Department of Water Affairs and Forestry

Republic of South Africa

Directorate: Water Allocation

A TOOLKIT FOR WATER ALLOCATION REFORM

A MANUAL TO HELP ACHIEVE RACE AND GENDER EQUITY IN WATER ALLOCATIONS

DRAFT 6

JANUARY 2007

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LIST OF ABBREVIATIONS

BBBEE - Broad Based Black Economic Empowerment (sometimes BEE)
CL - Compulsory Licensing
CMA - Catchment Management Agency
CMS - Catchment Management Strategy
DM - District Municipality
DWAF - Department of Water Affairs and Forestry
LA - Local Authority
LED - Local Economic Development
NWRS - National Water Resource Strategy
HDI - Historically Disadvantaged Individual (sometimes PDI)
RO - Regional Office
SCR - State of the Catchment Report
ISP - Internal Strategic Perspective
IDP - Integrated Development Plan (produced by local government)
PGDS - Provincial Growth and Development Strategies
NWA - National Water Act (Act 36 of 1998)
RDM - Resource Directed Measures
GAs - General Authorisations
LAACs - Licence Assessment Advisory Committees
LDOs - Local Development Officers (posts created in Local Government to promote development).
WARMS - Water Authorisation and Registration Management System. In the year 2000 all water users were asked to register their water use for billing purposes.

PREFACE

As custodians of the national water resource, the Department of Water Affairs and Forestry must promote the beneficial use of water in the best interests of all South Africans. To do this, we must develop and implement methodologies for allocating our limited water resources that promote equity, address poverty, generate economic growth and create jobs. Moreover, allocation processes must allow for the sustainable, efficient and non-wasteful use of our water.

Together, these methodologies, and their progressive implementation across the country constitute the Water Allocation Reform programme.

Water Allocation Reform, therefore, describes a range of processes, not only addressing the allocation of water, but also the creation of an enabling environment to promote the most beneficial use of that water. This includes activities to stimulate applications that will promote race and gender reform, as well as those that promote the productive, sustainable and efficient use of our water resources. This calls on a range of expertise and experiences from a variety of areas.

This Toolkit draws together these experiences, processes, approaches and policies (the Tools) into a common framework that is consistent with the Position Paper on Water Allocation Reform. It is not a fixed recipe, but outlines a set of processes, supported by Tools and examples, that will allow us to take proactive actions to achieve equity in water allocations – while promoting economic growth and minimising the impacts on existing lawful water users. It outlines processes that are fair and reasonable, and which promote the beneficial use of water in the public interest.

Many of these Tools are already in common use within the Department, and are contributing to race and gender reform. This Toolkit highlights these experiences as example cases. In other places new Tools are proposed to realise specific objectives. More importantly, it is how these Tools are used together, and in combination with the provisions of the National Water Act that will allow us to achieve our goals.

This Toolkit therefore provides a framework and a repository for best practices from across the Department. It is hoped that future versions of this document will include more Tools and more experiences that increasingly highlight the successful rollout of the Water Allocation Reform processes across South Africa.

GLOSSARY

Allocation: This refers to the allocation of "allocable water" in catchments that are not water stressed.

Re-allocation: This refers to the re-allocation of water between users via compulsory licensing or when licences are reviewed.

Allocable water: This refers to that water that can still be allocated to new licences after meeting the requirements of the Reserve, International Obligations, and Existing Lawful Use.

Water stressed: This refers to areas where the existing use of, and the emerging demands for, water exceeds or may soon exceed, the water available. For the purposes of new water allocations, catchments in balance (where the water available equals the existing water use) must be considered as water stressed.

Beneficial use in the public interest: This refers to water allocations that are to the benefit of the public and the nation as a whole. It balances the broader public interest with the rights of the individual, and includes the commitment to equity and gender reform. This also recognises that equity includes the more equitable distribution of the benefits of water use, and not necessarily the equal distribution of water *per se*. Beneficial use in the public interest includes considerations of

- Economic growth and Social development,
- Job creation,
- Equitable access to water for productive purposes,
- Social stability,
- Investor confidence,
- Protection of aquatic ecosystems,
- Efficient and non-wasteful water use, and
- A balance between the water using sectors.

Historically Disadvantaged Individual (HDI) means a South African citizen –
Who has no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act No 110 of 1983) or the Constitution of the Republic of South Africa, 1993 (Act No 200 of 1993)("the Interim Constitution") and/or

- who is a female; and/or
- who has a disability.

A person who obtained South African citizenship on or after the coming to effect of the Interim Constitution, is deemed not to be an HDI.

Responsible Authority: Relates to the delegation of that power to any component of the Department or the Catchment Management Agency.

Livelihoods use of water includes the small-scale use of water for basic human needs, as well as for household food security. This includes small volumes of water used by rural farmers to grow crops that may be sold or traded for other commodities –outside of the formal economy.

Productive use of water includes the use of water for commercial gains. This may include water for irrigation purposes as well as for other industrial uses.

The capacity for productive use includes; 1) The mandate to use the water and the land. 2) Support programmes that make the water available. 3) The financial resources – i.e.

the funds for infrastructure and operation and maintenance, 4) Technical skills and extension support, 5) Markets for the products, 6) Institutional arrangements, 6) Planning skills – i.e. the ability to plan for the water use, and to be able to manage times of shortage, 7) Enthusiasm – i.e. the desire to use the water, 8) Sense of catchment – i.e. the recognition that the use forms part of a wider catchment, and is affected by upstream use and effects downstream use and the aquatic ecology, 9) Security for the enterprise – many emerging enterprises are failing due to crime.

Cooperative governance: In this document this refers to the process of working with other government agencies in all three spheres of government, as well as with NGOs, CBOs and private enterprise to develop the "capacity for productive use of water". It is recognised that cooperative governance is both a resource hungry and a high-risk process. The intention is therefore not to rely on other government agencies participating in the water allocation or compulsory licensing process, but rather to identify and support other development initiatives that may have water requirements. In particular this means working with the PGDS, and the IDPs.

The Reserve is the quality and quantity of water required to satisfy basic human needs and to ensure the ecologically sustainable development and use of the relevant water resource. The Reserve is the only right to water use in the National Water Act, and water must be assigned to meet the requirements of the Reserve before water can be allocated to other uses. As such a Reserve or preliminary Reserve must be determined before any water use can be authorised.

A Preliminary Reserve can be determined before the methodologies for determining the Reserve have been finalized.

The Resource Quality Objectives; These are a set of narrative and numerical management objectives, defined for any particular resource, and are associated with the Resource Class

The Resource Class, and Classification system; These outline the appropriate balance between the utilisation and protection of any resource. The Classification system also attempts to define an appropriate national balance for the protection of and use of all our water resources.

PART 0NE: A BACKGROUND TO WATER ALLOCATION REFORM

1. INTRODUCTION

While significant progress has been made towards ensuring that all South Africans have access to clean and safe drinking water, we are still facing considerable inequities with respect to the use of water for productive purposes.

These inequities are reflected both in the disproportionate use of water and, in many cases, a lack of the resources to use water in the most beneficial manner. In addition, much still has to be done to ensure that all South Africans can participate equitably in water resources management, and that we all have equal access to the resource.

Addressing these gaps is essential to sustainable development. The Department of Water Affairs and Forestry therefore initiated a study, with financial support from the United Kingdom's Department for International Development, to develop appropriate approaches for allocating water.

This process started with the development and publication of a Framework for Water Allocation Reform in South Africa. This outlines the principles, or "rules of the game" that must underlie the water allocation and re-allocation process. This Toolkit follows on from the framework document, and outlines how the goals of the Water Allocation Reform Programme could be achieved.

This Toolkit outlines how the provisions of the National Water Act, as well as a number of other tools, can be used to promote race and gender equity with respect to the use of water for productive purposes.

This Toolkit does not address the provision of basic water supply and sanitation needs, but focuses on the water required to improve livelihoods and food security, to generate an income, and to contribute to economic development.

Implementation of this Toolkit must give effect to the principles in the "Framework for Water Allocation Reform in South Africa.

2. WHAT IS WATER ALLOCATION REFORM?

Water Allocation Reform describes a range of processes, not only addressing the allocation of water, but also the creation of an enabling environment to promote the productive and most beneficial use of water. This includes activities to promote applications that address race and gender reform, as well as those that support the establishment of viable water using enterprises by individuals or communities. Water allocation reform also includes actions to facilitate the authorisation of those water uses that represent the most beneficial use of our resources in the public interest.

This Toolkit will help you;

- Take proactive steps to meet the water needs of HDIs, with a focus on the poor;
- Ensure participation by these groups;
- Work with other agencies to help build the capacity to use water productively;
- Promote the sustainable use of our water resources; and
- Promote the beneficial and efficient use of water in the broader public interest.

However, water allocation reform does not mean that everyone will get water for commercial or productive purposes, but rather that the benefits of this water use will be more equitably spread. The process will, nevertheless, take special steps to support commercial use of water by HDIs who are part of recognised Water Management Institutions.

3. WHAT IS THE INTENTION OF THE TOOLKIT?

The process of water allocation is technically demanding and contentious, particularly where water has to be re-allocated between users to realize equity. Moreover, given the potential for legal action following water re-allocation, the way in which these processes are handled, and the way in which stakeholders are engaged is critical.

It is also recognised that we are unlikely to see the widespread demands for water that have characterised the land reform and water and sanitation services sectors. Nevertheless, equal access to water for those that wish to use it for productive purposes is critical. Moreover, it is important that change in the race and gender patterns of water use is seen to happen. Recognising, however, that relatively few of the rural poor may wish to take up water for commercial purposes – water allocation reform must also promote broader economic growth and job creation.

This Toolkit, therefore, outlines processes to guide the allocation of water to achieve greater equity, but also in a way that promotes economic development and job creation, while minimizing the impacts on existing lawful users of water. It will help ensure that the water allocation process is not only fair and reasonable, but also promotes the most beneficial use of water in the public interest.

The Toolkit outlines proactive actions to “level the playing field” with respect to access to water for productive purposes, by addressing the inequities left by the apartheid system. But also describes how, once the playing field has been levelled, water trading and market lead forces can gradually shift water use patterns towards the more economically beneficial use of water. It is important to recognise that a broad concept of beneficial use of water in the public interest must underlie the allocation of water. This includes considerations for;

- Economic growth and Social development,
- Job creation,
- Equitable access to water for productive purposes,
- Social stability,
- Investor confidence,
- Protection of aquatic ecosystems,
- Efficient and non-wasteful water use, and
- A balance between the water using sectors.

This Toolkit is intended to guide the process of allocating water to realise race and gender reform, but in a way that promotes economic growth, job creation and the most beneficial use of water in the public interest.

The processes outlined in the Toolkit helps to “level the playing field” by addressing some of the inequities left by the apartheid system, as well as recommending where water trading could be used to further promote the most economically efficient uses of water.

4. HOW DO YOU USE THE TOOLKIT?

This Toolkit outlines processes that will help promote applications for water use that address race and gender reform, but also how to evaluate applications to facilitate the authorisation of water use to applicants that promote race and gender reform. The Toolkit also outlines the compulsory licensing procedure. Together these processes support the goals of water allocation reform.

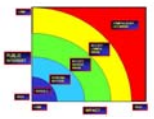
However, one of the key principles behind any allocation of water must be that water resource managers must "apply their minds" to the individual merits of each case. This Toolkit is therefore not intended as a recipe to be followed rigidly, but rather recommends processes to guide the allocation process.

The description of these processes in the main body of the text is, therefore, supported by tips that will help you apply your mind to the individual circumstances of each case, as well as by references to the National Water Act that provide the legislative support to your interventions. There are also references to tools that will help you achieve the intention of the process.

The following icons have been included in the text to help you focus on critical steps in the process;

Summarises the key concepts included in the preceding paragraphs.

Outlines tips to help the reader apply her/his mind to individual cases.



Describes a licence screening tool that forms the basis for evaluating licence applications to support the water allocation reform process.

Indicates the legal provisions that support the process.

Indicates how the process can help give effect to the Reserve and Class.

Lists some tools (described in Appendices) that could support the process.

Provides an example case that illustrates a success story, or perhaps highlights cases that have failed – and the lessons learnt.

Indicates what extra reading will help you give effect to the process.

Before using this Toolkit, you should also familiarise yourself with the Glossary of terms included on page iv.

5. WHAT WATER USES ARE CONSIDERED?

Section 21 of the National Water Act outlines 11 uses of water. However, this Toolkit only addresses the following uses of water as described in **Section 21** of the National Water Act;

- The taking of water (either from groundwater or surface water) **[S21 (a)],**
- The storing of water **[S21(b)],** and
- Stream Flow Reduction Activities **[S21(d) see also S36]**

However, while the allocation processes described in this Toolkit only focus on these three uses of water, the impacts of these uses on other water uses must still be considered when allocating water. In particular the impacts of re-allocation of water on water quality must be considered.

Specific allocation and re-allocation approaches and associated processes for the other Section 21 uses of water are receiving attention and will be formally documented in the future.

While this Toolkit focuses on abstraction, SFRAs and storage, the impacts of these uses on all the uses of water outlined in Section 21 must be considered when allocating water.

6. WHAT IS THE FOCUS OF WATER ALLOCATION IN ANY CATCHMENT?

6.1 Using limited human resources wisely

The processes outline in this Toolkit can be resource intensive, and limited human resources must be used wisely. The Toolkit therefore recommends high-level processes, which are supported by a range of tools. However, the level to which you engage these processes will depend on the resources you have available as well as local conditions.

In this respect, the level of engagement with other agencies (which is likely to be the most resource hungry aspect of water allocation reform) may depend on the level of water stress in the catchment;

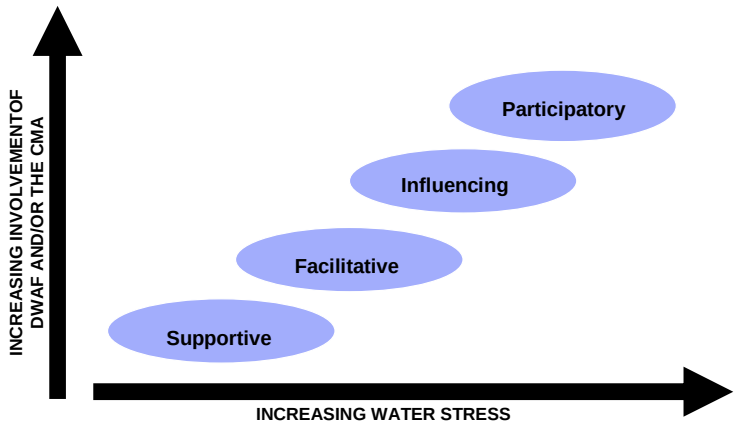
1) Where water is not limiting the responsible authority (DWAF or the CMA) would primarily play a supportive role, by authorising the water needs of developments initiated by province or local government, subject to **Section 27** of the NWA.

2) However, as water becomes more limiting the responsible authority should take on a more facilitative role. This would require more active management of the resource to make the water available for development initiatives by other agencies.

3) As the availability of water becomes an even more important constraint to development, the responsible authority would gradually take on more of an influencing role by actively encouraging water conservation measures, and by persuading other agencies to focus on less water intensive development.

4) Where the demands for water from new developments cannot be met from the available resources, the approach needs to be participatory. In these cases, as water would have to be taken from one use to meet the needs of another, the responsible authority would have to balance the relative benefits of the different uses, and play more of a lead role in getting stakeholders together.

6.2 Different approaches for different catchments



THE ROLE OF WATER ALLOCATION IN DEVELOPMENT

While each catchment is characterised by different levels of stress, and by different demands for water, the approaches toward water allocation can be broadly categorised as follows;

- Catchments were water is unlikely to limit development in the foreseeable future. In these catchments, water can be allocated to new users without the risk of potentially denying existing or future users water. The water allocation reform process in these catchments must work with other government agencies as well as private enterprise to promote the uptake of the available water by HDIs. (It is also important to note that even in stressed catchments, some applications for water use may have little impact on existing or new users, and can be addressed in this way.)
- Catchments where the current, or expected demands, may exceed the availability of water. In these catchments, allocation of water to one user may potentially deny another applicant (or future user) of water. The thrust of

allocations in these catchments is to prioritise the applications to so that those that represent the most beneficial uses of water in the public interest can be supported.

- Catchments where the compulsory licensing procedure will be implemented in the near future. In these catchments the allocation process will focus on the re-allocation of water in a fairer way to promote the most beneficial uses of water in the public interest.

This Toolkit has therefore been divided in three parts, each of which outlines the way water allocations may be approached in these types of catchment. However, when deciding on how to address allocations in your catchments, you need to take into account a number of issues including;

- The amount of water which may be allocated as identified by the NWRS and /or CMS (see Section 23 of the NWA),
- The amount of water registered for use in WARMS, and
- The potential for future demands for water from the catchment.

The selection of the most appropriate approach for any catchment is based on an assessment of the likely water availability for existing and potential new users, after considering the applicants' needs.

7. HOW IS WATER USE AUTHORISED?

The National Water Act only makes provision for one right to water, the Reserve. This represents the water required for basic human needs, and the water required to maintain ecosystem functioning. The Reserve gets the priority allocation and therefore determines the amount of water available for other uses.

