



1.1 Water order module

Water distribution on demand on an irrigation scheme or river system is driven by the capturing and processing of water orders. Once water orders have been captured in the WAS database everything else is generated or processed by the computer automatically. The water order module manages water orders from canal networks, pipelines and rivers and it keeps track of water usage, water transfers between users and water quota available for individual users. Controls are in place in WAS preventing the accidental exceeding of allocated water quotas.

Manual water transfers are possible between water users. Automatic water transfers are possible between a master user and an unlimited number of extensions that is linked to the specific master user.

The WAS operates on a time scale of 52 weeks within a given water year. A weekly time table is generated automatically for a given water year and user specified starting date. Water orders can be captured in three different ways which includes:

- Standard water orders used by the Department of Water Affairs and a few irrigation boards and water user associations. This water ordering method provides for original orders, additional orders and cancellation of water.
- Water orders based on a flow rate and duration.
- Meter readings that can be captured on a weekly basis. The end reading of the previous week is automatically transferred to the start reading of the current week.

The water order module also has extensive water reporting capabilities such as:

- Water balance sheet per abstraction.
- Water balance report that summarises the water usage per abstraction and all the abstractions per farmer.
- Master user water usage summary report.

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
D	D	D	D	D	D	D	D	
			A	A	A			7200 m3
12	12	12	12	12	12	12	12	48 hours

Figure 1.1: Standard water order form

- Water transfers report.
- Water use efficiency accounting reports (WUEAR) per week or month.
- Water distribution sheets.

Most of the water reports have extensive find, sort and filtering functionality.

The 'Insert' dialog box contains the following fields and values:

User	Week	Order type	No	Water type	Line no	Balance (m3)	% Used
	21	Original	1	Quota			

Q(m3/hour)	Date begin	Hours	Minutes	Date end	Volume (m3)
	21/06/2018	0	0	21/06/2018	0

Buttons:

Figure 1.2: Flow rate and duration water order form

The 'Edit' dialog box contains the following fields and values:

Week	Water type	User	Meter begin	Meter end	K1	Total (m3)
2	Quota	IND6	0	50000	1	50000.0

Note: [Empty text area]

Buttons:

Figure 1.3: Meter readings capturing form