How to construct good latrines in areas with flooding and high ground water: guide for experienced and new masons

EWB 1010-2015-V1.1E
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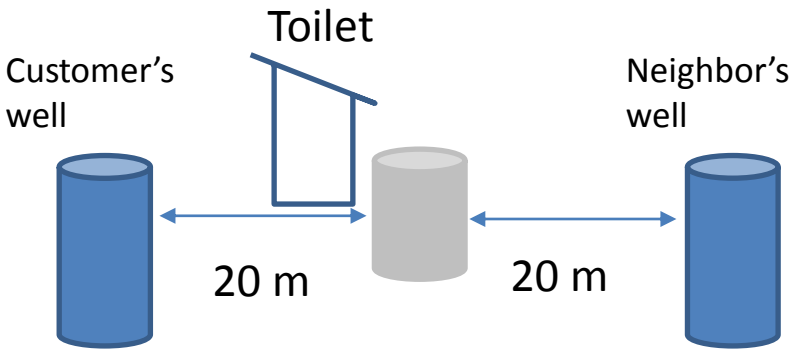
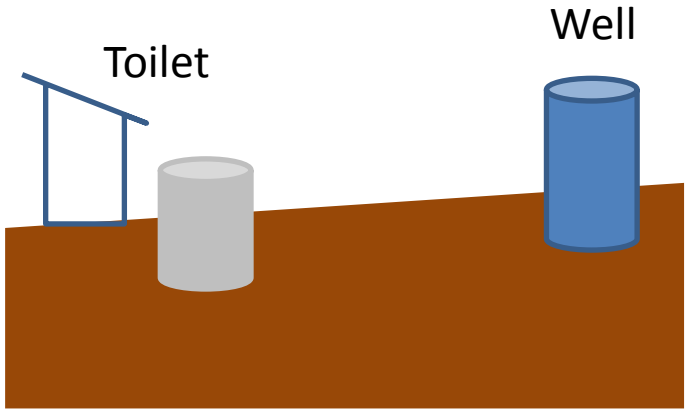
STANDARDS EWB-A

Do all these steps:

1. Choose the best place for the latrine
2. Check the flood level
3. Check the groundwater level
4. Explain to household why a proper latrine is important

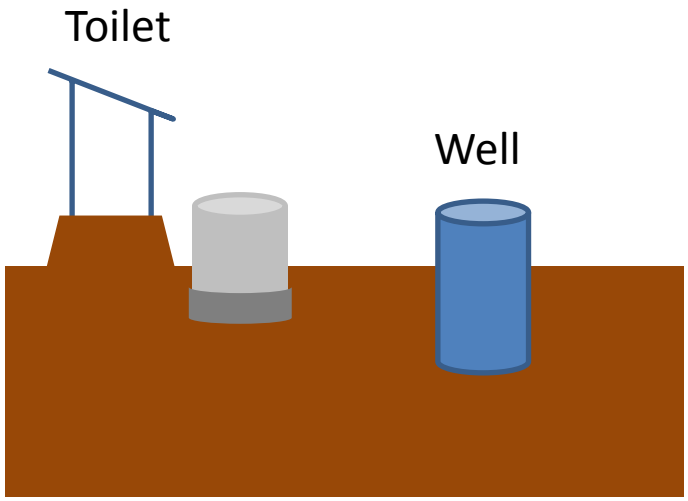
Read the rest of this booklet to understand each step

