

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

GULF HYDRO-FARMS, INC.,)
)
 Petitioner,)
)
 vs.) CASE NO. 83-1913
)
 HARPER BROTHERS, INC., and)
 SOUTH FLORIDA WATER MANAGEMENT)
 DISTRICT,)
)
 Respondents.)
 _____)

RECOMMENDED ORDER

Pursuant to notice, this cause came on for formal hearing before P. Michael Ruff, duly designated Hearing Officer of the Division of Administrative Hearings, on March 13, 1984, in Fort Myers, Florida. The appearances were as follows:

APPEARANCES

For Petitioner:	W. E. Connery Gulf Hydro-Farms, Inc. Post Office Box 148 Estero, Florida 33928
For Respondent, Harper Brothers, Inc.	John A. Noland, Esquire Post Office Box 280 Fort Myers, Florida 33902
For Respondent, South Florida Water Management District:	Michael S. Tammaro, Esquire South Florida Water Management District Post Office Box "V" West Palm Beach, Florida 33402-4238

This cause arose upon an application for a surface water management permit filed by Harper Brothers, Inc., seeking authorization for the construction and operation of a surface water management system from the Respondent, South Florida Water Management District (SFWMD) for a project known as "Green Meadow Mine." The application is for authorization to construct and operate a surface water management system serving the 405 acre existing mining operation. The system will consist of dykes, pumps, culverts, a weir structure and a 155-acre water retention area. The project is located in all or parts of Sections 2 and 3, Townships 45 and 46 South, Range 26 East, Lee County, Florida. The existing mining operation operates under Permit No. 36-00260-W issued to Harper Brothers, Inc., on September 10, 1981, and reissued August 12, 1983, which was designed and is operated to retain all of the dewatering discharges (water pumped out of the active mine pit) in an on-site retention area (except that water pumped for use on Harper Brothers farm operation for irrigation).

Upon receipt of the application, an extensive review of the information submitted as part of the application was conducted by the Respondent SFWMD's staff with the ultimate result that notice of intent to issue the surface water management permit sought herein was served with certain conditions and addenda effective June 3, 1983. Petitioner Dale Rickards, by petition of June 7, 1983, requested a formal proceeding on the permit application and Petitioner Gulf Hydro-Farms, Inc., requested a formal hearing on the application by petition dated June 6, 1983. Lee County had already requested a formal proceeding.

Lee County withdrew its petition on June 9, 1983, and Dale Rickards filed a notice of voluntary dismissal and was dismissed with prejudice on August 29, 1983. By order of January 16, 1984, after the case had already been set for hearing previously and continued by agreement of the parties, Chris and Susan Harrington were permitted to intervene on behalf of the Petitioner. The case was again set for hearing on January 16, 1984, but by agreement of the parties was continued once again to the ultimate hearing date.

At the hearing, the Petitioner, Gulf Hydro-Farms, Inc., called two witnesses. The Respondent Harper Brothers, Inc., called four witnesses and the Respondent SFWMD called one witness, as did the Intervenor. The Petitioner presented Exhibits A through F, all of which were admitted save Exhibit D. Intervenor's Exhibit G-1 was admitted into evidence. Respondent Harper Brothers submitted eight exhibits, all of which were admitted into evidence, and the Respondent SFWMD submitted Exhibits 9, 10 and 11 which were admitted. Petitioner's witness Ronald C. Bruns was accepted as an expert witness in the field of civil engineering and surface water management engineering and "the district's design criteria." Respondent Harper Brothers' witness Dennis Roza, was accepted as an expert in civil engineering. Harper Brothers' witness Scott Glaubitz was accepted as an expert in civil engineering and water resources engineering. Respondent Harper Brothers' witness Thomas M. Missimer was accepted as an expert witness in the field of hydrology and water quality, and Rebecca Serra, a witness for South Florida Water Management District as well as Respondent Harper Brothers, Inc., was accepted as an expert-in the field of surface water management design, surface water management permitting criteria, hydrology and hydraulics.

At the conclusion of the proceeding, the parties requested a transcript of the proceeding and an extended briefing schedule, simultaneously waiving the 30-day requirement for rendition of the Recommended Order contained in Rule 28-5.402, Florida Administrative Code. Proposed findings of fact and conclusions of law and memoranda were timely submitted.