Outside of the water required for the Reserve, all water use must be authorised. These other entitlements to use water may be authorised by;

- Schedule 1 use - small volumes of water for household use with little potential for negative impacts on the water resource, for which no application for authorisation needs to be made. Schedule 1 also includes rainwater harvesting – which can be an important component of using water to support rural livelihoods.
- General Authorisations - larger volumes of water with some potential for negative impacts on the water resource which may be generally authorised in any catchment or for a specific type of water use, and/or any category of user, anywhere in the country.
- Existing Lawful Use - which is a water use that lawfully took place in the period two years before the commencement of the National Water Act, and
- Licensed Water Use - larger volumes of water or other water use authorised in terms of a licence issued under the National Water Act, and upon approval of an application by a responsible authority.

The process of water allocation addresses the last three of these authorisations and will also aim to gradually replace Existing Lawful Use with licences issued under the National Water Act. Licences are not issued in perpetuity, and licences may be reviewed as specified in the licence conditions. As such, water allocation is an ongoing

process that will continually respond to the dynamics of South Africa's ongoing development and growth.

PART TWO: APPROACHES IN CATCHMENTS WHERE WATER IS UNLIKELY TO LIMIT DEVELOPMENT

1 INTRODUCTORY REMARKS

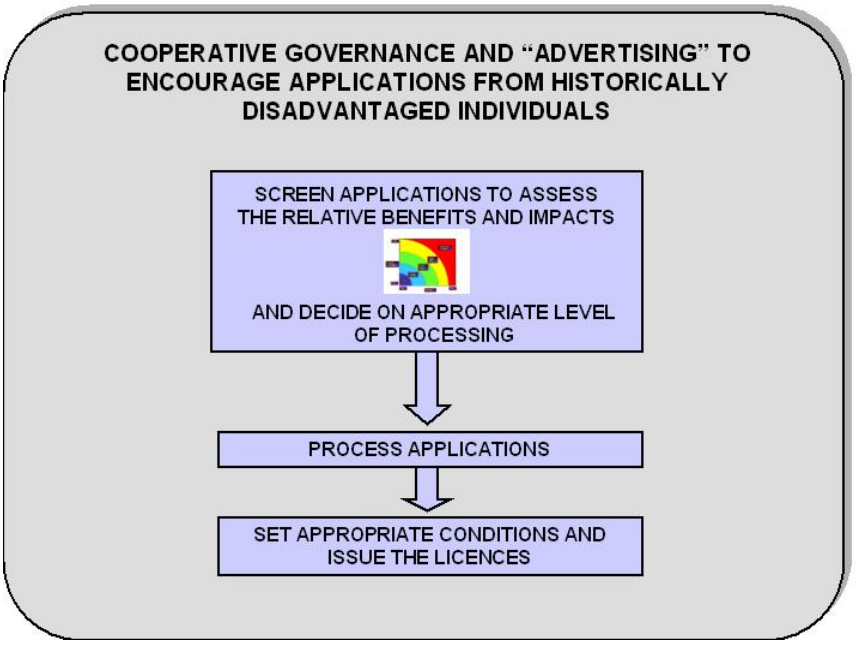
In catchments where socio-economic development is unlikely to be constrained by the availability of water for the foreseeable future, the water allocations process should support any use that promotes economic growth, job creation and which improves livelihoods, within the provisions of **Section 27** of the NWA.

The underlying principle in these catchments is that the allocation of water to any applicant is unlikely to deny any other applicant or potential future user of water. As such, the applications can be dealt with on an individual basis without the need for comparing with other outstanding applications, or prioritising the outstanding applications, or detailed assessments of future potential water use. Water availability in these catchments is outlined in the NWRS, and the ISPs.

It is also important to note that even in stressed catchments, some applications for water use would have little or no impact on existing or potential future users, for example if a user is near the coast and only wishes to take the flood peaks – and this will not impinge on the estuarine Reserve requirements.

In order to promote race and gender shifts in water use, applications that promote redress should be encouraged. An overarching process of cooperative governance should therefore be initiated with other government agencies and the private sector to "advertise" the availability of water for uptake by emerging users who are organised within Water User Associations. The extent of this interaction would depend on the resources and time that you have available, as well as on the availability and accessibility of existing cooperative initiatives.

The overall recommended approach for these catchments is outlined as follows;



In these catchments, the allocation of water to the Reserve is also unlikely to impact on socio-economic development. Ecosystem health should therefore be maintained at the present state, and this can be used as a basis for setting the preliminary Reserves.

Similarly, the classification process is unlikely to limit the availability of water for future users. However, should the classification process recommend more stringent Reserve requirements, the availability of water, and hence the way in which water allocations are undertaken, may have to be re-evaluated.

2. HOW DO YOU PROMOTE APPLICATIONS FROM HDI USERS?

2.1 What is the aim of this process?

This process aims to encourage applications that address race and gender reform, by linking HDIs with other development initiatives that could support the productive use of water. This means linking applicants with financial support mechanisms, extension support as well as to appropriate water management institutions. It is important in these cases to identify existing initiatives that may provide these support mechanisms, including potential initiatives by private enterprise.

2.2 Why is it necessary?

Previous discriminatory legislation not only denied HDI's access to water, but also in many cases has denied them access to the resources required to make productive use of water. This means that special efforts need to be made to improve access to financial resources, as well as to institutional and extension support.

2.3 How could this be done?

Developing the capacity to make productive use of water requires a range of interventions, many of which will lie outside the your mandate (see the definition of capacity for productive use). This step will therefore primarily be supported by cooperative governance initiatives.

You should therefore try to identify other initiatives in your area – these could include land reform processes, initiatives to establish small scale irrigation by the Departments of Agriculture, initiatives by local government and /or initiatives by the Department of Trade and Industry to establish SMMEs. This could also include making contacts with private enterprise in the area, who could provide markets for products. You should aim to set up cooperative venues with these agencies.

This does not mean that the Responsible Authority must provide all of the support mechanisms are in place for every applicant, but rather that any proactive actions to promote the uptake of available water should aim to support existing initiatives by other agencies, rather than to initiate new stand alone initiatives. In addition, where HDI applicants have already lodged an application for water use, support mechanisms within the Department or CMA should be implemented (for example to link them to the support to Resource Poor Farmers group), and where possible applicants should be advised on where other support could be accessed.

Cooperative governance can involve a variety of interventions from meetings with these agencies to "advertise" the availability of water, through to working towards cooperative ventures, and more formal arrangements to cooperate (Memoranda of Understanding). One of the most effective interventions in this respect would be to make contact with the Local Development Officers (LDOs) in the Local Authorities or District Municipalities. Once again this could range from one-on-one meetings to more formal cooperation to support the development of Business Plans for emerging users (see Appendix A1 for a more complete breakdown of this process).

A national assessment of potential water using projects has been prepared. This includes outlining the amount of water that has been "set aside" for HDIs, and whether this water has been successfully taken up, and where other potential water using initiatives by the Departments of Land Affairs and Agriculture. This tool will help you identify where you could start taking proactive action.

EXAMPLE CASE - COOPERATIVE GOVERNANCE

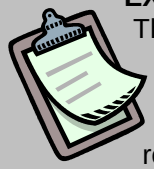
The DWAF has established cooperative ventures with the Department of Agriculture to support small-scale irrigation developments for HDIs through the CCAWs. These operate on a national as well as regional basis. These provide a useful entry point for "advertising" where water would be available for these initiatives.

Experience has shown that securing a market for the products of the enterprise as well as securing financial support to establish the productive use of water are key elements in ensuring viable water using enterprises. In this respect, private enterprise and in particular larger commercial ventures like local food processing industries (sugar mills, canning factories etc), or SAPPI, MONDI and other large undertakings can provide financial and extension support, as well as a ready market for the products. Generally, contract farming enterprises have had the greatest success in establishing emerging users on a larger scale. This includes sugar mills, forestry and breweries which guarantee to buy the product. However, in some cases the opportunities offered by these enterprises are quickly taken up by middle income families, and do not benefit the poorest.

EXAMPLE CASE – WORKING WITH PRIVATE ENTERPRISE

Some 3000 small-scale HDI irrigators in the Komati and Lomati catchments have been able to successfully establish irrigation of between 5 and 10 hectares of sugar cane. Most importantly, the local sugar mill (TSB Sugar) provides extension support, pays the water use charges and the electricity charges for pumping the water. But also provides a ready market for the cane, by buying the cane, and then subtracting the electricity and water costs from the amount paid to the farmer. However, some concerns have been raised that this has benefited only a few people, who already had some income.

EXAMPLE CASE – WORKING WITH AGRICULTURE



The Northern Cape Provincial Growth and Development Strategy has made some 4000ha of land available for the establishment of emerging farmers. The Department's of Land Affairs, Agriculture and Water Affairs and Forestry have established a policy to provide financial assistance to resource poor irrigation farmers. This policy allows for R4.2 million in assistance to establish irrigation infrastructure on the first 280ha. To qualify for this assistance the farmers must organise into legal entities and priority will be given to those that are part of WUAs.

The level of involvement from the responsible authority in this process could range from supporting, through facilitating to active participation in establishing these enterprises. The level of engagement in this process would depend on the resources available to the responsible authority, pressures to allocate water to emerging users and whether there are existing initiatives. However, generally the greater the effort placed on this step, the more likely you are to realize the goals of the water allocation reform process.

It is important to focus your efforts on cooperative ventures with other agencies, rather than on trying to establish water use from scratch. You should also identify where other agencies are already working in the area.

This will not only help focus limited resources, but will help you address more of the components of the capacity for productive water use. It will also help focus the resources of all government agencies. This coordinated approach has a greater likelihood of success. It is also important to provide support to emerging users who are established in some form of institutional structures e.g. in WUAs.

2.4 What stakeholders should know!

This step is primarily focused on linking in and supporting other government agencies, as well as private enterprise in their efforts to address poverty. The primary stakeholders in this process are therefore these agencies.

It is important that these agencies know where water is available, and of the various support mechanisms that are in place to support the establishment of viable enterprises. The emphasis of the interaction with these agencies should be on the elements that constitute productive use of water, and how all stakeholders can cooperate to make sure all these elements are in place.

Special communication strategies will need to be put in place together with these agencies to empower and support the applicants. These strategies will need to emphasize the opportunities available to improve livelihoods via water use.

Ideally hands on assistance should be provided to HDI applicants when they submitt licence applications, but this may be limited by the resources available to you. Here, the emphasis should be on “productive use” and stakeholders should be informed both on what this means and how to achieve it (see the definition of capacity for productive use). However, it is also important to tell these applicants that it is their responsibility to make sure they can make productive use of the water, but to advise them on where they can get help in this regard.

The responsible authority may also have to consider developing mechanisms for the poor to submit, and potentially receive help, at venues closer to where they live. The Multi-Purpose Support Centers may be suitable venues to explore.

2.5 Tips

This step is perhaps the most critical in the water allocation reform process in these catchments. The more effort that is put into this process the greater the likelihood of realizing the equity goals of the National Water Act.

Cooperative approaches to this step will stand the greatest chance of success, and it is recommended that other government agencies at local and provincial levels be approached to identify and agree on mutually beneficial poverty alleviation initiatives. The development of bilateral or multilateral agreements with these agencies in your area is recommended. Many, of the DWAF regional offices have indicated that sister Departments at a provincial level are often virtually non-functional. In these cases, attempts to form links must be carefully documented and elevated to a level where

action can be taken. However, often approaches around specific projects have more success than generic approaches to agree to cooperate.

Similarly large industries processing agricultural or forest products could be approached to determine what support they could lend to supporting the establishment of viable enterprises. However, it will be important to ensure that "fronting" does not occur and that the poor are the real beneficiaries.

Some of the most productive uses of water, in terms of income and jobs per drop are SMME's (like brick making, and small processing plants using water from the potable supply). These are often identified and supported within the local government IDP process. Developing closer ties with the local government LDO's, and familiarity with the spatial planning initiatives in your area is therefore recommended.

2.6 Tools

Key references and tools that can assist with implementation of this step are as follows:

No.	TITLE	WHAT IS THIS?
A1:	Working with Local Government to promote productive water use	Sets out the steps that can be followed to work with local government (District Municipalities) to support their Strategic Water Review and develop Business Plans for water use.
A2:	Financial Assistance for Resource Poor Farmers	Sets out the DWAF policy on financial assistance to resource poor farmers.
A3:	Financial assistance grants available to the poor.	Sets out all the financial assistance packages that are available to the poor, from all government agencies.
C2	Links to the IDP documents	Links you to the website where the IDPs for the local authorities can be downloaded

2.7 Extra Reading

The following reports or tools included on the CD provide additional background reading;

1. A toolkit for Water Use Allocation Planning: - A Gender Perspective.
2. The Integrated Small Business Development Strategy in South Africa 2004-2014.
3. Small-scale farmer development in the context of Water Reform.

2.8 What legislation supports this process?

ACT	SECTION	CONTEXT
National Water Act	Section 2b-2e: Purpose of the Act	Deals with the need to promote equitable access to water and redress past imbalances as well as promote effective use.
National	Section 3[2]:	Indicates that the Minister: Water

Water Act		Affairs and Forestry is ultimately responsible to ensure water is allocated fairly and is use beneficially in the public interest.
Constitution	Section 9(2)	Indicates that proactive actions must be taken to promote or advantage people disadvantaged by previous legislation.

3. SCREENING THE APPLICATIONS TO DETERMINE APPROPRIATE IMPACT ASSESSMENTS

3.1 What is the aim of this process?

This process screens applications so that you can decide on how to process them. This will help you decide on the level of detail required for the evaluation of the application, based on a preliminary assessment of the likely benefits and impacts of the proposed water use.

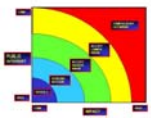
3.2 Why is it necessary?

It is important to be able to react positively and rapidly to those applications (particularly applications from HDIs) that represent the most beneficial uses in the public interest, particularly if they are expected to have little or no impact on other users or aquatic ecosystems. This is not only consistent with the *Batho Pele* and sustainable development principles, but will also gradually lead to more beneficial uses receiving the priority allocations, and will speed up processing of licences.

This will also help you allocate the appropriate resources to each evaluation, by identifying suitable levels for impact assessments and Preliminary Reserve determinations.

Most importantly, if the criteria for fast tracking applications are made known, they could influence applicants to increase the benefits and/or lower the impacts of their intended use.

3.3 How could this be done?



This is done by pre-processing the application in the light of the provisions of Section 27 of the Act (Considerations for the issue of General Authorisations and Licences). A tool has been designed to help you undertake this screening investigation which helps you evaluate the application against its; contribution to race and gender reform, employment creation, support to local and regional development initiatives, the availability of water, the expected impacts on water quality and the aquatic ecosystem, and the potential impacts on other users. This tool should be used as a basis for screening the applications to help decide on an appropriate level of impact assessments and processing (See Appendix B1).

This tool helps determine the relative “Beneficial Use in The Public Interest” and “Impact” of the proposed water use. The following should guide your pre-processing of the applications. Water uses that are;

1) Beneficial and have low expected impacts can have scoping level impact assessments. This means desktop or rapid assessments of the Preliminary Reserve should be adequate, and existing assessments of allocable water in the NWRS and ISPs can be used.
2) Beneficial and have high expected impacts may require detailed impact assessments (which can be done by the applicant). Generally an intermediate level of Preliminary Reserve assessment can be done. You may wish to approach the applicant to discuss ways of mitigating the impacts.
3) Score low on beneficial use, but have low impacts could be processed after rapid determinations of the Preliminary Reserve, but you should approach the user to determine if the benefits could be increased, for example by including emerging users in the application.

Score low on beneficial use, but have high impacts will require detailed impact assessments, and may require comprehensive Preliminary Reserve determinations, and

detailed determinations of water availability. The outcome of this pre-evaluation process should be attached to the application, to assist in the ongoing evaluation of the application.

Licence Assessment Advisory Committees (LAACs) or Coordinating committees for agricultureal Water use (CCAWs) can also be used to bring together all the relevant expertise to help assess the application. This approach can be useful where a number of directorates, and/or agencies outside of the responsible authority may be required to authorize the proposed venture.

EXAMPLE CASE – ESTABLISHING A LAAC

The LAACs established to consider streamflow reduction activities include representatives from; the DWAF (head office and regional office), the provincial departments of environment affairs, agriculture, and land affairs, Forestry SA, and relevant NGOs.

These groups evaluate the application with respect to their respective legislative provisions, and make a recommendation regarding the approval of the application.

In some cases it may also be possible to "pre-identify" the likely impacts of specific applications in certain areas. For example applications from areas; where water is available, soils are irrigable, markets for the produce are available, and other agencies may be supporting establishment of small-scale irrigation use, can be fast tracked.

EXAMPLE CASE – PRE IDENTIFYING SUITABLE APPLICATIONS

The LAAC in KwaZulu-Natal developed a map to support applications for forestry from HDIs. This map overlaid; areas suitable for afforestation, environmental concerns, tribal areas, availability of markets for forest products, and availability of water.

This identified areas where environmental impacts should be low, where HDI users could establish commercial forests and where water is available. This can be now be used to promote applications from these areas, and to fast track these applications.

3.4 What stakeholders should know!

Stakeholders should be made aware of how this pre-evaluation process may affect their application. This has two purposes; firstly it provides feedback to the applicant establishing a good customer care relationship. Secondly, it may encourage the applicant to increase the benefits (e.g. employ more people, involve more women, or go into partnership with emerging users), or lower the potential impacts of the use (e.g. use less water for the same productivity, or reduce the water quality impacts).

This information could be communicated to the applicant acknowledging receipt of the application, and the fact that it is being processed. However, a broad based communication strategy to this effect may also stimulate applications that already consider these issues. The screening tool is also available on www.dwaf.gov.za\WAR and stakeholders can make their own assessments.

