IN THE ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT

CLAY ISLAND FARMS, INC.,

Petitioner,

v.

ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT,

Respondent.
_____/

DOAH CASE NO.: 82-2517

SJRWMD CASE NO.: 81-218

FINAL ORDER

On July 22, 1983, The Department of Administrative Hearing's (the DOAH) hearing officer, Charles C. Adams, submitted his Recommended Order in the above-captioned matter to the St. Johns River Water Management District (the District). A copy of the Recommended Order is attached hereto as Exhibit A. Pursuant to Section 120.57(1)(b)(8) and F.A.C. 40C-1.08(9) the parties were allowed fourteen (14) days after receipt of the Recommended Order by the parties to file written Exceptions to the Recommended Order. Petitioner Clay Island Farms, Inc. (Clay Island) served exceptions to the Recommended Order on August 3, 1983 which were received by the District on August 8, 1983. The District has filed no response to Clay Island's exceptions.

REVIEW OF PETITIONER'S EXCEPTIONS

A. Clay Island takes exception to what it contends is the hearing officer's finding that Permit No. 4-8088 denied A. Duda & Sons the ability to develop the 80 acre parcel adjacent to the Clay Island property in question. The Recommended Order does not appear to contain such a finding. At page 6 of the Recommended Order the hearing officer discusses the 80 acre portion of the Duda permit application stating that to the extent that the application involved that parcel, the application was denied in part "...in consideration of the amount of the 80 acre segment which lies below 68.5 feet MSL". (Emphasis supplied). Also, on page 6 continuing over to page 7 of the Recommended Order, the hearing officer discusses Petitioner's Exhibit 4 which contains

lines reflecting "...the approximate part of the 80 acres, which lies below 68.5 ft. MS...." (Emphasis supplied). Thus, the hearing officer has apparently determined that some undefined part of the 80 acre adjacent parcel is barred from muck farming by the District's Permit No. 4-8088.

Assuming, arguendo, that the finding has in fact been made, it is unnecessary to the hearing officer's conclusion and is therefore irrelevant. However, the testimony on this point is conflicting and the hearing officer's finding is supported by substantial competent evidence.

Permit No. 4-8088 allows muck farming on all land above elevation 68.5 ft. MSL. Various exhibits including Respondent's Exhibit 3 and Petitioner's Exhibits 4, 15 and 21 require interpolation to determine the area in which Permit 4-8088 allows muck farming. The property slope is slight and interpolation is difficult. The interpolation offered by Clay Island's expert Duy Dao was based on a recent survey of indeterminate accuracy. The hearing officer could have found in reviewing Respondent's Exhibit 3 and Petitioner's Exhibits 4, 15 and 21 that a proper interpolation would have reflected all or substantially all of the 80 acre tract below 68.5 ft. MSL. For example, Plate 3 of Exhibit 21 contains a topographical point survey for the Duda property. The portion of the property adjacent to Clay Island's property is clearly within the ten (10) year flood plain. The data reflects sloping which would result in an area of 80 acres, more or less, which falls within that flood plain.

In any event, the District may only overturn the finding of the hearing officer if the finding was not based on substantial competent evidence. At the very least, the evidence is inadequate to fulfill the Clay Island's burden of proof on this point.

B. Clay Island takes exception to the hearing officer's finding that Petitioner had failed to prove the pre-development and post-development peak discharge rates of runoff for the

proposed activity. Clay Island claims that those rates were established by proof submitted by Gee and Jensen engineers. The testimony on this point was conflicting.

Wayne Ingram, an engineer in the Water Resources Department of the District, testified that the peak discharge rate of runoff from the post-development condition of the property would be 89 cubic feet per second and the peak discharge rate of runoff in the pre-development condition would be zero. (Tr.p. 597). Ralph Bingham, Clay Island's design engineer, initially testified that pre-development peak discharge rate of runoff would be 118.24 cubic feet per second. His testimony with respect to the post-development peak discharge rate of runoff is unclear. Counsel for Clay Island claimed in his memorandum that the pre-development and post-development figures were 97 cubic feet per second and 161 cubic feet per second respectively. However, Mr. Bingham later recanted his testimony admitting that he had failed to take into account backwater effects which would reduce the pre-development runoff figure to zero. (Tr.p. 231-233). Mr. Bingham's testimony did not appear credible. For instance, he testified that under no conditions, even a 100 year storm event, would the proposed retention pond discharge into Lake Apopka. (Tr.p. 142-4). The District staff walked the property early in 1983 and found the existing basin discharging (Tr.p. 596, 600) after a less than 1 in 10 year storm event.

