REPORT NO.: **RDM/WE/00/CON/ORDM/0116**

DEVELOPMENT OF PROCEDURES TO OPERATIONALISE RESOURCE DIRECTED MEASURES

PROJECT NO: WP 10951

STAKEHOLDER INVOLVEMENT AND COMMUNICATIONS TOOL ANALYSIS AND STANDARDISATION REPORT

AUGUST 2016

water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

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Authors: ***Lötter A.***

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…….. 12 October 2016……
Delana Louw *Date*
Project Manager

DEPARTMENT OF WATER AND SANITATION (DWS)

Directorate: Water Resource Classification

Approved for DWS by:

…….. ……
Ms Ndileka Mohapi *Date*

Chief Director: Water Ecosystems

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Contributions to the report in terms of identifying methods for stakeholder involvement and communications and evaluating the methods were provided by:

Authors	Company
Lötter, Anelle	Private
Louw, Delana	Rivers for Africa (Pty) Ltd
Van Rooyen, Pieter	WRP
Sekoele, Mohlapa	DWS
Nengovhela, Rufus	DWS

The following persons participated at the specialist meeting held 21 July 2016 and therefore contributed to the information in the report.

Name	Company
Matlala, Lebogang	DWS, Directorate: Water Resource Classification
Okonkwo, Adaora	DWS, Directorate: Water Resource Classification
Sekoele, Mohlapa	DWS, Directorate: Water Resource Classification
Thwala, Mmaphefo	DWS, Directorate: Water Resource Classification
Van Wyk, Niel	DWS, Chief Directorate: Integrated Water Planning

REPORT SCHEDULE

Version	Date
First draft	August 2016
Second draft	October 2016
Final	October 2016

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ACRONYMS AND ABBREVIATIONS

BID	Background Information Document
BHNR	Basic Human Needs Reserve
CMA	Catchment Management Agency
CD: WE	Chief Directorate: Water Ecosystems
CRR	Comments and Responses Report
DWS	Department of Water and Sanitation
DWA	Department Water Affairs (Name change applicable after April 2009)
DWAF	Department Water Affairs and Forestry
EC	Ecological Category
EWR	Ecological Water Requirements
IUA	Integrated Units of Analysis
IWRM	Integrated Water Resource Management
IAP2	International Association for Public Participation
NWRCS	National Water Resource Classification System
NGO	Non-Governmental Organisation
PES	Present Ecological State
PSP	Professional Service Provider
PSC	Project Steering Committee
REC	Recommended Ecological Category
RDM	Resource Directed Measures
RQO	Resource Quality Objective
RU	Resource Unit
TEC	Target Ecological Category
TTG	Technical Task Group
ToR	Terms of Reference

1 INTRODUCTION

1.1 BACKGROUND

The Chief Directorate: Water Ecosystems (CD: WE) of the Department of Water and Sanitation (DWS) initiated a study for the Development of Procedures to Operationalise Resource Directed Measures (RDM). Rivers for Africa eFlows Consulting (Pty) Ltd., in association with supporting specialists, was appointed as the Professional Service Provider (PSP) to assist the Department in undertaking this study.

1.2 STUDY OBJECTIVES

The study objectives as defined by the Terms of Reference (ToR) are as follows:

- Develop a framework for Reserve determination.
- Standardise methodologies for Reserve determination.
- Develop a framework for Water Resource Classification.
- Develop a framework for Resource Quality Objectives (RQOs).
- Develop a RDM Communications Framework.

In the ToR, the CD: WE also identified the need for the development of an Integrated RDM framework. The term operationalise was not defined clearly as part of the TOR, apart from the objectives stated above. However, a definition was presented by DWS and agreed by all as follows:

Provide the frameworks and tools to allow CD: WE to give effect to the Reserve, Classification and RQOs (i.e. give effect to RDM). It therefore includes the frameworks, steps, processes, tools and implementation and monitoring information. The operationalisation of RDM starts at planning and ends at corrective actions (though the continuum of the plan, do, check, act cycle) which will include implementation and monitoring guidelines and the provision of information for various line functions.

Currently Resource Directed Measures (RDM) consists of three major processes.

- Water Resource Classification System (DWAF, 2006).
- Determination of the Reserve (Louw and Hughes, 2002).
- Determination of RQOs (DWA, 2011).

Each of these processes consist of steps which were designed in 2002 (Reserve, Louw and Hughes, 2002), 2006 (Classification, DWAF, 2006) and 2011 (DWA, 2011). These steps were gazetted (Gazette No. 19182, Notice No. 1091) on 17 September 2010. This gazette provides procedures (in the format of steps) for each of the RDM processes, which are largely similar to the initially designed steps for the Reserve and Classification. It must be noted however that the RQO steps and guideline appeared during 2011, i.e. after the gazette and differs significantly from the gazetted steps. During this project, the gazetted steps and the RQO guideline steps will all be referred to.

Therefore, each of the RDM processes consists of gazetted steps, guidelines, methodologies and approaches and various methods supporting the methodologies. There are inherent links, overlaps and complexities within all of the above. This situation is further complicated by having to deal with large study areas with many nodes (points of interest) requiring answers that may be either at a desktop level and/or more detailed level. Issues regarding confidence, uncertainty and

decision-making on various aspects such as where the areas of focus should be in study areas, add to the complexities.

Stakeholder involvement and communications have always been part of the RDM processes. The NWA requires participation of society at large in the progressive development of the national water resource strategy and for integrated water resource management. It further requires that the public be enabled to participate in managing the water resources within its WMA [s 9]. Further, the NWA requires the following:

- Publication in the Government Gazette of the proposed class of water resource and resource quality objectives [s 13 (1)], and of the proposed Reserve [s 16 (1)];
- the Minister must consider what further steps, if any, are appropriate to bring the contents of the notices to the attention of interested persons, and take those steps which the Minister considers to be appropriate [s 13 (4)] and [s 16 (3)]; and
- consider written comments on the proposed class of water resource and resource quality objectives [s 13 (4)], and of the proposed Reserve [s 16 (3)].

In 2003 a DWAF report: "Guide to public participation for determining the class of a water resource, resource quality objectives and the Reserve" acknowledged that stakeholder involvement for all RDM processes is essential. The guide draws upon the DWAF's Generic Public Participation Guidelines (DWAF, 2001), which should be read in conjunction with the Department's generic stakeholder engagement guidelines.

For the implementation of the classification of significant water resources in various WMAs, the DWS has compiled a stakeholder engagement plan, providing the purpose of engagement, the proposed outputs, principles for communications, targeted audiences, communication and engagement methods as well as a detailed plan for each study area. The basics in terms of stakeholder involvement in RDM processes have been tested over the past 12 to 15 years and lessons have been learnt from that in the evaluation and standardisation of communication methods.

1.3 PURPOSE OF THIS TASK

The aims and objectives for this task as addressed at the specialist workshops to consolidate and standardise RDM methods are provided below:

Aim: Standardise methodologies for stakeholder engagement for RDM.

Objectives:

- Identify and standardise input and output for every sub-step (if relevant) of the Integrated Framework.
- Identify the range of tools and methods used in DWS and DWS related studies for each sub-step (if relevant).
- Evaluate the tools and methods according to a range of agreed criteria.

Approach:

Standardisation of stakeholder involvement methods will focus on standardising the inputs and outputs of the communication tools used in the sub-steps to define the information and data that will flow between the processes and steps. This will ensure that during all phases of the frameworks, the methods comply with the standardised inputs and outputs and that the linkages through the whole process are seamless. The approach to standardise stakeholder engagement

methods and tools is based on national and international best practices for involving stakeholders in participating in processes towards decision-making. Furthermore, the approach of standardisation is grounded in the approach and principles for public participation followed by the DWS since 2001 when the Generic Public Participation Guidelines was published.

