



September 26, 2000

Colonel James G. May
District Engineer
Jacksonville District Corps of Engineers
U.S. Department of the Army
P.O. Box 4970
Jacksonville, Florida 32232-0019

RE: Request for Region-wide Environmental Impact Statement

Dear Colonel May,

On September 15, 2000, the Policy Committee of the Charlotte Harbor National Estuary Program (Charlotte Harbor NEP), after receiving similar recommendations from the Citizen's Advisory Committee, Technical Advisory Committee, and Management Committee, unanimously agreed to request the United States Army Corps of Engineers and the United States Environmental Protection Agency to undertake a Region-wide Environmental Impact Statement to address cumulative impacts from all types of development in the Peace and Myakka River basins in southwest Florida. This letter is to formally serve as that request.

Background

The Charlotte Harbor National Estuary Program's *Comprehensive Conservation and Management Plan* was officially endorsed by members of its Management Conference earlier this year. The Management Conference includes groups representing citizens, elected officials, resource managers, industry, and commercial and recreational resource users in the Charlotte Harbor 4,400 square mile watershed. Within the Charlotte Harbor watershed, three priority problems -- hydrologic alterations, water quality degradation, and fish and wildlife habitat loss -- have been identified as priority problems to be addressed in order to meet the goals of the program. These goals are designed generally, to improve water quality and ecological integrity within the Charlotte Harbor watershed, and include specifically, the goal to "provide the proper fresh water inflow to the estuary to ensure a balanced and productive ecosystem."

As you know, twenty years ago, EPA undertook an area-wide EIS for the phosphate-mining region in south central Florida. That effort was intended to address the impacts of phosphate mining for the next 20 years at which time it was to be updated.

Since that EIS was originally completed, changing land use practices coupled with increased demand on water resources have resulted in many changes throughout the greater Charlotte Harbor watershed. While the focus is often on phosphate mining, the issue is far more complex than to consider just that industry. There are new demands for water for both public consumption and agriculture, and new public perceptions about the priorities of water use in the Charlotte Harbor drainage basin, as indicated by the success of the Charlotte Harbor NEP. In addition, there is a new body of peer-reviewed scientific literature about the effects of development, including phosphate mining and agriculture, on the flow of the Peace River.

Public Water Supply

One of the most notable changes over the past 20 years has been the increased reliance on surface water supplies for public use. Water withdrawals at the Peace River Regional Water Treatment Facility commenced in 1980 and have increased annually with population growth. The population of the four Southwest Florida counties which comprise the Peace River/Manasota Regional Water Supply Authority – Charlotte, DeSoto, Manatee and Sarasota – has sustained continuous growth over the past two decades.

A comparison study of the aggregate census data, from the 1997 Florida Statistical Abstract, illustrates the area's high growth rate. While the 1970 population for the four counties in the Peace River/Manasota Regional Water Supply Authority totaled 257,877, by 1980 the census count had increased to 428,195 – a 66% increase. By 1990, the four-county population had grown to 624,323. By 1999, the population was estimated to be over 735,000.

Future population-growth projections for Authority counties illustrate a continuing rise. An aggregate census of 886,400 is predicted by 2010, and by 2020, the estimated regional population will be 1,018,600 -- nearly a 140% increase since the original EIS was completed.

During the mid-to-late 1980's, the Southwest Florida Water Management District (SWFWMD) documented long-term declines in the potentiometric surface of the Floridan aquifer, the surficial aquifer, and lake levels along the Highlands Ridge. In the Eastern Tampa Bay area, where saltwater intrusion was occurring along coastal areas, water quality monitoring showed increasing trends for sulfates, total dissolved solids and chlorides. Intensive data collection and analysis (a Water Resource Assessment Project, or WRAP) was initiated to ascertain the probable causes of the declines in hydrologic conditions. The WRAP showed that groundwater resources of the Highlands Ridge and Eastern Tampa Bay were interdependent and must be addressed from a basin-wide or regional perspective.

This led to action of the SWFWMD Governing Board to establish the Southern Water Use Caution Area (SWUCA) in 1992. The SWUCA encompasses about 5,100

square miles, covering all of Manatee, Sarasota, Hardee and DeSoto counties and portions of Hillsborough, Charlotte, Highlands and Polk counties.

Data from the network of wells, compared to data from the 1930's, have confirmed drawdowns in water levels by as much as 30 feet over a major part of the basin. Moreover, water levels have been lowered 40 to 60 feet in about 40 percent of the SWUCA.

SWFWMD established a maximum allowable level of withdrawals to protect the aquifer from significant harm. Existing permits, however, had already authorized withdrawals of nearly twice this amount, principally for agricultural uses. As a result, the development of potable water supplies from groundwater in the region covered by the SWUCA is effectively curtailed. This situation has led water suppliers to look primarily to the surface supplies from the Peace and Myakka Rivers or other alternative sources.

In 1996, the Peace River/Manasota Regional Water Supply Authority -- established in 1982 by an inter-local agreement among Charlotte, DeSoto, Manatee and Sarasota counties -- obtained a 20-year permit renewal for withdrawals of up to 32.7 mgd from the Peace River. The Authority is currently expanding its treatment and water storage facilities. It is also expanding its service area by constructing a 23-mile interconnecting potable water pipeline between the Peace River and the Carlton Reserve Water Treatment Plant near the Myakka River. Environmental concerns about maintaining the necessary freshwater flows to Charlotte Harbor to maintain healthy estuarine production have led to extensive monitoring programs, establishment of minimum flows below which withdrawals are prohibited and the review of the project for federal funding by an Environmental Impact Statement, which is currently underway.

