

## TERMS OF REFERENCE

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### **REVIEW AND UPDATE OF THE 1999 ECOLOGICAL IMPORTANCE-SENSITIVITY AND THE PRESENT ECOLOGICAL STATE (EIS/PES) OF SOUTH AFRICAN RIVERS INCLUDING EXPANSION TO PRIORITY TRIBUTARIES AND WETLANDS ACCORDING TO QUATERNARY CATCHMENTS**

**Chief Directorate: Resource Directed Measures  
Directorate: Resource Quality Services**

*Department of Water Affairs and Forestry  
Private Bag X313  
Pretoria 0001  
Republic of South Africa*



## PURPOSE OF DOCUMENT

The purpose of this document is to serve as a Terms of Reference for the appointment of professional service providers (PSP's) to refine and update the ecological importance and sensitivity (EIS) and present ecological state (PES) of South African Quaternary catchment main stem rivers and to determine the EIS/PES for priority tributaries and wetlands according to quaternary catchments for each of the 19 Water Management Areas (WMA) within South Africa. Secondly, to address the current back logs related to Water Use License Applications (WULA) by conducting Reserves in priority quaternaries and also at the same time providing additional information towards the EIS/PES refinement and update. Within the Department of Water and Environmental Affairs (DWEA), the project will be managed by the Chief Directorate: Resource Directed Measures with specialist input from the Directorate: Resource Quality Services.

### 1. SCOPE OF PROJECT

**Tenders can be submitted for part 3-; ( 3.1, 3.2, 3 5 and 3.6)**

**Part 4 separately**

**EIS/PES information** is required for the assessment of the health and protection of aquatic ecosystems. This information is needed for the:

- Eco-classification process for Reserve determinations;
- Low confident Reserves required for WULA applications;
- National Aquatic Ecosystem Health Monitoring Programme (NAEHMP), and specifically the River Health Programme as well as the Wetland Health Monitoring Programme;
- Related projects such as river and biodiversity conservation projects and
- Identifying areas where high confident Reserves are required and areas of high protection and conservation importance.

The EIS/PES for the rivers, priority tributaries and wetlands will be determined at quaternary level, and in some cases sub quaternary catchments.

The EIS/PES assessment will be done for each of the 19 WMAs and will be based on a broad assessment of ecological similarity and the contribution of aquatic ecological expertise/specialist in South Africa. The study area has been defined in terms of grouping the 19 WMA into five groups as indicated in table 1 below.

**Table 1: WMA groups for which tenders can be submitted**

GROUP 1		GROUP 2		GROUP 3		GROUP 4		GROUP 5	
WMA		WMA		WMA		WMA		WMA	
Group co-ordinator		Group co-ordinator		Group co-ordinator		Group co-ordinator		Group co-ordinator	
1	Limpopo	6	Usutu/Mhlatuze	8	Upper Vaal	12	Mzimvubu/Keiskamma	16	Gouritz
2	Levubu/** Letaba	7	Thukela	9	Middle Vaal	15	Fish/Tsitsikamma	17	Olifants/Doring
3	Crocodile West/Marico	11	Mvoti/Umzimkulu	10	Lower Vaal			18	Breede
4	Olifants			13	Upper Orange			19	Berg
5	Inkomati			14	Lower Orange				

**\*\* Levubu to be addressed as part of WMA1 and Letaba with WMA 4**

The 1:500 000 scale rivers map for South Africa will be used for assessment. Important streams that are not indicated on this map will be included with guidance from the local specialists. The criteria for prioritising the significant water resources will be documented. The EIS/PES model that will be used in the assessment has been upgraded from the 1999 version has been tested and is ready for use in this project.

The 1999 EIS/PES tables will be used as the departure point and the assessment and update of the latter database and the assessment of new priority tributaries and wetlands will mostly be based on local expert knowledge and judgement by using data that has been collected over a large number of years and experience obtained over time by working in an area. Generally no field surveys will be needed. However, in cases where the data and expertise are limited and where the resource have been identified as priority resources to biodiversity targets or the function it perform, additional specialist will be appointed to perform rapid Reserves.

The use of experts that know the study area is crucial as this would ensure optimal use of existing data, limit field work and ensure that current expert knowledge is documented and available in an appropriate format for future use within government and the PSP community. The aforementioned, is also crucial for the building of capacity and knowledge transfer in DWAE and the water sector.

