Normally, agricultural development and habitat preservation are seen as opposing forces; however, one exception can be seen through usage of wetland habitats and irrigated rice cultivation by waterbirds. The Guanacaste province of Costa Rica offers a dynamic example of this system in Palo Verde National Park and the neighboring irrigated rice fields of Bagatzi. This study focused on the observation of the waterbird community utilizing these two habitats through taking total counts of the species present, and recording behavior and habitat selection within both locations. Overall, 16 species of waterbirds were recorded in the Palo Verde marsh and 10 in the rice fields with Black-Bellied Whistling Ducks (Dendrocygna autumnalis) and Blue-Winged Teal (Anas discors) being the most frequently seen in the marsh and Cattle Egrets (Bubulcus ibis) and Common Egrets (Ardea alba) being the most common in Bagatzi. The waterbirds in Palo Verde marsh selected emergent vegetation during mid-morning (1040 to 1050 hrs) (P=0.0415), exposed soil during the late morning (1140 hrs) (P=0.0247), and floating vegetation and open water during midday (1220 hrs) (P<0.0001). In the rice fields, the waterbirds selected the rice parcels with either 50% vegetation coverage (P=0.0001) or 50% open water coverage (P<0.0001) throughout the morning. Overall, the waterbird community utilized the marsh over the rice fields during the dry season, though both wetlands still provided the habitat mosaic needed by waterbirds. Therefore, the protection and management of both of these wetland systems is crucial to the survival of the waterbird community that lives there.