

**Reverse Osmosis System**

**Deionized (DI) Water System**

The Reverse osmosis Deionized water system supplied to William and Mary College will produce water suitable for use in laboratory applications. The system is comprised of two main parts; reverse osmosis (RO)/pre-treatment, distribution. The RO/pre-treat side of the system consists of a multi-media filter, carbon filer, water softener, 5 micron particle filer and RO unit.

**“Dead Legs”**

The deionized (DI) water system uses reverse osmosis to remove impurities from water. This system works by using a large amount of pressure to force tap water through a membrane that traps impurities. The delivery to the tap is done through a constantly circulating loop; however, there are “dead legs” from the loop to the tap. Dead legs are defined as any dead-ended section of pipe more than 4 pipe diameters long that occurs when a valve is closed[[1]](#footnote-1). As a result of the presence of “dead legs,” the system can build up algae in the spigot piping.

**User Operation**

Let the tap run for 15 – 20 seconds before use of the deionized water system, to ensure that you are getting deionized water.

1. http://www.umaec.umich.edu/desguide/tech/15/15460.pdf [↑](#footnote-ref-1)