**Preliminary Rapid Reserve** determinations to address backlog WULA applications (a priority flagship program for the minister) will be conducted. This will also entail the preparation of the legal templates and any other documents (i.e. GIS maps) specified by the client. Specific conditions related to the water use and the preliminary category will also have to be specified. The PSP required for this task would be appointed **additional** to the EIS/PES tasks and will run parallel with the aforementioned process.

**Rivers Conservation Data** requirement process will be integrated with the updating and refinement of the EIS/PES and Reserve determination. A specialist integration meeting will be held as a pilot study in a priority WMA (to be agreed by DWEA and SANBI) to assess the similarity in information requirements and to ensure that the EIS/PES provides the information required for the selection of conservation areas. This is an important process for the National Water Resources Classification process.

## 2. BACKGROUND

Ecological importance refers to the diversity, rarity or uniqueness of the habitats and biota. Consequently, it reflects the importance of protecting these ecological attributes, from a local, national and even international perspective. Ecological sensitivity refers to the ability of the ecosystem to tolerate disturbances and to recover from certain impacts. Therefore, the more sensitive the system is, the lower its tolerance will be to various forms of alteration and disturbance. This serves as a valuable indication of the degree to which a water resource (river, wetland) can be utilized without putting its ecological sustainability at risk.

The EIS/PES data is used in the eco-classification process of DWAE (key process in the determination of the Reserve) to determine ecological sensitivity of a river reach as well as the present ecological state of such a river reach. From this an indication is provided whether the river reach is in a health category that is commensurate with its ecological importance and sensitivity. This relates to the determination of the eco-status of the river which refers to its overall condition or health and is based on its biophysical characteristics.

The health of a river indicates its ability and capacity to provide a variety of goods and services to society. From this data, an informed decision can be made regarding the sustainable human use and management of a river reach.

The first estimation of the EIS/PES was done in 1999 for the purpose of the Water Situation Assessment Model (WSAM). This was initially only done for all the main stem rivers in all 1946 quaternary catchments of the country. This information is currently used extensively in the RHP, the determination of the ecological Reserve and in the determination of river conservation priorities and biodiversity target protection. However, it became evident that this information is due for an urgent update, extension and review. In some situations, information is now required at a sub-quaternary catchment level.

This project will deliver products that can support the National Water Resource Classification System (NWRCS) and Reserve determinations done by the Chief Directorate: RDM hence a joint venture between the Directorates: Resource Quality Services and the Chief Directorate: Resource Directed Measures of DWAF will be formed.

### **3 TASKS AND DELIVERABLES**

#### **3.1 Data Collection Process and Populating the EIS/PES model per WMA Group at a Preliminary basis, setting up specialist teams and producing inception reports**

One coordinator will be appointed per WMA group (table 1) that will co-ordinate the collection and amalgamate the EIS/PES data for that specific WMA group. Data will be obtained from selected key local specialists in each WMA. The coordinator will assist with preparing the started documents for the specialist workshop, the data/information that is required for the specialist in the format as specified by the client. This data will be used for preliminary populating the EIS/PES model per WMA. The appointed coordinators will consult with the client to identify appropriate ecological experts in each WMA that would have the required expert knowledge to populate the EIS/PES model. The Coordinators will prepare the TOR for the specialist; assist with the appointment of the specialist, and the administrative processes (i.e. contracts, payments, credit and quality control and the review of all data and documents received). The 1999 EIS/PES assessment will form the departure point for this review and re-assessment.

In certain priority catchments the EIS/PES data base has been updated since 1999 and this updated data should be used as the departure point. This updated database is available on the department's rivers data base.

The coordinators role will further be to organize the specialist meetings, prepare the spreadsheets to be used (as per the clients instructions), preparation and distributions of workshop proceedings, update the EIS/PES spreadsheet and keep a record of decisions and criteria. Preparation of GIS maps indicating the new EIS/PES values in table format and plotted.

#### Deliverable:

5 coordinators appointed. Inception phase report prepared and budgets reviewed.

EIS/PES model with the updated data per quaternary catchment for each WMA prepared and a selected specialist expert team per WMA group identified. Specialist procurement completed, all task prepared and ready to initiate step 2 and 3.

