



DEPARTMENT: WATER AFFAIRS AND FORESTRY
REPUBLIC OF SOUTH AFRICA

**WATER-USE LICENSING: THE POLICY AND
PROCEDURE FOR LICENSING STREAM FLOW
REDUCTION ACTIVITIES**

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I. ACRONYMS USED

AC	Advisory Committee
APS	Afforestation Permit System
CD: WUC	Chief Director: Water Use and Conservation
CMA	Catchment Management Agency
DWAF	Department of Water Affairs and Forestry
EIA	Environmental Impact Assessment
IEM	Integrated Environmental Management
IFR	Instream Flow Requirement
IDP	Integrated Development Plan
LDO	Land Development Objective
NWA	National Water Act (Act no. 36 of 1998)
SEA	Strategic Environmental Assessment
SFRA	Stream Flow Reduction Activity
SFR Allocations	Subdirectorate: Stream Flow Reduction Allocations
WARMS	Water Authorisation Management System

1. INTRODUCTION AND BACKGROUND

1.1 The need for a licensing system

The National Water Act (Act no. 36 of 1998) requires the licensing of stream flow reduction activities (SFRAs) as one of several forms of water use (Section 36). A stream flow reduction activity is "... any activity (including the cultivation of any particular crop or other vegetation) ... [that] ... is likely to reduce the availability of water in a watercourse to the Reserve, to meet international obligations, or to other water users significantly" (NWA Section 36(2)). By implication, the definition of a SFRA is limited to land-based activities (see introduction to Chapter 4 Part 4 of the NWA).

Although only commercial plantation forestry is currently identified in the Act as a SFRA, others may be added to this list. The Department has commissioned research to clarify the practical interpretation of Section 36 of the Act, and to identify other activities than commercial forestry for declaration as SFRAs. This work will be concluded by the end of January 2000.

For commercial forestry, SFRA licensing has replaced the APS, the instrument for controlling land-based water use under the old Forest Act (No. 122 of 1984).

This document sets out the policy and procedure for the licensing of land use that reduces stream flow. It consolidates current policy and practice while taking account of the requirements of the NWA. The approach adopted is based on the fact that within any one water management area as defined in the Act, SFRAs are among several kinds of water use that must be treated fairly in the process of allocating and licensing water use.

1.2 Background

Control of afforestation and forestry practices to protect water resources through the APS has been in place since 1972. About 500,000 hectares of plantation forests have been authorised through this measure (Van der Zel 1995). About 1.0 million hectares of plantations were established prior to the requirement for permits. Part of this area was in the former homelands, where no permits were required.

From 1972 to 1995 the APS, as it became known, evolved to include the following elements:

- (a) permits allocated within the framework of a classification of primary catchments (the major catchments in South Africa); the three categories were Category I (no further stream flow reduction through afforestation), Category II (afforestation to the extent that mean yearly stream flow could be reduced by 5% against the benchmark flow estimated as it would have been in 1972), and Category III (10% reduction against the same benchmark); in critical catchments, the allocation was within secondary or subsidiary catchments
- (b) stream flow reduction was calculated for annual flows only, based upon an agreed formula derived from experimental catchment results in South Africa, and with parameters set logically for variations in annual rainfall; these were originally developed by Nänni (1970a, 1970b) and modified by van der Zel (1982), to later become Smith-Scott Curves (in use today)

- (c) permits had conditions attached which incorporated a number of minimum standards for forest management that had been derived from the work of District Soil Conservation Committees and elsewhere.

The Department made various changes to the APS from 1995. This followed the work of the Afforestation Permit Policy Committee, appointed by the Minister of Water Affairs and Forestry to develop an improved policy for the system. At this time the administration of the system was transferred from the Chief Directorate of Forestry to the Chief Directorate of Water Resources Management (now the Chief Directorate of Water Use and Conservation) in the Department. This was in response to the perceived conflict of interest between the objective of promoting forestry development and the objective of regulating afforestation for water resource management within the Department.

Several further changes to the permit system followed, including:

- (a) the extension of the policy and the procedures to take account of the environmental and social concerns of stakeholders where appropriate
- (b) the appointment of provincial Afforestation Permit Review Panels as forums within which to represent the interests of stakeholder groupings, and to advise the Department on permit applications; this introduced a high level of transparency to the procedure
- (c) a shift from allocation of permits from the fixed, arbitrary catchment classification to a more flexible approach with guidelines for afforestation regulation at scales smaller than that of primary drainage areas, coupled with some development of water allocation criteria
- (d) improved controls through inspections of properties where permits have been allocated.

The new policy also changes the basis for assessing impacts on stream flow. The emphasis is now on estimated reductions in low flow, as well as the reductions in annual flows.

Recently, measures have been initiated to address the need for framework planning of SFRAs, including afforestation, through a Strategic Environmental Assessment (SEA). This approach also has the objective of making required environmental assessments of proposed SFRAs more efficient and effective (see Section 4 below).

The new approach to the APS co-ordinated several aspects of the administration of afforestation in each of the Provinces involved. The relevant statutes included the Environmental Conservation Act (no. 73 of 1989), the Conservation of Agricultural Resources Act (no. 43 of 1983), the Water Act (no. 54 of 1956), and the Forest Act (no. 122 of 1984).

A variety of concerns remained, including the requirements for:

- (a) regulating the cumulative effects of stream flow reduction within any catchment
- (b) policy guidelines for the economic, environmental and social issues affecting decisions
- (c) better estimates of the effects of SFRAs on water resources that would be valid for all places that may be afforested
- (d) dealing with all SFRAs equitably, rather than singling out plantation forestry
- (e) consistency throughout the country in implementing the system, including criteria for water allocation, whilst providing for variations between and within Provinces and the special requirements of proposals to afforest communal land
- (f) dealing with applications from communities, especially where rural development is urgent.

These concerns as well as the requirements of the NWA, the National Environmental Management Act (no. 107 of 1988), the National Forests Act (no. 84 of 1998), and other new legislation have led to the development of the policy and procedure contained in this document.

1.3 The National Water Act

Among other things, the NWA identifies and defines different types of water use, including SFRAs (Section 21), as a means to administering the future allocation of water among uses, once the requirement for the Reserve has been satisfied (see Section 5.2 below).

The NWA authorises all legitimate current water uses, including SFRAs, as “existing lawful uses” (Section 32). Water may be used without a licence if the use is listed in Schedule 1 of the Act (e.g. for reasonable domestic use), if it is an existing lawful use, and if it is a permissible use in terms of a general authorisation issued under Section 39 of the Act.

All other new water uses need to be licensed. Where necessary, for example in catchments where there is water stress, all users will be invited to apply for licences. The available water will then be re-allocated on the basis of applications received (Section 43). The resource will be allocated according to the considerations relating to water use allocation (Section 27(1); see Section 6 below). This could involve the equitable reduction of the current entitlements enjoyed by users. Users may also apply for licences at their own initiative (Section 40).

In the case of plantation forestry, the Minister will invite all forest owners to apply for licences soon after the promulgation of the NWA. This will be by notice in terms of Section 43 of the NWA, subject to regulations in terms of Section 26(1)(c).

The Act provides for the Minister to prescribe by regulation the methods of calculating stream flow reduction (Section 26 (1)(m)). This will require an agreed scientific basis for these methods, through the required consultations.

Section 6 below sets out the influence of these considerations on SFRA licensing in detail.

1.4 Other legislation

Decisions on land-based development in any area will be strongly influenced by the development strategies and plans for that area. Statutes determining these strategies include the Local Government Transition Act (no. 61 of 1995), which requires local authorities to develop Integrated Development Plans for their areas of jurisdiction. The second is the Development Facilitation Act (Act no. 67 of 1995), which requires principle-based local development planning, with Land Development Objectives as its output. The IDP Manual specifies the NWA as one of several statutes that must be considered by local authorities when developing their plans. Most Provinces have adopted these statutes. In some cases Provinces have developed their own equivalent planning legislation.

Proposals for certain changes in land use require Environmental Impact Assessments (EIAs) through regulations in terms of the ECA. Environmental change of this kind is also influenced by the National Monuments Act (no. 28 of 1969), with regard to archaeological, palaeontological and historical features, and artefacts and buildings. Certain analogous provincial statutes also apply, such as the KwaZulu-Natal Heritage Act (Act no. 10 of 1997).

The provisions of the Conservation of Agricultural Resources Act (Act no. 43 of 1983) remain in force and are likely to be included in any new legislation that may replace this Act.

