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## Madera County Frequently Asked Questions

### Enrollment Questions

**Why enroll in IrriWatch and give information about my operation to the Madera County GSA?** One Madera County GSA grower who has enrolled in IrriWatch replies: “They already have my information. Through IrriWatch, they are giving me information that (1) I have paid for already through my GSA fees and (2) is useful in my operation for irrigation management. I can evaluate the information provided and determine how best to use it in my operation.”

**What is the minimum information needed to enroll in Irriwatch?** Your email and APNs

**What are the benefits of providing additional (crop and irrigation type) information to Irriwatch?**  
More accurate irrigation scheduling and crop production information

**How will the additional information be used?** IrriWatch uses the additional information to estimate when and how much to irrigate. Crop information will also be used to estimate depth of root zone, crop height for aerodynamics and dry matter production. The Madera County GSA does not need the additional information.

**What happens if I do not enroll in IrriWatch?** You will not be able to track the evapotranspiration of applied water from your irrigated area and you will not receive IrriWatch estimates of many parameters related to irrigation scheduling and crop production. You will not have access to the additional information that IrriWatch provides to help you monitor your irrigation management and planning.

**When will IrriWatch start measuring ET?** January 1, 2021

**Can I add or remove parcels after I enroll?** Yes.

**What if one APN has more than one field?** It can be divided into individual fields.

**What if a field has more than one APN?** Fields in multiple APNs can be grouped as a farm unit.

**Can I create my own fields in IrriWatch?** Yes, by printing a screen shot of what is signed up, drawing the fields on the printed picture, scanning it and emailing it to [support@irriwatch.com](mailto:support@irriwatch.com) also provided in the registration email.



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**Can I enroll land that is not irrigated (not paying a GSA fee but may want to plant in the future)? Yes.**



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## Farm Units Questions

**How will Farm Units be created if I enroll in IrriWatch?** You will be able to assemble your farm units within IrriWatch, limited to fields within the farm unit zones defined.

**How will Farm Units be created if I do not enroll in IrriWatch?** They will not be created and default boundaries of the Madera County GIS system will be applied to individual parcels/fields.

**What if I have two properties that are near each other but across a farm unit boundary?** You can apply for an exemption. Properties within a reasonable distance (five to ten miles) may be granted the exemption depending on local groundwater conditions.

**Which satellites are used? Can more be used? How regularly is the data delivered or available?** Landsat (USGS), 8 days (LS8 and LS8); VIIRS (NOAA), daily; EcoStress (NASA, International Space Station), 3 days. IrriWatch uses all currently available satellites with data available to support irrigation scheduling.

**How does ET measure the efficiency of the system?** ET does not measure efficiency of the system. ET is a value used in the calculation of efficiency.

**Would ET satellite data be higher or lower than data from a meter that reflects what is pumped?** Depends on the time period of the comparison, the amount of rainfall and the efficiency of the irrigation system.

**A well-managed drip system is by far the least evaporation; actually buried drip can almost eliminate the application evaporative loss. It seems to me that somehow the type of application needs to be taken into account in all of this .** Evaporation is included in ET measurement. Water applied either evaporates, transpires, runs off, or seeps back to the aquifer. Both evaporation and transpiration are measured by IrriWatch and both are outflows from the basin.

**It sounds like an over-irrigated flooded field compared to a field irrigated on a good drip system would show the same consumptive use?** Yes. It is possible that the over-irrigated flood field and a field irrigated on a good drip system might show the same consumptive use. The field irrigated on a good drip system likely applied less water to get the same ET and thus the cost of pumping would be less and the efficiency would be higher.

**Maybe some kind of adjustment should be considered for type of irrigation?** The ET calculation method does not need to be adjusted for the type of irrigation.

**I really have no clue how this loss might be accounted for, but I don't think it is valid to just ignore the whole question of irrigation efficiency.** The total ET leaving the basin is the important parameter. Because the applied water that is not included in the ET (evaporation and transpiration) measurement, eventually returns to the groundwater system, higher efficiency does not equal less ET.



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## Measurement Questions

**How frequently are measurements available?** Daily at 6 am.

**Will IrriWatch identify deficit irrigation practices?** Yes

**Will IrriWatch provide information on the ET of different parts of a field or just the entire field?**

IrriWatch provides ET for 33-foot X 33-foot square areas in each field.

**What happens if there are clouds or smoke during the growing season?** IrriWatch estimates the values for the cloudy days.

**Are microclimates accounted for in the IrriWatch system?** Yes, within-field variabilities of air temperature and air humidity for each approximately 33-foot by 33 foot square area on the surface are accounted for. The land surface temperature at midday for each approximately 33-foot by 33 foot square area is also accounted for.

**How is the precipitation as a part of total ET accounted for?** IrriWatch needs precipitation on a daily basis to provide daily water balances. This daily requirement limits the options. We are still evaluating the limited options for this area, but will probably use 24-hour observed precipitation from the NOAA California-Nevada Forecast Center.

**How can I compare my meter data to the measurement by IrriWatch?** We are looking for about 30 volunteers to provide meter data to Davids Engineering to compare to the IrriWatch ET and related assessments of Applied Water. From that analysis we can provide a step by step description of what to do and if you have questions we will review and discuss.

**Will IrriWatch measure the ET of unirrigated land, e.g. rangeland and riparian areas (arundo)?** Yes

**Will you be measuring water use on land of other GSPs in the Madera Subbasin?** No

## Allocation Budget Questions

**Will my allocation show up on my IrriWatch account?** Yes.

**How do I know what my allocation is?** After everyone has had the opportunity to opt in, the Madera County GSA will send a letter to growers providing the allocation.

**Will I still get an allocation if I do not enroll in IrriWatch?** Yes.

**What happens if IrriWatch shows that I used more than my allocation?** The first year—Nothing—this is a “dry run.” For future years, it is expected that there will be water rates associated with an allocation.

**How are allocations accounted for if there are multiple APNs?** Allocations will be reported as acre-feet per irrigated acre.