Prior to the hearing, the issues to be resolved were substantially narrowed and all parties entered into a prehearing stipulation which was filed prior to hearing. The ultimate issue to be resolved concerns whether the surface water management permit should be granted to Harper Brothers, Inc., pursuant to Rule 40E-4.301, Florida Administrative Code. The specific issues which remained to be resolved at the outset of the hearing were stipulated to be as follows:

- 1) Whether reasonable assurances have been given that post-development discharges off-site will not exceed the pre-development water discharge to any significant degree, so as to prevent additional flooding to the access road to Petitioner's property.
- 2) Whether reasonable assurances have been

given that historical drainage patterns will not be significantly altered by development of Respondent Harper Brothers, Inc.'s property so as to cause additional flooding to Petitioner's access road.

3) Whether reasonable assurances have been given that commingling of dewatering water and storm water discharges in the retention area will not alter the pH of the receiving waters of "no-name" slough, when such commingled water is discharged off-site, to such an extent as to violate water quality rules of Chapter 17-3, Florida Administrative Code.

FINDINGS OF FACT

1. The Respondent Harper Brothers, Inc., operates a farming and limestone mining operation in Lee County, Florida. It has filed a surface water management permit application for a project to be operated as an adjunct to the mining operation at Green Meadows Mine owned by Harper Brothers. The Respondent Harper Brothers retained consultants in the general fields of engineering, hydrology, surface water management and hydraulics to assist in the formulation of a surface water management plan for the development and operation of their mining site. As a culmination of this effort, Respondent Harper Brothers filed its application for a surface water management system, and permit therefor, with the district. The SFWMD (District), upon receiving applications for surface water management systems and related permits evaluates water quantity, quality and various environmental concerns related to water resources mandated by Chapter 373, Florida Statutes, Chapter 40E, Florida Administrative Code and Chapter 17-3, Florida Administrative Code. Such an application must meet district criteria contained in the statutes and rules in order for the surface water management permit to be issued. The district's staff makes a recommendation to its governing board for approval or denial of such permits, and often with related conditions attached. In the instant case, after review of the various water quality and environmental criteria, the recommendation of the governing board of the agency was for approval of the permit with certain conditions.

THE PROJECT

2. The project which is the subject matter of this proceeding is a rock mining operation for the mining of limestone in Lee County, Florida. The application is for the construction and operation of a surface water management system to serve a 405-acre mining operation which, in essence, involves the management of the water produced by "de-watering," or pumping-out of the active rock pit, through use of a retention area, dykes, pumps, culverts and a weir structure; with a view toward keeping the water pumped from the pit (dewatering water), and stormwaters which fall on the site, contained in a retention area which has been designed to retain all the dewatering discharge. The only water discharge envisioned off the site represents the volume of stormwater which falls thereon. The stormwater which would be discharged off the site is that water which actually falls as rain onto the retention area as well as stormwater that is pumped into the retention area from the pit through the use of the two existing dewatering pumps.

3. During excavation of the rock pit, water is discharged from the pit into the on-site retention area through use of these two pumps. An existing weir structure allows some water from the retention area to flow through a ditch to a small lake on the Respondent Harper Brothers' property. Water from the lake is used at the rock mine and some existing farmland of Harper Brothers is supplied irrigation water from it. At present, some farmland is supplied irrigation water through a pump from the retention area and some receives irrigation from the mine pit itself through another pump. The remaining water discharged from the mine pit is held in the retention area where it infiltrates into the ground.

4. The retention area will be surrounded by 3.5-foot high by 12-foot wide dykes. Along the south side of the retention area a double dyke system is proposed. The outer dyke will also be utilized as a road and varies from three to four feet in height with a top width of 36 feet, which will be paved.

5. Stormwater discharged from the retention area would flow through an outfall structure located at a crest elevation of 26.75 feet, National Geodetic Vertical Datum (NGVD). The controlled elevation in the retention area is 26.3 feet NGVD which is maintained by a 3.83-foot wide "bleeder notch." Discharge from this structure would then be routed westward between double dykes under the Harper Brothers' "north-south road" down a swale on the north side of its entrance road to "no-name" slough, the ultimate "receiving waters."

