A 6’ x 2’ x 2’ water trough holds approximately 170 gallons (more than three 55 gallon barrels and takes up less space), and is easy to construct. This design has a cover to reduce evaporation, and is split so it can be opened for easy access. There is outlet on the side of the tank for a hose.

**Materials:**
- Galvanized trough: Size: 6’x 2’x 2’. Costs about $130 - $160. Available at feed stores and home improvement stores. **NOTE:** trough sizes vary
- Plywood for outdoor use (one side good) 8’ x 4’x ¾”. About $25. **NOTE:** stucco concrete board (about $36) can be used – no painting needed and won’t rot, but harder to cut
- Garden hose shut-off fitting
- Caulk
- Window screen: approx. 6” x 6”
- Concrete blocks – 3 minimum
- Exterior paint (for wood top)
- Paint brush, roller (for wood top)
- Mosquito control: “Mosquito Dunks” or similar product (widely available in stores)

**Overflow Fittings** (suggested, can be modified). These fittings cost about $13:
- ABS plastic (BLACK):
  - 1 - 2˝ 90-degree slip male/slip female fitting
  - 1 - 2˝ 90-degree female/female slip fittings
  - 1 - 2˝ coupling
  - Approx. 5’ length of 2˝ pipe
- **Tools:**
  - 2 ½” hole saw or smaller drill bit
  - Power drill
  - Power saw (for concrete board, use tile or metal cutting blade)
  - Jigsaw (optional)
  - Staple gun
  - Metal file (if using a small drill bit)
  - Hacksaw (for plastic pipe)

Directions: **MEASURE TANK BEFORE CUTTING LID**

**Buy materials:** When purchasing plywood (not cement board) for the lid, ask to have it cut 2 inches wider and longer than the tank (you will have to cut the cement board yourself). You will have a total of three pieces. The smallest piece is scrap, the second largest piece is the tank platform and the largest is the tank lid.

**Cut the lid:** If you want, round or shape the lid corners. Use the jigsaw or a saw to cut the downspout entry hole in the lid. Cut across the lid approximately 18” from the non-downspout entry end to make the part to lift up for water access. OPTIONAL: Attach 2 hinges to connect the 18” lid.

**Paint (wood top):** Paint both sides of the two pieces of plywood and edges with exterior paint with several coats.

**Tank platform:** Place small plywood/concrete piece on blocks. Place tank.

**Cut the tank’s overflow hole:** Near the top of the tank, trace around the male end of the 2˝ 90-degree fitting. Cut out the hole with a hole saw, or with a drill make multiple small holes around the hole circumference and punch it out. File down sharp edges – be careful, those edges are sharp!

**Overflow:** Put the male end of the 2˝ 90-degree fitting through the tank hole and secure with the coupling (won’t be tight). Caulk around the hole to seal. Cut the 2˝ pipe to correct length and assemble according to the pictures. Gluing is not necessary. Direct overflow away from tank base and to a plant.

**Downspout entry:** Staple or fit window screen over the hole. This will prevent animals and debris from entering the tank.

**Hose outlet fitting:** Screw in garden hose shut-off fitting on outlet.

**Mosquitoes:** Use mosquito control in the tank as the lid is not tight fitting.

**OPTIONAL SAFETY:** Secure the lid by screwing 2 metal screws on either side through the lid into to the tank. Put a hasp lock on the hinged 18” lid.