1.4 PURPOSE OF THIS REPORT

During a range of specialist meetings (July 2016), available tools and methods for each of the steps will be identified, evaluated and documented in a range of reports (RDM/WE/00/CON/ ORDM/0516 to RDM/WE/00/CON/ORDM/01116). This report serves to document the outcomes of the Stakeholder Engagement tool analysis and standardisation workshop specialist meeting (21 July 2016) (RDM/WE/00/CON/ORDM/1116).

2 APPROACH

2.1 INTEGRATED FRAMEWORK

During a February 2016 specialist meeting, an Integrated Framework was designed and subsequently finalised. The Integrated Framework consists of 8 steps (Figure 2.1) and sub-steps.

Throughout the implementation of the RDM processes, stakeholders have been involved and engaged through various means and by using different communication tools. The purpose of this report is to evaluate the tools and methods being used, to review what inputs are required and what the objective (output) would be of the methods and tools used.

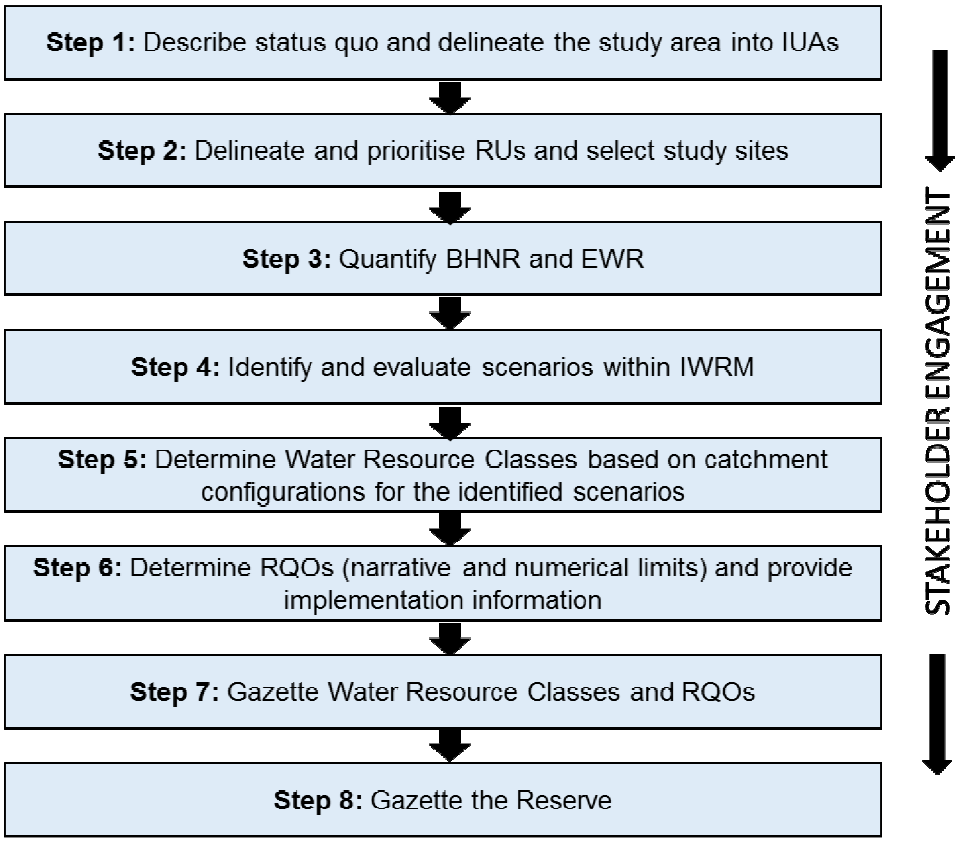

Figure 2.1 Integrated steps for the determination of the Reserve, Classification and Resource Quality Objectives

2.2 CONSIDERATIONS FOR STANDARDISATION OF STAKEHOLDER INVOLVEMENT AND COMMUNICATIONS

The key requirements for standardisation are:

- Aim to achieve coherent application throughout the RDM steps and processes with regards to stakeholder involvement.
- Application of RDM processes is part of Integrated Water Resource Management - the prevailing water resource management activities need to define the focus of stakeholder involvement.

2.3 SPECIALIST WORKSHOP APPROACH

For the standardisation of stakeholder engagement methods and tools and for the evaluation thereof, the following was discussed as an approach towards the standardisation of communication methods and tools at the 21 July 2016 work session:

- Why does the DWS engage stakeholders in the RDM processes?
- What are the expected outcomes of stakeholder engagement?
- Who are the stakeholders that should be engaged?
- Which communication methods and tools are currently used by the DWS in the RDM processes?

The objective of each step in the integrated framework was stated and together with that the stakeholder engagement objectives of each step were discussed. The actions required to meet the proposed stakeholder engagement objectives were discussed as well as the proposed output. The input for each step was stated as the input is the technical deliverable on which stakeholder comment is required. The stakeholder engagement output of each step will be used by the technical team to refine the technical outputs of each step.

Communication methods and tools for each step were discussed and these were evaluated. Other aspects which were discussed include the number of meetings, languages to be used during the stakeholder engagement process and the efficiency of the Comments and Response Report as well as the cost for stakeholder engagement. It was agreed by all participants that the standard method of evaluation of tools will not be applicable to stakeholder involvement and communication.

TERMINOLOGY: TOOLS vs METHOD

The use of the word 'tools' created confusion as most people associated tools with a computer model. Further in this report, the word '**method**' will rather be used to accommodate the confusion with regards to the tool terminology.

Tools refer to any models, methods or systematic approaches. The models could be detailed hydrological models, spreadsheet formulas, methodical procedures and techniques.

The terminology used further in this report refers to 'methods'.

2.3.1 Why does DWS engage stakeholders in the RDM processes?

RDM guideline documents emphasise the need of stakeholder engagement throughout the implementation of such processes, as the outcomes of such processes will affect both ecosystem health and the economic activities that rely on water supply. It is recognised that RDM processes, especially the classification of water resources requires a strongly driven stakeholder involvement and communication component supported and guided by the necessary technical and communication components.

As noted in the DWAF Generic Public Participation Guidelines (DWAF 2001), the term "public participation" or "stakeholder engagement" describes a variety of relationships between the implementing agency (DWS or Catchment Management Agencies - CMAs) and its stakeholders. The nature of a planned stakeholder engagement process will depend on what is planned and the goal of the initiative. The International Association for Public Participation (IAP2) differentiates between five levels of public participation, each with different objectives and with an increasing public impact on decision-making (www.iap2.org):

- **Inform** - The objective is to provide the public with balanced and objective information to enable people to understand the problem, alternatives and/or solutions.
- **Consult** - The objective is to obtain public feedback on analysis, alternatives and/or decisions. It involves acknowledging concerns and providing feedback on how public input has influenced the decision.

- **Involve** - The objective is to work directly with the public throughout the process to ensure that public issues and concerns are understood and considered at every stage and directly reflected in the planning, assessment, implementation and management of a particular proposal or activity.
- **Collaborate** - The objective is to work with the public as a partner on each aspect of the decision, including the development of alternatives and the identification of the preferred solution.
- **Empower** - The objective is to place final decision-making in the hands of the public (note that the word "empower" refers to a level of participation and not to the concept of 'empowerment' in the sense of capacity building).

Public participation or stakeholder engagement in determining the class of water resource, resource quality objectives and the Reserve largely takes place at the involve level described above. In some instances, such as setting a vision and involvement in the development of or comment on alternative scenarios, public participation would move towards the collaborate level. Final decisions, however, are taken by the Minister of Water and Sanitation, and not by the public. Stakeholder engagement is a process leading to a joint effort by stakeholders, technical specialists, and the authorities that work together to produce better decisions than if they had acted independently. This definition embodies the spirit of public participation, as well as the results it should achieve and its benefits. It implies neither a top-down approach (government and technical specialists make decisions without considering the views of the public) nor a bottom-up approach (stakeholders make all the decisions). Rather, it provides for a process in which:

- All the players have clear and complementary roles and contribute to informed decision-making.
- Public issues are integrated with technical assessment.
- Stakeholders are assured that their contributions will influence the decision.
- The decision-maker (the Minister of Water and Sanitation) is provided with an indication of the degree to which different sectors of society are engaged in reaching a balance between the three dimensions of sustainability: ecological integrity, social equity and economic growth.

