

PLAN OF RECLAMATION  
FOR  
COW SLOUGH WATER CONTROL DISTRICT  
HENDRY & COLLIER COUNTIES, FLORIDA

MARCH 12, 1990

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### EXHIBITS

|                |                                                  |
|----------------|--------------------------------------------------|
| EXHIBIT A----- | SENATE BILL NO. 1511                             |
| EXHIBIT B----- | HISTORY OF THE TOWNSEND<br>CANAL                 |
| EXHIBIT C----- | SFWM D PERMIT NO.<br>26-00324S & STAFF<br>REPORT |
| EXHIBIT D----- | IMPROVEMENT DESIGN                               |

### PLATES

|              |                                |
|--------------|--------------------------------|
| PLATE 1----- | VICINITY MAP                   |
| PLATE 2----- | TOPOGRAPHIC MAP                |
| PLATE 3----- | EXISTING FACILITIES MAP        |
| PLATE 4----- | PLAN OF PROPOSED<br>FACILITIES |

## INTRODUCTION

In the 1989 session of the Florida Legislature, Senate Bill No. 1511 was passed, adopted and became law on June 28, 1989 as chapter 89-426. This law established and defined the boundaries of the Cow Slough Water Control District and set forth the purposes of the District.

This engineering report and plan of water management is prepared to satisfy the requirements of Chapter 298, Florida Statutes, to satisfy the purposes as described in chapter 89-426 and to provide a long-range development plan for proper drainage and water control.

A copy of Chapter 89-426 is attached and identified as Exhibit A.

## BACKGROUND

The drainage of the District lands is served by an existing canal, known as the Townsend Canal. A brief history of this canal is discussed in Exhibit B.

In 1984 the Cow Slough Watershed Improvement District was created under Chapter 582 of the Florida Statutes. This improvement District included most of the lands that are within the Cow Slough Water Control District.

The Improvement District summoned the USDA - Soil Conservation Service (SCS) to prepare plans for drainage and to prepare a surface water management permit application to the South Florida Water Management District (SFWMD). As a result of this application, permit No. 26-00324(S) was issued on October 6, 1988. A copy of this permit and subject staff report is attached as Exhibit C.

## CLIMATOLOGY AND RAINFALL

### General

The four normal seasons of the Temperature Zone are replaced by two seasons in peninsular Florida, wet and dry, which are characteristic of tropical and subtropical regions. The temperatures are moderately high in the summer and pleasantly cool from November through March, with occasional brief cold spells and infrequent frost.

The highest daytime temperatures in the summer will only occasionally exceed 100 degrees Fahrenheit while the nights will usually be in the seventies. Freezing temperatures occur infrequently for short periods of time from November to March. The highest and lowest temperatures recorded in La Belle are 104 degrees Fahrenheit and 20 degrees Fahrenheit, respectively.

The prevailing winds in this locale are light to moderate out of the East to southeast. However, from November to March cold fronts passing over the area cause slightly stronger winds from the North to Northwest to occur more frequently. The afternoon thundershowers which occur frequently during the wet season are usually accompanied by strong, gusty, variable winds.

The following table shows the monthly average rainfalls for two stations in the vicinity of the District.

# MEAN FOR PERIOD OF RECORD

La Belle - 39 years

Devils Garden Tower - 13 years

|           |               |               |
|-----------|---------------|---------------|
| JANUARY   | 1.62 (Inches) | 2.18 (Inches) |
| FEBRUARY  | 2.26          | 2.80          |
| MARCH     | 2.74          | 3.08          |
| APRIL     | 2.94          | 2.02          |
| MAY       | 4.11          | 5.26          |
| JUNE      | 9.06          | 10.54         |
| JULY      | 8.18          | 7.93          |
| AUGUST    | 7.54          | 6.85          |
| SEPTEMBER | 7.69          | 7.02          |
| OCTOBER   | 3.86          | 3.95          |
| NOVEMBER  | 1.31          | 0.99          |
| DECEMBER  | 1.35          | 1.94          |

|                   |                |                |
|-------------------|----------------|----------------|
| ANNUAL<br>AVERAGE | 52.63 (INCHES) | 54.56 (INCHES) |
|-------------------|----------------|----------------|

MAXIMUM YEAR OF RECORD = 73.90 INCHES - 1965

MINIMUM YEAR OF RECORD = 37.70 INCHES - 1961

### PROBABLE DISTRICT RAINFALL

From the preceding table, it may be logically assumed that the anticipated annual precipitation for the District will be approximately 54 inches most of which falls between May and September. The maximum and minimum rainfalls are expected to be 35 inches and 70 inches, respectively.

On a 25 year return period, 11.0 inches can be expected to fall on the District over a five-day period. The maximum expected 24 hour rainfall for the same return period is seven (7) inches. Of this last quantity, approximately 2.4 inches will be absorbed by infiltration, evaporation, or transpiration. The remaining 5.6 inches will be addressed in this report.

## TOPOGRAPHY AND SOILS

### Topography

The ground elevations of the District vary from 41.0 feet to 33.0 feet with the high lands being near the south boundary. The land generally slopes downward to the north, toward the Caloosahatchee Canal. Throughout the district there are depressions or ponds. These ponds hold water during the wet season and are dry during the dry season. These ponds are shallow, ranging in depth from 1.0 foot to 3.0 feet. Plate No. 4 shows the general contours of the lands.

These depressions are typically referred to by the South Florida Water Management District (SFWMD) as "isolated wetlands".

A topographic map is attached as Plate 2.

### Soils

The District contains sandy soils common to South Florida flatwoods. These sands consist of Oldsmar, Immokalee, Malabar, Bassinger and others. Some of the land includes an underlying limestone substratum.

With proper drainage all uplands are suitable for agricultural use.



## OFF SITE FLOWS

Off site flows are referred to as "from the outside" and "to the outside".

It is possible for drainage waters to drain from the outside into the District. This is particularly true along SR# 29, where there are numerous culverts or cross-drains in the roadbed.

It is also possible for some drainage waters to leave the District boundaries via these same SR# 29 culverts. These flows, as described above, are considered minor and are not recognized in the proposed plan.

The main off-site flow is that leaving the District via the Townsend Canal.

Although there are some ditches and levees along portions of the District boundaries, there is no continuous levee system that prevents waters from entering or leaving the District.

#### SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD) PERMITS

Most all water management and control construction activities are subject to the authority of the SFWMD. Recognizing existing permits and existing or planned individual water control systems are important.

Most of the District lands are presently permitted. Attached are two maps that were a part of the SFWMD staff report on Permit No. 26-00324 (S). These maps show permits that existed on 9/21/88.

The drainage flows generated from these individual permitted systems were addressed in the USDA-SCS plans and application. See Exhibit C.

## DESIGN CRITERIA

All permitting within the District has recognized an allowable discharge of 30 cubic feet per second per square mile. This is equivalent to the removal of 1.116 inches of rainfall in a 24-hour period. This discharge rate should be used in designing the District facilities.

Manning's Formula for open-channel flow should be used with  $N=0.025$ . Side slopes should be no steeper than 1:1. The velocity should be maintained at less than 2.75 feet per second to avoid excessive erosion. The design should provide for a water surface elevation at approximately 1.5 feet below natural ground elevations.

Exhibit D shows the calculated design of the District facilities using the above criteria.

CHARLOTTE  
CO.

GLADES

COUNTY

LA BELLE

LEGEND

- A - PERMIT NO. 26-00053-W
- B - PERMIT NO. 26-00056-W
- C - PERMIT NO. 26-00075-W
- D - PERMIT NO. 26-00079-W
- E - PERMIT NO. 26-00121-S/V
- F - PERMIT NO. 26-00222-W
- G - PERMIT NO. 26-00224-S
- H - PERMIT NO. 26-00227-S
- I - PERMIT NO. 26-00228-S/V
- J - PERMIT NO. 26-00106-S/V
- K - PERMIT NO. 11-00105-W

COLLIER

DRAINAGE AREA IN  
COLLIER CO. CONTRIBUTING  
TO THE CON. CLOWN  
WATERSHED.

DRAINAGE AREA  
BASED ON FIELD  
OBSERVATIONS AND  
PERMIT APPLICATIONS.

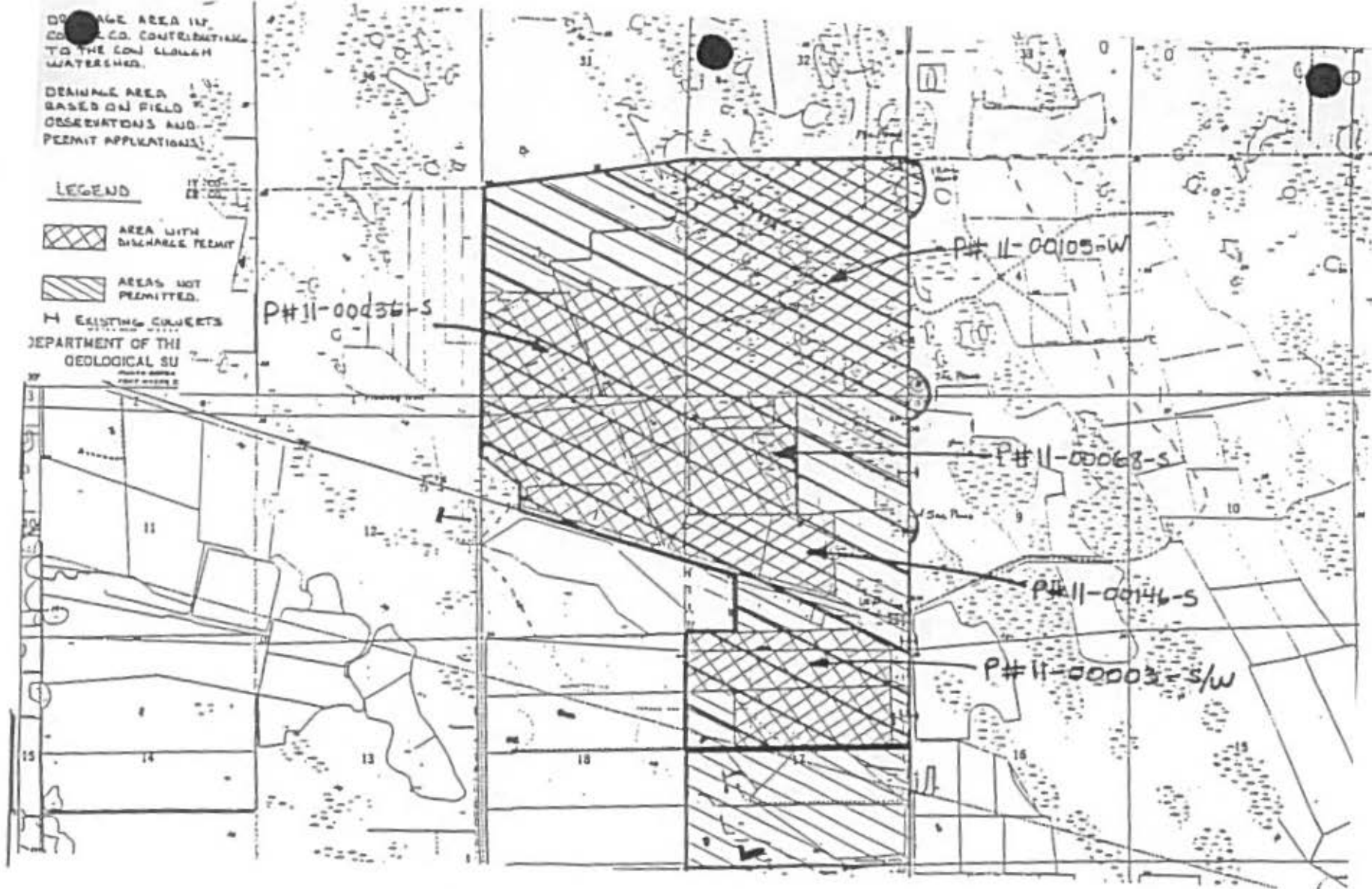
# LEGEND

 AREA WITH  
DISCHARGE PERMIT

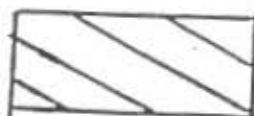
 AREAS NOT  
PERMITTED.

 EXISTING CONCRETE

DEPARTMENT OF THE  
GEOLOGICAL SURVEY



AREA CONTRIBUTING  
RUNOFF TO TOWNSEND  
CANAL. (COLLIER COUNTY)



### EXISTING DRAINAGE FACILITIES

The main drainage facility is the Townsend Canal which begins at the Caloosahatchee Canal and terminates within the District Lands. This canal serves all drainage waters for numerous lands including all District Lands.

In addition to the Townsend Canal there are numerous ditches, swales, canals, etc., within the District that collect excess drainage waters. In certain District lands there are pumps that discharge waters which flow to the Townsend Canal. All excess surface water from District lands eventually reach the Townsend Canal, with minor exceptions.

The District lands lying in Collier County are mostly developed for citrus. Section 5 and part of Section 8 is undeveloped. All citrus groves contain collector & conveyence ditches. Pumps are installed that discharge the excess runoff. These discharges reach the road side ditches of State Road No. 29 and flow to the north. As the ditches fill with water, sheet flow occurs across the undeveloped lands in Sections 5 & 8 and reach the existing canal system.

