
Command Reference: SetIrrigationPracticeTSSprinklerAcreageFrom List()

Set irrigation practice time series sprinkler acreage time series values using a list file

StateCU Command

Version 3.09.01, 2010-02-01

The `SetIrrigationPracticeTSSprinklerAcreageFromList()` command sets irrigation practice time series sprinkler acreage data for a CU Location, using data from a list file, and adjusts other acreage terms accordingly to maintain the total acreage. This command is typically applied after all other data read and filling occurs, in order to utilize sprinkler acreage data that has been obtained for historical years. For example, the command is used in the Río Grande because user supplied sprinkler data are available, but may not be applied in the South Platte, where more years of irrigated lands data are in HydroBase. The list file typically contains sprinkler acreage by model location for the full period and may have been interpolated between observations and repeated on the ends of the period.

Prerequisites:

1. This command should be executed after the irrigation practice time series are read from HydroBase (see `ReadIrrigationPracticeTSFromHydroBase()`).
2. Total acreage has been set to the crop pattern time series total (see `SetIrrigationPracticeTSTotalAcreageToCropPatternTSTotalAcreage()`). The total acres are needed for checks.
3. The groundwater acreage should also have been filled using well rights before the first year of observations using `FillIrrigationPracticeTSAcreageUsingWellRights()`.
4. The surface water acreage should have been filled during the early period using `FillIrrigationPracticeTSInterpolate()`.
5. The end of the period should have acreage filled using `FillIrrigationPracticeTSRepeat()`.

The following dialog is used to edit the command and illustrates the syntax of the command.

Edit SetIrrigationPracticeTSSprinklerAcreageFromList() Command

This command sets irrigation practice sprinkler acreage time series data from a list file, using the CU Location ID to look up the location. The command was developed for the case where sprinkler acreage information may be known in years between full irrigated land assessment. A comma-delimited list file is used to supply data. The previous irrigation practice data will be reset to new values and the acreage parts will be adjusted to match the total (see documentation). It is recommended that the location of the file be specified using a path relative to the working directory. The working directory is: C:\Develop\StateDMI_SourceBuild\StateDMI\test\regression\UserManualRef\ReadIrrigationPracticeTSFromHydroBase

List file:

CU Location ID: Required - CU Location(s) to fill (use * for wildcard).

Set start (year): Optional - starting year to set data.

Set end (year): Optional - ending year to set data.

CU location ID column: Required - column in file for CU location ID.

Year column: Optional - column in file for year.

Acres irrigated by sprinkler: Optional - column in file for acres irrigated by sprinkler.

Command:

```
SetIrrigationPracticeTSSprinklerAcreageFromList (ListFile="sprink_acreage_2007.csv", ID="*", YearCol=2, IDCol="1", AcresSprinklerCol="3")
```

SetIrrigationPracticeTSSprinklerAcreageFromList

SetIrrigationPracticeTSSprinklerAcreageFromList() Command Editor

The sprinkler list file is processed one record at a time. The following check is done after setting the sprinkler acreage for a location and year:

1. Set the groundwater sprinkler acreage (GWsprinkler) to the minimum of the list file sprinkler acreage (ListFile) and the previous groundwater sprinkler value (GWprev).
2. Set the surface water sprinkler acreage (SWsprinkler) to $\min((\text{ListFile} - \text{GWsprinkler}), \text{SWprev})$. Then ensures that a negative number does not result.
3. Set the groundwater flood acreage (GWflood) to the previous groundwater total minus the groundwater sprinkler (GWsprinkler) acreage. This may result in a zero value based on previous adjustments.
4. Set the surface water flood acreage (SWflood) to the previous surface water total minus surface water sprinkler acres. This may result in a zero value based on previous adjustments.

The command syntax is as follows:

```
SetIrrigationPracticeTSSprinklerAcreageFromList (Parameter=Value,...)
```

Command Parameters

Parameter	Description	Default
ListFile	Name of comma-delimited file containing sprinkler acreage for locations over time.	None – must be specified.
ID	A single CU Location identifier to match or a pattern using wildcards (e.g., 20*).	None – must be specified.
SetStart	The first year to set data.	If not specified, set the full period, using all available data from the list file.
SetEnd	The last year to set data.	If not specified, set the full period, using all available data from the list file.
IDCol	The column (1+) in the list file containing the location ID.	None – must be specified.
YearCol	The column (1+) in the list file containing the year.	None – must be specified.
AcresSprinklerCol	The column (1+) in the list file containing the sprinkler acres for the location and year.	None – must be specified.

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