Free Basic Water Implementation Guideline for local authorities

Version 2.3

Contents

What is this guideline?

While national government has strongly promoted a 'free basic services' initiative, with a view to alleviating poverty, it is local government that is constitutionally mandated to deliver water services. A 'free basic water' policy must therefore be implemented at the local level where decision-making must rest.

However, national and provincial government are obligated to provide support to local government. Further, provincial government is required to monitor the performance of local authorities.

This guideline is one component of the support being offered by the Department of Water Affairs and Forestry (DWAF) to local authorities wishing to implement a 'free basic water' policy. It provides a 10-step guide towards implementing a "free basic water" policy at a local level. For ease of use, in the CD and Web page versions, each step will be accompanied by a worked example that will demonstrate each step.

Phasing approach

All municipalities are expected to start implementing the free basic water policy from July 2001. However, it is recognised that some municipalities may not have the capacity to implement the policy to a full extent immediately. Therefore, it is recommended that policy implementation be approached by developing orders of strategy:

- First order strategy – for those municipalities which lack information but, nevertheless, need to make a start. They would use the rough base data available and then develop a programme for updating the strategy with time.
- Second order – improvement after one or two years with better information. Or a first plan for higher capacity municipalities.
- Final strategy – linked to the WSDP-5 year plan

It is proposed that phasing be set up as follows:

TYPE OF MUNICIPALITY	A;B1	B2;B3	B4
Develop 1st order strategy to kick-start the preliminary phase of implementation.	June '01	June '01	
Develop 2nd order strategy to start or adjust/refine implementation.	June '01	June '01	June '03
Develop final order strategy for final implementation or adjust implementation.	June '02	June '03	June '05

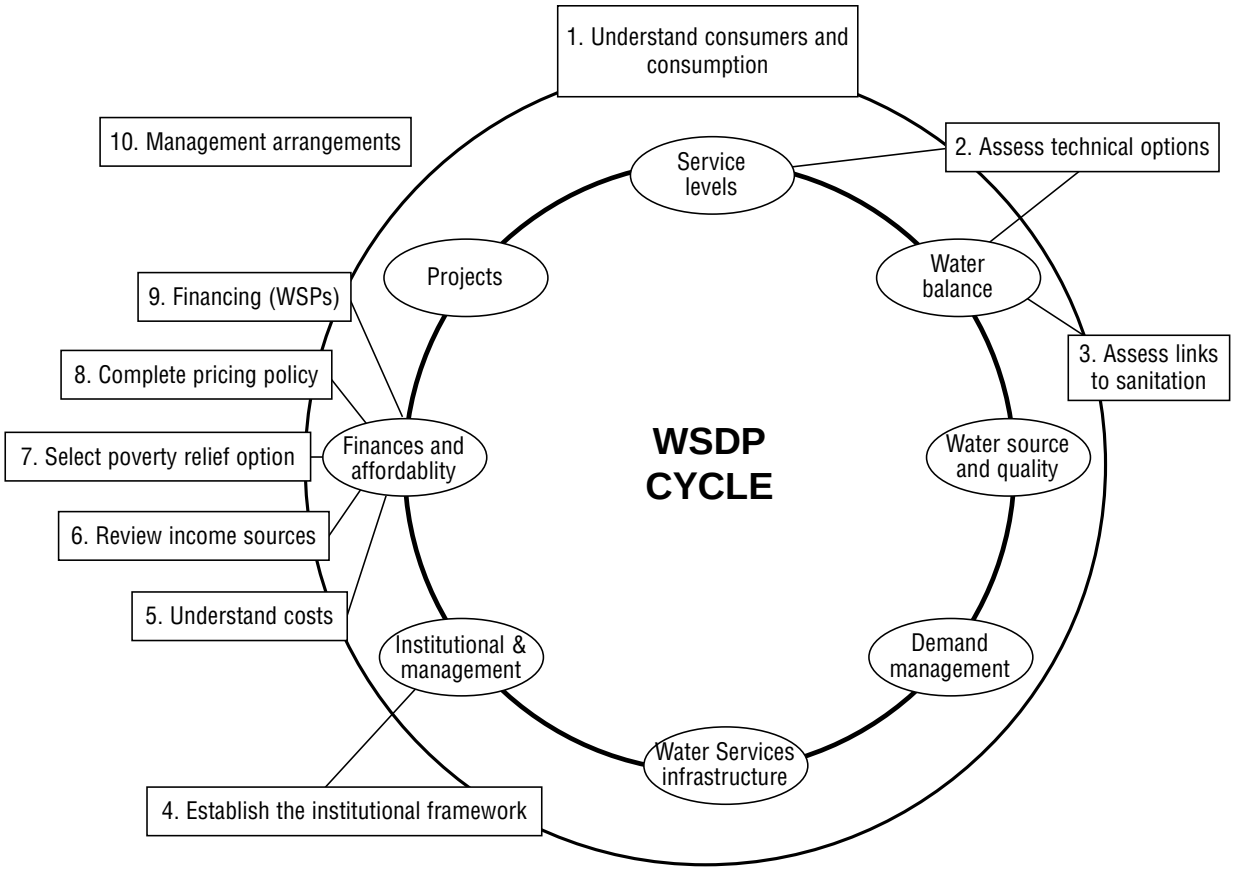
Note: local authorities have been grouped into five categories: A = metro authorities; B1 = a local municipality with a large town or city as its core; B2 = a local municipality with a medium sized town or towns as its core urban areas; B3 = a local municipality with a small town or towns as its core urban areas; B4 = a local municipality with no core urban or industrial area.

Ten steps to successful implementation

A 'free basic water' approach at local level is intimately linked to the water services development planning process. In fact the steps to be taken in implementing such a policy are similar to those required for a water services development plan (WSDP). Taking this approach, the following 10 steps need to be taken for a 'free basic water' policy to be successful at a local level:

1. Understand consumers and consumption
2. Assess technical options
3. Assess links to sanitation
4. Establish the institutional framework
5. Understand costs
6. Review income sources
7. Select poverty relief option
8. Complete pricing policy
9. Establish financial arrangements with water services providers (WSPs)
10. Set up management arrangements

Linking Free Basic Water (FBW) Planning to the Water Services Development Planning (WSDP) cycle



Step 1: Understand consumers and consumption

An understanding of consumers is an essential part of the activity of a water services authority (WSA) and a water services provider (WSP). This aspect is dealt with in various guidelines, notably those prepared by DWAF for water services developing planning and those prepared by Palmer Development Group for the Water Research Commission (a full reference list is available as a separate document). Particular attention also needs to be paid to the regulations in Sections 9, 10 and 19 of the Water Services Act. Key points to be addressed are given below:

Current population and households

- Numbers of people and average household size
- Number of households
- Settlement types – important where there are rural areas.

Settlement types

SETTLEMENT TYPES	SHORT DESCRIPTION	TYPICAL SIZE*
Urban	Proclaimed TLCs and Metros	>5 000
Dense Settlements	Dense, unproclaimed settlements. Formal & informal	>5 000
Villages	Less dense, informal unproclaimed settlements	500 – 5 000
Scattered settlements	Low density, scattered informal settlements	<500
Farmland	Farmland and privately held land	<500

** Typical size of settlements in terms of population*

- Information source-typically the census.

Poverty profile

- This may be assessed based on income brackets (from Census).
- Alternately household expenditure is a good measure.

Consumer units

- Number of consumer units is key to successful planning.
- Split into consumer categories:
  - residential,
  - 'wet' industrial and
  - 'other' (commercial, institutional and dry industrial)
  (see DWAF 'Section 10' regulations).
- Allocate to settlement types.

Existing level of service

- Related to service typology (see later in this guide).

Water balance

- Bulk water purchases- purified and raw.
- Unaccounted for water.

Consumption

- Split into three consumer categories as above.
- Residential consumption required per consumer unit type, preferably also by service level.
- Information on frequency distribution of residential consumption is essential if a rising block tariff is to be used.

Willingness to pay

- 'Willingness to pay' is an economic term which means the amount that a consumer is prepared to pay for a product or service which they desire. This assumes ability to pay for it.
- Factors affecting willingness to pay: there are a wide range of factors
- Measurement: willingness to pay can be measured or estimated through a number of methods.