2.3.2 The expected outcome of stakeholder engagement?

Stakeholder engagement comes with the promise that the public's views – representing the views of many sectors of society – will be considered by the decision-maker. Thus, the engagement process must be perceived by stakeholders to be fair and conducive to them making their contributions, otherwise they will be unwilling to contribute, or not contribute constructively. Stakeholders will perceive the process to be fair if it:

- Is open, transparent and inclusive;
- supplies them with sufficient and accessible information to build their capacity to participate meaningfully;
- affords them ample opportunity to contribute local and traditional knowledge;
- acknowledges with empathy their feelings, fears and expectations, be these real or perceived;
- makes them feel that their interests are in good hands and that their contributions are valued, thus creating trust; and
- provides opportunities for building partnerships between sectors of stakeholders, and between stakeholders and the authorities.

In summary, stakeholder involvement should lead to improved decision-making by making the process adopted by an initiative transparent, inclusive and fair. This creates trust and a shared vision among stakeholders who are then more willing to contribute their ideas, needs, suggestions

or information. This adds to the technical and scientific content of the information that informs the ultimate decision.

2.3.3 Who are the stakeholders that should be engaged?

Identifying stakeholders that should be engaged is the first step in any stakeholder engagement process. The objectives of this step are to identify water users and potential water users in the catchment (or in each sub-catchment) to afford them the opportunity to become involved by nominating one or more stakeholders to represent their specific sector of society in the multi-stakeholder group (this could be a Project Steering Committee - PSC). A second objective of this step is to identify key stakeholders whose involvement must be pro-actively ensured (e.g. stakeholders who will be responsible for implementation of the result of the process or those who may be directly affected). Although challenging, the more successful approach is to identify in advance those stakeholders that should be directly informed about the opportunity to contribute, and then to inform them by way of letters / emails addressed to them by name. Unless stakeholders indicate that they do not wish to remain on the mailing list, they receive all further announcements for comment even though they may not have "formally" registered by returning their first reply sheet. It is not practical, possible or necessary to list millions of people in a catchment on the mailing list. What is, however, necessary, is to provide the broadest possible range of sectors of water users the opportunity to contribute, and to be able to prove this. Like-minded people often organise themselves into a group with an assigned spokesperson, e.g. a water forum, environmental group, women's group or tribal community. Sectors of society do the same, such as local Chambers of Commerce, Farmers' Unions, environmental non-governmental organisations (NGOs) and others. It is necessary to obtain the group's or the sector's involvement, and not that of every individual or organisation in the group or sector.

At the same time, checks and balances must be built into the process to ensure that the process is defensible:

- Include in the stakeholder list not only the spokesperson for a group or sector (e.g. Mayor of a municipality), but also a few individual members of that group or sector (e.g. officials).
- Ensure good geographic representation.
- Include urban as well as rural representatives.
- Ensure a good gender and race balance.
- Include people either negatively or positively affected in the past or currently.
- Use a multi-pronged approach to announce the opportunity for stakeholders to contribute (i.e. direct e-mail as well as print and broadcast media advertisements/announcements).

For a quick reference guide, ensure that representatives of the following sectors of water users are included in the stakeholder list (Table 2.1).

Table 2.1 Sectors of water users which should be included in a stakeholder list

Sectors of water users	
✓ Government (national, provincial and local, all relevant departments). ✓ Traditional leaders. ✓ Conservation and environmental bodies. ✓ NGOs (environmental and development-focused). ✓ Commerce and business. ✓ Industry. ✓ Mining. ✓ Agriculture. ✓ Forestry. ✓ Tourism and recreation.	✓ Civil society (voluntary organisations, community groupings, residential organisations, women's organisations, youth organisations). ✓ Local community leaders. ✓ Labour unions. ✓ Researchers and consultants. ✓ Local media (print and broadcast). ✓ Water management institutions. ✓ Education bodies. ✓ Health bodies. ✓ Departmental personnel in the DWS National as well as Regional Offices.

2.3.4 Which communication methods are currently used by the DWS in the RDM processes?

The communication methods currently used by the DWS in the RDM processes are listed in the following sections per framework step. These methods are evaluated and comments made during the workshop are listed.

Some general comments which are not listed per step are:

- In the development of a stakeholder list, caution should be taken to include all relevant stakeholders from the beginning of the process in order to ensure that contributions are included throughout the process and not only towards the end.
- The DWS considers the use of various languages in their communication material where necessary.
- Record-keeping of contributions received throughout the process is essential. The compilation of a Comments and Responses Report (CRR) is recommended to indicate which stakeholder has contributed which comments when in the process and how the DWS and technical responded to the contribution made.
- The information shared with stakeholders is fairly technical in nature and DWS should always attempt to make the information as accessible as possible to all audiences. It was recommended that when meetings are held that representatives of the regional office be present to address pressing local issues such as service delivery.
- The stakeholder engagement process should adhere to minimum requirements (e.g. accessibility of information, providing information prior to meetings for comments, sufficient time allowance for commenting purposes, etc), but each process should be adapted to a specific process for a specific catchment area. The challenge is to design a process based on a prior evaluation of public sensitivity, and local catchment needs and circumstances.
- RDM processes should be integrated into other opportunities available, e.g. at regular water forum or catchment forum meetings matters about RDM processes should be on the agenda for discussion when relevant.
- Communication and stakeholder engagement is often about trust and credibility; about the way or manner, or "how" communication takes place – should sensitive situations arise, use experienced communicators to engage with stakeholders.
- Cost of stakeholder engagement should be determined per study area. Always look for alternatives and "piggy-back" on existing opportunities (e.g. if a meeting is scheduled, use the same meeting to discuss RDM processes);
- Make the "rules of engagement" or the ToR for groups clear from the start – this assists with understanding the roles of various roleplayers, their rights and responsibilities.

3 STEP 1: DESCRIBE STATUS QUO AND DELINEATE THE STUDY AREA INTO IUAs

Objective: The objective of this step is to define Integrated Units of Analysis (IUAs) and provide a status quo description of each IUA. An IUA is a homogenous catchment or linear section of river based on the similarity of ecological state, system operation, land use, etc. The status quo description therefore provides the information at a broad scale to inform the delineation of the IUAs. Basically, this step provides the baseline for the, National Water Resource Classification System (NWRCS) in the sense that it defines and describes the study area and its components. This step therefore includes the identification of the water resource operation in the study area, the identification of users and socio-economics issues, describing the status quo which represents the current condition of the various components (as illustrated in Figure 3.1), and then, through a process of comparing similar areas, to delineate IUAs. The status quo information for the study area is then used to describe the status quo for each IUA.

Integrated Step 1 contains nine sub-steps which are indicated in the graphic below. Sub-steps are represented by second numbering e.g. Step 1.1 represents a sub-step within Integrated Step 1.

