If rain is not drained away from the wall of a building, the standing water can damage the foundation or cause damp basement walls.

Or, if there is no basement, it will stand in the crawl spaces. The guidelines below will help you make the necessary repairs.

You will need

- Splash blocks, if they are to be used (one for each downspout). The following items, if a drywell is to be used:
  - Drainage pipe (tile or vitrified clay)
  - 55-gallon drum
  - Assorted rocks, large gravel and old cinder blocks
  - Cement mortar
  - Steel punch and hammer
  - Keyhole saw (with plumber's saw blade)

Using splash blocks

1. Place a splash block on the ground directly under each downspout (Figure 1). Instead of splashing on the ground, the water falls on the splash block and is directed away from the building. For best results, make sure the length of the splash block extends at least 3 feet from the house and that the grade slopes about 6 inches in 10 feet.

2. Check the proper positioning of the splash blocks each time you inspect and clean the gutters and downspouts. Splash blocks will settle into the ground over a period of time (Figure 2). If they've settled, rebuild the ground back to its original surface and replace the splash block.
Using drywells

Similar to splash blocks, drywells collect water from the downspouts. But, unlike splash blocks, drywells spread the water over a larger ground area, and at a greater distance from the wall of the house.

When should drywells be used? First, be reasonably sure that the soil is of a type to sufficiently absorb the water. Second, downspouts are connected to a drywell only when public underground stormwater systems are not available. You can build a drywell as follows:

1. Place the drum flat on the ground, either end up. Using the hammer and steel punch, make a hole in the end near the edge as pictured in Figure 3. Insert the keyhole saw in the hole and cut out and remove the end. Save this end piece (Figure 4). Remove the other end of the drum the same way.

2. Punch a series of holes (approximately 6 inches to 7 inches apart) around the entire surface of the drum as illustrated in Figure 5. Now cut a circular opening in the drum large enough to receive the drainage pipe. The opening should be approximately 6 inches from one end of the drum (Figure 6).

3. Dig a hole in the ground large and deep enough to bury the drum (Figure 7). Place the drum upright in the hole.

4. Dig a trench from the downspout to the drum. Lay the drainage pipes in the trench from the downspout to the drum opening (Figure 8).

5. Fill the drum with rocks, gravel and cinder blocks. Now put one of the ends that was cut out of the drum back in place on top of the drum.
6. Fill the drum hole and the trench with the excavated earth, bringing the ground back to its original surface and level.

7. Seal the downspout-underground drainage pipe connection with cement mortar (Figure 9).

![Diagram of downspout and mortar connection](image)

**Your benefits**

This will eliminate water puddles near the building and protect the basement walls against dampness and surface water infiltration.

This guide was reprinted from the United States Department of Agriculture publication, Program Aid No. 1193, Extension Service.