### **3.2 Refining and updating the preliminary EIS/PES data per WMA**

The preliminary EIS/PES database model that was populated for each WMA during Task 3.1 will be checked and scrutinized during mini expert/specialist workshops for each WMA group. Priority wetlands, main stems and tributaries will be identified and the criteria for the latter selection will be documented. The prioritised selection will be aligned with water resources that have been identified as target areas for biodiversity conservation. The workshops will be attended by the appointed coordinator for each of the WMA groups, identified experts as well as scientists and regional managers from the D: RQS/RDM and other directorates in DWAF. Stakeholders that has an in depth knowledge of a particular water resource or catchment will also be invited to participate.

The purpose of these workshops is to finalize the ratings for metrics in the EIS/PES model. Depending on the necessity and practicality, more than one workshop may be held per WMA group. The EIS/PES database model will be available for use on the Resource Quality Services and Resource Directed Measures website once completed and approved.

This task could include the determination of the Reserve on identified resources where data and expert knowledge is limited or where the resource has been identified as a high priority biodiversity target river. The Steering Committee Members will advice on the necessity of this. If it is recommended that more information is required, a rapid 3 level Reserve will be conducted based on DWAFs approved eco classification approach. Additional PSPs will be appointed specifically for this task.

#### Deliverable:

A finalized, updated and refined EIS/PES database model for the main stem rivers, priority tributaries and wetlands in each WMA. Reserve specialist report, Reserve template and documentation for region with conditions if the need for Reserve has been identified. Coordinators to set up workshops in all priority WMA

### **3.3 Compilation of a report (including maps) specifying the approach followed, conclusions on the EIS/PES refinement and update for all the quaternary catchments in each WMAs**

The report will address and analyze the EIS/PES data for all WMAs and indicate priority areas for further attention in terms of protection and management to achieve resource quality objectives and preliminary management class. The report will also specify per resource and quaternary catchment descriptions of the characteristics and parameters that defines a PES state and the EIS importance. A table will be produced to indicate the most significant changes/impact on the present state and the main indicator that drives a quad. Cross reference to high conservation areas targeted for biodiversity conservation will be made by aligning the attributes (to be investigated) that makes up the EIS/PES.

#### Deliverable:

A report indicating the EIS/PES of 19 WMA as well as priority areas that would need specific investigations; the process followed, maps reflecting the results and a description of the attributes for each resource. The main indicators that would cause a change in the EIS/PES should be documented.

### **3.4 Rapid Reserve determination for WULA applications and addressing priority backlogs (separate task)**

Preliminary rapid Reserve determinations to address backlog WULA applications will be determined by specialist responsible for a particular area, this will also entail the preparation of the legal templates, other relevant documents, and maps required for approval. Specific conditions related to the water use and the preliminary category will also have to be specified. Specialists from task 3.1 and 3.2 could be requested to advise on best sites for the EWR. **PSP submitting proposal for this component must have water quality and quantity expertise and recognised experience in the application of the approved DWAF methods. Teams should indicate for which WMA are being tendered for and regional specialist should be on the team.**

***The PSP required for this task would be appointed additional to the EIS/PES task and can tender for this component only or separately.***

Deliverable:

Reserve (will include desktops in lower stressed are and low impact developments), templates, graphs, maps and licence recommendations. Updated EIS/PES for these studies to be submitted to co-ordinators in particular WMA's if it is completed during the duration of the EIS/PES study.

**3.5 Co-ordination workshop with specialists from both the PES/EIS team and the rivers conservation team (SANBI)**

The specialists and experts that will be required to participate in the EIS/PES update and the identification of high conservation type resources for biodiversity targets in SA will be similar. A co-ordination workshop will be held as a pilot to test the synergies in data and how the two processes can compliment each other into information supply and the outcome of results. A priority input for instance for both processes is the hydrological data i.e the establishment of a hydrological index at a sub quaternary catchment level, and the necessity for the improvement of the river type classification. An agenda for the workshop will be compiled jointly between the DWAF, SANBI and coordinators.

Deliverable:

Alignment of high conservation areas and EIS values, and the identification of resources that would require a high protection management category or urgent mitigation/rehabilitation intervention.

**4 PROJECT MANAGEMENT AND ADIMISTRATION**

The project study and management team will consult in detail with relevant parties within DWAE, the WRC, the Department of Environment Affairs and Tourism provincial offices, SANBI and other role-players.

