



Water Conservation Plan Form Agriculture

DRAFT
9/2004

GENERAL INFORMATION

Applicant Name: _____

Project Name: _____

Field Name(s): _____

Crop Type(s): _____

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.

If you have multiple fields, please provide a map identifying each individual field boundaries and 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

2. 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 _____

3. What factors do you use to use to determine how long to run the irrigation system?

4. How often do you irrigate (assuming no rain) and how much water is applied?

Crop	Frequency number of irrigation events per week)	Duration (minutes per irrigation cycle)	Amount (inches per irrigation cycle)

If irrigation is not done weekly please explain the irrigation frequency.

5. Is the system operated manually or automatically?

Manually

Automatically

If the system is operated automatically using a timer, what measures are taken to ensure that overwatering does not occur?

6. Are rainfall shut-off sensors installed on the irrigation system?

YES NO

If yes,

Do the sensors operate individual irrigation controllers or multiple irrigation controllers?

Individual Multiple

7. Indicate the type of irrigation system(s) you use.

- Center pivot irrigation system
- Linear move irrigation system
- Traveling Guns (either cable tow or hard hose traveling sprinkler system)
Are the traveling guns manually repositioned? YES NO
- LEPA (Low-Energy Precision Application) pivot irrigation system
- Other (explain) _____

8. Describe how you decide what speed to operate the irrigation system, what speed you typically use to operate the system and how long it takes to complete one irrigation cycle.

9. Does your system utilize a surface water management system for irrigation?

YES NO

If yes,

Describe your procedure for removing and replacing control structures prior to and after storm events.

10. Do you apply fertilizer? YES NO

If yes,

Are the fertilizers applied through the irrigation system?

YES NO

Do you apply fertilizer during a regularly scheduled irrigation application?

YES NO

If no,

Propose an implementation schedule to coordinate fertilization with the irrigation cycle or provide an explanation as to why it cannot be undertaken.

11. What months do you apply fertilizer? _____

12. 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).

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).

If necessary, attach additional pages to this form to identify the water use monitoring method for all wells, pumps and/or connection points on the project property.

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

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

14. 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? _____

15. Describe your procedure for maintaining an even irrigation application rate to your crops.

16. Do you use irrigation system equipment with the highest water efficiency available?

YES NO

If no,

Describe the irrigation system equipment with higher water efficiency and propose an implementation schedule to convert your irrigation system to a more water efficient irrigation system or explain why it is not technically, environmentally or economically feasible to implement.

17. Summarize your maintenance and repair schedule, by using the appropriate letter, indicate when each of the following tasks are done.

(A) weekly (B) monthly (C) every time you irrigate
(D) as needed (E) not feasible (F) not applicable

Using a pressure gauge to check system pressures and flow rates for leak and clog detection.

A B C D E F

Using gauges to check line pressure to verify consistent PSI between wellhead and most distant nozzles.

A B C D E F

Checking to ensure nozzles are not irrigating non-crop areas.

A B C D E F

Repairing leaks and clogs. Repairing worn or malfunctioning nozzles.

A B C D E F

Other maintenance (explain): _____
A B C D E F

18. Which of the following irrigation system improvements do currently use or do you plan to implement and when.

- | | |
|---|-------------|
| <input type="checkbox"/> Computerized irrigation system | Date? _____ |
| <input type="checkbox"/> Flow control nozzles | Date? _____ |
| <input type="checkbox"/> Pressure regulation | Date? _____ |
| <input type="checkbox"/> Land Leveling | Date? _____ |
| <input type="checkbox"/> Water control structures | Date? _____ |
| <input type="checkbox"/> Other
(explain) _____ | Date? _____ |

19. Do you utilize water for freeze protection?

YES NO

If yes,

Describe in detail how you decide when to turn the irrigation system on and off for freeze protection.

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 and/or freeze protection?

YES NO

If reclaimed water is used, 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 reclaimed water is not used, please 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 _____)	

3. How many acres are freeze protected 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

Don't 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 and 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 may be 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