APPENDIX 12-C

SECTION 4

DRAINAGE AND IRRIGATION CONNECTIONS

Public Road Drainage

The District realizes that the construction of improvements to public roads by the State, County or municipalities benefits the landowners of the District as well as the public-at-large. It realizes, further, that many public road projects have minimal impact upon its water control system because of the size and nature of the project, and because other governmental agencies require some measure of runoff attenuation or water quality treatment.

Therefore, in the spirit of intergovernmental agency cooperation, the inflow criteria in this section may be modified by the Board upon the satisfactory showing of evidence by the governmental entity/applicant that such modification does not violate the water control plan and water quality objectives of the District.

Drainage Connections

Existing Connections into District Canals:

Drainage connections into District canals that existed prior to the adoption of these policies may be replaced in size and kind as a matter of custodial maintenance. However, an application for permit must be submitted to the District and approved prior to initiation of such replacement to assure compatibility of the completed work with the District's rights-of-way in an acceptable manner.

New Connections and Enlargement of Existing Connections into District Canals:

New drainage connections and the enlargement of existing drainage connections within District canals shall be designed and installed to limit discharge from the drainage area served by the proposed installation. All connections require an application for a permit to the District.

For gravity drainage, the applicant must demonstrate that the proposed installation will limit drainage discharge to the volumetric equivalent of not more than 2.5 inches of depth over the area served in a 24-hour period.

All gravity drainage connections to District canals shall be made in accordance with the details shown on Exhibit B.

The District strongly discourages the use of a pump to discharge into its canal system. If an applicant can demonstrate, to the satisfaction of the District's Board, that refusal to allow such an installation will result in an undue hardship, then the District may consider an application. Due to the nature of the discharge, pump discharges will require board approval. Permit approval will

be temporary for up to one year unless the applicant can provide evidence that there is no other means of discharge. At that time, the board may approve a longer expiration date.

For pump drainage, the total pump capacity shall not exceed the volumetric equivalent of 2.5 inches per day from the area to be served by the pump. The applicant must show that the total discharge from the property does not exceed the volumetric equivalent of 2.5 inches per day with the inclusion of the pump.

Applicants shall provide drainage calculations and construction plans signed and sealed by a Professional Engineer of the State of Florida that illustrates that the system meets the District's standards. The District Engineer has the discretion to determine whether the permit requires approval by the Board, provided the development permits issued by state or local authorities comply with District policies.

New Connections into Secondary Drainage System (roadside swales and drainage easements)

The District's system is a gravity system. Recovery of the system is expected to be within 12 days or less of a storm event per South Florida Water Management District (SFWMD) Section 3.9.a of the Environmental Resource Permit Applicant's Handbook Volume II. Recovery is defined as the system receding to the stage of the seasonal high groundwater elevation or pond control elevation depending on the area or system. Discharge from landowners is collected by sheet flow from the landowner property or by perimeter swales connected to the District's secondary drainage system. Should a landowner desire to connect into the secondary system by an alternative method such as a culvert or pump, a permit shall be obtained.

Gravity Connections

For gravity drainage, the applicant must demonstrate that the proposed installation will limit drainage discharge to the volumetric equivalent of not more than 2.5 inches of depth over the area served in a 24-hour period.

If the diameter of the pipe exceeds 6 inches, the applicant shall provide drainage calculations along with plans signed and sealed by a Professional Engineer of the State of Florida illustrating that the system meets to the District's standards.

If erosion, shoaling, or blockage of the conveyance feature occurs, the permittee shall immediately repair the facility to at least pre-discharge conditions. This is in accordance of Florida Statute 298.66 which states, "a person may not willfully, or otherwise, obstruct any public canal, drain, ditch or watercourse or damage or destroy any public drainage works constructed in or maintained by any district."

Pump Connections

The District strongly discourages the use of a pump to discharge into its secondary drainage system. If an applicant can demonstrate, to the satisfaction of the District's Board, that refusal to allow such an installation will result in an undue hardship and that the system could not be modified to work by gravity, then the District may consider an application. However, the

establishment of criteria and terms and conditions of such an approval, if granted, are solely within the jurisdiction of the Board.

A hardship shall include but is not limited to:

- Pumping to protect against imminent flood damage to permitted structures.
- Protection against damage caused to livestock (equine or other) from prolonged standing water, if there are no areas available for the livestock to be moved to on the landowner's site or the landowner can provide a veterinary statement certifying that the standing water is creating harm to the livestock.
- Relief from excessive and prolonged standing water in excess of the seasonal high ground water table or pond control elevation of the property for twelve (12) days or more after a storm event.

In order to prove that the property could not drain by gravity, the landowner will need to provide a topographic survey of the property along with information on the nearest ditch, swale, or canal and an engineer's statement that the property could not be modified to provide adequate gravity discharge. The engineer's statement must be signed and sealed by a licensed Professional Engineer in the State of Florida.

For a pump connection, the applicant must provide documentation of the hardship and provide reasonable assurance that the proposed pumping would not impact works of the District, violate the water control plan and impact landowners that discharge into the same facilities. An analysis will be needed to illustrate that the timing and volume of flow does not impact the capacity of the secondary system for other landowners to use. This analysis would need to be completed by a licensed Professional Engineer registered in the State of Florida.

Due to the nature of the discharge, pump discharges will require board approval. Permit approval will be temporary for up to one year unless the applicant can provide evidence that there is no other means of discharge. At that time, the Board may approve a longer expiration date.

A landowner could apply for a temporary permit for pumping for up to one year until the property can be modified to drain by gravity. After one year, the pumping will not be allowed without further consideration from the Board.

The total pump capacity shall not exceed the volumetric equivalent of 2.5 inches per day from the area to be served by the pump and the applicant must show that the total discharge from the property does not exceed the volumetric equivalent of 2.5 inches per day with the inclusion of the pump.

The discharge shall be located a minimum of 15 feet from the easement line to the secondary system to allow for sheet flow into the system. Velocity from the pump system shall be limited to 1.5 feet per second or less. If erosion, shoaling, or blockage of the conveyance feature occurs, the permittee shall immediately repair the facility to at least pre-discharge conditions. This is in accordance to Florida Statute 298.66 which states, "a person may not willfully, or otherwise, obstruct any public canal, drain, ditch or watercourse or damage or destroy any public drainage works constructed in or maintained by any district."

Applicants shall provide drainage calculations and construction plans signed and sealed by a licensed Professional Engineer of the State of Florida that illustrates that the system meets the District's standards.

Irrigation Connections

Connections to District canals for irrigation withdrawals shall be designed and installed in a manner that is consistent with the water control, operation and maintenance objectives of the District. Irrigation intake works lying with the limits of the canal shall not impair the District's ability to perform normal maintenance operations. Intake works violating this objective shall be removed immediately upon request of the District during the required maintenance period.

Above ground irrigation system improvements including, but not limited to, pumps, pump houses or appurtenant works shall not be permitted in the District's right-of-way.

All Connections

The location of all connections shall be clearly marked by placing a post of contrasting colors over the culvert or pipe. The post shall be placed over the culvert or pipe at the top of the canal slope.

The permittee shall install and maintain connections in a manner that will prevent the introduction of hyacinths or other aquatic growth into the District's canals.