**4.1 Project, Study and Management Team**

The Chief Directorate: Resource Directed Measures (RDM) will have the overall responsibility for the managing and financing the project. Resource Quality Services (RQS) will contribute financially and provide extensive specialist input. The project study and management team will consist of:

<b>Name</b>	<b>Function</b>	<b>Institution</b>
Ms B Weston/ Mr S Mazibuko	RDM program manager WMA (7, 11, 12, 13, 14, 16)	RDM
Ms J Jay J Machaba	WMA ( 4, 5, 6, 8, 9, 10, 17,18) WMA (1,2,3,15,19)	RDM RDM
Mr R Sekwele	RQS WMA program manager	RQS
Dr CJ Kleynhans	Specialist WMA study team manager	RQS
Ms C Thirion	Specialist assistant technical manager	RQS
Ms P Maseti	Scientist: technical support	PSP
Dr MS Liphadzi	Administrative and technical review	WRC

#### **4.2 Project Steering Committee**

The WRC as the DWAFs appointed implementing agent will establish a steering committee in consultation with the clients. The WRC will arrange the SCM, the venue and the proceedings of the meetings.

### **5 HUMAN RESOURCE REQUIREMENTS**

The WRC (DWAE's Implementing Agent) will be responsible for the procurement of PSPs according to the DWAE policy. The WRC will assist the department with the administrative functions, appointment of the PSP, reviewing of the technical material and coordinating technical and project meetings. The DWAE does not have the capacity to conduct such an extensive and complex project without the assistance of appropriately qualified professional service providers (PSP's). As it is very unlikely that a single consultancy firm will have all the expertise, it is proposed that a consortium of professional service providers be appointed to provide the highly specialized knowledge required.

The output of this project will ensure that current expert knowledge on the EIS/PES of South African priority surface water resources (Wetlands and Rivers) are properly documented and available in an appropriate format for future use within government and the PSP community as well as for capacity building and knowledge transfer.

The project will also aim at improving the capacity within RQS, RDM and regions as well as the PSP community in the use and interpretation of the EIS/PES model A detailed training plan with measurable outputs will be designed with specialist input from the D:RQS. The training plan will form part of the execution of the project beyond its completion.

The project will be performed in the course of approximately two financial years and details of the work breakdown and performance indicators are given in Annexure 1

### **6 REPORTING AND REVIEWING SYSTEM**

A detailed project plan indicating all milestones will be developed with the assistance of the appointed WMA coordinators. The Steering Committee will give overall guidance to the project study and management team and assist with the reviewing of outputs. Progress meetings will take place on a regular basis and all interim and final reports will be submitted to the client for comment and approval.

## 7 WORK BREAKDOWN AND FINANCIAL REQUIREMENTS

The funds for the project have been budgeted for and are available on the Chief Directorate: Resource Directed Measures budgeted and contribution to the budget is on the operational budget of the Directorate: Resource Quality Services. The precise budget will be determined after the evaluation of the PSP proposals. An estimated budget breakdown is given in Annexure 1.

## ANNEXURE 1

### TIME SCHEDULE AND BUDGET BREAKDOWN

Task	Description	2009 X10 <sup>3</sup>	2010 X10 <sup>3</sup>	2011 X10 <sup>3</sup>
1	Data collection, process and populating the EIS/PES model per WMA Group at a Preliminary basis. Starter document	200	250	
2	Refining and updating the preliminary EIS/PES data per WMA		200	
3	Compilation of a report (including maps) specifying the approach followed conclusions on the EIS/PES refinement and update for all the quaternary catchments in each WMAs Specialist workshops		300	200
4	Low confident (desktop and rapid) Reserve determination for WULA applications and addressing priority backlogs	400	400	500
5	Co-ordination workshop with specialists from both the PES/EIS team and the rivers conservation team (SANBI)		300	200
6	Training Capacity Building	50	50	100
<b>Total</b>		<b>650</b>	<b>1,500 000</b>	<b>1, 000,000</b>

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### 1. SCOPE OF PROJECT

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**Part 4 separately**

**EIS/PES information** is required for the assessment of the health and protection of aquatic ecosystems. This information is needed for the:

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- Identifying areas where high confident Reserves are required and areas of high protection and conservation importance.

