event, safety measures that should be undertaken and evacuation routes and procedures.

Several organizations cooperated in the development of a publication entitled "So You Live Behind a Levee". This publication has a lot of specific information on what to do if you live near a levee and is available from The American Society of Civil Engineers (ASCE) web site at <http://content.asce.org/ASCELeveeGuide.html>



Currently the District has certified 7 of the 10 levees per our Provisionally Accredited Levee (PAL) agreements with FEMA. Three (3) EAPs have been completed and the District is developing a Levee Safety Program that will include agency/community coordination, public notification and evacuation plans.

For more information about dam and levee safety go the Association of Dam Safety Officials (ASDSO) at [www.damsafety.org](http://www.damsafety.org) a link is available on the District website at [www.fcd.maricopa.gov](http://www.fcd.maricopa.gov)



- ### Dams in Maricopa County
- |                             |                           |
|-----------------------------|---------------------------|
| 1 - Adobe Dam               | 18 - Sunnycove Dam        |
| 2 - Apache Junction FRS     | 19 - Sunset Dam           |
| 3 - Buckeye FRS #1          | 20 - Vinyard FRS          |
| 4 - Buckeye FRS #2          | 21 - White Tanks FRS #3   |
| 5 - Buckeye FRS #3          | 22 - White Tanks FRS #4   |
| 6 - Casandro Wash Dam       | 23 - Bartlett Dam         |
| 7 - Cave Buttes Dam         | 24 - Granite Reef Dam     |
| 8 - Dreamy Draw Dam         | 25 - Gillespie Dam        |
| 9 - Guadalupe FRS East      | 26 - Horse Mesa Dam       |
| 10 - Guadalupe FRS North #1 | 27 - Horseshoe Dam        |
| 11 - Guadalupe FRS North #2 | 28 - Magma Dam            |
| 12 - Harquihala FRS         | 29 - Mormon Flat Dam      |
| 13 - McMicken Dam           | 30 - New Waddell Dam      |
| 14 - New River Dam          | 31 - Painted Rock Dam     |
| 15 - Powerline FRS          | 32 - Roosevelt Dam        |
| 16 - Rittenbach FRS         | 33 - Steward Mountain Dam |
| 17 - Saddleback FRS         | 34 - Whitlow Dam          |
| 18 - Signal Butte FRS       | 35 - Fountain Hills Dams  |
| 19 - Spook Hill FRS         | 36 - City of Phoenix Dams |

### Floodplains of Maricopa County

1	FCD Dam		Floodplain		Other County
1	Other Dam		Lake		Maricopa County
	Levee		Community		Highway
					Arterial

The Flood Control District of Maricopa County conducts floodplain management for the unincorporated areas of Maricopa County and the 13 incorporated communities listed:

Buckeye, Carefree, Cave Creek, Chandler, El Mirage, Gila Bend, Guadalupe, Litchfield Park, Mesa, Queen Creek, Surprise, Tolleson, and Youngtown

Produced by the Flood Control District of Maricopa County - 2013

Scale: 5 2.5 0 5 Miles



# FLOOD INSURANCE

Flood insurance is available to everyone, whether you live in a Special Hazard Flood Area (SHFA) or not. Flood insurance is available to homeowners, renters, condo owners/renters and commercial owners/renters. Costs vary depending on how much insurance is purchased, what it covers and the property's flood risk. The County is a member of the NFIP and residents /businesses get a 30% discount due to our Class 4 rating in the Community Rating System (CRS) program. Flood insurance is mandatory for structures located in the SFHA with a federally backed mortgage.

## Some facts to know:

- Floods and flash floods happen in all 50 states.
- Everyone lives in a flood zone. For more information, visit our Flood Zones FAQs at <http://www.fcd.maricopa.gov/Floodplain/mapping.aspx>
- Even if your home has not experienced flooding it can still occur in your area. You do not need to be near water to experience a flood.
- Most homeowners insurance does not cover flood damage and it takes 30-days for a flood policy to go into effect.
- If you live in a Special Flood Hazard Area (SFHA) or high-risk area and have a federally backed mortgage, your mortgage lender requires you to have flood insurance.
- Just an inch of water can cause costly damage to your property.
- New land development can increase flood risk, especially if the construction changes natural runoff paths.