Meanwhile, SWFWMD has developed a long-term plan (Regional Water Supply Plan) of the potential water resources of the area to meet needs over the next 20 years. This plan -- currently in draft form for public review -- identifies the Peace River for another potential 40 mgd, the Myakka River as a new source with a potential 15 mgd for public water supply, and Shell Creek for another 10 mgd in addition to the 4 mgd currently diverted. A total of 65 mgd of potential new diversions from upper Charlotte Harbor drainages are identified. No new groundwater supplies were identified in the Charlotte Harbor drainage basins because of resource limitations within the SWUCA.

Agricultural Water Demands

In the two decades since the original EIS, agriculture has increased markedly in the upper Charlotte Harbor drainages. Stung by a string of freezes in the late 1970's and 1980's, citrus production has moved south from its historical center in Central Florida. Row crop and sod production has also increased in the greater Charlotte Harbor watershed. Figures for SWFWMD's water supply planning area, which includes the upper Charlotte Harbor watersheds, cite trends for increased demand through the 2020-planning horizon. Total water demand for agricultural purposes is projected to reach an

annual average of 710 mgd by 2020, up 123 mgd from 1995. Nearly three-fourths of the incremental increase is due to projected increases in irrigated citrus and sod acreage.

While agricultural demand has been primarily for groundwater in the past, the effects of agricultural irrigation on surface waters has become more evident within the past decade. From a future supply standpoint, the resource limitations identified in the SWUCA have made planners consider surface water sources for agriculture. But perhaps more importantly, the Flatford Swamp tree die-off has demonstrated previously unexpected ecological impacts from agricultural irrigation.

Flatford Swamp is an approximately 4.5 square mile mixed hardwood, wetland community located in the Upper Myakka River Watershed, an approximately 75 square mile drainage basin of predominantly agricultural use. The mature wetland forests of Flatford Swamp started dying in the 1980's and have continued until present. More than a thousand acres of hardwood swamp have died and the effect is still spreading.

Studies have conclusively determined that the swamps are being killed by agricultural irrigation during the normally dry periods of the year. In essence, drainage from lands irrigated with groundwater has persistently kept the swamps flooded, even during periods of severe regional drought. The massive tree die-off is the direct result of too much water -- water pumped from the ground for agricultural irrigation and released in a "volume-sensitive" basin.

Phosphate Mining

When the original phosphate mining EIS was written 20 years ago, little was known about the effects of phosphate mining on surface flows. Since that time, studies conducted by the U.S. Geological Survey (USGS) have raised significant questions about the effects of phosphate mining on long-term river flow.

Much of the upper Peace River basin in Polk County has been mined for phosphate. According to the USGS, mining and reclamation practices in Polk County may have contributed to the overall decline in streamflow in the Peace River by:

- lowering of potentiometric surfaces in underlying aquifers by large groundwater withdrawals, resulting in cessation of spring discharge and reversal of natural head gradients;
- lowering of the surficial aquifer, which feeds base flow; and
- significant alteration of local natural surface-drainage patterns.

The USGS studies also note that exposing the surficial aquifer through mining has resulted in the lowering of the groundwater head, groundwater impoundment, and loss of ground water to evaporation. Reduction of river base flow in the upper reaches of the

Peace River could be a result of the widespread practice by the mining industry of constructing large reclaimed clay-settling areas adjacent to the river.

Planned phosphate mining in the central Florida area will encompass thousands of acres in addition to what has already been mined. According to the Central Florida Regional Planning Council, in 1990, 19 operating mines had 57,146 acres of active and inactive clay ponds with a projection of 20,000 additional acres needed for future operations. With clay-settling areas occupying 20 to 40 percent of the land area mined, it becomes apparent that while the topography and surficial landforms may be temporarily disturbed, soils are, in fact, radically changed forever.

Regional water use depends on maintaining the quality and the quantity of water in all the hydrogeologic units and subsequently, in this case, in Horse Creek and the Peace River. Maintenance of overland runoff and underground seepage rates within the upper Charlotte Harbor drainage basin are critical to current and future water use and protection of the estuary.

Conclusion

In the past 20 years, there have been:

- significant urban developments with a population increase of approximately 70%;
- significant changes in the use and potential future use of the Peace and Myakka rivers for public water supply;
- increased agricultural demand for water supply;
- severe groundwater resource limitations identified for the Southern Water Use Caution Area;
- increased knowledge of the potential adverse effects of agricultural irrigation on wetlands; and
- the recent availability of peer reviewed USGS literature on the potentially adverse effects of phosphate mining on river flow.


In light of new technologies used by industry and others (the original EIS was done on a typewriter!), and which were not available 20 years ago, as well as the large number of physical, hydrological, and biological studies which have been undertaken within our watershed since that time, we believe it appropriate to address, in a concerted and coordinated effort, the cumulative impacts of developments on our resources.

While we understand that there are two individual permit applications currently being considered by the Corps for phosphate mining operations, we do not feel that the § 404 review process will adequately address the cumulative impacts of multiple development activities within our watershed and the inherent trade-offs which must be publicly considered for the long-term protection of our valuable natural resources.

We therefore kindly request that you undertake a Region-wide Environmental Impact Statement for federal permitting and funding activities within the Peace and Myakka River Basins of the Greater Charlotte Harbor watershed.

We look forward to your favorable response. Should you have any questions, please feel free to contact the Charlotte Harbor National Estuary Program Office at (941) 995-1777.

Sincerely,

A handwritten signature in cursive script that reads "Richard W. Cantrell".

Richard W. Cantrell, Co-chairman
Charlotte Harbor NEP Policy Committee

cc: John H. Hankinson, Jr.
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