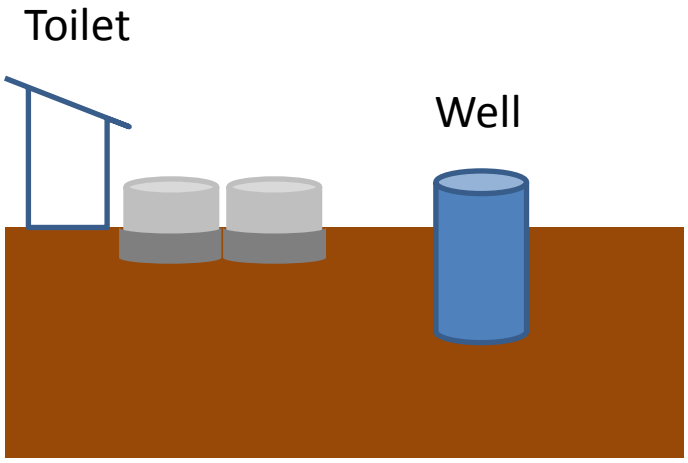




STEP 1. CHOOSE THE BEST PLACE FOR THE LATRINE

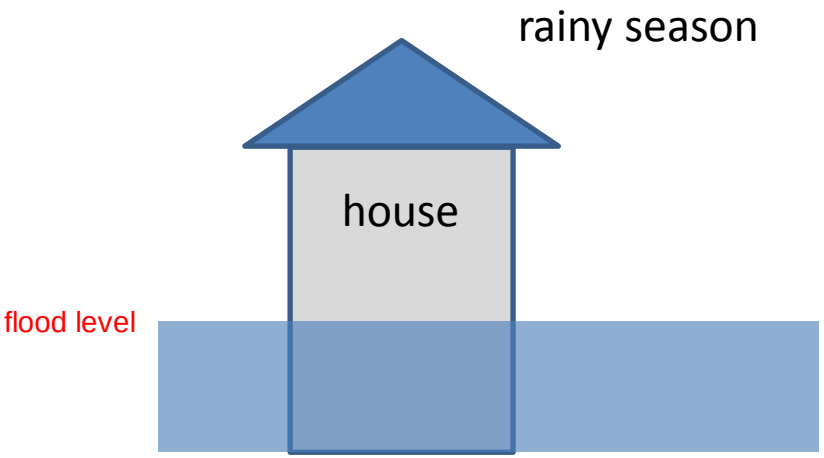
1) It is very important that the liquid from the pit does not move through the soil into any water sources.
2) Choose a location for the latrine that is at least 20 m away from the customer's and the neighbors' wells
3) For uneven areas, build the toilet in an area lower than any wells

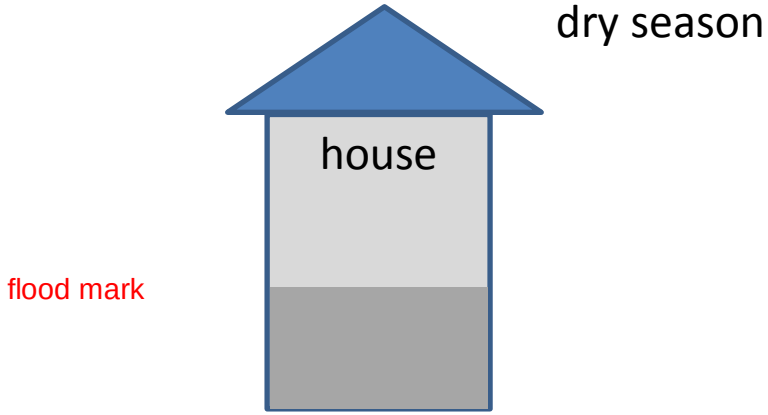




If there is not enough space to place the toilet 20 m away

1) Seal the pit above and below ground so that it does not leak into the soil; build a raised shelter, or make a series of pits. The pit will need to be emptied more often because it's sealed
2) Remind the household to take extra precautions with well water; treat properly or find alternate sources