In order for the Townsend Canal to be able to handle the excess surface waters at desirable water levels, considerable improvement is needed. This improvement is addressed in this Report.

The existing drainage facilities are shown on Plate 3.

### THE PROPOSED PLAN

This water management plan consists of the existing Townsend Canal, other proposed canals and certain connections, thereto. The proposed plan is shown on Plate 4. All lands will have to deliver their drainage waters to these District facilities.

The Townsend Canal must be improved to handle the designed and recognized flows. A certain portion of the Townsend Canal that lies beyond the District's north boundary needs improvement. This improvement is between the north District boundary and the Duda Bridge. The canal needs to be enlarged and deepened and the bridge must be replaced.

This proposed plan includes:

- A. The existing Townsend Canal from the north boundary of the District to the Hendry/Collier County lines.
- B. The extension of the Townsend canal along or near the Section line common to Sections 5 & 6 in Collier County.
- C. Lateral canals identified as laterals 1 East, 2 East & 3 East.
- D. Those water control structures and culverts shown in "bold" print on Plate 4.

The estimated cost of these improvements are included in this report.

THE PROPOSED PLAN cont'd

Most of Lateral 2 East is included in Permit No. 26-00227 as an outfall canal and will be constructed as part of the development plan by the subject landowner.

At the location of Lateral 3 East there is an existing ditch for most of this length. This existing ditch needs to be enlarged and extended easterly to connect to the State Road 29 roadside ditch. This lateral needs to be connected to the Townsend Canal and a culvert installed by which the amount of flow can be controlled.

All proposed work that is not presently permitted by the SFWMD will have to be permitted by this agency before work can begin.

The location of the proposed facilities as shown on Plate 4 is intended to be general and may be relocated to satisfy permitted conditions without affecting the efficiency of this plan.



### CONCLUSION

It is concluded that the USDA-SCS performed well in preparing the plans and designs for the Improvement District. This engineering plan is basically the same as defined by the USDA-SCS and satisfies the requirements Chapter 298.16 F.S.

It is further concluded that upon implementation of this plan that all District lands will be served adequately for agricultural purposes.

# ESTIMATE OF COST

Canal Excavation (on site) \$ 264,000.00

Canal Excavation (off site) \$ 60,000.00

from Dist. Bdy. to Duda Bridge

Structure Installation (off site) \$ 50,000.00

replacement of Duda Bridge

Structure Installation (on site) \$ 72,000.00

Culverts for road crossings \$ 74,000.00

SUBTOTAL-----\$ 520,000.00

Engineering & Surveying \$ 35,000.00

Contingencies \$ 40,000.00

Interest during construction \* \$ 40,000.00

TOTAL COST-----\$ 635,000.00

Cost per acre \$ 72.00 ±

\* Based on 12 months borrowing period @ 8% simple interest.

1. This cost estimate is based on current contractual prices for similar work.
2. This estimate does not include any cost for right-of-way acquisition. It is assumed that all rights-of-way will be donated to the District by the landowners.

#### RECOMMENDATIONS

1. The Board of Supervisors approve and adopt this plan of water management.
2. The District, by due process, should acquire the rights-of-way or easements for all proposed District facilities.
3. A long-range budget should be adopted to provide funds and resources for the implementation of this plan.
4. The existing SFWMD permit should be transferred from the Improvement District to the Cow Slough Water Control District.

ENROLLED  
SB 1511

## CHAPTER

89-426

First Engrossed (ntc)

Senate Bill No. 1511

A bill to be entitled

An act relating to Hendry and Collier Counties;  
creating the Cow Slough Water Control District;  
providing district boundaries; prescribing  
powers, privileges, duties, liability, and  
officials; providing applicability of the  
provisions of chapter 298, F.S., to said  
district; providing for the appointment of the  
first board of supervisors and the election of  
future supervisors, defining their terms of  
office, prescribing their duties, powers, and  
qualifications, and fixing their compensation;  
providing for the levy of assessments and taxes  
upon the lands in said district and for the  
collection and enforcement thereof; providing  
that taxes shall be a lien on lands in the  
district and providing for the collection and  
enforcement of district taxes at the same time  
and in like manner as county taxes; providing  
that said taxes shall be extended by the county  
property appraiser on the county tax roll and  
shall be collected by the tax collector in the  
same manner and time as county taxes; providing  
for the same discounts and penalties as county  
taxes and providing for the compensation of the  
county taxing officials; providing for the levy  
of a uniform acreage tax on lands in said  
district to be used for paying the expenses of  
organizing said district; authorizing said  
district to borrow money and issue negotiable  
or nonnegotiable notes, bonds, and other

1511

1 evidences of indebtedness in order to better  
2 carry out the provisions of this act; providing  
3 water control and management, reclamation, and  
4 irrigation of the lands in said district by  
5 units; providing severability; providing for  
6 precedence over conflicting laws; providing  
7 that district does not have the power of  
8 condemnation over specified property; providing  
9 an effective date.

10  
11 Be It Enacted by the Legislature of the State of Florida:

12  
13 Section 1. District creation and boundaries.--For the  
14 purposes of comprehensive water management and control and  
15 developing the lands hereinafter described and managing said  
16 lands and water by means of the construction and maintenance  
17 of canals, ditches, levees, dikes, pumping plants, and other  
18 water control works and improvements, and for the purpose of  
19 making the lands within said district available and habitable  
20 for settlement and agriculture, and for the public  
21 convenience, welfare, utility, and benefit, and for the other  
22 purposes stated in this act, a water control district is  
23 hereby created and established in Hendry and Collier Counties,  
24 Florida, to be known as the Cow Slough Water Control District,  
25 the territorial boundaries of which shall be as follows, to  
26 wit:

27  
28 Hendry County:

29 1. In Township 45 South, Range 28 East: All  
30 of Section 13, 14 and 24; and Section 25 less  
31 the following described parcel: Commencing at

--1511

1 the southwest corner of said Section 25; thence  
2 N. 0-32-29 W. along the west boundary line of  
3 said Section 25 a distance of 665.19 feet to  
4 the Point-of-Beginning of this description;  
5 thence continuing N. 0-32-29 W. along said west  
6 boundary line of Section 25 a distance of  
7 4656.88 feet to the northwest corner of said  
8 Section 25; thence S. 87-56-46 E. along the  
9 north boundary line of said Section 25 a  
10 distance of 1950.00 feet; thence S. 0-27-54 E.  
11 a distance of 1176.05 feet; thence S. 0-53-38  
12 E. a distance of 2450.41 feet; thence S. 0-34-  
13 26 E. a distance of 1025.07 feet; thence N. 88-  
14 07-20 W. a distance of 1963.85 feet to the said  
15 Point-of-Beginning of this description.

16  
17 2. In Township 45 South, Range 29 East: All  
18 of Sections 18 and 19; that portion of the  
19 South 1/2, west of State Road 29 and the South  
20 1/2 of the Northwest 1/4 of Section 20; all  
21 Section 29 West of State Road 29; all of  
22 Sections 30 and 31; and all of Section 32 west  
23 of State Road 29.

24  
25 Collier County:

26  
27 In Township 46 South, Range 29 East: All of  
28 Section 5 west of State Road 29; all of Section  
29 6; that portion of Section 7 north of State  
30 Road 82; all of Section 8 West of State Road  
31

29; and, that portion of the North 1/2 of  
Section 17 west of State Road 29.

It is hereby determined, declared, and enacted that said lands  
in their present condition require comprehensive water control  
and management for proper agricultural use, and that water  
control for the purpose of irrigation, reclamation, and flood  
protection of said lands, making said lands available for  
agricultural and settlement purposes, and the creation of the  
district with the power vested in it by this act, is in the  
interest of and conducive to public welfare, health, and  
convenience.

Section 2. Provisions of other laws made applicable.--  
The Cow Slough Water Control District hereby created shall be  
a public corporation of this state. The provisions of Florida  
law applicable to water control districts or subdistricts  
which are embodied in chapter 298, Florida Statutes, and all  
of the laws amendatory thereof, now existing or hereafter  
enacted, so far as not inconsistent with this act, are hereby  
declared to be applicable to the Cow Slough Water Control  
District. The Cow Slough Water Control District shall have  
all of the powers and authorities conferred by chapter 298,  
Florida Statutes, and acts amendatory thereof, except as  
herein otherwise provided.

Section 3. Powers of the district.--The district shall  
have the power to sue and be sued in its name in any court of  
law or in equity, to make contracts, to adopt and use a  
corporate seal and to alter the same at pleasure; to acquire  
by purchase, gift, or condemnation real and personal property,  
either or both, and to convey and dispose of such real and

1 personal property, either or both, as may be necessary or  
2 convenient to carry out the purposes, or any of the purposes,  
3 of this act, and chapter 298, Florida Statutes; to construct,  
4 operate, and maintain canals, ditches, drains, levees, and  
5 other works for water control purposes; to acquire, purchase,  
6 operate, and maintain pumps, plants, and pumping systems for  
7 water control purposes; to construct, operate, and maintain  
8 irrigation works, machinery, and plants; to borrow money and  
9 issue negotiable or other bonds of the district as hereinafter  
10 provided; to borrow money, from time to time, and issue  
11 negotiable or other notes of the district therefor, in  
12 anticipation of the collection of taxes, levies, and  
13 assessments or revenues of the district, and to pledge or  
14 hypothecate such taxes, levies, assessments, and revenues to  
15 secure such bonds, notes, or obligations, and to sell,  
16 discount, negotiate, and dispose of the same; and to exercise  
17 all other powers necessary, convenient, or proper in  
18 connection with any of the powers or duties of the district  
19 stated in this act. The powers and duties of the district  
20 shall be exercised by and through the board of supervisors  
21 thereof, which board shall have the authority to employ  
22 engineers, attorneys, agents, employees, and representatives  
23 as the board of supervisors may from time to time determine,  
24 and to fix their compensation and duties. In addition, the  
25 district shall have all of the powers provided for in chapter  
26 298, Florida Statutes.

27 Section 4. Board of supervisors; appointment of first  
28 board; organization, powers, duties, and terms of office.--  
29 There is created a Board of Supervisors of Cow Slough Water  
30 Control District, which shall be the governing body of the  
31 district. The board of supervisors shall consist of three



1 persons, who, except as herein otherwise provided, shall hold  
2 office for a term of 3 years and until their successors shall  
3 be duly elected and qualified. The first board of supervisors  
4 of said district shall be composed of Dallas Townsend, who  
5 shall hold office for 11 months, beginning July 1, 1989;  
6 Phillip Sherrod, who shall hold office for 1 year, 11 months,  
7 beginning July 1, 1989; and John Giddens, who shall hold  
8 office for 2 years, 11 months, beginning July 1, 1989. Each  
9 year thereafter during the month of May, beginning with May  
10 1990, a supervisor shall be elected, as hereinafter provided,  
11 by the landowners of said district to take the place of the  
12 retiring supervisor. All vacancies or expirations on the  
13 board shall be filled as required by this act. The  
14 supervisors of the Cow Slough Water Control District need not  
15 be residents of the district or of the State of Florida, and  
16 they need not be owners of lands or property within the  
17 district. In case of a vacancy in the office of any  
18 supervisor, the remaining supervisors may fill such vacancy  
19 until the next annual meeting of the landowners, when his  
20 successor shall be elected by the landowners for the unexpired  
21 term. As soon as practicable after their election, the  
22 members of the board of supervisors of the district shall  
23 organize by choosing one of their number president of the  
24 board of supervisors and by electing some suitable person  
25 secretary, who need not be a member of the board. The board  
26 of supervisors shall adopt a seal which shall be the seal of  
27 the district. At each annual meeting of the landowners of the  
28 district, the board of supervisors shall report all work  
29 undertaken or completed during the preceding year and the  
30 financial status of the district. All supervisors shall hold  
31 office until their successors shall be elected and qualified.

1 Whenever any election is authorized or required by this act to  
2 be held by the landowners at any particular or stated time or  
3 day, and if for any reason such election is not or cannot be  
4 held at such time or on such day, then in such event and in  
5 all and every such event, the power or duty to hold such  
6 election shall not cease or lapse, but such election shall be  
7 held thereafter as soon as practicable and consistent with  
8 this act.

9       Section 5. Compensation of board.--Each supervisor  
10 shall be paid a per diem for his services, in an amount to be  
11 determined by the landowners at the annual landowners'  
12 meeting, for each day actually engaged in work pertaining to  
13 the district. The amount shall not exceed that provided for  
14 by chapter 298, Florida Statutes, and amendments thereto,  
15 except that, in addition to per diem, they shall receive  
16 reimbursement for travel and expenses as provided by law.