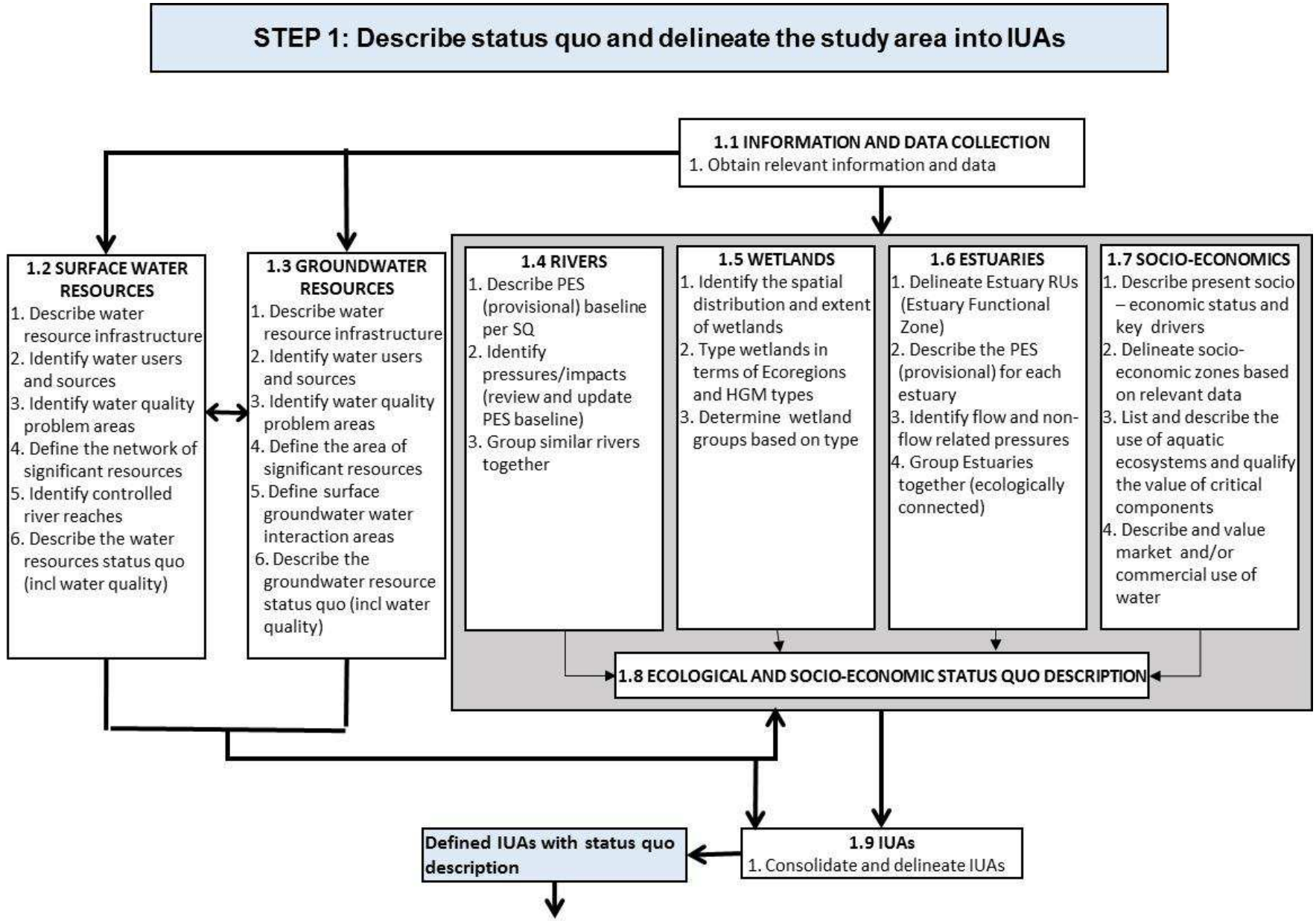

Figure 3.1 Illustration of the sub-steps for Step 1: Describe status quo and delineate the study area into IUAs

Table 3.1 Stakeholder involvement and communications in relation to Step 1

Objective	Input	Actions required	Output	Comments
Establish stakeholder database, announce the study, its objectives and proposed study implementation process for stakeholder comment and contributions.	▪ Understanding of the stakeholder dynamics in the study area (who are the stakeholders that should be engaged in the study?) ▪ Study Inception Report.	▪ Identify stakeholders. ▪ Compile stakeholder database (contact list). ▪ Announce study (objective of the study, how and when stakeholders can participate). ▪ Prepare for establishment of a representative forum (PSC). ▪ Share draft Inception Report with stakeholders for comment (public meeting). ▪ Public meeting.	▪ Stakeholder database. ▪ Stakeholders should know what the study is about and how they can participate. ▪ Comment on Inception Report.	▪ Information about the Inception Report should be shared with stakeholders, not the entire report as it may contain sensitive information (e.g. budgets, etc.). ▪ The "Rules of Engagement" or ToR for stakeholder engagement and for the PSC has to be developed during Step 1 and attention should be given to the content of the "rules" to manage future expectations of stakeholders. ▪ A record of stakeholder engagement must be kept to provide "proof" of engagement. ▪ Depending on the study area, the study may be announced with a public meeting.
Methods				
Direct Communication		**Required methods for Step 1**	**Evaluation of methods and notes on the comments**	
Some examples of direct communication methods: ▪ Via meetings (e.g. PSC Meetings, Technical Task Groups (TTGs), Project Management Committee Meetings, stakeholder engagement meetings, existing regional fora, public meetings). ▪ Specific interviews (e.g. Department of Agriculture, Chamber of Mines, SANParks, etc.) on matters related data and methodology. ▪ Notifications via email, telephone. ▪ Social media (Facebook, Twitter, etc.).		▪ A public meeting may be required to announce the study during Step 1. ▪ Notification of the study via email and telephone calls to some stakeholders will be required.	▪ The necessity of hosting of a public meeting depends on the dynamics in the study area (e.g. it may be custom to announce a study publicly, the study area may not be organised in existing fora which may deem it necessary for a public meeting, etc.). ▪ Email and telephone calls to stakeholders are regarded as necessary and work very well in general. ▪ Social media is not recommended as a means of communication for the following reasons: a) the platforms (Facebook site) for social media are often blocked by employers; b) DWS has a Facebook site, however it is for very general comments on droughts, water leaks, etc.; c) not enough "space" is available to communicate highly technical information; d) social media may be regarded for non-work related information.	
Indirect Communication:		**Required methods for Step 1**	**Evaluation of methods and notes on the comments**	
Some examples of indirect communication methods: ▪ Print media: DWS produced information (Background Information Document - BID, brochures, minutes of meetings, adverts, media releases, and posters). ▪ Electronic media: DWS web site, distribution of presentations, minutes of meetings to all.		▪ Announce the study through placement of adverts, especially when a public meeting is held. ▪ Produce a BID to communicate the study objectives and where and	▪ Information to the broad public (e.g. advertisements) should consider the languages used in the study area. ▪ The "Rules of Engagement" or ToR is very important and should include what is "legally" correct to manage future expectations of stakeholders. ▪ Regular updating of the DWS website is very important to use it as an effective method in stakeholder engagement.	

	when stakeholders can engage in the study process. ▪ Publish information on DWS website. ▪ Develop a ToR or "Rules of Engagement".	
Stakeholder database:	Any method to compile a stakeholder database can be used as long as it includes the following: ▪ Name and surname of stakeholder. ▪ Contact details of stakeholder (as a minimum a telephone number and email address). ▪ Sector represented by stakeholders (e.g. agriculture, local government, etc.). ▪ Organisation of stakeholder (e.g. Department of Environmental Affairs, Northern Cape Agricultural Union). ▪ The database must be updated after each engagement (update database with attendance register after meetings, etc.). ▪ Stakeholders must be represented of all sectors of society as well as the geographic area of the study as a minimum.	
Record to capture contributions of stakeholders and responses from the DWS and technical team:	Any method can be used to compile a record of contributions and responses. A CRR is a suggested method of recording such contributions and responses.	The CRR must be kept updated throughout the study process and should provide the name, organization and comment of the commentator, a date of the contribution and a response from the DWS / technical team that states how the contribution was considered in the technical work done.

4 STEP 2: DELINEATE AND PRIORITISE RUS AND SELECT STUDY SITES

Objective: The objective of this step is to identify high priority areas (previously referred to as hotspots[1]) as these would be the areas where more detailed work for the rest of the steps would focus on. These high priority areas are selected based on ecological, socio-cultural and water resource use importance and are often areas of high ecological importance where water resources are stressed or may be stressed in future. This is a key step as the information that is gazetted are Resource Units (RUs) with measured information and potentially higher confidence output. The prioritisation therefore acts as a filter to allow one to focus on specific areas in the various ecosystems. Integrated Step 2 (Figure 4.1) therefore involves the delineation and prioritization of RUs, Study sites where more detailed field work is undertaken are selected within High priority RUs, i.e. sites can only be selected after the prioritisation process.

