



# Fact Sheet

COMMONWEALTH OF PENNSYLVANIA • DEPARTMENT OF ENVIRONMENTAL PROTECTION

## FLOOD RECOVERY: WALLS

### Interior Finish

In most homes, ceilings and walls are covered by either plaster or drywall. Plaster can regain its strength when dried, however it cannot be decontaminated. There, wet plaster should be removed and discarded.

Drywall acts like a sponge drawing water up above the flood level. Drywall becomes very fragile if it stays wet for a long time, and it will fall apart when bumped. Drywall can't be decontaminated wither and should also be discarded. Because new drywall will be installed horizontally, a good line to remove old drywall will be about 48 inches above the floor.

Check to make sure that the insulation above this line is dry and hasn't wicked water any higher. Insulation can act like a paper towel does with a counter spill, pulling up water much higher than the point of contact with flood water. If it is wet, remove all drywall.

All wall covering inhibit drying so they should be removed and discarded, even in homes where the flood water has not actually reached the walls. New wall coverings can be installed once the building has been dried and decontaminated.

Wood construction is durable and will normally be structurally sound even after being in water. But once the water recedes, the moist contaminated environment allows decay organisms to flourish. If the environment persists, the decay will cause structural damage. Therefore, you must dry the structure.

Kiln-dried or well-seasoned wood used for residential framing can absorb water and will swell as a result. However, as the wood dries it will often return to its original shape and strength. Remember that even if this occurs, you need to decontaminate.

### Exterior Finish

Most homes will have either siding or brick on the exterior. To facilitate drying, walls can also be opened from the exterior. In the case of wood-lapping siding, plastic wedges can be inserted under the siding at the horizontal lap joint. Use a pry bar carefully. Place a wedge beside each nail. The wedges will stay in place permanently and will improve paint performance. These wedges under siding are only an additional measure, not an alternative measure – you must still open and completely expose all exterior walls from the inside of the home.

In the case of brick, generally good quality brick masonry can withstand flooding over long periods. Most types of brick will dry out and show no permanent damage from water. However, if the mortar is old or of poor quality, damage can occur from strong water currents or wave action. In addition, a disturbance or subsidence of the foundation can cause cracks in brick masonry. Do a careful inspection or get professional help. Even tiny cracks may be evidence of much larger and costly problems with the foundation.

## **Electrical**

Electrical wiring in walls may suffer damage from wetting. The damage will depend on how well-sealed and impervious its shielding is. In many homes, plastic coated wiring is used, and it is fairly waterproof. Plastic-coated wiring is used, and it is fairly waterproof. Plastic-coated wiring will probably not be needed to be replaced after a flood.

Any outlet or switch, and all connections that have been under water for any period, however, may corrode. It is cheaper and safer to replace outlets and switches and to redo connections than to repair them. All electrical work should only be done by a qualified electrician.

During the rebuild, you may want to consider adding or moving outlets, switches and fixtures. Ground fault interrupters installed in each branch of an electrical circuit are a good idea to consider as well. If the house is old, it is possible the existing electrical service may be undersized. Consult your contractor about the feasibility of adding a larger service and more breakers.

Since you'll be doing electrical work anyway to recover from the flood and the walls will be open for easy access, it may be a timely opportunity to consider electrical system improvements. Also, cabling for television, audio, and even security systems will be easy to install at this time.

## **Ceilings**

A ceiling may not have been touched by flood water, but it can still be damaged by humidity. Check to see if drywall has swelled or pulled away from the framing. If it has, replacement will probably be necessary. If sections of the ceiling are sagging, carefully punch a few small holes at the low spots to drain collected water.

If flood water reached a drywall ceiling, you should remove and replace it. If the ceiling is plaster, it will dry eventually but will likely sag or crack, so it should also be removed and replaced. Remove all ceiling insulation to allow the joists to dry.

Consider upgrading the ceiling insulation as you rebuild. Remember, once the insulation contractor is on site to reinsulate walls, the extra cost of additional ceiling or attic insulation could be relatively minor.

*Adapted from a US Department of Energy Publication, "Rebuilding Your Flooded Home: Guidelines for Incorporating Energy Efficiency"*

### **For additional information you may call the Bucks County Department of Health.**

Neshaminy Manor Center, 1282 Almshouse Road, Health Building, Doylestown, PA 18901  
215 - 345 - 3318

Bucks County Government Services Center, 7321 New Falls Road, Levittown, PA 19055 267 – 580 - 3510

Bucks County Government Services Center, 261 California Road, Suite #2, Quakertown, PA 18951 215 - 529 - 7000