It is important that you explain that the screening process is based on Section 27 of the NWA, and that it is aimed at guiding allocations that are in best interests of the country as a whole by balancing the benefits of the proposed water use, with its potential impacts.

3.5 Tips

The screening process outlined in Appendix B1 is a powerful tool to support the objectives of water allocation reform, particularly if you use it to guide your interaction with the applicants. The following tips could guide you;

- The suggested level of Reserve determination can be recommended to the RDM directorate. However, a more detailed level of determination may be required in some cases.
- You should make every effort to support applications for uses that are highly beneficial, i.e. those that promote race and gender reform, create jobs, and which fit into regional development plans, especially if these have limited expected impacts.
- Where the expected impacts are low, impact assessments, or the identification of the allocable yield can be made at a screening level, and Preliminary Reserves could be determined using the Desktop or Rapid methodologies.
- Highly beneficial uses that could have high impacts should be promoted by working with the applicant to reduce the impact. This could include looking for unlawful use in the area, removing alien vegetation or by promoting water conservation and demand management. Similarly, the applicant could be asked to reduce the possible water quality impacts of the use.
- Water uses that are not necessarily in the broader public benefit, i.e. those that benefit already advantaged users, and/or that do not create significant employment, but which have low impacts could be authorized – but more effort needs to be made to ensure that future more beneficial users are not compromised. In these cases you could consider reducing the period of the licence and review period.
- Water uses that have low benefits and high potential impacts should only be authorized after detailed investigations. Preliminary Reserves should be determined using Intermediate or Comprehensive methods. Applicants could be asked to pay for these studies, and to advertise their intended use.
- Where the applicant has agreed to modify their application based on this screening process, these modifications can be tracked and included in the licence conditions.
- The LAAC process is recommended for applications that may require authorization from multiple agencies, or where the applications have resulted from cooperative governance ventures.
- Remember that the determination of water availability from the ISP is not necessarily and indication that water is available at the site of the proposed offtake, and more detailed analyses may be required.

3.6 Tools

Key references and tools that can assist with implementation of this step are as follows:

APPENDIX	TITLE	APPLICATION
B1	The Streaming Tool	The Streaming Tool helps position the application on axis's of beneficial use and impact, and makes recommendations on impact assessments according to this position.
B2	Policy and Guidelines for the establishment of LAACs	This outlines the approach and procedures to establish Licence Assessment Advisory Committees

B7	Maps depicting areas of potential and low environmental risk for plantations for small growers in KZN.	This outlines an approach to pre-identify, and hence facilitate licensing to emerging foresters.

3.7 Extra Reading

The following reports or tools included on the CD provide additional background reading;

1. The procedures for Desktop, Rapid, Intermediate or Comprehensive determinations of the Reserve (This provides an indication of the processing that will be required).
2. An Overview of the IDP process.

3.8 What legislation supports this process?

ACT	SECTION	CONTEXT
National Water Act	Section 17(1):	Deals with the need for a Preliminary Reserve determination.
National Water Act	Section 23(1):	Deals with the delegation to the responsible authority to determine the quantity of water that may be issued under licence.
National Water Act	Section 27:	Sets out the considerations for the issue of general authorisations and licences.
Promotion of Administrative Justice Act	Sections 3 –10	Need for the Departments to comply with requirements to demonstrate due cause in its process of making decisions

4. PROCESSING APPLICATIONS THROUGH THE LICENSING PROCEDURE

4.1 What is the aim of this process?

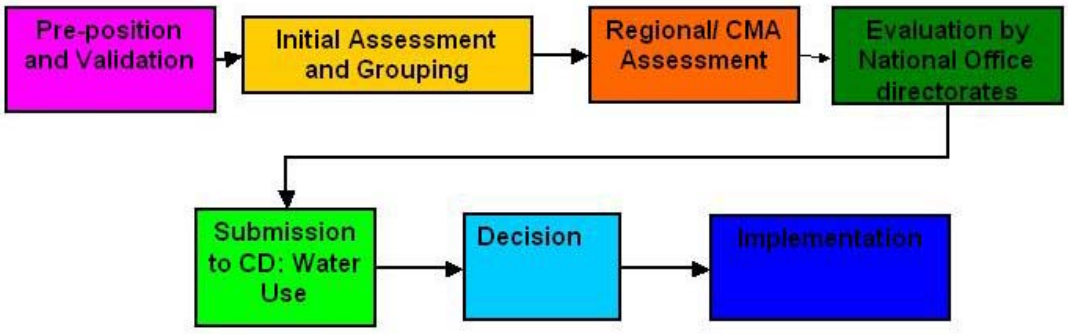
The aim of this process is to evaluate the application or General Authorisation so that a recommendation can be made regarding the approval or non-approval of the licence. This must be done after the pre-assessment described in the previous section.

4.2 Why is it necessary?

This step is required for the formal approval of the licence or General Authorisation, and takes the application to the point where a recommendation is made to the delegated authority (at this point the Manager: Water Use).

4.3 How could this be done?

The formal evaluation procedure consists of a generic 7-step procedure as illustrated below, and as described in more detail in Appendix B2. Until the approval of some licences (for example highly beneficial, low impact uses) is delegated to the regional office or the CMA, all licence applications must pass through this full process. However, the pre-assessment process can inform the depth of analysis required for each step.



For example, step 3 of the Water Use Authorisation Process requires the preparation of a submission from the region DWAF office (or CMA), for evaluation by DWAF National Office. The results of the pre-processing, and the reasons why certain decisions were made, could be included in this submission to inform the level of detail and directorates required to evaluate the application. Most importantly, and agreements made with the applicant to increase the benefits or decrease the potential impacts, must be captured in this process.

> **NOTE:**
> A licence application tracking system is under development that could streamline this process.

4.4 What stakeholders should know!

Ideally applicants should be kept informed of the progress with their applications. You should, therefore have mechanisms in place to be able to respond to applicants who enquire as to progress with their licences. This is particularly important for those

applications that require detailed evaluations, and which could take time to process. (This will be made easier by the licence tracking system).

For certain applications, a separate EIA process, and approval from the Department of Environment Affairs, will be required and applicants should be advised accordingly.

4.5 Tips

The following principles should underlie the processing of applications;

- Every applicant has a right to make the application, and must be treated according to *Batho Pele* principles.
- The cornerstone of the process should be to approve the application unless clear reasons can be found not to authorise the use.
- In this sense if a licence application must be turned down, clear reasons for this decision must be articulated to the applicant.
- If there is a concern that the application may have significant water quality impacts, then the process as outlined in the approaches outlined in: "Individual Applications for Water Use Licences" (see Extra Reading on the CD) should be followed.
- If an application scored high on the impact scale (in the pre-processing step), you may consider asking the applicant to advertise his/her intended use.
- It is important to apply your mind to each individual application for a licence, and that each licence is appropriately processed.
- General Authorisations should be considered to address large numbers of high benefit/low impact users. The Guide on establishing General Authorisations should be consulted here.
- You should not delay providing an answer to the applicant, because you do not know the answer. In this sense, if you have answered all the questions in the screening process, and have provided reasons for these answers, there should be sufficient motivation to provide an answer.
- A less risk adverse approach to authorising water use can be followed for applications that score high on the beneficial use scale. This means that these can be processed more quickly.
- Remember that licence reviews can be used to adjust water use after the licence has been issued.

4.6 Tools

Key references and tools that can assist with implementation of this step are as follows:

APPENDIX	TITLE	APPLICATION
B3	The Licensing Process	This provides a summarised version of the licensing process, and the actions that should be taken at each stage.
B4	Delegation of Powers and Duties under the NWA	This outlines what parts of the licence evaluation process have been delegated to various levels.
B6	Guidelines for establishing General Authorisations	This outlines what needs to be done to establish a General Authorisation for any specific group of users.
C1	Links to the Internal Strategic Perspectives (ISPs).	The ISPs are the precursors to the Catchment Management Strategies, and provide background information

		to help you evaluate the application in terms of water availability.
C2	Links to the local government Integrated Development Plans (IDPs).	The IDPs outline the plans for development in the area. Applications that are consistent with the IDPs should be seen to be beneficial.

4.7 Extra Reading

The following reports or tools included on the CD provide additional background reading;

1. An overview of the IDP process, and the implications on local development and other government agencies.

4.8 What legislation supports this process?

ACT	SECTION	CONTEXT
National Water Act	Chapter 4, Parts 1 to 7	Provide the legal context for water use, and licensing.
National Water Act	Section 27	Sets out what you need to consider when issuing a General Authorisation or licence.
National Water Act	Section 39	Sets out the procedure for establishing General Authorisations
National Water Act	Section 28:	Sets out the essential requirements that need to accompany the issuing of the licence
National Water Act	Section 41[1]	Sets out the process for licence applications
National Water Act	Section 41[4]	This deals with advertisement of the application and process for objecting

5. IDENTIFY SUITABLE CONDITIONS AND PROCEED WITH LICENCE IMPLEMENTATION OR GENERAL AUTHORISATION

5.1 What is the aim of this?

This serves to firstly attach conditions to the licence to mitigate the potential impacts of the water use, and secondly to inform the applicant of the result of the application. Similarly, the process could be used to inform the user of the General Authorisation, and the conditions that may be associated with this General Authorisation.

5.2 Why is it necessary?

Conditions associated with the licence or General Authorisation allow the approval of applications that may otherwise have to be refused due to the potential impacts on the water resource or other users. The conditions also support the sustainable use of the resource by requiring the user to monitor and report on the use.

5.3 How could this be done?

The conditions that may be attached to licences or General Authorisations relate to measures for the protection of the water resource or other users. However, conditions may also specify water conservation and demand management practices, rates of abstraction, monitoring and reporting requirements, preparation, approval and adherence to a water management plan, payment of applicable charges, and registration of the water use.

Generally, the conditions attached to the licence would address the concerns raised during the evaluation of the licence. Similarly, where the applicant was required to advertise the intended use, objections raised to the application may be addressed as conditions. It is also important to include any agreements made with the applicant during the pre-assessment to increase the benefits or decrease the impacts, as conditions.

Conditions are therefore powerful tools for authorising water uses that will realise some benefits to the country, but which may otherwise have to be refused. For example, the conditions attached to a licence may authorise the use provided that water conservation measures are put in place to gradually reduce the amount of water used to make provision for future users. Similarly, the conditions may outline periods where water cannot be used.

A Water Research Commission project has investigated options for monitoring agricultural water use. Suitable water volume monitoring options could be selected from this study, and included in the conditions.

EXAMPLE CASE

An application for some 60% of the allocable water in the Phongola Catchment in KZN was approved to a white applicant to expand an existing irrigation scheme.

This would not score high on the beneficial use axis. However, the licence was approved because the applicant offered to supply several rural villages with water. The reliable supply of water to these villages could be made a condition of this licence.

5.4 What stakeholders should know!

Stakeholders must be made aware of the decision regarding their application. Where licences have been refused – the reasons for this refusal must be clearly communicated to the applicant.

In cases where the applicant may not be familiar with the language used in the licence, special efforts may need to be made to ensure the applicant understands the reason for, and the implications of the conditions specified. This could be particularly important where the use has been generally authorised.

Where stakeholders have raised objections to advertised applications, these stakeholders would need to be informed of the outcome of their objections.

Stakeholders who may take up general authorisations will need to be informed of the need to register (if this is required for the general authorisation).

5.5 Tips

Conditions are a creative tool to help authorise water use, and their used should be encouraged. However, the following should guide the identification of suitable conditions;

- The conditions should be based on mitigating impacts that where highlighted during the evaluation of the licence, and particularly during the pre-processing of the application.
- Problems highlighted during the Reserve determination process can also be included as conditions.
- Conditions should include the minimum monitoring requirements.
- Conditions should encourage the most efficient use of the water.

5.6 Tools

Key references and tools that can assist with implementation of this step are as follows:

APPENDIX	TITLE	APPLICATION
B5	Proforma Licence	This provides an example licence

5.7 What legislation supports this process?

ACT	SECTION	CONTEXT
National Water Act	Section 29:	This deals the requirement of setting conditions to a licence or general authorisation
National Water Act	Section 139[2]d:	Deals with the need to register the water use in the National Information System
National Water Act	Section 148 f	Deals with appeals to the Water Tribunal
Promotion of Administrative Justice Act	Sections 3 –10	Need for the departments to comply with requirements to demonstrate due cause in its process of making decisions

PART THREE: APPROACHES IN CATCHMENTS WHERE WATER MAY LIMIT DEVELOPMENT

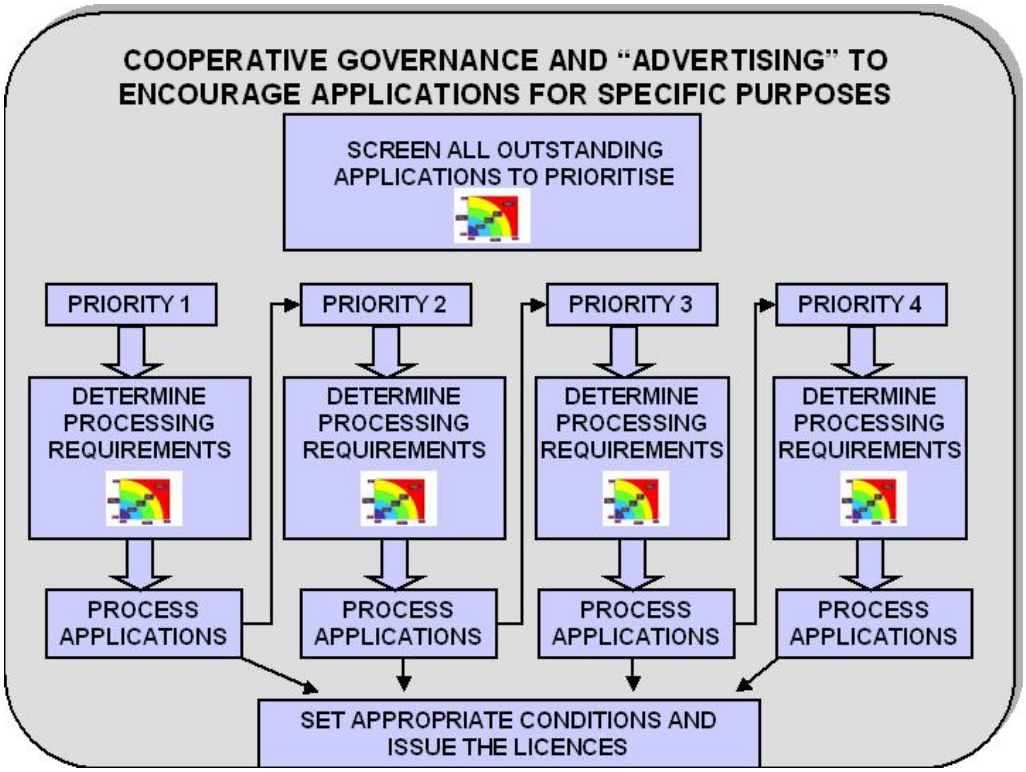
1. INTRODUCTORY REMARKS

Most catchments in South Africa are already facing some form of water stress, and many may have been "closed" to further authorisations for consumptive use of water. Once increasing efforts are made to encourage HDI users to apply for water in these catchments, demands will exceed availability. Many of these catchments have, therefore, been prioritised for compulsory licensing (See Part 8 of Chapter 3 of the NWRS). The NWRS presently outlines a 20-year rollout of the compulsory licensing process.

It would, however, be counter productive to stop all licensing in stressed catchments until compulsory licensing can be done, particularly where applications for highly beneficial uses are received. This section therefore proposes an approach to water allocation reform for these catchments, which can be implemented prior to compulsory licensing, and which allows the responsible authority to take steps toward race and gender reform before compulsory licensing.

The underlying principle to allocations in these catchments is that allocating water to any applicant may deny another existing or future applicant water. This means that applications must be addressed together, projections of future demands is necessary, and some prioritisation is required. Similarly, special efforts must be made to encourage potential HDI applicants to come forward.

The overall process for these catchments is outlined below;



As these catchments are likely to be prioritised for compulsory licensing with the next 5-10 years, it is recommended that the final Reserve and Class determination process be held off, so these processes can be undertaken in parallel with compulsory licensing. This will help optimise the use of human and financial resources, and will facilitate communication with stakeholders.

In some cases the final Reserve and Class will need to be determined before compulsory licensing[1]. In these cases, some estimate of likely future demands from emerging users, and hence the likely curtailments to existing lawful water users will need to be made so stakeholders can make meaningful contributions to Reserve determinations, and the Minister can make informed decisions on the Reserve and Class[2].

[1] For example where there are particular environmental, or water quality, concerns that need to be addressed

[2] The option to revise the Class and Reserve based on new information, nevertheless, remains open

2. PRIORITISE APPLICATIONS AND DETERMINE APPROPRIATE IMPACT ASSESSMENTS

2.1 What is the aim of this?

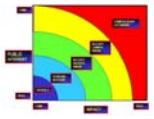
This aims to prioritise all the applications to identify those that support the water allocation reform process, and which should be supported in spite of the limited availability of water. This step also helps decide on an appropriate Preliminary Reserve determination methodology as well as the detail required for other impact assessments.

2.2 Why is it Necessary?

Applications that support the aims of the water allocation reform process are in the public interest and every effort should be made to examine all avenues by which these types of applications can be supported and favourably considered, even in "closed" catchments. This does not mean that all other applications would be refused, but rather that applications that do not support the aims of water allocation reform would need to go through a much more rigorous process to assess if the water was available, including the advertising of the intention to take up the last available water.

This step also helps determine an appropriate level of preliminary Reserve determination, as well as any other impact assessments that may be required to support the application.