The EIS/PES for the rivers, priority tributaries and wetlands will be determined at quaternary level, and in some cases sub quaternary catchments.

The EIS/PES assessment will be done for each of the 19 WMAs and will be based on a broad assessment of ecological similarity and the contribution of aquatic ecological expertise/specialist in South Africa. The study area has been defined in terms of grouping the 19 WMA into five groups as indicated in table 1 below.

**Table 1: WMA groups for which tenders can be submitted**

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The 1:500 000 scale rivers map for South Africa will be used for assessment. Important streams that are not indicated on this map will be included with guidance from the local specialists. The criteria for prioritising the significant water resources will be documented. The EIS/PES model that will be used in the assessment has been upgraded from the 1999 version has been tested and is ready for use in this project.

The 1999 EIS/PES tables will be used as the departure point and the assessment and update of the latter database and the assessment of new priority tributaries and wetlands will mostly be based on local expert knowledge and judgement by using data that has been collected over a large number of years and experience obtained over time by working in an area. Generally no field surveys will be needed. However, in cases where the data and expertise are limited and where the resource have been identified as priority resources to biodiversity targets or the function it perform, additional specialist will be appointed to perform rapid Reserves.

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**Rivers Conservation Data** requirement process will be integrated with the updating and refinement of the EIS/PES and Reserve determination. A specialist integration meeting will be held as a pilot study in a priority WMA (to be agreed by DWEA and SANBI) to assess the similarity in information requirements and to ensure that the EIS/PES provides the information required for the selection of conservation areas. This is an important process for the National Water Resources Classification process.

## 2. BACKGROUND

Ecological importance refers to the diversity, rarity or uniqueness of the habitats and biota. Consequently, it reflects the importance of protecting these ecological attributes, from a local, national and even international perspective. Ecological sensitivity refers to the ability of the ecosystem to tolerate disturbances and to recover from certain impacts. Therefore, the more sensitive the system is, the lower its tolerance will be to various forms of alteration and disturbance. This serves as a valuable indication of the degree to which a water resource (river, wetland) can be utilized without putting its ecological sustainability at risk.

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The health of a river indicates its ability and capacity to provide a variety of goods and services to society. From this data, an informed decision can be made regarding the sustainable human use and management of a river reach.

The first estimation of the EIS/PES was done in 1999 for the purpose of the Water Situation Assessment Model (WSAM). This was initially only done for all the main stem rivers in all 1946 quaternary catchments of the country. This information is currently used extensively in the RHP, the determination of the ecological Reserve and in the determination of river conservation priorities and biodiversity target protection. However, it became evident that this information is due for an urgent update, extension and review. In some situations, information is now required at a sub-quaternary catchment level.

This project will deliver products that can support the National Water Resource Classification System (NWRCS) and Reserve determinations done by the Chief Directorate: RDM hence a joint venture between the Directorates: Resource Quality Services and the Chief Directorate: Resource Directed Measures of DWAF will be formed.

### **3 TASKS AND DELIVERABLES**

#### **3.1 Data Collection Process and Populating the EIS/PES model per WMA Group at a Preliminary basis, setting up specialist teams and producing inception reports**

One coordinator will be appointed per WMA group (table 1) that will co-ordinate the collection and amalgamate the EIS/PES data for that specific WMA group. Data will be obtained from selected key local specialists in each WMA. The coordinator will assist with preparing the started documents for the specialist workshop, the data/information that is required for the specialist in the format as specified by the client. This data will be used for preliminary populating the EIS/PES model per WMA. The appointed coordinators will consult with the client to identify appropriate ecological experts in each WMA that would have the required expert knowledge to populate the EIS/PES model. The Coordinators will prepare the TOR for the specialist; assist with the appointment of the specialist, and the administrative processes (i.e. contracts, payments, credit and quality control and the review of all data and documents received). The 1999 EIS/PES assessment will form the departure point for this review and re-assessment.

In certain priority catchments the EIS/PES data base has been updated since 1999 and this updated data should be used as the departure point. This updated database is available on the department's rivers data base.

The coordinators role will further be to organize the specialist meetings, prepare the spreadsheets to be used (as per the clients instructions), preparation and distributions of workshop proceedings, update the EIS/PES spreadsheet and keep a record of decisions and criteria. Preparation of GIS maps indicating the new EIS/PES values in table format and plotted.

