

FACT SHEET

Smart Irrigation System “494” Variance

The Florida Legislature has determined that lawn and landscape irrigation systems which use soil moisture sensors and are equipped with remote adjustment capabilities, if properly installed and monitored, can save water. This is because such “smart” irrigation systems apply water to lawns and plants only as necessary, minimizing the overwatering that can occur with conventional irrigation systems.

Senate Bill 494 from the 2009 Regular Session added language to Chapter 373.62, Florida Statutes, which establishes criteria that the District must use when considering a request to release properties from the standard twice-per-week lawn and landscape watering schedule contained in its Year-Round Water Conservation Measures (Rule 40D-22, Florida Administrative Code).

Basic Concept:

A “monitoring entity” establishes an alternative irrigation program that meets all required criteria. The monitoring entity contacts the District and requests a variance (permission for participants to follow the program instead of the standard twice-per-week watering schedule) using the District’s Petition for Variance application, attaching information needed to prove that its program meets all statute-required criteria. Once the District issues a variance to the monitoring entity for its program, “eligible properties” apply to participate in the program. If a specific property fails to comply with terms of the program, it is removed from the program, which means it cannot follow the variance and must instead follow the standard watering schedule. If the monitoring entity fails to comply with any condition of its variance, including all required criteria, the District can revoke the entire variance (which would mean that all participating properties would need to revert to following the standard watering schedule). Other provisions of the year-round measures still apply, and water shortage orders and emergency orders may modify or override the variance during a drought or other water supply emergency.

The District’s Petition for Variance application asks for physical location information. If more than one address is involved, this can generally be provided in the form of a polygon on a 8.5” x 11” map or sketch which shows major landmarks, such as street names.

Detailed Criteria:

Types of eligible properties: residential, commercial, or recreational within a monitoring entity’s jurisdiction having a soil moisture sensor control system.

Types of eligible monitoring entities: a local government, community development district created pursuant to chapter 190, a homeowners’ association created pursuant to chapter 720, a condominium association created pursuant to chapter 718, a cooperative

created pursuant to chapter 719, or a public or private utility.

"Soil moisture sensor control system" is the collective term for an entire soil moisture sensor system that has remote monitoring and adjustment capability. In other words, the system is a combination of the soil moisture sensors themselves, at least one irrigation controller, and the additional equipment needed to provide remote monitoring and adjustment of each controller.

Specific Program Requirements (based on Section 373.62 (7) (a) – (e), F.S.):

1. Each property within the monitoring entity's jurisdiction that intends to participate in the program shall have a soil moisture sensor control system with multiple soil sensors. The exact number and placement of these sensors must address different soil types, slopes and other site-specific factors in order to accurately adjust irrigation schedules based on soil moisture requirements. The typical single-family residential lot will need to have at least one sensor in its main lawn area and at least one sensor in its main non-lawn landscape areas.
2. Installation of each soil moisture sensor system shall be performed by a licensed contractor in a manner consistent with the document "Field Guide to Soil Moisture Sensor Use in Florida" authored by the University of Florida IFAS Extension Program for Resource Efficient Communities.
3. The monitoring entity shall have and maintain the ability to monitor the status of each individual property's system and the ability to remotely modify the system settings for irrigation cycles and run times. In order to provide "reasonable assurance" that this monitoring and modifying requirement will be met, the variance request must include a summary of the equipment and processes that will provide these abilities.
4. Prior to a specific property being considered an active participant in the monitoring entity's program, the licensed contractor must certify to the monitoring entity that the property's system was installed as described in #1 and is able to be monitored and controlled as described in #2. In order to provide "reasonable assurance" that this certification requirement will be met, the variance request must explain how that certification will be documented; for example, the request can include a sample of the certification form that contractors will be required to complete and submit to the monitoring entity.
5. The monitoring entity shall electronically post and update a listing of active participants of soil moisture sensor control systems within its jurisdiction on at least a monthly basis and provide Internet access to such listing and the monitoring database to the water management district and the applicable local government's enforcement agency. In order to provide "reasonable assurance" that this participant information access requirement will be met, the variance request must document how this access will be provided (such as the website URL, any needed password process and sample "screen shots" of the listing and database).
6. The monitoring entity shall post a participation notice, such as a sign or curb marker, at each parcel of a participating property. This participation notice shall: (1) be in plain view from the nearest roadway, (2) include the statement "Irrigating with Smart Irrigation Controller," (3) include the address of the parcel, and (4) be removed by the monitoring entity if the parcel ceases to be monitored or otherwise ceases to be part of a participating property in the monitoring entity's program. In order to provide "reasonable assurance" that this participation notice requirement

- will be met, the variance request must include a sample or rendering of the notice.
7. The monitoring entity shall monitor and, as necessary, adjust the operation of each participating property's system. In order to provide "reasonable assurance" that the required monitoring and adjustment will indeed occur, the variance request must demonstrate that the program has an implementation mechanism in addition to the summary information required in #3 (above). For example, the mechanism could be a sample of the application form that a potential program participant must use to grant the monitoring entity or its agent permission to monitor and adjust its property's system.
 8. If a participating property engages in a non-compliant activity (for example, applies irrigation when monitoring indicates irrigation was not necessary), the monitoring entity shall provide a non-compliance notice to that participating property within 48 hours of that activity. In order to provide "reasonable assurance" that this noticing will occur, the variance request must include a sample of the notice that would be used and the database required in #5 (above) shall include the date and resolution of any non-compliant activities and associated non-compliance notices.
 9. If a participating property does not take corrective action within 48 hours of being provided such a non-compliance notice, the monitoring entity shall remove the participation notice(s) posted on the applicable parcel(s) and shall also remove the property from the program's active participant listing. In order to provide "reasonable assurance" that these removal activities will occur, the variance request must include a summary of the processes that would be used to address such a situation, including how the monitoring entity or its agent will gain access to the property to remove the participation notice (such as a "permission to enter" clause in the application form that each potential program participant must sign).
 10. On an annual basis, the monitoring entity shall assure that a professional engineer licensed under chapter 471 or a professional landscape architect licensed under chapter 481 performs an annual maintenance review of all soil moisture sensor control systems within the monitoring entity's jurisdiction to verify systems are properly operating and in compliance with the program. Any non-compliance will be addressed in accordance with #8 and #9, including an additional review to verify return to compliance prior to the user being once again considered to be an active participant. In order to provide "reasonable assurance" that this review will occur, the variance request must provide a summary of how each review will be performed and documented; for example, the request can include a sample of the report form that the reviewer will be required to complete and submit to the monitoring entity for each participating property.
 11. If the monitoring entity fails to maintain continual compliance with #1 - #10, the District has the ability to revoke the variance upon proper notice to the monitoring entity. Revocation would mean that all participating properties would need to follow the standard twice-per-week watering schedule. In order to provide "reasonable assurance" that the monitoring entity is prepared to address this scenario, the variance request must indicate how the monitoring entity will inform program participants of this possibility; for example, this could take the form of a "program is subject to revocation" statement on the application form that each potential program participant must sign.