Hassayampa River, 2005



Mesa Neighborhood, 2005

Many people are under the assumption that they are not eligible for flood insurance or do not see a need. Most homeowners, business owners and renters can get flood insurance through the National Flood Insurance Program (NFIP) or private insurance companies. Do not be fooled because it has “never flooded” where you live. All areas are susceptible to flooding. Approximately 25% of all flooding occurs in lower risk zones. Federal disaster assistance will pay for flood damage IF THE PRESIDENT DECLARES THE AREA AS A “DISASTER AREA”. However, usually these monies are given as a loan and must be paid back.

# FLOOD SAFETY

Here are some simple rules to help recognize and prepare for a flood:

## Pre-Flood

- ◇ Build an emergency kit and make a family communications plan.
- ◇ Avoid building in a floodplain unless you elevate and reinforce your home.
- ◇ Elevate the furnace, water heater and electric panel in your home
- ◇ Consider installing “check valves” to prevent flood water from backing up into the drains of your home.

## During Flood / Prepare to Evacuate

- ◇ Listen to the radio or watch television for information.
- ◇ Move essential furniture and items to an upper floor.
- ◇ Turn off utilities at the main switches or valves if instructed to do so.
- ◇ Disconnect electrical appliances.

## FLASH FLOOD WATCH

**The National Weather Service will issue a flash flood watch when flash flooding is possible within a designated area.**

## When Leaving Home or Driving

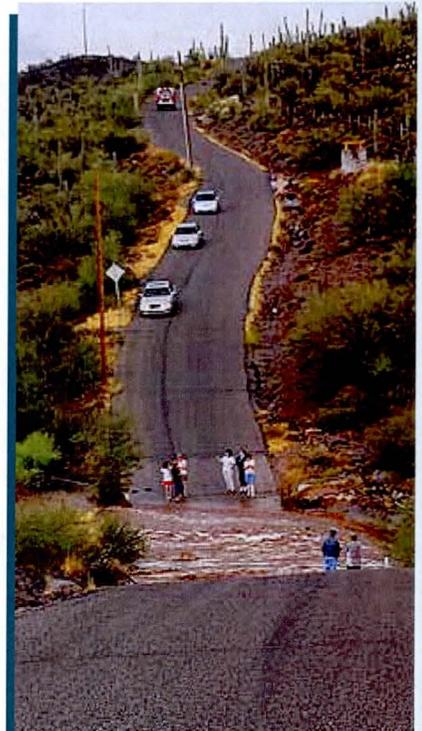
- ◇ Do not walk through moving water. Six inches of moving water can make you fall. Two feet or less of water will cause your vehicle to float.
- ◇ Do not attempt to drive through a flooded road. The depth of water is not always obvious. Be especially cautious driving at night when it is harder to recognize flood dangers.
- ◇ Do not drive around a barricade. Barricades are there for your protection.
- ◇ Do not try to take short cuts. Stick to designated evacuation routes.
- ◇ For more information on flood safety go to the FEMA website at [www.ready.gov/floods](http://www.ready.gov/floods) or the District website at [www.fcd.maricopa.gov](http://www.fcd.maricopa.gov)



56th Street & Broadway - Sidewalk Scoured 2012

## FLASH FLOOD WARNING

**The National Weather Service will issue a flash flood warning if flash flooding has been reported or is imminent. YOU MAY HAVE ONLY SECONDS.**



Rio Verde Area, February 2009

## Floods

Floods are one of the most common hazards in the United States, but not all floods are alike. Some floods develop slowly, while others such as flash floods can develop in just a few minutes and without visible signs of rain. Additionally, floods can be local, impacting a neighborhood or community, or very large, affecting entire river basins and multiple states.