2.3 How could this be done?

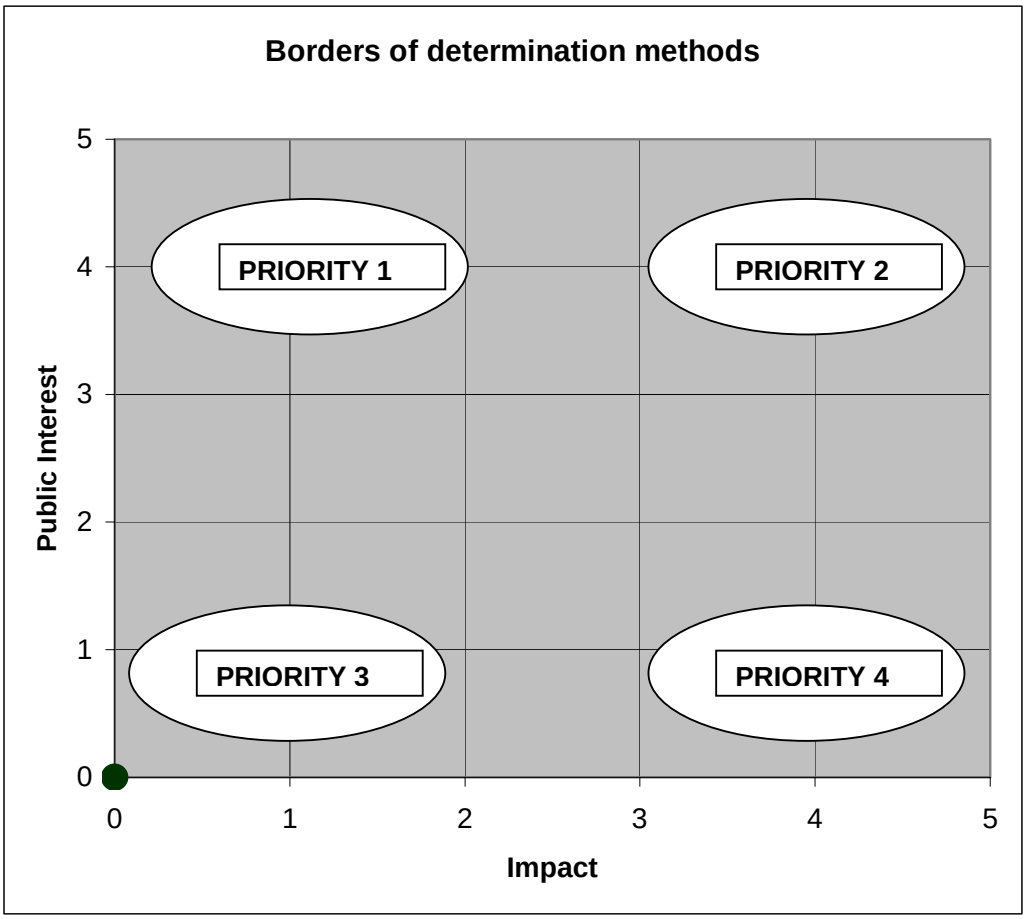


This is done by pre-processing the application in the light of the provisions of Section 27 of the Act (Considerations for the issue of General Authorisations and Licences). A tool has been designed to help you undertake this investigation, and evaluates the application against its; contribution to race and gender reform, employment creation, support to local and regional development initiatives, the availability of water, the expected impacts on water quality and the aquatic ecosystem, and the potential impacts on other users. This tool should be used as a basis for both prioritising the applications, as well as for deciding on an appropriate level of impact assessments and processing (See Appendix B1).

This tool will determine the relative benefits of the proposed water use, as well as the possible impacts of this use. This is plotted on the graph outlined in the figure overleaf.

The following should guide your prioritising of the applications. Water uses that are placed;

1. In the top left quadrant - are priority 1. These are beneficial uses with low impacts.
2. In the top right quadrant – are priority 2. These are beneficial uses that have potential impacts.
3. In the bottom left quadrant – are priority 3. These score lower in terms of benefits but have low impacts.
4. In the bottom right quadrant – are priority 4. These score lower in terms of benefits and have potentially high impacts.



You should attempt to allocate the water to all the priority 1 and 2 applicants – this may require making special efforts to find the water by; identifying and addressing local unlawful users, promoting water conservation and demand management, and promoting the removal of alien vegetation. Priority 3 and 4 applicants can be allocated water, but only after efforts have been made to identify potential future demands from other poverty alleviation initiatives in the area, and that may promote the principles of water allocation reform (see the next section). The priority 3 and 4 applicants should, however, be given the opportunity to increase their contribution to race and gender reform, or decrease their impacts and hence to increase their priority.

The screening tool also helps you determine the appropriate level of impact assessment. In this sense, applications that are;

1) Beneficial and have low expected impacts can have scoping level assessments. This means desktop or rapid assessments of the Preliminary Reserve should be adequate, and desktop assessments of allocable water can be used.
2) Beneficial and have high expected impacts may require detailed impact assessments (which can be done by the applicant). Generally an intermediate level of Preliminary Reserve assessment can be done[3]. You may wish to approach the applicant to discuss ways of mitigating the impacts.

[3] In some cases, for example large enterprises which will employ lots of people, would have significant public benefits, but would still require detailed impact assessments. In these cases the investments required to initiate the activity could provide some clues as to the level of impact assessments that are viable.

3) Score low on beneficial use, but have low impacts could be processed after rapid determinations of the Preliminary Reserve, but you should approach the user to determine if the benefits could be increased, for example by including emerging users in the application.
4) Score low on beneficial use, but have high impacts will require detailed impact assessments, and may require comprehensive Preliminary Reserve determinations.

Licence Assessment Advisory Committees (See part 1 - Section 3.3) can also be used to prioritise applications. This approach is recommended where a number of directorates, and/or agencies outside of the responsible authority may be required to authorize the proposed venture.

EXAMPLE CASE – INCREASING THE PRIORITY OF THE USE

Outstanding applications for water in the Phongola catchment in KwaZulu-Natal significantly exceed the available water. One outstanding application is for a white commercial user, who has requested some 60% of the available water.

However, this user has also included the provision of water to several rural villages as part of the application. This has increased the "beneficial use of this water", and as such has allowed for the application to be prioritised and consequently processed. In this case, however, conditions will have to be included in the licence to ensure that the rural villages actually benefit from the water availability.

2.4 What stakeholders should know!

In these catchments it is important for stakeholders to recognise that water is limited, and that these catchments will be prioritised for compulsory licensing. However, it is also important to ensure that potential HDI users are not "scared off", and that all applications – but particularly those that support the goals of the water allocation reform process – will be considered.

Stakeholders should also be informed of the criteria that would be used to prioritise applications, to encourage applications with a high public value and a low impact. In this way applicants need to be given the opportunity to improve their priority.

2.5 Tips

The main principles behind this process are; firstly, to allow the responsible authority to continue to allocate water even in catchments with little or no allocable water, particularly if these support the water allocation reform process. Secondly, to encourage applicants to increase their contribution to water allocation reform.

The following tips are offered to encourage a shift towards race and gender reform;

- Priority 3 and 4 users should be encouraged to increase their commitment to reform by including women and other HDIs in their proposed use. This may increase their priority.

- Priority 3 and 4 applications could be considered if the water is available, but only after special efforts have been made to identify other initiatives that may represent more beneficial uses. This could include asking the applicant to advertise the intended use.
- Water uses that have low benefits and high potential impacts should only be authorized after detailed investigations i.e. generally comprehensive Preliminary Reserve determination methods, and detailed assessments of the water availability need to be made. Priority 3 and 4 applicants could be asked to pay for these studies, and to advertise their intended use.
- The LAAC process is recommended to prioritise applications that may require authorization from multiple agencies, or where the applications have resulted from cooperative governance ventures.

2.6 Tools

The following tools could support this step;

ANNEXURE	TITLE	APPLICATION
B1	The Streaming Tool	This allows you to both prioritise the outstanding applications, as well as to make recommendations regarding the level of impact assessments.
B2	Policy and Guidelines to establish LAACs	Outlines how to establish a LAAC
C1	Links to the Internal Strategic Perspectives.	These provide Water Resource Planning information for the catchment.
C2	Links to the IDP's	Provides links to the IDPs, which outline regional development plans.

2.7 Extra Reading

The following reports or tools included on the CD provide additional background reading;

1. The procedures for Desktop, Rapid, Intermediate or Comprehensive determinations of the Reserve (This provides an indication of the processing that will be required).
2. An Overview of the IDP process.

2.8 What legislation supports this process?

ACT	SECTION	CONTEXT
National Water Act	Section 17[1]:	Deals with the need for a preliminary Reserve determination.
National Water Act	Section 27: Considerations for issue of general authorisations and licences	Sets out the considerations for the issue of general authorisations and licences.

3. IDENTIFY DEVELOPMENT INITIATIVES BY OTHER GOVERNMENT AGENCIES

3.1 What is the aim of this process?

It is important to identify other development and poverty alleviation initiatives that may require water, before allocating water to priority 3 and 4 applicants. This process, therefore, identifies existing and potentially new initiatives in the catchment that will require water before compulsory licensing can be initiated, and before allocating water to priority 3 and 4 applications.

3.2 Why is it necessary?

This step is particularly important in these catchments, because any allocations of water to less beneficial uses may deny this water to potentially more beneficial uses that may emerge before compulsory licensing.

The compulsory licensing process can not curtail existing licensed water use, and this is only possible under a general review of licences under section 49 of the NWA. Water users curtailed under these general reviews may have more compelling claims for compensation.
This may be unfair to other existing lawful users who will be curtailed under compulsory licensing without compensation.

3.3 How could this be done?

The approach used in these catchments would be similar to the process outlined to encourage applications from emerging users in unstressed catchments. However, these efforts would be focussed on initiatives by other agencies, particularly for areas where priority 3 and 4 applications are being evaluated.

The intention is to identify development initiatives by local and provincial government, as well as potential private enterprises, that may require water. It is recommended that this is done by setting up workshops and/or information sessions with other government agencies to let them know that water is becoming limiting, the longer term plans for compulsory licensing, as well as the options to meet water demands in the interim.

If potential future users are identified in this process that may be priority 1 or 2 uses, efforts should be made to get these applicants to apply. If this is not practical, water could be set aside for these users. Only once this has been done should priority 3 and 4 applications be considered.

3.4 What stakeholders should know!

Stakeholders, and particularly other government agencies, must be informed of the intention to allocate the last available water. The outcomes of the prioritisation process, as well as the criteria used to prioritise applications, should be made known to stakeholders. Stakeholders also need to be told that allocations must focus on the most beneficial uses in the public interest.

3.5 Tips

The following tips will help you apply your mind to this process;

- This process should focus on those areas where outstanding and future applications may exceed the available water.
- It is important to approach the local government (especially Local Economic Development Units) and provincial Departments that may have development plans for the area.
- Land reform projects should also be identified and engaged.
- The private sector could be approached – particularly where these have existing HDI support programmes (for example SAPPI, MONDI and some sugar mills).
- Much of the information needed to support this step may be available from the Catchment Management Strategies or the ISPs as well as the IDPs.
- You could issue a General Authorisation for those parts of the catchment that have available water, provided that these are ring fenced for HDI users, and the potential exists (eg soils are irrigable etc) to use the water productively.

3.6 Tools

Key references and tools that can assist with implementation of this step are as follows:

No.	TITLE	WHAT IS THIS?
A1:	Working with Local Government to promote productive water use	Sets out the steps that can be followed to work with local government (District Municipalities) to support their Strategic Water Review and develop Business Plans for water use.
A2:	Financial Assistance for Resource Poor Farmers	Sets out the DWAF policy on financial assistance to resource poor farmers.
A3:	Financial assistance grants available to the poor.	Sets out all the financial assistance packages that are available to the poor, from all government agencies.

3.7 Extra Reading

The following reports or tools included on the CD provide additional background reading;

1. A toolkit for Water Use Allocation Planning: - A Gender Perspective.
2. The Integrated Small Business Development Strategy in South Africa 2004-2014.
3. Small-scale farmer development in the context of Water Reform.

What legislation supports this process?

ACT	SECTION	CONTEXT
National Water Act	Section 2b-2e: Purpose of the Act	Deals with the need to promote equitable access to water and redress past imbalances as well as promote effective use.
National Water Act	Section 3[2]:	Indicates that the Minister: Water Affairs and Forestry is ultimately responsible to ensure water is allocated fairly and is use beneficially in the public interest.
National Water Act	Section 27 (1b) & (1f)	Deals with the need to consider the race and gender reform aspects of applications, as well as the need to consider other users of water.

4 FINDING WATER TO SUPPORT WATER ALLOCATION REFORM

4.1 What is the aim of this?

This process aims to "find" water for all the priority 1 and 2 users, as well as any future uses that may support the goals of the water allocation reform programme. This process is particularly important in stressed catchments were current demands from priority 1 and 2 users may exceed the available water, and where compulsory licensing is not imminent.

4.2 Why is it necessary?

There are growing political pressures to address inequities in water allocations, and demands for water can be expected to grow as government rolls out the water allocation reform programme. Much of this demand may come from stressed catchments that are not scheduled for compulsory licensing within the next 5 – 10 years. As these uses are important to the country as a whole, it is important make every effort to make water available to these uses.

Social and political volatility could arise if legitimate demands from HDI users are refused, while existing lawful users of water continue their use.

4.3 How could this be done?

This process becomes important where there is not enough water to allocate to all the priority 1 and 2 applicants and/or to expected demands identified in the previous process. Ideally, this should be done as part of the compulsory licensing process, however, there are a number of steps that can be undertaken to "find" water for priority 1 and 2 applicants in the interim. These include (in a rough order of preference);

- Finding and addressing finding nearby unlawful users of water – by implementing the verification process.,
- Removal of alien vegetation in cooperation with the Working for Water campaign,
- Promoting water conservation and demand management,
- Voluntary reductions in water use by some of the existing lawful users,
- Lowering the assurance of supply taking into account the impacts on the various users, and
- Improved operation of upstream impoundments.

If these processes do not realise sufficient water, the ecological category that was used to determine the Preliminary Reserve could be lowered by one category. However, it is not recommended that anything lower than a category 'D' is considered[4].

In many stakeholders may also be able to identify innovative ways in which water could be shared, or ways in which the available supplies could be stretched to accommodate all the demands before compulsory licensing is initiated. The example on the next page provides a good illustration of how this could be achieved.

[4] It is assumed that, if the Class and Reserve have been determined, potential demands from emerging users have already been taken into account, and that the programme of implementation of the Class and Reserve makes provision for allocations to these users prior to compulsory licensing.

It is also important to recognise that in terms of Section 23 (5) of the NWA the Minister: Water Affairs and Forestry must determine the amount of water that may be allocated by the responsible authority. The processes outlined above, therefore, addresses the "re-allocation" of the allocable water already identified in the NWRS.

If additional water can be identified for allocation in this process – this information must be included in the revisions of the NWRS.

EXAMPLE CASE – THE BLYDE 800

Irrigation water from the Blyde River was distributed via earth-lined canals. Water losses from these canals meant that not all the area originally earmarked for irrigation could be developed.

A new piped system of delivering irrigation water was approved, provided that the saved water was made available to emerging users for the irrigation of 800ha of land on the scheme. This could be made available for joint ventures between private enterprise and HDI users to promote the transfer of capacity. Proposals for using this water were evaluated on the following basis;

Criterion	Weight
Empowerment of HDI's	40
Employment creation	10
Farming experience and relevant education	15
Water use efficiency and environment protection.	10
Adding value to produce	10
Institutional sustainability	15
Commercial viability	pass/fail

4.4 What Stakeholders Should Know

It is important to let stakeholders and particularly the applicants know about what efforts are being made to "find" water. All water users in the area, as well as the applicants, should also be engaged to identify innovative ways in which they can reduce their demands for water.

4.5 Tips

The main objective of this process is to actively find water for HDI users by carefully reconciling the available water with known and expected demands for water. The level of effort put into this process should balance the resources available with the benefits that might accrue by authorising these additional uses. If there are limited benefits, the responsible authority could ask the applicants to undertake these studies.

Water trading can be considered as an option to find water for HDI users, and subsidies are available for HDI users falling in the old government water schemes to buy water (See Appendix A2). However, this effectively amounts to a compensation for water, which may not have been considered under compulsory licensing. In these cases, therefore, the seller should preferably be actually exercising the existing lawful use entitlement before compensation is offered. You should therefore consider trying to find unexercised entitlements on the same government water scheme, and promoting temporary trades under Section 25(1) without compensation as a first option.

4.6 Tools

APPENDIX	TITLE	APPLICATION
A2	Financial Assistance to Resource Poor Farmers	Outlines the subsidies and conditions attached to subsidies to buy water.
C3	Procedural guideline for trading of water use entitlements	Outlines the process under which water may be traded as per guidelines set up by DWAF.

4.7 Extra Reading

The following reports or tools included on the CD provide additional background reading;

1. The Working for Water website http://www-dwaf.pwv.gov.za/wfw/
2. Water Conservation and Demand Management Strategies for the various sectors.

4.8 What legislation supports this process?

ACT	SECTION	CONTEXT
National Water Act	Section 23[1 - 5]:	Deals with determination of the quantity of water that may be allocated.
National Water Act	Section 25[1-2]	Deals with the temporary and permanent trading of water entitlements.