The National Forests Act (Act no. 84 of 1998) requires that plantation forests licensed in terms of the NWA should meet prescribed minimum standards of sustainable forest management.

Consequently, anyone proposing a change in land use, such as that involved in a SFRA, needs to satisfy a diverse range of statutes in order to get permission for this activity.

2. GOALS AND OBJECTIVES

The policy and procedure in this document have been developed in the light of the issues identified in Section 1 above. It is also in response to requests from key stakeholders for a consolidated statement of policy and guidelines for the APS. These requests required that the approaches should reflect regulations in terms of the NWA. An important requirement is for further consolidation of the permit and licensing procedures, so that applicants deal as far as possible with a single administrative process. This agrees with the intent of the NWA where, for example in Section 22(4), there is provision for arrangements to combine the regulatory requirements of different organs of state.

The overall goal is to meet the need for an agreed practical policy and procedure for allocation of water to SFRAs in such a way that the requirements of the NWA are satisfied. This allocation should promote the equitable allocation and beneficial use of water in the public interest while promoting environmental values (Section 3(2) of the NWA).

The approach described in this document has been designed to meet the following requirements:

- conformity with the objectives and requirements of all other appropriate policies and laws, i.e. the NWA, the National Forests Act, the Conservation of Agricultural Resources Act, the Environmental Conservation Act, the Development Facilitation Act, the National Environmental Management Act, and others
- consistency and transparency in licensing procedures, including a standard, agreed approach to calculating the hydrological effects of SFRAs, that assures applicants of fair and equitable treatment
- clarity to all parties about the policy and procedure to be followed
- an efficient and effective procedure, in which applications are processed quickly
- equity in the evaluation of applications for SFRAs, while simultaneously redressing past inequities
- a single point for meeting combined licensing requirements of the different statutes that apply here, i.e. provide an institutional arrangement that will accommodate the requirements of diverse government Departments in a uniform set of procedures, and meet the requirements for co-operative governance in the Constitution, in compliance with Section 22(4) of the NWA and Section 7(3)(c) of the National Environmental Management Act
- a clear link with overall strategies and plans, especially the SEA for SFRAs
- adequate control and enforcement of licences and the conditions they carry, through appropriate monitoring and inspection.

3. SCOPE OF THE POLICY

This document addresses all SFRA. At this stage only "... afforestation for commercial purposes ..." (commercial plantation forestry) is declared as a stream flow reduction activity. A plantation is defined as "... a group of trees cultivated for the exploitation of the wood, bark, leaves or essential oils in the trees" (NFA Section 2(1)(xxiii)).

For the SFRA policy, afforestation includes the conversion of stands of invasive trees or abandoned woodlots to managed plantations. However, windbreaks and lanes of trees are excluded, i.e. where there are four or fewer rows of trees. Plantations managed for local use and local trade, such as woodlots, are included.

In future, activities such as certain forms of crop agriculture, the development and maintenance of water harvesting and soil-conservation structures, and stock-watering dams must all be assessed for potential declaration as SFRA.

4. STRATEGIC ENVIRONMENTAL ASSESSMENT OF STREAM FLOW REDUCTION ACTIVITIES

Applications for SFRA licences are currently treated case by case. Licensing for SFRA will follow the same course. These decisions, both in the case of applications under Section 40 and those under Section 43 of the NWA, need to be taken within a strategic framework that takes account of their cumulative consequences. The process of taking licensing decisions needs to be supported by information and decision aids that give direct links to the strategic framework. The framework required must address the needs and opportunities of each water management area. Allocations need to be made with not only the impact on the allocable water in mind, but also the cumulative net effects on the social, economic, and environmental values of the water management area (see also Section 6 and Figure 1, and Section 10, below.)

5. ESTIMATING STREAM FLOW REDUCTION AND IMPACTS UPON THE RESERVE

5.1 ESTIMATING IMPACTS ON AVAILABLE WATER

Equitable and efficient allocation of water to SFRA depends on accurate calculations of their likely effects on the allocable water. This requires consistent and sufficiently accurate estimates of the reductions in stream flow and changes in flow regime (e.g. timing and assurance of flow) that will arise from the activity. These include estimates of the reduction in different seasons and during periods of low flow, as well as high flow and normal annual flow. Estimated reductions will need to be assessed relative to an agreed baseline for the water resource.

Currently, the calculation for plantation forestry is based upon the modified flow-reduction curves developed by Scott and Smith (1997). These allow estimates of average reductions in annual and low flows, for different species of tree, different climates and different forest management regimes.

The curves provide estimates for normal forest regimes, i.e. for the situation where forests are managed on a given rotation and have reached the average age for that rotation. Estimates are for long-term averages for any given rainfall regime, i.e. include both drought years and wet years.

For flat terrain, where there is little surface runoff, these curves provide estimates of impacts on the local water balance, i.e. estimate impacts on groundwater.

This method does not yet address the need for estimates of crops other than plantation trees, or the impacts of SFRA on the assurance of water supply.

Methods for these calculations will need to be based upon sound scientific information and established through consultation with stakeholders. The Minister will prescribe such methods in terms of Section 26(1)(m) in the NWA. However, the methods will be constantly reviewed with the intention of making improvements whenever necessary and possible. Improved methods of estimating SFRA impacts may result in changes to the estimates of water use ascribed to SFRA. How these changes will be administered is an issue that will need attention.

The process of determining additional prescribed SFRA will begin in the SEA described in 4 above. The outcome of the SEA will set the next stage in motion.

5.2 Determining effects on the water resource and on resource quality objectives

Before DWAF can evaluate the effects of any SFRA on the water resource it must establish the class in which the water resource falls and the resource quality objectives that will apply to it (Section 13 of the NWA).

The class, i.e. management class, and resource quality objectives (which include the objectives relevant to the Reserve) are called resource directed measures.

DWAF will divide each catchment within a water management area into resource units, and determine the resource-directed measures for each of these resource units. This will be the basis for the setting and management of the Reserve.

For a start, DWAF has defined resource units as the rivers within quaternary catchments, for the so-called desktop and rapid determination of resource directed measures (see below). However, DWAF will later make intermediate and comprehensive determinations of resource directed measures for resource units defined according to ecoregional boundaries. Ecoregions are sets of river reaches that are ecologically similar.

The resource-directed measures will determine the water requirements for the Reserve in each water management area, taking account of both the quantity and the quality of water required. With this known, the other requirements for water can be addressed so that finally the authorities may determine the allocatable water in a water management area and the catchments within it. A portion of this would be available for allocation to new water users.

With a water allocation plan in place, DWAF or a CMA will be able assess an application as to whether the intended use will exceed the amount available in the water allocation plan without assessing impacts on the Reserve, since it is already protected in the catchment

management strategy. The exception would be where the proposed use would be so large in relation to the available water that it would encroach on the resource-directed measure in the relevant catchment. In that case, if the expected benefits of the use were so large to justify it, the catchment management strategy may need to be reviewed, and with this, the resource-directed measures for the relevant resource unit.

During the transition from the current situation to the new, which will take some years, the following approach will apply to managing impacts on the Reserve.

DWAF has established four levels at which resource-directed measures will be determined, i.e. the desktop estimate, the rapid determination, the intermediate determination, and the comprehensive determination. Desktop estimates for every quaternary catchment have been completed for the first version of the National Water Resources Strategy.

The desktop estimates have provided the rating of the ecological importance and sensitivity for each resource unit, and a conservative determination of the ecological flow requirements. However, these estimates alone are not an adequate basis for assessing licence applications.

A rapid determination of the resource-directed measures for the relevant unit will be needed before the DWAF or CMA can consider any licence application. This requires a quick field assessment of the current status of the resource unit, a task needing about two days' of fieldwork. However, if during the assessment of the application it emerges that the proposed use would have a large impact on the resource unit, or if the DWAF rates the ecological importance and sensitivity of the unit high, the DWAF or CMA may call for a comprehensive or an intermediate determination of the resource-directed measures for the unit. For SFRA, a large impact is defined as one that is likely to downgrade the management class of the resource unit, or one which will take the overall water use in the catchment to a level close to or at the limit of allocable water.

In considering the application for an SFRA the CMA will apply the criteria relevant to resource protection (see Section 6 below).