- Comparison with current payment levels: willingness to pay can be judged from payments already occurring. These can include payments to water vendors; payments from communities with very similar social and economic profiles, or payments by other members of the community who already have the service level being considered.
- Surveys: special survey methods exist which can be used to assess the willingness to pay for improved service levels by a community (these are known as contingent valuation surveys)
- Indirect valuation: estimates of willingness to pay can be made from other consumer behaviour. For example, if a person walks for an hour a day to collect water they may be willing to pay the amount that an hour of time is worth to them.
- 'Rules of thumb' relating payments to household income (for example payments for water should not exceed 3% of household income).

If the WSA has access to information regarding current payment for water services, either in terms of payments to water vendors; payments from communities with very similar social and economic profiles, or payments by other members of the community who already have the service level being considered, these may be used.

Worked examples Step 1

Note: Tables A to F represent a summary of information on existing consumers and consumption which is needed to plan a free basic water (FBW) policy. All the information can be collected from municipal records, with the exception of income distribution where the National Census can be used. In these worked examples income distribution is used as a poverty indicator. In later steps it is noted that those households earning under R800 per month are considered poor from the point of view of a Free Basic Water policy.

Municipality U

Municipality U is chosen as a fictitious example of a place which has a largely urban character. It has a single large town but, in common with many new Category B municipalities, there is also a dense settlement in the municipal boundary and commercial farmland surrounds the town.

Population 200 000
Households 45 000 (some in back yards)
Consumer units 40 000

A. Consumer units

	Residential	Wet Ind	Other
Urban	35 000	5	1 800
Dense settlements	2 000	-	150
Villages	-	-	-
Scattered	-	-	-
Farmland	3 000	-	50
Total	40 000	5	2 000

B. Income distribution

0-R800	800-1500	1500-2500	2500-3500 >	R3500
30%	20%	15%	15%	20%

Municipality M

Municipality M is chosen as an example of an area with a mix of urban and rural type settlements. There are three small-sized towns within the municipal boundary as well as a number of dense settlements (settlements with no economic core and relatively poor services). The municipality includes a section of communally owned land where people are settled in villages. Finally there are a small number of commercial farms within the municipal boundary.

Population 200 000
Households 45 000 (some sharing yards)
Consumer units 40 000

A. Consumer units

	Residential	Wet Ind	Other
Urban	15 000	2	700
Dense settlements	15 000	-	180
Villages	9 000	-	100
Scattered	-	-	-
Farmland	1 000	-	20
Total	40 000	2	1 000

B. Income distribution

0-R800	800-1500	1500-2500	2500-3500 >	>R3500
40%	20%	15%	15%	10%

Municipality R

Municipality U is chosen as a fictitious example of a place which has a largely urban character. It has a single large town but, in common with many new Category B municipalities, there is also a dense settlement in the municipal boundary and commercial farmland surrounds the town.

Population 200 000
Households 45 000 (some in back yards)
Consumer units 40 000

A. Consumer units

	Residential	Wet Ind	Other
Urban	500	-	50
Dense settlements	15 000	-	200
Villages	20 000	-	200
Scattered	4 500	-	50
Farmland	-	-	-
Total	40 000	-	500

B. Income distribution

0-R800	800-1500	1500-2500	2500-3500	>R3500
60%	25%	5%	5%	5%

Worked examples Step 1 (Continued)

Municipality U

C. Existing level of service (Residential)

Metered yard connections	Unmetered yard connections	Public standpipes	Non-retic sources	None or inadequate
85%	5%	5%	-	5%

D. Water balance

Bulk produced/ purchased	Consumed		UAW
	Metered billed	Estimated	
41 Ml/d	31 Ml/d	2 Ml/d	8 Ml/d
	75%	5%	20%

E. Consumption

Residential			Wet Industrial	Other
Yard connections	Public standpipes	Non-reticulated		
25,9 Ml/d	0,3 Ml/d	-	2,3 Ml/d	4,5 Ml/d
78%	1%	-	7%	14%

Total 33 Ml/d

Municipality M

C. Existing level of service (Residential)

Metered yard connections	Unmetered yard connections	Public standpipes	Non-retic sources	None or inadequate
45%	10%	25%	5%	15%

D. Water balance

Bulk produced/ purchased	Consumed		UAW
	Metered billed	Estimated	
21 Ml/d	11 Ml/d	4 Ml/d	6 Ml/d
	52%	17%	31%

E. Consumption

Residential			Wet Industrial	Other
Yard connections	Public standpipes	Non-reticulated		
12,1 Ml/d	1,7 Ml/d	0,1 Ml/d	0,3 Ml/d	0,8 Ml/d
81%	11%	1%	2%	5%

Total 15 Ml/d

Municipality R

C. Existing level of service (Residential)

Metered yard connections	Unmetered yard connections	Public standpipes	Non-retic sources	None or inadequate
10%	15%	35%	10%	30%

D. Water balance

Bulk produced/ purchased	Consumed		UAW
	Metered billed	Estimated	
10 Ml/d	2,1 Ml/d	4,2 Ml/d	3,7 Ml/d
	21%	42%	37%

E. Consumption

Residential			Wet Industrial	Other
Yard connections	Public standpipes	Non-reticulated		
3,9 Ml/d	1,9 Ml/d	0,2 Ml/d	-	0,3 Ml/d
62%	30%	3%	0%	5%

Total 6,3 Ml/d

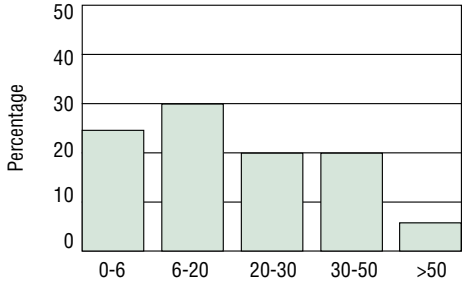
Worked examples Step 1 (Continued)

Municipality U

F. Frequency distribution (Residential yard connections)
% of CUs consuming in kl/month range of:

0-6	6-20	20-30	30-50	>50
25%	30%	20%	20%	5%
A	B	C		

C:A ratio = 1,8



% of water consumed in bracket:

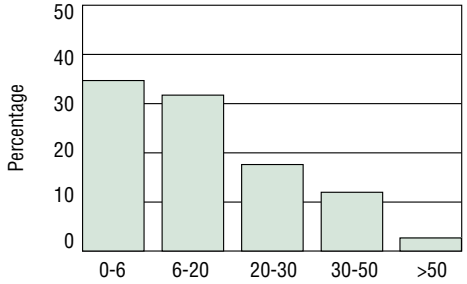
0-6	6-20	20-30	30-50	>50
27%	39%	18%	14%	4%

Municipality M

F. Frequency distribution (Residential yard connections)
% of CUs consuming in kl/month range of:

0-6	6-20	20-30	30-50	>50
35%	32%	18%	13%	2%
A	B	C		

C:A ratio = 0,9



% of water consumed in bracket:

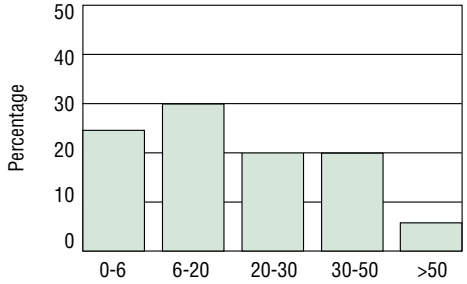
0-6	6-20	20-30	30-50	>50
33%	41%	15%	10%	1%

Municipality R

F. Frequency distribution (Residential yard connections)
% of CUs consuming in kl/month range of:

0-6	6-20	20-30	30-50	>50
45%	31%	14%	8%	2%
A	B	C		

C:A ratio = 0,5



% of water consumed in bracket:

