



Since 1862, there have been at least 25 serious floods on the Napa River and numerous floods on tributaries to the River. Living and working in Napa means being prepared for possible flooding every winter.

Citizens' Guide to Flooding and Flood Recovery

Updated February 2007

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Napa's Ten Most Severe Floods

The historical record shows at least 25 significant floods on the Napa River since 1862. Comparing modern floods with events that occurred decades ago is challenging, as accurate measurement of the rainfall amounts and peak stages of the River have not been possible until relatively recent times. This data from the ten most severe floods on record provides insight into the elements of a severe flood; namely, large amounts of rain over relatively short periods of time, occurring after the ground has become saturated and much of the rainfall becomes runoff. The chart demonstrates that a flood can happen after a prolonged period of moderate to heavy rain, as in 1986, or after a short period of extremely intense rain, as in 2005. Creek floods can develop over much shorter periods of time. Three inches of rain over six hours is often enough to cause creek flooding. Simply put, floods are a product of the location, duration and intensity of storms.

<i>Date(s) of flood</i>	<i>Days of rain prior to flood</i>	<i>Total multi-day rainfall/Conn Dam gauge</i>	<i>Total rainfall at Conn Dam day prior to flood</i>	<i>Peak stage at Oak Knoll Ave</i>	<i>Peak stage at Lincoln Ave</i>
Feb 17-18, 1986	7	14.2"	3.6"	30.20'	24.20'
Dec 31, 2005	2	6.6"	6.4"	29.85'	23.04'
Mar 9, 1995	2	7.6"	4.4"	30.50'	22.80'
Jan 21, 1967	3	6.8"	4.0"	26.47'	22.7' to 23.2'
Feb 27, 1940	3	10.0"	5.6"	28.0' (est.)	22.3'
Jan 1, 1997	3	7.6"	4.0"	28.07'	21.4'
Dec 22, 1955	5	16.0"	4.8"	27.5' to 28.2'	20.6'
Jan 9, 1995	4	11.9"	5.5"	26.8'	20.5'
Feb 3, 1998	3	5.9"	4.8"	26.72'	20.2'
Jan 31, 1963	3	7.9"	3.0"	27.59'	19.8' to 20.5'



**Main Street, Napa,
February 1940**

How Napa Floods

The City of Napa is at risk of both slow-rise and flash floods.

Typical floods on the Napa River are slow-rise floods. This type of flood is preceded by a warning time lasting from hours to days. There is a sequence of events—rainfall producing heavy runoff, flood watches and river advisories issued— that can be tracked over time.

Creeks and streams may produce slow-rise or flash floods. Flash floods may occur after an extremely short warning time, or with no warning time at all in some situations.

Areas at risk of flooding in Napa are generally from Trancas Street in the north to Imola Avenue in the south, Coombs Street to the west and Silverado Trail to the east. However, it's important to understand that flooding can and does occur outside these general boundaries. Any creek, stream, or drainage system can be overwhelmed during heavy rains. Flooding could occur while you are in your home, at work, or while you are out of town. It might happen in the middle of the night or on a holiday.

As a result of our risk of flooding, the City of Napa dedicates a significant amount of time and resources to disaster preparedness and encourages all citizens to be informed and prepared. This booklet is designed to provide information to help you with preparation for flooding, responding correctly when a threat develops, and getting your home or business cleaned up and back to normal when the flood is over.

Are you at risk?

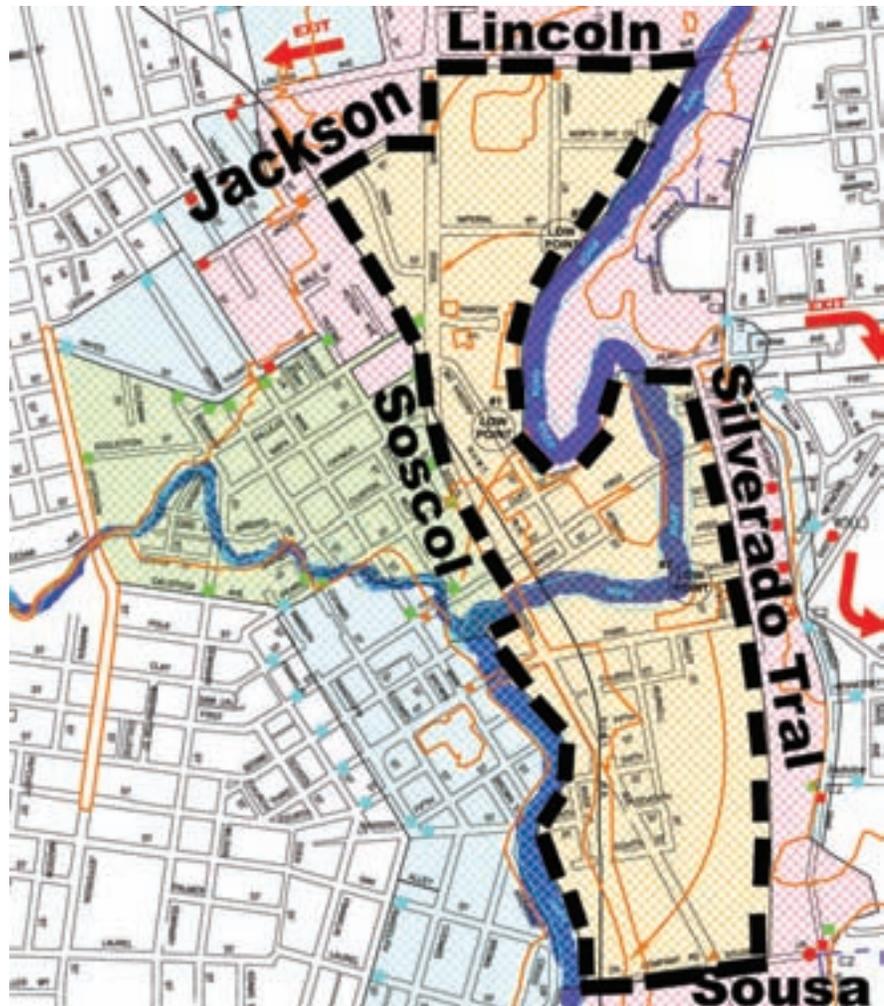
The first step in preparedness is to evaluate your level of risk. Flood maps and flood protection references are available at the Napa City-County Library at 580 Coombs Street; or visit the City of Napa Public Works Department at 1600 First Street to see if you are in a mapped floodplain. If so, Public Works staff can provide more information on past flood problems in the area. If requested, Public Works staff will visit a property to review its flood problem and explain ways to stop flooding or prevent flood damage. These services are free.