6. PRINCIPLES, CRITERIA AND STANDARDS TO BE APPLIED IN EVALUATING A LICENCE APPLICATION

6.1 Background

Applications for afforestation, the licensing of existing plantation forests, and applications for licences for other forms of SFRA, will be evaluated by comparison with the available alternative land uses for that particular property or elsewhere in the catchment. The alternative use may be that which prevails at the time of application, or another feasible and attractive use.

These evaluations will be based upon the relative benefit offered per unit stream flow reduction for the given application and the assessment of the degree to which the public interest will be served.

Available water within any given catchment or water management area must be allocated to SFRA by considering factors that reflect the principles of water policy (Section 27(1) of the NWA). To make these factors meaningful, DWAF has identified a set of criteria and

indicators that must be applied in the allocation decision. Standards relevant to one or more criteria may also be set as conditions in a SFRA licence. Here, these words are used to mean the following:

- **principle:** a statement of a general rule as a guide for action
- **criterion:** an element of a principle stated exactly so that any action may be judged by that principle
- **indicator:** a quantitative, categorical or qualitative measure of the relevant criterion that allows an action to be judged as to whether or not it meets the criterion
- **a standard** is a value or a category of an indicator that has been accepted or declared to be a minimum standard of performance with respect to a relevant criterion.

Once the NWA is fully implemented, decisions on SFRA licences will be taken within a strategic framework (Figure 1). This framework is the source of many criteria to apply in the allocation decision.

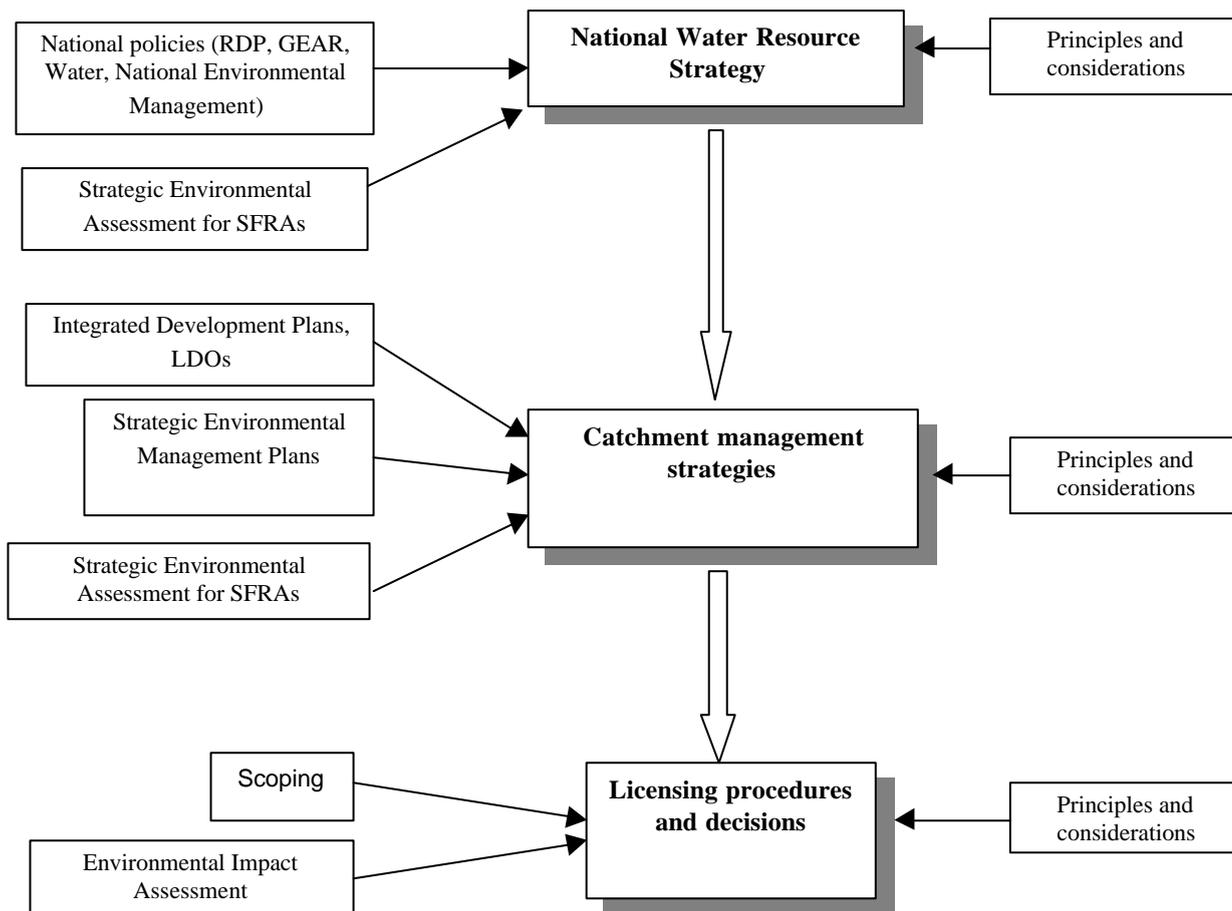


Figure 1: The relationships between licensing decisions and strategies.

Many of the criteria to be applied in licensing decisions will come from catchment management strategies, although some come directly from the considerations in the NWA. Catchment management strategies, in turn, are informed by the National Water Resource Strategy, but also by development and environmental strategies for the regions within which the catchments fall. The considerations of the NWA also apply both to the National Water Resource Strategy and the catchment management strategies.

Note that the relationships shown here are the outcome of a progressive and iterative process. Knowledge gained through implementing each part will lead to improvements in every part of the system.

6.2 Criteria for decisions on SFRA applications

Making decisions about an SFRA application requires that information must accompany the application, to allow the parties to the decision to apply their minds properly to it. The information for decision must be organised according to the criteria to be applied to the application. Applicants will need to prepare their applications according to these criteria.

Once the provisions of the NWA have been fully deployed within a water management area, certain information will be available before the application is made.

For example, catchment management strategies will include the following information relevant to any application for an SFRA licence:

- the strategies, objectives, plans, guidelines and procedures of the catchment management agency that manages the water management area within which the application is made (Section 9(c) of the NWA)
- the water allocation plans (Section 9(e)), in turn dependent on the allocatable quantity of water within the water management area (S.23) and the resource quality objectives including the Reserve, for each water resource within the water management area (Section 13)
- the principles for allocating water (Section 9(e)), contained within water allocation plans, and based upon the considerations of the NWA (Section 27)
- the needs and expectations of existing and potential users (Section 9(h))
- the contents of relevant national or regional plans, such as provincial economic development strategies, provincial Strategic Environmental Management Plans, Integrated Development Plans in terms of the Transitional Local Government Act, and Land Development Objectives in terms of the Development Facilitation Act or its equivalents, which in turn affect the contents of catchment management strategies (Section 9(f))
- the outputs of the SEA for SFRAs.

The decision process must therefore draw for many criteria upon the information contained in these and other development strategies (Figure 1).

Obviously, these strategies do not yet exist. Until they have been established, technical experts within the Department and elsewhere will provide the kind of information that will otherwise have come from a catchment management strategy.

The criteria will apply in each catchment throughout the country. The SFRA Advisory Committees (see 7 below) will work with the Department in the development of indicators for each of these criteria. These indicators may differ from one province to the next, and from one water management area to the next. They will be harmonised with other relevant statutes, such as the National Forests Act and the NEMA.

SFRA Advisory Committees will develop indicators for the application of criteria to licence decisions.

Principles, criteria, indicators and standards need to be applied scientifically in the development and evaluation of each application. However, scientific information is often incomplete. For this reason, decisions must be taken both on the grounds of scientific assessments and on the outcome of debates amongst stakeholder representatives and

consulted parties about the relative merits of applications. Because of this, DWAF has developed a limited set of 16 criteria to apply to SFRA and other licensing decisions.

