### Sanitize Flooded Areas

Floors, walls, furniture, and equipment that have been covered with flood waters should be cleaned and sanitized to kill any bacteria or viruses. Clothing, carpets, upholstered furniture, toys, bedding, and similar items should be discarded unless they can be cleaned and sanitized immediately. The assistance of a professional may be needed to properly clean certain items. After cleanup, make sure that all clothing and parts of the body which came in contact with the flood waters are thoroughly washed.

Prevent tracking of flood water into other areas of the home.

Items should be cleaned with soap and water, rinsed and then sanitized with a solution of a quarter cup of household bleach and one gallon of water. Do not mix bleach with any ammonia product and work in well-ventilated areas.

### Mold

Mold is the most long-lasting effect of flooding. Unless a home's structural materials are completely dried, mold will grow behind the walls and under the floors. Do not replace sheet rock and other materials until the wood is dry, or mold will grow. If mold is already growing, spray the area with a household bleach solution.

Spoiled Food and Food Poisoning

Any food items, including cans, bottles and jars that come in contact with flood waters should be discarded.

In some cases, you may be able to save commercially canned goods in metal cans. Discard metal cans if the surface is rusted; there is swelling or leaking; or there are creases or dents at the rims or seams. To salvage metal cans: remove the labels; wash in safe, warm water and detergent; and

sanitize with a solution of one tablespoon bleach in one gallon of safe water.

When power is restored, check the temperature inside of your refrigerator and freezer. Discard any perishable food (such as meat, poultry, seafood, eggs, or leftovers) that has been above 41° F for two hours or more. With frozen food, check for ice crystals. The food in your freezer that is partially or completely thawed may be safely refrozen if it still contains ice crystals or is 41°F or below.

Never taste food to determine its safety. When in doubt, throw it out.

# Well and Spring Contamination

If a well or spring was covered with flood waters, it must be considered contaminated. Do not drink or prepare foods with water from a well until it is disinfected and tested. Buy bottled water to drink and use for cooking.

Pump out the well thoroughly, letting it run for at least 24 hours or until the water has no obvious color or smell. An outside faucet may be left on to run slowly for long periods of time so no damage will occur to the well pump.

Remember to not drink, bathe or cook with the water while bleach is in the system. Pour the bleach into the well or spring. Run all faucets until the bleach smell comes through in the water, then shut them off.

Disinfect well water systems with two gallons of plain household bleach. Let the bleach stay in the water system for at least eight hours. To rid the system of bleach, turn on an outside faucet and let it run until all the bleach is gone, which may take 24 hours or longer. Only use an outside faucet to discharge the bleach water. Once the bleach is gone, make sure that the well or springhouse is sealed.

It may take two or more bleach disinfection procedures to rid the well or spring of contamination.

If you are still unsure if your well is safe to use, a bacteriological test of the water can be taken to an testing laboratory. This test checks for the presence of fecal bacterial which is indicative of contamination.

**Septic System Failures** 

Septic systems are not generally damaged during floods, but proper operation of the systems is. It is advised that homeowners wait until the flood waters have receded before taking any action. During this time, the system should not be used if possible.

Septic systems should be professionally inspected if damage is suspected. If it is necessary to pump the septic tank, it is suggested that it be done after flood waters have receded to prevent the tank from floating to the surface. If raw sewage has backed up into the structure, the area should be cleaned and disinfected using a solution of a half cup of chlorine bleach and one gallon of water.

If flooding washed away the soil around the system, the system may need to be repaired or replaced. Call the local environmental health office with questions about a septic system.

Mosquitoes

Flooding leaves pools of water that are ideal for breeding mosquitoes, which can carry diseases like West Nile virus.

Dump any water-filled containers around your home to discourage mosquitoes. Water that cannot be drained can be treated with certain insecticides and biological control agents.

Always follow the label instructions for pesticides.

## **After a Flood**

The unusual summer rains that we have been experiencing here in California has caused flooding in many areas of Kern County. The floodwaters can pose immediate safety concerns and many health issues. Floodwaters can contain everything from insecticides to raw sewage. Be sure to protect your home and family by following these Environmental Health guidelines.

Once flood waters have receded and the most immediate safety hazards have passed, it's time to address the secondary health issues that can develop as a result of floodwater pollutants.

### **Keep Away from Flood Waters**

Avoid any contact with flood waters. Flood waters can contain large amounts of contaminants of all kinds, which can be hazardous.

DO NOT allow children to play in floodwater or areas that have been flooded.

#### **Personal Health**

Maintaining good personal health involves washing hands frequently and keeping clothes clean. Hand washing should be done with clean safe drinking water. When this is not available, use bottled, boiled or chemically disinfected water.

Wear gloves, eye protection and boots when working with contaminated areas and items.

If a person active in the clean-up process has an open sore, precautions should be taken to prevent contact with contaminated waters. If contact is made, disinfect the wound or sore immediately with soap, clean water and a disinfectant.

### Other helpful links are:

http://www.idph.state.il.us/pdf/AfterThe Flood.pdf

https://www.colorado.gov/pacific/sites/default/files/OEPR\_After-the-Flood-A-Guidance-Compilation-Document.pdf

http://dph.georgia.gov/preventpotential-health-problems-after-floods

http://www.azdhs.gov/phs/oeh/extreme/floods/index.php?pg=after

http://www.dupagehealth.org/after-the-flood

For more information about preventing health hazards after a flood, please call



(661) 862-8740 www.co.kern.ca.us/eh/

