conveyance systems. Where ground water levels were high prior to development, they are lowered to accommodate buildings and roads and to minimize storm flooding. Increased withdrawals of ground waters for human consumption help to lower ground waters even further. As a result of these and other actions, the landscape mosaic of uplands and wetlands is shifted in favor of uplands.

Other areas of the landscape may periodically have too much water, as stormwaters are shunted quickly from developed lands. Hydroperiods are significantly altered in wetlands receiving these runoff waters. High water times are much higher and of shorter duration and dry times are much longer. There is a gradual shift in the species composition of these wetlands as species that are adapted to drought and periodic flood are favored over species adapted to smoother hydroperiods. In many areas of the country stormwater detention basins are required of new developments to counteract the impacts of increased impervious surfaces.

The creation of artificial wetlands may be an important way to begin a reversal of trends of wetland loss and stormwater management, and add new vitality to the landscape mosaic. Ongoing research in Florida particularly regarding the reclamation of phosphate mined lands has shown that the creation of wetlands is possible (Brown et.al. 1984a, 1984b). The single most important variables are seed source and hydroperiod. The creation of wetlands for stormwater management instead of detention basins void of vegetation has great potential to enhance water quality and reestablish runoff hydrographs that more resemble predevelopment conditions.

Artificial wetlands established for the purposes of recycling treated sewage effluent is gaining much attention in Florida. Using wastewaters to create wetlands has the potential of reversing wetland losses, creating new wildlife habitat, and reestablishing groundwater levels where over drainage has decreased ecological productivity.

Wetlands and Wastewater

In recent years the use of wetlands for recycle of treated sewage effluent has gained much attention, and much research throughout the country has been conducted to determine feasibility (a bibliography of