6. It was established by expert witness Missimer, for Respondent Harper Brothers, that the dewatering discharge which would be held in the retention area will infiltrate into the ground at a rate of approximately 43,000 gallons per day per acre per a one-foot elevation in water level. The rate of infiltration in the ground is directly proportional to the "head" increase so that for a two-foot water level with the resulting increased pressure or "head," the infiltration rate would be 86,000 gallons per day per acre. Based on the presently permitted maximum monthly withdrawal rate, at a point of equilibrium would be reached at a water depth in the retention area of 1.3 feet, whereby the rate of water pumped into the retention area equals the rate of infiltration into the ground without considering additionally any evaporation into the atmosphere. Thus, the bleeder notch would be set at the above elevation so that all dewatering discharges from the mine (which may contain rock and other sediments) are effectively retained on site.

PRE-DEVELOPMENT VS. POST-DEVELOPMENT DISCHARGES

7. The SF design criteria contained in Chapter 40E, Florida Administrative Code, the applicability of which is not in dispute in this proceeding, provides that the volume of stormwater discharged from such a project cannot exceed the volume of such discharges from the same surface area in its pre-development condition. The development referred to in this instance is, of course, the development of the mine and the related retention area and other water management installations or "improvements."

8. Expert witnesses Glaubitz and Serra testifying for the Respondent Harper Brothers and SFWMD established that the quantity of pre-development discharge from the subject site or surface area, was calculated based upon a "design storm event." This means that the pre-development discharge from the Harper Brothers' mine site was calculated, based upon reviews of the watershed boundary, the slope, the vegetation types, and the hydrologic length of the watershed in the geographical area, as well as through the use of aerial photography and U.S. Geological Survey maps, to show the amounts of surface and

stormwaters discharged from this site, or its pre-development surface area, during a 25-year, 3-day duration storm event, meaning a storm lasting for a duration of three days of rain of a severity that has been experienced, according to meteorological records, an average of once in 25 years in the subject geographical area. Based upon these calculations of pre-development discharge rate or volume during a 25-year, 3-day storm event, the pre-development discharge from the Harper Brothers' mine site was calculated to be a volume of 10 cubic feet of water per second (cfs).

9. "Post-development discharge" is the rate of discharge taking into account the same 25-year, 3-day storm event, which is allowed to discharge off the project site after development is completed. The calculation of post-development discharge was computed by taking into account such factors as soil storage capability, stage discharge and calculation of the amount of retention or detention of storm water required on the site. Thus, the calculated post-development discharge of stormwater from the site as it is proposed to be designed, is nine cubic feet per second during such a 25-year, 3-day severe storm, which capability is designed into the proposed project. Thus, the post-development discharge of stormwater off the project site does not exceed, and in fact is less than, the pre-development discharge of stormwater from the site.

10. Included within the calculations by these two experts, concerning post-development volume of stormwater to be discharged, is an analysis of the quantity of water to be retained in the retention area of the proposed project. The discharge from the retention area is controlled by the above-mentioned weir and bleeder notch. The retention area proposed by the applicant is to be used both for discharge of dewatering water from the mine pit (under the previously issued industrial water permit) as well as for retention of stormwater. This weir and bleeder notch is designed to be at an elevation which only allows discharge of a volume of water representing the volume of stormwater entering the retention area over a given period of time, and not the dewatering water from the site, which may contain rock, dust in suspension, and other sediments. The previous permit granted to the applicant, as well as the permit sought in this proceeding, would require (as all parties agree) that the dewatering volume of water, representing the water pumped from the mine pit, will totally remain on the site. The project as designed is reasonably assured to be capable of retaining all such dewatering mine pit water on-site.

11. One critical factor considered in determining the design and site for the retention area (155 acres) and in setting the bleeder notch elevation for discharge of stormwater volume, is the infiltration rate from the retention area into the ground beneath it. The Respondent Harper Brothers established (through these uncontradicted expert witnesses) that the infiltration rate is 43,000 gallons per day per acre of the retention area for a one-foot elevation of water in that retention area. One of the factors computed into the infiltration rate calculation is the "transmissivity rate." The transmissivity rate is 200,000 gallons per day per foot in the shallow or surface aquifer at the project site. Petitioner's expert, Mr. Bruns, conceded that if that rate is correct, as it was established to be, that the post-development volume of discharge leaving the project site would not exceed the pre-development volume of discharge, if the maximum pumpage rate into the retention area from the pit did not exceed 8.5 million gallons per day, and it is so found. Parenthetically, it should be noted that the Petitioner presented no testimony of its own concerning infiltration rates or transmissivity rates. Neither did the Petitioner's expert Mr. Bruns make any calculations of quantity of discharge from the site in either a pre-development condition or post-development condition, nor was a water management or hydrologic study of the drainage basin (approximately 6 square

miles) made by Petitioner's expert witness, to assist in analyzing quantity of discharge.