17       Section 6. Meeting of landowners; election of  
18 supervisors.--Each year during the month of May, beginning  
19 with May 1990, a meeting of the landowners of said district  
20 shall be held for the purpose of electing a supervisor to take  
21 the place of the retiring supervisor and of hearing reports of  
22 the board of supervisors. The board of supervisors shall have  
23 the power to call special meetings of the landowners at any  
24 time to receive reports of the board of supervisors or  
25 consider and act upon any matter upon which the board of  
26 supervisors may request advice. Notice of all meetings of the  
27 landowners shall be given by the board of supervisors pursuant  
28 to chapters 189 and 298, Florida Statutes. The landowners,  
29 when assembled for the annual landowners' meeting, shall  
30 organize by electing a chairman who shall preside at the  
31 meeting. The secretary of the board of supervisors shall be

1 the secretary of such meeting. At all such annual landowners'  
2 meetings, each and every acre of land in the district shall  
3 represent one vote, and each owner shall be entitled to one  
4 vote in person or by written proxy for every acre of land  
5 owned by him in the district. The person receiving the  
6 highest number of votes for supervisor shall be declared and  
7 elected as such supervisor. At any landowners' meeting, the  
8 owners of a majority of the acreage included in the district  
9 shall be necessary to constitute a quorum. Guardians may  
10 represent their wards; personal representatives may represent  
11 the estates of deceased persons; trustees may represent lands  
12 held by them in trust; and private corporations may be  
13 represented by their officers or duly authorized agents.  
14 Landowners, guardians, personal representatives, trustees, and  
15 corporations may vote by proxy.

16 Section 7. Taxes levied and apportioned, and the  
17 collection thereof.--

18 (1) INSTALLMENT TAXES.--Taxes shall be levied and  
19 apportioned as provided by chapter 298, Florida Statutes, and  
20 amendments thereto.

21 (2) MAINTENANCE TAX.--To maintain and preserve  
22 improvements made pursuant to this act and to repair and  
23 restore the same, and for the purpose of defraying the current  
24 expenses of the district, the board of supervisors may,  
25 pursuant to chapter 298, Florida Statutes, upon the completion  
26 of said improvements, in whole or in part, as may be certified  
27 to the said board by the chief engineer, levy annually a tax  
28 upon each tract or parcel of land within the district, to be  
29 known as a "maintenance tax." Said maintenance tax shall be  
30 apportioned upon the basis of the net assessments of benefits  
31 assessed or accruing for original construction.

1 (3) TAXES AND COSTS A LIEN ON LAND AGAINST WHICH TAXES  
2 LEVIED.--All taxes provided for in this act, together with all  
3 penalties for default in payment of the same and all costs in  
4 collecting the same, shall, from the date of assessment  
5 thereof until paid, constitute a lien of equal dignity with  
6 the liens for county taxes, and other taxes of equal dignity  
7 with county taxes, upon all the lands against which such taxes  
8 shall be levied as is provided in this act.

9 (4) COMPENSATION OF PROPERTY APPRAISER, TAX COLLECTOR,  
10 AND CLERK OF THE CIRCUIT COURT.--The offices of the property  
11 appraisers and tax collectors for Hendry and Collier Counties  
12 shall be entitled to compensation for service performed in  
13 connection with the levy and collection of taxes of said  
14 district as provided by ss. 197.3631 and 197.3632, Florida  
15 Statutes.

16 (5) LEVIES OF TAXES ON LAND LESS THAN ONE ACRE.--In  
17 levying and assessing all taxes, each tract or parcel of land  
18 less than one acre in area shall be assessed as a full acre,  
19 and each tract or parcel of land more than one acre which  
20 contains a fraction of an acre shall be assessed at the  
21 nearest whole number of acres, a fraction of one-half or more  
22 to be assessed as a full acre.

23 Section 8. When unpaid taxes delinquent; penalty.--All  
24 taxes provided for in this act shall be and become delinquent  
25 and bear penalties on the amount of said taxes in the same  
26 manner as county taxes.

27 Section 9. Enforcement of taxes.--The collection and  
28 enforcement of all taxes levied by the district shall be at  
29 the same time and in like manner as county taxes, and the  
30 provisions of the Florida Statutes relating to the sale of  
31 lands for unpaid and delinquent county taxes, the issuance,

1 sale, and delivery of tax certificates for such unpaid and  
2 delinquent county taxes, the redemption thereof, the issuance  
3 to individuals of tax deeds based thereon, and all other  
4 procedures in connection therewith, shall be applicable to the  
5 district and the delinquent and unpaid taxes of the district  
6 to the same extent as if said statutory provisions were  
7 expressly set forth in this act. All taxes shall be subject  
8 to the same discounts as county taxes.

9       Section 10. Uniform acreage tax for payment of  
10 expenses.--There is hereby levied by the Legislature of the  
11 State of Florida upon each and every acre of land within the  
12 Cow Slough Water Control District, as defined in this act, a  
13 uniform tax of \$1 per acre to be used by the district, through  
14 its board of supervisors, for the purpose of paying expenses  
15 incurred or to be incurred in making surveys of the lands in  
16 the district and assessing benefits and damages, and other  
17 expenses necessarily incurred, as may be estimated or  
18 determined by the board of supervisors, before the board of  
19 supervisors shall have funds under the subsequent provisions  
20 of this act. The tax shall become due and payable on the  
21 first day of November 1989, and shall become delinquent 90  
22 days thereafter. The tax shall be a lien upon the lands in  
23 the district from the date this section takes effect and shall  
24 be collected in the same manner as the annual installment of  
25 taxes. If it shall appear to the board of supervisors to be  
26 necessary to obtain funds to pay any expenses incurred or to  
27 be incurred in organizing the district, making said surveys,  
28 or preparing the water management plan, or any other expenses  
29 of the conduct and operation of the district before a  
30 sufficient sum can be obtained by the collection of the  
31 acreage tax levied by this section, the board of supervisors

1 may borrow a sufficient sum of money for any of said purposes  
2 and may issue negotiable notes or bonds therefor signed by the  
3 members of said board of supervisors, and may pledge any and  
4 all assessments of said acreage tax levied under the  
5 provisions of this section for the repayment thereof. The  
6 board of supervisors may issue negotiable evidence of debt to  
7 any person or persons performing work or services or  
8 furnishing anything of value in the organization of the  
9 district or making surveys of the same and assessing benefits  
10 or damages or preparing said water management plan and for any  
11 other expenses necessarily incurred before the receipt of  
12 funds arising from assessments or benefits.

13 Section 11. Bonds may be issued under the provisions  
14 of chapter 298, Florida Statutes.--The board of supervisors  
15 may, if in its judgment it seems best, issue bonds under the  
16 provisions of chapter 298, Florida Statutes, bearing interest  
17 from date, after determining any discount thereon, payable  
18 annually or semiannually.

19 Section 12. Water control for public benefit.--It is  
20 hereby declared that in said district, surface waters, which  
21 includes rainfall and the overflow of rivers and streams,  
22 shall be managed for a public benefit, and the district and  
23 any individual or agency holding a permit to do so from the  
24 district shall have the right to dike, dam, and construct  
25 levees to manage waters within the district.

26 Section 13. Unit development; powers of supervisors to  
27 designate units of district and adopt system of progressive  
28 drainage by units; water management plan and financing  
29 assessments.--The Board of Supervisors of Cow Slough Water  
30 Control District shall have the power and is hereby authorized  
31 in its discretion to manage water within the district by

1 designating areas or parts of said district to be called  
2 "units." The units into which said district may be so divided  
3 shall be given appropriate numbers or names by the board of  
4 supervisors so that the units may be readily identified and  
5 distinguished. The board of supervisors shall have the power  
6 to fix and determine the location, area, and boundaries of and  
7 lands to be included in each and all such units, the order of  
8 development thereof, and the method of carrying on the work in  
9 each unit. The unit system of water control provided by this  
10 section may be conducted, and all of the proceedings by this  
11 section and this act authorized in respect to such unit or  
12 units may be carried on and conducted, at the same time as or  
13 after implementation of the district water management plan.  
14 If the board of supervisors shall determine it is advisable to  
15 implement the district water management plan by units, as  
16 authorized by this section, the board shall, by resolution  
17 duly adopted and entered upon its minutes, declare its purpose  
18 to conduct such work accordingly, and shall at the same time  
19 and manner fix the number, location, boundaries and  
20 description of lands within such unit or units and give them  
21 appropriate numbers or names. Creation of a unit shall  
22 constitute a rule pursuant to chapter 120, Florida Statutes,  
23 and shall be adopted by the board of supervisors pursuant to  
24 s. 120.54, Florida Statutes. The board of supervisors may  
25 adopt a water management plan for and in respect to any or all  
26 such units, and to have the benefits and damages resulting  
27 therefrom assessed and apportioned by commissioners pursuant  
28 to chapter 298, Florida Statutes, and the report of the said  
29 commissioners considered and confirmed, all in like manner as  
30 is provided by law in regard to the water management plan for  
31 and assessments of benefits and damages of the entire

1 district. With respect to the water management plan, notices,  
2 appointment of commissioners to assess benefits and damages,  
3 report of commissioners and notice and confirmation thereof,  
4 the levy of assessments and taxes, including maintenance taxes  
5 and the issuance of bonds, and all other proceedings as to  
6 each and all of such units, said board shall follow and comply  
7 with the same procedure as is provided by law with respect to  
8 the entire district. All the provisions of this act shall  
9 apply to water management and control within all of such  
10 units, and the enumeration of or reference to specific powers  
11 or duties of the supervisors, or any other officers or other  
12 matters in this act, as hereinabove set forth, shall not limit  
13 or restrict the application of any and all of the proceedings  
14 and powers herein to such units. All assessments, levies,  
15 taxes, bonds, and other obligations made, levied, assessed, or  
16 issued for or in respect to any such unit or units,  
17 respectively, for the benefit of which the same shall be  
18 levied, made, or issued, and not upon the remaining units or  
19 lands in said district. The board of supervisors may at any  
20 time amend its resolutions by changing the location and  
21 description of lands in any such unit or units; and provided,  
22 further, that if the location of or description of lands  
23 located in any such unit or units is so changed, proceedings  
24 shall be had and done in that regard as are provided in this  
25 section for the original creation of such unit or units,  
26 provided, however, no lands against which benefits shall have  
27 been assessed may be detached from any such unit after the  
28 confirmation of the commissioners' report of benefits in such  
29 unit or units or the issuance of bonds or other obligations  
30 which are payable from taxes or assessments for benefits  
31 levied upon the land within such unit or units. However, if,



1 after the confirmation of the commissioners' report of  
2 benefits in such unit or units, or the issuance of bonds or  
3 other obligations which are payable from taxes or assessments  
4 for benefits levied upon lands within such unit or units, the  
5 board of supervisors finds the water management plan for any  
6 such unit or units insufficient or inadequate for efficient  
7 development, the water management plan may be amended or  
8 changed as provided in chapter 298, Florida Statutes, and the  
9 unit or units may be amended or changed as provided in this  
10 section by changing the location and description of lands in  
11 any such unit or units, or by adding lands thereto, upon the  
12 approval of landowners owning a majority of the acreage in any  
13 such unit and of the trustees of any bonds issued in respect  
14 to any such unit. In such event all assessments, levies,  
15 taxes, bonds, and other obligations made, levied, assessed,  
16 incurred, or issued for or in respect to any such unit or  
17 units may be allocated and apportioned to the amended unit or  
18 units in proportion to the benefits assessed by the  
19 commissioners' report for the amended water management plan,  
20 and said report shall specifically provide for such allocation  
21 and apportionment. The landowners and all of the bondholders  
22 must file their approval of or objection to such amended water  
23 management plan within the time provided in s. 298.07, Florida  
24 Statutes, and must file their approval of or objections to the  
25 amendment of such unit as provided in this section. No lands  
26 shall be detached from any unit after the issuance of bonds or  
27 other obligations for such unit except upon the consent of all  
28 the holders of such bonds or other obligations. In the event  
29 of the change of the boundaries of any unit as provided herein  
30 and the allocation and apportionment to the amended unit or  
31 units of assessments, levies, taxes, bonds, and other

1 obligations in proportion to the benefits assessed by the  
2 commissioners' report for the amended water management plan,  
3 the holders of bonds or other obligations heretofore issued  
4 for the original unit who consent to such allocations and  
5 apportionment shall be entitled to all rights and remedies  
6 against any lands added to the amended unit or units as fully  
7 and to the same extent as if such added lands had formed and  
8 constituted a part of the original unit or units at the time  
9 of the original issuance of such bonds or other obligations,  
10 and regardless of whether the holders of such bonds or other  
11 obligations are the original holders thereof or the holders  
12 from time to time hereafter, and the rights and remedies of  
13 such holders against the lands in the amended unit or units,  
14 including any lands added thereto, under such allocation and  
15 apportionment, shall constitute vested and irrevocable rights  
16 and remedies to the holders from time to time of such bonds or  
17 other obligations as fully and to the same extent as if such  
18 bonds or other obligations had been originally issued to  
19 finance the improvements in such amended unit or units under  
20 such amended water management plan.

21       Section 14. If any provision of this act or the  
22 application thereof to any person or circumstance is held  
23 invalid, the invalidity shall not affect other provisions or  
24 applications of the act which can be given effect without the  
25 invalid provision or application, and to this end the  
26 provisions of this act are declared severable.

27       Section 15. In the event of a conflict between the  
28 provisions of this act and the provisions of any other act,  
29 the provisions of this act shall control to the extent of such  
30 conflict.