Integrated step 2 contains five sub-steps which are discussed below. Sub-steps are represented by second and third tier numbering e.g. Step 2.1 and Step 2.1.1 represents a sub-step within Integrated step 2.

[1] A biodiversity/ecological hotspot is a biogeographic region which is a significant reservoir of biodiversity which is threatened with destruction (http://en.wikipedia.org/wiki/Biodiversity_hotspot). In the context used in the Desktop EcoClassification, the hotspot represents a quaternary catchment with a high Integrated Importance which could be under threat due to its importance for water resource use. These hotspots indicate areas where Reserve assessments should ideally result in high confidence recommendations and requires appropriate methods.

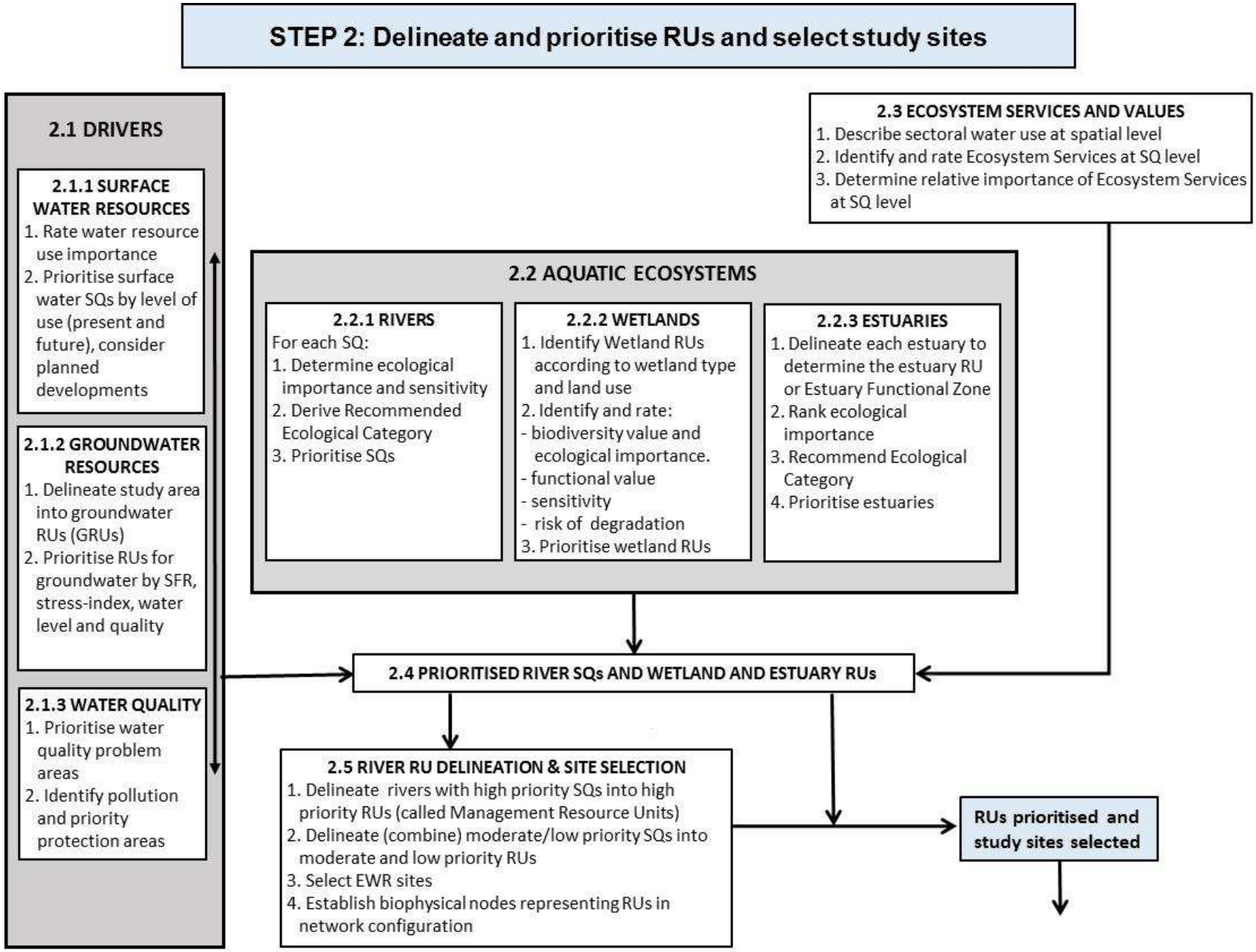

Figure 4.1 Illustration of the sub-steps for Step 2: Delineate and prioritise RUs and select study sites

Table 4.1 Stakeholder involvement and communications in relation to Step 2

Objective	Input	Actions required	Output	Comments
Obtain stakeholder comment on draft IUAs and its Status Quo; and prioritisation of RUs in IUAs.	Technical Report on draft IUAs and its Status Quo; and prioritisation of RUs in IUAs.	Towards the end of Step 2 the work which has been done during Step 1 and Step 2 on the identification, delineation of IUAs and the prioritisation of the RUs within the IUAs and its status have to be presented to stakeholders for comment.	Comments on work done in Step 1 and 2 (To receive stakeholder comments and inputs towards agreement in terms of the prioritisation of RUs and the selection of study or Ecological Water Requirement - EWR sites).	Before any meetings are held, information on what would be discussed at the meeting should be provided at least two weeks in advance of the meeting.
Methods				
Required methods for Step 2	**Evaluation of methods and notes on the comments**			
Direct Communication				
▪ PSC (meeting 1). ▪ Notifications (of planned PSC and after the PSC to remind stakeholders of information on the DWS web site).	The formation of a PSC and meetings held with the PSC was discussed and was generally found to be a good communication method. The term “Steering” was criticized as the mandate of the PSC is not legally to steer, but more to guide. The TOR again was emphasized to be very important to guide the committee in terms of its role and responsibilities. It was concluded that the title of the committee will remain the same as all DWS committees have been established as such and that changing the terminology may have other disadvantages.			
Indirect communication				
▪ Information document. ▪ Minutes of meeting. ▪ Attendance register. ▪ Presentations. ▪ Publish information on the DWS website. ▪ Update CRR.	Presentations should consider communication on all levels – not just to a technical audience.			

5 STEP 3: QUANTIFY BHNR AND EWR

Objective: The objective of this step is to quantify the EWRs for different ecological states and set the Basic Human Needs Reserve (BHNR). These EWRs (Ecological Categories (ECs) and associated flow regime) are essential input into all the next steps and especially for the scenario evaluation. **Once a recommendation is made regarding the Target Ecological Category (TEC), the EWR determined during this step which supports the TEC and the Class will become the flow or hydrology RQO.**

During Integrated Step 3 (Figure 5.1), the BHNR and the EWR components that describe the Reserve once the IUAs have been classified are determined. EWRs are set at desktop level for the desktop biophysical nodes and at detailed level at the study sites (EWR sites) that are selected during Integrated Step 2. EWRs can be set for a range of ECs.

Integrated Step 3 contains four sub-steps which are discussed below. Sub-steps are represented by second and third tier numbering e.g. Step 3.1 and Step 3.3.1 represents a sub-step within Integrated step 3.

