



**water & sanitation**

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA



## **TERMS OF REFERENCE FOR A SOLICITED WRC PROJECT**

<b>THEME</b>	<b>Water Availability</b>
<b>TITLE</b>	<b>Validation and verification of existing lawful water use: Consolidation of existing data</b>
<b>TOR NUMBER</b>	<b>1010034</b>

### **Rationale:**

Since 2003, the Department of Water and Sanitation (DWS) has been engaged in a process of validation and verification (V&V) of existing lawful water use across the country. Validation is a technical process to confirm how much water was being used in the qualifying period preceding the 1998 National Water Act (NWA) coming into force. Verification is a legal process to determine the lawfulness of validated water uses. The primary purpose of V&V is to resolve the extent of Existing Lawful Use (ELU) of water, as defined in section 32 of the National Water Act.

Despite progress that has been made and lessons learned, V&V has not been completed. This hinders the wider implementation of compulsory licensing, as contemplated in sections 43-48 of the NWA, and other processes dependent on V&V. For example, decision-making for new water use licence applications is impeded if catchment water balances are not updated with accurate water use abstraction volumes.

The Water Research Commission (WRC) is working with DWS on a three-year programme to expedite the completion of V&V. A project to design and scope the implementation phase of this programme has been completed. The scope of work outlined in these terms of reference builds on the outcomes of that project by taking forward several follow-up actions that were identified.

Data processing and analysis are required to consolidate the existing data (including Lists of Ratable Areas) on properties falling within Water User Associations (WUAs) and Irrigation Boards (IBs). Some of these properties may have water use authorised under section 33(2) of the National Water Act, which needs to be included in the analysis of the status of V&V per Water Management Area (WMA). Currently, there is no complete or updated GIS dataset that delineates the correct boundaries at property level nor contains a full list of properties on the Lists of Ratable Areas of IBs. To the extent relevant to V&V, there is also a need to overlay these boundaries with the government water control areas declared under section 59 of the 1956 Water Act.

The lack of prescribed national templates and standards and the absence of a single national repository for V&V data has resulted in data being generated and stored at regional level using a

range of templates, formats and standards. In addition to data derived from the Water Use Authorisation and Registration Management System (WARMS) database, the current project has sourced a further 59 relevant datasets in Excel and pdf format. Detailed analysis and consolidation are required to link the properties in these datasets to the properties listed in the Surveyor-General's GIS database and to fill in any gaps. The properties will also need to be plotted as overlays on the V&V status GIS developed by the current project. The results of this exercise must then be used to update the analysis of V&V status per WMA undertaken by the current project. This work will pick up at the point where the current project left this task.

Other work to be done through this project involves preparing existing V&V data for import into the national database once it has been developed through a separate project. Data is currently stored in different Excel spreadsheets that are not standardised in how the data are tabulated. It will be necessary to consolidate the data in these spreadsheets into a single Microsoft Access database using the database structure provided in the Appendix. The spreadsheets will be provided to the project team at the start of the project. Supplementary documentation (including relevant proclamations, court orders, dam safety information, historic permits, section 25 transfers etc) that was compiled as part of the previous project must also be consolidated into the Access database.

Preliminary results from the analysis of the current status of V&V indicate that there are complete or partial records for 86 867 properties that need to be prepared for import into the national database. Beyond these, there are approximately 100,000 further properties with actual or potential unregistered water use. Further investigation is required to assist DWS in identifying which of these properties should be prioritised for closer inspection. This could include a rough classification of areas where different crop types would typically be irrigated as opposed to dryland agriculture. Other approaches can also be developed through this project to assist DWS in prioritising properties with potential unregistered water use for further investigation.

**Objectives:**

**General:**

Complete the collection, consolidation and preparation of all existing V&V data.

**Specific:**

1. Consolidate existing data on properties within Water User Associations (WUAs) and Irrigation Boards (IBs)
2. Identify and source any remaining V&V datasets not collected by the current project.
3. Develop and apply an approach for prioritising properties with potential unregistered water use for further investigation
4. Update the analysis of V&V status per WMA undertaken by the current project
5. Compile all V&V data (including relevant documentation) collected by the preparatory phase and this project for import into the national database.