Table 1: Criteria for SFRA licensing decision-making

Criterion 1	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The extent to which the effect of the proposed SFRA could be accommodated in the water allocation plan (S. 9(c)) for the relevant water management area (or water allocation schedule if a stressed catchment – S. 45)	27(1)(a), 27(1)(e), 27(1)(f), 27(1)(g), 27(1)(i)	The application for a SFRA licence (based in part on information drawn from the catchment management strategy).	<ol style="list-style-type: none"> 1. The fractional demand on the volume of water allocated to SFRA in the water management area 2. The effect on the assurance of supply stipulated in the water allocation plan

Criterion 2	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The degree to which the proposed SFRA would fit the objectives of the water allocation plan for the relevant water management area	27(1)(a), 27(1)(d), 27(1)(e), 27(1)(f), 27(1)(i), 41(3)	Catchment management strategy and the application for a SFRA licence	<ol style="list-style-type: none"> 1. Contribution of the proposed SFRA to economic and social objectives of the water allocation plan 2. The match between the proposed SFRA and the local Integrated Development Plan

Criterion 3	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The likely effect on the class of the water resource (relevant only if criterion 1 is not satisfied)	27(1)(f), 27(1)(g), 27(1)(h)	Agency specialists	<ol style="list-style-type: none"> 1. Whether or not there is a hazard to the Reserve the anticipated effect on the in-stream flow 2. The likely effect on the water level 3. The likely effect on the presence and concentrations of particular substances in the water 4. The likely effect on the instream and riparian habitats 5. The likely effect on the characteristics and distribution of aquatic biota

Criterion 4	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The degree to which the proposed SFRA is likely to affect the water quality in the stream	27(1)(f), 27(1)(g), 27(1)(i)	The application for a SFRA licence; comments from interested and affected parties; Agency specialists; EIA	<ol style="list-style-type: none"> 1. The likely affect on sediment loads 2. The likely effect on the water quality of streams regarding its fitness for use, compared to the South African water quality guidelines

Criterion 5	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The degree to which the proposed SFRA requires a long-term assurance of water use	27(1)(k)	The application for a SFRA licence	

Criterion 6	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The degree to which the proposed SFRA would redress past racial discrimination by satisfying the development aspirations of previously disadvantaged groups within the water management area	27(1)(b)	The application for a SFRA licence	<ol style="list-style-type: none"> 1. The match between the proposed SFRA and the local Integrated Development Plan 2. Black empowerment through the SFRA

Criterion 7	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The degree to which the proposed SFRA would redress past gender discrimination by satisfying the equity aspirations of women	27(1)(b)	The application for a SFRA licence	1. The empowerment of women through the proposed SFRA

Criterion 8	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The net economic benefits likely to come from the proposed SFRA	27(1)(c), 27(1)(d), 27(1)(e)	The application for a SFRA licence	1. The likely net economic benefit of the SFRA relative to the alternative use of the water

Criterion 9	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The extent of likely net employment and income distribution benefits that would arise from the SFRA	27(1)(c), 27(1)(d), 27(1)(e)	The application for a SFRA licence	1. Employment and income impacts indicated in the proposal

Criterion 10	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The extent of likely effects of the proposed SFRA on human capital (skills, education)	27(1)(b), 27(1)(c), 27(1)(d)	The application for a SFRA licence	1. Indicated impacts on local schooling, skills programmes, expertise

Criterion 11	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
Nature and extent of likely impact on social and community life (especially impacts on women)	27(1)(b), 27(1)(c), 27(1)(d)	The application for a SFRA licence	

Criterion 12	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The likely contribution of the proposed SFRA to infrastructure development in the locality or region	27(1)(c), 27(1)(d)	The application for a SFRA licence; comments from interested and affected parties	1. Positive or negative effects on local or regional transport infrastructure 2. Positive or negative effects on local or regional information technology infrastructure

Criterion 13	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
Likely impact on cultural values and heritage of members of local communities	27(1)(c), 27(1)(d)	The application for a SFRA licence; comments from interested and affected parties: EIA	1. Compliance or lack of it with heritage statutes, such as the National Monuments Act and the KwaZulu-Natal Heritage Act

Criterion 14	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The degree to which the proposed use would assure an economic return on past and proposed new investment by the applicant	27(1)(e), 27(1)(f)	The application for a SFRA licence	1. The net present value of the proposed SFRA relative to the alternative, based on an acceptable business plan.

Criterion 15	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The strategic importance of the proposed SFRA in the national, regional or local economy	27(1)(e), 27(1)(i)	Catchment management strategy	

Criterion 16	Relevant provisions in the NWA	Source of information in applying the criterion	Examples of indicators
The degree to which the likely impacts of the proposed SFRA on biological diversity, natural habitats and scenic values are acceptable	41(3)	The application for a SFRA licence; comments from interested and affected parties; Agency specialists; EIA	<ol style="list-style-type: none"> 1. Compliance with the requirements arising from the results of the scoping process required for EIA (see R1183 issued in terms of the ECA, Government Notice No. 18261 of 5 September 1997) 2. Compliance with the principles contained within the National Environmental Management Act and criteria derived from these. 3. Compliance with regulations in other statutes that set such requirements (for example, the intended regulations in the National Forests Act and in the CARA).

The considerations of the NWA (S. 27) overlap to some degree. This means that some decision criteria satisfy the requirements of more than one consideration or principle.

7. ADVISORY COMMITTEES FOR THE LICENSING OF STREAM FLOW REDUCTION ACTIVITIES

7.1 Background

The current Afforestation Permit Review Panels are to be replaced by Advisory Committees (ACs) for the Licensing of SFRAs, to be appointed by the Minister in terms of Section 99(1) of the NWA. These ACs are to perform functions similar to those of the current Review Panels, but operate in terms of the NWA. Refer to the Department's Policy and Guidelines for the establishment of Advisory Committees ([Policy and Procedure for the Establishment of Advisory Committees](#)).

Initially, the boundaries of the jurisdiction of each Committee will coincide with boundaries of Provinces. As water management areas are established and with them, the requisite CMAs, the Committees' jurisdictions will be adjusted to coincide with these areas.

7.2 Functions, powers and duties of Advisory Committees for the licensing of stream flow reduction activities

The primary purpose of the ACs will be to assess licence applications for SFRAs and to make recommendations, initially to the Minister and later to the CMAs, on whether to approve or refuse such applications.

The ACs will work according to the principles of the NWA (see Section 6 above) and the policies and strategies emerging from the provisions of the Act, such as the National Water Resource Classification System, and the National Water Resource Management Strategy.

They will also operate according to DWAF's policy for the licensing of SFRAs as set out in this document.

The ACs will integrate the requirements of interlocking legislation into their procedures.

DWAF will implement procedures for the administration of licences within the areas of jurisdiction, of each AC according to the guidelines in the Department's Policy and Guidelines for the establishment of Advisory Committees, for approval by the Minister. These will be drawn from the Water Resource Authorisation System (WARMS) and the outputs of the SEA (see Section 4 above).

7.3 Constitution of the Advisory Committees

The ACs should represent the various relevant interests within their areas of jurisdiction (Section 99(7) of the NWA). The constitution of each will vary somewhat from one case to the next, but membership of each must reflect at least the following:

- Department of Water Affairs and Forestry – Water Affairs component
- Department of Water Affairs and Forestry – Forestry component
- Provincial Environmental Authority
- Provincial Conservation Authority
- Provincial Department of Agriculture
- Provincial Department of Local Government and Housing
- the organised forest industry: the Forest Industries Association, representing among others the SA Timber Growers Association, the Forest Owners Association, and the South African Wattle Growers Union, as well as Black representative bodies where not represented by this Association
- appropriate organs of organised agriculture, such as the Agricultural Unions, and the SA Sugar Association and including Black farmers' associations
- bulk water suppliers within the area, e.g. Water Boards
- environmental and development NGOs, such as the Wildlife and Environmental Society of Southern Africa
- appropriate heritage bodies
- community organisations.

The Regional Director: DWAF will advise the CD: WUC and the Minister on the composition of the Advisory Committee, as well as on the appointment of a chairperson.

7.4 Working arrangements

The ACs will exist to advise the Minister, or the official to whom decision-taking regarding water-use licences for SFRAs has been delegated (currently the CD: WUC). Because the ACs will be acting according to departmental policy, and because of their authoritative knowledge of the issues regarding SFRA in their area of jurisdiction, their advice will carry substantial weight in a final decision. The Minister will have to demonstrate good reason if he or she were to disagree with a recommendation from any AC.

As far as possible, the ACs should base their recommendations on the unanimous opinions of their members. Where there is no unanimity, the Minister should take account of all the views presented on an application in making the decision. Lack of unanimity should not delay the

Chairperson unreasonably in making a recommendation. The Chairperson will record and present the different views among members of the AC in cases where there is no unanimity, together with his or her recommendation.

Finally, the relationship between applicant and AC must be clear. The AC advises on the application, and receives support from DWAF and other organs of State in the process. The applicant has the responsibility to make the case of the proposed SFRA in the clearest way, according to the considerations and criteria that are relevant (see Section 6 above). The AC must base its recommendation on this evidence and on evidence brought to the case by interested parties at different steps in the administrative process (see Appendix 1). Should the AC recommend against the applicant, then the AC must afford him or her a final opportunity to strengthen the case by referring it back for amendment, should the applicant wish to do so (see Appendix 1.1).