The maps on pages 3-5 show the City's four defined areas of greatest flood risk. These are labeled as phases 1, 2, 3 and 4. (The phase 1 area, which is primarily at risk from Napa Creek flooding, is known to be inundated independent of flooding from the River, or as a precursor to a larger River flood, or both.) Experience has shown that a major slow rise flood on the Napa River will follow a fairly predictable pattern. Understanding this pattern helps the City anticipate where flooding will develop.



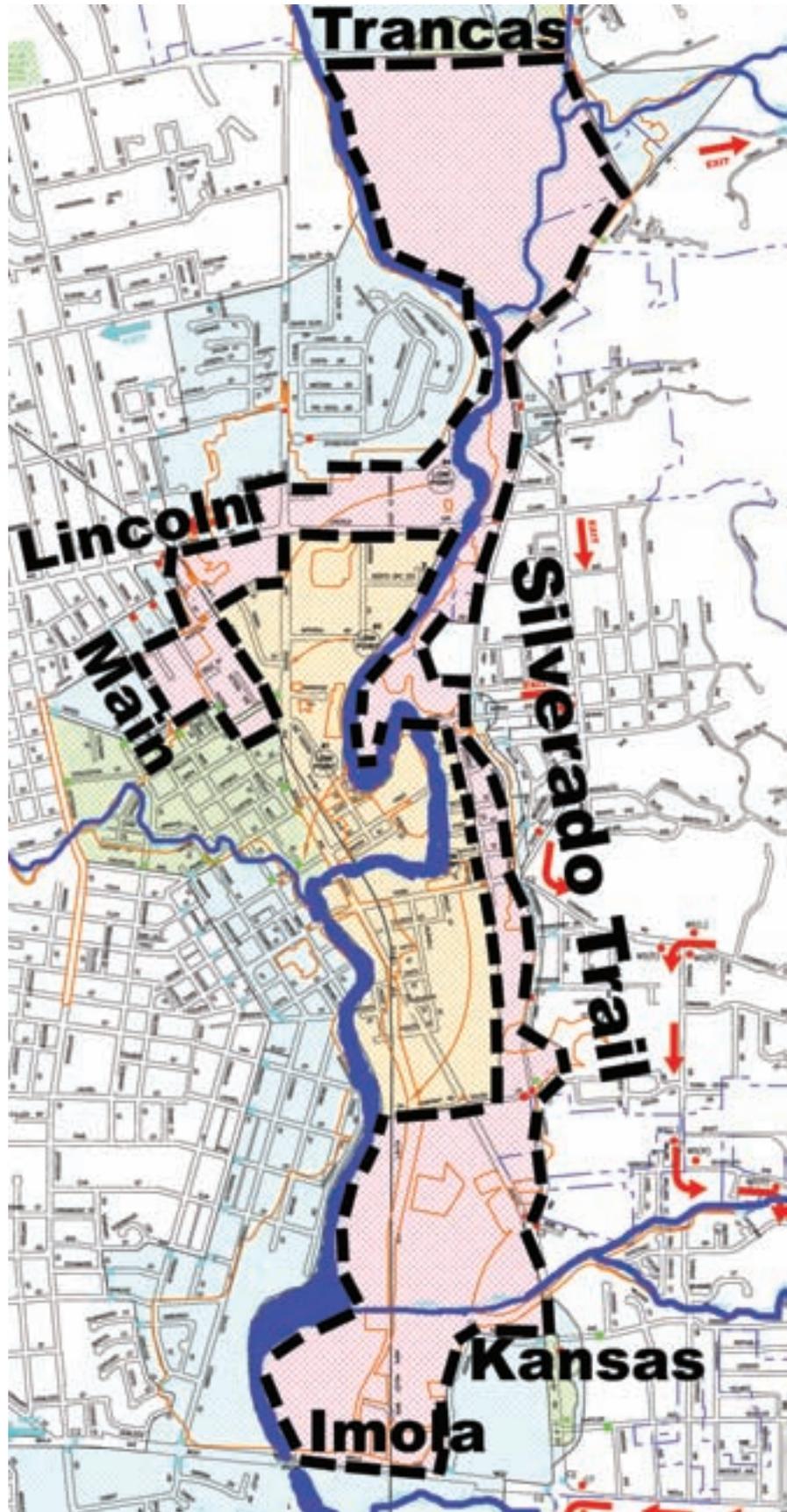
The phase 1 area is flooded when Napa Creek overflows its banks. The phase 1 area is generally bounded by Jefferson Street on the west, Hayes and Yount Streets on the north, and Soscol Avenue on the east. To the south, as the overflow from the Creek makes its way to the main channel of the Napa River, the area of inundation is bounded by Calistoga Avenue, Pearl Street and First Street. During a River flood, the phase 1 area may be inundated by both Creek and River floodwaters. See the list of streets that will be closed in this area on page 17.

