

CLASSIFICATION OF SIGNIFICANT WATER RESOURCES IN THE THREE VAAL WATER MANAGEMENT AREAS

STRATEGY STEERING COMMITTEE OF INTEGRATED WATER RESOURCE MANAGEMENT: VAAL RIVER SYSTEM : 19 OCTOBER 2011



7-STEP PROCEDURE FOR DETERMINING CLASSES

- Step 1:** Delineate the **units of analysis** and describe the status quo of the water resource(s)
- Step 2:** Link the socio-economic and ecological value and condition of the water resource(s)
- Step 3:** Quantify the **ecological water requirements** and changes in non-water quality **ecosystem goods, services and attributes**
- Step 4:** Determine an **ecologically sustainable base configuration scenario**
- Step 5:** Evaluate scenarios within the integrated water resource management process
- Step 6:** Evaluate the scenarios with **stakeholders**; and
- Step 7:** **Gazette and implement** the class configuration.



PRESENTATION LAYOUT

- Introduction
- Implementation of Water Resource Classification System in the Vaal WMA
- Progress to date
- Next step to follow




CLASSIFICATION IN THE VAAL WMAs


- Study initiated in October 2010
- Time frame: 24 months
- The objective is to classify ALL significant water resources into Management Classes
- WRP consulting engineers was appointed to undertake classification in the Vaal WMAs.




PROGRESS TO DATE

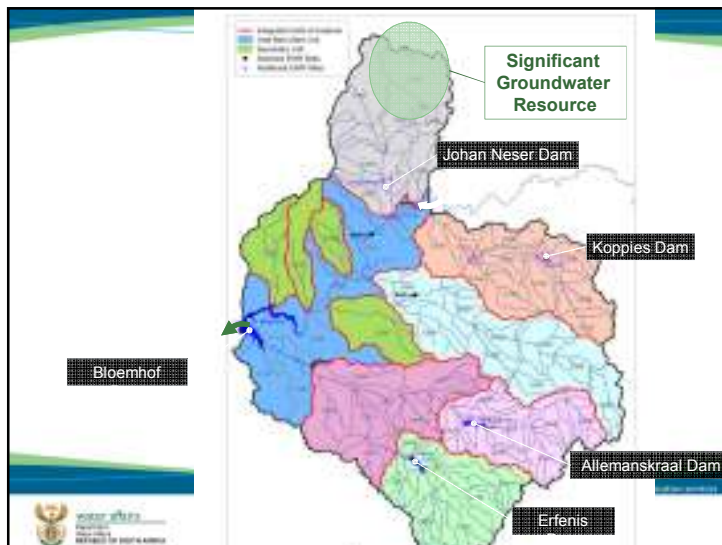
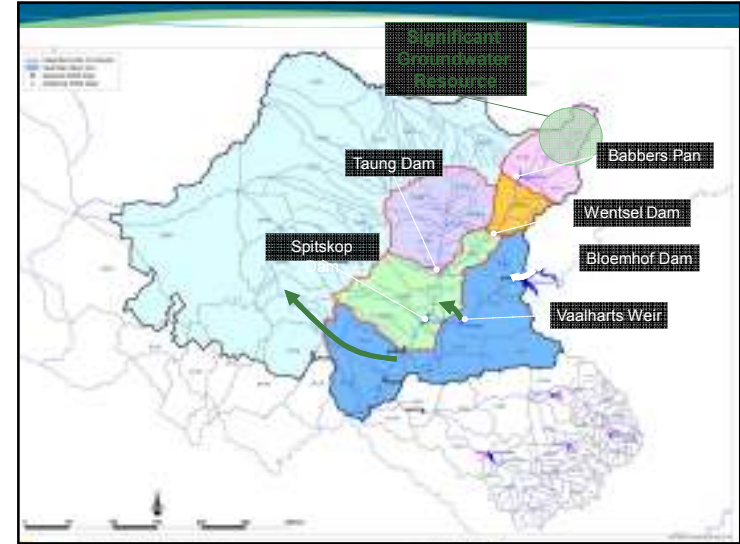
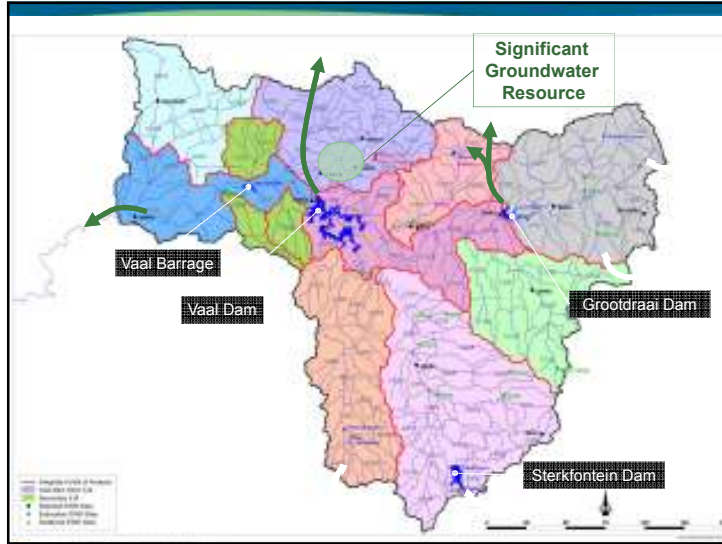
Step	Description	Status	Deliverable
Step 1:	Delineate the units of analysis and describe the status quo of the water resources	Complete	Inception report
Step 2:	Link the socio-economic and ecological value and condition of the water resources	Status quo complete	Integrated report status quo
Step 3:	Quantify the ecological water requirements and changes in non-water quality ecosystem goods, services and attributes	Reserve assessment; Updated PES described	First draft report
Step 4:	Determine an ecologically sustainable base configuration		
Step 5:	Evaluate scenarios within the integrated water resource management process		
Step 6:	Evaluate the scenarios with stakeholders; and		
Step 7:	Gazette and implement the class configuration		



