

Cisterns

In some areas, ground water either tastes bad, looks bad, or just isn't there. In such cases, cisterns may be used as the source of domestic water supply; also, cisterns are frequently used as supplemental supplies for soft water, laundry, and other domestic uses.

To supplement the cistern, another water supply, such as a pond or stream, may be used for flushing of toilet facilities. This requires a separate pump and piping system, entirely separate of the cistern supply, which is used for drinking and other domestic purposes. An alternative is to haul water from a safe source.

LOCATION. Cisterns should be located on ground higher than the surrounding area. The fill dirt should be graded to provide good drainage. Distances from sources of contamination as listed on page 3 should be observed.

SIZE. The minimum size of a cistern usually recommended is 6000 gallons. This will store about one foot of rainfall from the roof of a small house. When there is no rain, it will supply the needs of a small family for about 30 days. For larger roof areas, the following sizes are recommended:

Roof Area - 1000-1200 sq. ft. - 7,500 gallons capacity in cisterns.

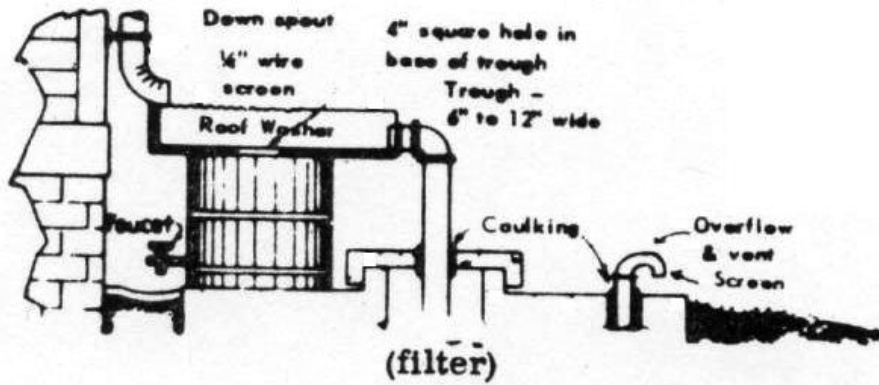
Roof Area - 1200-1500 sq. ft. - 10,000 gallons capacity in cisterns.

Roof Area - 2000 and up sq. ft. - 15,000 gallons capacity in cisterns.

CONSTRUCTION. Watertight construction is essential. Reinforced concrete should be used. In the past many cisterns were made of brick, stone, or concrete block masonry plastered on the inside with cement mortar; but it is difficult to construct a permanently watertight structure with these materials.

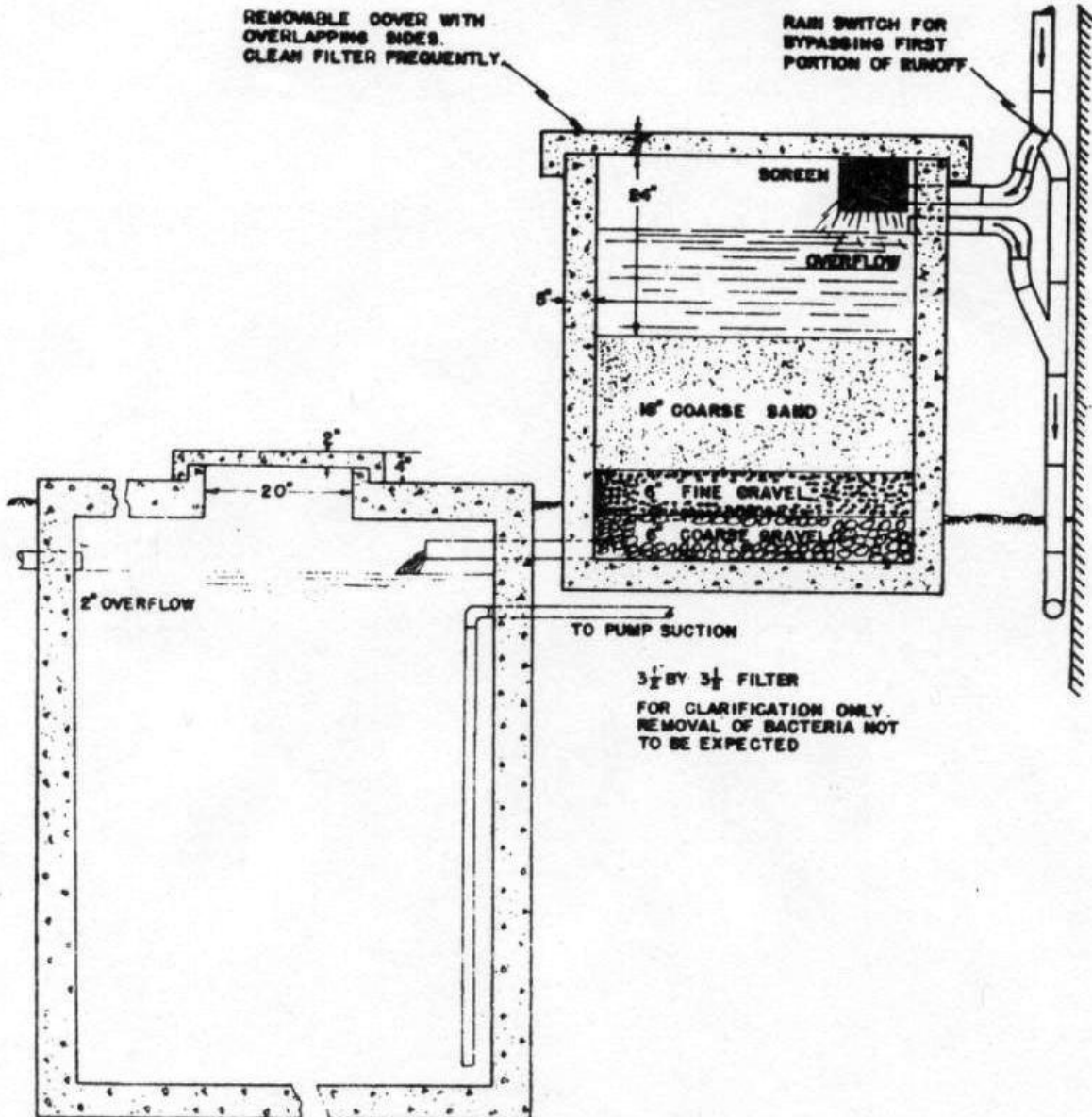
Manholes and tops must be sealed. All inlet and outlet pipes should be screened. (see sketch)

ROOF WASHER. It is essential that the first washings from the roof and gutters do not enter the cistern. This can be accomplished through the use of an automatic roof wash device. This device should be large enough to wash the roof thoroughly. After rain stops, the washer drains and is ready to collect first flow from next rainfall. (see sketch).



ROOF WASHER SKETCH (design 1)
 PROPERLY CONSTRUCTED
 CISTERN

ROOF WASHER SKETCH (design 2)



DO NOT CONNECT OVERFLOW WITH DRAIN THAT MAY BACK UP