Contrary to the Clay Island's exceptions, the hearing officer did not require Clay Island to contain off-site runoff. However, the hearing officer was concerned that the drainage from surrounding areas would cause the system proposed by Clay Island to be inadequate. The hearing officer found inadequate proof on this point on which Clay Island had the burden of ultimate persuasion.

C. Clay Island objects to the hearing officer's finding that in history there have been dike failures in the northern end of Lake Apopka. The testimony of Leon Miller, Executive Director

of the Central Florida Agricultural Institute and former employee of A. Duda & Sons was not transcribed. The District's counsel claimed that Mr. Miller's testimony reflected dike failures on the north end of Lake Apopka. Counsel for Clay Island made a contrary claim. The hearing officer's finding must be accepted absent some record proof to the contrary. In addition, Clay Island's own argument admits that a dike failure occurred on its property several years ago. In any event, this determination is unnecessary to the conclusions reached by the hearing officer and therefore is irrelevant.

D. Clay Island takes exceptions to the hearing officer's finding that Clay Island failed to show that the development of its land would not cause an increase in velocity or flood stage on lands other than those owned, leased or otherwise controlled by Clay Island. As Clay Island admits in its exceptions, the loss of storage alone as the result of the development of the 122 acres would raise the level of Lake Apopka .046 inches during a one in ten year storm event. (This is non-compliance with Section 40C-4.301(3)(b), Florida Administrative Code.) In addition, greater increases in the level of the lake could be expected in the one in twenty-five year and one in one hundred year storms. As noted by the hearing officer, Clay Island had the burden of ultimate persuasion to show that, in fact, unprotected property belonging to others would not suffer an increase in stage or flood stage despite this admitted increase. Clay Island did not produce substantial competent evidence on this point.

E. Clay Island takes exception to the hearing officer's conclusion of fact and law that development of the 122 acres in issue in this proceeding would cause an increase in flow or flood stage on unprotected property fronting Lake Apopka. In fact, the hearing officer merely concluded that the loss of storage "could be expected" to increase flow or flood stage and that Clay Island failed to adduce proof to the contrary.

Proof submitted by the District included the regulation schedules for Lake Apopka through structures controlled by the

District. The District showed that the Apopka-Beauclair structures could not draw down the surface water at a rate faster than one foot in twenty-seven days. (Tr.p. 564-565). As a result, accumulations of water in the lake during large storm events could not be removed quickly enough to protect otherwise unprotected property.

F. Clay Island takes exception to the hearing officer's conclusion of fact that the purpose of retention ponds is primarily for storage for irrigation purposes. Clay Island's expert Ralph Bingham testified that his client's intent was to retain all runoff in the retention pond for irrigation (Tr.p. 142-4). The hearing officer's conclusion was also based in part on testimony relating to a study done at the University of Florida regarding the nutrient removal effect in retention ponds. In sum, the study reflected that in order to discharge water of Class III quality[1], a developer would be required to capture water in three successive retention ponds, each with a different type of vegetation. The retention time in the three ponds would have to be at least six days, and the vegetation in the ponds would have to be harvested every six to eight weeks. The retention system proposed by Clay Island did not meet any of the criteria of the study so as to cause dissolved nutrient removal. As a result, only particulate nutrients would be filtered out in the system as designed by Clay Island. Therefore, the conclusion reached by the hearing officer that the primary purpose of the retention pond is to make water available for irrigation of crops must be accurate. The primary purpose could not possibly be water quality in light of the applicant's design. (Tr. p. 809-815).

---

[1]Lake Apopka is designated as Class III water but does not currently meet Class III standards. See, Rule 17-3.161(3)(b), F.A.C.

G. Clay Island takes exception to the hearing officer's conclusion of law and finding of fact that the applicant is required to upgrade water quality from that of the receiving body before a permit can be granted. In fact, the hearing officer did not make such a finding. The testimony revealed that Lake Apopka is currently designated as Class III water, but that the quality of water in the lake does not meet Class III standards. (Tr.p. 718-719). As a result, any discharge of water of comparable quality to that existing in the lake causes the receiving waters to remain below the classification established for them. Rule 17-3.011(5) and (7) provide as follows:

> (5) Pollution which causes or contributes to violations of water quality standards or to continuation of existing violations is harmful to the waters of this State and shall not be allowed
>
> ***
>
> (7) The quality of waters which is lower than that necessary to support the designated use of those waters shall be protected and enhanced....

Therefore, discharging water into Lake Apopka of a quality equal to that currently in the lake is a violation of DER water quality rules and causes harm to the water resource. Clay Island's statement as to applicable Florida Law is inaccurate whether or not the factual finding was made by the hearing officer.