0-6	6-20	20-30	30-50	>50
38%	39%	13%	9%	1%

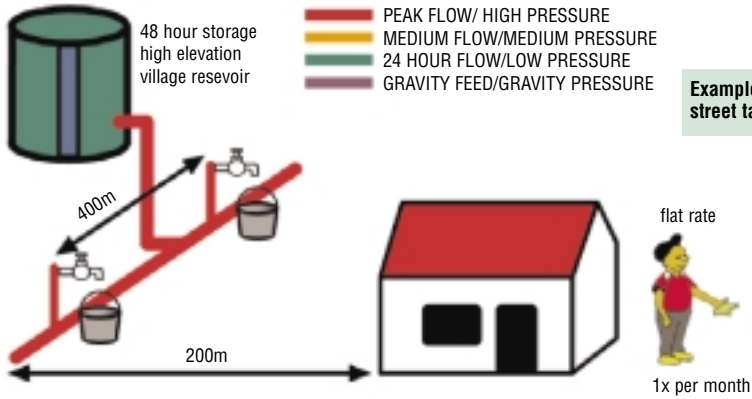
Notes relating to frequency distribution

1. Brackets can be selected by municipality to suit their needs.
2. Number of residential consumers with monthly consumption in bracket (Table F1) obtained from billing records.
3. % of water consumed in each bracket (Table F2) calculated from F1. Models are available to do these calculations.
4. The % of consumers using below 6kl / month are referred to as the 'A' percentage.
5. % of consumers using above 20kl / month are referred to as the 'C' percentage.
6. The ratio of C/A is an indicator of the potential for cross subsidy, if a rising block tariff is used.
7. C/A value of 1.5 is relatively high (good cross-subsidy potential) A C/A value of 0,5 is relatively low.
8. The percentage of water consumed in each bracket can be calculated from the consumption frequency distribution (see model)

Step 2: Assess technical options

- Water supply service levels guide: DWAF has produced a Guideline, Water Supply Service levels: a guide for Local Authorities, Nov 2000. This deals with a range of service levels which are listed below, together with comments on their applicability.

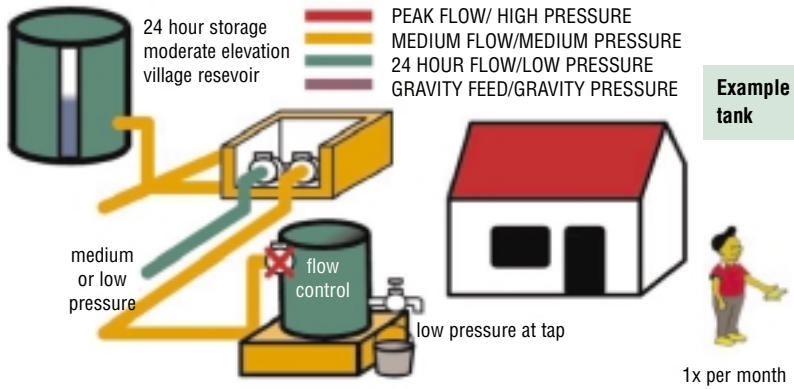
Description of service	Application	Suitability for 'free basic water'
Rudimentary systems: Hand pumps on boreholes, spring protection etc.	There will always be rural areas which cannot feasibly be provided with reticulated systems; rudimentary systems are inexpensive	With low capital and operating cost and inherent limitations on the amount which people can use this is well suited to a 'free basic water' policy. However, for the service to be 'free' this implies that a WSP will carry out maintenance at no cost to consumers.
Communal street tap: Tap shared by a number of consumers.	While communal taps have been used in urban areas their widest application has been in rural areas where this has been the most common service level provided under water supply programmes over the last decade.	Communal taps are a low cost option well suited to providing water to poorer consumers. It is seldom that consumers would use more than 6 kl with such a service and therefore this service level is well suited to a service level targeting approach. However, for success those communal taps must be mixed with higher service levels.
Prepaid communal street tap: Communal tap with a prepaid meter	This option has been introduced recently in a number of areas with mixed results. Success depends on community acceptance.	If up to 6 kl is to be provided free then the need for a prepaid meter falls away as no payment is to be made. (if unauthorised connections are controlled)



Example of a communal street tap (public standpipe)

Step 2: Assess technical options (continued)

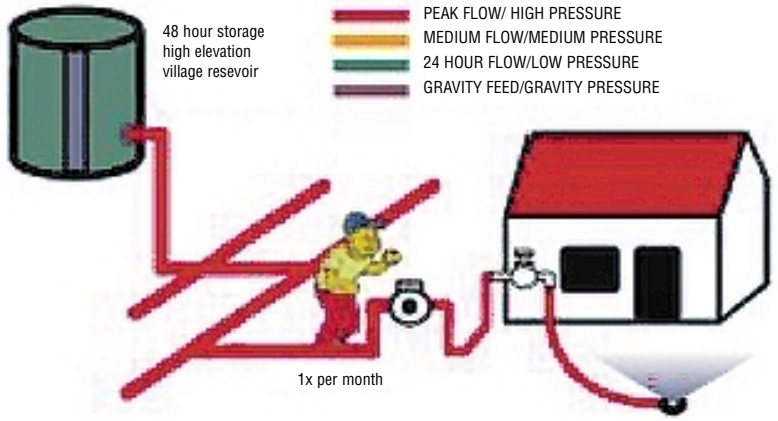
Description of service	Application	Suitability for 'free basic water'
Low pressure trickle feed yard tank: Tank, typically 200-250 litres, located in yard with flow control device in tank. Permanently connected to network.	Yard tank systems have a major benefit in that they provide a restricted supply at a fixed monthly charge paid up front. They also allow for a cost effective reticulation design. This version (trickle feed) offers the benefit that bailiffs do not need to open manifolds on a daily basis. However, the tank can be easily bypassed.	In the context of a 'free basic water' policy yard tanks are an important service level as they provide a relatively high restricted flow service level (less than 6 kl/ month). Typically the tariff for the tank would be set at zero. This fits well with any of the poverty relief options (rising block tariffs, targeted credits and service level targeting).
Low pressure manually operated yard tank: A tank which is filled from a manifold on a daily basis.	Has the same benefits as the trickle feed tank with the following exception: the daily manifold opening is labour intensive. However, the tank cannot be bypassed.	As for the trickle feed tank, there is wide application for this type of service in a 'free basic water' context.
Low pressure regulated yard tank: A tank with a regulator (equity valve) at a node point on the reticulation.	Similar to a yard tank but does not require daily opening of a manifold. Bypassing of the tank brings no benefit to the consumer and therefore is not a problem.	As for other yard tank options, this is well suited to a 'free basic water' initiative.



Example of trickle feed yard tank

Step 2: Assess technical options (continued)

Description of service	Application	Suitability for 'free basic water'
Medium pressure manually operated roof tank: Unregulated flow to a tank on the roof directly from reticulation, with metering.	Has limited application as a service between normal metered supply and yard tanks. Main benefits relate to saving on reticulation costs. May be a good upgrading option.	No particular benefits: needs metering, billing and credit control systems.
Medium pressure regulated roof tank: A roof tank version of the low pressure regulated yard tank.	This option is also based on having a regulator at node on the reticulation. Therefore it allows for restriction of flow without the risk of bypassing.	This is well suited to a 'free basic water initiative'. It allows a relatively high service level with limited flow volume.
Full pressure conventional house connection: the standard system with a direct full pressure connection to the reticulation, metering and billing.	While named a 'house connection' system, the 'yard tap' is also included under this category. This is the highest level of service but it requires an effective metering and billing system to function properly.	This service level generally has to be integrated with a 'free basic water' initiative. If it is used with service level targeting then it would be assumed that those which have it can pay cost reflective tariffs. For situations where the poor have access to this service level a rising block tariff or credit system needs to be in place.
Full pressure prepaid house connection: Conventional connection but with prepaid metering.	The inclusion of pre-paid metering avoids the necessity of reading meters and billing. Non-payment it not an issue but tampering with meters can be a problem.	Most prepaid meter systems provide for rising block tariffs and the option of having a zero first block. In this case they are suited to a 'free basic water' initiative.



Example of a full-pressure conventional house connection

Principles relating to service levels

- Importance of mixed service levels: In all but the wealthiest municipalities it is important to have a range of service levels to offer to consumers. This allows appropriate service levels to be matched to the ability of consumers to pay. This becomes even more important under a 'free basic water' policy, as noted in the table.