5 PROCESS APPLICATIONS THROUGH LICENCE PROCEDURE

5.1 What is the aim of this process?

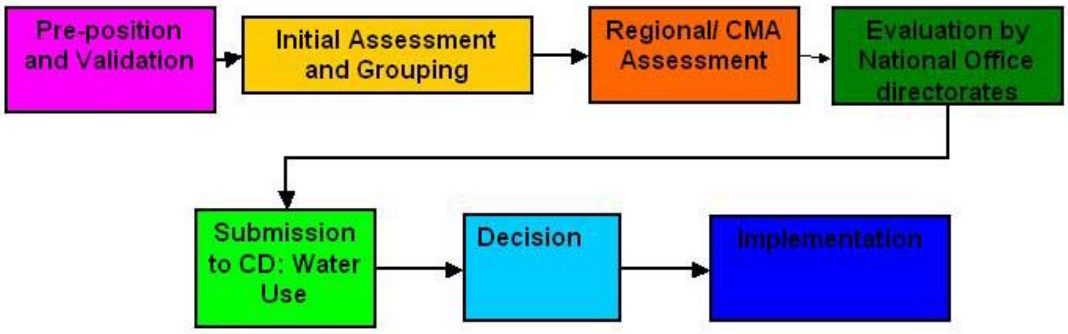
The aim of this process is to evaluate the licences or General Authorisation, so that a recommendation can be made regarding the approval or non-approval of the licence.

5.2 Why is it necessary?

This is required for the formal approval of the licence, and takes the application to the point where a recommendation is made to the delegated authority (at this point the Manager: Water Use).

5.3 How could this be done?

The formal application procedure consists of a 7-step procedure as illustrated below, and described in more detail in Appendix B2. Until the approval of some licences (for example highly beneficial, low impact uses) is delegated to the regional office or the CMA, all licence applications must pass through this full process. However, the pre-assessment process can inform the depth of analysis required for each step.



For example, step 3 of the Water Use Authorisation Process requires the preparation of a submission from the region DWAF office (or CMA), for evaluation by DWAF National Office. The results of the pre-processing, and the reasons why certain decisions were made, could be included in this submission to inform the level of detail and directorates required to evaluate the application. Most importantly, and agreements made with the applicant to increase the benefits or decrease the potential impacts, must be captured in this process.

> **NOTE:**
> A licence application tracking system is under development that could streamline this process.

5.4 What stakeholders should know!

Ideally applicants should be kept informed of the progress with their applications. You should, therefore have mechanisms in place to be able to respond to applicants who enquire as to progress with their licences. This is particularly important for those applications that require detailed evaluations, and which could take time to process. (This will be made easier by the licence tracking system).

For certain applications, a separate EIA process, and approval from the Department of Environment Affairs, will be required and applicants should be advised accordingly.

5.5 Tips

The following principles should underlie the processing of applications;

- Every applicant has a right to make the application, and must be treated according to *Batho Pele* principles.
- The cornerstone of the process should be to approve the application unless clear reasons can be found not to authorise the use.
- In this sense if a licence application must be turned down, clear reasons for this decision must be articulated to the applicant.
- If there is a concern that the application may have significant water quality impacts, then the process outlined in: "Individual Applications for Water Use Licences" (see Extra Reading on the CD) should be followed.
- If an application scored high on the impact scale (in the pre-processing step), you may consider asking the applicant to advertise his/her intended use.
- It is important to apply your mind to each individual application for a licence, and that each licence is appropriately processed.
- You should not delay providing an answer to the applicant, because you do not know the answer. In this sense, if you have answered all the questions in the screening process, and have provided reasons for these answers, there should be sufficient motivation to provide an answer or to contact the applicant.
- Recognising that water is becoming limited in these catchments, priority 3 and 4 applications need to be very carefully evaluated, and it is recommended that these applicants be asked to advertise their intended use[5].
- A less risk adverse approach to authorising water use can be followed for applications that score high on the beneficial use scale. This means that these can be processed more quickly.
- Remember that licence reviews can be used to adjust water use after the licence has been issued.

5.6 Tools

Key references and tools that can assist with implementation of this step are as follows:

APPENDIX	TITLE	APPLICATION
B3	The Licensing Process	This provides a summarised version of the licensing process, and the actions that should be taken at each stage.
B4	Delegation of Powers and Duties under the NWA	This outlines what parts of the licence evaluation process have been delegated to various levels.
C1	Links to the Internal Strategic Perspectives (ISPs).	The ISPs are the precursors to the Catchment Management Strategies, and provide background information to help you evaluate the application in terms of water availability.
C2	Links to the local government Integrated Development Plans	The IDPs outline the plans for development in the area. Applications that are consistent with

[5] It may be argued that, given the potential impacts on other water users, all new applications should be advertised. However, this need increases with the priority – and as a minimum it is suggested that priority 3 and 4 applicants be asked to advertise.

	(IDPs).	the IDPs should be seen to be beneficial.

5.7 Extra Reading

The following reports or tools included on the CD provide additional background reading;

1. An overview of the IDP process, and the implications on local development and other government agencies.

5.8 What legislation supports this process?

ACT	SECTION	CONTEXT
National Water Act	Chapter 4, Parts 1 to 7	Provide the legal context for water use, and licensing.
National Water Act	Section 27	Sets out what you need to consider when issuing a General Authorisation or licence.
National Water Act	Section 28:	Sets out the essential requirements that need to accompany the issuing of the licence
National Water Act	Section 41[1]	Sets out the process for licence applications
National Water Act	Section 41[4]	This deals with advertisement of the application and process for objecting

6. IDENTIFY SUITABLE CONDITIONS AND PROCEED WITH LICENCE IMPLEMENTATION OR GENERAL AUTHORISATION

5.1 What is the aim of this?

This serves to firstly attach conditions to the licence to mitigate the potential impacts of the water use, and secondly to inform the applicant of the result of the application. Similarly, the process could be used to inform the user of the General Authorisation, and the conditions that may be associated with this General Authorisation.

5.2 Why is it necessary?

Conditions associated with the licence allow the approval of applications that may otherwise have to be refused due to the potential impacts on the water resource or other users. The conditions also support the sustainable use of the resource by requiring the user to monitor and report on the use.

5.3 How could this be done?

The conditions that may be attached to licences relate to measures for the protection of the water resource or other users. However, conditions may also specify water conservation and demand management practices, rates of abstraction, monitoring and reporting requirements, preparation, approval and adherence to a water management plan, payment of applicable charges, and registration of the water use.

Generally, the conditions attached to the licence would address the concerns raised during the evaluation of the licence. Similarly, where the applicant was required to advertise the intended use, objections raised to the application may be addressed as conditions. It is also important to include any agreements made with the applicant during the pre-assessment to increase the benefits or decrease the impacts as conditions.

Conditions are therefore powerful tools for authorising water uses that will realise some benefits to the country, but which may otherwise have to be refused. For example, the conditions attached to a licence may authorise the use provided that water conservation measures are put in place to gradually reduce the amount of water used to make provision for future users. Similarly, the conditions may outline periods where water cannot be used.

A Water Research Commission project has investigated options for monitoring agricultural water use. Suitable water volume monitoring options could be selected from this study, and included in the conditions.

EXAMPLE CASE

An application for some 60% of the allocable water in the Phongola Catchment in KZN was approved to a white applicant to expand an existing irrigation scheme.

This would not generally score high on the beneficial use axis. However, the licence was approved because the applicant offered to supply several rural villages with water. The reliable supply of water to these villages could be made a condition of this licence.

5.4 What stakeholders should know!

Stakeholders must be made aware of the decision regarding their application. Where licences have been refused – the reasons for this refusal must be clearly communicated to the applicant.

In cases where the applicant may not be familiar with the language used in the licence, special efforts may need to be made to ensure the applicant understands the reason for, and the implications of the conditions specified. This could be particularly important where the use has been generally authorised.

Where stakeholders have raised objections to advertised applications, these stakeholders would need to be informed of the outcome of their objections.

Stakeholders who may take up general authorisations will need to be informed of the need to register (if this is required for the general authorisation).

Similarly, it may be important to let stakeholders know when the compulsory licensing process may be initiated.

5.5 Tips

Conditions are a creative tool to help authorise water use, and their used should be encouraged. However, the following should guide the identification of suitable conditions;

- The conditions should be based on mitigating impacts that where highlighted during the evaluation of the licence, and particularly during the pre-processing of the application.
- Problems highlighted during the Reserve determination process can also be included as conditions.
- Conditions should include the minimum monitoring requirements.
- Conditions should encourage the most efficient use of the water.

5.6 Tools

Key references and tools that can assist with implementation of this step are as follows:

APPENDIX	TITLE	APPLICATION
B5	Proforma Licence	This provides an example licence

5.7 What legislation supports this process?

ACT	SECTION	CONTEXT
National Water Act	Section 29:	This deals the requirement of setting conditions to a licence or general authorisation
National Water Act	Section 139[2]d:	Deals with the need to register the water use in the National Information System
National Water Act	Section 148 f	Deals with appeals to the Water Tribunal
Promotion of Administrative Justice Act	Sections 3 –10	Need for the departments to comply with requirements to demonstrate due cause in its process of making decisions

PART FOUR: APPROACHES IN CATCHMENTS WHERE COMPULSORY LICENSING HAS BEEN INITIATED

1 INTRODUCTORY REMARKS

Compulsory licensing [**NWA, Sections 43-48**] is a mechanism to re-consider all the water use authorisations in an area, to ensure all people are fairly and equally considered for access to water. The process primarily takes into account demands from emerging users and the need to redress the results of past racial and gender discrimination, but also considers the potential impacts on existing lawful water uses, as well as the potential socio-economic impacts associated with the re-allocation of water.

The process aims to achieve the most beneficial use of water in the public interest. This is a very proactive approach to water allocations, and will usually be a resource hungry process.

A gradual rollout of compulsory licensing in catchments throughout South Africa is envisaged in the National Water Resource Strategy. However, while the NWRS sets out the rollout plan for compulsory licensing, compulsory licensing may need to be speeded up to accommodate increased social and political pressures for equity .

In this respect, the compulsory licensing process may be used to;

- Achieve a fair allocation in water stressed areas,
- Review the prevailing allocations to achieve equity in allocations
- Promote the beneficial use of water in the public interest
- Facilitate efficient management of water, or
- Protect water quality.

The prioritisation of compulsory licensing in any catchment can be motivated for any one of these reasons. Compulsory licensing or water trading are also the only means to convert an existing lawful use of water, to a licensed use under the National Water Act. For this reason the process should eventually be rolled out across the entire country.

Most importantly, however, the compulsory licensing can result in the curtailment of existing lawful use. The process can therefore be highly emotive and fraught with legal pitfalls. The following should therefore guide the overall process;

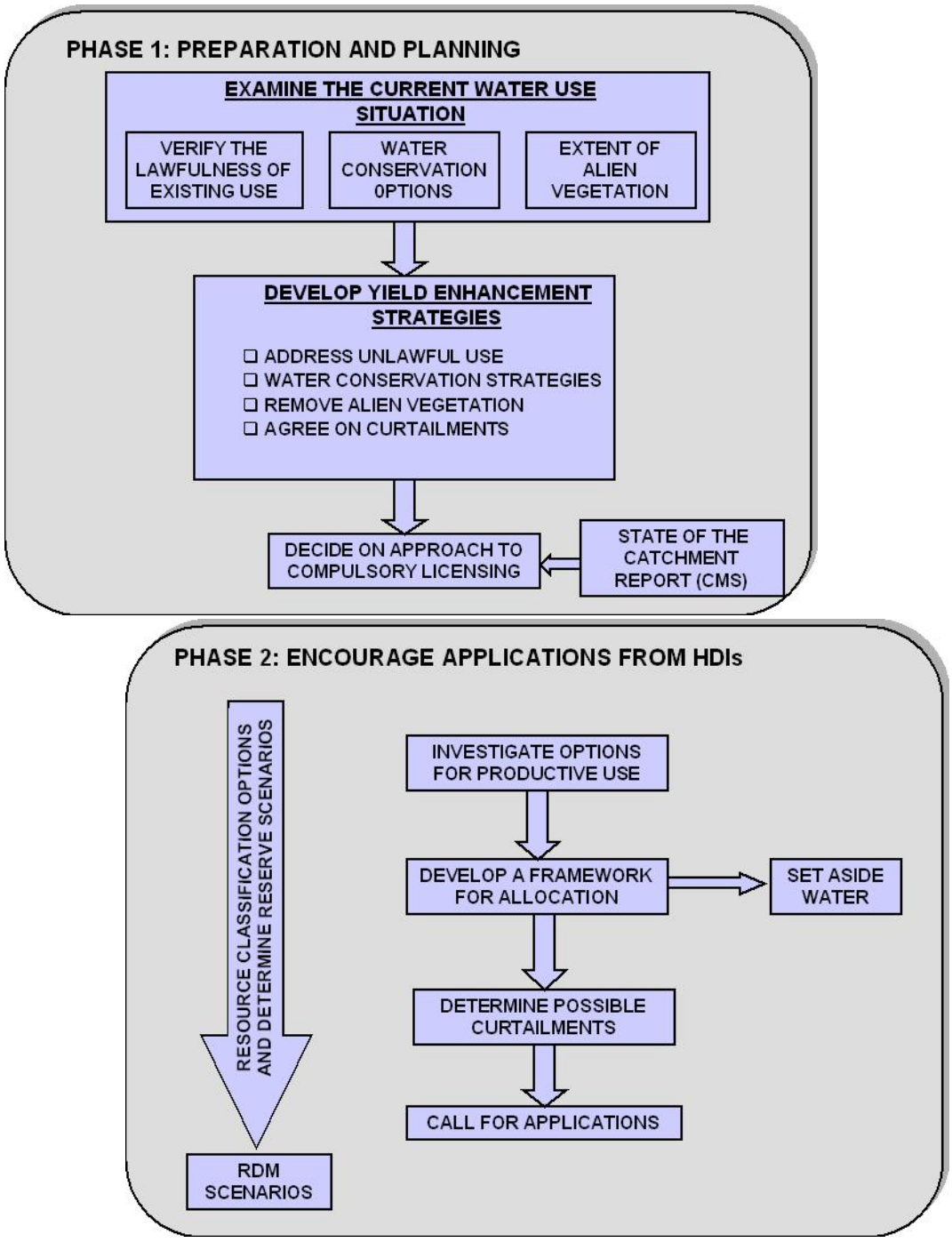
- It will be impractical to discuss the full allocation schedule and approaches with every potential applicant, and so the process must be guided by the “Strategy for Water Allocation Reform” document. This was discussed with stakeholders, and the broad principles agreed to.
- Providing the water for race and gender reform is only part of the process, and ensuring that the recipients will have the capacity to use the water productively is essential. Cooperative governance will therefore be required to empower the poor to engage and benefit from the process.
- It is possible to set water aside to meet future demands. It is therefore not necessary for all applicants to be in a position to apply for licences during the process. However, in this case, ongoing support to establish emerging users after compulsory licensing will be critical. Moreover, if this requires significant curtailments to existing lawful water use, the water set aside should be linked to clear and viable opportunities for productive water use.

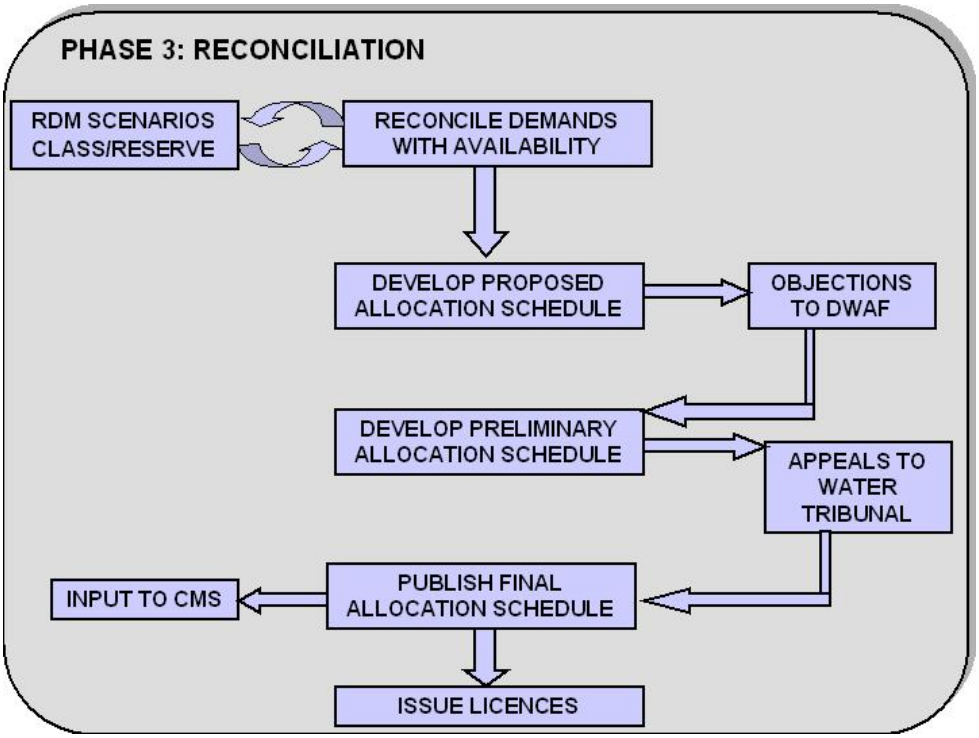
- General authorisations can be considered where these good opportunities for HDIs to take up water have been identified. This could reduce the administrative burdens on both the poor and the responsible authority.
- Curtailments to existing lawful use should as far as possible be agreed with the users. This will limit the potential for legal action and speed up the process of agreeing the final allocation schedules.
- Effort should be put into enhancing the yield of systems by identifying unlawful use, alien vegetation, and water conservation and demand management – as this will reduce the amount of existing lawful use that will have to be curtailed.
- The process of curtailing existing lawful use could be gradual and be paralleled with the uptake of this water by the new users or the implementation of yield enhancement.
- As far as possible curtailments to existing lawful use should avoid severe economic prejudice to the users.
- Compulsory licensing can only be done once, however, ongoing water allocation management can be done via the licence review process or when licence periods expire.