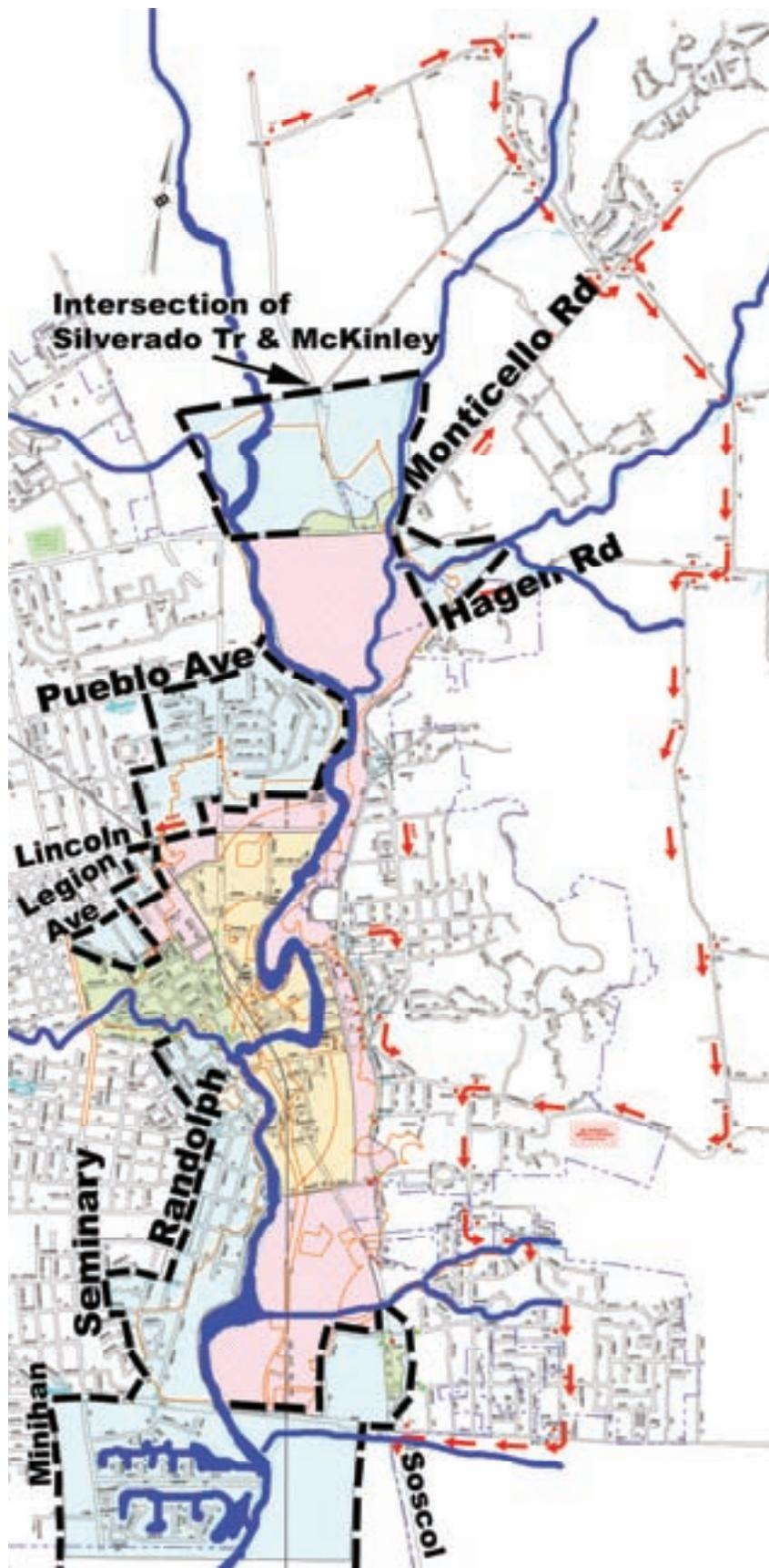
The phase 2 area is the first area inundated when the Napa River leaves its banks at Lincoln Avenue and/or the Oxbow. The phase 2 area is generally bounded on the west by the railroad tracks, Soscol Avenue and the Napa River; on the north by Jackson Street and Lincoln Avenue; on the east by the Napa River and Silverado Trail, and on the south by Sousa Lane and Oil Company Road. While the phase 2 area is inundated, the phase 1 area may remain flooded by waters from Napa Creek and/or the Napa River. See the list of streets that will be closed in this area on page 17-18.



As floodwaters rise, the inundated area grows and the **Phase 3 area** begins to flood. This area is generally bounded by Trancas Street on the north, and Silverado Trail on the east. To the south, flooding on the east side of the river spreads to Imola Avenue. Flood waters expand to the north and west along Lincoln Avenue, reaching as far west as Main Street in some areas. As the phase 3 area is inundated, the phase 1 and phase 2 areas will remain flooded by waters from Napa Creek and/or the Napa River. See this list of streets that will be closed in this area on page 18.

A full-size, downloadable color version of this map showing all four phase areas is available at www.cityofnapa.org on the “Weather and Flood” page or at www.cityofnapanews.com/emergency.htm. Users can enlarge the online .pdf version of this map to see greater detail.





Inundation of the **Phase 4 area** takes place next in the sequence during severe floods. Floodwaters will extend north as far as the intersection of Silverado Trail and McKinley Drive, and to the east a short way along Monticello Road and Hagen Road. Soscol Avenue north of Lincoln to Pueblo Avenue will flood. The areas of downtown and old town south of Napa Creek begin to be covered by floodwaters from the River, in addition to flows from Napa Creek in some areas. Flooding in phase 4 includes the Riverside Drive and South Coombs Street area, extending as far west as Seminary Street, and flooding occurs south of Imola Avenue to the City limit. (In the flood of December 2005, flooding in the downtown area appeared to be lessened due to the partially completed Flood Protection Project. Additional work completed since that flood may provide a reduction of flooding in the future in the Riverside Drive/South Coombs Street area and south of Imola Avenue.) See the list of streets that will be closed in this area on pages 18-20. Arrows indicate evacuation routes for those on the east side of the River seeking to travel to the west side via Imola Avenue or south via Soscol Avenue/Highway 221.

If your property is at risk of flooding, there are things you can do to reduce your exposure to damage

Be a good steward

- If your property is next to a ditch, creek or river, do your part to keep the banks clear of brush and debris. The City has a stream maintenance program that can help remove major blockages such as downed trees, but this is often the responsibility of the property owner as most creeks and streams are actually private property and not owned by the City or other public agencies.
- Do not dump or throw anything into ditches, creeks or rivers. Dumping in waterways is a violation of Fish & Game Section 5650. Even grass clippings and branches can accumulate and plug channels. A plugged channel cannot carry water, and when it rains the water has to go somewhere. Every piece of trash contributes to flooding.
- If you see dumping of debris in the ditches or streams, contact the Public Works Department at 257-9520 or 257-9600.
- Always check with the Community Development Department before you build on, alter, re-grade, or add fill on your property. A permit may be needed to ensure that projects do not cause problems on other properties
- If you see building or filling without a City permit sign posted, contact the Building Division at 257-9540.