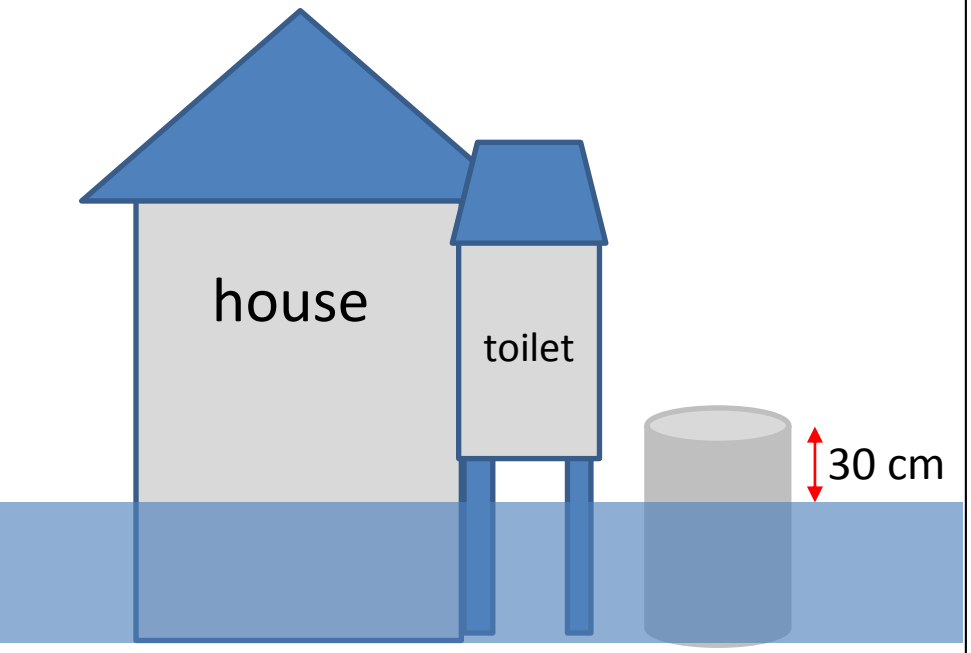




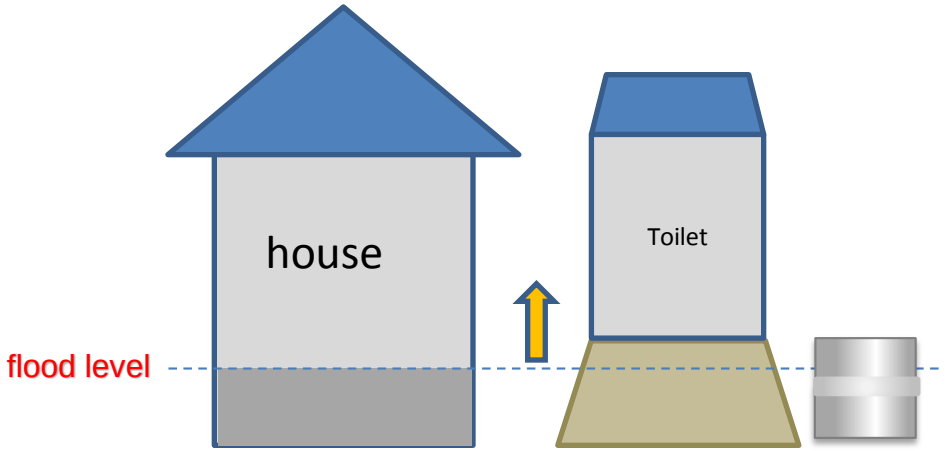
STEP 2: FLOOD LEVEL

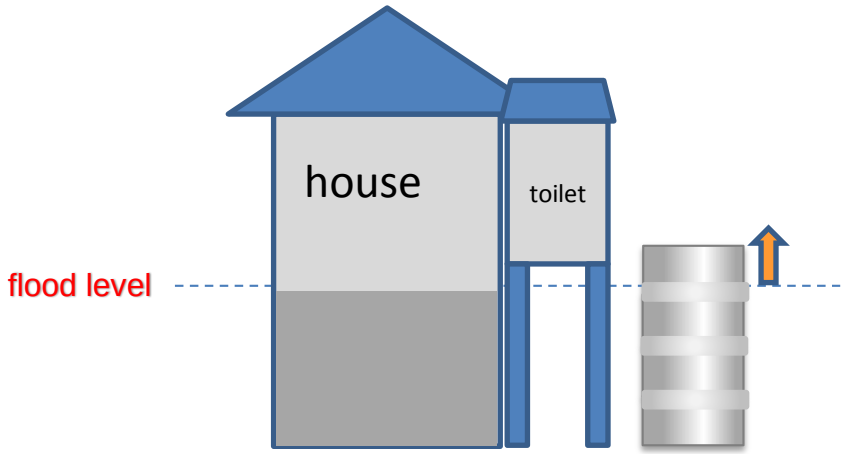
How high is the flood?