- Importance of flow restriction: The availability of options which restrict the flow to consumers is an important attribute of a good local 'free basic water' policy. It allows people who cannot afford to pay more to only get a basic supply (poverty relief consumption level). In cases where there is an existing system with direct connections from the reticulation to the yard, flow limiting becomes difficult. However, Durban has facilitated the development of an electronic flow restricter which allows only a fixed amount to be supplied each day.

- Metering: Under a free basic water policy it is essential that all unrestricted supplies are metered.

- Appropriate design standards: A key component of a local 'free basic water' policy is the provision of water at the lowest cost possible while still maintaining a good quality of service to consumers. In order to keep costs down this implies that appropriate design standards must be applied.

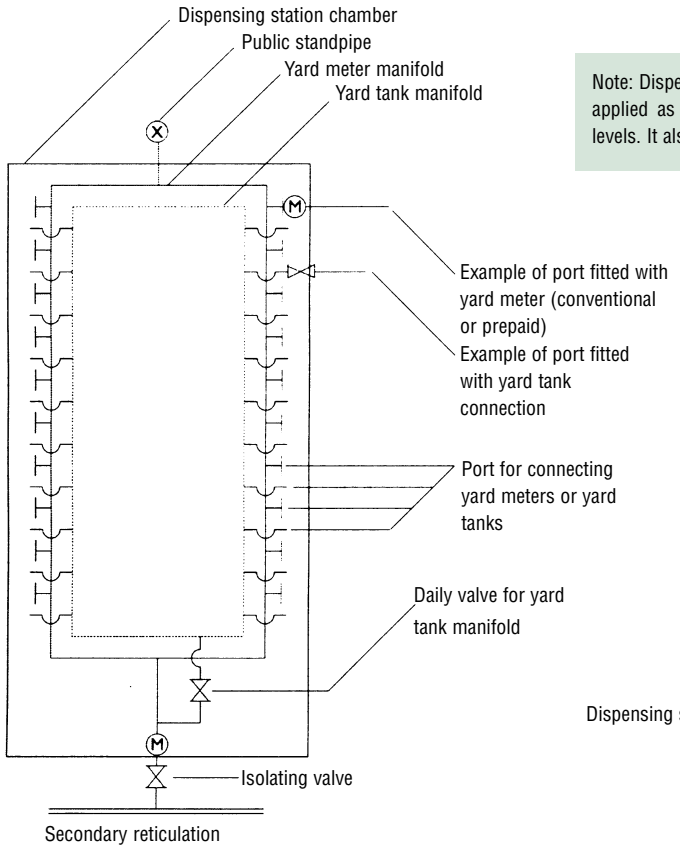
Concept of dispensing stations (see diagram next page)

For new systems in rural and peri-urban settlements dispensing stations offer the following benefits:

- All use is 'prepaid or free' (no billing system required).

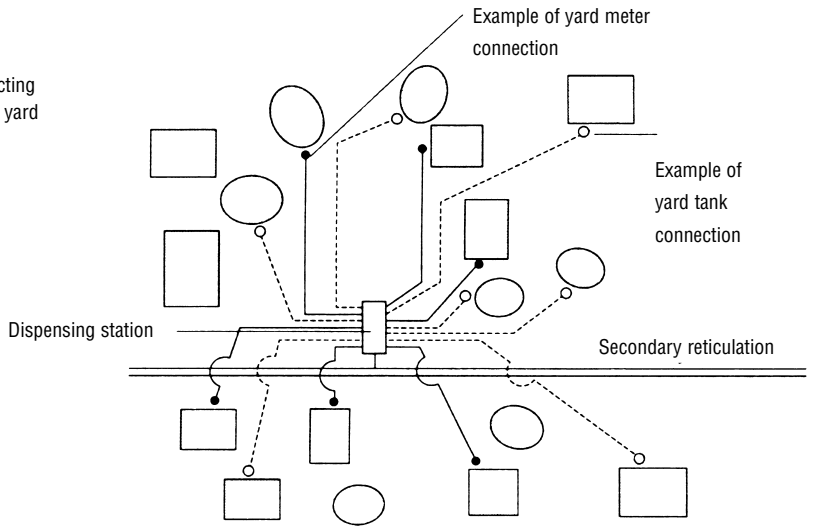
- Consumers make their own choice of service level.

- Potential for illegal connections is cut to a minimum. The system works with a dispensing station located on nodes of the secondary reticulation system. In the station (essentially a valve and meter chamber) ports are provided for consumers to use. The choice is between a communal tap, yard tank, or pre-paid metered yard connection (with the meter in the dispensing station). Consumers who select a yard tank or metered yard connection are responsible for providing their own connection from the dispensing station.



Diagrammatic layout of dispensing station

Note: Dispensing station is a concept (not widely applied as yet) for allowing consumers to choose between 3 service levels. It also allows for good control of water losses in system.



Overall layout of a dispensing station in a village

Worked examples Step 2

Note: If the municipality is planning for the free basic water in the following year service levels will not change much. However it is nevertheless necessary for the municipality to decide what approach it will take to service levels in the longer term (5 years). This is also a requirement of the water services development plan. The tables below give results of what the example municipalities have planned. Although these figures are important to get an understanding of long term viability of the FBW policy they are not used in calculations for the following steps.

Municipality U
For 5 years hence

Metered yard connection	Yard tank	Public standpipe	Non reticulation	None
Urban				
100%	-	-	-	-
Dense settlements				
90%	-	10% -		-
Villages				
-	-	-	-	-
Scattered				
-	-	-	-	-
Farmland				
80%	-	20%	-	-
Overall				
98%	-	2%	-	-

Municipality M
For 5 years hence

Metered yard connection	Yard tank	Public standpipe	Non reticulation	None
Urban				
100%	-	-	-	-
Dense settlements				
30%	50%	20% -		-
Villages				
30%	30%	30%	10%	-
Scattered				
-	-	-	-	-
Farmland				
50%	30%	20%	-	-
Overall				
57%	26%	15%	2%	-

Municipality R
For 5 years hence

Metered yard connection	Yard tank	Public standpipe	Non reticulation	None
Urban				
100%	-	-	-	-
Dense settlements				
30%	50%	20% -	-	-
Villages				
30%	40%	30%	30%	-
Scattered				
10%	30%	35%	20%	5%
Farmland				
50%	30%	20%	-	-
Overall				
29%	37%	26%	7%	1%

STEP 3: Links to sanitation

Sanitation service levels

- Defining basic sanitation: Basic sanitation in South Africa is regarded as a dry 'on site' system such as a ventilated improved pit (VIP) latrine or equivalent.
- Other sanitation options: There is a range of service levels which are described in the draft national sanitation policy. In urban areas it is typical that full waterborne sanitation is provided. This is a high service level with high costs.
- Impact on water use: From the point of view of a 'free basic water' policy the amount of water that the sanitation system uses is important. This varies depending on the type of flushing system, household profile and household habits. Generally higher income households return larger amounts of water to the sewer.
- Estimating water use for flushing: At one extreme it is notable that in Durban many households have water borne sanitation but still keep their total water use within 6kl/month. Other local authorities have lifted the 'free basic water' limit to 9kl/month to accommodate flushing.

Incorporating a 'free basic sanitation' policy

- Poverty relief options: There are six primary options for providing 'free basic sanitation':
  - Rising block tariff with flow related to water consumption and first block set to zero.
  - Setting sanitation tariff as a proportion of the water bill (thereby using the impact of the water supply rising blocks.
  - Credits on the sanitation account, which work in the same way as for water supply.
  - Incorporating sanitation with property rates (the poor would have low property values).
  - Service level targeting, with VIP or equivalent provided free of charge (which implies a free pit emptying service).
  - Using a charge based on plot size with a zero charge for very small plots (typically 250 sq m or less).
- Selecting the option: This guide is not intended to cover sanitation. However, each of the above options have merit and need to be considered by local authorities. What needs to be noted here is that the 'free basic sanitation' option selected should be compatible with the 'free basic water' option selected.