Reducing Your Risk

Get flood insurance for your structure and contents

Homeowner's insurance policies do not cover damage from floods, but the City of Napa participates in the National Flood Insurance Program. That means you can purchase a separate flood insurance policy. This insurance is backed by the Federal government and is available to everyone, even for properties that are known to have been flooded in the past. There is a 30-day waiting period before flood insurance goes into effect, so contact your insurance agent well in advance of the storm season. Currently there are about 1,400 flood insurance policies in effect in the City of Napa.

Some people have purchased flood insurance because it was required by the bank when they got a mortgage or home improvement loan. Usually these policies just cover the building's structure and not the contents; additional insurance is available to cover contents. During the kind of flooding that happens in the City of Napa, there can be as much or more damage to the furniture and contents than to the structure.

Even if the last flood missed you, or you have done some flood proofing, the next flood could be worse.

Flood Proofing

There are several different ways to protect a building from flood damage.

- Keep water away by re-grading your lot or building a small floodwall or earthen berm. These methods work if your lot is large enough, if flooding is not too deep, and if your property is not in the floodway. The Public Works Department can help you find out if these methods are appropriate for your location.
- Make your walls waterproof and place watertight closures over doorways and other openings. This method is not recommended for houses with basements or if water will get over two feet deep.
- Raise the house above flood levels. A small wood frame house can be elevated for approximately \$50,000. As an example, take a look at the houses on Carolina and Ida Streets. Some have been raised five to six feet.
- Prevent sewers from backing up into the basement during heavy rains. This can happen in many buildings, even those not in the floodplain. A gate valve installed in the sewer pipe can prevent backup. Contact the Napa Sanitation District at 707-258-6000 for additional information.

Remember: Most alterations to your building or land require a permit from the Community Development Department. Even re-grading or filling in the floodplain requires a permit.

Sandbagging

Some people in flood prone areas take advantage of the City's proactive sandbag program and bring sandbags to their location at the start of the rainy season. Read more about sandbagging on page 11.

Most
alterations
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Before Storms Threaten

Be prepared. There are many things you can do before the rainfall begins.

- Learn First Aid and CPR.
- Learn where you can get weather forecasts, advisories, watches, and warnings. See page 26 for recommended information sources.
- Locate your utility connection points and prepare written instructions on how to turn off electricity, gas and water if authorities advise you to do so
- Secure important family documents in a waterproof, portable container you can grab quickly in case of evacuation. In this container you may want to keep
 - Financial documents such as insurance policies, wills, contracts, deeds, stocks and bonds, bank account numbers, and credit card account numbers.
 - Identification documents such as passports, Social Security cards, birth, marriage, and death certificates.
 - Medical documents such as immunization records and information on your prescriptions
 - Other documents such as a written inventory of valuable household goods, a list of important telephone numbers, and anything else that you would find difficult to replace.
- Establish an out of the area "family contact" and let friends and relatives will know to call that person for information on you.
- Conduct drills so your family will know what to do if there should be sudden flooding.
- Decide how and where your family will reunite if separated.
- Determine a safe place for your pets if you need to evacuate.
- Keep your gas tank at least half full at all times. If you have a sudden need to evacuate you will be ready to go.
- Prepare a disaster kit that will make you self-sufficient for three days. Your kit should include:
 - Water stored in closed, clean containers. Store 1 gallon per person per day, and water for pets.
 - Non-perishable foods.
 - Can opener
 - Battery operated or crank powered radio
 - Flashlight and extra batteries
 - Matches and candles for use when you are sure there are no gas leaks
 - First aid kit, essential medications and spare eye glasses
 - Mess kit or paper cups and plates and plastic utensils
 - Alternate cooking source
 - Protective clothing, shoes, hats, gloves, rainwear and bedding
 - Whistle

- Entertainment such as books and games
- Fire extinguisher suitable for all types of fires
- Emergency cash
- Special items for infants, the elderly or disabled
- Utility knife
- Adjustable wrench for turning off gas and water if needed
- Toilet paper, towelettes, soap and personal hygiene items

Preparing sandbags in advance

The City of Napa makes sandbags and sand available free of charge at the start of the rainy season. The sandbag operation takes place at the City’s Corporation Yard at 770 Jackson Street on the first Saturday of each month November through March, from 9am through 1pm. This program allows residents and businesses to fill their own sandbags and take them to the location where they may be needed. (Experienced sandbaggers will attest that it is a lot easier to fill sandbags when it’s dry and when you have plenty of time.) Most people who use this program keep the sandbags on hand throughout the winter. If you know you are at risk of flooding, it just makes sense to take advantage of this program. In the spring, when the rainy season is ending, the City will announce pick up dates and City crews will haul away the sandbags at no charge.

Sandbag operations when a watch is issued

When the National Weather Service issues a Flood Watch for the Napa River or its tributaries, or when a local emergency has been declared and the City’s Emergency Operations Center (EOC) is activated, sandbags are made available at the Memorial Stadium on Menlo Avenue west of Jefferson Street.

Sandbags can also be purchased at:

Wilson’s Feed	1700 Yajome St.	252-0316
Clark’s Rock	650 Green Island Rd.	252-2044
Home Depot	255 Soscol Ave.	251-0162

Sand can be purchased at:

Clark's Rock	650 Green Island Rd.	252-2044
Home Depot	255 Soscol Ave.	251-0162
Syar Industries	230 Napa-Vallejo Hwy	252-8711
Shamrock	999 Kaiser Rd.	226-7421

**Plan
Ahead:
Stock up
on
Sandbags**

Special considerations for places of business

Most of the information in this guide applies to both residents and businesses, but there are some considerations for persons who have a business operation in an area at risk of flooding.

