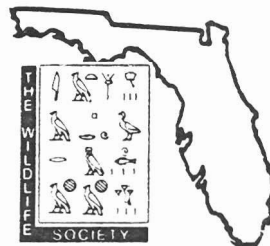


FLORIDA CHAPTER
THE WILDLIFE SOCIETY



4 Old Oaks Road
Archer, FL 32618
July 29, 1985

Col. Charles T. Myers, III
District Engineer, Department of the Army
Jacksonville District, Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Dear Colonel Myers:

The Florida Chapter of The Wildlife Society is an organization of professional wildlife biologists and managers dedicated to the wise use and management of natural resources in the State. We appreciate this opportunity to provide our comments on the DEIS for Existing and Proposed Mining Operations of Occidental Chemical Agricultural Products, Inc.

As you will see from the attached comments, we do have some major concerns about the current state-of-the-art of phosphate mine reclamation or restoration, particularly the industry's inability to adequately restore forested wetlands. Several years ago, phosphate mining was rejected as a compatible use of the Osceola National Forest due to inadequacies in demonstrated reclamation. We believe that those inadequacies still exist and that mining of wetlands near the Suwannee River presents a real threat to the long-term quality of water flowing into this unique river. Also, we do not agree with the wetlands valuation system used (WEP) which seems to minimize the values and importance of natural high retention, slow-flow swamps and marshes. The black bear is a unique and important wildlife species in some of the areas proposed for mining and we encourage the protection of Bee Haven Bay and vicinity as black bear habitat.

Thank you for considering and incorporating these comments into this review process.

Sincerely yours,


Stephen R. Humphrey for
The Wildlife Society

Enclosure

COMMENTS ON THE DRAFT ENVIRONMENTAL
IMPACT STATEMENT, SECTION 404, CLEAN WATER ACT
OXY MINING OPERATIONS

From
The Wildlife Society (Florida Chapter)

Summary Comments:

1. Positive values of phosphate mining for wildlife generally are temporary and diminish considerably on reclaimed landscapes.
2. We remain unconvinced that the natural biological support functions will increase as ecosystems mature. Plant and animal diversity on reclaimed habitats tend to be low. There are only minimal long-range data to support the idea that high quality wildlife habitats will develop on reclaimed lands.
3. Restoration (of both species and functions) of forested wetlands and uplands have not been adequately proven, and should be, before implementation.
4. It is doubtful that interconnected "land-and-lakes" wetlands will improve upon existing wetland functions in the area planned for mining.

5. We encourage the preservation of headwater wetlands and the reestablishment of original drainage patterns following mining.
6. The black bear is an important wildlife species in the area. Bee Haven Bay and associated wetlands and uplands are crucial for the future welfare of this black bear population. We encourage the prohibition of phosphate mining in Bee Haven Bay and vicinity.

Additional Comments:

Phosphate mining in Hamilton County, Florida, has been shown to create habitats attractive to birds (Wenner and Marion 1981, Maehr 1981, 1984, Maehr and Marion 1984, Maehr et al. 1984), mammals (Frohlich and Marion 1981), and wildlife in general (Marion et al. 1981). However, these studies indicate that wildlife values on mined lands are strictly temporary. The predominant final landscape following reclamation (land-and-lakes) has been shown to provide minimal opportunities for wildlife. Further, these landscapes contain plant and animal communities extremely different from unmined areas, reflecting drastically disturbed and homogenized soil and parent material substrates.

The Draft Environmental Impact Statement claims that "natural biological support functions will be reduced initially but will increase as the systems mature." Studies (cited above) of existing reclamation projects do not support this claim, in fact reclaimed sites supported less abundant and diverse bird communities than pre-mined, unreclaimed, or settling pond habitats (Maehr and Marion 1984). Time and natural succession may be important factors in increasing habitat quality on

reclaimed phosphate-mined lands but this is purely speculation. There is little evidence to suggest what "mature" reclaimed landscapes will look like. Because of the lack of long-range reclamation data, we feel it is inappropriate to predict high quality wildlife habitat on reclaimed land.

