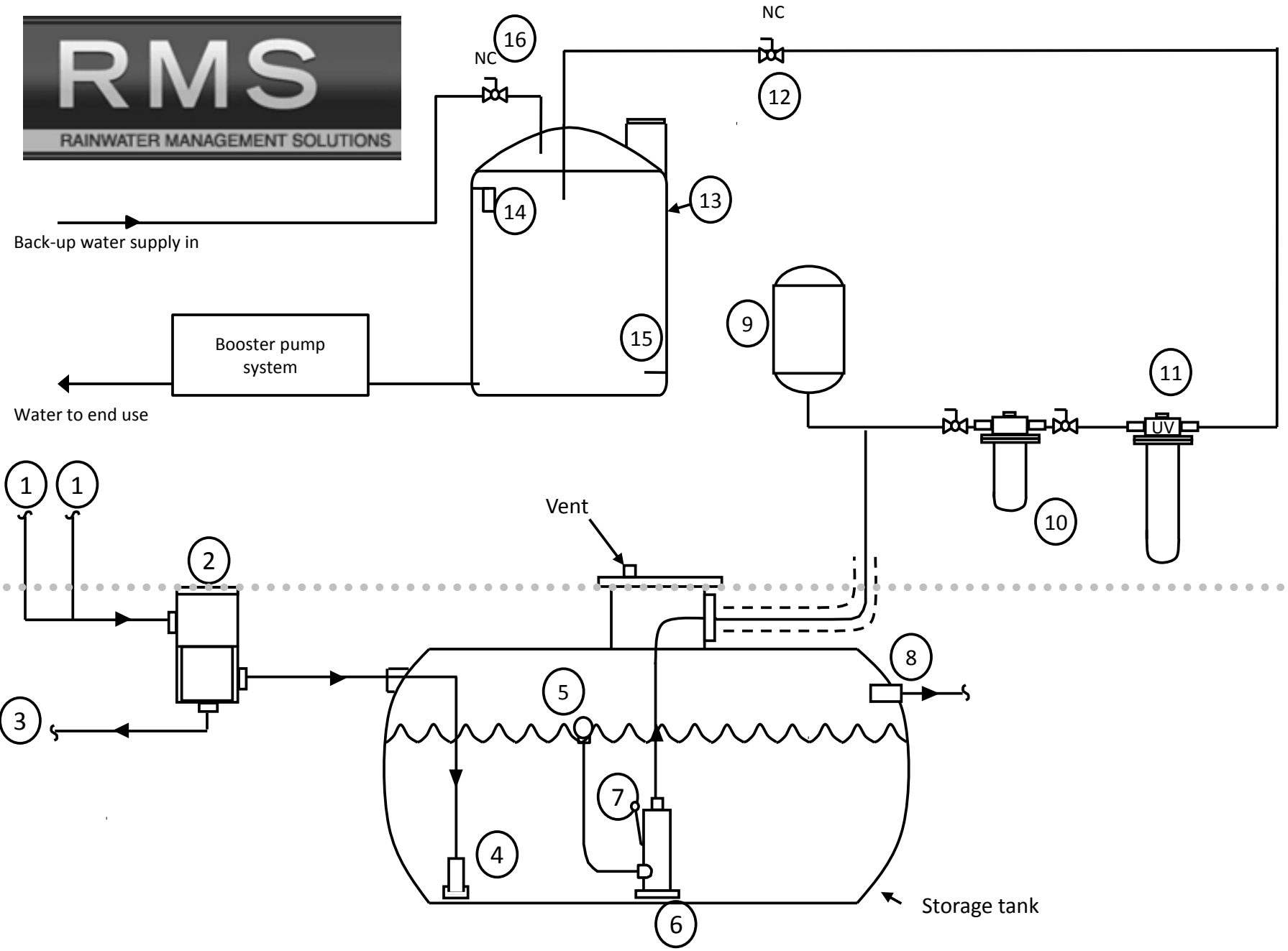
RMS
RAINWATER MANAGEMENT SOLUTIONS



RAINWATER HARVESTING SYSTEM DETAIL

NOT TO SCALE

1. Rainwater collection point (roof drains, gutters, etc)
2. Rainwater enters the vortex filter and is processed. (Possible 90% diverted to storage tank.)
3. Remaining water from vortex filter to overflow
4. Smoothing inlet – stainless steel “flow-calming” device to eliminate turbulence of the incoming water as it enters the tank
5. Floating stainless steel suction filter for uptake of the cleanest water just below the surface
6. Submersible feed pumps. These pumps are used only to fill the day tank and do not need to be sized to meet peak system demand.
7. Low water cut off float switches for pump protection
8. Overflow designed to provide skimming of the water surface and prevent introduction of rodents, etc.
9. Pressure tank
10. Filter (either one duplex filter or two single filters). System is designed so that filters can be exchanged without shutting down the system. Filters should have flow capacities to fill the day tank , but do not need to be sized to meet the peak system demand.
11. Ultraviolet light for water sterilization. Like the filters and pump, this light does not need to be sized to meet peak demand. Other options, such as ozonation or chlorination, can be used in place of an ultraviolet light.
12. Normally closed solenoid valve opened by 14 when water level in the day tank is low
13. Day tank to be located in mechanical room or similar. The day tank should be sized to meet peak demand.
14. Level transmitter that controls both 12 and 16. Begins refilling tank with rainwater from the large storage tank at a set level. If rainwater is unavailable and tank level continues to drop, 16 is activated at a lower level to begin filling from municipal water. Transmitter closes both 12 and 16 when the tank is full.
15. Level switch (or similar) acts as a fail-safe for 14. If water level drops below this point, 16 is opened to begin filling tank with municipal water.
16. Normally closed solenoid valve activated by 14 or 15 to fill tank with municipal water.