Before a flood threatens:

- If you are a tenant, discuss the flooding threat with the landlord. Understand the responsibilities of each party.
- Review flood insurance options.
- Be acquainted with your neighbors and their plans for flood response. You may make the effort to protect your location, but a neighbor might not, and you could be flooded from adjoining walls, doors or other openings.
- Know the location of drains on your roof and in the surrounding area. Make sure water has a place to go.
- Know the location of all utilities and how to shut them off.
- Make a flood plan for your business addressing preparations before a flood, what you will do during a flood, and how you will clean up and get back to business after a flood.
- Consider preparing sandbags and storing other materials like plywood, plastic and tape in advance.
- Build an emergency kit for the workplace. See the list on page 10 for ideas.
- Make a list of employee home phone and cell phone numbers.
- Hold a meeting to understand which employees can be called on to help with sandbagging or other measures.
- Plan for a place to park cars outside the flood risk area.
- Plan for a place to relocate inventory and equipment if needed.
- Plan to backup computer data and store it offsite.
- Plan for evacuating critical files, including accounts receivable, general ledger, tax returns, checks, customer lists and orders, contracts and other documents.
- Plan for a place to relocate any toxic or hazardous chemicals.

If a flood is imminent:

- Activate your flood plan
- Disconnect electrical equipment and relocate it if possible.
- Turn off gas and water if you know how to do so safely.
- Raise elevators to the second floor and turn them off.
- Empty your safe and remove cash and valuables from the site.
- Remove toilets and close off floor drains.
- Notify your alarm company.
- Notify key customers and suppliers.
- Document flood preparations and flood damage with photos and video.

Plans for Business Sites

Know how to respond as official information is released.

If heavy rains bring the possibility of a flood, the National Weather Service will begin to issue bulletins.

- **Advisory:** weather conditions are expected to cause significant inconveniences that may be hazardous.
- **Watch:** there is the possibility of severe weather within the designated watch area. **When a watch is issued, be alert.**
- **Warning:** flooding is occurring or severe weather is imminent. **When a warning is issued take action immediately!** If you are in a low area, especially near a creek, stream, or river, get to higher ground immediately.

Whether on foot or in a vehicle, never attempt to cross a running creek, stream, or river when a Flood or Flash Flood Watch or Warning is in effect. Flash Floods can take only a few minutes to develop.

See the sources of information listed on page 26 to learn where you can stay in touch with advisories, watches and warnings as they are issued.

How the City of Napa responds

The City of Napa maintains an emergency plan, and personnel have had a lot of experience with flooding. When the ground has become saturated and more rainfall means substantial runoff, or when a series of heavy storms is tracking toward our area, the potential for flooding develops. We begin to keep a close eye on radar, forecasts, and the levels on the local waterways. If needed, briefings are held for City staff to make sure it's understood that a flood could happen. If the situation worsens, the City Manager, operating as the Emergency Services Director, may open an Emergency Operations Center (EOC) using the statewide Standard Emergency Management System (SEMS) structure. The EOC responds to the public safety and information needs of the community.

If an emergency creates a situation that requires more resources than the City can supply, assistance is requested from County, State or federal authorities.

Advisories, Watches and Warnings

Understanding stream and river level information

The Napa River and its tributaries are monitored by a system of gauges that are tied in to a central web page at <http://napa.onerain.com>. This site was developed cooperatively by the City of Napa, County of Napa, City of St. Helena, and the Napa County Flood Control and Water Conservation District. It contains a wealth of information and real-time data on weather, rainfall and resulting levels in the waterways.

What River and Stream Levels Tell Us

The “monitor stage” and “flood stage” can be viewed for each monitoring point. (“Monitor stage” means the waterway is approaching the level where flooding will begin—“flood stage” is the level where that waterway will spill over its banks.) This web-based tool is useful for those in flood prone areas, allowing the threat level to be tracked 24 hours a day, 7 days a week.

This information on monitor stages and flood stages will be used in releases to the public and media before and during a flood, so it is important for those in at-risk areas to know how to interpret the data.

The threat of widespread flooding from the Napa River in the City of Napa is most directly assessed by viewing the river level at Oak Knoll Avenue (sometimes referred to as “Napa River Near Napa.”)

Monitor Stage at this point is 22 feet. When the River reaches this level and appears to be rising, the City’s EOC will be placed on standby or activated. The status is said to be “Stage 1” and flooding is expected. Public safety personnel will begin to patrol low-lying areas, and crews may begin placing barricades and closing streets. (See the maps on pages 5-7 and the list of street closures on pages 17-20.) If the River rises to Flood Stage of 25 feet, this is said to be “Stage 2” and flooding begins. At this point the City’s emergency plan is activated and evacuation of the phase 1 area begins. If the River is forecast to reach 26.7 feet at Oak Knoll, the phase 2 area will be evacuated; a forecast of 28 feet leads to evacuation of the phase 3 area; and a forecast of 30 feet indicates the phase 4 area will be evacuated. As these areas are evacuated, the streets are closed

As conditions change, be ready to take action.

Most people in the City do not need to leave their homes during a flood. The general rule is to “shelter in place” for those who are not at risk of flooding. The City asks that you do not travel during a flood unless necessary. The work of Police, Fire and other personnel is made more difficult when sight-seers cause traffic congestion and get stranded in floodwaters. Stay out of the floodwaters and stay out of the way— let the first responders do their jobs to help those in need. Keep in mind that it is against the law to drive around barricades and into a closed street. Violators will be fined.

When it appears that flooding is likely, residents will be advised to evacuate from certain areas. If you are asked to evacuate, move to a safe place before access is cut off by floodwaters. The City will open shelters as needed for those who do not have family or friends available nearby.

If time permits, here are some steps to take before you leave you home.

- Move valuable household possessions to the upper floors of your home.
- Disconnect all electrical appliances or turn off all electric circuits at the fuse panel by pulling the main switch.
- If you know how to do so safely, shut off gas service at the meter and turn off water service at the main valve.
- Take your necessary medications, a change of clothing, and your container of important family documents. (See page 10.)



If You Must Evacuate Your Home

**Third Street, Napa,
January 1997**

Be smart, stay safe.