The compulsory licensing process is also often seen as the end point of the IWRM process. In this sense many practitioners suggest that detailed studies should be undertaken before calling for licences. These may include comprehensive determinations of the Reserve for all the water resources, detailed WCDM studies, economic modelling, detailed water resources modelling, and many others. While this is certainly the ideal, the costs and delays in getting these studies in place, and hence delays in achieving water allocation equity, may prove politically and socially unacceptable. The time allocated to, and details required of, supporting studies should therefore be balanced with social and political pressures for action.

You would therefore have to carefully consider what studies must be undertaken in order to implement the process successfully. It is also important that, once compulsory licensing is announced in any area, that you move rapidly to completion so as not to lose enthusiasm from the stakeholders. You also need to remember that compulsory licensing, while setting a benchmark for reallocations, is not necessarily the end of the water allocation process. Licences may be reviewed every 5 years, and a general review of licences may be undertaken to bring water allocation into line with changing conditions.

The compulsory licensing process is envisaged in three phases as outlined below;


PHASE 1: PREPARATION AND PLANNING
EXAMINE THE CURRENT WATER USE SITUATION
VERIFY THE LAWFULNESS OF EXISTING USE
WATER CONSERVATION 0PTIONS
EXTENT OF ALIEN VEGETATION
DEVELOP YIELD ENHANCEMENT STRATEGIES
❑ ADDRESS UNLAWFUL USE
❑ WATER CONSERVATION STRATEGIES
❑ REMOVE ALIEN VEGETATION
❑ AGREE ON CURTAILMENTS
DECIDE ON APPROACH TO COMPULSORY LICENSING
STATE OF THE CATCHMENT REPORT (CMS)
PHASE 2: ENCOURAGE APPLICATIONS FROM HDIs
RESOURCE CLASSIFICATION OPTIONS AND DETERMINE RESERVE SCENARIOS
RDM SCENARIOS
INVESTIGATE OPTIONS FOR PRODUCTIVE USE
DEVELOP A FRAMEWORK FOR ALLOCATION
SET ASIDE WATER
DETERMINE POSSIBLE CURTAILMENTS
CALL FOR APPLICATIONS



It is also important to recognise that, if compulsory licensing successfully establishes emerging HDI users, the demands for water could grow significantly as new users seek to follow the examples set. The process should therefore anticipate increasing demands several years after compulsory licensing has been completed, and must accommodate this in the allocation schedules – or as licences are reviewed.

You should also recognise that in most cases there is unlikely to be sufficient water for everyone, or even the majority of rural users, to use water for productive purposes. Empowerment programmes should therefore focus on emerging users that have organised themselves into Water User Associations, and on those uses that may be supported by other development initiatives. The key principle here is to focus on those areas that have the greatest likelihood of success.

The process should also recognise that only a small portion of the rural poor may wish to establish water-using enterprises. (Only 6% of the rural poor have expressed a desire to farm, and only 8-11% of black people are likely to become entrepreneurial). There may therefore be relatively limited widespread demands for water, and the process would have to focus on specific opportunities offered, and equal access to those opportunitites.

As far as possible, compulsory licensing should be done in parallel with the determination of the Reserve and Class for the resources in question. The outcomes of the compulsory licensing process may inform the establishment of the Class and Reserve by the Minister: Water Affairs and Forestry. However, the establishment of the Class and Reserve remains a separate administrative process, and compulsory licensing can be based on preliminary determinations of the Class and Reserve.

In this regard, the methodology to determine the Reserve could be based on the anticipated use of the system. For example Reserves for intensively utilised systems could be determined using the Comprehensive method, while Reserves for resources that will not be utilised could be determined using the Desktop method.

Lastly, compulsory licensing should not aim for equal distribution of water, but rather the more equitable distribution of the benefits of water use. Similarly, the process should level the playing field with respect to water use, thereafter water trading, water pricing and market forces could gradually realise more economically beneficial uses of water.

2 PLANNING FOR COMPULSORY LICENSING

2.1 What is the aim of this process?

This ensures that;

- the regional office has the resources to support compulsory licensing,
- support from national office component can be mobilised,
- all the information for the catchment is collated, and all existing studies in the catchment (for example Preliminary Reserve or Classification studies and yield analyses) are aligned,
- the area to be compulsory licensed is identified.

2.2 Why is it necessary?

The compulsory licence process will be resource intensive, it is therefore important that there is a commitment, both in terms of human resources and budgets, to support the process. More importantly, as compulsory licensing will impact on all water uses in the catchment as well as on the determination of the Class and Reserve, all ongoing studies in the catchment should be aligned.

This will help prevent stakeholder fatigue as well as ensure that the Department talks with one voice. Moreover, the compulsory licensing process has to be initiated by promulgations in the Government Gazette. This means that both the national office components (which must do the promulgation) and the regional office are involved.

A recent initiative by the Policy and Strategy Coordination directorate is also attempting to coordinate activities and projects under DWAF's Key Strategic Objectives. Structured approaches to establishing the coordinating committees, Terms of Reference, and appointment of Service providers should be followed.

The rollout of the compulsory licensing process, while primarily a regional office function, will require careful coordination of inputs from several national office directorates as well as from stakeholders. The procedures developed by the Policy and Strategy Coordination directorate, and approved by MANCO, should be followed.

2.3 How should it be done?

It is recommended that the procedures developed for project coordination be followed. In brief this should allow for a joint head office / regional office task team to be established to run the process. This team should;

1) Outlinea timetable for the process using the processes outlined in this Toolkit as a guide.
2) Identify the resources (human and financial) required to support the process.
3) Identify all existing and ongoing studies in the catchment, and align these with the timetable outlined in (1).
4) Identify what information is needed and what may be available from previous studies, in particular the NWRS, ISPs and the CMS (if available).

5) Undertake an analysis of the WARMS database to outline the current water use situation with respect to gender, race and sector, as well as the breakdown of this use.
6) Outline the intention of the compulsory licensing process (see the previous section) – and use this to help define the area to be compulsory licensed.

2.4 What stakeholders should know!

External stakeholders are not generally involved in the internal planning with respect to aligning studies and ensuring the appropriate resources are available. However, stakeholders will be involved in the rollout of compulsory licensing. Stakeholders may therefore need to form part of a Compulsory Licensing Steering Committee set up for each catchment. This committee could include;

- Other government departments (especially local government),
- The CMA (if established),
- Private enterprise that could offer markets for products,
- Representatives of the existing water users,
- Representatives of emerging users, as well as
- Relevant NGOs and CBOs.

This committee needs to be informed of the process of compulsory licensing as laid out in this Toolkit.

2.5 Tips

The success of this step will depend on getting relevant and appropriate membership of the task team. The following suggestions are made in this regard;

- The following directorates should be involved as a minimum in the initial planning; 1) Water Allocations, 2) RDM, 3) National Water Resource Planning, 4) Regional office water resources management. 5) The CMA board (if established), or the Institutional Oversight CD. 6) Policy and Strategy Coordination. 7) Stakeholder Empowerment.
- Additional membership can be sourced from other directorates if needed. These may include; 1) Water Use Efficiency, 2) Abstraction and Instream Use, 3) Waste Discharge and Disposal, and 4) Working for Water..
- The inclusion of outside agencies should be based on the initial studies, and would include other government agencies that have programmes to address poverty, as well as large water users, WUAs and large commercial enterprises. Local business forums could also be included.

The following general tips are also offered.

- It is recommended that at least one person who has undergone detailed training in the use of this Toolkit is included at the outset.
- Much of the work may have to be outsourced, an adequate budget should be allowed for this.
- Compulsory licensing should be done at a primary catchment level, however, when demands for emerging users can be met from adjacent catchments, it may be necessary to look at the whole Water Management Area. This will be particularly important if the existing use is a small percentage of the expected demands.
- It is recommended that an experienced and full time project manager is appointed to manage the compulsory licensing process.

2.6 Tools

APPENDIX	TITLE	APPLICATION
C4	Links to the National Water Resource Strategy.	Water Resource Planning information that highlights in broad terms current water use situation, as well as the allocation priorities, and rollout plan for compulsory licensing.
C1	Links to the Internal Strategic Perspectives	More detailed Water Resource Planning information that sets out the specific catchment context.
C2	Links to the IDP's	The IDPs outline the broad development objectives for each local authority in the catchment.

2.7 Reference to Relevant Legislation

ACT	SECTION	CONTEXT
National Water Act	43-48	Outlines the overall compulsory licensing procedures to assist with planning.

3 EXAMINE CURRENT WATER USE SITUATION

3.1 What is the aim of this?

This helps formulate a more accurate picture of water use in the catchment, which will serve as a basis for the compulsory licensing process. It focuses on the Validation of the information on the WARMS database, and the Verification of the lawfulness of the water use. However, this can include water conservation and demand management studies, as well as assessments of the water use by alien vegetation, and existing opportunities for emerging users to engage in productive water use.

This process also provides the information required for Water Availability Assessment Studies (WAAS), to update the systems models that will form the basis of the reconciliation process.

3.2 Why is it necessary?

The primary reason for this process is that emerging demands for water must be met by firstly eliminating unlawful use, then preferably initiating programmes to remove alien vegetation, and by other water conservation and demand processes. Only if these measures do not realise sufficient water to meet these demands should curtailments of existing lawful use be contemplated. This process therefore provides the background required to inform the approach to compulsory licensing. The key justification of this comes from the strategy for Water Allocation Reform paper, which indicates that curtailments should not be arbitrary, and that impacts on the existing lawful water users should be minimised. This process therefore provides a basis for these principles.

3.3 How should it be done?

While some idea of the current water use situation can be determined from the analysis of the WARMS data, in most cases these data have not beenverified. Moreover the WARMS system does not provide an indication of the assurance of supply linked to a registered use, and in many cases there has been an over or under-registration of water use. Registered water use, therefore, often bears little or no relation to the actual amount of water used. The validation process identifies the current water use, compares this to the WARMS registered use, and to the use in the qualifying period[6]. The verification process is outlined in **Section 35** of the NWA, and requires that existing users apply for a verification of that water use.

- The details of how this would be done are contained in the Guide to Verifying the Extent of existing water use, and the Appendix to this Guide (Appendix C4). This Guide must be used to support this process. In brief this process includes the following steps;

1. Information on the registered use, use in the qualifying period and current use should be collated, and fair and justifiable determinations of existing lawful use made based on the best available data[7].
2. The data on the registration forms must be used as a basis for determining the volume of water irrigated per hectare, and the remotely sensed data is used only to confirm the area under irrigation. (Users have had the opportunity to dispute the registration data).

[6] The qualifying period is the two years just prior to the promulgation of the NWA.
[7] Awareness building materials are being developed to support this process.

3. All existing water users should be given notice of the intention to determine the extent of existing lawful use in the catchment.
4. The water use data for each users could be published at the irrigation boards or WUAs, inviting comment from interested parties (**Section 35[3c]**). Meetings and workshops should be held with the users to further explain the verification process, and how existing lawful use was determined.
5. This meeting can be used to discuss alternative ways of determining irrigation volumes, if deemed necessary by the stakeholders[12].
6. All existing users should be invited to apply for verification (**Section 35[1 & 2]**). This notification must be sent as registered mail to each user. Suitable application forms must accompany this notification.
7. Existing users may dispute the figures outlined in Table 2 (**Section 35[3d]**), and in this case could be requested to provide additional information at their cost to back up their claims (**Section35[3a]**).
8. The users should be given a reasonable time to respond, and once all the applications and responses have been evaluated, a certificate outlining the extent of existing lawful use on each property can be issued. (**Section 35[4]**)
9. This determination will limit the extent of existing lawful use identified under **Section 32(1)**, and as such agreements must be made on how the user will curtail his/her use to these levels (**Section 35[5]**).
10. Where users are currently using water unlawfully the Responsible Authority must issue a directive to the user to stop the water use (**Section 53**), and may consider further actions under **Sections 151-153** of the NWA.

However, the approach to verification should be adapted to the needs of each project. Specifically, if detailed water use data are required for WAAS projects, then different approaches may be necessary.

The Water Use Efficiency directorate has information and strategies on water use efficiencies for the various user sectors. These reports can also be consulted to determine the viability of water conservation strategies, based on the use information outlined above. The data available on the WARMS system can also provide information on irrigation practices, and can support scoping assessments of the viability for WCDM in this sector. Similarly, the Working for Water campaign has national maps of alien vegetation, and the loss in stream flow associated with these.

3.4 What stakeholders should know!

Stakeholders, and particularly the existing users, should know that this process is aimed at “finding” water and addressing unlawful users to limit the need to curtail lawful use.

In this sense it would be valuable to include stakeholders in this process to encourage self-policing. Similarly, the potential for legal action can also be avoided by working with the users to identify the extent of the use that the DWAF and stakeholders feel could be accepted as lawful under the provisions of the NWA.

3.5 Tips

The process of verification and validation can potentially be a very expensive process (up to R 3000.00 per user). Much of this cost rests with the level of detail required from the satellite imagery, and the associated field level and cadastral data – especially with respect to the inclusion of these data on a GIS database. A balance must be struck

between the level of detail required, and the urgency of the work. The following recommendations can be made in this regard.

- Generally, higher resolution data are required if the irrigation areas are small, and SPOT or aerial photography is recommended to determine field boundaries.
- Surveyed data at a field level is suggested for areas where greater detail is required, but only where these data are available.
- In many cases high-resolution data are used and available from other organisations like SAPPI, MONDI and the sugar industry. Other agencies that sell products to irrigation farmers also have a need for these data.
- Usually only LANDSAT data are available for the qualifying periods – LANDSAT data are (at least in the interim) the cheapest source of imagery.
- The number of images per year needed to accurately estimate areas under irrigation depends on the type of irrigation practiced and the area of the country. (For example in the drier areas – irrigation shows up clearly, as does centre pivot irrigation, but in wetter areas irrigation can be confused with dryland agriculture.
- As the SAPWAT model was used to register users outside of the old GWCAs, the use of this model to again determine irrigation volumes should be carefully considered. In all other cases the application rates outlined in WARMS should be used.
- Calculating the actual volume of water that is lawful can, in many cases, be very difficult as it may be associated with what was lawful under the old legislation. As such, it is recommended that initial assessments are made at a "Possibly Lawful", "More Information required" and "Most likely Unlawful basis". You can then make a decision on how to proceed with each of these groups.
- It is recommended that detailed ground surveys, are used wherever a dispute arises regarding the extent of the existing lawful use. The National Office should be involved in these cases.

When water use is under, over, or even not registered – actions regarding the over or under- payment of water use charges and payment of a late registration fee must be developed.

3.6 Tools

APPENDIX	TITLE	APPLICATION
D1	Guide to determine the lawfulness of existing water use	This outlines the steps to be followed when undertaking verification validation of existing water use.

3.7 Extra Reading

The following reports or tools included on the CD provide additional background reading;

1. The Working for Water website http://www-dwaf.pwv.gov.za/wfw/
2. Water Conservation and Demand Management Strategies for various water use sectors

3.8 Reference to Relevant Legislation

ACT	SECTION	CONTEXT
National Water Act	Section 32-35	Existing lawful use and verification of the extent of existing lawful use.

4 DEVELOP AND IMPLEMENT STRATEGIES FOR ENHANCING YIELD

4.1 What is the aim of this?

This identifies the amount of water that could be "found" without the need for curtailing existing lawful use of water, and develops strategies to free up this water.

4.2 Why is it necessary?

The main principle behind this process is that it is unfair to curtail and existing lawful water use, particularly if that water is being used efficiently, if there is inefficient or unlawful water use in the catchment. Moreover, the redistribution of water to address race and gender reform should be done in a manner that minimises the impacts on existing lawful use. This is important to minimise the potential liability for and amount of compensation. In addition, if sufficient water can be "found" to set aside for water allocation reform in the medium to long term the compulsory licensing process can be streamlined.

It is also important to align the gradual implementation of these processes with the implementation of the compulsory licensing process.

4.3 How could it be done?

This process includes developing strategies for;

- Curtailing unlawful use,
- Voluntary reductions in the extent of verified existing lawful water use,
- Removal of alien vegetation,
- Water conservation and demand management,
- Investigating viable opportunities for increased storage, and
- Improved operation of storage

The most important part of these strategies is to address unlawful use of water. This can be done by firstly implementing the verification process as outlined in the Guide. Thereafter the approach should be to first tackle the clearly unlawful users of water identified from the verification process. Successes in these cases could be widely advertised to encourage other users to voluntarily stop their unlawful use. However, this process should also recognise that it may be easier to defend the curtailment of an existing lawful water use under compulsory licensing, than to defend technical arguments regarding the volumes of water used in the qualifying period. Experience with the land reform process would also suggest that each water user would regard his/her case as unique, and would not necessarily be dissuaded not to institute legal action by a few successful cases.

Other yield enhancement options include the implementation of water conservation and demand management options, the removal of alien vegetation or improved management of storage. In these cases it will be important to outline strategies for the gradual implementation of these options, which can be paralleled with the expected growth in demand from emerging users.