**Deliverables:**

The following deliverables are indicative and may be tailored to suit the proposed approach:

1. GIS-linked Excel file and report for consolidated WUA and IB data
2. Catalogue and digital archive of all V&V datasets collected
3. Report and GIS layer of prioritised properties with potential unregistered water use
4. Updated analysis of V&V status per WMA in Excel and Word format
5. MS Access database of existing V&V data (all partial and complete V&V records)

**Notes:**

1. Addressing this scope of work requires a diverse range of skills and experience. Proposals must include the details of all team members, their experience and expertise relevant to this assignment and their role in the project.
2. Further details on these ToR can be accessed [here](#).
3. Proposals must be submitted online via the WRC [Business Management System](#). For technical queries regarding the Business Management System, contact [bms-support@wrc.org.za](mailto:bms-support@wrc.org.za).
4. The following guidelines are available to support the development and submission of proposals:
  - a. [BMS portal user guide](#)
  - b. [Guidelines for submission of research proposals](#). Particular attention should be given to the section in the guidelines on budgeting.
5. **Closing date for submission of proposals on BMS is 16:00 on 17 June 2025.**

**Time Frame:**

Planned project start date: 1 August 2025, duration 4 months

**Total Funds Available:**

R1,200,000

## Appendix: V&V Requirements Database Requirement

### Database format, source and origin

A V&V management database must be developed with reference to previously catchment studies for DWS. It is recommended that the same database or similar be used to capture results and manage user records during the section 35 process.

### Baseline Data

The baseline data must be the SG cadastral properties (farm portions) (GIS) with property SG code and property number as primary key. Although the WARMS database will be a major link and source of information, the V&V database must be populated first with all the farm portions for the Water Management Area (WMA, and not only the WARMS records. The WARMS database only reflects the registered water users, not all farm portions, and there will be properties that are not registered that must be included in the V&V database. The database.

The secondary link must be with the WARMS data and related property information must be populated into the V&V Database. Thirdly all validation processes, information and results must be captured directly into the V&V database. Fourthly, verification process user interaction and engagements must be captured as tracking fields in database.

It is also proposed that a link on intergovernmental level be established between the DWS and SG in order to obtain updated property and owner information and contact details.

The V&V database must also align with the e-WULAAS database and ensure information sharing and structure alignment.

### Database structure

Main database housing all information in tables.

Linked database for capturing of information through forms.

Within main database the table are listed below as well as detail metadata per table later in the document.

### List of Tables

Below is a list of all tables within the database. The list consist of main tables, lookup tables and working tables.

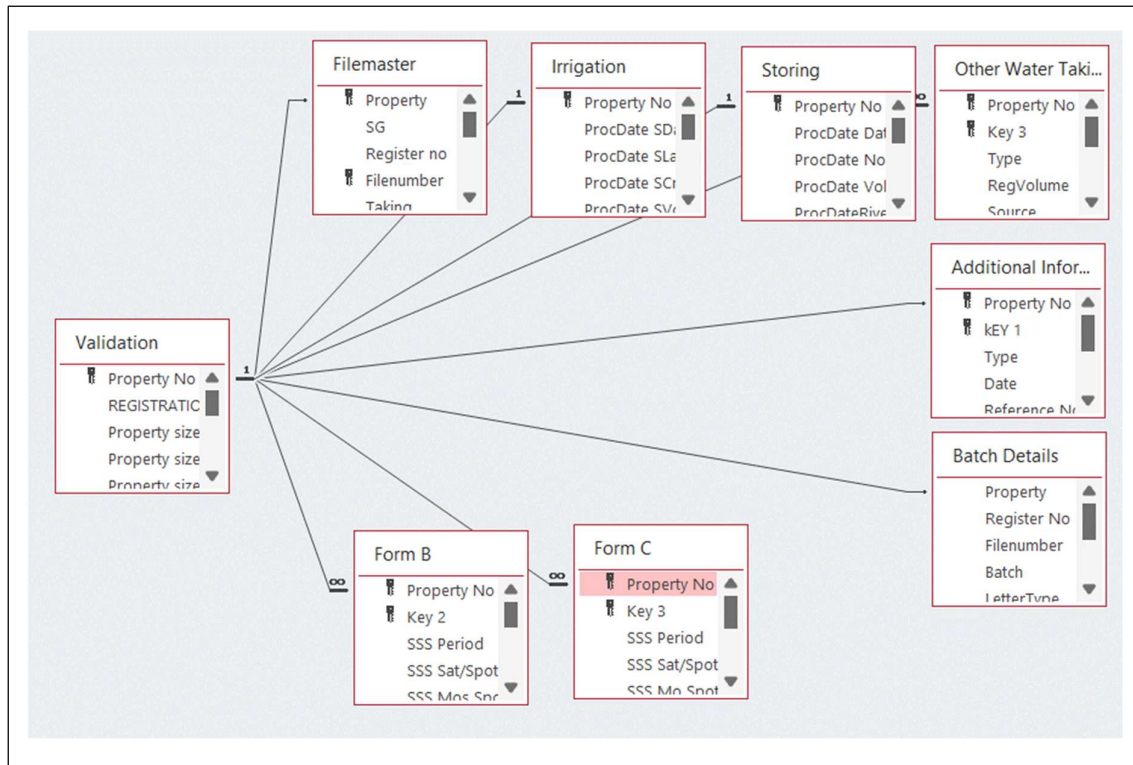
Meta data for each table is also included in the document describing all the main table fields.

