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# Command Reference: ReadReservoirRightsFromHydroBase()

Read reservoir right data from HydroBase

**StateMod Command**  
Version 3.09.01, 2010-02-01

The `ReadReservoirRightsFromHydroBase()` command reads reservoir rights from HydroBase, for each reservoir station that is defined. The reservoir rights can then be manipulated and output with other commands. Within a reservoir station, rights are sorted by administration number and order number. In some cases, multiple rights for the reservoir may be listed, each with the same administration number. This is because the order number is different; however, the order number is not listed in the StateMod output.

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

**Edit ReadReservoirRightsFromHydroBase() Command**

This command reads reservoir rights from HydroBase, using the reservoir station identifiers to find rights. Net absolute water rights are read by default.  
If the reservoir stations contain aggregates, use the administration number classes to group rights (indicate administration numbers separated by commas).  
The output water right identifier is assigned as the reservoir station identifier + "." + a three digit number.

Reservoir station ID:  Required - reservoir stations to read (use \* for wildcard).

Decree minimum:  Optional - minimum decree to include (default = .0005).

Admin. number classes:

OnOff default:  Optional - default OnOff switch (default=AppropriationDate).

Command: 

```
ReadReservoirRightsFromHydroBase ( ID="*", OnOffDefault=1)
```

ReadReservoirRightsFromHydroBase

**ReadReservoirRightsFromHydroBase() Command Editor**

If aggregating rights, the following steps:

1. Water rights for each part of the aggregate are read from HydroBase, reporting errors as necessary.
2. The rights are added to a list and are sorted by administration number. This ensures that the cumulative list of rights is listed in order of administration number (this step will be necessary if reservoir systems, similar to diversion systems, are supported – currently they are not).
3. Water rights are defined for each class (see the `AdminNumClasses` parameter description below), initializing the decree to zero.

4. For each class, the following sums are calculated:  $\text{sum}(\text{decree} * \text{AdminNum})$  and  $\text{sum}(\text{decree})$ , where the administration number is determined from the appropriation date derived from the original HydroBase administration number (it will not have a remainder).
5. The final administration number for the class is determined (it will not have a remainder):  
 $\text{int}(\text{sum}(\text{decree} * \text{AdminNum}) / \text{sum}(\text{decree}))$

Water rights that are less than the decree minimum are ignored.

The command syntax is as follows:

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

#### Command Parameters

Parameter	Description	Default
ID	A single reservoir station identifier to match or a pattern using wildcards (e.g., 20*).	None – must be specified.
DecreeMin	The minimum decree to accept as a valid right.	0.0 – read all rights.
AdminNumClasses	A list of administration numbers, separated by spaces or commas, to define the breaks for aggregate water rights, for reservoir aggregates. For example, if the class breaks are 10000.0000, 20000.00000, and 99999.99999, the first group will contain water rights with administration numbers $\leq 10000.00000$ , the second will contain water rights with administration number $> 10000.00000$ and $\leq 20000.00000$ , and the third will contain water rights with administration number $> 20000.00000$ and $\leq 99999.99999$ .	If not specified, diversion aggregates will be treated as diversion systems, with all water rights explicitly included in output.
OnOffDefault	Indicates how to set the on/off switch for all water rights that are processed. A value of 1 indicates that the right is on for the whole period. If the value is AppropriationDate, the switch is set to the year corresponding to the appropriation date, indicating that the right will be turned on starting in the year. Use set commands to reset the switch to other values.	Appropriation Date