Slow it. Spread it. Sink it!

TURNING RUNOFF INTO A RESOURCE

Assessing Your Property's Potential
DO-IT-YOURSELF STORMWATER MANAGEMENT ASSESSMENT

This self-assessment document is a supplement to “Slow it, Spread it, Sink it!,” available through the Resource Conservation District (RCD), water districts and planning departments in the Monterey Bay area. The full-color publication features detailed information on landscape principles that help protect our water quality and supply and showcases local projects. Completing this simple assessment will help you discover areas on your property to install practices that conserve water and manage rain water. It consists of a walk around your property to record observations of stormwater runoff, soil types, and current landscape management practices, take measurements, estimate the volume of stormwater runoff, and identify what types of landscape improvements could be made to beautify your yard and protect our valuable water resources.

TOOLS.
• rainfall data
• calculator
• shovel and water (perc test)
• clip board and pencil
• property sketch or map
• umbrella and rain gear
• waterproof camera
• measuring tape

CREATE A SKETCH. Your sketch will be used to record observations about how stormwater moves across your property and to estimate the total volume of stormwater runoff that originates from your property. The simple sketch should be a birds-eye view and include property lines, footprint of your house, buildings, driveways, areas of bare soil and any major vegetation (trees, lawns, etc.).

WALK YOUR PROPERTY. With your property sketch completed, you are ready to head outside. We recommend two different walks. First, on a dry day to take measurements of hardened areas (roofs, driveways and parking areas) and record current landscape management practices (fertilization, pesticide controls, yard waste, and irrigation). Second, take a walk on a rainy day to observe rain water flows. For the most accurate results, do not choose the first storm of the season or go out during the first few minutes of rain. Wait until there have been at least one or two good rain events (more than a ½ inch), then go out during a subsequent storm once you see water flowing on your property. During the walk, record rain water runoff observations by drawing arrows that follow the direction water is moving on your property (see sample drawing). Also note how close you are to the nearest stream, storm drain, or ditch that carries water away from your property. Bring your camera and take lots of pictures. Pay special attention in areas where water is flowing quickly or ponding. You can use the photos when evaluating practices to install.

ESTIMATE TOTAL POTENTIAL VOLUME OF RUNOFF. To calculate the total volume of potential rain water runoff generated on your property, you will need to know the square footage of hardened areas where rain water doesn’t soak back into the ground (e.g. roofs and driveways) and the annual rainfall in your location (see back page for annual rainfall map of Santa Cruz County). On average, a 1,000 square foot hard surface will generate approximately 620 gallons of runoff per inch of rain.

Example options for adding water friendly landscape features.
DID YOU INCLUDE?

- Note where you might find “dirty” vs. “clean” water? If you have “dirty” water flowing to a waterbody or storm drain, what might you do to keep it clean?

- What direction is water flowing? Does it drain to vegetated areas or to impervious surfaces such as driveways and streets?

- Where is the closest storm drain or creek?

- Do you have areas of standing water? Poor soil infiltration may be indicated by standing water that does not drain within 24 hours.

- Do you have runoff from your irrigation water?

- Do you have runoff from a neighboring property entering your property or vice versa?

- Do you have runoff draining to a steep slope?

OTHER CONSIDERATIONS

KEEP CLEAN WATER CLEAN. Rain water runoff is considered “clean” when it’s generated from a surface that has no potential contaminants such as runoff from your roof. “Dirty” water would be runoff that has traveled across a surface that contains material that could potentially degrade water quality, such as motor oil, sediment, fertilizers, pesticides or animal waste. It is important to differentiate between these two types of runoff because there are different practices for dealing clean water versus dirty water. Areas that generate “dirty” water should be routed to a vegetated or other filtration area. This allows the water to naturally “clean” itself before it makes its way to a storm drain or creek. Clean water requires less management and does not need “treatment” before being directed to a storm drain.

MAINTENANCE. Always understand the maintenance requirements of whatever practices you install. Rain barrels require periodic sediment removal, drains require cleaning, and pervious pavements may require “vacuuming.”

SAFETY. Never route stormwater to an unstable or steep hillside or other areas that could pose a safety hazard (see the Slow it, Spread it, Sink it! guide for details on difficult sites). For more information on safety concerns or for a free assessment of your property, contact the Resource Conservation District, the Natural Resources Conservation Service or other qualified professional.

Native drought tolerant plants, a “hollywood” driveway, rain water catchment and pervious pavers are all great landscape options.
ANNUAL RAINFALL. Using the map above, find the approximate location of your property, then find the closest red line and the matching annual rainfall in inches. You can use this number to estimate the volume of water collected on your roof or other hard surfaces around your property where water can’t soak back into the ground. Adding the area of all these surfaces together will provide you with the total volume of runoff for your property. Creating landscape features that allow some of this water to soak back into the ground or collecting it for irrigation or other uses will help to improve our water resources. Together we can all make a difference.

PERC TEST. A percolation test, sometimes referred to as a “perc test,” estimates how quickly water can move through the soil when saturated. The results of a perc test will help determine the suitability of your site for certain infiltration practices.

Dig several holes in the soil 6 inches deep and about 6 inches in diameter. The location of the holes should be in the center of where you plan on infiltrating stormwater. Perform the test when the surrounding soil is saturated, such as the day after a rain. If there has been no rainfall prior to the test, fill the hole with water, and thoroughly saturate the surrounding soil with a hose. Wait for the hole to drain, and fill the hole(s) to the top a second time. Check the hole again in 24 hours and if the water is all gone the percolation rate is .25 inches per hour or greater (6 inches divided by 24 hours = .25 inches per hour) which equates to a moderately drained soil or better and should be suitable for landscape practices that promote infiltration if you are on a low to moderate slope.