Clay Island also takes exception to the hearing officer's determination that Clay Island's property provides a habitat for fish and wildlife population. The testimony of William Johnson (Tr.p. 821-861) constitutes substantial competent evidence in support of the hearing officer's findings. Among other matters, Mr. Johnson testified to the existence of numerous food sources for game fish including mobile benthic organisms located on Clay Island property within a very short distance of the property which Clay Island seeks to develop.

H. Clay Island takes exception to the conclusions of law set forth in paragraph 4 of the Conclusions of Law based on the above-stated exceptions. The District's response to this exception incorporates its responses in paragraphs A-G above.

I. To the extent that the foregoing discussion of Clay Island's exceptions to the hearing officer's Recommended Order and to the extent that the findings of fact adopted in the Order set forth hereinbelow do not discuss or adopt the exceptions contained in Clay Island's exceptions to the Recommended Order, those exceptions and contrary findings based thereon have been rejected as not being relevant or material to the issues or not being based upon evidence adduced at the hearing or as being inconsistent with evidence which the hearing officer deemed more credible.

ORDER

WHEREFORE, having considered the Recommended Order of the hearing officer and the exceptions thereto filed by Petitioner Clay Island Farms, Inc., having reviewed the transcript of the hearing and the memoranda and proposed findings submitted by the parties, and being otherwise fully advised in the premises, it is thereupon:

ORDERED that the hearing officer's Recommended Order dated July 22, 1983 is hereby adopted in full as the final action of the St. Johns River Water Management District; and it is

ORDERED that the permit for management and storage of surface waters relating to development of the Petitioner's property as a muck farm is hereby denied.

DONE and ORDERED the 11th day of October, 1983.

ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT

IDWAL H. OWEN, JR.
CHAIRMAN

RENDERED this 12th day of October, 1983.

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to 120.52(9) Florida Statutes, with the designated District Clerk, receipt of which is hereby acknowledged.

Ruth D. Hedstrom 10/12/83
Clerk Date

RUTH D. HEDSTROM
DISTRICT CLERK

CERT. MAIL NO.
P 511 582 440 to:
Daniel H. Jones, Esq.

STATE OF FLORIDA

DIVISION OF ADMINISTRATIVE HEARINGS

CLAY ISLAND FARMS, INC.,

Petitioner,

v.

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT,

Respondent.

CASE NO. 82-2517

RECOMMENDED ORDER

Pursuant to written notice, a Subsection 120.57(1), Florida Statutes, hearing was held before Charles C. Adams, a Hearing Officer with the Division of Administrative Hearings. The initial session of the administrative-hearing was conducted on February 28 and March 1, 1983, in the Putnam County Courthouse, 400 St. Johns Avenue, Palatka, Florida. The concluding session of the hearing was conducted on April 5 and 6, 1983, at the St. Johns River Water Management District Headquarters on Highway 100 West, Palatka, Florida. This Recommended Order is being entered following the receipt and review of exhibits and excerpts of the transcript of proceedings. The transcript excerpts were filed with the Division of Administrative Hearings on May 18, 1983. The parties, in the person of counsel, have submitted proposed recommended orders with accompanying argument and those materials have been reviewed prior to the entry of the Recommended Order. To the extent that the proposals are consistent with this Recommended Order, they have been utilized. To the extent that the proposals are inconsistent with the Recommended Order for reason of irrelevancy, immateriality, cumulative effect or inadequacy of proof, they are rejected.

APPEARANCES

For Petitioner: Daniel H. Jones, Esquire
Moyle, Jones & Flanigan, P.A.
Post Office Box 3888
West Palm Beach, Florida 33402

EXHIBIT A

For Respondent: Vance W. Kidder, Esquire
Mary Hansen, Esquire
St. Johns River Water
Management District
Post Office Box 1429
Palatka, Florida 32078

ISSUES

The issues presented in this matter concern the request by the Petitioner to be granted a management and storage of surface waters permit by Respondent. Respondent proposes to deny the permit based upon the perception that the activities contemplated by Petitioner: (1) are not consistent with the public interest as envisioned by Section 373.016, Florida Statutes, and 40C-4.301(1)(b), Florida Administrative Code, (2) are not a reasonable and beneficial activity, per Section 40C-4.301(1)(a), Florida Administrative Code, (3) alter the peak discharge rate of runoff from the proposed activity or the downstream peak stage or duration for the 1 in 10 year design storm, per Section 40C-4.301(3)(a), Florida Administrative Code, (4) cause an increase in velocity or flood stage on lands other than those owned, leased, or otherwise controlled by the applicant for the design storm, per Section 40C-4.301(3)(b), Florida Administrative Code, (5) cause an increas in flow or stage such that it would adversely affect lands other than those owned, leased, or otherwise controlled by the applicant, per Section 40C-4.301(3)(c), Florida Administrative Code.[1]