If you are lucky enough to be out of harm's way as a flood develops, it's very tempting to venture out into the flooded areas to see what's happening. Unfortunately, sightseers make the problems worse. Getting stranded in your car means you will need to be rescued, and public safety workers may be called away from a place where they are badly needed. Curious drivers who go around barricades cause waves to wash over sandbags and make flooding worse, and the increased water pressure from these waves can cause broken windows.

For your safety, and for the well being of those who are flooded, please follow these rules during a flood:

When the Flood Happens

- Stay away from power lines and electrical wires. Electrical current can travel through water. Report downed power lines to PG&E at 800-743-5000 or the City Streets Department at 257-9524.
- Be alert for gas leaks. Don't smoke or use candles, lanterns or open flame if you have any suspicion of leaking gas.
- Avoid walking in flooded areas if possible. There may be missing manholes or debris under the water. If you must walk through water, use a stick to check the firmness of the ground in front of you.
- Do not walk through flowing water. Even water as shallow as six inches may cause you to be swept away.
- Do not try to drive over a flooded road. There may be debris or wash-outs you can't see. One foot of water will float many vehicles, and two feet of moving water can wash away most vehicles, including SUVs and trucks. You may become stranded, trapped, or worse.
- Do not drive around street barricades. You will be fined.
- If your car stalls in floodwaters, abandon it immediately and get to higher ground.
- Keep children and teenagers with you. Their curiosity may lead them into a dangerous situation.
- Watch for snakes and other animals that may have been displaced by floodwaters.
- Carbon monoxide exhaust kills. Camping stoves and charcoal fires as well as generators and other gasoline-powered machines, must be used outdoors only.
- Avoid unnecessary trips. If you must travel, let someone else know where you're going and when you expect to return.
- Minimize use of the telephone. Call for family emergencies or to report dangerous conditions, but keep lines available for those who need them. Use 911 only for a life threatening emergency.
- Stay tuned to radio, TV and internet sources of emergency information and instructions.

When flooding is imminent, City crews begin to block off streets that will soon be flooded. The street closures are done in four phases.

Phase 1 Area Street Closures (see map on page 5)

Arroyo Drive	All
Behrens Street	All
Brown Street	Between Yount and Pearl
Caymus Street	All
Center Street	All
Clinton Street	All
Coleman Street	All
Coombs Street	Between Pearl and Arroyo
Earl Street	All
Eggleston Street	All
Grigsby Court	All
Jerry Lane	All
Main Street	Between Yount and First
Napa Street	All
Nursery Street	All
Pearl Street	Between Coombs and Soscol
Seminary Street	Between Hayes and Calistoga
Tulocay Street	All
Vallejo Street	All
West Street	All
Yajome Street	Between Yount and Pearl
Soscol Avenue (Hwy 121)	Between Kansas Avenue and Shetler Ave
Trancas Street	Between Soscol and the intersection of Silverado Trail and Monticello Road (Hwy 121)

Phase 2 Area Street Closures (see map on page 5)

Bailey Street	All
Burnell Street	All
Clay Street	Between Napa River and Juarez Street
Eighth Street	All
Fifth Street	Between Soscol Avenue and Burnell Street
First Street	Between Main Street and Juarez Street
Fourth Street	Between Railroad Tracks and Bailey Street
Jackson Street	Between Yajome Street and Soscol Avenue
Jordan Lane	All
Imperial Way	All
McKinstry Street	All
North Bay Drive	All
Oil Company Road	Between Napa River and Soscol Avenue
Post Street	Between Napa River and Juarez Street

Randean Way	All
Second Street	Between Napa River and Juarez Street
Seventh Street	All
Sixth Street	All
Soscol Avenue	Between Lincoln Avenue and Sousa Lane
Tanen Street	All
Taylor Street	Between Napa River and Juarez Street
Third Street	Between Main Street and Juarez Street
Vernon Street	All
Wall Street	All
Water Street	All

Phase 3 Area Street Closures (see map on page 6)

Action Avenue	All
Adrian Street	Between Jackson Street and South End
Bale Street	All
Carolina Street	All
Clay Street	Between Juarez St and Silverado Trail (Hwy 121)
First Street	Between Juarez St and Silverado Trail (Hwy 121)
Garden Court	Private – All
Hagen Road	At Silverado Trail (Highway 121)
Ida Street	All
Iroquois Street	Between Jackson Street and Lincoln Avenue
Jackson Street	Between Main Street and Yajome Street
Juarez Street	All
Lincoln Avenue	Between Iriquois St and Silverado Tr (Hwy 121)
Maplewood Avenue	All
Post Street	Between Juarez St and Silverado Trail (Hwy 121)
Second Street	Between Juarez St and Silverado Trail (Hwy 121)
Silverado Trail (Hwy 121)	Between Monticello and Stonecrest Drive
Silverado Trail (Hwy 121)	Between Fairview Drive and Sousa Lane
Soscol Avenue	Between Central Avenue and Lincoln Avenue
Soscol Avenue	Between Sousa Ln and Silverado Trail (Hwy 121)
Sousa Lane	All
Streblow Drive	From gate to end
Taylor Street	Between Juarez St and Silverado Trail (Hwy 121)
Third Street	Between Juarez St and Silverado Trail (Hwy 121)
Yajome Street	Between Jackson and Yount Street

Phase 4 Area Street Closures (see map on page 7)

Adrian Street	Between G Street and Jackson Street
Alice Street	Between Paul Avenue and Central Avenue
Arboreo Street	All
Ash Street	Between Randolph Street and Coombs Street
Ashlar Street	Between Silverado Trail and Kenwood Street

Phase 4 Area Street closures (continued)

