



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

PROGRESS REPORT: VAAL RIVER STRATEGY STEERING COMMITTEE MEETING NO. 5, ON 19 OCTOBER 2011

Water Use Compliance Enforcement (Eradication of Illegal Irrigation Water Use) in the Vaal River

1. BACKGROUND

Validation and verification of water use are two of the major components forming part of the project to address unlawful use in the Vaal River System. During the validation of water use and the determination of the lawful use, very little formal communication between the water users and DWA took place. The classification of the registered use and the identification of unlawful water use were “internal” investigations and the answers obtained are not final.

The main aim of the verification process is to inform a water user of the outcomes of the validation process and to offer the water user (if he disagrees) the opportunity to make representations regarding any determinations made during the validation process. The verification of water use is a formal process described under Section 35 of the National Water Act, and the process can therefore only be initiated by the DWA. All the correspondence is between the DWA and the water user.

The validation and verification of irrigation water use in the Upper- and Middle Vaal Water Management Areas (WMA) have been under way in the Gauteng and Free State Regional Offices respectively, whilst these processes have commenced in the Lower Vaal WMA (resorting under the Northern Cape Region). During the validation process significant alleged unlawful water use in the catchment of the Vaal Dam and in the rest of the Vaal River system was identified. These unlawful uses and users are now putting the Vaal River System and those users who are using their water lawfully, at risk.

2. PROGRESS

2.1 Validation and Verification

Work has been proceeding in parallel in all three WMAs since the appointment of the PSP for this project in June 2010. The verification of water use has commenced for all the properties where possible unlawful water has been identified and these properties are receiving the highest priority.

The number of properties involved and the progress in terms of the validation/verification process, together with the possible unlawful use is shown in Table 1.

Table 1: Status quo in Vaal River System

Item	Vaal System			
	Upper	Middle	Lower	Total
Irrigation properties	3 527	3 046	1 952	8 525
Validation in process	0	0	1 531	1 531
Validation completed	3 527	3 046	121	6 694
Verification in process	1 800	1 966	0	3 766
Verification not started	974	676	1 952	3 602
Verification completed	753	404	0	1 157
Properties - unlawful use *	877	325	<i>Under assessment</i>	1 202
Unlawful volume (mil m3) *	180	34	30	244

* At project inception

Priority case lists for the Upper and Middle Vaal WMAs were compiled based on the volume of the possible illegal use on each property (from surface water resources). The initial focus was on properties with a possible illegal use of more than 250 000 m³ per annum. A summary of the initial prioritisation exercise for the two WMAs is presented in Table 2. The Lower Vaal WMA is excluded from this table as the validation process has only recently commenced.

Table 2: Initial prioritisation in the Upper- and Middle Vaal WMAs (surface water)

Item	Upper Vaal	Middle Vaal	Total
Total number of properties with illegal use	877	190	1 097
Total illegal use volume (m ³ /annum)	170 900 000	32 200 000	203 100 000
Properties with illegal use > 250 000 m ³ /a	227	41	268
% of total illegal properties	26 %	22 %	24 %
Volume of illegal use > 250 000 m ³ /a	120 886 350	21 608 386	142 494 736
% of total illegal volume	71%	67 %	70 %

From the experience gained in the Vaal River, it has become clear that regulations to enforce the measurement of taking water for irrigation purposes is a prerequisite for efficient and effective action against partially unlawful water users, as this will reduce the responsible authority's burden of proof. Until such regulations have been published, action against partially unlawful water users would be problematic. The initial priority lists were therefore revised and now only include properties where all the current water use was classified as possible unlawful use or where the metering of water use was a pre-requisite when permits were issued under the previous Water Act. A summary of the revised priority list is shown in Table 3.

Table 3: Revised prioritisation in the Upper- and Middle Vaal WMAs (surface water)

Item	Upper Vaal	Middle Vaal	Total
Total number of properties with unlawful use	877	190	1 097
Total unlawful use volume (m ³ /annum)	170 900 000	32 200 000	203 100 000
Properties with "blatant" unlawful use	354	96	450
% of total unlawful properties	40 %	50 %	41 %
Volume of "blatant" unlawful use	65 482 383	14 154 387	79 636 770
% of total unlawful volume	38 %	44 %	39 %

2.2 Regulations

The Department has had some success in dealing with unlawful use in cases where the use is clearly unlawful. However, where there is existing lawful use and part of the current use is unlawful, it is difficult to deal with from a legal perspective as the present legal tools are not sufficiently robust to successfully prosecute transgressors. A large percentage (61%) of unlawful use falls in this category.