#### Deliverable:

5 coordinators appointed. Inception phase report prepared and budgets reviewed.

EIS/PES model with the updated data per quaternary catchment for each WMA prepared and a selected specialist expert team per WMA group identified. Specialist procurement completed, all task prepared and ready to initiate step 2 and 3.

### **3.2 Refining and updating the preliminary EIS/PES data per WMA**

The preliminary EIS/PES database model that was populated for each WMA during Task 3.1 will be checked and scrutinized during mini expert/specialist workshops for each WMA group. Priority wetlands, main stems and tributaries will be identified and the criteria for the latter selection will be documented. The prioritised selection will be aligned with water resources that have been identified as target areas for biodiversity conservation. The workshops will be attended by the appointed coordinator for each of the WMA groups, identified experts as well as scientists and regional managers from the D: RQS/RDM and other directorates in DWAF. Stakeholders that has an in depth knowledge of a particular water resource or catchment will also be invited to participate.

The purpose of these workshops is to finalize the ratings for metrics in the EIS/PES model. Depending on the necessity and practicality, more than one workshop may be held per WMA group. The EIS/PES database model will be available for use on the Resource Quality Services and Resource Directed Measures website once completed and approved.

This task could include the determination of the Reserve on identified resources where data and expert knowledge is limited or where the resource has been identified as a high priority biodiversity target river. The Steering Committee Members will advice on the necessity of this. If it is recommended that more information is required, a rapid 3 level Reserve will be conducted based on DWAFs approved eco classification approach. Additional PSPs will be appointed specifically for this task.

#### Deliverable:

A finalized, updated and refined EIS/PES database model for the main stem rivers, priority tributaries and wetlands in each WMA. Reserve specialist report, Reserve template and documentation for region with conditions if the need for Reserve has been identified. Coordinators to set up workshops in all priority WMA

### **3.3 Compilation of a report (including maps) specifying the approach followed, conclusions on the EIS/PES refinement and update for all the quaternary catchments in each WMAs**

The report will address and analyze the EIS/PES data for all WMAs and indicate priority areas for further attention in terms of protection and management to achieve resource quality objectives and preliminary management class. The report will also specify per resource and quaternary catchment descriptions of the characteristics and parameters that defines a PES state and the EIS importance. A table will be produced to indicate the most significant changes/impact on the present state and the main indicator that drives a quad. Cross reference to high conservation areas targeted for biodiversity conservation will be made by aligning the attributes (to be investigated) that makes up the EIS/PES.

#### Deliverable:

A report indicating the EIS/PES of 19 WMA as well as priority areas that would need specific investigations; the process followed, maps reflecting the results and a description of the attributes for each resource. The main indicators that would cause a change in the EIS/PES should be documented.

### **3.4 Rapid Reserve determination for WULA applications and addressing priority backlogs (separate task)**

Preliminary rapid Reserve determinations to address backlog WULA applications will be determined by specialist responsible for a particular area, this will also entail the preparation of the legal templates, other relevant documents, and maps required for approval. Specific conditions related to the water use and the preliminary category will also have to be specified. Specialists from task 3.1 and 3.2 could be requested to advise on best sites for the EWR. **PSP submitting proposal for this component must have water quality and quantity expertise and recognised experience in the application of the approved DWAF methods. Teams should indicate for which WMA are being tendered for and regional specialist should be on the team.**

***The PSP required for this task would be appointed additional to the EIS/PES task and can tender for this component only or separately.***

Deliverable:

Reserve (will include desktops in lower stressed are and low impact developments), templates, graphs, maps and licence recommendations. Updated EIS/PES for these studies to be submitted to co-ordinators in particular WMA's if it is completed during the duration of the EIS/PES study.

**3.5 Co-ordination workshop with specialists from both the PES/EIS team and the rivers conservation team (SANBI)**

The specialists and experts that will be required to participate in the EIS/PES update and the identification of high conservation type resources for biodiversity targets in SA will be similar. A co-ordination workshop will be held as a pilot to test the synergies in data and how the two processes can compliment each other ito information supply and the outcome of results. A priority input for instance for both processes is the hydrological data i.e the establishment of a hydrological index at a sub quaternary catchment level, and the necessity for the improvement of the river type classification. An agenda for the workshop will be compiled jointly between the DWAF, SANBI and coordinators.