Be aware of flood hazards no matter where you live or work, but especially if you are in low-lying areas, near water, behind a levee or downstream from a dam. Even very small streams, gullies, creeks, culverts, dry streambeds or low-lying ground that appear harmless in dry weather can flood.

## NATURAL AND BENEFICIAL FUNCTIONS

Floodplain land provides many natural resources and functions encompassing economic, social and environmental values. These resources include wetlands, fertile soils, rare and endangered plants and animals and archaeological and historical sites. The natural process of the floodplain influences human activities and are, in turn, affected by our activities. These various functions and benefits represent opportunities and limitations for uses and activities.

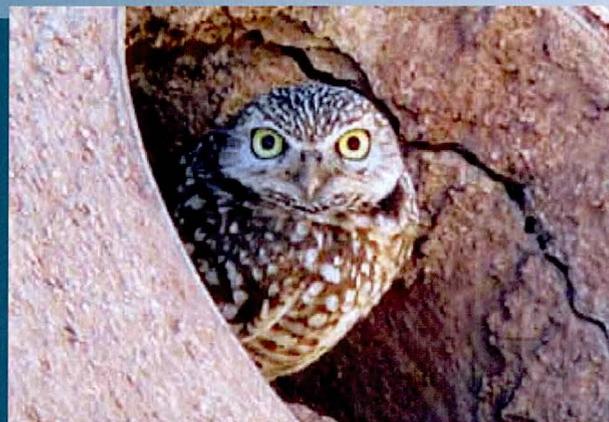
The floodplain resources, including wetlands and agricultural lands, are experiencing increasing pressure for use; development for highways, residential /commercial building sites and other urban uses. Knowledge and information regarding the natural resources, processes and functions of floodplains can contribute to floodplain development. This knowledge can be used to differentiate between lands that should remain in their natural condition, lands that can accommodate certain uses but not others and lands that are most suitable for development.



Gila River



Sonoran Desert Tortoise Hatchling



Burrowing Owl



The Chicken Ranch Mitigation Site on the Agua Fria River

The floodplains of the county's five major river systems are especially important. A floodplain is a fragile environment and can lose its ability to function properly by natural changes or human alteration. Restoration efforts can bring a floodplain back to its original state. Non-structural management activities, such as the Floodplain Regulations for Maricopa County define the rules for usage/development in floodplains and keep floodplains clear to function as nature intended. Floodplains are crucial for maintaining natural flood and erosion control.

Natural and beneficial functions of floodplains include:

- ◇ Floodwater control
- ◇ Water filtering and groundwater recharge
- ◇ Habitats which support a wide variety of plant, wildlife and fish species
- ◇ Environmental research sites and recreational opportunities for parks, walking/biking paths, open space and wildlife conservation

The staff has observed the following plant, wildlife and fish species at some of the District's restorative areas on the Gila River, Salt River and parts of the Hassayampa River. This includes cottonwoods, willows, mesquites and replanting native water species.

Endangered species such as the bald eagle, peregrine falcon, Yuma clapper rail, southwest willow and over 200 birds have been sited. Several species of snakes and lizards, bobcat, coyote, red fox, beaver, raccoon, muskrat, javelina, black-tailed jackrabbit and desert cottontail are now part of the floodplain natural habitats.

The Flood Control District of Maricopa County strives to move toward more non-structural approaches to flood control. For more information go to the District website at [www.fcd.maricopa.gov](http://www.fcd.maricopa.gov).



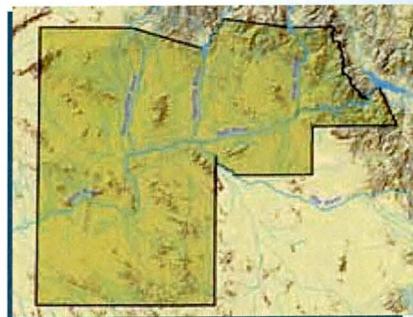
Monarch Butterfly



Juvenile Red Tail Hawk

### Major Rivers in Maricopa County

Maricopa County is situated within the northern extent of the Sonoran Desert. The Sonoran Desert is unique because it is drained by a large river system, rather than the basin playas that are more characteristic of the other deserts of the Southwest.