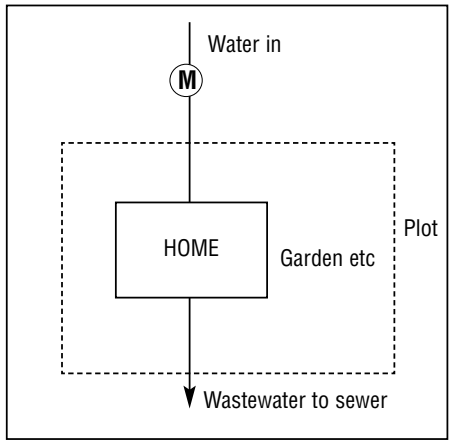


Diagram showing simple water balance for system with waterborne sanitation

Worked examples Step 3

Note: For this step each municipality has done an analysis to assess what type of sanitation service is technically feasible and affordable to consumers. The impact on water use and the amount of water consumers will use for flushing is included in the consumption analysis (Step 1).

Municipality U	**Municipality M**	**Municipality R**
Decision is taken after viability analysis, to provide all consumer units in urban areas and dense settlements with waterborne sanitation. Farms use ventilated improved pit (VIP) latrines.	After a viability analysis, it is decided to provide urban and dense settlements with waterborne sanitation and remainder with VIP latrines (or individuals provide their own septic tanks where they can afford this).	A small waterborne system is provided for the urban area. The remainder is to be served by VIP latrines (or individuals provide their own septic tanks where they can afford this).

Step 4: Establish institutional framework

Local government context

- *Effective local government:* For successful water services delivery it is essential that local government is effective. In the current circumstances this means that the transition being faced by newly demarcated municipalities needs to be handled successfully.
- *Powers and functions:* One of the most difficult issues being faced at present is the allocation of powers and functions between local (Category B) and district (Category C) municipalities. The amendment to the Municipal Structures Act assigns water services authority function to the district level. However, the current situation is that the water service provider capacity rests at local (B) level; there are very few districts which currently have water services provider capacity. The amendment to the Act provides for the status quo situation to be maintained for the interim and this is the approach being taken by all provinces.
- *Allocation of income:* At present the legislation provides for equitable share allocations to be made to the local (B) level. It also provides for property rates to be paid to the local level. With regard to income from user charges, this will be allocated to the sphere which is allocated the function (districts in the case of water supply). However, in the interim such payments will presumably be made to the organisation providing the service, typically local municipalities.

Water services authority responsibilities

- *Legislation and policy:* The Water Services Act provides for a separation of the functions of water services authority (WSA) and water services provider (WSP).
- *Status quo:* Prior to the transition the former TLCs were WSAs, typically responsible for urban areas. In the rural areas the district was typically the WSA. With the new demarcation it is likely that the local municipalities will continue to be the de facto WSA for most areas until a final decision has been made.

Bulk water services provider arrangements

- *Separation of bulk supply function:* The current situation is that there are many areas where bulk water services are managed separately from retail services. The service provider in this instance is almost always - but not necessarily - a water board. There are also many situations where bulk water services are integrated with retail water services. There are arguments for and against each of these options (which can be referred to as the vertical integration debate). At this stage local decision making will prevail and there is no need to change arrangements for the purpose of a 'free basic water' policy.
- *Identifying and contracting bulk WSPs:* New local authorities need to identify situations where separate bulk water service providers are functioning or will be established. These organisations will then have to enter into a contract with the WSA. (See DWAF 'Section 19' regulations.)

Water services provider arrangements (retail)

- *WSPs in an urban context:* In urban areas it has been traditional in South Africa for the municipality to be the service provider. However, recently this situation is changing as certain local authorities enter into contracts with private companies or public utilities to undertake the water services provider function (e.g. Nelspruit, Dolphin Coast and Johannesburg Metro).

- *WSPs in a rural context:* In rural areas the opportunities for private companies to be WSPs are less obvious as water supply operations are less profitable. (This can change with judicious allocation of funds to WSPs as discussed later in this guideline). However, there is an important role to be played in rural areas by public utilities (typically water boards) and community based organisations.
- *Community based WSPs in smaller rural settlements:* Based on the current institutional framework proposed by DWAF, community based organisations have an important role to play in small settlements (typically less than 5 000 people). However, for them to be successful they need support (see support services agent below). They are also not suited to running larger bulk supply schemes and some other organisation needs to be contracted to do this.
- *Larger rural settlements:* In larger rural settlements, a range of WSP options are feasible – the municipality itself, public utilities and private companies.
- *Horses for courses:* The WSA needs to select the optimum arrangements for its area. This may mean a single WSP or WSP appointments for different places to suit local conditions.

Management contracts

There is a growing understanding of the role which management contracts can play in improving the performance of WSPs. Currently appointments have been made in urban areas (e.g. Johannesburg and Harrismith). However there is also a role for management contractors in rural areas.

Support services agents

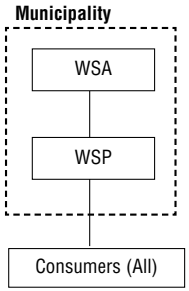
Support services are required to assist smaller WSPs (typically community based organisations) to function effectively. The services include:

- Mentoring
- Major maintenance
- Procurement.

The organisations which are appointed to provide this service are sometimes referred to as support services agents (SSAs). They may be private firms, municipalities, public utilities or NGOs.

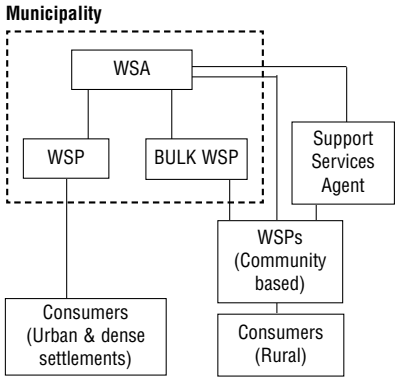
Worked examples Step 4

Note: The institutional arrangements for each of the example municipalities are selected after a process to look at options. In each case the WSP options are investigated and negotiations are held with stakeholders to select a favourable option. The use of management contractors and support services agents is considered. The outcome for each of the examples is shown in the diagrams and summarised in the text below.



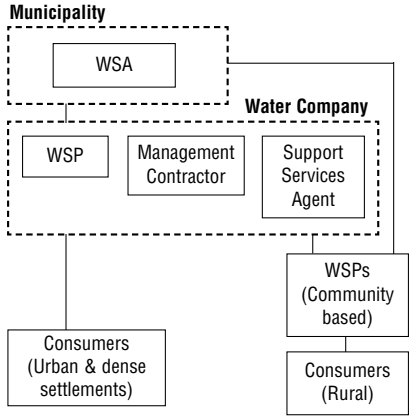
Municipality U

In this case the local authority is the WSA and has decided to retain the WSP function itself for the urban area and dense settlements.



Municipality M

For Municipality M the district municipality has undertaken to be the WSA and also the WSP for the urban areas and dense settlements.
In the villages, community-based WSPs are appointed and the district municipality, in its role as WSA, has appointed a private firm to act as a support services agent for these WSPs. Where villages can be served by the regional bulk scheme the district undertakes the role of bulk WSP, selling bulk water to the (retail) WSPs.



Municipality R

In this case the district municipality is the WSA but does not have the capacity to take on the WSP role. It intends to use a private company as a WSP for the urban area and dense settlements.
However, in order to allow a phasing in of this arrangement, the district sets up a company itself – which it owns – and it appoints management contractors to run the company for an interim period.
In the villages and scattered settlements, community- based WSPs are appointed with the water company undertaking the support services agent function.

Step 5: Understand costs (expenditure)

- Motivation: For the viability of the operation to be sustained, expenditure on water supply needs to be covered by income to the account. In most cases the greatest income to a water account comes from tariffs. Therefore keeping tariffs low implies keeping costs low. A 'free basic water' policy is strongly linked to efficiency on the part of the WSP.
- Cost categories: In all but the smallest systems it is important to separate bulk and retail costs. This helps considerably with tariff setting as bulk costs can be allocated to consumers on a volume basis. Retail costs (the distribution, sales and customer relations component of a water supply system) are more directly related to the number of consumer units.
- Cost by service level: If service level targeting is to be applied then it is important to understand what the costs of providing each service level are, per consumer unit. This is also necessary in a more general sense to get an idea of what subsidy levels are being applied.
- Capital costs: The cost of capital needs to be applied as part of expenditure. However, for most poor consumers grant finance is available.
- Bulk supply costs: Bulk supply costs may account for about half of the total cost of water supply. Therefore it is important for bulk costs to be kept low.