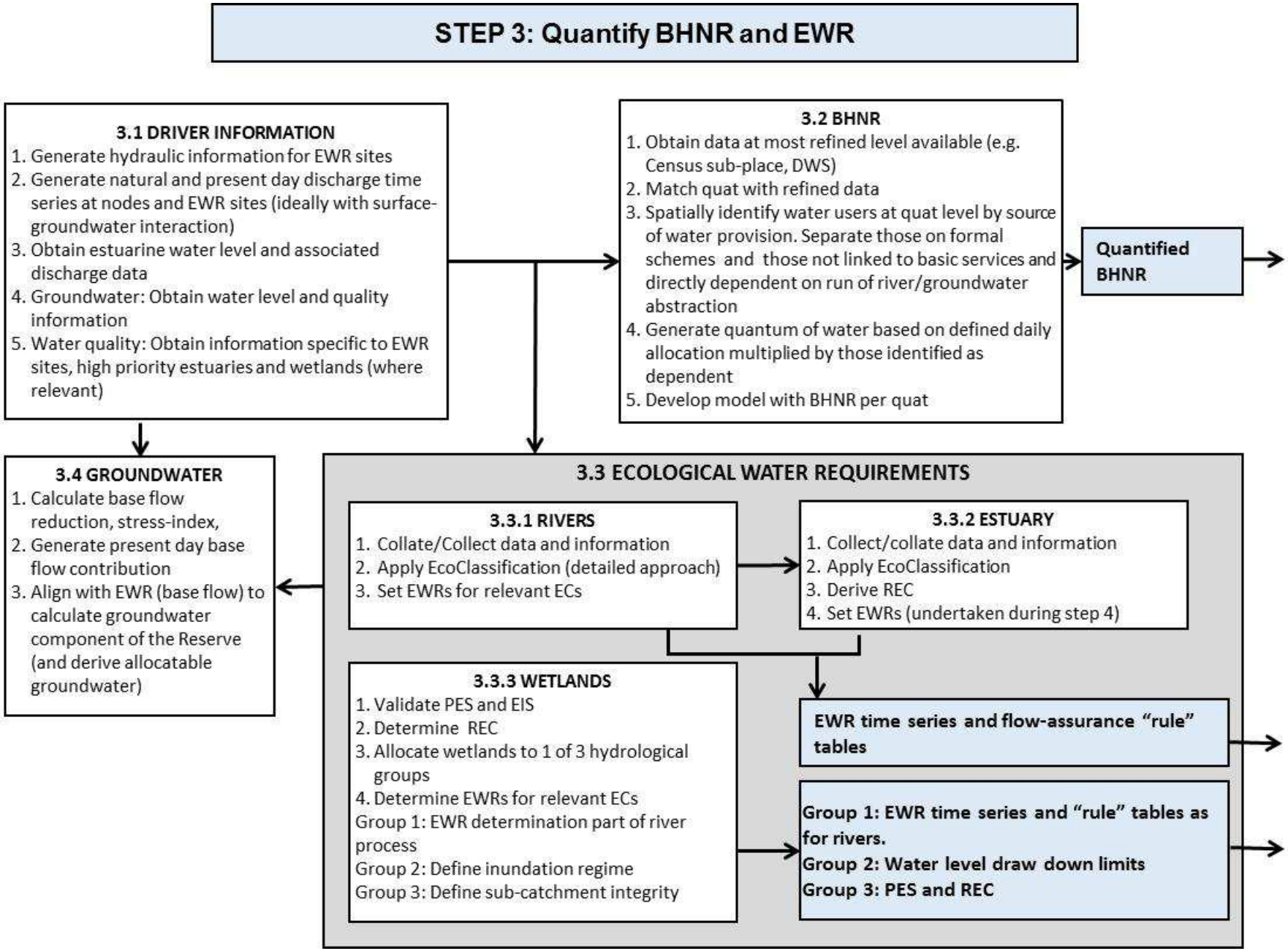

Figure 5.1 Illustration of the sub-steps for Step 3: Quantify BHNR and EWR

Table 5.1 Stakeholder involvement and communications in relation to Step 3

Objective	Input	Actions required	Output	Comments
Present BHNR and EWRs to stakeholders.	Technical Report on BHNR and EWRs.	Towards the end of Step 3 the BHNR and the EWRs would have been preliminarily quantified and stakeholder inputs would be required.	Comments on work done in Step 3.	Additional meetings may be required to obtain specific high-level technical inputs from team leaders and other stakeholders and it is suggested that TTG meetings be held should the need arise.
Methods				
Required methods for Step 3		**Evaluation of methods and notes on the comments**		
Direct Communication:				
▪ PSC (meeting 2). ▪ Notifications (of planned PSC and after the PSC to remind stakeholders of information on the DWS web site).		Additional meetings may be required (TTG, etc) to obtain highly technical inputs.		
Indirect Communication:				
▪ Information document. ▪ Minutes of meeting. ▪ Attendance register. ▪ Presentations. ▪ Publish information on the DWS website. ▪ Update CRR.		Presentations should consider communication on all levels – not just to a technical audience.		

6 STEP 4: IDENTIFY AND EVALUATE SCENARIOS WITHIN IWRM

Objective: Integrated Step 4 consists of the preliminary identification and description of operational scenarios within Integrated Water Resource Management (IWRM). The objective of this step is to identify scenarios (operational) which are then modelled to provide the output of a model in the formats required to evaluate the scenarios. Note that these scenarios could consist of any changes to the water resource in terms of quantity and quality. As such, it can include groundwater scenarios as well as water quality scenarios (those associated with waste water transfer works) amongst others. These scenarios are then tested with stakeholders and an agreed list of scenarios are finalised for further analyses. The scenarios are modelled (yield and system models) and the outputs are evaluated to determine a range of consequences which is then compared in order to rank the scenarios.

Integrated step 4 (Figure 6.1) contains seven sub-steps which are discussed below. Sub-steps are represented by second tier numbering e.g. Step 4.1 represents a sub-step within Integrated step 4.