Five of the largest rivers within the Sonoran Desert flow through Maricopa County, including the Verde, Salt, Agua Fria, Gila and Hassayampa. Because of this diversity, the Sonoran Desert is internationally recognized as one of the richest biotic eco-regions in the world and is often referred to as the "green desert".

# SUBSTANTIAL IMPROVEMENT/DAMAGE

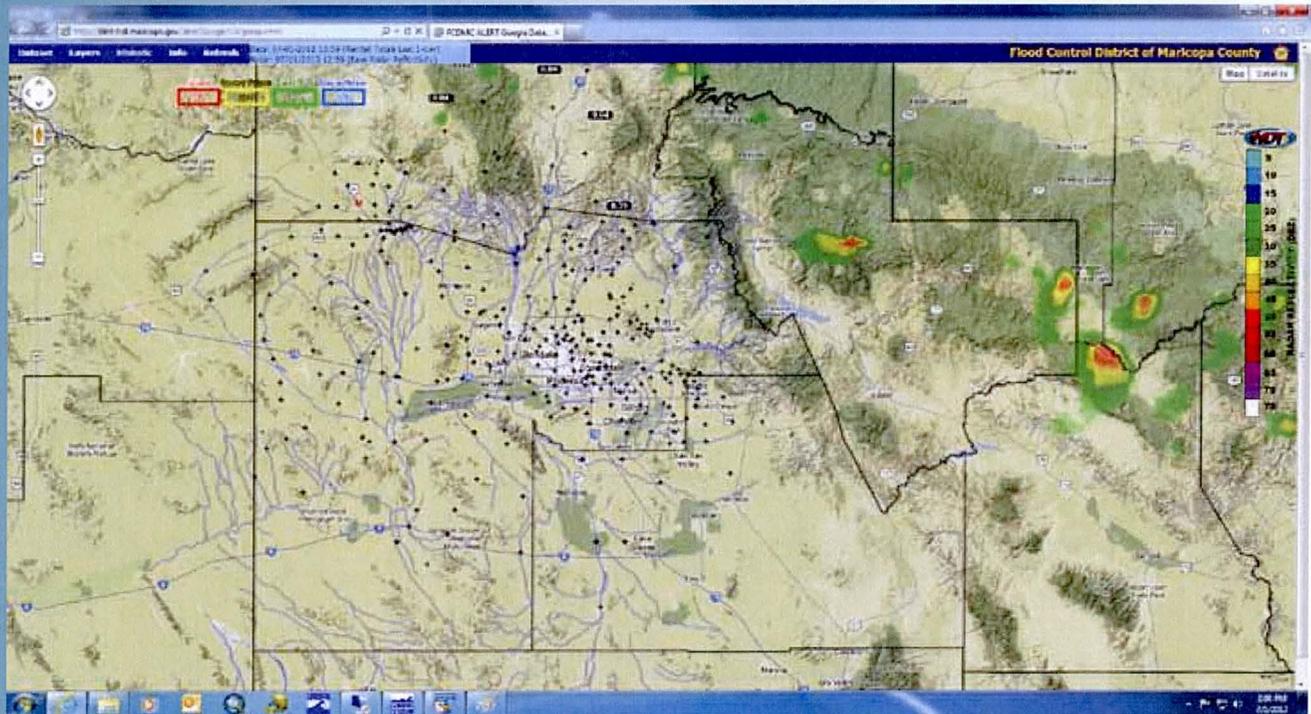
The National Flood Insurance Program (NFIP) requires the District and local communities to adopt and enforce regulations and codes that apply to the building in the Special Flood Hazard Zones (SFHA). Some of the previous articles focused on the regulations that prevent or reduce damage from floods to buildings. If an existing building is damaged by fire, flood, earthquake, wind, rain and/or natural/human-induced hazard the building must meet the requirements for new construction referred to as Substantial Improvement / Damage. The basic rule is as follows: **If the cost of improvement or the cost to repair the damage exceeds 50 percent of the market value of the building, it must be brought up to current floodplain management standards.**

## Key Points

Substantial Improvement – all building improvement projects that require a permit must be considered including remodel, rehabilitation, additions, repair and reconstruction.