4.4 What stakeholders should know!

Stakeholders should be informed of the processes being implemented to "find" water for emerging users, and most importantly that this is intended to minimise the potential

impacts on existing lawful users, as well as the local economy. This should be used to encourage voluntary reductions in water use, and participation in the process.

It should also be made clear that the implementation of these strategies will be gradual, and will paralleled with the expected increased demands from emerging users.

Lastly, it is important to publicise any success stories with regard to the curtailments of unlawful water use, particularly where this has impacted on curtailments under compulsory licensing.

4.5 Tips

The following may assist you "find" water without a significant risk of legal action;

- Make a realistic assessment of the likely immediate demands from emerging users based on existing demands, the size of the rural population and expected growth in the catchment.
- Aim your processes at firstly finding sufficient water to meet these demands. When issuing licences under compulsory licensing – set the period of licenses to fit in with this medium term scenario planning.
- The water that is found must be set-aside to address race and gender reform, and may be authorised as a General Authorisation or could be allocated under compulsory licensing.
- This must include programmes to empower the rural poor to make use of these General Authorisations.
- If users dispute the extent of their existing lawful use, legal action is highly likely. As such, only those users who are clearly unlawful should be addressed in the initial stages.
- Where the extent of the unlawful use is not that clear cut, the existing lawful use should rather be curtailed under compulsory licensing if needed.
- As far as possible, the approach should be to get users to apply for verification of volumes that are acceptable to all.
- Try to parallel the implementation of strategies to enhance yield with the increase in demands from emerging users.
- Groundwater sources are often ignored as a potential source of water particularly for the rural poor.

After this process, if you do not need to curtail existing lawful use to provide water for emerging users, then less rigorous studies are needed to determine curtailments that are fair and that have limited impacts on the regional economy. It is also possible that compulsory licensing could either be put off for a few years, or a rapid compulsory licensing approach could be implemented (see next section).

EXAMPLE CASE

Assume that the existing and short-term demands from emerging users can be met by curtailing the users who are clearly using water unlawfully. But that the gradual expected growth in demands over the medium term would require curtailing existing lawful use, and/or the implementation of water conservation and demand management as well as the removal of alien vegetation. Then strategies to address yield enhancement could include just addressing the clearly unlawful users immediately, then gradually implementing the other yield enhancement strategies. Shorter duration licences can then be issued following compulsory licensing.

4.6 Tools

APPENDIX	TITLE	APPLICATION
None	None	None

4.7 Extra Reading

The following reports or tools included on the CD provide additional background reading;

1. The Working for Water website http://www-dwaf.pwv.gov.za/wfw/
2. Water Conservation and Demand Management Strategies for various water use sectors

4.8 Reference to relevant legislation

ACT	SECTION	CONTEXT
National Water Act	Sections 53 and 151	Rectification of contraventions and offences to curtail unlawful use.

5 DECIDE ON AN APPROACH TO COMPULSORY LICENSING

5.1 What is the aim of this?

This process is the last in the preparatory phase to compulsory licensing, and aims to make an informed decision on what route the compulsory licensing process should follow with respect to the extent of empowerment needed as part of the process.

It is based on the results of the previous step, as well as an assessment of the current water use situation in the catchment, and outlines the approaches to the ongoing compulsory licensing process.

5.2 Why is it necessary?

The NWA outlines the legal procedures that must underlie compulsory licensing. However, the Act does not provide an indication of how to encourage applications that will address race and gender reform, or the extent of empowerment and capacity building that will be required to encourage suitable and viable applications from HDI's.

These empowerment and capacity building processes are likely to be the most time consuming and difficult component of compulsory licensing, and can delay the process. However, it is possible to set water aside for potential future demands, and to Generally Authorise this use or to include this in the CMS. This allows the compulsory licensing process to continue as defined in the NWA, providing the opportunity for those emerging users who are ready - to apply for licenses, and converting existing lawful water use to licences.

The process outlined here allows the regional office to make an informed decision on how much water could be set aside, and the extent of empowerment that is required as part of the compulsory licensing process[8]. The process also highlights the knock on benefits to existing lawful water use. Most importantly, it focuses the ongoing compulsory licensing process – using the limited resources where they will have the greatest impact.

If there are significant existing demands from emerging users, or if there are significant opportunities for cooperation to promote uptake of water by HDIs, then compulsory licensing can focus on finding the water to meet these demands. However, if there are very few existing demands from HDI's more attention will need to be paid to empowerment programmes and identifying viable opportunities for productive water use as part of the compulsory licensing process.

5.3 How could this be done?

This process must be underpinned by a sound understanding of the water use situation in the catchment as well as the existing and likely medium term demands from emerging users. Much, if not all, of the information required to initiate this step

[8] This does mean that empowerment programmes will not be necessary in some cases, but rather that empowerment could occur after compulsory licensing and could be focussed on promoting the uptake of the water that is put aside.

may be available from the Catchment Management Strategy or the ISP, but particular attention needs to be paid to;

- The economic returns from the current use of water in terms of income and employment per drop of water.
- Downstream knock on benefits of the water use, for example food processing industries etc.
- Current demands for water from emerging users.
- The availability of markets for products produced by emerging users.
- Existing successful and failed attempts to establish emerging users.
- The viability of establishing water use, for example the irrigability of soils, suitability for afforestation etc.
- Existing initiatives by other agencies in the area, for example local government, the Depts. of Land Affairs, Agriculture and Trade and Industry.

It is recommended that this information is captured in a "Catchment Assessment Report", which would highlight the opportunities for providing water to address race and gender reform, as well as the activities required to support the productive use of this water. This can be compared to the availability of water, and the likely curtailments to existing use that will be required.

This information must be used to more clearly define the compulsory licensing area, and to agree with stakeholders the details of the empowerment activities required to roll out the compulsory licensing process. This "Catchment Assessment Report" could also be developed even where compulsory licensing will not be implemented. This Report may also form the basis for the Situation Analysis developed as part of a Catchment Management Strategy. More importantly, if a Catchment Management Strategy is already in place, this will outline the way ahead for compulsory licensing.

5.4 What stakeholders should know!

Stakeholders need to understand the water issues in the catchment, as well as the knock on benefits that are associated with water use. The compulsory licensing process should also explained. This must be used to;

- Discuss the most appropriate way ahead for compulsory licensing,
- Define the area for compulsory licensing more accurately,
- Outline the extent of the empowerment programmes required,
- Identify what needs to be done to support the productive use of water, and
- Get commitments from stakeholders to support these processes.

This process is therefore aimed largely at stakeholders, and special steps need to be taken to ensure that the rural poor are represented and can articulate their needs. A fundamental component of this process is to recognise that if water must be taken away from existing users; firstly it is important to know just how much needs to be taken away and secondly to make sure that the water that is taken away can be productively used.

Negotiating this balance with stakeholders would form the core of this process and would determine the focus for the ongoing compulsory licensing process.

5.5 Tips

The main output of this process would be an established way ahead for compulsory licensing, and agreements from stakeholders in this regard.

The following tips could help define this process;

- If there are significant existing demands from emerging users, and clear opportunities for productive use by these users –compulsory licensing must focus on finding water for these users, but also to balance these needs against the likely impacts on the region as a whole.
- If there are few demands from emerging users, then the focus of the process would be to empower emerging users to participate in the process, and to help identify opportunities for productive water use by these users.
- If there are opportunities for small-scale use by the rural poor, then the thrust may be to set water aside, and to Generally Authorise this use. This would be paralleled with working with other agencies to support the uptake of this water.
- If there may be significant knock-on impacts on the regional economy – for example in food processing, then the approach may be to open up these opportunities for HDI users, while making sure that curtailments to existing use do not have unforeseen consequences.

5.6 Tools

APPENDIX	TITLE	APPLICATION
A4	Guide to empowerment	This guide outlines how the empowerment process should roll out in support of compulsory licensing.
B6	Guidelines for establishing GAs	This guide outlines how to assess if there are opportunities to generally authorise some water use for HDIs.
D2	Guidelines for public participation	Guidelines on how to approach and interact with stakeholders
C1	Links to the ISPs	The ISPs provide a good basis for understanding the main water related issues in the catchment.
C2	Links to the IDPs	The IDPs provide a indication of development plans for the catchment.

5.7 Extra Reading

The following reports or tools included on the CD provide additional background reading;

1. A example “State of the Catchment Report”

6 IDENTIFY OPPORTUNITIES FOR PRODUCTIVE USE

6.1 What is the aim of this?

This is the first step in the second phase of compulsory licensing and aims to identify opportunities for productive water use in the catchment – but with a particular focus on opportunities for sustainable water use by HDIs.

6.2 Why is it necessary?

Many initiatives to provide water to emerging users have failed because there where limited opportunities for these users to; firstly establish their use and secondly to generate viable incomes from the use of the water. This process examines what good opportunities exist to promote the productive uses of water by HDIs, and helps focus the ongoing compulsory licensing process on these opportunities.

6.3 How could this be done?

This process examines the potential for productive use of water in the catchment in the light of the components outlined below, and then in discussion with stakeholders, attempts to fill in any gaps that may exist.

Productive use of water requires that all the elements outlined below are in place;

- The mandate to the land i.e. the permission to use or occupy the land.
- The financial resources – i.e. the funds for infrastructure and operation and maintenance.
- Technical skills and extension support.
- Markets for the products of the water use.
- Institutional arrangements i.e. WUAs.
- Planning skills – i.e. the ability to plan for the water use, and to be able to manage times of shortage.
- Enthusiasm – i.e. the desire to use the water.
- Security for the water using infrastructure and products. (Many schemes have failed due to crime).
- Sense of catchment – i.e. the recognition that the use forms part of a wider catchment, and is affected by upstream use and effects downstream use and the aquatic ecology.

(Studies have shown that the markets for the use of the water appear to be the key element in productive use.)

This process therefore identifies where most of these elements may be present, and then identifies what else must be done to ensure that the other components are put in place.

EXAMPLE CASE – ESTABLISHING WATER USE IN THE MHLATHUZE

Attempts to establish some 10 000 ha of sugar cane irrigation in the Mhlathuze catchment have largely failed because the local markets for the cane dried up. However, the local pulp and paper mill has recently increased its capacity, and can take on additional wood.

There are also small grower support schemes in place to establish small-scale forestry. There may therefore be limited opportunities for marketing sugar cane, but some opportunities for afforestation may exist. This process would therefore investigate whether all the elements outlined above can be provided by the small-grower schemes.

However, it is important to recognise that there is unlikely to be sufficient water for everyone, or even most of the rural population, to use for productive purposes. Moreover it will be difficult to ensure that all of the elements outlined above are available to everyone in the catchment. The process of identifying opportunities for productive use should therefore be focussed on users who have, or can be assisted to, establish Water User Associations, or where there is a high likelihood of success. In addition, many successful schemes are based on equity sharing in existing enterprises. Here HDIs may benefit from the water use, but would not be primary water users in their own right.

However, the DWAF does not have the mandate to ensure that all the elements outlined above are made available. Cooperation with existing initiatives, and other government agencies, is therefore vital. The process of identifying opportunities for productive use should therefore be focussed further supporting existing opportunities, and not on developing these from scratch. But, experience has shown that reliance on cooperative governance is expensive, resource hungry and risky. The key to this process is therefore not to rely on other government partners participating in compulsory licensing, but rather to identify where these partners are already working.

It is also important to recognise that HDI users may approach the Responsible Authority as individuals – with their own ideas to use water for productive purposes. The compulsory licensing process makes allowance for this in the call for licences. As such, the final allocations of water to HDIs will not be limited to the good opportunities and group participation identified in this step. This step will however help you focus your proactive empowerment efforts in areas with a high likelihood of success.

6.4 What stakeholders should know!

This step is primarily focussed on identifying opportunities for HDI users to make productive use of the water. It is therefore important that these users are made aware of what constitutes productive use, and how to make use of the opportunities identified in the previous step. In particular, innovative ways in which emerging users could make productive use of the water must be discussed with all stakeholders. Potential HDI users should also be informed as to what financial support options are available to help establish their productive use.

Nonetheless, it is the responsibility of the applicant to ensure that he/she has all the elements in place which are necessary to make productive use of the water.

However, large commercial enterprises that could offer ready markets for the products could also be targeted in this process, and agreements reached with these to support the productive uptake of any water made available. This may include developing co-operative ventures with existing water users, for example in equity shares in the enterprise. (see Appendix A4 - The Guide for Empowerment)

6.5 Tips

Experience in a number of projects has indicated that one of the most important components to ensuring productive water use is to ensure that markets are available. However, this lies outside the DWAFs mandate. The following tips are offered to help you in this regard.

- Large commercial enterprises that take on raw materials should be identified, and engaged with respect to identifying capacity to take on more raw materials. Food processing enterprises are an obvious target, but food retail and other enterprises should also be targeted.
- Opportunities for these enterprises to support the establishment of productive use by HDIs should be explored.
- As land is an important component of productive use – the Department of Land Affairs needs to be engaged.
- Similarly, the Departments of Trade and Industry and Agriculture could be approached to ensure that the relevant extension support can be made available.
- Appendices A2 and A3 outline what sources of finance are available to HDI users to establish their use. This should be consulted to help identify viable financial support options.
- Provincial and local plans for development will also indicate what water uses would be supported by other initiatives.

6.6 Tools

APPENDIX	TITLE	APPLICATION
A2:	Financial Assistance for Resource Poor Farmers	Sets out the DWAF policy on financial assistance to resource poor farmers.
A3:	Financial assistance grants available to the poor.	Sets out all the financial assistance packages that are available to the poor, from all government agencies.
A4	A guide to empowering marginalized groups during the compulsory licensing process	This sets out the generic steps that should be followed to implement empowerment programmes in support of compulsory licensing.
C2	Links to the IDPs	Provides links to local government IDP's.

The Rough Guide for Irrigation Development Practitioners
These can be downloaded free from the WRC website:
Volume 1 - A Rough Guide for Irrigation Development Practitioners
http://www.wrc.org.za/downloads/report lists/web rpts/agric/TT 308-07.pdf

Volume 2 - Concepts and Cases
http://www.wrc.org.za/downloads/report lists/web rpts/agric/TT 309-07.pdf

Or ordered free of charge (in colour) from WRC
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6.7 Reference to relevant legislation

ACT	SECTION	CONTEXT
National Water Act 36 of 1998	Sections: 27 and 28	The opportunities for use need to be consistent with the considerations and requirements for licences.

7 DEVELOP A DRAFT ALLOCATION PLAN

7.1 What is the aim of this?

This aims to outline a framework for allocating water that would help guide applications once the call for applications has been made. The framework will agree objectives for allocation of water, and will highlight potential concerns associated with the curtailment of existing lawful water use. The framework will also outline a programme for the re-allocation process.

Most, if not all, the information required for this step may be available from the water allocation plans in the Catchment Management Strategy, but this may have to be supplemented by the information gained in the previous steps to specifically focus attention on opportunities for HDIs to engage in productive water use.

7.2 Why is it necessary?

A framework to guide the applications will help minimise spurious applications and potential social repercussions associated with having to refuse applications from HDI users based on the application of Section 27. However, this process can also be used to encourage existing lawful users to apply for a reduced allocation in order to speed up the reconciliation process. Similarly, larger commercial enterprises may also be encouraged to use water-trading options to satisfy their demands.

This framework could also indicate where water use could be Generally Authorised to limit the burdens on the poor, and administrative burdens on the responsible authority. Similarly, it will help ensure that appropriate support is provided to potential HDI applicants, especially where there are good opportunities for productive water use.

Most importantly, it provides a ready framework to help authorise licences under compulsory licensing. It is expected that in most areas compulsory licensing could generate thousands of potential applications. Applications that are consistent with an already agreed framework can be more rapidly processed.

7.3 How could this be done?

The draft water allocation plan builds on the Catchment Assessment Report, and the opportunities for productive use identified in the previous step. The framework should set out the sector level allocation objectives, particularly where a CMS has not been produced. This framework for allocation would;

- Identify the types of uses that may be supported (from the previous steps) and the areas where these uses are viable.
- Outline the water that may be set aside and/or General Authorised to support the compulsory licensing process.
- Suggest possible curtailments to existing lawful use under different Reserve scenarios, and the point at which Severe Economic Prejudice to these users may occur.
- Indicate the criteria that would be used for evaluating applications. (This is vital to streamlining the licence evaluation process, and developing the allocation schedules)
- Suggest possible trading options between larger commercial enterprises.
- Outline options to parallel gradual reductions in existing use with the gradual uptake of the water by emerging users.
- Highlight the benefits to regional stability and growth offered by supporting particular allocations.

- Specify particular cautions for curtailing some users to avoid knock on effects on the regional economy.
- Outline the timeframes for the remainder of the compulsory licensing process, i.e. when the call for applications will be made, the closing date for applications, and projections for when the proposed, preliminary and final allocation schedules may be available.
- Indicate how and where potential applicants could submit applications.

The intention of this framework is not to prescribe to potential applicants what uses would be considered, but rather to indicate the types of applications that would promote the most beneficial use of water in the public interest in that catchment, and which have a high likelihood of success.

The framework is also not a reconciliation process, and the actual curtailments required cannot be finalised at this stage. The framework would, therefore, only indicate possible curtailments that may be required, and the potential impacts of these curtailments.

Effort spent on developing and negotiating a viable framework with stakeholders will significantly reduce the resources required for the following step.

If a Catchment Management Strategy has already been developed, the Allocation Plan in the CMS will form the basis for this process. However additional work may be required to focus attention on water use by HDIs, and the potential impacts of curtailments on existing lawful water users and the regional economy (if this is not already addressed in the CMS).