31

1 Section 16. The district shall not have the powers of  
2 condemnation over the following described property:

3 (1) All that part of government Lot 4 and all that  
4 part of the W 1/2 of Government Lot 3 of Section 19, Township  
5 43 South, Range 28 East, Hendry County, Florida, lying S'ly of  
6 the following described line:

7  
8 From the SW corner of Section 30, Township 43  
9 South, Range 28 East, run N 00 33' 39" W, along  
10 the west line of said Section 30, a distance of  
11 1,320.27 feet to the south right-of-way line of  
12 the Caloosahatchee River Canal (C-43), as  
13 established on January 1, 1964, to the point of  
14 beginning of said line; thence run N 78 34' 09"  
15 E, a distance of 1,662.03 feet to the end of  
16 said line.

17  
18 The parcel of land herein described is a  
19 portion of an Island lying Southerly of the  
20 South right of way line of the Caloosahatchee  
21 River Canal and Northerly of the Caloosahatchee  
22 River.

23  
24 (2) Starting at the NW corner of the SE 1/4 of Section  
25 30, Township 43 South, Range 28 East; thence S 50 feet to the  
26 south line of State Road 80; thence E with said line 508.88  
27 feet; thence S 512 feet to the abandoned right-of-way of SAL  
28 Railroad; thence W 508.88 feet along said right-of-way; thence  
29 N 513 feet to point of beginning, containing 5-acres, more or  
30 less.

1 (3) All of that portion of the Old Caloosahatchee  
2 River Channel lying between the S'y line of Government Lots 3  
3 and 4 in Section 19, Township 43 South, Range 28 East, Hendry  
4 County, Florida and the center line of said channel; said  
5 centerline described as follows:

6  
7 Commence at the SW corner of Government Lot 4  
8 in Section 30, Township 43 South, Range 28  
9 East, and run N 00 33' 39" W for 1,320.27 feet  
10 to the SE right-of-way line of the  
11 Caloosahatchee River Canal (C-43); thence run N  
12 78 34' 09" E for 268 feet, more or less, along  
13 said SE right-of-way line for the point of  
14 beginning of center line of said old channel,  
15 at a point opposite station 1830+00 of said  
16 canal (C-43); thence run SE'y, E'y, N'y and  
17 NE'y along the center line of said old channel  
18 to a point on the SE'y right-of-way line of  
19 said canal (C-43) opposite station 1816+35,  
20 more or less, of said Canal (C-43); containing  
21 1.10 acres, more or less.

22  
23 (4) In Township 44 South, Range 28 East, E 1/2 of  
24 Section 7, all of Sections 5, 8, 13-17, 20-29, 32-36, E 1/2 of  
25 Section 18, E 1/2 of Section 19, E 1/2 of Section 30, E 1/2 of  
26 Section 31.

27 (5) In Township 44 South, Range 29 East, all of  
28 Sections 5, 7, 8, 17, 18, 19, 20, 29, 30, 31, and 32 and all  
29 those portions of Sections 9, 16, 21, 28, and 33 lying West of  
30 State Highway 29.

31

1 (6) In Township 45 South, Range 28 East, all of  
2 Sections 1-3, 10-12.

3 (7) In Township 45 South, Range 29 East, all of  
4 Sections 5-8, NW 1/4 of Section 17.

5 (8) Beginning at a point on the south boundary of  
6 Section 9, Township 44 South, Range 28 East, a distance of  
7 459.3 feet east of the SW corner of said Section 9 and run  
8 W'y and N'y on an arc having a radius of 459.3 feet to a  
9 point on the west boundary line of said Section 9, a distance  
10 of 459.3 feet north of the SW corner of said Section 9; thence  
11 run south 459.3 feet along the west boundary line of said  
12 Section 9 to the SW corner of said Section 9; thence run east  
13 459.3 feet along the south boundary line of said Section 9 to  
14 the point of beginning.

15 Section 17. This act shall take effect upon becoming a  
16 law.

17  
18 Became a law without the Governor's approval JUN 28 1989  
19 Filed in Office Secretary of State JUN 28 1989  
20  
21  
22  
23  
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30  
31

# State of Florida



## Department of State Division of Elections

I, JIM SMITH, Secretary of State of the State of Florida, do hereby certify that the above and foregoing is a true and correct copy of Chapter 89-426, Laws of Florida, Acts of 1989, as shown by the records of this office.

Given under my hand and the  
Great Seal of the State of Florida,  
at Tallahassee, the Capital, this the  
17th day of July,

A.D. 1989.

*Jim Smith*

Jim Smith  
Secretary of State



EXHIBIT B

History of Townsend Canal

THE HISTORY OF  
THE TOWNSEND CANAL  
IN  
HENDRY COUNTY, FLORIDA

The Townsend Canal was named for Asa Townsend. Townsend was the owner of 4,500 acres in the Felde area of Hendry County some 18 miles South of LaBelle and the Caloosahatchee River. Due to the poor drainage in the area, he began to look for a means to control the annual flooding that occurred each rainy season.

The Roberts family owned the land to the South of the Townsend property and the area known as Cow Slough drained North and onto the Townsend property. The Roberts family also suffered annual flooding during the rainy season.

As a result of the mutual need to control flooding, Roberts and Townsend reached an informal agreement with Circle Bar Cattle Corporation, the landowner North of the Townsend property, to construct a canal northward to the Caloosahatchee River. Shortly after the end of World War II, in 1946, Townsend had an engineer survey a route for a canal from the area of the Townsend and Roberts property to the Caloosahatchee River, which was the natural receptacle of the watershed in the area and the canal was constructed during the next several months. This canal began on the Roberts property in Cow Slough just north of the Hendry-Collier County line and drained northward on through the Townsend and Circle Bar Cattle Corporation property to where it intersected S.R. 80 and from there through the Murphy property to the Caloosahatchee River. The total cost of the canal was paid by Townsend and Roberts with Townsend paying 2/3 and Roberts paying 1/3.

From 1946 until 1962 this canal was used only for drainage and was maintained solely by Townsend and Roberts. When the Townsend property was sold to A. Duda and Sons in 1962, it was agreed that the right to use the Townsend Canal would be deeded to A. Duda and sons and Red Cattle Company (the Roberts Family). This was done by Quit Claim Deed from Townsend to A. Duda & Sons and Red Cattle Company and described the route of the Canal from the south boundary of the Townsend property to S.R. 80.

Shortly after purchasing the Townsend property, Duda also purchased a large portion of the Circle Bar Cattle Corporation property to the North. The northernmost portion of the Circle Bar Cattle Corporation property was purchased by Berry, Paul and Lawless at about the same time.

Duda and the Berry, Paul & Lawless group agreed to develop the Townsend Canal in order to receive irrigation water from the Caloosahatchee River. The Canal was deepened, widened and two major pump lift stations were constructed to serve their needs. The Canal improvement was extended southward to a point about 1



and 1/4 miles North of the Roberts property.

During this, A. Duda & Sons completely diked their property including the southern boundary and closed off several natural drainage ways to the North except for the Townsend Canal. Later, at least two other points in the Duda dikes were constructed with a culvert to allow drainage to the North.

The Roberts landowners, (Red Cattle Company), were not involved in the Canal improvements financially and did not gain access to river irrigation water. However, they did maintain that portion within their property and that portion inside Duda that was not improved from 1962 until 1980. At that time, Red Cattle Company was dissolved and the landownership was transferred to individual members of the Roberts family.

It must be noted here that the Townsend Canal ultimately became the only drainage way for much of the community of Felde West of S.R. 29 and several landowners in Collier County, South of Hendry County. With the entire watershed funneled into the Townsend Canal due to the Duda property dike, flooding in the area was an often occurrence but was tolerated for a number of years since there was little development in the area.

After Red Cattle Company was dissolved in 1980, the new landowners wished to develop their land for citrus groves and thus, the drainage needed to be improved in the area. The Hendry County landowners in the area formed the Cow Slough Watershed Improvement District under the Hendry County Soil Conservation District in order to have an organization to deal with the problem. The Watershed boundary was defined by the U.S.D.A. Soil Conservation Service and it included some 56 owners with about 8,900 acres in Hendry and Collier counties. An engineering study was done to ascertain the Townsend Canal improvement necessary. It was found that the area was entitled to about 414 cfs drainage based on the West Caloosahatchee Basin formula of 30 cfs per section; however, the current size and depth of the Canal will only handle about 110 cfs or slightly over 25% of the need.

After the engineering study was completed and showed that the proposed improvements would not impact the downstream landowners, A. Duda and Sons agreed to the improvements to be constructed in the Townsend Canal and the South Florida Water Management District issued a permit to improve the Canal.

The engineering study had shown that the improvements would be quite costly. The Hendry County landowners met with the Collier County landowners in order to gain their financial support for improving the Townsend Canal. The Collier County landowners agreed to participate in the project.

Since the Cow Slough Watershed Improvement District could not legally annex land outside of the county boundary, it was decided to form the Cow Slough Water Control District under

Chapter 298 of the Florida Statutes so that there would be a legal entity in place to govern the project. This was done in July of 1989.

It should be noted that the Cow Slough Watershed Improvement District had maintained the Canal as had the Roberts family earlier until the formation of the Cow Slough Water Control District.

It is the intention of the Cow Slough Water Control District to improve and maintain the Townsend Canal within the District and for one and one fourth miles inside the Duda Property for the mutual benefit of all District landowners.

QUIT-CLAIM DEED

3534

60 JUL 1962

THIS QUIT-CLAIM DEED, Executed this 10th day of October, A. D. 1962, by ASA TOWNSEND and MARIE TOWNSEND, a/k/a MARIA TOWNSEND, his wife, first party, to A. DUDA & SONS, INC., a Florida corporation, whose post office address is Oviedo, Seminole County, Florida, and RED CATTLE COMPANY, a Florida corporation, of Immokalee, Collier County, Florida, second party:

(Wherever used herein the terms "first party" and "second party" shall include singular and plural, heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations, wherever the context so admits or requires.)



WITNESSETH, That the said first party, for and in consideration of the sum of \$10.00, in hand paid by the said second party, the receipt whereof is hereby acknowledged, does hereby remise, release and quit-claim unto the said second party forever, all the right, title, interest, claim and demand which the said first party has in and to the following described drainage easement situate, lying and being in the County of Hendry, State of Florida, to-wit:

An easement known as the Townsend Canal, the center line of which is described as follows:  
Commence at NW corner Section 18, Township 45 South, Range 29 East, thence North 80° 08' East, along fence line for North line Section 18, a distance of 499.00' to point of beginning; thence North 43° 32' East, 188.60 feet; thence North 58° 23' East, 178.79 feet; thence North 7° 06' East, 364.56 feet; thence North 29° 21' East, 318.26 feet; thence North 20° 53' East, 766.54 feet; thence North 6° 35' East, 504.38 feet; thence North 34° 29' West, 903.15 feet; thence North 30° 37' West, 1020.10 feet; thence North 36° 05' West, 1845.57 feet; thence North 53° 05' East, 12.00 feet; thence North 36° 55' West, 548.03 feet; thence North 39° 50' West, 4762.21 feet; thence North 46° 19' West, 1587.78 feet; thence North 46° 17' West, 3631.40 feet; thence North 45° 48' West, 3800.00 feet; thence North 45° 49' West, 3200.00 feet; thence North 45° 51' West, 3200.00 feet; thence North 46° 01' West, 3199.65 feet; thence North 48° 16' West, 3246.85 feet; thence North 43° 11' West, 5947.20 feet; thence North 42° 59' West, 3200.00 feet; thence North 42° 50' West, 3294.00 feet; thence North 27° 25' West, 2100.11 feet; thence North 0° 45' 24" West, 1328.09 feet; thence North 0° 45' 22" West,

5034 60 200

5286.30 feet; thence North 0° 28' 35" West, 5274.22 feet; thence North 0° 20' 35" West 2642.95 feet to the South Side of State Road 80.

TO HAVE AND TO HOLD the same together with all and singular the appurtenances thereunto belonging or in anywise appertaining, and all the estate, right, title, interest, lien, equity and claim whatsoever of the said first party, either in law or equity, to the only proper use, benefit and behoof of the said second party forever.

IN WITNESS WHEREOF, The said first party has signed and sealed these presents the day and year first above written.  
signed, sealed and delivered  
in presence of:

*W. J. [Signature]*

*Asa Townsend* J.S.  
Asa Townsend

*Harold A. [Signature]*

*Maria Townsend* J.S.  
Maria Townsend

STATE OF FLORIDA)  
COUNTY OF ORANGE)

I HEREBY CERTIFY that on this day, before me, an officer duly authorized in the State aforesaid and in the County aforesaid to take acknowledgments, personally appeared ASA TOWNSEND and MARIE TOWNSEND, his wife, to me known to be the persons described in and who executed the foregoing instrument and they acknowledged before me that they executed the same.

WITNESS my hand and official seal in the County and State last aforesaid this 17th day of October, A. D. 1962.



*William J. Bolt*  
Notary Public

My Commission Expires:  
Notary Public, State of Florida at Large  
My Commission Expires Sept. 10, 1964  
Issued by American Bar Assn. Co. 2-14-62

INDEXED  
9:01 PM 10/17/62  
FILED IN OFFICIAL RECORDS  
RECORD CO. 117 CLERK  
DOROTHY CLARK  
CLERK CIRCUIT COURT

EXHIBIT C

South Florida Water Management District

Permit

South Florida  
Water Management District

**SURFACE WATER MANAGEMENT PERMIT NO. 26-00324-5**

(NON-ASSIGNABLE)

DATE ISSUED: October 6, 1988

AUTHORIZING: CONSTRUCTION AND OPERATION OF A WATER MANAGEMENT SYSTEM SERVING  
6273 ACRES OF AGRICULTURAL LANDS DISCHARGING VIA THE TOWNSEND  
CANAL INTO THE CALOOSAHATCHEE RIVER.