- TASKS COMPLETED**
- Status Quo task**
- To describe the status quo of water resources within each IUAs, in terms of the following:
 - Water resource infrastructure and availability
 - Ecological status
 - Socio-economic conditions
 - Goods and services
- 

- PROGRESS TO DATE (Cont...)**
- Stakeholder engagement**
- First PSC meeting was held 22 February 2011
 - Second PSC meeting will be held on 10/11/2011
 - Issues and response register (update ongoing)
 - Project information available on the website:
<http://www.dwa.gov.za/rdm/WRCS/default.aspx>
- 

- DELINEATION OF INTEGRATED UNITS OF ANALYSIS**
- The identification and selection of the IUAs were based on the following considerations:
- The resolution of the hydrological analysis and available water resource network configurations.
 - Location of significant water resource infrastructure.
 - The biophysical nodes , PES and REC for each node were also considered.
 - Socio-economic zones
- 



SOCIO-ECONOMIC COMPONENTS ADDRESSED THE FOLLOWING:

- Source and critically review of available socio-economic data, (e.g. communities and economies) align it to identified IUAs;
 - Identify socio-economic zones aligned to the IUAs;
- Review specific studies for all major sectors in the WMA i.e. mining, agriculture, energy and tourism and where possible consult sectors to address information gaps;
- Describe and value the use of water and aquatic ecosystems in order to establish the dependence of communities on economic value and in-stream goods and services provided by the water resources.

GOODS AND SERVICES ASSESSMENT

- To determine the way in which aquatic ecosystems are currently being used in each socio-economic zone,
- And estimate the value generated by that use.
- The most important Goods and Services associated with overall system:
 - Recreational fishing
 - Subsistence fishing
 - Riparian vegetation usage, etc



Next steps to follow

Step 4: Determine an ecologically sustainable base configuration scenario

Step 5: Evaluate scenarios within the integrated water resource management process

Step 6: Evaluate the scenarios with stakeholders.

Step 7: Gazette and implement the class configuration.



15

QUANTIFICATION OF EWRs

- The quantification of EWRs was based on the following:
 - ✓ Historic PES and EIS,
 - ✓ Comprehensive reserve study,
 - ✓ Results from updated PES study which is currently underway,
 - ✓ NFEPA(Conservation targets)
- To assess whether high confidence Reserve data at established EWR sites can be extrapolated.
- To help evaluate the socio-economic and ecological implications of different configuration scenarios



**THANK
YOU!!!**