Table	Type	Notes
Filemaster	Main table	
Adress Information	Main table	
Batch Details	Main table	
Irrigation	Main table	Capture all irrigation related information and calculation results
Woodlots	Main table	Woodlots (SFRA - Forestation)
Validation	Main table	Describes process flow for V&V
Storing	Main table	
Form B Field and Crop Calculation	Secondary table	Field and Crop Information and Calculation results - Also report for File
Form C Dam Calculation	Secondary table	Dam Information and Calculation results Also report for File

Other Water Takings	Secondary table	Other Water Takings information
Crop Lookup	Lookup table	
LOOKUP APPLICATION RETURNED	Lookup table	
Lookup Batch Numbers	Lookup table	
Lookup FILECreate	Lookup table	
Lookup FILEStatus	Lookup table	
Lookup FinalCaptureDataSource	Lookup table	
Lookup Indeks Beskrywing	Lookup table	
LOOKUP L1 ISSUED	Lookup table	
Lookup Registration Status	Lookup table	
Lookup ValidatStatus	Lookup table	
Lookup ValidPerson	Lookup table	
LOOKUP YES/NO	Lookup table	
River Lookup	Lookup table	
River Lookup Previous	Lookup table	
Satellite Images	Lookup table	
SECTION 35 RESPONSE	Lookup table	
Create Lookups as required		

## Relationships

The diagram below provides a relationship structure.



## Table Metadata

The section below provides metadata for the main tables within the database.

### File Master

FIELD	DESCRIPTION
Register no	WARMS registration number
Property	Property reference
SG	Surveyor General Code
Prim	Primary Catchment
Quat	Quaternary catchment
Farmname	Farm name
Farm Nr	Farm number
RegRD	Registration division
Ptn	Farm portion
Notas	Notes
Latitude	Latitude
Longitude	Longitude
NameUpdate	Name of person updated
Property Index	Property Registration Index (Status description)
Registration Status Pre PP	Registration status pre Public Participation
Registration Status POST PP	Registration status post Public Participation
Warms Applicant	WARM Applicant
Filenumber	File (digital/hardcopy) created reference number
FILECreated	File created
FILEStatus	File status
RequireDescr	Requirement decryption
WARMS Received	WARMS prints received for file
Group	General Authorisation/ control area type group
LegGrp	Legal type group
Riparian	Riparian farm
Taking	Registered for Taking of water (Yes)
Storing	Registered for storing (Yes)
Forestation	Registered for forestation (Yes)
Batch	Batch description
LetterType	Latest Letter type issued
ValidatStatus	Validation status
ValidPerson	Validation person
ValDateStart	Validation start date
ValidDescription	Validation description
CapturePerson	Capture person
L1 Printed	Letter 1 printed
L1 Signed	Letter 1 signed
L1 Issued	Letter 1 issued