12. Under certain hypothetical conditions it would be possible for dewatering discharge water from the mine, as a volume of water, to be discharged, commingled with stormwater discharge, from the retention area. Thomas Missimer, testifying as an expert witness in the fields of hydrology and water quality for Harper Brothers, was uncontradicted. His studies and calculations in evidence established that, with regard to the infiltration rate downward into the soil under the retention area, and the amount of water pumped into the retention area, that equilibrium is reached when pumping into the retention area reaches 8.5 million gallons per day. That is, approximately 8.5 million gallons per day infiltrate downward into the soil and thus leave the retention area and thus an 8.5 million gallon pumpage rate per day would result in a static water level in the retention area, aside from evaporation. If the Respondent pumped in excess of this figure, which might be possible under its present mine dewatering industrial use permit, then the pumpage figure might exceed the equilibrium figure and cause the volume of water discharged off the site to exceed that volume which only represents stormwater. Accordingly, the parties stipulated that the maximum daily pumpage rate of 8.5 million gallons per day would be included as a condition in the permit, if it were issued to the Respondent, such that, based upon the uncontradicted infiltration data, that the limitation to a maximum pumpage rate into the retention area of 8.5 million gallons per day from the mine pit, would be permissible. In view of this stipulation, Petitioner withdrew its contention that the post-development volume of discharge water leaving the site would exceed the pre-development volume of discharge. It was thus shown that at the maximum pumpage rate of 8.5 million gallons per day no mine dewatering discharge (as a volume of water) will leave the retention area.

NON-ALTERATION OF HISTORICAL DRAINAGE PATTERNS

13. The Petitioners also contend that the supposed alteration of historical drainage patterns by this development at the site will cause additional flooding to the Petitioner's access road to their property (residence and nursery) by the road known as Mallard Lane. In that connection, the historic pattern of stormwater discharge off the project site or its geographical area, is figured into the analysis of pre-development water volume discharge versus post-development discharge. This project, like others of its type, is mandated by the rules at issue to not alter the pre-development patterns of water discharge off the site area so as to adversely affect the property and landowners off the site. Although the pre-development discharge is generally observed and calculated by looking at a site before the development involved in a permit application takes place, in the instant case, Harper Brothers, Inc., by the authority of its previously issued dewatering and industrial water use permit had already initiated its mining operation and so pre-development conditions as they relate to this permit were not directly, physically observable. Accordingly, a hydrologic study of the drainage basin in which this project is located was performed, and, in conjunction with the use of aerial photography and U.S.G.S. quadrangle maps, the perimeter of the basin was determined and an analysis of the historical pattern of flow in the drainage basin was done.

14. The general flow of water in the drainage basin historically is from northeast to southwest, with an ultimate discharge into the "no-name" slough, a "cypress head" or slough which generally flows in a westerly and southwesterly direction from the area immediately adjacent to the project site. Internally

within this drainage basin, some old pre-development north/south dykes have blocked some of the westerly flow which historically existed at the site, thereby causing some of the water to flow in a northwesterly direction until it reaches the northern end of the north/south dykes, thence returning to the generally southwesterly drainage pattern, ultimately ending up in the slough system. A small area of farm fields was located north of the east/west access road to the site, and southerly of an existing east/west line of farm dykes, and may have drained in a southerly direction before development. There is currently no information and no evidence of record concerning how this farm field area was drained. The drainage from this area now, however, is insignificant and is calculated at approximately one cubic foot per second as a maximum rate. As the calculated post-development discharge from this project site is approximately 9 cubic feet per second, even if it be assumed that the drainage from the old farm field should be added to the post-development discharge rate from the project site itself, such an addition would only equal and not exceed the historic, pre-development discharge rate of ten cubic feet per second. The flows in a southerly direction are currently blocked by the east/west access road to the Harper Brothers' site, used by Harper Brothers. In a predevelopment condition however, the same situation existed since the southerly flow was similarly blocked by farm dykes which existed in the pre-development condition.