8. PROCEDURES FOR THE ADMINISTRATION OF LICENCE APPLICATIONS

Appendix 1 contains the details of the procedures for administering water-use licences for declared SFRAs.

The licensing procedures set by the NWA form the basis for the procedures for regulating SFRAs. Applications will be sent to the responsible authority in the manner prescribed by regulation. The responsible authority will ensure that the necessary evaluations are conducted and, on the basis of these, provide or refuse the licence. In most cases, the responsible authority will initially be the Minister of Water Affairs and Forestry. This will be delegated to CMAs in due time.

This description of procedure includes set periods within which steps in the procedure must be completed. These are set so that any applicant may have his or her case treated within a reasonable time. However, these periods may not prove to be practical. The timing of procedural steps will be tested by practical trial and amended if necessary.

Appendix 1 also summarises the procedure for monitoring and inspection.

9. LICENCE CONDITIONS

Water-use licences for any SFRA will be issued for periods of up to a maximum of 40 years, with reviews beginning no more than five years after the completion of the plan for the establishment of the activity, and repeated at least every five years after that (see Appendix 1). The licence is not transferable to another property except in the way determined by the NWA, and succeeds to any new owner, lessee or occupier of the land.

Licences for afforestation will be issued for 40 years, and reviewed every five years at least.

Further conditions should meet the requirements of the NWA, Conservation of Agricultural Resources Act, Environment Conservation Act, the National Forests Act, and the National Environmental Management Act, e.g. they should relate to the sustainable use of the water resource (Section 29 of the NWA).

Currently, the afforestation permit has conditions attached to it, which relate to permissible forest practise and minimum standards. These include, for example:

- protection of water courses, riparian zones and wetlands
- cultivation and care of the land.

The conditions also address such things as the control of alien invasive plant species.

These conditions will remain in force until licences are issued with new conditions (National Forests Act Section 74).

Best management practice for SFRAs is to be promoted both through incentives and through enforcement of minimum standards.

Note that the National Forests Act provides for the establishment of criteria and indicators of sustainable forest management. These will include criteria, indicators and standards that relate to water resources and soil conservation, in line with national requirements and international norms.

Other SFRAs will have best management practice promoted by provisions in other statutes, such as the Conservation of Agricultural Resources Act.

Conditions attached to licences will be progressively improved through research and consultation. DWAF will pay special attention to practices that limit stream flow reduction and to activities with detrimental impacts on the water resource, that promote water conservation and demand management, and that achieve environmental standards. For example, these would include better ways of protecting riparian zones. In the near future DWAF will issue regulations for standard minimum conditions after consultation with interested parties.

10. IMPLEMENTING THE SYSTEM

Certain relevant provisions of the NWA were promulgated in October 1999. These include the repeal of the provisions in the Forest Act of 1984 for afforestation permits, and the promulgation of the sections of the NWA that provide for authorisation, licensing, and the control of SFRAs. The requirements of the NWA for the National Water Resource Strategy, catchment management strategies, and the Resource Classification System will also come into force, as well as the provisions for CMAs.

Promulgation of the NWA leads immediately to the following institutional developments:

- appointment of Advisory Committees for SFRAs
- implementation of the policy and procedures outlined in this document.

DWAF has made certain institutional developments relevant to the administration of SFRAs or will do so soon. These include:

- development of a preliminary Resource Classification System (May 1999)
- designation of Water Management Areas (May 1999)
- registration of water uses, beginning October 1999

- establishment of a water resource management system for the recording and management of water-use authorisations, licences, and similar, procedures (the Water Authorisation System (WARMS)), currently under way and due for implementation from October 1999
- procedures for determination of the Reserve and other relevant aspects of water resource protection (the Resource-Directed Measures): October 1999
- development of the first National Water Resource Strategy, due for substantial completion by October 2000
- development of catchment management strategies, beginning early 2000.

The SEA for SFRA (Section 4 above) has already begun. It will deliver criteria and recommendations that will lead to declaration of additional SFRA, if necessary, from 2000 onwards. The Minister will prescribe methods for the calculation of volumetric effects of SFRA in terms of Section 26(1)(m), after proper consultation about their validity and acceptability.

Furthermore, the SEA will begin to provide improved negotiation and decision support tools and procedures for SFRA licence administration, also from 2000 onwards. The SEA findings will be linked into the Strategic Environmental Management Plans being developed in the provinces (which will overlap with Water Management Areas) and into the IDP Manual of the Department of Constitutional Development where necessary. Capacity building in responsible authorities and service providers will position these institutions to administer the NWA

Relevant aspects of the new legal regime for SFRA that take effect are the following:

1. all lawful plantation forests in existence within 24 months prior to the date of commencement of the Act are defined as existing lawful water uses (Section 32 of the NWA); this means that all the plantation forests will be properly authorised as lawful water uses and not require a licence until the responsible authority, i.e. the Minister or a person or agency to whom authority has been delegated, requires the persons entitled to this use of water to apply for a licence
2. forest owners will be required to register their water uses (Section 34(2) of the NWA), subject to appropriate regulations; this will enable DWAF to estimate current levels of water use, and to calculate water use charges
3. applications for new SFRA will be handled according to the procedures set out in this document, updated from time to time and established in regulations where necessary
4. the Minister will require forest owners to apply for licences (Section 43(1) of the NWA).

Until CMAs are established the Minister will continue as the responsible authority (see Section 7.4 above). The CD:WUC will carry the delegated responsibility for allocation of SFRA licences, but requires co-signature of the Chief Director: Scientific Services for all licences. This power will be delegated to CMAs as and when these have the capacity to handle these decisions, within the framework of catchment management strategies.

The ACs will continue as advisory bodies for SFRA to CMAs once each of these is established.

Approvals or refusals for SFRA licences are to be based on the recommendations of ACs (see Appendix 1).

Applicants and interested parties may request the reasons for decisions on SFRA licences (Section 42 of the NWA). They may also appeal to the Water Tribunal (Chapter 15) against licensing decisions, or amendments to licences (148(1)).

The procedure outlined here applies only to applications for new SFRA's. Licenses for existing lawful SFRA's will include the new conditions required by the NWA and the National Forests Act. These conditions will be established by agreement with the interested parties, except where specified in the NWA. The exception will be where Section 43(1)(a) applies, in which case Sections 45, 46 or 47 will be followed.

11. REFERENCES

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APPENDIX 1: PROCEDURE FOR PROCESSING APPLICATIONS FOR WATER-USE LICENCES FOR SFRAs

1. The procedure described here identifies the responsibilities of the Regional Offices of the DWAF, of the Advisory Committees, and of the CD:WUC. These responsibilities will change once CMAs are given the role of responsible authority for any given Water Management Area. At that point, the Regional Offices of the DWAF, the Advisory Committees, and the CD:WUC will be relieved of responsibilities for licensing SFRAs. DWAF will continue to monitor and audit the administration of these licences, however.
2. Figures 2, 3 and 4 illustrate the required procedure for administering applications for SFRAs.
3. Appendix 1.1 outlines the details of the procedure.
4. Conditions attached to any licence granted must also be determined through the procedures in Appendix 1.1.
5. The SFRA entitlements conferred in the licence must be exercised within five years after the completion date for the establishment plan that accompanies the licence application.
6. The licence will be withdrawn if the entitlement is not taken up within this period, unless an extension is sought and granted. The relevant AC must consider requests for extensions and send its recommendations with full justifications to the CD: WUC. This office will then inform the applicant of the outcome after the decision by the CD: WUC.
7. The duration of a licence will be 40 years in the case of afforestation. In other cases, the duration will be determined by the nature of the crop and the case made by the applicant (Section 27(1)(k)) of the NWA. Conditions attached to licences will be reviewed at least every five years within the entitlement period, taking into account the considerations in Section 27(1).

1. Applications for areas less than 10 hectares

Applications for SFRAs less than 10 hectares in extent or for activities that will not cover more than one percent of the surface area of a separately registered property, will be treated in the following way.

On private land or State land that is not Trust land, the applicant follows Steps 1, 2 and 3 in Appendix 1.1. The relevant RD: DWAF decides on the application on the basis of the recommendations of the relevant AC, and authorises or refuses the licence. Where the application falls within a quaternary catchment for which the SEA has generated guidelines on SFRAs, the RD and the AC apply these guidelines in the decision.