L1 IssuedMethod	L1 Issued Method (Reg. post, email, in person, other)
L1 Issue Date	Letter 1 issued date
L1 Due Date	Letter 1 issued return date
Application Returned	Application Returned Yes/ Awaitng response
L1 Date RetAgreed (LI A)	Date L1 Returned Agreed (LI A)
L1Date RetNot Agreed (L1 NA )	Date L1 Returned Not Agreed (L1 NA )
L1 Failure to Respond	LETTER 1 Failure to Respond
RTS	RETURN TO SENDER
COMMENT	COMMENT
L1 Reissue	REISSUE L1 Date Sent
L1 Re Due Date	REISSUE L1 Return Due date
L1 Re Awaiting Reponse	Awaiting Reponse
L1 Relssue Date Returned Agreed	Date Relssue L1 Returned Agreed
L1 Relssue Date Returned Not Agreed	Date Relssue L1 Returned Not Agreed
L1 Relssue Failure to Respond	LETTER 1 Relssue Failure to Respond
L1 RelBatch	L1 Relssue Batch number
L2 Date Generated	LETTER 2 Date Sent
L2 Due Date	LETTER 2 Due Date
L2 Awaiting Reponse	Awaiting Reponse
L2 Date Returned	LETTER 2 Date Returned
L 2 Failure to Respond	LETTER 2 Failure to Respond
L2 Converted to 3A	Converted to 3A
L2 Batch No.	Batch No.
L3A Printed	L3A Printed Date
L3A Signed	L3A Signed Date
L3A Issued	L3A Issued Date

### Adress Information

FIELD	DESCRIPTION
Property	Property reference
Filenumber	File number
Customer Type	Customer Type
Customer Title	Customer Title
NameOfWaterUser	Name Of Water User
WaterUser ID/Bus Reg no	Water User ID/Bus Reg no
Adres 1	Adres 1
Adres 2	Adres 2
Adres 3	Adres 3
Adres 4	Adres 4
Adres 5	Adres 5
WaterUserTelephoneNr	Water User Telephone Nr
WaterUserCellphoneNr	Water User Cell phone Nr
WaterUserEmail	Water User email address
Enterprise Type Code	Enterprise Type Code
Enterprise Type Abbreviat	Enterprise Type Abbreviation
Name Owner	Name of Owner
ID Owner	ID of Owner
TitleDeedNumber	Title Deed Number
TitleDeedDate	Title Deed Date
PostalAdr	Postal Address
PhysicalAdr	Physical Address

### Batch Details

FIELD	DESCRIPTION
Property	Property Reference
Register No	WARMS Registration Number
Filenumber	Filenumber Reference
Batch	Batch Reference
LetterType	Letter Type
DateSigned	Date Signed
ExpiryDate	Expiry Date
ResponseDate	Response Date
Notes	Notes Reference