LOCATED IN: HENDRY COUNTY, SECTION --- TWP. 45S RGE. 28,29E

ISSUED TO: Cow Slough Watershed Improvement District  
Post Office Box 248  
LaBelle, Florida 33935

This Permit is issued pursuant to Application for Permit No. 11085-A dated November 7, 1985. Permittee agrees to hold and  
save the South Florida Water Management District and its successors harmless from any and all damages, claims, or liabilities which may  
arise by reason of the construction, operation, maintenance, or use of any work or structure involved in the Permit. Said application,  
including all plans and specifications attached thereto, as addressed by the staff report, is by reference made a part hereof.

This Permit may be revoked or modified at anytime pursuant to the appropriate provisions of Chapter 373, Florida Statutes.

This Permit does not convey to Permittee any property rights or privileges other than those specified herein, nor relieve the Permittee from  
complying with any law, regulation, or requirement affecting the rights of other bodies or agencies. All structures and works installed by  
Permittee hereunder shall remain the property of the Permittee.

Within thirty (30) days after the completion of the construction of any work or structures relative to this permit, the Permittee shall file with  
the District a written statement of completion on the appropriate form provided by the Board.

**SPECIAL CONDITIONS ARE AS FOLLOWS:**

SEE SHEETS 2 AND 3 OF 3 - 17 PROJECT SPECIAL CONDITIONS.

FILED WITH THE CLERK OF THE SOUTH  
FLORIDA WATER MANAGEMENT DISTRICT

ON 11-7-88  
BY [Signature]  
DEPUTY CLERK

SOUTH FLORIDA WATER MANAGEMENT  
DISTRICT, BY ITS GOVERNING BOARD

By [Signature]  
Assistant Secretary

SPECIAL CONDITIONS

1. DISCHARGE FACILITIES:

DESCRIPTION:

| <u>STATION</u><br># | <u>WATERSHED</u><br># | <u>DIAMETER</u><br>(in) | <u>CONTROL</u><br>ELEV(NGVD) | <u>DISCHARGE</u><br>(cfs) |
|---------------------|-----------------------|-------------------------|------------------------------|---------------------------|
| 54+00               | H                     | 42                      | 30.0'                        | 35.2                      |
| 76+50               | G                     | 36                      | 30.0'                        | 27.8                      |
| 106+50              | F                     | 48                      | 29.5'                        | 49.4                      |
| 168+50(east)        | D                     | 42                      | 29.0'                        | 39.3                      |
| 168+50(west)        | E                     | 54                      | 29.0'                        | 68.2                      |
| 210+50              | B                     | 30                      | 28.0'                        | 14.8                      |
| 216+00(east)        | C                     | 30                      | 28.0'                        | 11.8                      |
| 216+00(west)        | A                     | 48                      | 28.0'                        | 47.6                      |

RECEIVING WATER: CALOOSAHATCHEE RIVER VIA THE TOWNSEND CANAL.

2. PRIOR TO CONSTRUCTION, ANY PROPOSED DEVELOPMENTS AND MODIFICATIONS TO EXISTING FACILITIES WITHIN THE COW SLOUGH WATERSHED IMPROVEMENT DISTRICT AND SOUTHERLY CONTRIBUTING AREA (EXHIBIT 6) SHALL BE REQUIRED TO OBTAIN INDIVIDUAL PERMITS FROM THIS DISTRICT.
3. PRIOR TO INSTALLATION, DETAILED PLANS SHALL BE SUBMITTED TO THE DISTRICT SHOWING THAT ALL CULVERTS DESCRIBED IN SPECIAL CONDITION NO. 1 SHALL HAVE FIXED METAL PLATE STRUCTURES ATTACHED AT THE UPSTREAM END WHICH LIMIT DISCHARGE FOR EACH SUB-WATERSHED TO THE 30 CSM ALLOWABLE DISCHARGE.
4. PRIOR TO INSTALLATION OF EACH CULVERT WITH STRUCTURE, TOPOGRAPHY OF EACH SUB-WATERSHED SHALL BE SUBMITTED TO THIS DISTRICT FOR REVIEW WHICH VERIFIES THAT ANY EXISTING WETLAND AREAS WILL NOT BE OVERDRAINED.
5. PRIOR TO CONSTRUCTION, THE PROPOSED ROAD CROSSINGS DESCRIBED ON PAGE 2 OF THIS STAFF REPORT SHALL BE REDESIGNED TO ACCOMMODATE A BASE FLOW OF 120 CFS FROM THE SOUTHERLY CONTRIBUTING AREA DEPICTED ON EXHIBIT 6 (2540 ACRES).
6. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.
7. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.



THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.

OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF HENDRY COUNTY SOIL AND WATER CONSERVATION DISTRICT.

THE PERMITTEE SHALL PROSECUTE THE WORK AUTHORIZED SO AS TO MINIMIZE ANY ADVERSE IMPACT OF THE WORKS ON FISH, WILDLIFE, NATURAL ENVIRONMENTAL VALUES, AND WATER QUALITY. THE PERMITTEE SHALL INSTITUTE NECESSARY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES, TO REDUCE EROSION, TURBIDITY, NUTRIENT LOADING AND SEDIMENTATION IN THE RECEIVING WATERS.

11. OFF-SITE DISCHARGES DURING CONSTRUCTION AND DEVELOPMENT SHALL BE MADE ONLY THROUGH THE FACILITIES AUTHORIZED BY THIS PERMIT. NO ROADWAY OR BUILDING CONSTRUCTION SHALL COMMENCE ON-SITE UNTIL COMPLETION OF THE PERMITTED DISCHARGE STRUCTURE AND DETENTION AREAS. WATER DISCHARGED FROM THE PROJECT SHALL BE THROUGH STRUCTURES HAVING A MECHANISM SUITABLE FOR REGULATING UPSTREAM WATER STAGES. STAGES MAY BE SUBJECT TO OPERATING SCHEDULES SATISFACTORY TO THE DISTRICT.
12. THE PERMITTEE SHALL HOLD AND SAVE THE DISTRICT HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE BY REASON OF THE CONSTRUCTION, OPERATION, MAINTENANCE OR USE ANY FACILITY AUTHORIZED BY THE PERMIT.
13. THIS PERMIT IS ISSUED BASED ON THE APPLICANT'S SUBMITTED INFORMATION WHICH REASONABLY DEMONSTRATES THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS WILL NOT BE CAUSED BY THE COMPLETED PERMIT ACTIVITY. IT IS ALSO THE RESPONSIBILITY OF THE PERMITTEE TO INSURE THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS DO NOT OCCUR DURING CONSTRUCTION.
14. PRIOR TO DEWATERING, PLANS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL. INFORMATION SHALL INCLUDE AS A MINIMUM: PUMP SIZES, LOCATIONS AND HOURS OF OPERATION FOR EACH PUMP. IF OFF-SITE DISCHARGE IS PROPOSED, OR OFF-SITE ADVERSE IMPACTS ARE EVIDENT, AN INDIVIDUAL WATER USE PERMIT MAY BE REQUIRED. THE PERMITTEE IS CAUTIONED THAT SEVERAL MONTHS MAY BE REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION.
15. SPECIAL CONDITIONS OF RULE 40E-4.381 (SURFACE WATER MANAGEMENT) ARE WAIVED UNLESS OTHERWISE PROVIDED HEREIN.
6. FACILITIES OTHER THAN THOSE STATED HEREIN SHALL NOT BE CONSTRUCTED WITHOUT AN APPROVED MODIFICATION OF THIS PERMIT.
7. LAND USE BY THE PERMITTED FACILITIES IS AGRICULTURAL. PROPOSED CONSTRUCTION OF RESIDENCES MAY REQUIRE MODIFICATION OF THIS PERMIT AND MUST BE REPORTED TO THE DISTRICT.



SEP 21 1988



# South Florida Water Management District

John R. Wodraska, Executive Dir  
Tilford C. Creel, Deputy Executive Dir

Post Office Box 24680 3301 Gun Club Road  
West Palm Beach, Florida 33416-4680  
Telephone (407) 686-8800  
Florida WATS Line 1-800-432-2045

IN REPLY REFER TO:

CERTIFIED MAIL NO. P 938 448 875  
RETURN RECEIPT REQUESTED  
RESOURCE CONTROL DEPARTMENT

September 21, 1988

Cow Slough Watershed  
Improvement District  
P.O. Box 248  
LaBelle, FL 33935

10/6/88

Dear Sir or Madam:

Subject: Application No. 11085-A, Cow Slough Watershed Improvement  
District, Hendry County, S1B-20,29-32/T45S/R29E; S13,14,24,  
25/T45S/R28E

Enclosed is a copy of this District's staff report covering the permit application referenced therein. It is requested that you read this staff report thoroughly and understand its contents. The recommendations as stated in the staff report will be presented to our Governing Board for consideration on October 6, 1988.

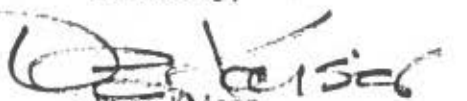
Should you object to the staff recommendation, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. You are advised, however, to be prepared to defend your position regarding the permit application when it is considered by the Governing Board for final agency action, even if you agree with the staff recommendation, as the Governing Board may take final agency action which differs materially from the proposed agency action.

Please contact this office if you have any questions concerning this matter. If we do not hear from you prior to the date on the "Notice of Rights", we will assume you concur with our recommendations.

## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the addressee and the persons listed in the attached distribution list not later than 5:00 p.m. this 21st day of September 1988, in accordance with Section 120.60(3), Florida Statutes.

Sincerely,

  
Vern Kaiser  
Administrative Supervisor

Nancy H. Roen  
Chairman - Plantation

J.D. York  
Vice Chairman - Palm City

Nathaniel P. Reed  
Maitland

Oscar M. Corbin, Jr.  
Ft Myers

Arsenio Milian  
Miami

Fritz Stein  
Belle Glade

James F. Garner  
Ft. Myers

Mike Stout  
Windermere

Doran A. Jasc  
Key Biscayne



FORM 0300  
Rev. 12/87

## South Florida Water Management District NOTICE OF RIGHTS

This Notice of Rights is intended to inform the recipient of the administrative and judicial review which may be available mandated by section 120.60(3), Florida Statutes. Be advised that although this notice is intended to be comprehensive, the review procedures set forth herein have been the subject of judicial construction and interpretation which may affect the administrative and judicial review available. Recipients are therefore advised to become familiar with Chapters 120 and 373, Florida Statutes, and the judicial interpretation of the provisions of these chapters.

1. If a substantially affected person objects to the staff's recommendation, that person has the right to request an administrative hearing on the proposed agency action. The substantially affected person may request either a formal or an informal hearing as set forth below. Failure to comply with the prescribed time periods shall constitute a waiver of the right to a hearing.
  2. If the substantially affected person believes that a genuine issue of material fact is in dispute, that person may request a formal hearing pursuant to section 120.57(1), Florida Statutes, by filing a petition for hearing not later than October 5, 1988. The request for a 120.57(1) formal hearing must comply with the requirements of rule 40E-1.521 Florida Administrative Code, a copy of which is attached. Petitions are deemed filed upon receipt by the District. Failure to substantially comply with the provisions of rule 40E-1.521 Florida Administrative Code shall constitute a waiver of the right to a 120.57(1) hearing.
  3. If a substantially affected person believes that no issues of material fact are in dispute, that person may request an informal hearing pursuant to section 120.57(2), Florida Statutes, by filing a petition for hearing not later than October 5, 1988. A request for informal hearing shall be considered as a waiver of the right to request a formal section 120.57(1) hearing. A request for a section 120.57(1) formal hearing not in substantial compliance with the provisions of rule 40E-1.521 Florida Administrative Code, may be considered by the District as a request for informal hearing.
  4. Pursuant to section 373.114, Florida Statutes, a party to the proceeding below may seek review of a Final Order rendered on a permit application before the Land and Water Adjudicatory Commission, as provided therein. Review under this section is initiated by filing a request for review with the Land and Water Adjudicatory Commission and serving a copy on the Department of Environmental Regulation and any person named in the Order within 20 days after rendering of the District's Order. However, when the order to be reviewed has statewide or regional significance, as determined by the Land and Water Adjudicatory Commission within 60 days after receipt of a request for review, the commission may accept a request for review from any affected person within 30 days after the rendering of the order. Review under section 373.114, Florida Statutes, is limited solely to a determination of consistency with the provisions and purposes of Chapter 373, Florida Statutes. This review is appellate in nature and limited to the record below.
  5. A party who is adversely affected by final agency action on the permit application is entitled to judicial review in the District Court of Appeal pursuant to section 120.68, Florida Statutes, as provided therein. Review under section 120.68, Florida Statutes, in the District Court of Appeal is initiated by filing a petition in the appropriate District Court of Appeal in accordance with Florida rule of appellate procedure 9.110. The Notice of Appeal must be filed within 30 days of the final agency action.
  6. Section 373.617(2), Florida Statutes, provides:  
Any person substantially affected by a final action of any agency with respect to a permit may seek review within 90 days of the rendering of such decision and request monetary damages and other relief in the circuit court in the judicial circuit in which the affected property is located; however, circuit court review shall be confined solely to determining whether final agency action is an unreasonable exercise of the state's police power constituting a taking without just compensation. Review of final agency action for the purpose of determining whether the action is in accordance with existing statutes or rules and based on component substantial evidence shall proceed in accordance with Chapter 120.
- Please be advised that exhaustion of administrative remedies is generally a prerequisite to appeal to the District Court of Appeal or the seeking of Circuit Court review of final agency action by the District on the permit application. There are, however, exceptions to the exhaustion requirement. The applicant is advised to consult the case law as to the requirements of exhaustion exceptions.