The Department must be able to prove beyond reasonable doubt, in a Court of Law or at the Tribunal that an irrigator is over abstracting or unlawfully using water. The available tools in the NWA have therefore to be strengthened by appropriate and supporting regulations required for limiting, monitoring, measuring and recording of irrigation water use.

Draft regulations have been cleared with the Chief State Law Advisor and a submission has been made for publishing the draft Regulations for public comment. The publication for comment is therefore imminent.

2.3 Compliance Monitoring and Enforcement (CME)

Addressing unlawful water use is receiving a high priority in the Regional Offices. New CME appointments have been made in some of the Regional Offices and CME officials from Head Office have been made available to assist in the enforcement process. Priority case lists for the Upper and Middle Vaal WMAs have been compiled based on the volume of the possible unlawful use on each property and the main perpetrators are dealt with first.

The initial project plan was based on the premise that the regulations to enforce measurement of water use would be published during the third quarter of 2011. This did not materialise and the project targets were revised accordingly. A summary of the project plan and more specifically the section addressing the unlawful water use until the end of the 2011/12 financial year is presented in Table 4. The targets for addressing the balance of the illegal use during the 2012/13 financial year will be developed and included in further reports.

Table 4: Cumulative project targets (surface water)

Description	Up to Dec 2010	Jan - Mar 2011	Apr - Jun 2011	Jul - Sep 2011	Oct - Dec 2011	Jan - Mar 2012
# of Pre Directives	24	40	130	160	340	440
# of Directives	4	32	140	170	320	415
Unlawful use addressed (m ³ * 10 ⁶)	3.3	8	52	63	92	147
% of unlawful use addressed	1%	4 %	27 %	32 %	47 %	75 %

The totals above are based on the premise that the regulations to enforce measurement of use will be published early in 2012.

A complete re-evaluation is being done for each property under investigation (which includes the use of the latest SPOT satellite imagery) and the results are amended where necessary. The initial validation results may change due to the following:

- The availability of more satellite images for the qualifying period (where irrigation can be identified)
- Section 33 approvals

- Water users who have stopped their water use
- Cases referred to the Tribunal

There are 155 properties receiving urgent attention and the progress in term of compliance monitoring and enforcement is shown in Table 5.

Table 5: CME progress

Description	Number of Properties	Volume (m ³ /a)	% of Total
Illegal water use stopped	28	11 119 484	18.6
Re-evaluation showed the use is lawful	7	2 348 494	3.9
Re-evaluation showed the use is partially unlawful	16	8 977 184	15.0
Section 33 applications still to be evaluated	19	5 518 680	9.2
Cases referred to the Tribunal	4	2 976 100	5.0
Busy with Section 35 process	55	18 436 806	30.9
Pre-directives sent	19	8 192 216	13.7
Directives sent	7	2 157 533	3.6
Total	155	59 726 497	100.0

2.3 Contingency plans

The draft report on possible contingency measures, should the desired results not be achieved or not achieved in time, is being finalised at present.

2.4 Communication

A communication strategy was developed as part of the Inception Phase and focuses on the communication aspects of the project, as these are critical in achieving the project objectives. It provides the communication tools used, the roles and responsibilities and a detailed programme for implementation.

Various contact sessions with water users took place during the reporting period and the project was also introduced to water users through newsletters.

3. SUMMARY AND CONCLUSION

In view of the above the aim is to address 47% of the illegal volume identified in the Vaal River System before the end of 2011. The publication of the regulations for comment is imminent but until these are in place the focus will remain on water users where all the present water use is regarded as possibly unlawful.

A programme for the project with deliverables based on the final Project Execution Plan has been summarised in Table 4 and the aim is to address 75% of the identified unlawful water use by the end of the first quarter of 2012. The targets for addressing the balance of the illegal use during the 2012/13 financial year will be developed and included in further reports.