



Water Conservation Plan Form Seepage Irrigation Systems

DRAFT

9/2004

GENERAL INFORMATION

Applicant Name: _____

Project Name: _____

Field Name: _____

CUP Number: _____

Date Plan Submitted: _____

Agent's Name: _____

Please provide the requested information for each field. If more than one field is farmed with the same practices, the information can be combined for a series of fields.

If you have multiple fields, please provide a map identifying individual field boundaries labeled with their names.

Section 12.5.7.1 of the Applicant's Handbook States:

All individual permit applicants for agricultural, nursery and aquacultural uses must submit a water conservation plan for their operation to the District at the time of permit application. The plan must contain specific activities designed to conserve water. The water conservation plan must include provisions for the following:

- (a) A program for increasing the water use efficiency of the applicant's operation. As part of this program, each grower must conduct an analysis of the operation's current water use practices and the water saving potential of proposed practices. This analysis can be completed using the Soil Conservation Service's Farm Irrigation Rating Method (FIRM (SCS Engineering Technical Note FL-17, United States Department of Agriculture, Soil Conservation Service,

1987) or an equivalent method. Based on the results of the FIRM Analysis, the applicant must implement direct and indirect water saving measures. Appendix I provides an outline of water conservation measures which the applicant may undertake to meet this requirement. Individual provisions in Appendix I are not requirements per se and do not exclude alternative conservation measures the applicant may wish to propose to the District.

- (b) An analysis of the economic, environmental and technical feasibility of using reclaimed water, recycling water on-site, and utilizing the lowest quality water source possible.
- (c) Procedures and timeframes for implementation and for periodic assessment and revision of the water conservation plan.

In evaluating each proposed water conservation plan, the District will consider:

- The specific proposed use relative to other similar uses
- Available technology
- Economic feasibility

Section I – WATER USE EFFICIENCY

I. Conservation Service Plans:

If you have any of the following information, please attach a copy. Contact a District hydrologist to see if the plan meets the District's water conservation plan requirements.

- Natural Resources Conservation Service (formerly Soil Conservation Service) Irrigation Water Management Plan
- Natural Resources Conservation Service (formerly Soil Conservation Service) Farm Irrigation Rating Method Analysis
- Other written information describing your water conservation activities

II. Water Use Efficiency:

Answer the following regarding specific water use practices:

1. Is a pipeline seepage irrigation system installed in your field(s)?

YES NO

If yes,

What percentage of your field(s) is irrigated with seepage irrigation? _____%

If 100% of your field(s) is not irrigated with seepage irrigation, propose an implementation schedule for installation or demonstrate why it is not technically, economically or environmentally feasible to install pipeline seepage irrigation.

2. Describe your procedure for maintaining proper water table depth.

3. Have all your fields been laser leveled? YES NO

If yes,

What is the date of the most recent leveling? _____

Describe laser leveling rotation practices.

If no,

Provide an implementation schedule for laser leveling field(s) or indicate why leveling cannot be done.

4. What type of control structures do you have in place?

Earthen dam

Flashboard risers (weir boards)

What size are the risers (weir boards)? _____ inches

Other (explain) _____

5. How do you regulate pump flow when the water table has reached a sufficient height?

6. To what depth do you maintain the water table below the top of the planted ground surface?

_____ inches

7. Does your system have surface water control structures?

YES

NO

If yes,

Describe your procedure for removing and replacing the structures (weir boards) prior to and after storm events.

8. What methods do you use to determine proper water table depth? Indicate which of the following improvements you currently use or plan to implement, and when.

- Additional flow control valves Date _____
- Electronic rain gauges Date _____
- Soil moisture sensing device Date _____
- Weir or riser culverts Date _____
- Other
(explain) _____ Date _____

9. Have you conducted a water audit of your operation? A water audit accounts for all water coming into and going out of a distribution system, such as an irrigation system, with the intent of determining the operational efficiency of the system as well as identifying sources of water loss and revenue loss.

YES NO

If yes,

Attach a copy of the audit.

Describe the audit procedure and results including a list of result parameters such as distribution uniformity (DU) and application efficiency (AE). Describe whether what you found matched precipitation rates and head to head coverage in zones. Explain all corrections and repairs that were made as a result of the audit.

10. What method(s) do you use to determine when to begin irrigation?

- Rain Gauges
- Observation Well(s)
- Soil Moisture Monitoring Device(s)
- Weir Level
- Judgment
- Explain _____
- Other _____
- Explain _____

11. Do you use water for any agricultural purposes not previously mentioned (i.e. soil preparation, pest control, dust control, equipment washing)

YES NO

If yes,

Describe the use(s) of water and all water conservation measures associated with the use(s).