## Irrigation

FIELD	DESCRIPTION
Property No	Property reference
ProcDate SDate	Proclamation date Surface water date (Starting)
ProcDate SLand ha	Proclamation date Surface water land d area Ha
ProcDate SCrop ha	Proclamation date Surface water crop area Ha
ProcDate SVolume	Proclamation date Surface water volume
ProcDate SSource	Proclamation date Surface water source
ProcDate BDate	Proclamation date Groundwater/borehole date
ProcDate BLand ha	Proclamation date Groundwater/borehole land area Ha
ProcDate BCrop ha	Proclamation date Groundwater/borehole crop area Ha
ProcDate BVolume	Proclamation date Groundwater/borehole volume
PS SDate	Previous survey Surface water date (Starting)
PS SLand ha	Previous survey Surface water land d area Ha
PS SCrop ha	Previous survey Surface water crop area Ha
PS SVolume	Previous survey Surface water volume
PS SSource	Previous survey Surface water source
PS BDate	Previous survey Groundwater/borehole date (Starting)
PS BLand ha	Previous survey Groundwater/borehole land d area Ha
PS BCrop ha	Previous survey Groundwater/borehole crop area Ha
PS BVolume	Previous survey Groundwater/borehole volume
PS BSource	Previous survey Groundwater/borehole source
PE SDate	Possible Existing date Surface water date (Starting)
PE SLand ha	Possible Existing Surface water land area Ha
PE SCrop ha	Possible Existing Surface water crop area Ha
PE SVolume	Possible Existing Surface water volume
PE SSource	Possible Existing Surface water source
PE BDate	Possible Existing Groundwater/borehole date (Starting)
PE BLand ha	Possible Existing Groundwater/borehole land area Ha
PE BCrop ha	Possible Existing Groundwater/borehole crop area Ha
PE BVolume	Possible Existing Groundwater/borehole volume
PE BSource	Possible Existing Groundwater/borehole source
PL Control SName	Possible Lawful Surface water control area name
PL Control SDate	Possible Lawful Surface water control area date (Starting)
PL Control SLand ha	Possible Lawful Surface water control area land area Ha
PL Control SCrop ha	Possible Lawful Surface water control area crop area Ha
PL Control SVolume	Possible Lawful Surface water control area volume
PL Control SSource	Possible Lawful Surface water control area source
PL Control UName	Possible Lawful Underground water control area name
PL Control UDate	Possible Lawful Underground control area date (Starting)
PL Control ULand ha	Possible Lawful Underground control area land d area Ha
PL Control UCrop ha	Possible Lawful Underground control area crop area Ha
PL Control UVolume	Possible Lawful Underground control area volume

PL Control USource	Possible Lawful Underground control area source
PL Per2 SName	Possible Lawful Permit Surface water control area name
PL Per2 SDate	Possible Lawful Permit Surface water control area date (Starting)
PL Per2 SLand ha	Possible Lawful Permit Surface water control area land area Ha
PL Per2 SCrop ha	Possible Lawful Permit Surface water control area crop area Ha
PL Per2 SVolume	Possible Lawful Permit Surface water control area volume
PL Per2 SSource	Possible Lawful Permit Surface water control area source
PEL SLand ha	Possible Existing Lawful Surface water land area Ha
PEL SCrop ha	Possible Lawful Surface water crop area Ha
PEL SVolume	Possible Lawful Surface water volume
PEL SSource	Possible Lawful Surface water source
PEL BLand ha	Possible Existing Lawful Groundwater/borehole field area Ha
PEL BCrop ha	Possible Lawful Groundwater/borehole crop area Ha
PEL BVolume	Possible Lawful Groundwater/borehole volume
PEL BSource	Possible Lawful Groundwater/borehole source
PU SLand ha	Possible Unlawful Surface water land area Ha
PU SCrop ha	Possible Unlawful Surface water crop area Ha
PU SVolume	Possible Unlawful Surface water volume
PU SSource	Possible Unlawful Surface water source
PU BLand ha	Possible Unlawful Groundwater/borehole land area Ha
PU BCrop ha	Possible Unlawful Groundwater/borehole crop area Ha
PU BVolume	Possible Unlawful Groundwater/borehole volume
PU BSource	Possible Unlawful Groundwater/borehole source
REG SLand ha	Registered Surface water land area Ha
REG SCrop ha	Registered Surface water crop area Ha
REG SVolume	Registered Surface water volume
REG SSource	Registered Surface water source
REG BLand ha	Registered Groundwater/borehole land area Ha
REG BCrop ha	Registered Groundwater/borehole crop area Ha
REG BVolume	Registered Groundwater/borehole volume
REG BSource	Registered Groundwater/borehole source
Present SDate	Present Surface water date ?
Present SLand ha	Present Surface water land area Ha
Present SCrop ha	Present Surface water crop area Ha
Present SVolume	Present Surface water volume
Present SSource	Present Surface water source
Present BDate	Present Groundwater/borehole date ?
Present BLand ha	Present Groundwater/borehole land area Ha
Present BCrop ha	Present Groundwater/borehole crop area Ha
Present BVolume	Present Groundwater/borehole volume
Present BSource	Present Groundwater/borehole source
PresPU I/D SLand ha	Present Possible Unlawful Increase/Decrease Surface water land area Ha
PresPU I/D SCrop ha	Present Possible Unlawful Increase/ Surface water crop area Ha
PresPU I/D SVolume	Present Possible Unlawful Increase/ Surface water volume