On communal land or Trust land, the applicant may be:

- (a) an individual with a right to occupy, and who wishes to use a portion of the land to which his or her right applies for an SFRA or
- (b) members of a community who have established a Communal Property Association, Trust or other special-purpose entity for development of a defined communal property, and where the applicant is this entity.

In these cases, the individual or the representative of the communal property entity approaches the relevant RD with an enquiry, assisted by any private-sector, government or non-government agency able to promote the proposed development. The RD enlists the aid of Forestry colleagues in DWAF and assists the applicant to complete the requirements of Steps 1, 2 and 3 in Appendix 1.1. In this process the RD establishes the full extent of plantation forests on the communal property in question, and examines the LDOs for the local government area within which the property falls. With this information and the recommendations of the relevant AC, the RD takes a decision on the application.

In both cases, where the application falls within a quaternary catchment for which the SEA has generated guidelines on SFRAs, the RD and the AC apply these guidelines in the decision. For afforestation, DWAF through the Chief Directorate Forestry will initiate advanced planning for such cases, working with the parties interested in such development. Similar planning can be done for other SFRAs through relevant organs of state and development agents.

The provisions of the Environment Conservation Act, Conservation of Agricultural Resources Act and other relevant statutes apply to these cases.

In these cases the applicant is not required to advertise her or his intentions in the press, or to inform neighbours.

Conditions will be imposed in respect of the distance of planting from watercourses as defined in the NWA. The requirements of the National Forests Act will need to be met.

Permission from the relevant Provincial Department of Agriculture is required if virgin land is to be broken, or if steep land is to be afforested, or if flood plains are to be affected.

Table 2: Outline of phases in the administration of SFRA licensing.

Phases in the administration of the licence application										
Initial enquiry	Initial application	Initial assessment of impact on allocatable water and on the water resource	Full assessment of application			Formulate recommendations on the application	Decision on the SFRA application	Issuing of the licence	Monitoring and evaluation	Review of licences
			Preliminary scoping	Complete scoping	EIA (if needed)					
<i>Applicant</i>	<i>Applicant</i>	<i>Regional DWAF</i>	<i>Applicant</i>	<i>Advisory Committee</i>	<i>Applicant (through consultant)</i>	<i>Advisory Committee</i>	<i>CD: WUC</i>	<i>Regional DWAF</i>	<i>Regional DWAF</i>	<i>Regional DWAF</i>
Technical and administrative support from Regional Office and Head Office of DWAF										

This description applies to current circumstances, before the establishment of CMAs. The administration currently receives technical and administrative support from the relevant Regional Office of DWAF

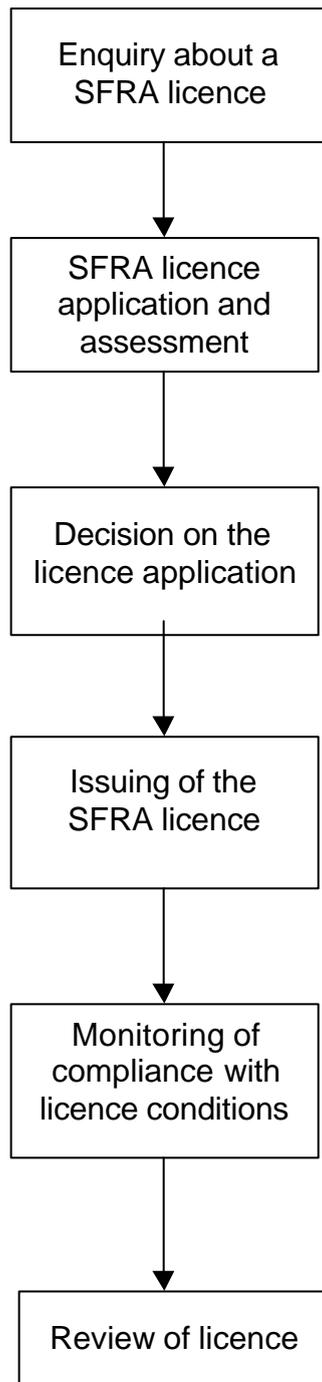


Figure 2. Steps required in SFRA licensing process

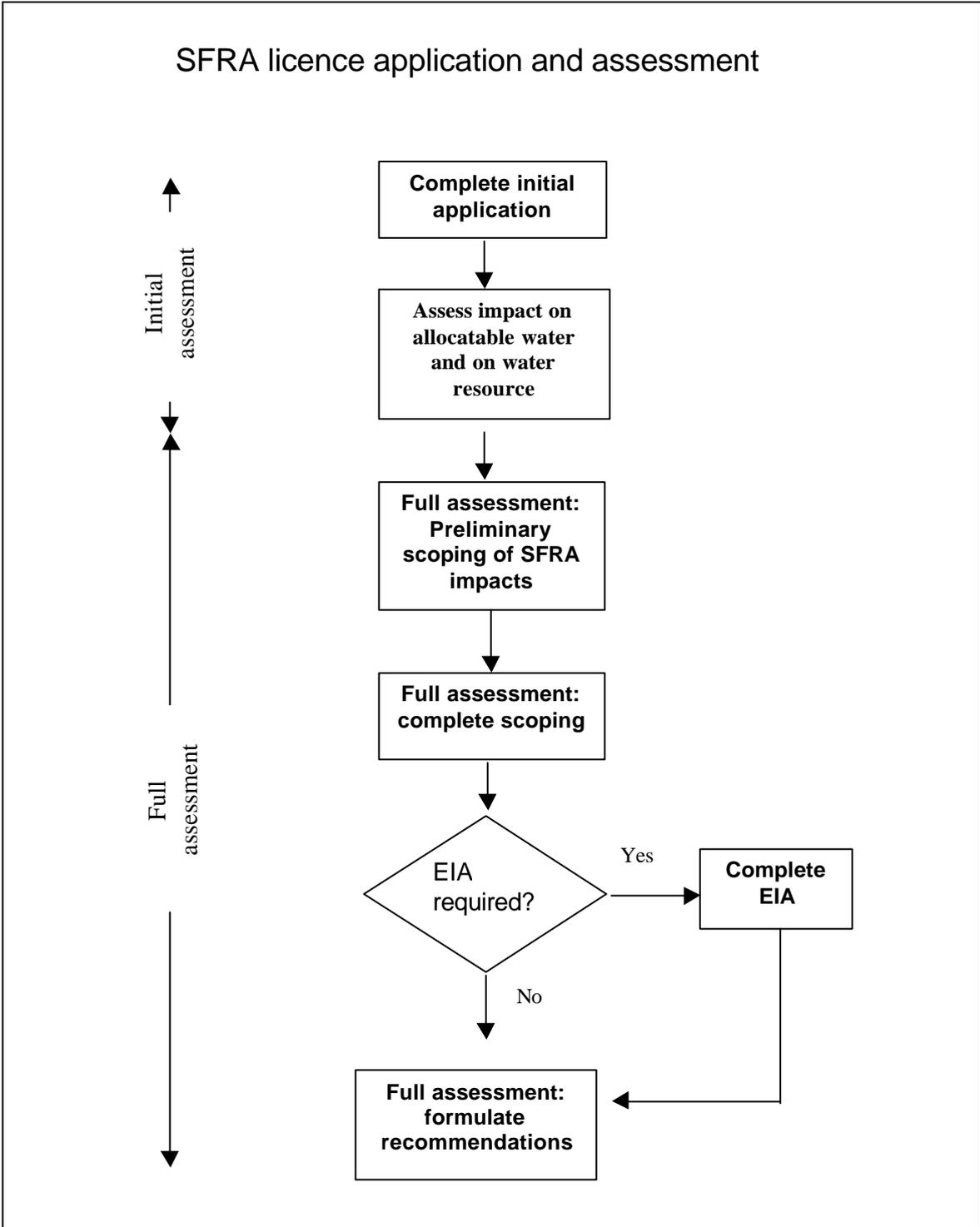


Figure 3. Steps required in assessing SFRA licensing application

2. Monitoring and control of SFRA after licensing

Currently, the officials of the Regional Offices of DWAF must control SFRA in terms of the licenses through appropriate inspections.

Officials must make the first inspections within one year after expiry of the establishment plan for the SFRA as lodged with the licence. Subsequent inspections should coincide with the periodic reviews of the licence, as required by the NWA.