Substantial Damage – damage can be from any cause and this rule applies to all buildings in the SFHA, regardless of whether the building is covered by flood insurance. For further information go to [www.fema.gov](http://www.fema.gov)

## Weather/Rainfall/Streamflow Google Map Map for your Desktop!



The Flood Control District of Maricopa County (District) operates a 24-hour rain, stream and weather gage network which provides “real-time” information to the County and many other agencies about rainfall, floods and weather conditions in Maricopa County. This Google map allows the users to view all the current rainfall, streamflow, impoundment and water data. Additional layers like the National Weather Service Warnings and WDT Radar can be overlaid on the map. For more information on all the functions of this map please refer to <http://alert.fcd.maricopa.gov/alert/Google/docs/gmap>.

## Tablet/Smart Phone Google Map

If you own a tablet or a smart phone, you can view the Weather/Rainfall/Streamflow Google map on the go, visit our website <http://bit.ly/fcdgmap> or scan the Quick Respond (QR) Code below!

Use your smart phone to scan the QR Code below, this will take you directly to the link. To use the QR Code reader, you must download the App to your phone or tablet. If you have an Apple product use the "App Store" and type in "qr code." If you have an Android, use the "Play Store" and type in "qr code."



Rainfall/  
Streamflow  
Data



View  
Areas with  
Warning Alerts



View  
Radar



QR Code

## Monsoon Video Specials & Information

Want to learn more about Monsoon Season? Use your qr code App to watch these three short videos.



Or follow the links below:

- ABC 15: <http://www.abc15.com/subindex/weather/monsoon>
- CBS5AZ: <http://www.kpho.com/category/264908/2013-monsoon-season>
- Channel 3: <http://www.azfamily.com/weather/severe-weather/Monsoon-Special-2013-Dust-storms-create-dangerous-threat-for-Arizona.html>



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FACEBOOK!



FOLLOW US  
ON TWITTER!



**DO NOT ENTER  
FLOODED WASHES**

# FOR ADDITIONAL INFORMATION

**WHEN FLOODS  
ARE NEAR,  
STEER CLEAR**

See the following websites:

Arizona Flood Warning System: [www.afws2.org](http://www.afws2.org)

Flood Control District of Maricopa County: [www.fcd.maricopa.gov](http://www.fcd.maricopa.gov)

Maricopa County Emergency Management: [www.maricopa.gov/emerg\\_mgt](http://www.maricopa.gov/emerg_mgt)

National Weather Service: [www.nws.noaa.gov](http://www.nws.noaa.gov)

For Flood Watch/Warnings and Flash Flood Watch/Warnings tune into local stations (TV or radio) or the local NOAA Weather Radio in the Phoenix area - KEC 94 at 162.550



## Flood Control District of Maricopa County

2801 West Durango Street

Phoenix, Arizona 85009

Phone: 602-506-1501

Fax: 602-506-4601

[www.fcd.maricopa.gov](http://www.fcd.maricopa.gov)

### Interactive Locator Map



Click [here](#) to view an interactive map and zoom in on any area in the county to see structures, projects and studies.

- [Map Instructions](#)

To access information on Flood Control projects, structures, and studies use the Flood Control District's "Interactive locator Map" by going to the "Projects & Structures" page on the District website at:

[www.fcd.maricopa.gov/  
Projects/PPM/projStruct.aspx](http://www.fcd.maricopa.gov/Projects/PPM/projStruct.aspx)

If this brochure was mailed to you, chances are your property is in a flood hazard zone and you are required to carry flood insurance. This brochure is designed to provide you with general information to get you started in your flood protection measures.