



Water Conservation Plan Form Landscape Irrigation

GENERAL INFORMATION

DRAFT

5/2005

Applicant Name: _____

Project Name: _____

CUP Number: _____

Date Plan Submitted: _____

Agent's Name: _____

Section 12.7 of the Applicant's Handbook States:

Each applicant for use types not specified above must submit a water conservation plan for their proposed use. The plan must contain specific activities designed to conserve water. At a minimum, the water conservation plan must include elements described above in sections 12.2.5, 12.3.2, 12.5.7 and 12.6.1.

If no,

A water audit of your irrigation system is required. Provide a date by which the water audit will be completed and submit a copy of the audit as part of your Consumptive Use Permit application. The water audit must evaluate the distribution uniformity (DU) and application efficiency (AE) of your irrigation system.

Date _____

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

Computerized Irrigation System

List inputs into system _____

Rain Gauges

Soil Moisture Monitoring Device(s)

Observation Well(s)

Judgement

Explain _____

Other

Explain _____

3. How is irrigation duration determined? Zones should vary depending on the emitter type and the precipitation rates.

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

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

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

5. How many zones do you irrigate? _____

6. Is the irrigation 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?

7. What is the typical duration of an irrigation cycle for each zone? How is the irrigation duration determined?

8. Do you apply fertilizer? YES NO

If yes,

Are the fertilizers applied through the irrigation system?

YES NO

Do you fertilize 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.

9. What months do you apply fertilizer? _____

10. How is water use monitored?

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

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

- On-site weather station Date? _____
- Decrease acreage of irrigated turf grass Date? _____
Number of irrigated acres that will no longer be irrigated _____
- Elimination of overseeding Date? _____
- Professional irrigation consultant Date? _____
- Irrigation management educational session Date? _____
- Other (explain) _____ Date? _____

12. Summarize your maintenance and repair schedule by indicating when each of the following tasks is 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

Checking controller/timers for accuracy.

- A B C D E F

Cleaning system components (valves, filters, meters etc.).

- A B C D E F

Repairing leaks and clogs.

- A B C D E F

Repairing worn or malfunctioning nozzles.

- A B C D E F

Checking to ensure sprinklers are not irrigating paved or other non-irrigated areas.

A B C D E F

Other maintenance (explain): _____

A B C D E F

13. *Florida Statute*, Part VI, Chapter 373.62 requires the installation and operation of functioning rain sensors. 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

If no,

Provide a schedule for installing rainfall shut-off sensor on each irrigation controller on your irrigation system.

14. Rainfall shut-off sensors must be maintained and operational in accordance with the manufacturer's specifications on each irrigation controller for duration of your Consumptive Use Permit. Are the existing rainfall shut-off sensors regularly checked to ensure that they are working in accordance with the manufacturer's design specifications?

YES NO

If yes,

Describe maintenance check schedule.

If no,

Propose maintenance check schedule.

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

- Computerized irrigation system Date? _____
- Flow control nozzles Date? _____
- Pressure regulation Date? _____
- Other (explain) _____ Date? _____

16. Has water efficient landscaping (xeriscape, Florida Friendly or Waterwise principles) been incorporated into the design of the landscape areas?

YES NO

If no,

Propose an implementation schedule for planting or converting existing landscape areas to incorporate water efficient landscaping principles or provide an economic feasibility study as to why this type of planting cannot be done.

17. List the types of existing and proposed vegetation in your landscape areas.

18. Is the irrigation system designed so that plants with similar irrigation requirements are on the same irrigation zone (for example, annuals, drought tolerant shrubs and turf grasses) and plants with different water needs are on separate irrigation zones?

YES NO

If no,

Propose a plan to redesign the irrigation system and landscape areas so that plants with similar irrigation requirements are irrigated together or provide an explanation as to why this type of design cannot be implemented.

19. Is turf grass planted in landscape areas around your project?

YES NO

If yes,

Of the total landscape acreage provided above what percent is turf grass? _____%

What type of grass is planted? _____

Do you overseed during the winter months?