#### **40E-1.521 Initiation of Formal Proceedings.**

(1) Initiation of formal proceedings shall be made by petition to the District. The term petition as used herein include application or other document which expresses a request for formal proceedings. Each petition should be printed, typewritten or otherwise duplicated in legible form on white paper or standard legal size. Unless printed, the impression shall be on one side of paper only and lines shall be double-spaced and indented.

(2) All petitions filed under these rules shall contain:

- (a) The name and address of the District and the District's file or identification number, if known;
- (b) The name and address of the petitioner or petitioners;
- (c) An explanation of how each petitioner's substantial interests will be affected by the District's determination;
- (d) A statement of when and how petitioner received notice of the District's decision or intent to render a decision;
- (e) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (f) A concise statement of the ultimate facts which petitioner believes entitle petitioner to the relief sought as well as rules and statutes which support petitioner's claim for relief;
- (g) A demand for the relief to which the petitioner deems himself entitled; and
- (h) Other information which the petitioner contends is material.

(3) Upon receipt of a petition for formal proceedings, the District shall review the petition for the degree of compliance with subsection (2) and shall accept those petitions in substantial compliance therewith which have been timely filed and which involve a dispute which is within the jurisdiction of the District to resolve. If accepted, the District shall designate the presiding officer. The District shall promptly give written notice to all parties of the action taken on the petition, and shall state with particularity the reasons therefor.

(4) If the District designates a Hearing Officer assigned by the Division of Administrative Hearings as the presiding officer, the District Clerk shall forward the petition and all materials filed with the District to the Division of Administrative Hearings, and shall notify all parties of its action.

Specific Authority 373.044, 373.113 F.S.

Law Implemented 120.53(1), 120.57 F.S.

History — New 9-3-81.

Formerly 16K-1.09(1), 16K-1.112(1) through (3), 16K-1.12

LAST DATE FOR GOVERNING BOARD ACTION:  
December 8, 1988

**DRAFT**  
Subject to Govern  
Board Approval

SURFACE WATER MANAGEMENT STAFF REPORT SUMMARY

APPLICATION NO.: 11085-A

PROJECT NAME: Cow Slough Watershed Improvement District

LOCATION: Hendry County S18-20,29-32/T45S/R29E and S13,14,24,25/T45S/R28E

APPLICANTS NAME AND ADDRESS: Cow Slough Watershed Improvement District  
P.O. Box 248  
LaBelle, FL 33935

OWNER: SAME

DEVELOPER: SAME

ENGINEER: Hendry County Soil and Water Conservation District

REVIEWER RATING OF PROJECT DESIGN

|                                                                   |      |      |      |                 |
|-------------------------------------------------------------------|------|------|------|-----------------|
| 1. Suitability of land for proposed use                           | GOOD | FAIR | POOR | NOT APPLICABLE  |
| 2. Water quantity impacts                                         | GOOD | FAIR | POOR | NOT APPLICABLE  |
| 3. Water quality impacts                                          | GOOD | FAIR | POOR | NOT APPLICABLE  |
| 4. Environmental impacts                                          | GOOD | FAIR | POOR | NOT SIGNIFICANT |
| 5. Water conservation                                             | GOOD | FAIR | POOR | NOT APPLICABLE  |
| 6. Flood protection                                               | GOOD | FAIR | POOR | NOT APPLICABLE  |
| 7. Relief from rainstorm inconvenience                            | GOOD | FAIR | POOR | NOT APPLICABLE  |
| 8. System maintainability                                         | GOOD | FAIR | POOR | NOT APPLICABLE  |
| 9. Overall use of land with respect to water resource             | GOOD | FAIR | POOR | NOT APPLICABLE  |
| 10. Water management system with respect to feasible alternatives | GOOD | FAIR | POOR | NOT APPLICABLE  |

Application Number 11085-A  
for Surface Water Management Permit  
COW SLOUGH WATERSHED IMPROVEMENT DISTRICT  
Hendry County, S18-20,29-32/T45S/R29E and S13,14,24,25/T45S/R28E

S T A F F   R E P O R T

ABSTRACT

The application is for construction and operation of a surface water management system to serve 6273 acres of land designated as a Watershed Improvement District within the Hendry County Soil and Water Conservation District. Staff recommendation is for approval of the project with conditions.

BACKGROUND

Cow Slough Watershed Improvement District (CSWID) is a legal entity created under Section 582.32, Florida Statutes and approved by the State of Florida Department of Agriculture and Consumer Services on November 26, 1984.

CSWID is located in the western Caloosahatchee River Basin (C-43) and more particularly west of SR 29 in Hendry County and just north of the Collier County line (refer to Exhibit 1). CSWID encompasses Cow Slough as the headwaters of the existing Townsend Canal. Several surface water management and water use permits within the CSWID (refer to Exhibit 2) have been issued by the District. These permits are for the construction and operation of agricultural operations with their associated drainage and irrigation facilities. In addition, several operational surface water management and water use permits in Collier County (refer to Exhibit 6) have been issued by the District which contribute flows north to Cow Slough or the Townsend Canal. All new construction applications and modifications to existing facilities shall be designed to meet current District criteria and an allowable discharge of 30 csm (refer to Special Condition No. 2).

THE APPLICATION

A. Purpose of Application: The application is to improve water conservation and regulate drainage in this basin by installing control structures to limit discharge to the Townsend Canal to pre-development rates, re-contouring and maintaining the Townsend Canal as the primary drainage system for the watershed.

B. Existing Facilities: The watershed currently consists of agricultural lands which have been diked and ditched, improved pasture, wetlands and undisturbed range lands. The Townsend Canal divides the property into east and west halves, Church Road runs west through the area from SR 29 which is located along the east boundary of the watershed. A. Duda & Sons, Inc. operate a large, permitted agricultural operation immediately north of the watershed through which the Townsend Canal also passes and is used to direct runoff north to the Caloosahatchee River (refer to Exhibit 2).

C. Proposed Facilities: The applicant divided the watershed into 8 sub-watersheds, each with one outlet into the Townsend Canal (refer to Exhibit 3). The acreage of each sub-watershed was determined and then used to calculate the allowable discharge using the pre-development rate of 30 csm. The following control structures for each sub-watershed were designed to pass the maximum allowable discharge with 0.5' of head on the structure. All structures will consist of 20 LF of CMP culvert.

| <u>STATION</u><br># | <u>WATERSHED</u><br># | <u>DIAMETER</u><br>(in) | <u>INVERT</u><br>ELEV(NGVD) | <u>DISCHARGE</u><br>(cfs) |
|---------------------|-----------------------|-------------------------|-----------------------------|---------------------------|
| 54+00               | H                     | 42                      | 30.0'                       | 35.2                      |
| 76+50               | G                     | 36                      | 30.0'                       | 27.8                      |
| 106+50              | F                     | 48                      | 29.5'                       | 49.4                      |
| 168+50(east)        | D                     | 42                      | 29.0'                       | 39.3                      |
| 168+50(west)        | E                     | 54                      | 29.0'                       | 68.2                      |
| 210+50              | B                     | 30                      | 28.0'                       | 14.8                      |
| 216+00(east)        | C                     | 30                      | 28.0'                       | 11.8                      |
| 216+00(west)        | A                     | 48                      | 28.0'                       | 47.6                      |

The following road crossings were also designed based on the allowable flows expected for that particular reach of the Townsend Canal (refer to Exhibit 4). Culvert inverts were set in order to maintain groundwater elevations and avoid over drainage.

| <u>STATION</u><br># | <u>DIAMETER</u><br>(in) | <u>INVERT</u><br>ELEV(NGVD) | <u>LENGTH</u><br>(FT) | <u>DISCHARGE</u><br>(cfs) |
|---------------------|-------------------------|-----------------------------|-----------------------|---------------------------|
| 8+50                | 1-30, 1-36              | 31.0'                       | 20                    | 60                        |
| 72+50               | 2-69"x49"               | 29.3'                       | 40                    | 95                        |
| 163+50(Church Rd)   | 3-60                    | 27.4'                       | 30                    | 173                       |
| 219+50(Duda Prop)   | 5-60w/FBR               | 26.5'                       | 50                    | 354                       |

The Townsend Canal will be re-contoured within the existing right of way in the manner described on Exhibit 3 both within the watershed and for a reach of approximately 8000 LF extending north into A. Duda & Sons, Inc. property (also described in Exhibit 3). Permission has been obtained from A. Duda & Sons, Inc. to perform the work as proposed on Exhibit 3. The canal was designed with a slope of 0.00007 ft/ft, a maximum top width of 60 feet and a maximum depth of 5.5 feet.

South of the southern boundary of the CSWID, the applicant's consultant has identified an area approximately 2540 acres in size which has historically drained north from Collier County into Cow Slough (refer to Exhibit 6). Based on this area, 120 cfs has been included in the Townsend Canal design as a base flow stemming from the wetland area located at the extreme southern end of the canal (station 0+0). No canal improvements are proposed in this wetland area. The previously described road crossings must be redesigned to accommodate a base flow of 120 cfs total flow from the southerly contributing area (refer to Special Condition No.5 ).



## EVALUATION

### A. Drainage

1. Allowable Discharge: The allowable discharge for this area is 30 csm which is based on the natural pre-development runoff rate.
2. Applicant's Discharge Capacity: The peak discharge during the 25-year 3-day design storm will be regulated to meet the 30 csm allowable discharge rate by the individual permitted project's control structure and by the proposed facilities, previously described, for unpermitted/undeveloped lands.

Concern has been expressed by A. Duda & Sons, Inc. over increased runoff from sheetflow off undeveloped lands adjacent to the Townsend Canal. As there is no dike/berm along the length of the exiting canal, these lands currently drain via sheetflow to the canal. Staff feels that the proposed improvements to the Townsend Canal will not increase sheetflow from the undeveloped lands, as no improvements are proposed to facilitate runoff into the canal. Structures for each sub-watershed will limit flows to the allowable discharge of 30 csm. These structures will be placed in either existing ditches/canals or proposed canals. Construction of any proposed canals will require a permit by this District (refer to Special Condition No. 2). In addition, proposed road crossings also limit flows within CSWID to the allowable discharge of upstream contributing areas. The conveyance capability of the canal will be improved, but no evidence has been submitted to staff which shows that flooding of downstream lands will occur. The proposed canal improvements within the A. Duda & Sons, Inc. property are designed to remove existing obstructions which might in fact create adverse impacts to this property.

B. Water Quality Considerations: Adverse impacts to water quality are not expected as a result of the construction and operation of the proposed water management system. Water quality will be provided by the individual projects as they are developed and constructed.

C. Environmental Considerations: The proposed works include improvements associated with an existing drainage outlet known as the Townsend Canal. In general the overall drainage basin includes extensive agricultural lands including improved pasture lands and citrus groves. Large tracts of lands within this basin have recently been permitted for conversion to citrus groves. This trend will most likely continue throughout the remainder of the basin. The wetlands contained within the basin are primarily shallow slough systems and scattered isolated marshes. A majority of these wetlands have been altered and impacted to various degrees by the past agricultural activities along with the numerous drainage ditches which have been excavated throughout the area.

The proposed works include; the installation, removal and improvement of control structures, re-contouring the downstream reaches of the canal and installation of control structures at all points of discharge into the Townsend Canal. The additional structures should minimize increased drainage from the

adjacent wetland systems. At such times that these lands are developed, the existing wetlands will be reviewed under each individual proposed project design.

The proposed works should have an insignificant environmental impact.

D. Land Use Information: The land is currently zoned agricultural and will remain such after development.

E. System Operation: Hendry County Soil and Water Conservation District shall be responsible for the operation and maintenance of the surface water management system.

#### CONCLUSIONS

Adverse impacts to water quantity and environment are not expected as a result of the construction and operation of the proposed system.

Location: West of SR 29 and north of the Collier County line.

City: N/A County: Hendry

Special District: Cow Slough Watershed Improvement District

SFWM District: C-43

Operation Entity: Hendry County Soil and Water Conservation District



The Staff recommends that the following be issued:

- ☐ General Permit
- ☒ Construction and Operation Permit
- ☐ Construction Permit
- ☐ Operation Permit
- ☐ Letter of Conceptual Approval
- ☐ Right-of-Way Occupancy Permit

APPLICATION REVIEWER:

TECHNICAL: J.M. Hiscock  
WATER QUALITY: J.M. Hiscock  
ENVIRONMENTAL: R.A. Boylan

SUPERVISOR/CHECKER:

E. Yaun  
D. Watt  
C. Padera

MAJOR ISSUES: PROJECT DISCHARGE  
WETLANDS

Based on the information provided, District rules have been adhered to.