FINDINGS OF FACT

A predecessor applicant had requested permission to construc and operate the water management system which is the subject of

[1]The concern expressed by Respondent's staff in recommending the denial of the requested permit in its summary of August 22, 1982, dealing with decrease in dry season stage and flow, i.e., loss of surface and ground water storage, was not considered in the course of the hearing based upon an agreement by the parties. See Section 40C-4.301(3)(d), Florida Administrative Code. A copy of the summary sheet may be found as Respondent's Exhibit No. 1 admitted into evidence.

this controversy. The approximate acreage involved was 197 acres in Lake County, Florida. This acreage and requested activity was subject to the regulatory requirements of St. Johns River Water Management District. Clay Island Farms, Inc., hereinafter referred to as CIF, was substituted for the intitial applicant and this matter has been litigated before the Division of Administrative Hearings on the continuing application of the Petitioner. The permit application number is 4-8089. This application was considered with application number 4-8088, pertaining to property owned by A. Duda and Sons, Inc. Subsequently, the latter application shall be referred to as the Duda request for permit.

Certain additional information was sought by Respondent from the applicants, CIF and Duda, in the permit review, by correspondence dated October 2, 1981. A copy of that correspondence may be found as Petitioner's Exhibit No. 16 admitted into evidence. In particular, CIF was requested to prepare pre and post-development runoff rates in the 1 in 10, 1 in 25, and 1 in 100-year storms, to include stage-storage and stage-discharge rates for any and all retention facilities within the project design. Petitioner's Composite Exhibit No. 1 admitted into evidence contains a copy of the engineering report by CIF which are CIF's responses to the request for information. The date of the engineering report is July 12, 1982.

The CIF application, as originally envisioned, called for the construction of exterior and interior ditches to be placed around a dike of 71 feet MSL elevation. The dike would enclose a proposed farm operation of approximately 197 acres, should the permit be granted. Within that 197 acre plot, would be found numerous drainage ditches to include major ditches and minor arterial ditches. The purpose of those ditches found in the 197 acres would be to serve as a conveyance for rainfall runoff. The system of conveyance would be connected to an existing conveyance system already in place and related to farm operations of A. Duda and Sons. The runoff would be eventually placed in a retention pond and at times discharged from that retention pond or basin into Lake Apopka by means of gravity flow.

The particulars of the development of the 197 acre plot and its service dike, canals, and ditches are more completely described in Petitioner's Exhibit No. 1, which is the engineering report for the surface water management permit application.

The CIF application was reviewed by the staff of the Respondent. Recommendation was made to deny the permit. Details of that denial may be found in Respondent's Exhibit No. 1. In the face of the denial, CIF requested an administrative hearing. This request was made on August 27, 1982, by petition for formal Subsection 120.57(1), Florida Statutes, hearing to determine Petitioner's entitlement to the requested permit. St. Johns River Water Management District, in the person of its governing board, determined to refer this matter to the Division of Administrative Hearings to conduct the formal proceeding and the request for the assignment of a hearing officer was received by the Division of Administrative Hearings on September 13, 1982, leading to the final hearing in this cause.

During the course of the final hearing, the CIF permit application was modified in a fashion which reduced the amount of acreage sought for cultivation. Now, approximately 122 acres would be farmed per the amended proposal. A general depiction of the design of the project in its amended form may be found in the engineer's sheet, which is Petitioner's Exhibit No. 20 admitted into evidence. When contrasted with the engineering drawings set out in Petitioner's Composite Exhibit No. 1, the new design is essentially the same as contemplated in the original permit application, on a lesser scale. Other than dimensions, the basic concepts of the CIF operation would remain the same under the amended proposal.

At present, Petitioner proposes to remove the vegetation which covers the subject 122 acre plot and to conduct a muck farming operation. That vegetation is mostly mixed hardwood with the primary species being red maple. The soil in this area is constituted of monteverde muck, which is conducive to the

