

# 1.0 INTRODUCTION

Evaporation equals precipitation in the global hydrological cycle. However, the pathway of water movement is different for various surfaces over the earth. Precipitation exceeds evaporation over lands in humid climates (such as Florida) since water flows back to the seas (Figure 1). Therefore the seas, which are sinks for fresh water from land areas, lose more water by evaporation than they receive from precipitation.

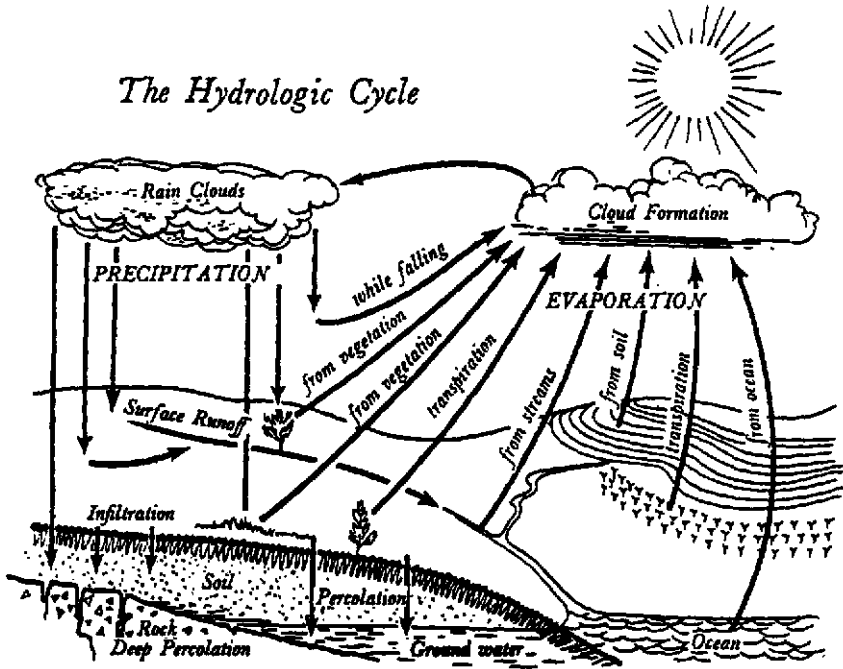


Fig. 1. Schematic diagram of a general hydrologic cycle.

In Florida, part of the rainfall over the land areas may go immediately into runoff and part into soil water storage. Much of the water that goes into the soil is partitioned into evaporation and transpiration. The remainder goes into seepage into streams, percolation into shallow groundwater, or deep aquifer storage. Even this stored water eventually flows back to the seas. Figure 1 illustrates this general hydrologic cycle.

Florida has a unique hydrologic cycle among the southeastern states. First, the average pattern of annual rainfall distribution (Butson and Prine, 1968), especially of the peninsula, is different (Figure 2). The