Deliverable:

Alignment of high conservation areas and EIS values, and the identification of resources that would require a high protection management category or urgent mitigation/rehabilitation intervention.

**4 PROJECT MANAGEMENT AND ADIMISTRATION**

The project study and management team will consult in detail with relevant parties within DWAE, the WRC, the Department of Environment Affairs and Tourism provincial offices, SANBI and other role-players.

**4.1 Project, Study and Management Team**

The Chief Directorate: Resource Directed Measures (RDM) will have the overall responsibility for the managing and financing the project. Resource Quality Services (RQS) will contribute financially and provide extensive specialist input. The project study and management team will consist of:

<b>Name</b>	<b>Function</b>	<b>Institution</b>
Ms B Weston/ Mr S Mazibuko	RDM program manager WMA (7, 11, 12, 13, 14, 16)	RDM
Ms J Jay J Machaba	WMA ( 4, 5, 6, 8, 9, 10, 17,18) WMA (1,2,3,15,19)	RDM RDM
Mr R Sekwele	RQS WMA program manager	RQS
Dr CJ Kleynhans	Specialist WMA study team manager	RQS
Ms C Thirion	Specialist assistant technical manager	RQS
Ms P Maseti	Scientist: technical support	PSP
Dr MS Liphadzi	Administrative and technical review	WRC

#### **4.2 Project Steering Committee**

The WRC as the DWAFs appointed implementing agent will establish a steering committee in consultation with the clients. The WRC will arrange the SCM, the venue and the proceedings of the meetings.

#### **5 HUMAN RESOURCE REQUIREMENTS**

The WRC (DWAE's Implementing Agent) will be responsible for the procurement of PSPs according to the DWAE policy. The WRC will assist the department with the administrative functions, appointment of the PSP, reviewing of the technical material and coordinating technical and project meetings. The DWAE does not have the capacity to conduct such an extensive and complex project without the assistance of appropriately qualified professional service providers (PSP's). As it is very unlikely that a single consultancy firm will have all the expertise, it is proposed that a consortium of professional service providers be appointed to provide the highly specialized knowledge required.

The output of this project will ensure that current expert knowledge on the EIS/PES of South African priority surface water resources (Wetlands and Rivers) are properly documented and available in an appropriate format for future use within government and the PSP community as well as for capacity building and knowledge transfer.

The project will also aim at improving the capacity within RQS, RDM and regions as well as the PSP community in the use and interpretation of the EIS/PES model A detailed training plan with measurable outputs will be designed with specialist input from the D:RQS. The training plan will form part of the execution of the project beyond its completion.

The project will be performed in the course of approximately two financial years and details of the work breakdown and performance indicators are given in Annexure 1

#### **6 REPORTING AND REVIEWING SYSTEM**

A detailed project plan indicating all milestones will be developed with the assistance of the appointed WMA coordinators. The Steering Committee will give overall guidance to the project study and management team and assist with the reviewing of outputs. Progress meetings will take place on a regular basis and all interim and final reports will be submitted to the client for comment and approval.

## 7 WORK BREAKDOWN AND FINANCIAL REQUIREMENTS

The funds for the project have been budgeted for and are available on the Chief Directorate: Resource Directed Measures budgeted and contribution to the budget is on the operational budget of the Directorate: Resource Quality Services. The precise budget will be determined after the evaluation of the PSP proposals. An estimated budget breakdown is given in Annexure 1.

## ANNEXURE 1

### TIME SCHEDULE AND BUDGET BREAKDOWN

Task	Description	2009 X10 <sup>3</sup>	2010 X10 <sup>3</sup>	2011 X10 <sup>3</sup>
1	Data collection, process and populating the EIS/PES model per WMA Group at a Preliminary basis. Starter document	200	250	
2	Refining and updating the preliminary EIS/PES data per WMA		200	
3	Compilation of a report (including maps) specifying the approach followed conclusions on the EIS/PES refinement and update for all the quaternary catchments in each WMAs Specialist workshops		300	200
4	Low confident (desktop and rapid) Reserve determination for WULA applications and addressing priority backlogs	400	400	500
5	Co-ordination workshop with specialists from both the PES/EIS team and the rivers conservation team (SANBI)		300	200
6	Training Capacity Building	50	50	100
<b>Total</b>		<b>650</b>	<b>1,500 000</b>	<b>1, 000,000</b>