The purpose of inspections is to:

- determine whether the location and extent of the area developed agree with that stipulated in the licence
- ascertain whether the other conditions of the licence have been met.

The inspector must complete a standard form. The completed form must be forwarded to CD: WUC so that the relevant information can be recorded on the licence database in WARMS. A map, on the same scale as that which formed part of the licence at the time of issuing, indicating the established area(s), must be included.

Where a licence holder has failed to comply with the prescribed conditions the inspector must negotiate with this person to establish a remediation plan to rectify the situation within a given period. This plan should accompany the report.

The CD: WUC will inform the licence holder who is not in compliance of the outcome of the inspection in writing and determine the rectification plan (Section 53(1) of the NWA).

Licence holders who do not rectify non-compliance within the period determined in the remediation plan would become liable for prosecution or the withdrawal of the licence, or both (Section 53(2)). If necessary, the DWAF may remedy the situation and recover the costs from the licensee.

In the case of plantation forests, licensees must comply with the requirements of the National Forests Act regarding sustainable forest management. Owners who have obtained certificates of sustainable forest management from independent standards auditors can only achieve this if they comply with national and other statutes. Thus they must comply with the conditions attached to SFRA licences which in turn must reflect the requirements of the National Forests Act. In such cases, DWAF will ensure that it or the relevant CMA, or both, are registered with the certification agencies as interested parties. DWAF will ensure that auditors assess compliance with licence conditions and may therefore avoid the costs of using its own staff to inspect for compliance.

3. Conditions in terms of the NWA and other statutes attached to a water-use licence for SFRA

The conditions attaching to a licence for a SFRA must relate to the requirements of the NWA, the National Forests Act, the Conservation of Agricultural Resources Act, and the conditions that may arise from IEM scoping or the EIA. Conditions must take account of the considerations in Section 27(1) of the NWA.

Conditions arising from the NWA relate to protection of the water resource, the stream flow regime and other existing and potential water users, and to the requirements for practices to limit the reduction of stream flow, and other detrimental impacts (Section 29(1)(a), 29(1)(b) and 29(1)(f)). The SFRA licences to be issued in future should have the appropriate conditions attached to them, but as a minimum must specify the nature of the activity licensed, and the allowed quantity of water.

The nature of activity will be specified as:

1. annual rainfed crop
2. tree plantation
3. other activity.

The amount of water specified should be the long-run annual average volume of water estimated for the specified activity, for the given location. This means that the licensee will be able to vary crops within certain limits, as long as this does not affect the long-run average water consumption. Thus, a licensee can switch forest plantation species as long as the calculated water consumption is not exceeded. This may mean that smaller areas may be planted to one species rather than another, and that areas of forest where water consumption is high may be switched for areas where consumption is less.

The requirements of the National Forests Act relate to the criteria, indicators and standards of sustainable forest management, and should take account of the Guidelines on Environmental Management of the SA Forest Industries Environmental Committee (most recent edition).

The conditions relevant to Conservation of Agricultural Resources Act must relate to good practice for the conservation of agricultural resources.

The conditions relevant to the Environment Conservation Act and the National Environmental Management Act must relate to the requirements for sound environmental management of the SFRA.

Appendix 1.1: Procedure for the administration of SFRA water-use licence applications

1. ENQUIRY

- 1.1 A prospective applicant makes an enquiry at the relevant Regional Office of the Department of Water Affairs and Forestry (DWAF) about the possibility of water use for a SFRA on his or her property.
- 1.2 Technical experts in the Regional Office provide available information to the person enquiring. This will include references to relevant parts of the catchment management strategy for the water management area that includes the property where the SFRA is being considered, especially the water allocation plan. These experts also provide informal advice on the feasibility of the SFRA, based upon possible demands on allocatable water.
- 1.3 The prospective applicant then decides whether or not to continue with an application for a SFRA licence application
- 1.4 DWAF also consults with other authorities and informs the applicant of any other statutory constraints that may apply to the application, or refers the applicant to the authorities for this information.

2. INITIAL APPLICATION

- 2.1 The applicant, who may be the owner of the property in question or the person with the rights to use the land (e.g. the lessee), applies directly to the relevant Regional Office of the Department of Water Affairs and Forestry (DWAF), using the application forms available from that office. The completed application forms should be addressed to the Regional Director.
- 2.2 The initial application has two parts (Box 1.1). The first part, Part 1 of the standard application form for a water use licence, contains the particulars of the applicant and of the property. Part 1 must be standard for all applications, everywhere in South Africa. The second part contains preliminary information relevant to the proposed SFRA. This second part may follow the format preferred by the relevant AC, but must meet the minimum requirements in Box 1.1. However, any requirements set by the AC additional to the standards set here must be reasonable and not incur excessive cost and time.

Box 1.1 Application forms submitted to DWAF

WARMS LMU no. xx Part 1

- Particulars of applicant: full name and address and other identity particulars of the owner of the property or properties, with e-mail address, and telephone, cellular phone, and fax numbers if available; as in Part 1 of the application form
- The same details for the applicant if he or she is not the owner of the property
- Company or Close Corporation registration number if applicable
- Particulars of the property, again as in Part 1 of the application form (including the Province, Region, Town (if applicable), registered name of the property (parcel), sub-division (portion), and Surveyor General Identity Code)

WARMS LMU no. xx Part 2

- District and quaternary catchment within which the property is located
- Title deed number
- 1:50 000 topographic map reference number
- Name of the nearest town
- Stipulate area to be affected by SFRA (e.g. to be afforested), description of the proposed activity (e.g. the proposed crop, species and crop cycle), and schedule of establishment of the SFRA
- Co-ordinates of the centre of the area(s) affected by the proposed activity.

Application form from the Environmental Authority for an activity requiring an EIA (activity listed in terms of Section 21 of the Environmental Conservation Act).

Application form for an activity identified in terms of the Conservation of Agricultural Resources Act.

A Preliminary Environmental Questionnaire.

- 2.3 The Regional Office will also provide any other forms from other authorities, such as the Responsible Authority for environmental conservation, that the applicant may need to complete at this stage, or inform the applicant where to get such forms.
- 2.4 If the applicant is not the owner of the property he or she should provide proof of consent to the proposed activity from the owner.

3. INITIAL ASSESSMENT OF THE IMPACT ON ALLOCATABLE WATER

- 2.5 The applicant may be required to pay the prescribed processing fee (Section 41 of the NWA).
- 2.6 At this stage or later DWAF may also require the applicant to provide financial security for any obligation or potential obligation that may arise from the licence, to protect the water resource (Section 30 of the NWA).
- 3.1 DWAF experts use the information contained in the application in a preliminary assessment of the expected impact of the activity on the water resource (Section 41 (2) of the NWA) and on the water allocation plan (Section 9(e)) or schedule (Section 45). They use the prescribed method to calculate the likely hydrological effects of the proposed SFRA (Section 29(1)(f)(ii)).
- 3.2 If the assessment shows that the activity will demand more water than is available according to the allocation plan, or that the water resource will be unacceptably impacted, the DWAF office advises the applicant, who may then choose whether or not to proceed with the application.
- 3.3 If the hydrological assessment of the hydrological impact on the water resources indicates that there is sufficient resource to allocate to the activity and that the water resource will be protected, the DWAF office requests the applicant to proceed with the next step and provides the necessary guidelines and questionnaire.
- 3.4 DWAF informs and consults with other authorities and advises the applicant of any other statutory constraints that might affect the decision on his or her application for an SFRA licence.

4. FULL ASSESSMENT: PRELIMINARY SCOPING

- 4.1 The applicant completes a scoping questionnaire (Box 4.1) which he or she then attaches to the set of application forms. He or she should consult the nearest office of the Provincial environmental management authority and the DWAF as necessary while completing the questionnaire. Applicants are exempt from using a consultant (in terms of Section 28A of ECA), except where the AC requires it.

Box 4.1 Items to be included in the scoping questionnaire.

