

Everglade snail kite (*Rostrhamus sociabilis plumbeus*)

Conservation Measures

If the snail kite is detected in surveys or assumed present, then conservation measures should be implemented. The incorporation of these recommendations into the project design could result in the project not likely to adversely affect the snail kite and expediting the project.

The first measure recommended is to modify the project footprint to avoid direct impacts to snail kite habitat. Avoidance of snail kite habitat would lead to a determination of may affect not likely to adversely affect the snail kite.

Habitat enhancement is an option when only a small portion of the on-site suitable habitat will be impacted. Clearing exotic and invasive species and restoring native vegetation can help maintain the balance of ecological function.

Where the project may substantially modify occupied snail kite habitat then appropriate conservation measures should address any project-related changes in wetland hydrology and direct loss of wetlands. In this scenario, loss of wetlands or a change in the wetland hydroperiod may adversely affect survival and food source productivity of the snail kite. Any manipulations in water levels should mimic natural cycles. Water level reduction should be done prior to nesting season to induce the birds to seek alternative nesting locations (Bennetts and Kitchens 1997). Compensation for loss of ecological function can be accomplished through protection and enhancement of suitable habitat. Compensation sites should be selected nearby the project site or, secondarily, in a designated critical habitat area.

There are two areas surrounding snail kite nests that are important for considering impacts to snail kites. An inner 130-m (425 ft) protective zone is recommended to reduce disturbance of birds on the nest based on known flushing distance (Rodgers and Schwikert 2003). A 500-m (1,640 ft) area surrounding the nest should be protected from habitat disturbances, such as anthropogenic water level changes and vegetative alterations during the breeding season (January to May) to protect the foraging area of the nesting birds.

If the snail kite is documented on site then project activities should be modified to not disturb the birds. No activities should be conducted within 130 m (425 ft) of the nests during breeding season or around roosting sites throughout the year. Construction or other activities, such as herbicide application, that may affect the snail kite, snail kite nests, or forage should be avoided during the breeding season, especially early in the nesting period when birds are more susceptible to disturbance (Rodgers et al. 2001). Herbicide applications for aquatic vegetation control can sometimes incidentally kill nontarget cattail and bulrush that support snail kite nests resulting in nest failure (Rodgers et al. 2001). The use of nest baskets may be an appropriate conservation measure to improve snail kite survival where project activities may increase the risk of nest collapse (Sykes and Chandler 1974, Snyder et al. 1989). Herbicide treatments may also have an adverse affect on the apple snail. In areas where snail kite nests are found herbicide treatment is best conducted outside the breeding season. If this is not possible herbicide spraying from boats should be limited to areas at least 130 m (425 ft) from nest sites.

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If project activities in snail kite habitat during this breeding season is unavoidable then a site-monitor can be used to determine when activities are disturbing the birds.

Literature Cited

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