PresPU I/D SSource	Present Possible Unlawful Increase/ Surface water source
PresPU I/D BLand ha	Present Possible Unlawful Increase/Decrease Groundwater/borehole land area Ha
PresPU I/D BCrop ha	Present Possible Unlawful Increase/Decrease Groundwater/borehole crop area Ha
PresPU I/D BVolume	Present Possible Unlawful Increase/Decrease Groundwater/borehole volume
PresPU I/D BSource	Present Possible Unlawful Increase/Decrease Groundwater/borehole source
PresentAuthType	Present Authorisation Type
Licence Date	License data
GA Land ha	General Authorisation Land Area Ha
GA Crop ha	General Authorisation crop Area Ha
GA Volume	General Authorisation volume
AuthTypeSource	General Authorisation type source
Notes	Notes
Other: Type	Other Authorisation/arrangements: Type
Other: Volume	Other Authorisation/arrangements r: Volume
Other: Source	Other Authorisation/arrangements: Source
FinDataSource	Final Data Source

**Woodlots  
(Forestation)**

<b>FIELD</b>	<b>DESCRIPTION</b>
PROPREF	Property Reference
GROUP	Uncontrlled or within a GWCA
FOQ_HA_FIN	Qualify period SFRA Hectares
FOC_HA_FIN	Current period SFRA Hectares
QAUL_VOL	Qualify period volume
FO_W_SP	Specie
FO_W_RESNM	Water Resource
FO_W_HA	Registered Hectares
FO_W_VL	Registered volume
FO_LUF_TYP	User Feedback type of entitlement
FO_LUF_REF	User Feedback entitlement reference
FO_LUF_HA	User Feedback entitlement hectares
FO_UF_COMM	Comment on user feedback
FO_LPD_TYP	Captured entitlement type
FO_LPD_REF	Captured entitlement reference
FO_LPD_HA	Captured entitlement hectares
FO_EXLF_HA	ELU hectares
FO_EXLF_VL	ELU volume
FO_UNLF_HA	Unlawful hectares
FO_UNLF_VL	Unlawful volume
FO_LL_HA	Lawful hectares
FO_LL_VL	Lawful volume
UNIT	Unit for volume calculation
PRE1972	Pre 1972 hectares
PERMITNO	SFRA permit number
PERMIT_HA	SFRA permit hectares
PRE1972Vol	Pre 2972 Volume
NOTE	Comments on data

## Storing

FIELD	DESCRIPTION
Property No	Property Number
ProcDate Date	Proclamation date of property
ProcDate No of dams	Number of dams on proclamation date
ProcDate Volume	Volume on proclamation date
ProcDateRiver/Stream	River or stream on proclamation date
PS Date	Previous survey date
PS No of dams	Previous survey number of dams
PS Volume	Previous survey volume
PSRiver/Stream	Previous survey river / stream
PE Date	Possible Existing survey date
PE No of dams	Possible Existing number of dams
PE Volume	Possible Existing volume
PERiver/Stream	Possible Existing river / stream
PL Control SName Storing	Possible lawful Surface water control Storing name
PL Control Date	Possible lawful control Date
PL Control No of dams	Possible lawful control number of dams
PL Control Volume	Possible lawful control volume
PL ControlRiver/Stream	Possible lawful control river / stream
PEL No of dams	Possible existing lawful number of dams
PEL Volume	Possible existing lawful
PEL River/Stream	Possible existing lawful
PU No of dams	Possible unlawful
PU Volume	Possible unlawful
PU River/Stream	Possible unlawful
REG No of dams	Registered
REG Volume	Registered
REG River/Stream	Registered
PresentDate	Present (Current) date
Present No of dams	Present (Current)
Present Volume	Present (Current)
Present River/Stream	Present (Current)
PresPU I/D No of dams	Present (Current) Possible unlawful Increase or decrease
PresPU I/D Volume	Present (Current) Possible unlawful Increase or decrease
PresPU I/D River/Stream	Present (Current) Possible unlawful Increase or decrease
GANo of Dams	General Authorisation number of dams
GAVolume	General Authorisation volume
GASource	General Authorisation source
Notes	Notes
FinDataSource	Final Data source