15. The proposed facility is designed to have stormwater which falls on the entire project site to be pumped into the retention area. The volume of stormwater permitted to be discharged will discharge from the retention area via the above-mentioned outfall structure and will be routed westward through the double-dyke system down a drainage swale on the north side of the entrance road, and ultimately into the no-name slough. Thus, the historic drainage pattern of the basin from the northeast to the southwest will not be significantly altered by the project as designed and proposed. The project generally preserves this historic drainage pattern by discharging the drainage within the basin into the "no-name" slough as occurred in the pre-development condition which, when the above-described pre-development and post-development discharge rates are compared reveals that there will be no adverse alteration in terms of either a dearth of or excess of water supply to this natural slough system.

16. The Petitioner's access road, North Mallard Lane, running from north to south, accessing Petitioner's property west of the project site, is indeed subject to inundation, but was subject to such inundation in the pre-development condition of the project site. This is because the slough crosses this access road. Since the post-development condition does not alter the historic patterns of drainage to any significant degree, and does not represent an alteration in the volume of discharge from the project site area over that in the historic, pre-development condition, no additional flooding to the Petitioner's access road will be caused as a result of the project installation and operation. The flooding being caused to the Petitioner's access road, indeed was shown to be related in part to culverts of insufficient size installed by Lee County, so that water tends to stand on the road surface as opposed to draining under and away from it.

NON-ALTERATION OF THE pH OF RECEIVING WATERS

17. It is undisputed that the subject project, like all such projects, under the permitting authority of SFWMD, must meet state water quality criteria contained in Chapter 17-3, Florida Administrative Code. The design of such a surface water management system must include "best management practices" (BMP's) in order to satisfy the district's design criteria. BMP's are techniques which

are incorporated into the design of such a system to enhance water quality such as the use of swales, retention ponds, and gravity structures. Given that the project will utilize a retention area, grassed swales and other well accepted water management structures, the design was shown to comport with "best management practices."

18. Water quality measurements for the only water quality parameter in dispute, that of pH, were taken on the project site using standard, accepted scientific methods and U.S. Geological Survey Water Quality Standard sampling techniques. The tests revealed a pH in the retention area itself of 7.91 pH units. The pH in the pit area was 7.8 pH units and in the off-site water in the slough, the pH was 7.3 units. The water discharge from the retention area would be a combination of stormwater (rain water) which is approximately 6 pH units in the geographical area involved, and the retention area water at approximately 7.8 pH units. The precise pH of this discharge water would depend on the quantities of water from each source, but was shown to be almost neutral or approximately at a pH of 7. Thus, the discharge from the retention area of the commingled dewatering and stormwater, if such occurs, will not alter the receiving waters one full pH unit. Upon issuance of the permit, the applicant will still have to comply on a continuing basis with the water quality parameters of Chapter 17-3, Florida Administrative Code, and the staff of SFWMD will continue water quality monitoring after the permit is issued. There has thus been no showing that commingling of dewatering water and stormwater in the retention area and the discharge of such commingled waters to the receiving waters of "no-name" slough would affect the pH of that receiving water in a manner to exceed existing, permissible pH parameters and adversely affect water quality. Expert witness Serra testifying for the district as well as for Harper Brothers, has studied similar mining operations. Such operations, utilizing similar water management procedures, have not caused any water quality violations related to discharges of commingled dewatering and stormwater, including no violations of the pH parameters. Finally, near the conclusion of the proceeding, Petitioner, in effect, abandoned its dispute regarding the issue of compliance with the pH water quality parameter.

CONCLUSIONS OF LAW

19. The Division of Administrative Hearings has jurisdiction of the parties to and the subject matter of this proceeding. Subsection 120.57(1), Florida Statutes (1983).

20. Section 373.413(1) and (2), Florida Statutes, provides as follows:

Except for the exemptions set forth herein, the governing board or the department may require such permits and impose such reasonable conditions as are necessary to assure that the construction or alteration of any dam, impoundment, reservoir, appurtenant work, or works will not be harmful to the water resources of the district. The department or the governing board may delineate areas within the district wherein permits may be required.

