

# Rainstore<sup>3</sup>

## Residential Stormwater Storage Units



Single Rainstore Unit



Rainstore with Geogrid



Rainstore with Geotextile

Rainstore is a stackable, plastic structure designed to store large amounts of stormwater underground. Rainstore has a 94% void space and is designed to support heavy loads (such as light vehicular traffic) when used in combination with Geogrid materials.

Approximate pricing for Rainstore units and additional required products are as follows:

- Rainstore<sup>3</sup> Unit: \$30-\$38 per unit
- Geogrid: Tenax \$11 per linear foot (13 foot width); Meeks StrataGrid \$3.44 per linear foot (6 foot width); The Rock Garden
- Geotextile Fabric: \$2 per linear foot (12 foot width)

### **Materials:**

- Rainstore Units (40" x 40" x 4")
- Non-Woven Geotextile Fabric (Filter Fabric)
- Geogrid –Tenax, StrataGrid, or equivalent. *Recommended for all driveway infiltration applications*
- Zip Ties
- Drain Rock ( $\frac{3}{4}$  – 1  $\frac{1}{2}$ " )
- Sediment Trap or Catch Basin

### **Materials Available at:**

Meeks  
2763 Lake Tahoe Boulevard  
South Lake Tahoe, CA  
(530) 544-2237

The Rock Garden  
10642 Pioneer Trail Road  
Truckee, CA  
(530) 582-3610

Alex Houghton  
Truckee, CA  
Invisible Structures Rep.  
(530) 582-6714

### **Installation Instructions:**

1. Call Underground Service Alert, 1-800-227-2600 ([www.usanorth.org/index.htm](http://www.usanorth.org/index.htm)) to have utility companies come to your house and mark the utility lines.
2. Dig the specified size pit, as recommended on the BMP Site Evaluation, ensuring that the bottom of the excavated area is level. Install a catch basin or sediment trap/filter at the end of your conveyance system (swale, slotted channel drain, or gutter downspout) to capture any sediment.

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The Tahoe Resource Conservation District is not endorsing this product and is not responsible for the incorrect installation of the product. The purpose of this handout is to inform homeowners about products available in the Lake Tahoe Basin. If you or your contractor have any questions about these products or their installation, please contact us at (530) 543-1501 (ext. 100) or <http://tahoercd.org> 1/16/2007

3. Stack and/or place side-by-side the specified number of Rainstore units, as recommended in the BMP Site Evaluation. *Rainstore units must be installed flat side down.* Firmly press each cell into place.
4. Rainstore manufacturers recommend placing Geogrid on the bottom of the excavated site. Alternately, 3 inches of washed drain rock may be placed in the bottom of the pit prior to installing the Rainstore units. Increase the excavation depth by 3 inches if using a bottom layer of drain rock.
5. Wrap filter fabric around sides and top of unit only; duct tape into place to prevent soil entry into system. Filter fabric should overlap at least 12 inches. *Do not* place filter fabric under the Rainstore units.
6. Place a layer of Geogrid over the top of the wrapped unit to provide a strong surface. *This step is critical for driveway infiltration systems.* Attach zip ties to hold Rainstore and Tendrain in place.
7. Place unit into excavated hole, making sure filter fabric stays in place.
8. Cut an X-shaped hole in the geotextile fabric where a pipe can enter into the Rainstore unit. Attach a pipe to the sediment trap or catch basin and direct it into the Rainstore unit through the filter fabric. Gather the fabric around the pipe and fasten tightly with a pipe clamp and/or duct tape to prevent soil from entering the system.

Note: If multiple Rainstore units are being manually installed, the overall weight of the system may become restrictive. Rainstore units weigh approximately 15 pounds.

### **Option 1: Gravel Surface**

Complete steps 1-8 according to Installation Instructions:

9. Backfill with gravel, ensuring at least 3 inches of gravel on top of unit.
10. To maintain drywell, clean top gravel every one- to two years, depending on the amount of sediment accumulation. Sediment traps or catch basins need to be monitored and cleaned more frequently to remove captured sediment and ensure adequate flow into the system.

### **Option 2: Grass or Native Vegetation Surface**

Complete steps 1-8 according to Installation Instructions:

9. Backfill with 8 inches of amended soil.
10. Lay down sod layer, cover with seed, or plant with vegetation. Bunch grasses such as a variety of fescues are recommended for lawns in the Basin. Please note that landscaping directly above storage structures should be restricted to shallow rooted materials such as grasses, groundcovers, and low growing shrubs.

More information on the Rainstore<sup>3</sup> and other residential stormwater storage units can be found at:

[www.invisiblestructures.com](http://www.invisiblestructures.com)