production of corn and carrots, the crops which Petitioner would plant. To prepare the land for the operation, the system of ditches, dikes and canals described would be installed following the cleaning, draining, and leveling of the 122 acres. Petitioner's Exhibit No. 10 admitted into evidence depicts land which has been cultivated and the subject 122 acres in its undisturbed state. Petitioner's Exhibit No. 4 admitted into evidence shows the overall CIF area to include the 122 acres. The CIF area is outlined in red, except for its southerly extent, which carries a red and yellow line on the exhibit. This exhibit depicts Wolfshead Lake which is a small interior lake in the southeastern corner of the overall CIF property. The yellow line in the middle of the CIF property represents the location of a former north-south canal. The western most north-south reach, which is shown with a red line, depicts a canal which runs north from Wolfshead Lake into the existing Duda system of canals and ditches. The Duda operation has attempted to plug that north-south canal on the western fringe to stop the flow from the area of Wolfshead Lake, but has been unsuccessful and the water still enters the Duda farm ditches and canals. In the 1940's and early 1950's, the CIF property had been partially developed for a cattle operation and truck farming. Those canals, as described before, were installed, together with the diagonal yellow line on Petitioner's Exhibit 4, which represents a canal that was built with an axis running northeast and southwest. In addition, there was a centrally placed east-west canal and a slough running from Wolfshead Lake in a southeasterly direction. The slough is still there, although water that might be diverted from the Wolfshead Lake area into the slough is flowing north in the westerly north-south canal at present. If the project were allowed, most of the water flowing in and around the Wolfshead Lake would be introduced into the slough and from there exit to Lake Apopka. The center north-south canal and the interior east-west canal, together with the diagonal canal, are not in operation at present. The center north-south canal would become the approximate eastern boundary of the 122 acres with the

western north-south canal representing the approximate western boundary of the 122 acre plot. The northern boundary of the CIF property is constituted of an east-west canal which is part of the present Duda system. This is the only one of the canals associated with the former farming operation on the CIF property which is part of any maintained system of conveyances presently in existence.

Approximately 1,000 acres are being farmed by Duda and Sons in property north of the proposed project. The Duda permit application, 4-8088 as granted, is described in Petitioner's Exhibit No. 13 which is a copy of the permit. This acreage is generally found to the northwest of the CIF plot, and would allow an additional 300 acres to be farmed in that muck area, on land which has been cleared for the most part and/or which has an elevation predominantly above 68.5 feet MSL. Eighty acres of the proposed Duda permit application was denied based upon the fact that it had not been cleared prior to the Duda permit application and in consideration of the amount of the 80 acre segment which lies below 68.5 feet MSL. The elevation 68.5 feet MSL represents the flood plain for the 1 in 10 year rainfall event for Lake Apopka. The area of the Duda permit is depicted on Petitioner's Exhibit No. 4 and outlined on that exhibit with lines of green and yellow at the southern end, green and yellow and red and yellow on its western flanks, red at the north end and by red on the east side, together with a Duda drainage ditch, which runs north from the terminus of that north-south drainage ditch coming from Wolfshead Lake and the east-west drainage ditch at the northern extent of the CIF property. Exhibit No. 4 was made prior to clearing operations depicted in Petitioner's Exhibit No. 10 and that latter exhibit is a more correct indication of the appearance of the new Duda permit property today. A green diagonal line running northwest and southeast intersecting with a line running east-west

and a line running north-south depicts the approximate part of the 80 acres, which lies below 68.5 feet MSL, as shown in Petitioner's Exhibit No. 4. Farm operations, in keeping with the authority of Permit No. 4-8088, have not commenced.

If the CIF permit application is successful, the original 1,000 acres, approximately 300 acre area of the Duda permit and the 122 acres of CIF, would be tied in by a system of conveyance ditches or canals allowing the interchange and transport of water through and around the three farm areas. The existing retention pond would be expanded to accommodate the additional farm acreage. The Petitioner is willing to increase the present retention pond to a design capacity which would equal one acre of basin for each ten acreas of farm land, at the place in time when all three elements of the muck farm operation were under way. This again pertains to the existing 1,000 acres, the approximately 300 acre recent Duda permit, and the 122 acres related to the CIF application.

With the addition of the CIF acreage, when water in the ditches reached 67.1 feet MSL, this would cause the engagement of a 40,000 GPM pump allowing the ditch water influent into the retention pond. The pump automatically would shut off at any time the water level in the access ditches to the pond dropped below 61 feet MSL.

The primary purpose of the retention pond is to make water available for irrigation of crops, in its present state, and as contemplated with the addition of the CIF project. The pond does and would detain farm water for a period of about a day allowing the settling out of certain nutrients which are in particulate form. The existing pond and in its expanded form does not and would not filter nutrients which have been dissolved and have become a part of the water column. At times of high incidence of rainfall, when the crops are inundated with water for a 48-hour period of time, the retention pond is now designed and

as contemplated by the addition of the CIF farm land, would allow for the discharge of effluent into Lake Apopka through two discharge culverts. The discharge is by means of gravity through an adjustable riser system. The retention pond as presently designed and as contemplated in its expansion has established the height at which water would be released from the retention pond into Lake Apopka through the riser at 68 feet MSL. The occasion of high incidence of rainfall occurs during the normal rainy season in a given year.