12. Please check any of the following irrigation system water conservation practices you have undertaken or plan to undertake and include implementation dates.

- NRCS Farm Irrigation Rating Method analysis Date _____
- Field set-aside Date _____
- On-site weather station Date _____
- Professional irrigation consultant Date _____
- Irrigation management educational session Date _____
- Other (explain) _____ Date _____

13. Using the appropriate letter, indicate in the following table, the type of water use monitoring used for each of your wells, surface water pumps and connection points (reclaimed water).

- (T) Totalizing in-line flow meter (required on most systems)
- (P) Pump hour meter
- (E) Electric record conversion
- (F) Fuel record conversion
- (O) Other (explain) _____

Well, Pump or Connection Point ID	Water Use Monitoring Method (T, P, E, F or O)

If you have not yet begun monitoring your water use, please indicate what method you intend to use and explain in detail how it will be accomplished.

All new permittees are required to use totalizing flow meters to monitor their water use.

Section II – LOWEST QUALITY WATER SOURCE

As part of this permit application, the SJRWMD requires that a feasibility analysis of the availability of a lower quality source of water be completed. This analysis includes an evaluation of the availability of reclaimed water, stormwater and surface water, as well as other potentially reliable sources of water.

Section 10.3 (f) and (g) of the Applicant's Handbook State:

When reclaimed water is readily available it must be used in place of higher quality water sources unless the applicant demonstrates that its use is either not economically, environmentally or technologically feasible.

The lowest quality water source, including reclaimed water or surface water (which includes stormwater), is addressed in paragraph 40C-2.301(4)(f), and must be utilized for each applicable consumptive use.

RECLAIMED WATER

Do you currently use or propose to accept reclaimed water for irrigation?

YES NO

If yes, answer the following questions:

1. Provide the name of the facility providing the reclaimed water.

2. Provide the date that reclaimed water became or will become available.

3. Is the reclaimed water discharged into a surface water body or is it delivered via a pipeline into the irrigation system?

Surface water Pipeline

If surface water,

Provide the name of the holding pond(s) _____

Is the pond lined? YES NO

Is the pond part of a stormwater management system? YES NO

If yes,

Is the pond interconnected with other ponds? YES NO

If yes,
Does the pond have a control structure that prevents water from flowing out of the holding pond into the other ponds? YES NO

If no, answer the following questions:

1. Provide the name, address and contact person for all domestic wastewater facilities within a five-mile radius of your site.

None within five miles

2. Have you contacted these individuals about the availability of reclaimed water?

YES NO

Provide a written response from each facility listed detailing the availability of reclaimed water.

3. If you have determined that it is not feasible to accept reclaimed water at this time, you will need to demonstrate to the District that it is not economically, environmentally or technologically feasible to accept reclaimed water within the requested permit duration.

SURFACE WATER

Do you currently use or propose to use any surface water sources for irrigation?

YES NO

If yes, answer the following questions:

1. What is the source of the surface water?

Tailwater pond
 Stormwater management system (retention pond)
 Natural lake
 River
 Other (explain) _____

If tailwater,
Do you have tile drainage installed to route excess water to the tailwater pond?

YES

NO

2. How many acres are irrigated with surface water?

Source	Acreage
Tailwater	
Stormwater Management System	
Natural Lake	
River	
Other (explain _____)	

GROUNDWATER

Is groundwater used or proposed for irrigation?

YES

NO

If yes, answer the following questions:

1. What is the source of the groundwater?

- Surficial aquifer
- Intermediate aquifer
- Floridan aquifer
- Do not know

If Floridan aquifer,

Is your project located in an area where water in the Floridan aquifer is potable (drinking water quality)?

YES

NO

Do not Know

If yes,

Provide an evaluation of the feasibility of using lower quality water from a reclaimed water source, surface water source or the surficial or intermediate aquifers instead of the Floridan aquifer for irrigation. A feasibility assessment would include an evaluation of the amount of water available from these lowest quality water sources versus the irrigation demand.

Section III – PLAN IMPLEMENTATION SCHEDULE SUMMARY

In this section please summarize the Water Conservation Plan that you have prepared using this form. Be sure to apply an implementation schedule for each activity or action you have indicated will occur within your requested CUP duration. Water conservation activities must span the duration of the permit.

Activity	Proposed Date of Implementation

Note: A progress report is typically required to be submitted at a time specified in permit conditions to address the implementation of the activities.

Please keep a copy of this plan for your records.

Please sign and date this plan:

Signature

Date

Phone Number