

Coupling Humanity and Nature

To minimize negative impacts, management of the landscape mosaic might take the form of coupling humanity and nature in a partnership relationship where the landscape is considered as a whole system and patterns that include humanity are designed into the mosaic instead of replacing the mosaic. In this way wetlands and development are not necessarily at odds with each other, but ways are sought to enhance both through positive interactions.

The coupling of humanity and nature in the landscape can take advantage of two values attributed to wetlands that are well known: water quality enhancement and water storage. Research into both functions continues; however, while the final word on effectiveness of particular wetland types for storage and removal efficiencies is still out, the general pattern is well documented (for a summary of research over the past 10 years, see Chan et.al., 1982 and Kobriger et.al., 1983). Wetlands are effective at removing nutrient and heavy metal concentrations from surface waters and act as filters where waters percolate through peat layers into ground waters. When not overloaded, wetlands can store storm waters and act as buffers against damaging flood surges. However to act in this capacity, they must be coupled to developed lands and not "protected" to such an extent as to preclude their use. This may require alternate approaches to wetlands protection and management.

Through creative actions of altering drainage patterns slightly, and creating "artificial" wetlands as detention basins, the developed landscape can capitalize on existing wetlands, and add to the mosaic by developing new ones. Shown in Figure 3 is a hypothetical landscape where development utilizes existing wetlands for storm water storage by reducing area of land that contributes surface waters reflecting the increased runoff from impervious surfaces. Vegetated swales and wetland detention basins are designed into the development pattern to take advantage of the filtering actions of vegetation and soils.

Sound management of the landscape that includes humanity suggests that wetland capacity to enhance water quality be incorporated in management alternatives as a means to protect wetlands and overall landscape values. Increased pressures for the conversion of wetlands to