## Validation

FIELD	DESCRIPTION
Property No	Property Number
Property size 1st registration	Property size on 1st registration
Property size - Proclamation date	Property size - Proclamation date
Property size - Present	Property size - Present
Date of 1st registration	Date of 1st registration
Consolidation	Consolidation of properties
Deduction	Deduction of properties
Date of consolidation	Date of consolidation
Climate Zone Number	Climate Zone Number
Property Size (Gis & Deeds)	Property Size (Gis & Deeds match) (Check box /Yes/No)
SG Code (Gis and Warms)	SG Code (Gis and Warms match) (Check box /Yes/No)
Quaternary drainage (Gis and Warms)	Quaternary drainage (Gis and Warms match) (Check box /Yes/No)
Water Management Area (Gis and Warms)	Water Management Area (Gis and Warms match) (Check box /Yes/No)
Coordinates (Gis and Warms)	Coordinates (Gis and Warms match) (Check box /Yes/No)
Specify coordinate (s)	Specify coordinate (s)
Specify coordinate (e)	Specify coordinate (e)
Previous Field Surveys	Previous Field Surveys (Check box /Yes/No)
Field Surveys Date	Field Surveys Date
Specify	Specify
Catchment	Catchment
GWCA (S)	GWCA (Surface water) (Check box /Yes/No)
Date of GWCA (S)	Date of GWCA (S)
Specify which GWCA (S)	Specify which GWCA (Surface water)
GWCA (U)	GWCA (Underground) (Check box /Yes/No)
Specify which GWCA (U)	Specify which GWCA (Underground)
Date of GWCA (U)	Date of GWCA (Underground)
Irrigation board	Irrigation board
Specify which irrigation board	Specify which irrigation board
Government Water Scheme	Government Water Scheme (Check box /Yes/No)
Specify which water scheme	Specify which water scheme
Section 9B	Section 9B (Check box /Yes/No)
Part of an original riparian farm	Part of an original riparian farm (Check box /Yes/No)
Farm no (if not the same)	Farm no (if not the same)
Name of river / stream	Name of river / stream
Captured by	Captured by
FinDataSource	Final Data Source

## Field and Crop

FIELD	DESCRIPTION
Property No	Property Number
SSS Period Q	Period Satellite / Spot Image / Survey Info (Survey -S, Qualify -Q, Current-C
SSS Sat/Spot nr Q	Qualify period Satellite Number
SSS Sat/Survey Date Q	Qualify period Satellite / Spot Image / Survey Date
Q Field No	Qualify period Field Number
Q Field Area Ha	Qualify period FieldArea (ha)
Q Crop Name	Qualify period Crop Name
Q Plant Date	Qualify period Plant Date
Q Rotation Factor (%)	Qualify period Rotation Factor %
Q Irrig. Sys. Code	Irrigation System Code
Q WSI Type	Qualify period Water Source Information: Type (Surface water/ groundwater)
Q WSI NameOfSource	Qualify period Water Source Information: Name of source
Q WSI Source (%)	Qualify period Water Source Information: Source taking %
Q Crop Area Ha	Qualify period Crop Area (Ha)
Q SAPWAT mm/ha/a	Qualify period SAPWAT calculation result (mm/ha/a)
C Field No	Current period Field Number
C Field Area Ha	Current period FieldArea (ha)
C Crop Name	Current period Crop Name
C Plant Date	Current period Plant Date
C Rotation Factor (%)	Current period Rotation Factor %
C Irrig. Sys. Code	Irrigation System Code
C WSI Type	Current period Water Source Information: Type (Surface water/ groundwater)
C WSI NameOfSource	Current period Water Source Information: Name of source
C WSI Source (%)	Current period Water Source Information: Source taking %
C Crop Area Ha	Current period Crop Area (Ha)
C SAPWAT mm/ha/a	Current period SAPWAT calculation result (mm/ha/a)