Atrium Parkway	All
Balboa Way	All
Beach Street	All
Brown Street	Between Legion and Yount Street
Brown Street	Between Second Street and Third Street
Brown Street	Between Fifth Street and South End
Cabot Way	All
Carriage Place	All
Central Avenue	Between Alice Street and Soscol Avenue
Chesapeake Court	All
Coolidge Drive	All
Coombs Street	Between Pearl Street and Imola Ave (Hwy 121)
Costa Drive	All
Cove Court	All
Cross Street	All
Cunard Drive	All
Division Street	Between Randolph Street and Brown Street
Edgewater Drive	All
Elm Street	Between Randolph Street and Riverside Drive
Evans Avenue	Between Silverado Trail and Willow Avenue
Fifth Street	Between Randolph Street and Napa River
First Street	Between Franklin Street and Main Street
First Street	Between Silverado Trail and Willow Avenue
Fourth Street	Between Franklin Street and Coombs Street
Franklin Street	Between Spruce Street and Ash Street
Franklin Street	Between Ash Street and South Coombs Street
Gasser Drive	All
Hagen Road	Between Old Coach Rd and Silv Tr (Hwy 121)
Hayes Street	All
Imola Avenue (Hwy 121)	Between Jefferson Street and Soscol Avenue
Iroquois Street	Between Lincoln Avenue and Jackson Street
Jacob Court	All
Joliet Way	All
Joseph Court	All
Kansas Avenue	Between Soscol Avenue and Kansas Court
Kansas Avenue	Between Soscol Avenue and Gasser Drive
Kearney Way	All
Lake Park Drive	All
La Salle Way	All
Lathrop Court	All
Lathrop Street	Between Alice Street and Carriage Place
Laurel Street	Between Randolph Street and Riverside Drive
Lewis Way	All
Lighthouse Court	All

Phase 4 Area Street closures (continued)

Magellan Way	All
Main Street	Between Jackson Street and Yount Street
Main Street	Between First Street and Napa River (South End)
Marina Drive	All
Matson Drive	All
Napa Yacht Club	All
North Newport Drive	All
South Newport Drive	All
Oak Street	Between Randolph Street and Riverside Drive
Peninsula Court	All
Pine Street	Between Randolph Street and Riverside Drive
Randolph Street	Between Ash Street And Spruce Street
Randolph Street	Between Pearl Street and Division Street
Rio Vista Drive	All
River Glen Drive	All
River Park Boulevard	All
Riverside Drive	All
Rose Drive	All
Sea Breeze Court	All
Second Street	Between Franklin Street and Main Street
Shoreline Drive	All
Silverado Trail	Between Hardman Avenue and Trancas Street
Silverado Trail (Hwy 121)	Between Stone Crest Drive and East Avenue
Silverado Trail (Hwy 121)	Between Spring Street and Soscol Avenue
Soscol Avenue (Hwy 121)	Between Silverado Trail and Kansas Avenue
Soscol Avenue (Hwy 121)	Between Shetler Avenue and Imola Avenue
Soscol Avenue	Between Pueblo Avenue and Central Avenue
South Jefferson Street	Between Imola Avenue (Hwy 121) and South End
South Newport Drive	All
Spinnaker Way	All
Spruce Street	Between South Seminary Street and Coombs Street
Stone Crest Drive	Between Silverado Trail and Oakcrest Court
Stonehouse Court	All
Stonehouse Drive	All
Sycamore Street	Between S. Seminary Street and Franklin Street
Third Street	Between Franklin Street and Main Street
Yajome Street	Between G Street and Jackson
Yount Street	All

Drinking Water

Floods in Napa can vary in length from just minutes in a flash flood on a creek, to several days in a major river flood. Once the water recedes, cleanup will begin and streets will be reopened when safe. Shelters will close as residents are able to return to their homes.

The City of Napa water system is not likely to be seriously affected by a flood. However, if there is no water service, and your supply of stored water runs out, a typical household water heater tank holds a supply of 30 to 60 gallons. This can be accessed in an emergency. After shutting off the main valve from the tank to the household to de-pressurize the tank, it is advisable to vent the tank by opening a hot water faucet or disconnecting the hot water line at the top of the heater. Turn off gas or electricity to the tank before draining.

Other sources of water can be melted ice cubes, toilet reservoir tanks (without disinfectants), and juices from canned foods. Water from swimming pools and spas is not for drinking, but can be used for washing and other purposes.

If you are concerned that your water is contaminated, there are several ways to purify it.

- Boil water vigorously for 3 to 5 minutes. To improve the taste after boiling, pour from one container to another several times to aerate.
- Use purification tablets, available at most drug stores. Follow directions on the package.
- Add bleach for purification. Liquid household bleach (5.25% sodium hypochlorite) can be used. Add bleach according to the table below. Mix thoroughly and let stand for 30 minutes.

<i>Amount</i>	<i>Clear water</i>	<i>Cloudy water</i>
1 Quart	2 drops	4 drops
1 Gallon	8 drops (1/4 teaspoon)	16 drops (1/2 teaspoon)
5 gallons	40 drops (1-1/4 teaspoons)	80 drops (2-1/2 teaspoons)

If you are on a well and it was covered by floodwaters, you are advised to have your water tested after a flood to make sure it has not been contaminated. Contact the Napa County Department of Environmental Health at 707-253-4471.

After the Flood

Contaminated Water

Flood waters are likely to be contaminated. All persons should avoid direct contact with all flood waters. If contact is made, good personal hygiene including washing of hands and avoiding hand-to-mouth contact will limit any potential health risk.

In the event of flooding or significant sewage discharge inside or near inhabited buildings, the following safety precautions and methods for cleaning and disinfecting should be borne in mind.

- Avoid ingestion of contaminated food or water and contact with contaminated surfaces.
- Children should be kept away from flood areas and flooded buildings.
- Wash hands thoroughly after working at flood sites and after contact with flood water.

Getting Back to Normal

After a flood, it will take time to get things cleaned up. Be patient. Here are some “Do and Don’t” tips to help you clean up safely.

Returning home and cleaning up

- **DO** make sure the building is structurally sound or made safe before entry.
- **DON’T** use lanterns, matches or candles to examine buildings; flammable material may be inside. Use flashlights.
- If it was not turned off before evacuation, **DO** turn off your electricity when you return home. Some appliances, such as television sets, can shock you even after they have been unplugged.
- **DON’T** use appliances or motors that have gotten wet unless they have been taken apart, cleaned and dried.
- If there has been structural damage, **DO** beware of electrical shock resulting from exposed wiring, especially likely in wet conditions.
- **DO** document damage with photos and video, and contact your insurance agent.
- **DO** take care to avoid ingestion of contaminated food or water, or contact with contaminated surfaces.
- **DON’T** use fresh foods or canned goods that have come in contact with floodwaters.
- **DON’T** turn on the gas supply to the building. This should be done by utility crews. (See page 26 for PG&E contact information.)
- **DO** clean and disinfect everything that got wet. Floodwaters pick up sewage and chemicals from many locations.
- **DON’T** keep flooded cosmetics and medicines. They are health hazards. When in doubt, throw them out.