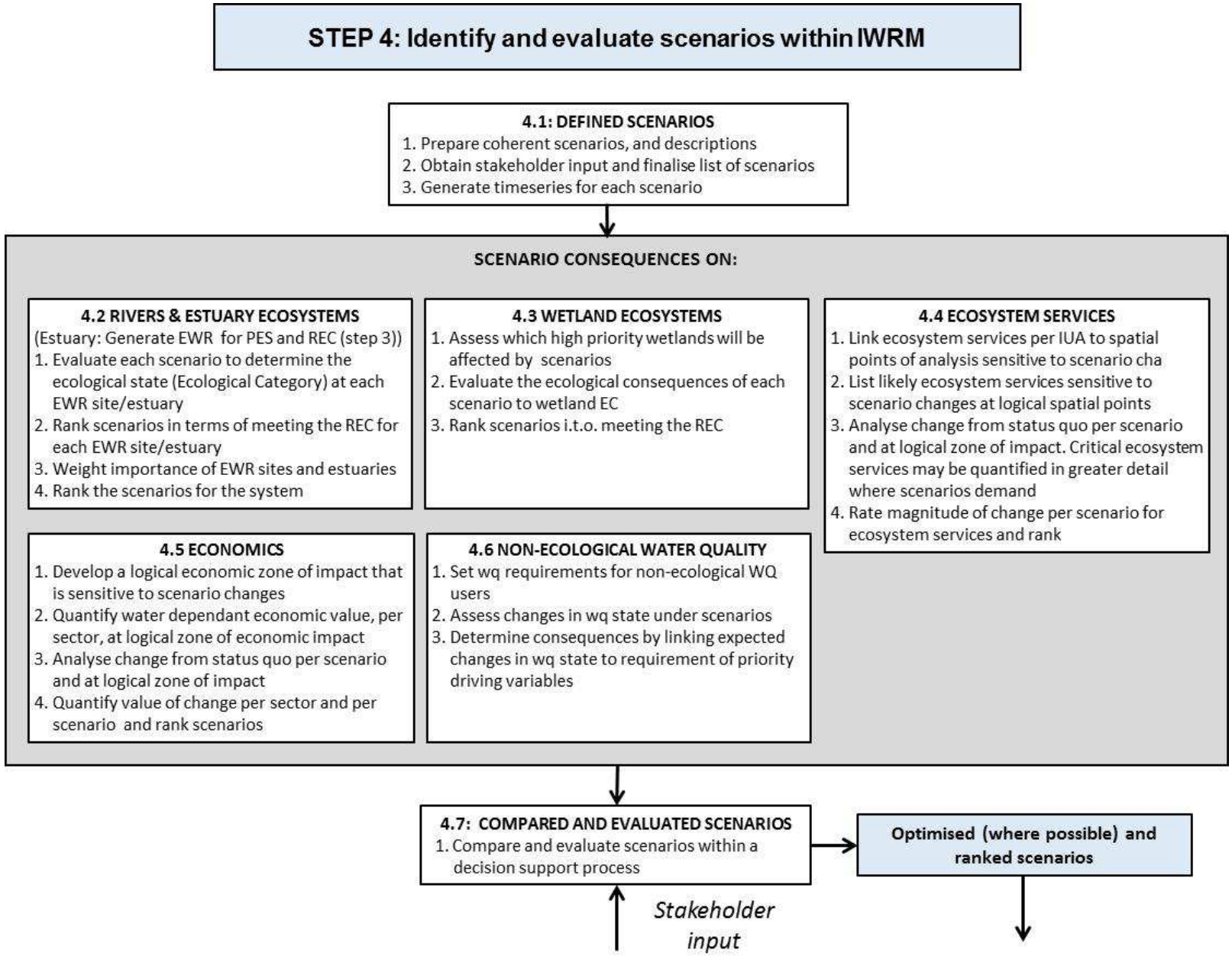

Figure 6.1 Illustration of the sub-steps for Step 4: Identify and evaluate scenarios within IWRM

Table 6.1 Stakeholder involvement and communications in relation to Step 4

Objective	Input	Actions required	Output	Comments
Present draft identified scenarios to stakeholders for comment.	Technical Report on identified scenarios.	Provide scenarios to stakeholders in writing for their review. After presentation of the scenarios, allow the opportunity for the discussion and generation of additional scenarios within the scenario parameters for evaluation of the technical team.	▪ Comments on work done in Step 4 and specifically on: ✓ The current status of the water resource (situation assessment), future possible management and development scenarios for the water resource. ✓ Expected impact of these scenarios. ✓ Establish what desired level resource protection stakeholders want to choose.	Additional meetings may be required to obtain specific high-level technical inputs from team leaders and other stakeholders and it is suggested that TTG meetings be held should the need arise.
Methods				
Required methods for Step 4			**Evaluation of methods and notes on the comments**	
Direct Communication:				
▪ PSC (meeting 3). ▪ Notifications (of planned PSC and after the PSC to remind stakeholders of information on the DWS web site).			Additional meetings may be required (TTG, etc) to obtain highly technical inputs.	
Indirect Communication:				
▪ Information document. ▪ Minutes of meeting. ▪ Attendance register. ▪ Presentations. ▪ Publish information on the DWS website. ▪ Update CRR.			Presentations should consider communication on all levels – not just to a technical audience.	

7 STEP 5: DETERMINE WATER RESOURCE CLASSES BASED ON CATCHMENT CONFIGURATIONS FOR THE IDENTIFIED SCENARIO

Objective: The objective of this step is to

- Integrate the consequences to provide the resulting classes of each scenario, as well as Classes for the Present Ecological State (PES), Recommended Ecological Category (REC) and TEC for stakeholder evaluation during the next step; and
- with stakeholder input, arrive at Classes and the catchment configuration that will be available for the preparation of the legal notice.

Note that the PES, REC, TEC and operational scenarios all form part of the suite of identified scenarios that are evaluated.

The most important part of Integrated Step 5 (Figure 7.1) is the determination of the Classes for each IUA under different operational scenarios as well for different ecological states at various biophysical nodes. An analysis is undertaken to determine the best balanced option between protection and use for each IUA and the biophysical nodes in the IUA (referred to as the Catchment Configuration). The implications of not meeting the ecological objectives represented by the REC are identified and the best balanced option, the TEC is selected with appropriate motivations.

After input from both internal and external stakeholders, as well as liaison with relevant government institutions that play a role in IWRM or who are affected, recommendations for the legal notice are made.

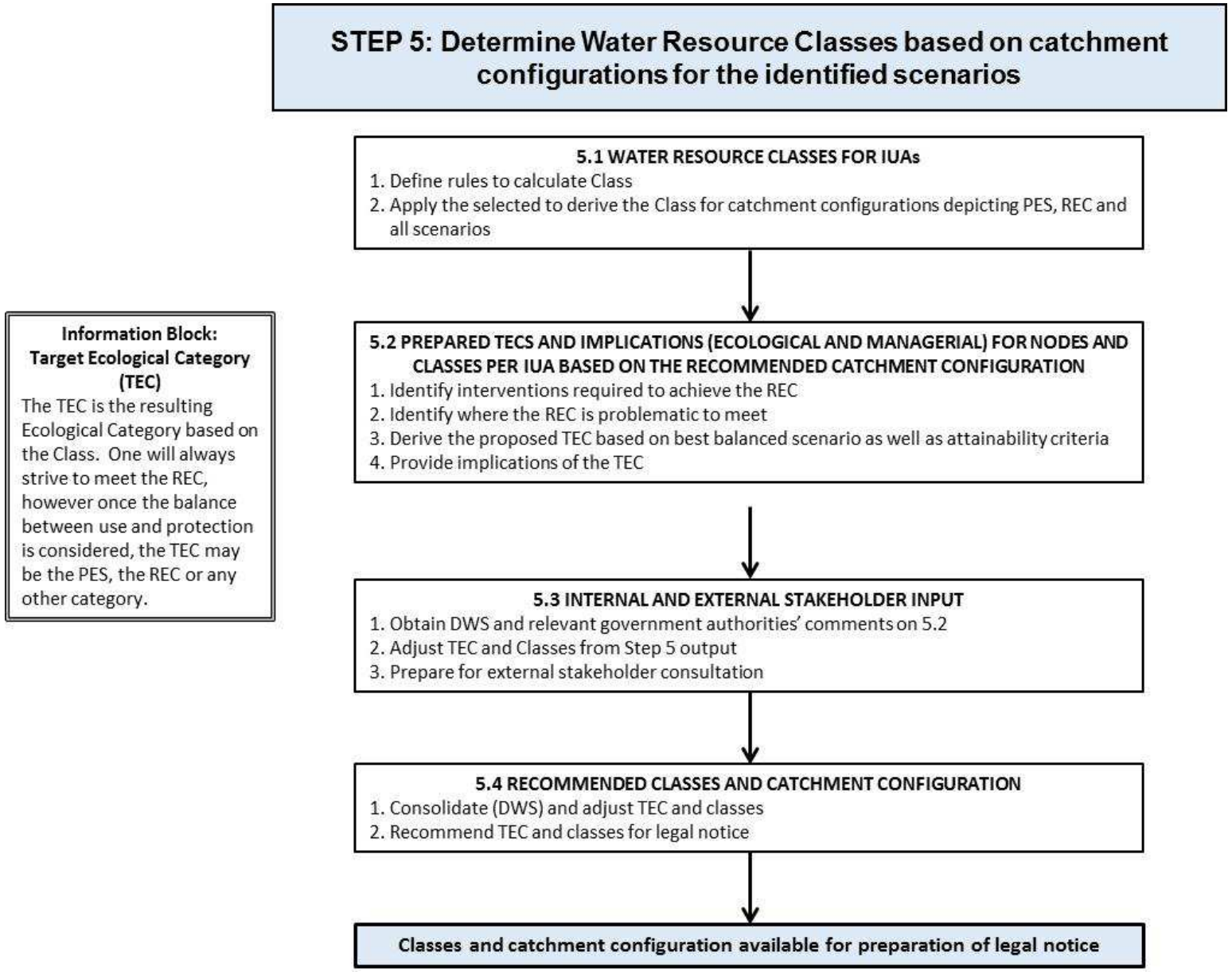

Figure 7.7.1 Illustration of the sub-steps for Step 5: Determine Water Resource Classes based on catchment configurations for the identified scenarios

Table 7.1 Stakeholder involvement and communications in relation to Step 5

Objective	Input	Actions required	Output	Comments
Obtain stakeholder input on consequences of scenarios, catchment visioning and the determination of draft Classes.	Technical Report on consequences of scenarios, catchment visioning and the draft Classes.	The consequences of scenarios will be shared with stakeholders and co-operation from them will be required to do visioning of the catchment/s towards the determination of draft Classes.	Comments on the draft Classes determined.	Additional meetings may be required to obtain comment from various stakeholders and not just the PSC members. Liaison will take place with other team leaders to include specific meetings for TTG and other stakeholders (e.g. specific discussions with local municipalities, Department of Environmental Affairs and other organisations as required).
Methods				
Required methods for Step 5		**Evaluation of methods and notes on the comments**		
Direct Communication:				
▪ PSC (meeting 4). ▪ Notifications (of planned PSC and after the PSC to remind stakeholders of information on the DWS web site).		▪ Additional meetings may be required (TTG, etc) to obtain highly technical inputs. ▪ Meetings with other government departments and local government as required.		
Indirect Communication:				
▪ Information document. ▪ Minutes of meeting. ▪ Attendance register. ▪ Presentations. ▪ Publish information on the DWS website. ▪ Update CRR.		Presentations should consider communication on all levels – not just to a technical audience.		