7.4 What stakeholders should know!

The draft water allocation plan must be developed together with all stakeholders. This may require some iterative development of the plan. Once developed the plan needs to be widely distributed and needs to be in an accessible form (i.e. with respect to language, content and other media for communication.).

Where a CMS has already been developed, stakeholders must be informed that the water allocation plan this forms the basis for this work. Care will have to be taken not to confuse stakeholders in this process.

Stakeholders should be informed of the likely water resource constraints, and should be encouraged to come up innovative solutions to these problems.

It is important for stakeholders to recognise that it will be impractical to decide on the allocation schedules based on a show of hands, and so the framework developed will be used to guide the development of these schedules.

7.5 Tips

This is perhaps the most important step of the compulsory licensing process, as it will guide both emerging and existing users in making applications. The following tips are offered to guide this process;

- Time spent on this process would significantly reduce the complexities of the remaining steps, and the likelihood for legal action.
- This process can be facilitated by developing several options with their associated pros and cons, which can be discussed with stakeholders.

- This process should not pre-empt the allocation schedules, but should rather be based on broad sector based allocations and curtailments in each part of the catchment.
- Agreements on viable curtailments at this point could limit the possibility of objections and appeals at a later stage. These could be based on 1) Agreed curtailments, 2) Calculated curtailments required to satisfy emerging demands, 3) Detailed analysis of the likely economic impacts on the individuals and/or regional economy.
- Iteration with the various Reserve scenarios may be required for this.
- In some cases existing lawful users may offer to give up their water if compensated. However, this is not recommended as the compulsory licensing process allows for the curtailment of these users without compensation.
- These users should apply for water under compulsory licensing – a curtailment may be made, and then they would be free to trade the remainder of their water.
- The draft water allocation plan may also outline where water could be generally authorised for use by HDIs.

7.6 Extra Reading

The following report included on the CD provides additional background reading;

A Guide to Minimising the Potential for Compensation Claims following the curtailment of existing lawful water use.

A Guide to establishing a Catchment Management Strategy

8 CALL FOR LICENCE APPLICATIONS

8.1 What is the aim of this?

This serves as the formal request for all existing lawful water users and potentially new users to apply for licences under Section 43 (2) of the NWA.

8.2 Why is it necessary?

This is a requirement of the compulsory licensing process as outlined in the NWA. It is necessary so that existing lawful water users and new applicants can apply for, and be evaluated on an equal basis for access to the water resource. Existing licence holders must still submit an application in this process, even though Section 45 (2)b suggests that the requirements of existing licences must be met in full[9] – this is so that the process can accommodate this use.

8.3 How must this be done?

Section 43 (2) of the National Water Act outlines the procedures for calling for applications. This includes the publication of the call for applications in the Government Gazette. Potential applicants must be given at least 60 days to lodge their applications. This notification must;

- Identify the water resource and water use to be subjected to CL
- State where application forms may be obtained
- State the address to which licence applications are to be submitted
- State the closing date for licence applications
- State the applicable application fee
- Provide the appropriate information as the responsible authority considers appropriate

Section 43 also makes provision for the Responsible Authority to take whatever other steps are considered appropriate to bring the notice to the attention of all potential users. This should be guided by the draft water allocation plan prepared in the previous step, as well as interactions with stakeholders prior to this step. As such, this could include publication of the notice in local media, as well as targeting specific areas identified in the draft water allocation plan or CMS. The Responsible Authority may also indicate that these documents are available, and to make these available to applicants on request. This must, however, indicate that the water allocation plans are not prescriptive.

Where large numbers of applications are expected from the rural areas, the Responsible Authority should consider making the application forms available at more easily accessible sites, and to allow for the applications to be submitted to the same sites. This may include local multipurpose support centres, churches, schools or pension pay points. This could also include providing support to emerging users, at given times, to complete their applications. The Responsible Authority may also waive the application fee in some cases, however this may lead to opportunistic applications.

[9] Existing licences can be curtailed under a general review of the licences, as a separate but simultaneous administrative process.

8.4 What stakeholders should know!

It is important that all existing and emerging users of water are informed about the call for licences, and special communications processes may have to be implemented to make sure all potential water users are informed of the call for licences, and that they are empowered to make application. For example, posting a notice in a Government Gazette, indicating that complicated application forms in languages unfamiliar to most of the rural poor, may be collected at, and submitted to, some remote venue for an exorbitant fee – does not empower the poor, and has the potential to have a destabilising effect.

8.5 Tips

The work leading up to the call for applications should as far as possible ensure that;

- Most applications are for viable water uses, which will not need to be turned down if Section27 is applied.
- The Department does not get flooded with thousands of small applications to use water (these should be addressed by General Authorisations).
- Existing lawful users apply for use that already accommodates potential curtailments.

However, the previous steps cannot be prescriptive in this regard. The following guidelines are therefore offered to support this process;

- The number of applications received from HDI users will determine the success of the compulsory licensing process.
- All applications must be processed equally, and if HDI users have not applied correctly or if their use is not viable, every effort should be made to assist these applicants. Particularly if these are consistent with the water allocation plan.
- It is counter-productive to invite HDI users to apply for licenses only to refuse these based on Section 27.
- Generally, too many applications would be better than too few.
- The framework should provide a guide for applications, is means that if particular uses of water have been identified for HDI users in the framework – then special efforts may be needed to get applications in from these users.
- The CMA, WUAs, Water Boards as well as local government agencies can be used to support the call for licences, the collection of these as well as providing support to the applicants.

8.6 Reference to relevant legislation

ACT	SECTION	CONTEXT
National Water Act	Section 41	This outlines the procedures for applications for licences
National Water Act	Section 43	This outlines the procedures for calling for applications under compulsory licensing, the payment of application fees, as well as the consideration of late applications.

9 COMPILE PROPOSED ALLOCATION SCHEDULE

9.1 What is the aim of this?

This step aims to reconcile the applications received, as well as any General Authorisations promulgated, and any water that must be set aside, with the allocable water. It prepares and publishes the proposed allocation schedule as is required by **Section 45** of the NWA. Stakeholders may comment on this schedule and raise objections with the Responsible Authority for consideration.

While the outcome of this reconciliation process may inform the establishment of the Class and Reserve for the resource, the Class and Reserve are determined in separate administrative processes, and will consider issues other than the implications of re-allocations of water. The allocation schedule must give effect to the Class and Reserve.

9.2 Why is it necessary?

The publication of the proposed allocation schedule, as required by **Section 45,** allows the Responsible Authority to develop and discuss allocations directly with the objectors, before appeals are lodged with the Water Tribunal. It also identifies what allocations could be considered, and what curtailments to existing lawful users are necessary.

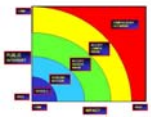
9.3 How must this be done?

This process uses water resources models to reconcile (balance) the applications received, as well as General Authorisations promulgated and any water that must be set aside for future use, and the Reserve requirements with the available water. This process uses the draft water allocation plan as a guide. The following steps should direct this process, as outlined in Section 45(2);

- Water must be assigned to the Reserve and for International Obligations.
- Water must be assigned to strategic users.
- Water must be assigned to existing licence holders. –

Thereafter;

- Water must be allocated to the applicants to redress the effects of past discriminatory legislation. (This does not mean that every HDI applicant should get the full volume applied for.)
- Water may be allocated to existing lawful users of water who have applied for this water use.



The streaming process presented in Appendix C1 may also be used to rank applications to assist in this process. This process may have to be iterative, and several proposed allocation schedules may need to be discussed with stakeholders. Generally the allocation schedules should try and avoid curtailing existing lawful users to the point where severe economic prejudice may occur.

Similarly, the allocation process should level the playing field with respect to water use – to the point at which water trading, water pricing and market forces can gradually lead to the most economically (in terms of jobs and income per drop) use of water. For example, if the meeting the full demand for water from emerging users may mean curtailing existing lawful water use to the point at which severe economic prejudice

may occur – you may consider just providing sufficient water to establish viable emerging enterprises – and promoting trading for the remainder.

Large numbers of licence applications may also be received, and it will only be possible to evaluate these if the draft Water Allocation Plan is used as a basis for the reconciliation process. In this sense, it may be necessary to develop a specific licence application form that simplifies comparison of the application to the decisions in the draft Water Allocation Plan.

9.4 What Stakeholders Should Know

The stakeholders need to have access to the proposed allocation schedule and the considerations that led to the allocation. It may be necessary to additionally provide simplified explanatory notes indicating how the application, and schedule compare to the water allocation plan, and how these compare to the original existing lawful use of water. This means individual applicants cannot only see how their application was treated, but also how they faired against the other applications.

It is also possible to develop reconciliation options in consultation with stakeholders using the water resources models. This has the advantage of allowing stakeholders to come up with solutions to intractable allocation decisions themselves. However this approach may unfairly prejudice the poor who may not be in a position to negotiate on an equal basis in a highly technical process. This means that clear principles would have to be established before this negotiation process. These would ring fence some water, which would not form part of the negotiation process. Negotiations can therefore be focussed on certain water sharing options.

It must also be remembered that the Responsible Authority must promote beneficial use in the public interest. This means not only a commitment to race and gender equity, but also the economically efficient use of water. While stakeholders can certainly have input to this process, ultimately the Responsible Authority must make a decision by applying its mind to the applications received, and any potential General Authorisations necessary.

The Responsible Authority should, in addition to informing every individual applicant, consider publishing the schedules and explanatory notes in the same venues used to collect applications.

Stakeholders also need to be informed of their right to lodge an objection with the Department.

9.5 Tips

The following tips could help guide the development of the proposed allocation schedule;

- Section 27 of the NWA still needs to be applied to all applications for water use under compulsory licensing, however this can be “generically” applied to the development of the Water Allocation Plan – which then serves as the basis for the allocation schedules.
- You can consider reducing the amount provided to each emerging user, if the re-allocation of water may have severe impacts on the regional economy.
- It may be unfair to put an existing lawful water user out of business – in order to establish large, already empowered, commercial BEE companies. In these

cases you could consider re-allocating just the water required to establish a viable enterprise – but to promote water trading for the remainder of the application.

- ❖ In many cases stakeholders from both sides of the spectrum may well agree to compromise in order to allow reconciliation. – Intractable reconciliation problems could therefore be put to the stakeholders for potential solutions.
- ❖ Not all the water needs be allocated in this process, and it is recommended that some is held back to be able to address successful appeals to the Water Tribunal.
- ❖ Similarly, water can be put aside for future use – particularly if the response from emerging users has been poor, however this should still be linked to identified viable opportunities.
- ❖ If it is possible to reconcile all the demands after reasonable curtailments to existing lawful users, and by ensuring all applicants are using water in the most efficient way, then excess water may be auctioned off. This will promote the most economically beneficial uses of water.
- ❖ The Responsible Authority may have to amend the proposed allocation schedule following successful objections, and it is therefore recommended that some water is left unallocated.

9.6 Tools

APPENDIX	TITLE	APPLICATION
C5	Using Water Resource Planning Models.	These are used to determine reconcile demands with availability of water under different assurances of supply

9.7 Extra Reading

The following report included on the CD provides additional background reading;

Economic considerations in Water Allocation.

9.8 Reference to Relevant Legislation

ACT	SECTION	CONTEXT
National Water	Section 45	Requirements for the proposed allocation

Act		schedule and its publication.
National Water Act	Section 27	Considerations for licences

10 COMPILE PRELIMINARY ALLOCATION SCHEDULE

10.1 What is the Aim of this?

This process responds to the objections raised by stakeholders on the proposed allocation schedule.

10.2 Why is it necessary?

While the proposed allocation schedule must be based on the likely impacts on user sectors, the preliminary allocation schedule can respond to impacts on individual users. This is also a requirement of the National Water Act [**Section 46**]. It allows the Responsible Authority to respond to objections before they are submitted to the Water Tribunal.

10.3 How must this be done?

Stakeholders must be given at least 60 days to raise objections to the proposed allocation schedules, and these objections must be submitted to the Responsible Authority. It is recommended that provision should be made for objections could be lodged at the same sites as those selected for the applications, and where the proposed schedules were available for viewing.

This process responds, on a case-by-case basis to all objections raised by stakeholders on the proposed allocation schedule. This process allows the Responsible Authority to take into account the circumstances around each individual case (which may not have been possible when drawing up the proposed allocation schedule).

These objections are most likely to involve cases where the individual applicant may suffer severe economic prejudice due to the proposed curtailments and their particular circumstances. The approach to these cases would therefore be to investigate these individual circumstances in the light of the generic decisions that were made in order to prepare the proposed allocation schedule. Only when the individual circumstances warrant it, should the Responsible Authority consider changing the proposed allocation schedule – by providing additional water to the person raising the objection.

After considering all the objections the Responsible Authority must prepare a Preliminary Allocation Schedule, and publish a Notice in the Gazette to this effect as per **Section 46 (1)**. This should indicate that only those applicants who lodged an objection to the proposed allocation schedule may lodge an appeal to the Water Tribunal. These appeals must be lodged within 30 days of the publication in the Gazette.

The Responsible Authority must amend the preliminary allocation schedule as directed by the Water Tribunal, and it is therefore recommended that some water is left unallocated to address potential successful appeals.

10.4 What Stakeholders should know!

Stakeholders (and specifically the applicants) need to be informed of where the preliminary schedules may be viewed. It is also important to indicate that only those applicants who raised objections may appeal to the water tribunal. Objectors therefore

need to be informed of the procedures for raising an appeal, where these can be lodged, as well as the time periods allowed.

It may be politic to inform the Water Tribunal of the number of objections raised, and how these where addressed, so that they can prepare adequately for dealing with the appeals.

10.5 Tips

The key to preparing the preliminary allocation schedules is to address the individual circumstances of the objectors. If this requires curtailing other users then a further proposed allocation schedule must be published. It is therefore recommended that the proposed allocation schedule does not allocate all the available water.

It is suggested that you look at the merits of the individual case – asking the applicant to demonstrate why the individual circumstances differ from all the other applicants. For example the objector may be carrying more debt (eg if the farm has been recently purchased) than was considered in the determination of viable curtailments to that sector. Only when the individual circumstances differ from those used to prepare the proposed schedule should the Department consider amending the schedule.

Applicants raising objections could also be informed of the options of using water trading, or of installing water conservation measures. It may also be important to indicate that curtailments may be gradual and will be paralleled with the gradual uptake of the water by the emerging users.

You should also consider warning the Water Tribunal of the impending intention to publish the preliminary allocation schedule, and requesting that they consider hearing all applications at a venue within the catchment, and within a specified period.

10.6 Tools

ANNEXURE	TITLE	APPLICATION
	Tools to determine the point at which irrigation users may suffer sever economic prejudice	Used to identify if the individual's circumstances may result in severe economic prejudice to the undertaking.

10.7 Reference to Relevant Legislation

ACT	SECTION	CONTEXT
National Water Act	Section 46	Requirements for the preliminary allocation schedule and its publication.
National Water Act	Section 148	Appeals to the Water Tribunal

11 COMPILE FINAL ALLOCATION SCHEDULE AND ISSUE LICENCES

11.1 What is the aim of this?

This step responds to the directives of the Water Tribunal by providing water or compensation to the appellants. This results in the preparation of the Final Allocation Schedule, and the issue of the licences.

11.2 Why is it necessary?

This is a requirement of the Act [**Sections 47 & 48**] and results in the compiling of a final allocation schedule, and issuing the licences. This process converts all the existing lawful water uses (which are not time bound and have not been evaluated against **Section 27** of the NWA), to a licence with associated conditions and which are time bound.

11.3 How must this be done?

The final allocation schedule is prepared either;

- If no appeal against the preliminary allocation schedule is lodged in the time allowed.
- As directed by the Water Tribunal following the appeals process.

The Responsible Authority must once again publish a Notice in the Gazette indicating that the preliminary schedule has become final, and must indicate where it may be inspected. As soon as practically possible after this – the Responsible Authority must issue licences according to the allocations in the Final Schedule.

Careful use of conditions attached to the licence may allow for the gradual reduction in existing use – to accommodate the expected increase in uptake by the emerging users. Other conditions, which may be attached to licences, relate to measures for the protection of the water resource. However, conditions may also specify water conservation and demand management practices, rates of abstraction, monitoring and reporting requirements, preparation, approval and adherence to a water management plan associated with the schedule, payment of applicable charges, and registration of the water use.

If appeals are unsuccessful, the applicant may be issued a licence for the curtailed use, and may lodge an appeal for compensation under Section 22 (6-10).

11.4 What Stakeholders Should Know

Most importantly, stakeholders (and specifically the appellants) need to be informed of where the final schedules may be viewed. All applicants also need to be issued with their licences.

In cases where the applicant may not be familiar with the language used in the licence, special efforts may need to be made to ensure the applicant understands the reason for, and the implications of the conditions specified. This could be particularly important where the use has been Generally Authorised.

11.5 Tips

The conditions that can be attached to licences after compulsory licensing should provide for a measure of security to the applicants, but can also allow for the gradual curtailments of existing lawful water use.

The appeals process, and the process of lodging and hearing appeals for compensation could significantly delay the process. The entire process leading to this point should therefore be focussed on avoiding severe economic prejudice wherever possible, and on working with all stakeholders to emphasise that a speedy process is in the best interests of everyone involved

11.6 Reference to relevant legislation

ACT	SECTION	CONTEXT
National Water Act	Section 47	Finalise allocation schedule.
National Water Act	Section 139 (2) d	Update the WARMS database.
National Water Act	Section 48	Licences replace existing lawful use.
National Water Act	Sections 22 (6-10)	Compensation.