- **DON'T** remove standing water in a basement too fast. If the pressure is relieved too quickly it may put undue stress on the walls.
- **DON'T** dry buildings with mechanical dehumidifiers, which may draw out moisture too quickly and cause additional damage. Allow structures to dry naturally.
- **DON'T** scrub or brush mud and other deposits from materials. This may cause further damage.
- **DON'T** let water-damaged papers remain in wet boxes. Remove them and air dry or freeze dry.
- **DON'T** open any books or albums that were completely submerged. Wet paper is very weak and will tear.
- **DON'T** keep objects in dark, hot, stagnant air with high humidity. These conditions encourage mold.
- **DON'T** try to separate bundles of saturated paper.
- **DO** take good care of yourself. Recovering from a flood is a big job. It is tough on both the body and the spirit. The effect a disaster has on you and your family may last a long time. Rest often and take good care of yourself and your family.
- **DO** hire a reliable, licensed contractor if repairs are needed.
- **DO** prepare for the next flood.

Cleaning tips

Disposal of Debris and Sandbags

After a flood the City will place large bins in impacted neighborhoods to make it easy to get rid of debris and household items that are beyond saving.

Sandbags can be returned to the City Corporation Yard, 770 Jackson Street, or taken to the nearest park and placed on turf or in the parking lot. Do not place sandbags in the gutter as they will clog the storm drains.

The information sources listed on page 26 will provide additional post-flood cleanup information.

Interior cleaning

- Before removing items from water, prepare a clean, dry, well-ventilated temporary area for sorting and storing your objects. Wet objects should be moved only once because they are fragile, so setting aside such an area is vital.
- Wear rubber gloves, and, if possible, a facemask, when handling items.
- Provide support for damaged objects when moving them, such as a cart, or a flat, sturdy surface.

Returning
home and
cleaning
up

Returning home and cleaning up

- Carefully dispose of standing water in interior areas.
- Dispose of any food items you suspect of being contaminated.
- Contaminated household items, especially cooking and eating utensils, should be thoroughly cleaned and sanitized before use. Utensils should be soaked for 30 seconds in a clear rinse solution containing 100 parts per million (ppm) available chlorine (approximately 1 ounce of household bleach per 3 gallons of water).
- Thoroughly clean and sanitize contaminated food-contact surfaces with generous quantities of disinfecting solution. A sanitizing rinse solution which contains 100 parts per million available chlorine can be prepared by mixing approximately 2 teaspoons of household bleach per gallon of water. Milder disinfectants such as pine disinfectant or non-chlorine bleach can be used on non food-contact surfaces such as cabinets, furniture, etc., to avoid damage to these materials. Properly dispose of furniture and other materials which are too heavily soiled or contaminated.
- Soiled or contaminated carpets and pads should be removed to be cleaned more thoroughly. Carpeting may be salvaged if cleaned with detergent and disinfectant; padding is absorbent and cannot be salvaged. Construction materials may also be contaminated or deteriorated and need to be removed. Dispose of all discarded materials properly.
- Call an expert if in doubt about how to salvage any materials.

Exterior cleaning

- Disinfect contaminated soil or ground surfaces by broadcasting calcium oxide, or "lime." Lime is a caustic disinfecting powder used primarily for exterior areas, available at hardware or nursery supply stores. Mix lime into contaminated soil layers with shovels or other tools.

If power remains off but it is safe to stay in your home

Food preparation

- Prepare only quantities sufficient for immediate use. Leftovers must be avoided if refrigeration is inadequate.
- Observe proper temperature controls. Keep food hot (above 140 degrees Fahrenheit) or cold (45 degrees or below)
- Keep hand contact to a minimum when preparing foods.
- Use single service eating and drinking utensils whenever possible.
- Wash any food containers and utensils that have come in contact with flood waters in detergent with water, rinse with clean water, then immerse in a sanitizing solution of one tablespoon household bleach to each gallon of water, for at least one minute.
- Be sure to use water from a safe source, or water that has been previously treated.

Heating

- **DON'T** use heat sources inside your home that are intended for outdoor use, such as charcoal grills or propane heaters. You can die from carbon monoxide poisoning if gas, oil, kerosene, wood or charcoal is burned improperly inside your home.



Keeping
safe and
healthy

Aerial view
Of central Napa,
February 1986

Information before, during and after a flood

Useful phone numbers

City of Napa Public Information Hotline- Current status/recorded message.....	258-7813
City of Napa Emergency Operations Center- Public Information Hotline.....	258-7817
City of Napa Police/Non-emergency.....	257-9223
American Red Cross/Napa office.....	257-2900
Volunteer Center.....	252-6222
PG&E.....	800-743-5000
Napa Valley Unified School District.....	253-3715

Staying informed

Useful websites

City of Napa

<http://www.cityofnapa.org>

Rainfall amounts, river and stream levels

<http://napa.onerain.com>

Road closures in the Bay Area

<http://511.org>

Road closures in Napa County

http://gis.napa.ca.gov/Rd_Closure/rd_closure.asp

County of Napa Emergency Services

<http://www.co.napa.ca.us/LIVING/Living.asp?LID=195>

Ready.gov preparedness information

<http://www.ready.gov>

California Office of Emergency Services

<http://www.oes.ca.gov>

Federal Emergency Management Agency (FEMA)

<http://www.fema.gov>

Napa Valley Register

<http://www.napavalleyregister.com>

Information from TV and Radio

Napa TV - Public Access Cable Channels 27 and 28

KVON 1440 AM- Napa/KVYN 99.3 FM—St. Helena

KCBS 740 AM-San Francisco

KGO 810 AM-San Francisco

All Bay Area television stations