Past reclamation performance by Occidental indicates that minimal efforts are made to meet requirements in Chapter 16C-16 of the Florida Administrative Code. In addition, reclamation guidelines in 16C-16 are, by themselves, inadequate to assure quality wildlife habitat (particularly forested wetlands) following current reclamation activities. Similar efforts by Occidental in the future will assure low wildlife diversity and restricted successional opportunities for plants on reclaimed land. Aerial seeding as planned by Occidental will permit the establishment of early successional and herbaceous species, leaving the large-seeded mast producers (i.e. saw palmetto (Serenoa repens), oaks (Quercus spp.), swamp tupelo (Nyssa biflora) and others) to natural, and unlikely, invasion. Methods used by Occidental in restoring forested wetlands and uplands (species and functions) should be proven before implementation. Further, virtually nothing is known about reclamation of clay settling ponds. Evidence from central Florida suggests that these areas may succeed toward unproductive monocultures (Schnoes and Humphrey 1980).

The creation of extensive, interconnected systems of land-and-lakes will doubtfully improve existing wetlands functions in the impacted area. It is apparent that the wetlands classification system (WEP) used in the DEIS gives considerable importance to wetlands aesthetics and accessibility, while downplaying the importance of high-retention, slow-flow Florida swamps and marshes. Also, the WEP evaluation system has very limited capability in evaluating wooded wetlands. While mining and

reclamation may create an easily traveled system of easily viewed pastures and lakes, the runoff retention and filtering capacity will be considerably reduced. Further, the high volume, high pH discharge into the naturally low pH Suwannee River may seriously damage natural nutrient and mineral balances on which many plants and animals have evolved. We therefore encourage the preservation of headwater wetlands to maintain water quality for the Suwannee River. Where wetlands are mined, we encourage the reestablishment of natural drainage patterns including the original pattern of a complex of isolated (independent) swamps and marshes that act as runoff reservoirs and nutrient/mineral filters.

The black bear (*Ursus americanus*) reaches the northeast limit of its range in peninsular Florida in central Hamilton County (Brady and Maehr 1984). Black bears are wide ranging omnivores that use a variety of forest types that are important throughout the year, but appear to prefer forested wetlands in north Florida (Maehr and Brady 1984 unpublished data). Because bears require habitat diversity to meet nutritional needs (Maehr and Brady 1984) their habitat requirements overlap with virtually all forest-dwelling vertebrates. The black bear represents an excellent indicator species for the integrity of diverse and productive forest lands such as Bee Haven Bay and surrounding landscapes. Preservation of this species will assure the continued existence of most other forest vertebrates including a number of endangered and threatened species that would otherwise be locally exterminated by expanded phosphate mining in Hamilton County. Mining as planned in Bee Haven Bay would eliminate bears from this area and may significantly reduce population levels in surrounding forest land. Further, bears to the west of the affected area would become isolated and more susceptible to natural and unnatural disasters leading to local extinction (Diamond 1978).

Bears in the vegetatively similar Osceola National Forest use Big Gum Swamp extensively. Similarly, Hamilton County bears depend upon Bee Haven Bay for the same vital habitat components (food, escape cover, and den sites). It is not unreasonable to expect serious population declines as a result of mining Bee Haven Bay, which ultimately may affect population dynamics in neighboring Columbia County where bears are a game species. Because forested wetlands in Hamilton County provide the best possible combination of habitat features for black bears and other woodland vertebrates compared to possible post-mining conditions, we recommend that mining activities be prohibited in Bee Haven Bay as well as in its adjacent uplands and interconnecting wetlands. It is essential that isolation of this system be prevented and an uninterrupted pattern of forest land be maintained between Hamilton County bear habitat and occupied bear range to the east.

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