Worked examples Step 5

Note: With the FBW policy it is necessary for the water services institutions (WSA & WSP's) to raise sufficient funds to cover the expenditure. Therefore the starting point is to estimate expenditure. This is best done by using current year figures for all the water supply expenditure. This can then be escalated to get a budget for the FBW planning year (typically the coming year) using standard treasury techniques.

Municipality U

Current expenditure / year
- municipality R26,8 m

Budget for FBW planning year: current + 1
- municipality R28,9 m

Municipality M

Current expenditure / year
- municipality R13,0 m
- other WSPs R 4,0 m

Budget for FBW planning year: current + 1
- municipality R14,0 m
- other WSPs R 4,5 m

Municipality R

Current expenditure / year
- municipality R 1,0 m
- other WSPs R 7,4 m

Budget for FBW planning year: current + 1
- municipality R 1,0 m
- other WSPs R 8,2 m

Step 6: Review income sources

The free basic water national strategy document deals with the current range of income sources available to local authorities. These are:

- Equitable share (ES)
- Other subsidies from national government
- Transfers from other municipal accounts
- User charges (tariffs).

It is essential for these options to be understood before a 'free basic water' strategy is completed, even at the first order. Local policy on levies and transfers from other accounts then needs to be dealt with. Generally the starting point is to assess what the income is from all the other sources before calculating user charges (tariffs).

Worked examples Step 6

Note on this step

Before tariffs can be addressed it is necessary to know how much revenue needs to be generated from tariffs (user charges).

Accrued revenue required from user charges = Expenditure X (1 + non-payment %) – ES and other subsidies allocated to account plus provision for surplus. Actual revenue is the amount required after adjustment for non-payment.

Once the revenue requirement is known pricing policy can be addressed in the following steps

Municipality U		**Municipality M**		**Municipality R**	
FBW Planning year: Current + 1		FBW Planning year: Current + 1		FBW Planning year: Current + 1	
Accrued revenue requirement	R35,6m	Accrued revenue requirement	R22,7m	Accrued revenue requirement	R11,2m
Non-payment estimate: 20% of income		Non-payment estimate: 20% of income		Non-payment estimate: 20% of income	
Actual revenue requirement		Actual revenue requirement		Actual revenue requirement	
(after non-payment):	R29,7m	(after non-payment):	R18,9m	(after non-payment):	R 9,3m
Subsidies other than ES:	Nil	Subsidies other than ES:	R 1,5m	Subsidies other than ES:	R 1,5m
ES received current year:	Nil	ES received current year:	R 9,5m	ES received current year:	R14,5m
% of ES allocated to water:	Nil	% of ES allocated to water:	20%	% of ES allocated to water:	20%
Total subsidy amount	Nil	Total subsidy amount	R3,4m	Total subsidy amount	R4,4m
Amount to be raised through user charges:	R35,6m	Amount to be raised through user charges:	R19,3m	Amount to be raised through user charges:	R 6,8m

Step 7: Select poverty relief options

In the Free Basic Water strategy, three approaches for providing free basic water are identified. These are referred to as poverty relief options. Each of these are described in the table below, with the table on the next page dealing with the selection method. It should be noted that these three options are not the only ones which can be applied, but they are the most important.

	Poverty relief options		
	Option 1 **Rising block tariffs**	**Option 2** **Targeted credits**	**Option 3** **Service level targeting**
Description of option	Rising block tariff is applied to all residential consumers, with the first block typically set from 0 to 6 kl with a zero tariff. No fixed monthly charge applicable to those using below poverty relief consumption limit.	Each consumer who is selected for poverty relief gets a credit on their water account which would typically be sufficient to cover the charge for the poverty relief amount (often 6kl per month) free.	Those service levels which provide a restricted flow (below the poverty relief consumption level) are provided at no charge. Those with higher service levels pay the normal tariffs, with the possibility of applying credits in exceptional cases.
Targeting Method	No targeting (first 6kl free to all). However, a targeted fixed monthly charge may be necessary for holiday areas.	Requires a system for identifying those who require poverty relief. Typically this is based on a benchmark household income level of R800–R1 000 per month.	Targeting takes place through selection of service level by the consumer. Consumers must have service level choice.
Applicability	Mainly A, B1, B2 municipalities. Not suited to situations where there is a high proportion of holiday homes unless it is supplemented with a targeted fixed monthly charge	Can be used in A municipalities but more typical for B1 to B3 municipalities. Requires a billing system to be in place for all consumers.	Best suited to B4 municipalities, particularly for first order strategy, but can be used in urban areas as well.

	Method of selection		
	Option 1 **Rising block tariffs**	**Option 2** **Targeted credits**	**Option 3** **Service level targeting**
Advantages	• Consistent with current approach to use rising block tariffs • Does not require targeting. • The 'free basic water to all' message can be applied but is misleading as larger consumers typically pay more.	• Suited to situations where there are fewer larger consumers. • Relatively simple to apply from an accounting point of view. • Easy to integrate with other services where a 'free basic service' policy is being applied.	• Suited to municipalities with lower capacity and large proportion of poorer consumers. • Typically does not require a metering and billing system for restricted flow service levels.
Disadvantages	• Only applicable where there is a relatively high proportion of larger consumers. • Requires an effective metering, billing and credit control system.	• Requires a system to select those who are to benefit from poverty relief measures. • Requires an effective metering, billing and credit control system.	• Targeting may be poor if there are a large proportion of households using restricted flow services. • Will only work if metering, billing and credit control system for unrestricted flow service levels is effective.
Residential Frequency Distribution Requirements	Typically requires 40% of residential consumers purchasing more than 20kl/month	Only dependent on frequency distribution if poverty relief is to be partly or wholly funded from water account.	Not relevant unless poverty relief is to be funded from income raised from consumers with metered connections (which is seldom possible).
Impact of non-residential consumption	Typically requires more than 10% of water sales to be to non-residential consumers	Only relevant if poverty relief is to be funded from non-residential consumers.	Generally there is only a small proportion of non-residential consumers and it is not possible to fund poverty relief from income raised from them

Worked examples Step 7

Note: It is only possible to select a poverty relief option once financial analysis has been done to assess the feasibility of options. Financial models for doing this analysis are available and are dealt with elsewhere in the free basic water support information. The analysis uses the consumer, expenditure and income information dealt with in previous steps and ensures that the tariffs generate sufficient revenue.
Based on this analysis the poverty relief option is identified as shown below. The subsidy amount per consumer is also calculated.

Municipality U

Based on the following:

- More than 75% of consumers have yard connections and are metered and billed.
- The ratio of residential consumers using more than 20kl/month to those using less than 6kl/month (C/A ratio) is 1,8 which is relatively high.
- Modelling shows that tariff levels with a rising block tariff are reasonable.

Council decides to use a rising block tariff with a zero tariff for the first block. Further, the council decides not to apply subsidies to the water account, relying on cross-subsidies within this account to fund free basic water. This is shown to be feasible through financial analysis.

Amount of subsidy per CU using under 6kl/month: R11,34

Note: R/subsidy calculated at average cost of water (R2,52) times average consumption of those using under 6kl/month (=4,5kl/month)

Municipality M

Based on the following:

- Considerably less than 75% of consumers have yard connections and are metered and billed.
- Of those residential consumers with metered yard connections the C/A ratio is 0,9 which is marginal if reliance is to be made only on cross-subsidies.
- Modelling shows that tariffs for higher blocks of a rising block tariff are far too high (>3 times average cost of water)

Council decides to use a targeted credit method with a uniform tariff for all metered consumers and a monthly subsidy allocated as a credit to all residential consumers earning under R800 per month.