SECTION SUPERVISOR:

Jenni M. Hiscock *u*  
Jenni Mang Hiscock, E.I.  
Supervising Professional  
East Section

Subject to the following 17 Special Conditions (for conceptual approvals only, these conditions as a minimum will apply to subsequent construction permitting).

DIVISION DIRECTOR:

James T. Show 9/21/88  
James T. Show, P.E., Director  
Surface Water Management Division

**DRAFT**

Subject to Governing  
Board Approval

### SPECIAL CONDITIONS

#### 1. DISCHARGE FACILITIES:

##### DESCRIPTION:

| <u>STATION</u><br><u>#</u> | <u>WATERSHED</u><br><u>#</u> | <u>DIAMETER</u><br><u>(in)</u> | <u>CONTROL</u><br><u>ELEV(NGVD)</u> | <u>DISCHARGE</u><br><u>(cfs)</u> |
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| 216+00(west)               | A                            | 48                             | 28.0'                               | 47.6                             |

RECEIVING WATER: CALOOSAHATCHEE RIVER VIA THE TOWNSEND CANAL.

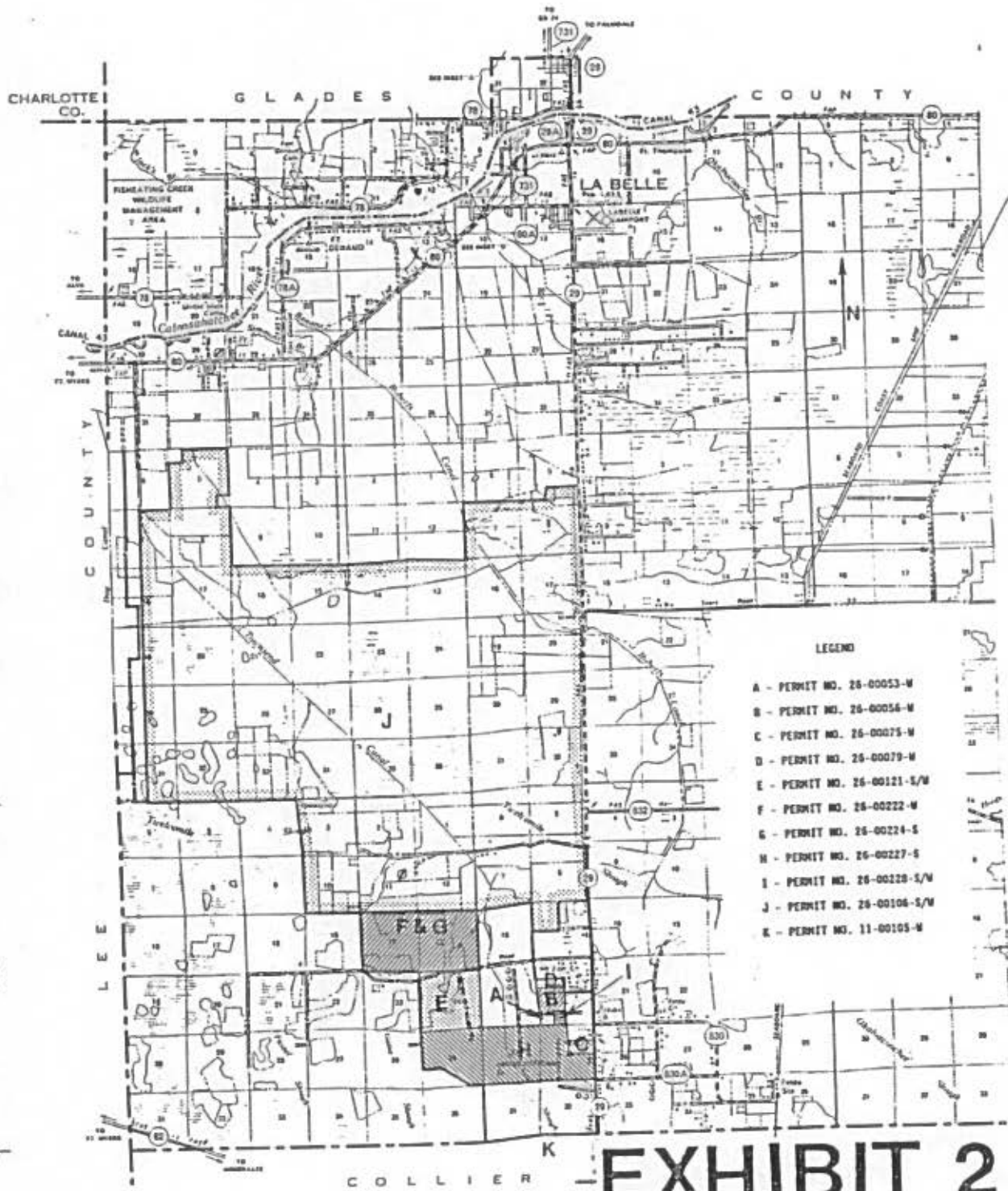
2. PRIOR TO CONSTRUCTION, ANY PROPOSED DEVELOPMENTS AND MODIFICATIONS TO EXISTING FACILITIES WITHIN THE COW SLOUGH WATERSHED IMPROVEMENT DISTRICT AND SOUTHERLY CONTRIBUTING AREA (EXHIBIT 6) SHALL BE REQUIRED TO OBTAIN INDIVIDUAL PERMITS FROM THIS DISTRICT.
3. PRIOR TO INSTALLATION, DETAILED PLANS SHALL BE SUBMITTED TO THE DISTRICT SHOWING THAT ALL CULVERTS DESCRIBED IN SPECIAL CONDITION NO. 1 SHALL HAVE FIXED METAL PLATE STRUCTURES ATTACHED AT THE UPSTREAM END WHICH LIMIT DISCHARGE FOR EACH SUB-WATERSHED TO THE 30 CSM ALLOWABLE DISCHARGE.
4. PRIOR TO INSTALLATION OF EACH CULVERT WITH STRUCTURE, TOPOGRAPHY OF EACH SUB-WATERSHED SHALL BE SUBMITTED TO THIS DISTRICT FOR REVIEW WHICH VERIFIES THAT ANY EXISTING WETLAND AREAS WILL NOT BE OVERDRAINED.
5. PRIOR TO CONSTRUCTION, THE PROPOSED ROAD CROSSINGS DESCRIBED ON PAGE 2 OF THIS STAFF REPORT SHALL BE REDESIGNED TO ACCOMMODATE A BASE FLOW OF 120 CFS FROM THE SOUTHERLY CONTRIBUTING AREA DEPICTED ON EXHIBIT 6 (2540 ACRES).
6. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.
7. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.

8. THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.
9. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF HENDRY COUNTY SOIL AND WATER CONSERVATION DISTRICT.
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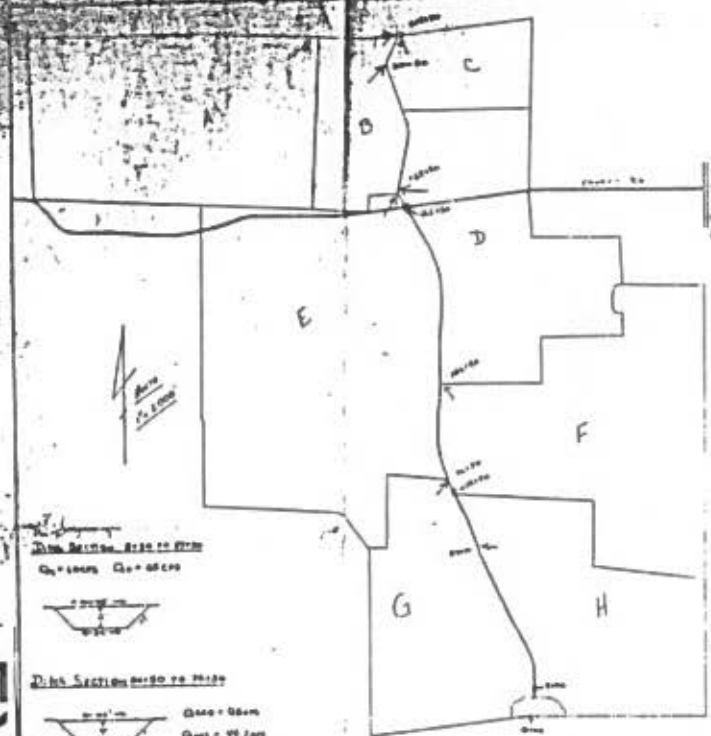


Cow SLOUGH WATERSHED  
IMPROVEMENT DISTRICT

EXHIBIT



# EXHIBIT 3



Dist. Section Base to River  
 $Q_1 = 1000$   $Q_2 = 6000$

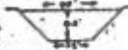


Dist. Section Base to River



$Q_{100} = 1000$   
 $Q_{10} = 6000$

Dist. Section Base to River



$Q_{100} = 1000$   
 $Q_{10} = 6000$

Dist. Section Base to River



$Q_{100} = 1000$   
 $Q_{10} = 6000$

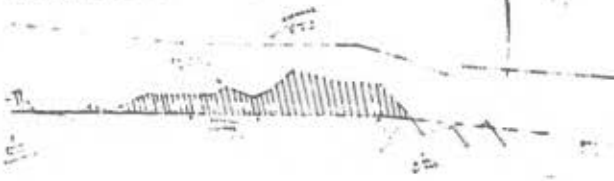
| Section | Area |
|---------|------|
| A       | 1000 |
| B       | 1000 |
| C       | 1000 |
| D       | 1000 |
| E       | 1000 |
| F       | 1000 |
| G       | 1000 |
| H       | 1000 |

| Section | Area |
|---------|------|
| A       | 1000 |
| B       | 1000 |
| C       | 1000 |
| D       | 1000 |
| E       | 1000 |
| F       | 1000 |
| G       | 1000 |
| H       | 1000 |

| Section | Area |
|---------|------|
| A       | 1000 |
| B       | 1000 |
| C       | 1000 |
| D       | 1000 |
| E       | 1000 |
| F       | 1000 |
| G       | 1000 |
| H       | 1000 |

| Section | Area |
|---------|------|
| A       | 1000 |
| B       | 1000 |
| C       | 1000 |
| D       | 1000 |
| E       | 1000 |
| F       | 1000 |
| G       | 1000 |
| H       | 1000 |

Dist. Section Base to River



Dist. Section Base to River  
 $Q_1 = 1000$   $Q_2 = 6000$



U. S. DEPARTMENT OF AGRICULTURE  
 SOIL CONSERVATION SERVICE

Project No. 1000

Section No. 1000

Scale 1" = 100'

Drawn by 1000

Check by 1000

Date 1000





To: Hendry Soil and Water Conservation District  
Jack Paul, Jr., Chairman Hendry SWCD  
Post Office Box 248  
LaBelle, Florida 33935

Pursuant to Paragraph 331, Chapter 582 of the Florida Statutes (Soil and Water Conservation) providing for the establishment of a watershed improvement district within the soil and water conservation districts in the State of Florida, the undersigned owners of land within the territory hereinafter described respectively represent:

- First: That there is need, in the interest of the public health, safety, and welfare for a watershed improvement district to function in the area described.
- Second: That they propose as a name for the watershed improvement district, the

COW SLOUGH WATERSHED IMPROVEMENT DISTRICT

- Third: That the territory proposed to be organized as a watershed improvement district includes substantially the following:

All of Sections 18,19,30, and 31; that part of 29 and 32 lying West of SR 29; The 1/2 of the Northwest 1/4 and the South 1/2 of Section ~~20~~<sup>20</sup> lying West of ~~20~~<sup>SR</sup> 29; T 45 South, Range 29 East; AND Sections 13,14, and that part of 24 and 25 lying East South Florida Water Management District, West Caloosahatchee Basin line, Township 4 range 28 East, Hendry County Florida. (See attached Basin Map)

- Fourth: That the land described within the petition is contiguous, is situated in the same watershed, and is not included in another watershed improvement district.
- Fifth: That the maximum millage rate expressed on each dollar of assessed valuation at which taxes may be levied for any one (1) fiscal year, including not more than one (1) mill for maintenance be set at the following:

THERE WILL BE NO TAX LEVIED

WHEREFORE, the undersigned petitioners respectfully request that the Supervisors of the Hendry Soil and Water Conservation District shall give due notice and causes to be held a public hearing on the question of creating a watershed improvement district; that the area described in the petition be established as a watershed improvement district; that they obtain the approval of the Department of Agriculture and Consumer Services for the formation of such district; that a referendum be held by the supervisors within the territory so defined on the question of the Creation of a

EXHIBIT



Watershed Improvement district in such territory; and that the Supervisors of the Hendry Soil and Water Conservation District determine that such a district be created.