## Dam Calculation

FIELD	DESCRIPTION
Property No	Property Number
SSS Period	Period Satellite / Spot Image / Survey Info (Survey -S, Qualify -Q, Current-C
SSS Sat/Spot nr	Qualify period Satellite Number
SSS Sat/Survey date	Qualify period Satellite / Spot Image / Survey Date
Dam No	Dam Number
Capacity	Dam Capacity Calculated
Name of river/stream	Name of river/stream
Dam Safety Dam	Dam Safety (Yes No)

### Other Water Takings

FIELD	DESCRIPTION
Property No	Property number
Type	Type of water use
RegVolume	Registered volume
Source	Source
Possible Existing	Possible Existing
Possible Lawful	Possible Lawful
Possible Existing Lawful	Possible Existing Lawful
Possible Unlawful	Possible Unlawful
Present	Present
PU I/D	Possible unlawful increase/ decrease
FinDataSource	Final Data Source

## Lookup Tables

### Lookup FileCreate

Created
Yes
No
Linked

### Lookup File Status

Status
Complete
I Require WARMS
I Require Other
Linked
Double Registration

### Lookup Batch Numbers

Batch Number	Description
Load batch and descriptions eg.:	
Batch 1	Weipe Irrigation Farmers

### Lookup Crops

Crop
Almonds
Apples
Apricots
Avocado
Babala
Beans
Beetroot
Berries
Brinjals
Butternuts
Cabbage
Cabbage - S
Cabbage - W
Carrots
Cherries
Chillies
Citrus
Corn
Cotton
Cucumbers
Cucurbits

Cut Flowers
Dates
Dry Beans
Fresh Fodder
Fruit Trees
Garden
Garlic
Granadillas
Grapes - Table
Grazing
Green Beans
Green Feed
Green Peppers
Ground Nut
Hidroponic Vegetables
Hubbard Squash
Japanese Radishes
Kiwi Fruit
Lawn
Lettuce
Lucerne
Maize
Mealies
Melons
Midmar Grass
Nectarines
Nursery
Oats
Onions
Oranges
Paprika
Pastures
Pastures - S
Pastures - W
Pastures S + W
Peaches
Peanuts
Pears
Peas
Pecan Nuts
Peppers
Plums
Potatoes

Prickley Pears
Pumpkins
Radishes
Roses
Rye
Rye Grass
Scheduled Use
Smutsvinger Grass
Sorghum
Soy Beans
Spinach
Squash
Stone Fruit
Strawberries
Sugar Beans
Sugar Cane
Sunflowers
Sweet Corn
Sweet Potatoes
Tef
Tobacco
Tomatoes
Triticale
Unregistered
Vegetables
Vegetables - S
Vegetables - W
Vegetables S + W
Watermelons
Wheat

#### Lookup Index Beskrywing

Index No	Index	Description
0	Warms Registration	Registration "Active" op WARMS
1	Unregistered Water Usres	Irrigation/ SFRA or Storage of water without registered on WARMS
2	Oter Water User	Industrial use – not being validated
3	Water Scheme	Irrigation boards – listing lawful use
4	Schedule 1 Use	Schedule 1 user
5	Cancelled – No water use	0-Registration: Schedule 1 or planned use cancelled
6	Cancelled - Duplicate	Cancelled - Duplicate

7	Closed – New Owner	Owner changed, file closed on WARMS
8	Cancelled – Property consolidated	Registered property does not exists anymore
9	License	License
10	Temporary Transfer permit	Temporary Transfer permit
33	Section 33 applicant	Completed section 33 application form
35	Section 35 applicant	Completed section 35 application form

#### Lookup Registration Status

Status
Correctly registered water use
Under registered water use
Over registered water use
Unregistered water use
Unregistered WC
In Process
Q. outside
Consolidated
Watering Livestock

#### Lookup Validation Status

Status
Not Commenced
In Process
Compl require client interaction
Completed
Compl Not Client Interaction
Compl Post Interact Processing
Q. Outside
Consolidated

#### Lookup ValidationPerson

Person
Load names of person with access to perform task

#### River Lookup

Rivers
Load names of rivers in area

#### Satellite lookup

Sat Image
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Load descriptions of satellite images  
used