A person proposing to construct or alter a dam, impoundment, reservoir, appurtenant work, or works subject to such

permit shall apply to the governing board or department for a permit authorizing such construction or alteration. . . .

21. The project to be constructed and operated, which is the subject matter of this permit application, clearly falls within the ambient of this section delineating projects for which surface water management permits are required. The SFWMD has authority to adopt rules and regulations implementing and supporting its responsibilities to implement this and other portions of Part 4, Chapter 373, Florida Statutes, related to the management and storage of surface waters under authority of Section 373.044, Florida Statutes (1983). In furtherance of the statutory permitting authority referenced in Part 4 of Chapter 373, Florida Statutes and the rulemaking authority embodied in the statutory section cited last above, the SFWMD has adopted Chapter 40E-4, Florida Administrative Code. Rule 40E-4.091, Florida Administrative Code, adopts the publication of the district entitled "Basis of Review for Surface Water Management Permit Applications Within the South Florida Water Management District" by reference.

22. Rule 40E-3.01(1), Florida Administrative Code, requires an applicant for a surface water management permit to provide reasonable assurances that the surface water management system:

- . . . (b) will not cause adverse water quality and quantity impacts on receiving waters and adjacent lands regulated pursuant to Chapter 373, Florida Statutes,
 - (c) will not cause discharges which result in any violation in surface waters of the State, of the standards and criteria of Chapter 17-3,
 - (d) will not cause adverse impacts on surface and ground water levels and flows,
 - (e) will not cause adverse environmental impacts,
- * * *
- (n) will meet the general and specific criteria in the document described in paragraph 40E-091(1)(a).

Because of the above three issues remaining in this proceeding, the above-quoted portions of Rule 40E-4.301, Florida Administrative Code are the only portions of the conditions for issuance of permits contained in that rule which remain at issue in this case, and which relate to the stipulated issues delineated above. The document referred to in paragraph (n) quoted above refers to the "basis of review for surface water management permit applications . . ." referred to in Rule 40E-4.091(1)(a). SFWMD has adopted specific criteria for determining water quantity impacts caused by proposed water management systems in that "basis of review for surface water management applications at paragraph 3.2.1.2. of the "Basis of Review" it is provided:

Discharge - off-site discharge is limited to amounts which will not cause additional adverse off-site impact. These amounts are:

- a. Historic discharges, or
- b. Amounts determined in previous district

permit actions, or

c. Amounts specified in district criteria

Unless otherwise specified by previous district permit, district criteria or local government, a storm event of three day duration and 25 year return frequency shall be used in computing off-site discharge.

In this proceeding the parties have agreed that water quantity impacts are limited to the historic discharge criteria in subparagraph a. quoted above. Historic discharges mean the predevelopment discharges as they existed before the mine was developed by Harper Brothers. The post-development discharge off the site cannot exceed the pre-development discharge. Thus, post-development discharge is the rate of discharge during the 25-year, 3-day storm event which is allowed to discharge off the project site once it is-completed. The calculated post-development discharge of stormwater from the site as designed would be, as found above, 9 cubic feet per second during a 25-year, 3-day design storm event, thus it has been clearly established and affirmative reasonable assurances have been provided that the post-development discharge will not exceed the pre-development discharge of stormwater from the site, and indeed, will actually be approximately one cubic foot per second less discharge than existed in the pre-development stage of the subject geographical area.

23. Included within the analysis of historic discharges is the analysis of the historic pattern of that discharge of stormwater as that relates to the second issue stipulated by the parties to be involved in this proceeding and discussed above in the Findings of Fact. There is no particular point in time which was referred to as the "historic" condition, as conditions gradually change over the years. The historic condition referred to in this proceeding concerning the geographical area involved in the application means the permanent features of the land, such as old farm dykes and existing topography which were essentially permanent in nature and which predated the development of the Green Meadows Mine. The evidence adduced by both Harper Brothers and SFWMD was unrefuted and clearly establishes reasonable assurance that historic drainage patterns of discharge will not be significantly altered by the proposed project. The general flow in the drainage basin was shown to be from northeast to southwest, ultimately discharging in "no-name" slough. The facilities as proposed call for stormwater falling on the project site to be pumped into the retention area. The volume of stormwater permitted to be discharged will discharge from the retention area through an outfall structure, and will be routed westward between a double dyke system down a swale on the north side of Harper Brothers' east--west entrance road and into the "no-name" slough. Flow in a southerly direction is currently blocked by the east-west access road of Harper Brothers. In pre-development historical conditions however, the flow in a southerly direction was also blocked by farm dykes which existed in the pre-development condition, so that no net change in flow patterns over that pre-development condition will be effected by this project. The general historic drainage pattern of the basin from northeast to southwest will thus not be significantly altered and historic drainage patterns characterized by discharge to "no-name" slough will be preserved so that this criteria in the "Basis of Review," which in turn is incorporated by reference in the above rule, has been satisfied.