SIGNATURE

ADDRESS

DATE

Turner Corporation by

J. Edwin Leach

Rt 1 Box 6 B-Immokalee 33934 Sept 13, 1984

Sherrod's Package

Mildred R. Sherrod

P.O. Box 875, Immokalee, Fla 33934, 9-13-84

J. J. C. Properties, Partnership

Sandra Floyd Jolly

P.O. Box 1438 Immokalee Fla 33934, 9-13-84

Paul & Phyllis + Bill Jolly

Billy Jolly

P.O. Box 623 SaBelle, Fla. 33935 - 9/13/84

R. S. Duncaway

P.O. Box 250 Felda Fla 33930 9/13/84

Nellie M. Townsend

P.O. Box 1110, Immokalee Fla 33934 9/13/84

John R. Hiddens

P.O. 5007, Immokalee Fla 33934 9/13/84

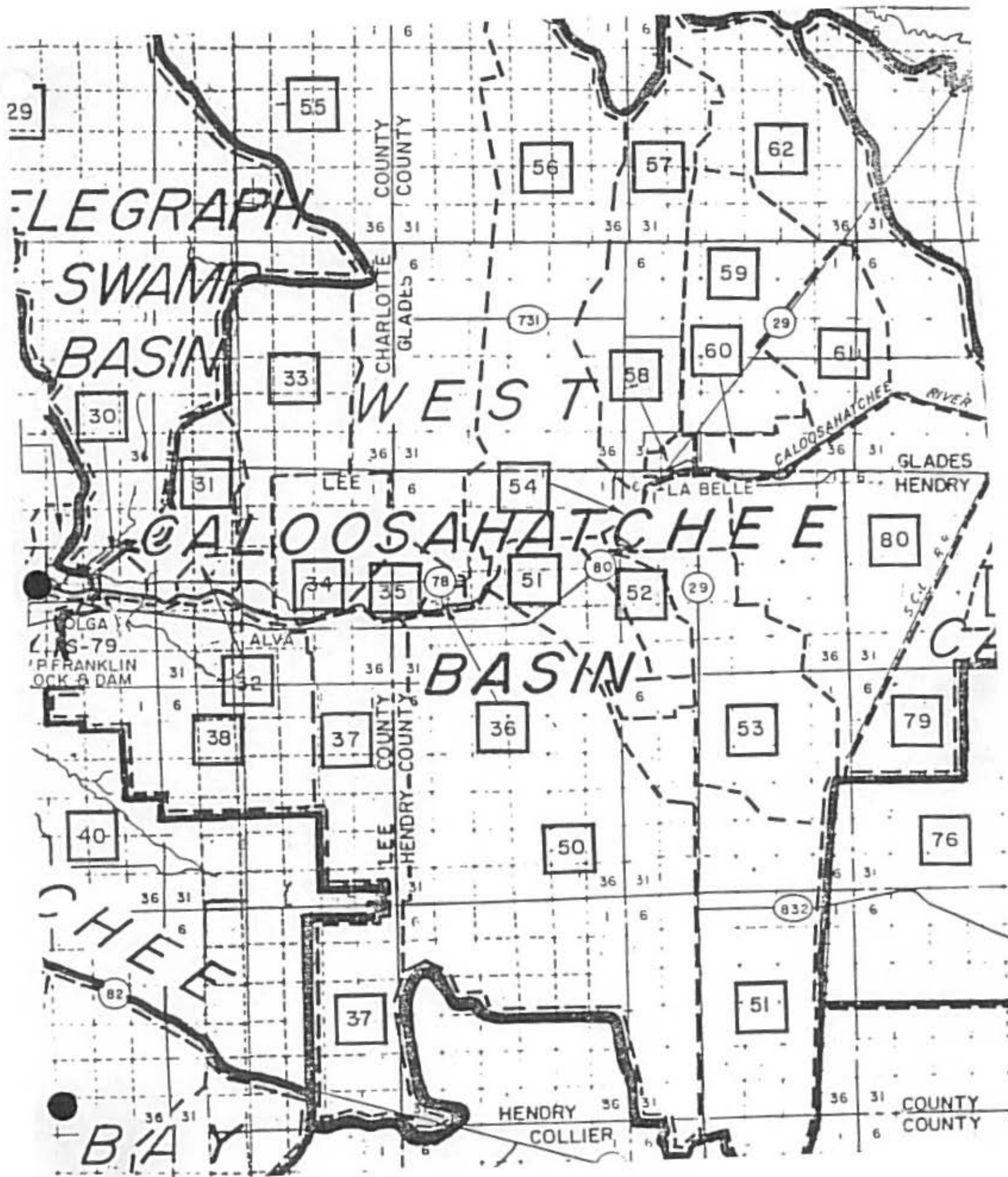
Nellie Townsend S-A-I

P.O. Box 1110 Immokalee Fla 33934 9/13/84

Lawrence Rawls

P.O. Box 127 Felda, FL 33930

EXHIBIT 5A





November 26, 1984

Mr. Jack Paul, Chairman  
Hendry Soil and Water  
Conservation District  
Post Office Box 248  
LaBelle, FL 33935

Dear Jack:

As the result of documents and information from the Hendry Soil and Water Conservation District I hereby grant approval for the formation of the proposed Cow Slough Watershed Improvement District.

According to paragraph 36 of Chapter 582 F.S. the soil and water conservation district shall hold a referendum on the proposed watershed improvement district. It is your responsibility, then, to determine whether the operation of the proposed watershed improvement district is practicable and feasible.

I am most gratified to know that citizen interest does exist for ~~the formation of the proposed watershed improvement district.~~

With warm personal regards, I am,

Sincerely,

*Doyle*  
Doyle/Conner  
Commissioner

DC:dc

EXHIBIT 5C

STATE OF FLORIDA  
DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

IN RE: HEARING ON PETITION OF LANDOWNERS  
IN THE COW SLOUGH WATERSHED  
IMPROVEMENT DISTRICT, REQUESTING  
THE FORMATION OF A DRAINAGE DISTRICT  
IN HENDRY COUNTY, FLORIDA

RECOMMENDED ORDER

Pursuant to notice as required in Section 582.32, Florida Statutes, this cause came on for Public Hearing before Jack Paul, duly designated Hearing Officer and Jill DuPont, Recording Secretary, in LaBelle, Florida at 10:00 A.M. on October 22, 1984.

Present at the hearing were: Jack Paul, Chairman, Hendry County Soil and Water Conservation District; Hugh English, Vice Chairman; Jill DuPont, District Secretary; Blish Greer, District Technician; Jorge Rodriguez, Area Resource Conservationist; Steve Pirie, District Conservationist; Ron Smola, Area Conservationist; David Dearstyne, David Belz, Soil Scientist; Sharon Collins, Field Representative; Terry Demott, Department of Agriculture; Dallas Townsend, Lawrence Rawls, R.S. Dunaway and John Giddens, Landowners.

This cause involves conducting a public hearing on the question of determining the necessity and desirability of creating the Cow Slough Watershed Improvement District, in Hendry County, Florida.

FINDING OF FACT

On September 20, 1984, the Hendry County Soil and Water Conservation

EXHIBIT 5D

Board of Supervisors received into evidence the petition for creating the Cow Slough Watershed Improvement District bearing 9 signatures or the majority of landowners in the described area: All of Section 18, 19, 30 and 31; that part of 29 and 32 lying West of SR29; The south  $\frac{1}{2}$  of the Northwest  $\frac{1}{4}$  and the South  $\frac{1}{2}$  of the Section 29 lying West of SR29; Township 45 South, Range 29 East; AND Section 13, 14 and that part of 24 and 25 lying East of the South Florida Water Management District, West Calooshattee Basin Line, Township 45 South Range 28 East, Hendry County, Florida, together with a copy of a letter from Brian Womble, Assistant Property Appraiser, for Hendry County, certifying that the persons who signed the petition are listed in the 1984 Hendry County, index of property owners. The testimony at the Public Hearing was all in favor of forming this Drainage District and it would be beneficial to all land owners in this said area and would not drastically effect any other areas in the county.

Mr. Dallas Townsend, landowner testified that this district would be beneficial to the land owners in that area. ~~\_\_\_\_\_~~  
~~\_\_\_\_\_~~  
~~\_\_\_\_\_~~ and permits that they would ~~\_\_\_\_\_~~  
~~\_\_\_\_\_~~ Mr. Townsend checked with ~~\_\_\_\_\_~~  
~~\_\_\_\_\_~~ and they ~~\_\_\_\_\_~~ The Water Management would rather it be done this way, because it will save every one involved alot of time. The land owners will not be taxing themselves.

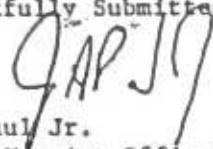
#### CONCLUSION OF LAW

1. The petition heretofore filed with the Florida Department of Agriculture and Consumer Services bearing the signatures of the majority

of land owners is legally sufficient as required by Section 582.32, Florida Statutes.

2. In consideration of the above findings of fact and that the evidence in the record, it is thus concluded that there is a need in the interest of the landowners (in said area) health, safety and welfare for the organization of a Drainage District within the Boundaries as described above of Hendry County, Florida, as required by Section 582.32, Florida Statutes.

Respectfully Submitted



Jack Paul Jr.  
Public Hearing Officer  
Chairman of Hendry County  
Soil and Water Conservation  
District Labelle, Florida

JR/jd



DRAINAGE AREA 117  
 WEE CO. CONTRIBUTING  
 TO THE CON. SLOUGH  
 WATERSHED.

DRAINAGE AREA  
 BASED ON FIELD  
 OBSERVATIONS AND  
 PERMIT APPLICATIONS.

# LEGEND

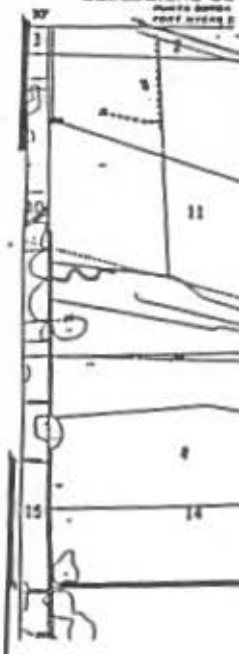
 AREA WITH  
 DISCHARGE PERMIT

 AREAS NOT  
 PERMITTED.

H EXISTING CONCRETE

DEPARTMENT OF THE  
 GEOLOGICAL SURVEY

UNITED STATES  
 GEOLOGICAL SURVEY



AREA CONTRIBUTING  
 RUNOFF TO TOWNSEND  
 CANAL. (COLLIER COUNTY)



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PROJECT Cow Slough Wtrshd. Improv. Dist. APPLICATION NUMBER 11085-A

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Mr. Arsenio Milian  
Mr. Fritz Stein  
X Mr. Mike Stout  
X Mr. Oscar Corbin

X Applicant Cow Slough Water-  
shed Improvement District  
X Applicant's Consultant: Hendry  
Co. Soil & Water Cons. District  
Applicant's Agent:

X Engineer, County of  
Hendry

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Engineer, City of \_\_\_\_\_  
Local Drainage District: \_\_\_\_\_

## BUILDING AND ZONING

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West Palm Beach

## COUNTY

Broward -Dir. Water Mgmt Division  
Collier -Agricultural Agent  
Dade -DERM  
Lee -Long Range Planning  
-Mosquito Control  
Martin -Planning and Zoning  
Palm Beach-Building Department  
-Area Planning Board  
-School Brd, Plant Planning  
Polk -Water Resources Department

Fred Vidzes, Big Cypress Basin  
Kissimmee River Coordinating Council

X Other: See Attached List

X Hendry County Agricultural Agent  
P.O. Box 68  
LaBelle, FL 33935

EXHIBIT 7



Additional Distribution List

LaWayne Rawls  
P.O. Box 127  
Felida, Fl 33930

R. D. Dunaway  
Felida, Fl 33930

Dallas Townsend  
P.O. Box 1110  
Immokalee, Fl 33934

A. L. Mims  
P.O. Box 1285  
Immokalee, Fl 33934

Felida Ranch  
P.O. Box 25  
Felida, Fl 33930

Sherrods Heritage  
P.O. Box 875  
Immokalee, Fl 33934

JFC Properties Partnership  
P.O. Box 1438  
Immokalee, Fl 33934

Jo Mar El, a Florida General Partnership  
P.O. Box 5007  
Immokalee, Fl 33934

A. Duda & Sons, Inc.  
P.O. Box 257  
Oviedo, Fl 32765

Collier Development Corp.  
P.O. Drawer K  
Immokalee, Fl 33934

J. C. Turner Lumber Co.  
Rt. 1, Box 6B  
Immokalee, Fl 33934

Neil Jolly  
4560 Springview Circle  
LaBelle, Fl 33934

LaBelle Private Drainage District  
P.O. Box 1466  
LaBelle, Fl 33935

BSE  
325 Fifth Avenue, Suite 208  
Indialantic, Fl 32903

Berry Groves, Inc.  
P.O. Box 2356  
Winter Haven, Fl 33880

David C. Brown  
P.O. Box 1124  
Immokalee, Fl 33901

Carroll R. & Renee Rollins  
3508 Aberdeen Drive  
Sarasota, Fl 33582

H.C. McDonald  
P.O. Box 1014  
LaBelle, Fl 33935

PBJ Properties  
P.O. Box 55  
Felida, Fl 33930

EXHIBIT 7A

Cow Slough WCD

3/12/90

← TOWNSEND CANAL

EXHIBIT D