8 STEP 6: DETERMINE RQOs (NARRATIVE AND NUMERICAL LIMITS) AND PROVIDE IMPLEMENTATION INFORMATION

Objective: RQOs (narrative and numerical) are specified for the Classes and catchment configuration per Resource Unit. Different RQO levels, according to the RU priority (as determined during step 2), will be determined. The output will be to provide appropriate level of RQOs for all RUs with the high priority RQOs being available for gazetting. It must be noted that the RQO report must include as much numerical information as possible for all priorities as this serves as the numerical limits document used for monitoring. Moderate and low priority RUs and broad RQOs are used eg for licensing of small developments and in the gazetting of the Reserve (Integrated Step 8)

This information informs the monitoring phase as well as the implementation of the Class configuration and the Reserve. According to the priorities of the RUs (determined during Integrated Step 2) different levels of detail is provided. High priority RUs will require detailed RQOs for a variety of components which will be gazetted while low and moderate priority RUs will require broad and mostly narrative RQOs. This information is then tested with stakeholders in preparation of gazetting the RQOs.

Integrated step 6 contains five sub-steps which are discussed below. Sub-steps are represented by second tier numbering e.g. Step 6.1 represents a sub-step within Integrated step 6.

Stakeholder involvement or communication is not required at this step as the communication requirements feed into Step 7.

9 STEP 7: GAZETTE WATER RESOURCE CLASSES AND RQOs

Objective: Information derived from the previous steps is finally prepared for the process of gazetting water resource classes and the RQOs as Step 7.

Table 9.1 Stakeholder involvement and communications in relation to Step 7

Objective	Input	Actions required	Output	Comments
Obtain stakeholder input on RQOs.	Technical Report on draft Water Resource Classes and RQOs.	Comments on the draft Water Resource Classes and RQOs.	Comments on the draft Water Resource Classes and RQOs.	Additional meetings may be required to obtain specific high-level technical inputs from team leaders and other stakeholders and it is suggested that TTG meetings be held should the need arise.
Methods				
Required methods for Step 7	**Evaluation of methods and notes on the comments**			
Direct Communication:				
▪ PSC (meeting 5). ▪ Notifications (of planned PSC and after the PSC to remind stakeholders of information on the DWS web site). ▪ Public meeting. ▪ Notifications (of planned public meeting and after the meeting to remind stakeholders of information on the DWS web site). *Compulsory process for gazetting is not described as it will follow requirements set by law.*	Additional meetings may be required (TTG, etc) to obtain highly technical inputs – these meetings will take place before PSC 5.			
Indirect Communication:				
▪ Information document. ▪ Minutes of meetings. ▪ Attendance registers. ▪ Presentations. ▪ Publish information on the DWS website. ▪ Update CRR.	Presentations should consider communication on all levels – not just to a technical audience.			

10 CONCLUSION

Stakeholder involvement and communication is critical to the development and implementation of the RDM processes. A standardised approach, which is in line with the DWS stakeholder and communication practices, should be the baseline for involving stakeholders as these practices are following international and national guidelines for public participation. Each process is unique and although methods and tools can be standardised, each process should consider the area of implementation and the needs of the stakeholders to be involved.

11 REFERENCES

Department of Water Affairs and Forestry (DWAF), South Africa. 2003. Guide to public participation for determining the class of a water resource, resource quality objectives and the Reserve. Coordinated by Tisha Greyling and Bernice Smith.

Department of Water Affairs and Forestry (DWAF). 2006. Development of the Water Resource Classification System (WRCS) Volume 1 Overview and 7-step classification procedure

Department of Water Affairs and Forestry (DWAF), South Africa. 2001. Generic Public Participation Guidelines.

Department of Water Affairs (DWA), South Africa. 2011. Procedures to Develop and Implement Resource Quality Objectives. Department of Water Affairs, Pretoria, South Africa.

Louw, M.D. and Hughes, D.A. 2002. Prepared for the Department of Water Affairs and Forestry, South Africa. Resource Directed Measures for Protection of Water Resources: River Ecosystems - Revision of a quantity component

12 APPENDIX A: REPORT COMMENTS REGISTER

Page Number	Chapter /Section /Step	Comment	Addressed in report?	Comment/explanation
Stakeholder Involvement_tools_Reports_Draft1.MD+LB Comments				
Page ii		Correct spelling of surnames / names and write some out in full	No	The spelling of Nengovhela and Mmaphefo was corrected and Lebogang was written out in full
Page 1-1	Chapter 1	Background should include background on stakeholder engagement	Yes	A section for background on stakeholder engagement was included in the report, however it was combined with the background section on page 1-1.
Page 1-1	Chapter 1	It the stakeholder engagement not for all three processes?	Yes	The rephrasing which was suggested was accepted and implemented in the document.
Page 2-1	Chapter 2	The approach should cover how the stakeholder engagement component will be standardised		
Page 2-1	Chapter 2	The content of this section should be combined with the background section in Chapter 1	Yes	The information was combined with the information in Chapter 1.
Page 2-4	Chapter 2	Public participation provides for a process in which the decision-maker is provided with an indication of the degree to which different sectors of society are engaged in reaching a balance in the three dimensions of sustainability.	Yes	The suggested change was implemented.
Page2-4	Chapter 2	Thus, the engagement process must be perceived by stakeholders to be fair and conducive to them. The commentator indicated that it should not only be perceived, and that it should really be fair and conducive to stakeholders.	No	Often a stakeholder engagement process is fair and conducive, however it is not seen/perceived in that way by stakeholders. Of course the process should be fair and conducive (the RSA Constitution protects stakeholders in this regard), but stakeholders should also perceive (and feel) that the process is fair and conducive to them.
Page 2-6	Chapter 2	The DWS is sensitive to the use of various languages. The commentator suggested that it be rephrased as follows: The DWS considers the use of various languages in their communication material where necessary.	Yes	The suggested rephrasing was implemented.
Page 3-3	Step 1	The word “direct” was changed to indirect.	Yes	Change implemented
Page 4-3	Step 2	Statement: Information to the PSC is to remain in English only. This sentence contradicts what was said earlier that other languages are considered.	Yes	The statement was deleted.
Page 5-1	Step 3	The “note” is not necessary because the step refers to EWR and not Ecological Reserve.	Yes	The “note” was deleted.
Page 7-1	Step 5	The TEC definition provided is confusing.	Yes	The definition was deleted.
Page 10-1		Include a conclusion	Yes	A conclusion was included.

Page Number	Chapter /Section /Step	Comment	Addressed in report?	Comment/explanation
		Editorial comments	Yes	All addressed
Comments from Rufus Nengovhela				
		Concerned about the approach on dams as it is not clearly defined.	Yes	This report does not specifically include anything about the approach on dams and the comment is addressed in RDM/WE/00/CON/ORDM/0516