Discharge could also be expected in the 1 in 10 year, 24-hour storm event. During that storm event or design, Lake Apopka would rise to a level of 68.54 feet MSL, a level which would correspond to the 10-year flood plain. Whether in the pre or post-development phase of the 122 acres, waters from that acreage would be discharged during the course of the storm through culverts leading from the retention pond into Lake Apopka. This process would continue until the gravity flow stopped at the moment where the water level in the pond and the water level in Lake Apopka adjacent to the discharge culverts achieved equilibrium of elevation. At that point in time, the gravity flow or discharge from the retention basin would cease, there no longer being a positive gradient from the detention pond to Lake Apopka. There will be some amount of discharge in the 24-hour storm event through the culverts at the retention pond either in the pre or post-development phases of the project, because, at present, the western most north-south ditch, which is found at the western boundary of the CIF property, allows water to flow north into the present Duda ditch system, water which has fallen on the 122 acres in question. From the ditch system, that water finds its way into the retention pond and thus into the lake. The contemplated system to be installed with the 122 acres at build-out would also allow water from the 122 acres to go through a system of conveyances and to the retention pond and from there into Lake Apopka. Although considerable testimony was presented by both parties on the subject of comparing pre-development and post-development peak

discharge rates of runoff from the proposed activity, in the 1 in 10 year, 24-hour storm design or event, neither party has satisfactorily proven the dimensions of the pre-development and post-development peak discharge rates of runoff from the proposed activity. This determination is made having reviewed the testimony and the exhibits in support of that testimony. Notwithstanding a lack of proof of this differential with exactitude, it has been shown by the testimony and exhibits that the post-development peak discharge rate of runoff in the 1 in 10 year, 24-hour design storm or event can be expected to exceed that of the pre-development rate. On the associated topic of the ability of the post-development design to accommodate the differential in peak discharge rate of runoff between pre-development and post-development, Petitioner has failed to establish this proof. The modeling that was done by the Petitioner, in an effort to depict the differential as 10 acre feet with an available capacity of attenuation approximating 26 acre feet within the system of ditches, is not convincing. Nor has Petitioner shown that there is sufficient storage in the retention pond, in the course of the storm event. The data offered in support of Petitioner's position does not sufficiently address accommodation of the drainage from areas surrounding the 122 acres in question, which are not part of the Duda system; the amounts of water already found in the system of ditches and canals at the onset of the storm event; the amount of water located on the crops at the onset of the storm event, which would have to be removed; and the amount of water already found in the retention pond at the time of the storm event.

During the 1 in 10 year 24-hour storm, the CIF 122 acres will be protected by the 71-foot MSL dike, in that the expected elevation of Lake Apopka would not exceed 68.54 feet MSL. The dike would also protect the 122 acres in the 25, 50, and 100-year, 24-hour storm events whose elevations are anticipated to be 68.98, 69.28,

and 69.56 feet MSL, respectively. As a consequence, an increase in flood stage would occur on lands other than those controlled by CIF. The amount of increase in flood stage would be approximately .046 inches during the 1 in 10 year storm, and an increasingly greater amount for the larger storms. It was not established where the amount of water which could not be staged on the 122 acres would be brought to bear through the surface flow on the 31,000 acres of water which constitute Lake Apopka. Nonetheless, that water could be expected to increase the flood stage on lands other than those of the Applicant. Possibly the dikes protecting the muck farms on the northern side of Lake Apopka could be influenced by the .046 inches in elevation due to the forces associated with the 1 in 10 year storm event, such as winds and movement of the water in the lake. This is true, notwithstanding the fact that the design goal of the dikes in the area is 71 feet MSL. The dikes are constituted of muck and are susceptible to overtopping, erosion, or blowout. By history, there have been dike failures in the northern end of Lake Apopka, and associated increases in stage or flood stage. This incremental increase in water level in the 1 in 10 year storm event, due to the CIF development, when considered in the context with the other influences of that storm event, could possibly be the determining incident leading to dike failure in the northern perimeter of Lake Apopka. However, given the history of dike failures, prior to this potential loss of the storage area on the applicant's property, it has not been shown that the proximate cause of dike failure in the 1 in 10 year storm could be expected to be the contribution of an additional .046 inches of water on the lake surface. Those failures existed prior to the potential for the addition of water and were the result of inadequate maintenance of a structure which demanded a better quality of attention. Nonetheless, the additional amount of water could be expected to exacerbate the extent of a dike breach in any 1 in 10 year storm event that occurred subsequent to the development of the CIF 122 acres. In summary, the likelihood that the increase

in elevation of water caused by the loss of storage on the subject property will be the critical event that causes a dike failure is not accepted. A dike could breach because of the influence of the storm event itself, without regard for the incremental increases in water elevation due to loss of water storage on the CIF property. The poor condition of some dikes due to less than adequate design or maintenance, would promote that dike failure and be exacerbated to the extent of more water being introduced on that property through the incremental amount of increase due to loss of storage on the CIF property.