1. Ask the house owner about the typical flood level.
2. Check marks on buildings.



1. The cover of the pit must be at least 30 cm above flood mark
2. Suggest to the household that they attach the toilet to the house so that it is easy to get to during flooding





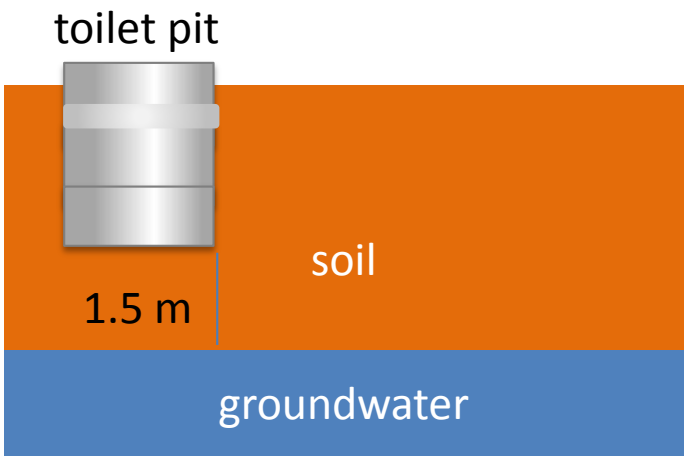
Based on flood level, how high does the toilet need to be?

a. If less than 1 m, you can build up the soil to have the toilet above the flood level.
b. If higher than 1 m, you will need to put the toilet in the house or use stilts of concrete, bricks, or strong wood to raise the toilet.

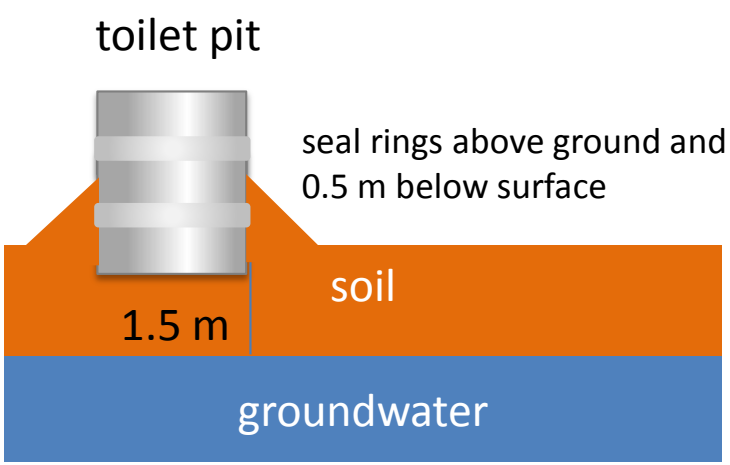
Also important:

a. Seal the rings above ground very carefully
b. Having more than six rings on top of each other is not recommended