- Water resource identification: name of water management area, and quaternary catchment within which the activity will occur, and the river reach (water resource) of main stream to be affected by the SFRA.
- Current land uses and extent of authorised SFRA's on the property
- Information on likely effects of the proposed SFRA on allocatable water and on the water resource: this should relate to criteria 1 to 5 in Section 5 above.
- Proposed compensatory measures to offset impacts on water, if any (e.g. new storage)
- Information on the likely social and economic impacts of the proposed SFRA: information on social and economic benefits and other likely social or strategic impacts of the proposed SFRA. This should allow assessment according to criteria 6 to 15 to be applied in assessing the application (see Section 5). This should include an assessment of the degree to which the proposed SFRA matches with Integrated Development Plans, Land Development Objectives, Spatial Development Initiatives, or equivalent development strategies.
- Preliminary information relevant to likely impacts on biological diversity and related biophysical impacts: the Acocks veld type(s) that would be affected by the activity, extent and status of conserved habitats on the property, a checklist of known environmentally sensitive features, extent of replacement of land cover type by proposed SFRA; extent of compensatory set-aside of land (natural habitats), if any.
- Alternative use(s) of the land, and hence the water, and the positive and negative impacts of these alternatives.
- Appendices with details (see 4.4 below).

- 4.2 He or she must publicise the proposed activity as prescribed in terms of Section 41 (4) of the NWA, e.g. by advertising in two local newspapers or any effective alternative medium (such as local radio, and notices at local gathering places). These notices should invite interested and affected parties to register their interest at the nearest DWAF office.
- 4.3 The applicant must inform owners of neighbouring properties of the proposal by registered letter.
- 4.4 He or she must return the questionnaire to the DWAF office within 14 days of receipt, together with the following information and materials:
- a copy of the title deed to the property and a map of its boundaries
 - a topographic map at an appropriate scale (preferably at 1:10 000) showing the location and extent of the proposed activity, compliance with prescribed standards (e.g. protection of riparian zones), and the features on the property mentioned in the application
 - a summary of the soils information, giving the main types and their extent within the area proposed for development, and estimates of the productivity of the crop (if relevant) for each soil type

5. FULL ASSESSMENT: COMPLETE SCOPING

- a plan for the establishment of the activity (such as a forestry planting plan), which must among other things give the schedule for the development and stipulate the species of crop, what soil preparation or conservation measures are to be employed, measures for the protection of water resource quality and roads that will be required
 - copies or other proof of advertisements and notices.
- 5.1 The DWAF office sends copies of the scoping questionnaire and accompanying documents to all members of the Advisory Committee and to interested and affected parties.
- 5.2 Members respond with comments and requests for additional information within 10 days. Members may request an extension from the DWAF office, which however must not exceed 30 days. If a Committee member does not submit a response the Chairperson of the Committee will assume that he or she agrees with the proposal as stipulated in the application.
- 5.3 During this period the Provincial environmental management agency (the relevant authority in terms of the ECA) indicates whether or not the procedures followed meet the requirements of the EIA regulations regarding the plan of study for scoping, and waives the requirement for this plan. If the agency cannot waive the requirement for the plan, it should indicate what is expected from the applicant.
- 5.4 The DWAF offices co-ordinates and executes a site inspection by the members of the Committee and interested and affected parties. This inspection allows all parties to discuss the various aspects of the proposed activity with the applicant, including mitigation of the impacts of the activity, and the alternatives to it. This must be done within 14 days of receiving the application, unless the RD: DWAF agrees to an extension because of the complexity of the case.
- 5.5 Members and parties have a further 10 days to send written comments and requirements with respect to the scoping to the DWAF office. DWAF sends these documents to the relevant environmental authority, which uses this with prior material to compile a report on the process.

Box 5.1 Requirements for the scoping report

- The report should include responses to the comments of the members of the AC and those from interested and affected parties. It should amend any of the assessments in the scoping questionnaire relevant to the decision criteria set out in Box 4.1.
- It must contain a summary of the findings of the site inspection and any other comments and requirements that followed, as well as AC members' review of the preliminary scoping questionnaire.
- It should describe how the environment, water resources, and agricultural resources would be affected by the proposed activity.
- It should summarise the issues identified in scoping.
- It should include responses to comments that relate to the proposed development plan and the management of the SFRA and which are determined by the Conservation of Agricultural Resources Act, the ECA, the National Forests Act and other relevant environmental and natural resources legislation. These responses should include descriptions of how the development plan would be modified and the SFRA managed to (a) protect soils (b) protect riparian zones and other habitats (c) protect archaeological, historical or other cultural sites or routes (d) meet the requirements for sustainable forest management in the case of forests, or the protection of agricultural resources in general in other cases.
- It should conclude with a summary assessment of the proposed SFRA in terms of each of the 16 relevant criteria, expressed relative to the available alternative(s) for the development of the resource.
- It should include as appendices the initial application, the findings of the water impact assessment, the preliminary scoping questionnaire and accompanying documents, and the report on the process of public participation.

- 5.6 The applicant through his or her consultant, or the DWAF in deserving cases, compiles a scoping report, including the report on public participation, which meets the requirements set out in Box 5.1. This report should be completed within 10 days.
- 5.7 The DWAF office provides copies of the scoping report to AC members.
- 5.8 The AC meets to consider this report. When it considers the report it must pay close attention to the findings of the SFRA SEA, the catchment management strategy for the area, the Strategic Environmental Management Plan for the province, and Integrated Development Plans or their equivalents.
- 5.9 If the AC decides that a full EIA is needed then the DWAF office requests the applicant to commission an impact assessment as required in terms of the ECA. The AC will advise the applicant on the scope of the EIA. The AC considers the full EIA as soon as the applicant is able to have it completed.

6. FORMULATING THE RECOMMENDATIONS ON THE APPLICATION

- 5.10 Once the EIA is complete the AC places the item on the agenda of its next meeting.
- 6.1 The AC considers the application on the basis of the scoping report or of the EIA, whichever is applicable.
- 6.2 In considering the application, it must apply the criteria and outlined in Section 5 of the main document. The AC gives the applicant and any other interested parties the opportunity to make representations on the application, according to Section 41 (2)(d) of the NWA.
- 6.3 Should the AC not find in favour of the application it must set out its arguments according to the relevant criteria and present the case for the preferred alternative.
- 6.4 In such a case the AC notifies the applicant of its view and the considerations that have led to it, with an invitation to revise the arguments in favour of proposed use. If the applicant takes the opportunity to do this, the AC considers the proposal again with the fresh evidence at its next meeting.
- 6.5 Should the AC find in favour of the application it should establish reasonable minimum standards for the activity, as required by the NWA, the NFA, the ECA and the Conservation of Agricultural Resources Act. These should be proposed as conditions to be placed on the licence (Section 29 of the NWA).
- 6.6 Whenever possible, the AC makes its recommendations on the basis of consensus. If there is no consensus, the Chairperson should adopt the majority view, but carefully note and report the minority opinions on the recommendation.
- 6.7 The AC submits its recommendations to the CD: WUC, documenting its arguments, together with a summary of procedures followed, and copies of all supporting documents.

7. DECISION ON THE APPLICATION

- 7.1 The CD: WUC reviews the recommendation in the light of the principles of the NWA. Within 10 days of the despatch of the AC's document, he or she decides whether or not to allocate a licence for the water use, and records the decision and the reasons for it.
- 7.2 If a licence is not granted, the CD: WUC sends the record of decision to the applicant, and a copy of the correspondence to the regional office of the DWAF. DWAF tables the decision at the next meeting of the AC.
- 7.3 If a licence is granted, the CD: WUC sends the licence and the record of decision to the relevant regional DWAF office.
- 7.4 In either case, the CD: WUC formulates a full explanation of the reasons for the decision to accompany the record of the decision, in case the applicant requests the reasons for the decision (Section 42 of the NWA).

8. ISSUING OF THE SFRA LICENCE

- 8.1 The DWAF Regional Office informs members of the AC of the decision, and the relevant authorities in terms of the ECA and Conservation of Agricultural Resources Act, records their approvals and sends these to the DWAF office.
- 8.2 The DWAF Regional Office issues a licence to the applicant with the agreed conditions attached to it and enters the record into the water-use licences database (i.e. into WARMS).

9. MONITORING AND EVALUATION

- 9.1 The DWAF office organises periodic inspections of the activity. Lack of compliance with conditions attached to the licence are identified and discussed with the owner and with other regulatory agencies.
- 9.2 If there is a lack of compliance, the owner and DWAF agree on rectification plans to achieve compliance.
- 9.3 If the owner does not implement the remediation plans, the DWAF may institute prosecution or withdraw the licence, or both. DWAF may also take the required remedial action and recover costs from the licensee.

10. REVIEW OF THE LICENCE

- 10.1 The AC or its successor reviews the licence and its conditions once every five years.
- 10.2 Once again, the AC must apply the criteria in Section 5 and hence the considerations of the NWA in conducting its review.