The dike failure circumstance in and of itself would not be sufficient to deny the permit application; however, the applicant had the burden of addressing the possible problem of increases in stage or flood stage on other properties, not its own, which are not protected by dikes. This showing was not made by the applicant, notwithstanding the fact that an increase in stage or flood stage could be expected to occur on property fronting Lake Apopka, which property is not protected by any form of artificial barrier. The installation of the protective dike around the 122 areas of the CIF property in the 1 in 10 year design storm and potentially at times of lesser rainfall events, could be expected to increase the stage or flood stage on lands unprotected by dikes and thereby adversely affect lands other than those controlled by the applicant.

Most of the 122 acres and the property to the east of that development and a portion of the undeveloped 80 acres in the recent Duda permit would be inundated in the 1 in 10 year storm event, prior to development. This is true because the elevation of much of that property is approximately 67.5 foot MSL. During the 1 in 10 year storm event, it would store approximately one foot of water, as presently constituted. It could also be expected to be inundated on an average of approximately once in two years.

Lake Apopka is a part of a controlled system of lakes known as the Oklawaha River chain of lakes. Respondent regulates the

water level in that chain of lakes by operation of a lock on the Apopka-Beauclair canal. The maximum desirable elevation of 67.5 feet MSL for Lake Apopka is a part of the regulation schedule found in Respondent's Exhibit No. 2 admitted into evidence. In the 1 in 10 year or better storm event, the Apopka-Beauclair system could not draw down the surface water at a rate faster than 27 days per foot, even assuming the lock was fully open to flow. Consequently, those properties that were suffering an increase in flood stage on their surface could not expect to gain prompt relief through the regulation of waters in the Oklawaha River chain of lakes.

Lake Apopka is an hyper-eutrophic lake. Although it is classified as a Class III water body (ambient water quality) within the meaning of Section 17-3.161, Florida Administrative Code, it fails to match that classification in terms of its actual water quality. This is as a consequence of its highly eutrophic state, brought about by the age of the lake and the contributions of man. Some of the contributors to the eutrophication have been removed from the lake area and water quality has improved. Those facilities removed were sewage treatment and citrus processing plants around the Lake Apopka rim. The muck farms remain and the quality of the water in the retention basins or ponds when compared to the receiving waters of Lake Apopka is similar in nature. Consequently, the receiving waters are not enhanced in their water quality when the retention ponds discharge water into Lake Apopka. As stated before, the retention ponds do not have as their primary purpose the treatment of water. Any water quality improvement is a secondary function of the retention pond. The retention ponds do improve the water somewhat, as described, and are adequately sized to fulfill that partial cleansing. Whether the water quality in Lake Apopka would ever improve sufficiently to allow Lake Apopka to become a more diversified habitat for fish and wildlife is not certain, even if all contributing discharges

of pollutants were curtailed, to include the discharge of water from the muck farms with its high nutrient loads. Nonetheless, Lake Apopka cannot accomplish the recovery if the effluent from the muck farms continues to be introduced into the lake with the present constituents found in the water.

Out of concern for the water quality in Lake Apopka, officials of the University of Florida have conducted experiments on nutrient removal which they hoped would approximate the quality of removal accomplished by transitional vegetation and swamp. (The 122 acres at issue and the western and eastern adjoining property are constituted of these water treatment zones.) This experiment of nutrient removal through use of retention ponds calls for the retention of the muck farm water for a period of six days allowing settlement of particulates and for the vegetation within those experimental retention basins to uptake dissolved nutrients. Several types of vegetation are used to gain a better quality of nutrient uptake and the vegetation is harvested every six to eight weeks to improve that performance. The experiment has shown that the quality of water discharged from the ponds utilized by the University of Florida was comparable in its quality to the natural wetlands system water discharge. The natural wetlands discharge is of a better quality than the receiving waters. Unlike the university experiment, the pond contemplated by CIF primarily emphasizes detention for a shorter period of time than was used in the experiment and allows highly eutrophic water to be mixed with that quality of water already found in Lake Apopka. The only exception to that comment is that water flowing from Wolfshead Lake, which is south of the proposed 122 acres, is a high quality of water, and through the project as contemplated, this water would be directly introduced into Lake Apopka through a flow over a natural wetlands system. This is in opposition to the present situation where the water from Wolfshead Lake flows primarily to the north through an existing canal and is mixed with water from the muck farm and is, therefore, of the

eutrophic character as opposed to the high quality character.