YES NO

If yes,

What type of grass is used for overseeding? _____

20. How many acres of your landscape area are planted with drought-tolerant plants that do not require regular irrigation? _____

21. How many acres of your landscape area are planted with drought-tolerant plants and/or natural vegetation that do not require *any* irrigation? _____

22. Attach pictures of all landscape areas that do not require regular irrigation and/or are planted with drought-tolerant or natural vegetation that does not require regular irrigation.

23. Propose a plan to reduce the areas of turf grass and replace these areas with native or drought tolerant plants/vegetation that require less irrigation.

Note: Information on plants that require less irrigation (xeriscape, Florida friendly and Waterwise) is available on the District's web site at www.sjrwmd.com. Follow the link for Water Restrictions/Water Conservation.

24. Indicate which of the following water conservation measures you have undertaken or will undertake for your landscape areas and when.

- Soil improvements Date? _____
- Mulching Date? _____
- Water efficient sprinklers Date? _____
- Avoid watering sidewalks Date? _____

25. Is water used for outdoor use other than irrigation, such as in fountains.

YES NO

If yes,

Describe the uses and how water is conserved for each of these uses.

What is the source of water used for outdoor use other than irrigation.

- Reclaimed water
- Potable water from public supply
- Surface water
- Groundwater

If Groundwater,

Is a particular well assigned only for this use?

YES NO

If yes, what is the source of the groundwater?

- Surficial aquifer
- Intermediate aquifer
- Floridan aquifer

Provide the well ID(s) _____

Note: Include this well on Table 2 of the CUP application form and locate it the map you provide with the application.

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. Have reclaimed water lines and/or a reclaimed water holding been included in the design of the landscape areas in anticipation of receipt of reclaimed water?

YES NO

4. 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 are you proposing any surface water sources for irrigation?

YES NO

If yes, answer the following questions:

1. What is the source of the surface water?

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

2. What percentage of your landscape areas is irrigated with surface water? _____%

3. Do you augment the surface water source with groundwater wells?

YES NO

If yes,

Do you monitor the surface water level and begin and cease augmentation at prescribed levels?

YES NO

If yes,

Provide the water level elevation (National Geodetic Vertical Datum - NGVD) that augmentation begins and the water level elevation at which augmentation ceases.

If no,

Propose an implementation schedule to establish a water level elevation (NGVD) regulation schedule.

4. Are any other non-potable sources of water used for irrigation?

YES NO

If yes, explain.

GROUNDWATER

Is groundwater used or proposed for landscape 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.

2. Are the groundwater wells plumbed directly into the irrigation system?

YES

NO

3. Is the groundwater used for augmentation of a surface water body that is used for irrigation?

YES

NO

If yes,

Provide the name of the surface water body _____

Provide the acreage of the surface water body _____

Is the surface water body lined? YES NO

If yes,

What type of material is the liner? _____

Section III – CUSTOMER EDUCATION / EMPLOYEE AWARENESS

The water conservation plan must contain an education program. If you have not implemented a program to date, propose an implementation or provide information why this program cannot be implemented.

If you have undertaken an education program, provide examples of water conservation information you provide to the public and employees.

- Using the appropriate letter, indicate which of the following player education and employee awareness activities are currently being implemented and which you plan to implement and when.

(C) Currently implemented (P) Proposed to be implemented

- Provide copies of all water conservation information that is distributed or made available to the public.

C or P	Activity	Date activity was implemented or is proposed to be implemented
	Using paycheck stuffers to provide water conservation tips and information.	
	Using special mailings, memos or email to provide water conservation tips and information to employees or customers.	
	Publishing and distributing water conservation tips through company newsletters or public bulletin boards.	
	Writing new and/or revising employee operating guides and manuals that describe changes made to implement water conservation activities..	
	Conducting public tours of your facilities.	
	Operating information booths, which include water conservation literature, at special events.	
	Seeking employees' ideas for water conservation using contests or reward programs.	
	Installing signs in restrooms encouraging water conservation.	
	Appointing an employee water conservation coordinator to design and implement your internal water conservation plan.	
	Conducting other employee awareness activities (explain) _____	

2. Of the education and awareness programs you have implemented, which have been particularly effective? How was the effectiveness evaluated?

3. Of the education and awareness programs you have implemented, which have not been effective? Why?

Section IV – 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