No of poor consumer units (<800pm income) = 16000

Amount of subsidy per CU earning under R800/month: R17,90

Note: Calculated as total subsidy amount (including ES) divided by households earning under R800pm. Subsidy amount applies to all poor consumers (served and unserved)

Municipality R

Based on the following:

- Majority of consumers are not billed.
- Majority do not have yard connections
- C/A ratio for metered residential consumers is 0,5, which is low.

Council decides to apply a service level targeting approach, with those having a restricted supply, public standpipe or non-reticulated supply receiving a subsidy.

With 28 000 consumer units who do not have unrestricted yard connections, the average subsidy per consumer is R13,00 per month. This is sufficient to cover the cost of providing this service level and, therefore, those with restricted supplies, public standpipes and non-reticulated supplies can get the service free.

Note: Subsidy amount applies to all poor consumers (served and unserved)

Step 8: Complete pricing policy

The Municipal Systems Act requires all municipalities to prepare a pricing policy, with the provision of free basic services being a key part of such a policy. This step deals with the approach to be taken to incorporate free basic water into the pricing policy of a typical municipality.

Subsidy framework

- *Need for a subsidy:* If an individual is paying less for their water supply than the cost of providing the service then they are receiving a subsidy. The subsidy can come from other water consumers who pay more than the cost of their service or it can come from outside the water account (other sources of finance available to the WSP)
- *Need for subsidy framework:* A subsidy framework is an essential part of a pricing policy. An approach to setting up a subsidy framework is described in a guideline on municipal services tariffs being prepared by DPLG. Emphasis is placed on transparency, equity and ease of implementation.
- *Subsidy options:* The selection of the subsidy option is the key to success. This aspect is covered in a guideline prepared by the former Department of Constitutional Development. The basic options for applying a subsidy from outside the water account are summarised below.

Option	Advantages	Disadvantages
Demand side		
- Coupons/vouchers	Consumer can choose service provider	Difficult to target; often expensive to run.
- Credits	Relatively simple to administer	Requires a billing system.
Supply side		
- Payments to WSP	Simple to administer	Poor targeting; does not promote efficiency of WSP, unless operated on strict business principles

Determining the subsidy amount per consumer

- *Importance of knowing the amount:* Determining a subsidy amount is essential with all the poverty relief options. However, it becomes particularly important in the case of the targeted credits as the amount of the credit per consumer needs to be specific.
- *Calculating the amount – service cost basis:* Under a 'free basic water' policy the amount of the subsidy has to be sufficient to cover the cost of providing the basic supply (6kl or some other amount determined by the local authority). Therefore the starting point is to calculate how much it costs to provide the service per consumer. Then the number of consumers who are targeted to receive the subsidy need to be calculated. If the local authority cannot raise the funds to subsidise all those who are targeted at the level of supply assumed, then either the number of consumers or the basic amount to be subsidised needs to be reduced.
- *Calculating the amount – available funds basis:* Approaching the subsidy calculation from the opposite direction, the starting point can be based on the amount of funds available. The total amount of funding available for subsidy is then divided by the number of consumers to be targeted, to get a subsidy per consumer. It is then up to the WSP to use this subsidy to greatest effect to provide as much of the service 'free' as possible.

Setting the local subsidy rules

- *The importance of rules:* If the local authority wishes to have a transparent policy which promotes (1) access to water supply by the poor and (2) efficiency on the part of the services provider, then a clear set of rules needs to be established for the area.
- *Content of the rules:* The rules should state:
  - The group to be targeted.
  - The amount of subsidy to be provided per consumer.
  - Any time related variation, with clear provision for the basis on which changes will be made.
  - Any variation to be provided to the subsidy amount and the reasons for this.
  - The requirements for WSPs to access the subsidy.
  - The method of disbursement.
- *Allowing for phasing:* Due to the fact that local authorities are in a state of transition and that the funding sources they have at the moment are uncertain, it is appropriate to provide for a phasing of the subsidies. This can be related to the strategy ordering process: establish figures for a first order strategy and make provision for changing them in the future. Obviously it would be wise to start low and increase subsidies progressively until a final (third order strategy is completed).

Subsidy targeting

The national 'free basic water' strategy document and the DCD subsidy guideline provide examples of targeting options. These can be summarised as follows:

Targeting option	Applicability
Consumption based measures	The use of a rising block tariff with a free first block is essentially consumption based targeting: Those that use little get the service free.
Service level targeting	This has been discussed earlier: providing a relatively low level of service free targets the poor. Self selection of the service level, where this is possible, promotes the workability of this option.
Income based measures	Household income is the most conventionally used measure of poverty. However, it is often difficult to measure.
Other measures of poverty	The quality of dwelling is one example of another measure.
Geographic targeting	The subsidy can be provided to all those living in an area with certain characteristics.
Combination options	For example, geographic targeting can be used in combination with housing quality (those with expensive houses can be excluded).

Tariff structures – residential

Once the subsidy framework has been established under the pricing policy then tariffs need to be addressed. Tariffs need to comply with the 'Section 10' regulations to the Water Services Act.

The range of options for residential consumers is summarised below:

- *Use of fixed monthly charges (also called basic charges or availability charges):* Fixed charges are not encouraged for unrestricted supplies as they do not promote equity, conservation or efficient management. However, they may be applicable for restricted supplies in some cases.
- *Applicability of fixed monthly charges:* While fixed monthly charges are not recommended as the only tariff they may be necessary where:
  - A rising block is selected but there is insufficient funding to cross subsidise through only using a rising block tariff.
  - The municipality has a large number of holiday homes.

  In both cases the fixed monthly charge may need to be levied in addition to a consumption charge. However, the fixed monthly charge needs to be excluded for those targeted for poverty relief. If a rising block tariff is being used this can be done by levying the fixed charge only on those consumers using above the poverty relief consumption level (See Durban case study). Where a credit system is being used the credit will have to be sufficient to cover the fixed monthly charge.
- *Fixed monthly charges varied for different groups:* The option of the fixed monthly charge being one amount for all except those targeted for poverty relief has been raised above. It is also possible to vary the charge for different socio-economic groups. This creates a transitional arrangement (See Hermanus case study).
- *Rising block tariffs:* This is the required tariff for use with the poverty relief option based on rising blocks. For the tariff to be 'pro-poor' it can not be associated with a fixed monthly charge to all consumers, as stated above.

- *Flat rate tariffs (the same amount for each kl consumed irrespective of the amount used):* If the poverty relief option is based on targeted credits or service level targeting, then either rising block or flat rate tariffs can be used for the consumption related charge. However, flat rate tariffs are simpler and often more suited to B3 and B4 municipalities.

Tariffs for non-residential consumers

- *Cross subsidise from businesses?* A key decision facing municipalities is whether to cross subsidise from commercial and industrial enterprises to poor residential consumers. The argument for this is that business has a responsibility at the local level to assist the poor. The argument against is that if local economic development is to be promoted then the input costs to business should be kept low. This is a local choice but the current view of national government is that municipalities should keep tariffs to commercial and industrial consumers as cost reflective as possible (no cross subsidies).
- *Tariff structures for non-residential consumers:* The use of rising block tariffs for non-residential consumers is not recommended unless it is used with the concept of residential unit equivalents (RUEs). This is because larger users end up paying for most of their consumption in the top block which may be highly inequitable.

'Affordable' tariffs where zero tariffs not possible

Based on analysis it may be found that it is not possible for a municipality to provide water to the poor at a tariff of zero, as there is an insufficient amount of subsidy available. In this case the municipality should strive to apply what subsidy there is to reduce tariffs to the poor to an affordable level.

Tariff calculations

Pre-requisites: All calculations require a sound understanding of consumers, consumption
patterns and costs.

Methods: Various methods are available to assist local authorities in making calculations:

- Local authorities own models (usually based on a PC spreadsheet) which they have used for tariff setting historically.
- The 'Free basic water' model which is provided as part of this package of tools for local authorities. (See model).
- Multiple block model tariff setting model developed for DWAF's water conservation programme.
- The Water Supply Services Model (WSSM) developed by Palmer Development Group for the Water Research Commission which is aimed at assessing long term implications of service level and tariff decisions.