24. There remains to be discussed the issue of water quality, which has been stipulated by the parties to only involve the issue of whether the pH of the receiving waters of the "no-name" slough will be significantly altered by

the discharge attendant to this project. Section 3.2.2.1 of the "Basis of Review" provides as to water quality:

State Standards - projects shall be designed so that discharges will meet state water quality standards, as set forth in Chapter 17-3.

25. Regarding the issue of whether any adverse impact on the receiving waters of "no-name" slough might occur, in terms of pH, Rule 17-3.121(22), Florida Administrative Code, provides:

* * *

pH - pH of receiving waters shall not be caused to vary more than one (1.0) unit above or below normal pH of predominantly fresh waters as defined in section 17-3.021, F.A.C. . . . The lower value shall not be less than six (6.0) in predominantly fresh waters or less than six and one-half (6.5) in predominantly marine waters and the upper value not more than eight and one half (8.5).

The evidence adduced by Harper Brothers, Inc., as well as the SFWMD established affirmative assurances that the pH standard embodied in the above rule will not be violated by the quality of the water which may discharge into "no-name" slough, the receiving surface waters of the state involved herein. Indeed, the Petitioner stipulated that it abandoned the issue raised relating to alteration of the pH of the waters in "no-name" slough provided the possibility of enforcement against future water quality violations remains an option for the district, which, of course, under the rules (40E-4.341, Florida Administrative Code and 40E-1.609, Florida Administrative Code) clearly is within the authority of the district. An ongoing monitoring of the discharge off the Harper Brothers' site can, and should be accomplished. In that connection, the staff report of the district staff, in evidence as Harper Brothers' Exhibit No. 2 contains 18 special and limiting conditions. The permit applicant has agreed to accept all of those special and limiting conditions as part of its surface water management permit should it be issued, and those conditions certainly should be attached to a grant of the permit sought.

26. In summary, with the imposition of the special and limiting conditions contained in Exhibit 2, which are incorporated by reference herein, together with two other special conditions delineated below, reasonable assurances that the surface water management system proposed by Harper Brothers, Inc., meets the requirements of Rule 40E-4.301, Florida Administrative Code, have clearly been provided. Specifically, reasonable assurances have been provided that the stormwater discharge from the Harper Brothers, Inc., site will not cause the adverse water quantity or quality impacts off the site which are discussed in more detail above. The special, additional conditions which should be imposed upon a grant of the permit are as follows:

1. Pumpage from the pit into the retention area shall be limited to 8.5 million gallons per day.
2. In furtherance of special condition No. 2 regarding water quality and water quality data monitoring delineated in Exhibit 2, and in furtherance of Rule 40E-4.381(b), water quality

data for the water discharged from the permit-
tee's property shall be submitted to the
district on a quarterly basis, with those
parameters monitored and reported to the
district which are depicted in special
condition No. 2 of Harper Brothers'
Exhibit No. 2.

RECOMMENDATION

Having considered the foregoing Findings of Fact and Conclusions of Law,
the candor and demeanor of the witnesses, the evidence of record and the
pleadings and arguments of the parties, it is, therefore

RECOMMENDED:

That a Final Order be entered by the South Florida Water Management
District authorizing issuance of a surface water management permit to the
applicant herein for the proposed surface water management system, imposing upon
the applicants the limiting and special conditions enumerated in the district
staff report depicted in Exhibit 2 and incorporated by reference herein, and
additionally, those two special conditions set forth immediately above.

DONE and ENTERED this 17th day of August 1984, in Tallahassee, Florida.

P. MICHAEL RUFF
Hearing Officer
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FILED with the Clerk of the
Division of Administrative Hearings
this 17th day of August 1984.

COPIES FURNISHED:

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