low groundwater



high groundwater

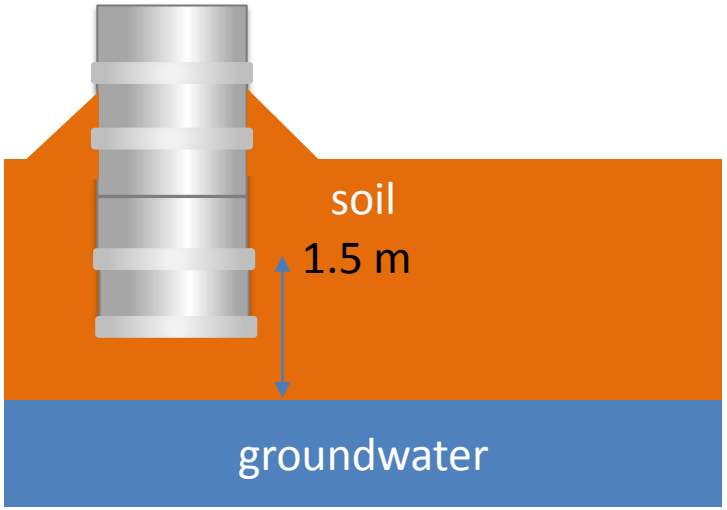


STEP 3: GROUNDWATER LEVEL

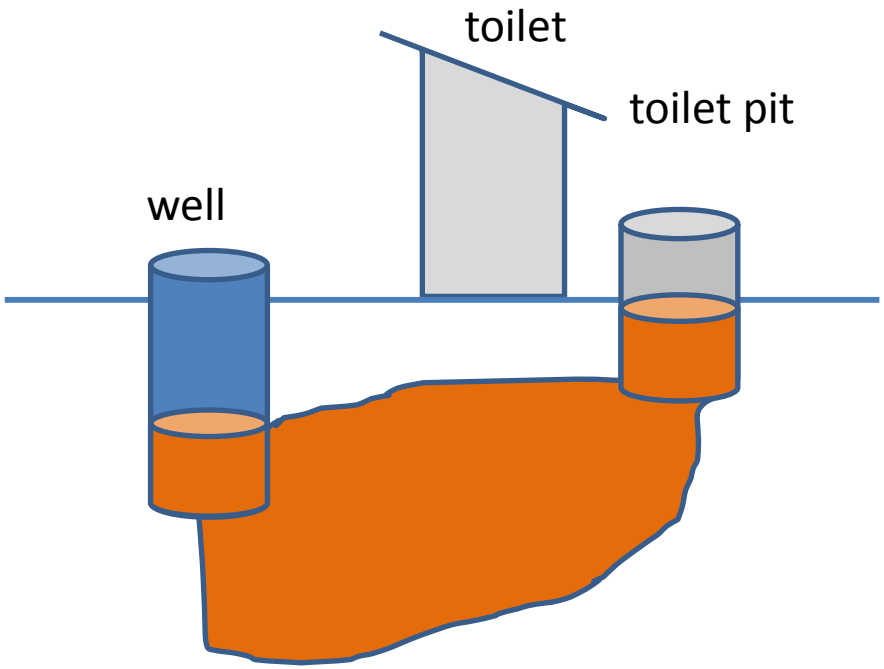
1. Ask the household how the water level changes in the rainy and dry season
2. Check the level of groundwater by looking in a well; if it is the dry season, remember the water will be higher when it rains
3. The bottom ring of the pit should be 1.5 m above the highest level of groundwater during rainy season to protect the water
4. All rings above ground must be sealed carefully

high groundwater

toilet pit



5. If only a deep pit is possible, you must seal all the rings that are closer than 1.5 m to the water.



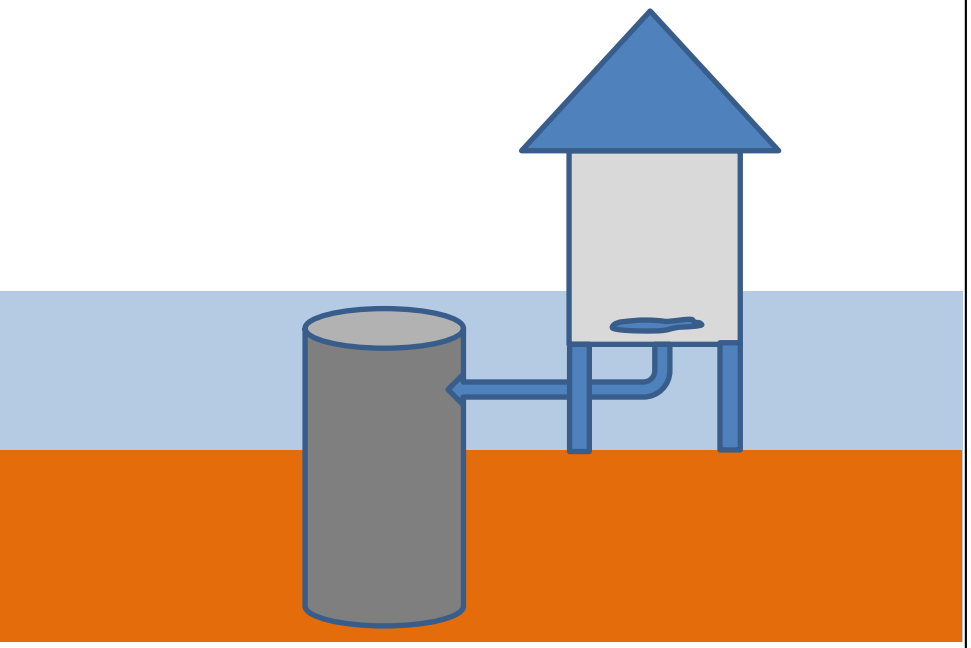
STEP 4: ANSWER HOUSEHOLD'S QUESTIONS

You can answer questions that the household has about the toilet:

Why is it important to build the toilet far away from the well?

- Because waste from the toilet can move through the soil and spoil the water. People will get sick if they drink this water

Example of latrine built incorrectly, below flood level



Why is it important to build the toilet above the flood level?

- Because it is important to use the toilet during flooding and when the groundwater is high. If the rings are below water you will not be able to flush the toilet. If people do not use the toilet, the water will become polluted and it will make people sick