

Useful notes:

- Water always flows downhill – start your catchment and drainage at the highest possible point.
- The best way to control erosion and increase your rain catching capacity is by slowing it down – create abutments, ponds, mulch, and use rocks or other porous material to control water flow.
- Organic matter is absolutely crucial for holding in rainwater – it both acts as a sponge to hold water, and increases pore space in soil, increasing water transmission and drainage.
- Always plan for overflow that moves water at least 10 feet from any foundation! If you can incorporate that into your design with drain tile or drilled PVC running to a mulched area, that's the best. Other options include pea gravel or a rocky bed for bushes/trees.

Designing a system:

- Utilize existing features (height, water flow, drainage, etc.) – Every foot above ground level adds .4 psi to your water pressure.
- Remember that a 55 gallon barrel full of water weights over 440 pounds! Water is slightly more than 8 lbs/gallon, so make sure you have a solid base. Poured concrete, cinder blocks, or a base of well-framed 4x4s and 2x4s all work well. If you are putting barrels directly onto the ground, skim your sod, tamp the soil, and lay a base of sand and pea gravel.
- If you are capturing rainwater off of a house, garage, or shed roof, make sure you have enough storage capacity! For more info, see these handy calculations: <http://bit.ly/waterharvesting>
- There are many ways to connect barrels, from simple hoses to elaborate leak-free PVC connections, look online, or call us (517.853.7809) for ideas.

Where to get materials –

LorAnn Oil – 55 gallon food-safe drums for \$5.00 – 517.882.0215

DeWitt Barrels – 275 Gallon “IBC Totes” with new plastic bladder for \$150.00 – 616.677.2626

Lumber – Loft lumber from the MSU Surplus Store (Late April-Early May) – 517.355.0364

Cinder blocks – Consumer's Concrete on Malcolm X between Penn and Aurelius often has “seconds” or chipped bricks they'll sell for much cheaper – 517.484.4426

Pallets – Drive around until you find them! (Check out the businesses on Hosmer, north of Hazel between Penn and Cedar)

Tarps can help capture and funnel water – low-cost tarp material can be purchased from Adam's Outdoor – try calling 517.321.2121