The Duda permit, which was issued, would allow the introduction of water which is similar in character to the water of Lake Apopka, through the system of ditch conveyances, placement in the retention pond, and at times, flow to the lake. In its effect, the nutrient loading which occurs by introduction of waters from that new farm, would be similar to that proposed in the CIF project. The fact of this similarity does not prohibit the district from evaluating water quality matters on the occasion of the CIF permit decision.

Should the 122 acres be converted from natural vegetation to a muck farm, wildlife and fish habitat would be adversely impacted. The habitat provided by the plot is in scarce supply and is essential to the maintenance of a diversified fish population. The hardwood swamp, which is part of and adjacent to the 122 acres of the CIF application, supports benthic invertebrates, which are a food source for game fish. The type of vegetation found in the lake, due to its eutrophic state, is plankton and one of the by-products of the reproduction of that plant through the process of photosynthesis and respiration is the destruction of the fish population. This occurs in the summer months. The plankton has replaced the emergent and submergent vegetation which once covered as much as two-thirds of Lake Apopka and now represents .05 percent of the lake. As a consequence, game fish have diminished over a period of years with plankton feeding fish predominating. Consequently, the fish population is less diverse and the removal of the vegetation becomes a significant contributor to the imbalance in fish population.

CONCLUSIONS OF LAW

1. The Division of Administrative Hearings has jurisdiction over the subject matter and parties to this action, pursuant to Subsection 120.57(1), Florida Statutes.

2. Ruling had been reserved on the admissibility of Petitioner's Exhibits 11 and 12. By the entry of this Recommended Order, those exhibits are admitted.

3. The proposed 122 acre plot is found in Lake County, Florida and is within the geographical boundaries of the St. Johns River Water Management District regulatory authority. See Subsection 373.079(2)(c), Florida Statutes. The application proposes to construct, alter, and operate works that divert water by means of dikes and ditches from a land surface and water body, each having a surface area exceeding 40 acres, and which works discharge water by means of dikes, ditches, culverts and other works from land having a surface area exceeding 40 acres. Consequently, permits are required in keeping with the provisions: Sections 373.413 and 373.416, Florida Statutes; Section 40C-4.041(1) and (2), Florida Administrative Code.

4. On this occasion, Petitioner is not entitled to the permit applied for. The project is not consistent with the public interest as envisioned by Section 373.016, Florida Statutes, and Section 40C-4.301(1)(b), Florida Administrative Code. The project's water quality impacts; effects on fish and wildlife and impacts on other property owners abutting Lake Apopka are not consistent with the public interest. As a consequence, the project cannot be considered a reasonable and beneficial activity as set forth in Section 40C-4.301(1)(a), Florida Administrative Code.

In addition, the project would alter the discharge rate of runoff from the proposed activity in the 1 in 10 year design storm in contravention of Section 40C-4.301(3)(a), Florida Administrative Code; cause an increase in flood stage on lands other

than those owned, leased, or otherwise controlled by the applicant during the 1 in 10 year design storm in contravention of Section 40C-4.301(3)(b), Florida Administrative Code, and cause an increase in flow on stage such that it will adversely affect lands other than those owned, leased, or otherwise controlled by the applicant in contravention of Section 40C-4.301(3)(c), Florida Administrative Code.

In summary, Petitioner has failed to establish its entitlement to the permit requested. It is, therefore,

RECOMMENDED:

That a Final Order be issued which denies Petitioner's request for the grant of a management and storage of surface waters permit by Respondent.

DONE and ENTERED this 22nd day of July, 1983, in Tallahassee, Florida.

CHARLES C. ADAMS
Hearing Officer
Division of Administrative Hearings
2009 Apalachee Parkway
Tallahassee, Florida 32301
(904) 488-9675

Filed with the Clerk of the Division of Administrative Hearings this 22nd day of July, 1983.

Copies Furnished:

Daniel H. Jones, Esquire
Moyle, Jones & Flanigan, P.A.
Post Office Box 3888
West Palm Beach, FL 33402

Vance W. Kidder, Esquire
Mary Hansen, Esquire
St. Johns River Water
Management District
Post Office Box 1429
Palatka, FL 32078

Mr. E. D. Vegara
Executive Director
St. Johns River Water
Management District
Post Office Box 1429
Palatka, FL 32078