Integration with budget cycle

The process of preparing an upgrading pricing policy needs to be integrated with the annual budget cycle so that tariffs can be set based on the policy at the start of the financial year.

Worked examples Step 8

Note: Pricing policy requires a wide range of issues to be addressed, not all of them relating to free basic water. Key pricing policy issues which relate to FBW include the subsidy framework and the tariff structure. A summary of each of the key issues for the example municipalities is given below.

Municipality U

Subsidy framework

- Decision is taken not to apply subsidies to the water account.
- A 'cross subsidy' is to be applied with income from sales of above 30kl/month per consumer used to subsidise the cost of providing 6kl/month free to all consumers.
- Industrial and 'other' consumers are charged at cost-reflective tariffs with no cross-subsidy to the residential consumers.

Tariff structure

- Residential consumers have a rising block tariff with 3 blocks and no fixed monthly charge.
- Block limits: 6 and 30 kl/month
- Non-residential consumers to have a uniform tariff with a fixed monthly 'availability' charge.
- Public standpipe water to be provided free of charge

Municipality M

Subsidy framework

- Policy is to be consistent with an approach of targeted credits to the poor (less than R800 - 1100pm/hh income)
- Equitable share funds and funds from district to be used for subsidy
- Based on estimate of number of poor households and current equitable share allocation the credit per poor consumer is calculated at R17,90/CU/month.
- For those poor consumers who have a yard connection and are billed this credit is applied to their bill.
- A campaign is launched to meter all unmetered yard connections and bill these consumers.
- In the case of public standpipes the cost of running the service for each service provider is calculated on a per consumer basis. Providing this is lower than the subsidy per consumer limit, the amount per consumer served is paid to the service provider. If the cost is higher, the amount paid to the service provider is limited to the subsidy amount and the consumer must pay the balance.

Tariff structure

- Tariffs set for full cost recovery. Affordability dealt with through credits.
- Metered yard connections: uniform tariff
- Public standpipes and yard tanks: fixed monthly charge
- Non-reticulated sources: no charge

Municipality R

Subsidy framework

- Consumers with yard connections get no subsidy
- For all other consumers, and those who are unserved, a subsidy amount is calculated as the total subsidy amount allocated to water divided by number of consumers.
- For those with public standpipes service the same rules apply as for Municipailty M.
- For those with no service the subsidy per customer is allocated to an account which is used for planning and capacity building related to water supply for their areas.

Tariff structure

- Metered yard connections: uniform tariff
- Public standpipes and yard pipes: fixed monthly charge = zero if cost is below subsidy per consumer limit
- Non-reticulated sources: no charge

Step 9: Financial arrangements with WSPs

Subsidising WSPs or consumers: basic principles

- *Primary principle*: Where a WSA is reliant on WSPs to provide services on their behalf, it is essential for funds to be transferred to the WSP or credited to consumers. If this is not done a 'free basic water' policy will not work, as WSPs will not have sufficient funds to provide services free and run the system effectively.
- *Exception in applying the primary principle*: If the WSP is serving an area with a high proportion of larger users - typically an area which is economically strong - it may be possible for viability to be maintained without a transfer of funds from the WSA.
- *Importance of subsidy rules for the municipal area:* For a local free basic water supply policy to be successful in a situation where partnerships are desired, it is essential for the municipality to establish a clear set of rules for allocating subsidies. These should be applied equitably to all communities and the WSPs who serve them. Examples of the rules are given later in this section.
- *Transfer to WSP or subsidise consumers directly?* This aspect is dealt with in a guideline produced by DPLG on applying subsidies. In principle it is best to subsidise consumers directly. However, this is often difficult to do and it may be necessary to subsidise the WSP. However, the subsidy must be transparent and must be identified as an amount per poor household with clear targeting criteria determined. The method of doing this depends on local circumstances, with some examples given later in this guide.
- *Payments to bulk WSPs:* In general the payment of subsidies to bulk WSPs should be avoided. It is better to pay the subsidies to the retailer or direct to consumers and they can use this money to pay bulk WSPs for their service. This promotes efficiency within bulk WSPs. However, in situations where the retail WSP is a community based organisation the municipality may choose to pay bulk WSPs direct. However, this should be done based on an agreement with the retail WSP on the amount to be paid on their behalf per consumer.
- *Payment of so called support services agents (SSAs):* Where community based or SMME type WSPs are being used it is often appropriate for the WSA to appoint a SSA. Ideally this SSA should be paid by the retail WSP. However, the municipality may choose to pay the SSA an agreed amount on behalf of the WSP.
- *Setting incentives:* WSPs can only be subsidised based on a clear set of conditions which include incentives for them to perform. These conditions should include:
  - Maintaining or improving the quality of service to consumers according to an agreed measure.
  - Improving coverage (which will mean an increased subsidy).
- *Setting controls:* Regardless of whether the WSP is being subsidised the WSA is obligated to regulate the performance of the WSP. However, if a subsidy is being applied the obligations of the WSA to monitor become more stringent.
- *Build into contact:* The tariffs to be applied by WSPs, and the subsidy amounts payable to them, must be built into the contract between the WSA and WSP. This is a requirement under the DWAF 'Section 19' regulations to the Water Services Act.

Worked examples Step 9

Notes: The importance of clear subsidy rules has been stressed under Steps 7 and 8. This applies particularly to WSPs who are contracted by the WSA and who will need to access the subsidies if they are to provide FBW to the poor. Examples of certain rules and the process of negotiating over them are given below. It is notable that in situations with a variety of water services institutions (See Municipality R) rules will have to be developed for retail WSPs, bulk WSPs and support services agents.

Municipality U

In the worked example, the WSA is also the WSP so the payments to an external WSP are not required. However, it is useful to understand the process which would be followed if the WSA wished to contract an outside WSP:
In this case the level of subsidy should be laid down at the start of the negotiation or tendering process. However, potential WSPs could be requested to make offers on reduced subsidy requirements. The negotiation process can be set up as
follows:

- The WSA should enter the negotiation with a completed assessment of the amount of subsidy it is prepared to provide per poor consumer.
- However, once again the first option to be considered may be a situation with no subsidy to the WSP or consumer.
- Tariffs under the 'no subsidy' option can be compared with the level of subsidy which the WSA is prepared to apply.
- The decision needs to be taken by the WSA based on affordability of the tariffs to consumers.
- Once the decision has been taken it has to be written into the contract.

Municipality M

In this case the arrangements for the community based WSPs could be applied as for Municipality
R. The 'urban' arrangements would be as for Municipality U.

What is important in a situation with multiple service provider arrangements is that the level of subsidy is consistent for all consumers and all WSPs.

Municipality R

Subsidy arrangements

- The district has undertaken a study to investigate the costs of water supply in its area, using case studies which are representative of the variety of situations in its area.
- Based on the cost study, and an assessment of funds available to it, the district has agreed on a first order pricing policy which allocates subsidy funds for water services as follows:

Function	Amount of subsidy per CU earning under R800 pm (R/month)
Local retail activity	R5
Support services	R3
Bulk services – large schemes	R8
Bulk services – small schemes	R3

- Based on this assessment the WSA allocates R16 per CU served by large schemes and a SSA supported retail provider, and R11 for those CUs served by small schemes and the same retail arrangement.
- For larger settlements where the company is the (retail) WSP, R13 is allocated per poor CU to offset the costs of bulk supply from a large scheme and for local retail activity. This is paid to the company.
- For small settlements the community based WSP is allocated R5 per poor CU. In addition R3 per poor CU is paid to the SSA in its behalf. Further, if the WSP is running its own local bulk system it is allocated R3 per poor CU for this. Finally if the settlement is served by a large scheme, R8 is allocated to the company on behalf of the WSP

Step 10: Set up management arrangements

'Free basic water' requires good management

It needs to be noted that for success to be achieved with free basic water it is necessary to have sound management arrangements. This means that WSAs and WSPs need to place strong emphasis on building their own capacity and, where necessary, contracting in expertise.

Improving information

- *Motivation:* It is evident from this guideline that for a free basic water policy to be successful good information is required by the local authority. Therefore a good management information system is required to improve on 'free basic water' arrangements.
- *Poverty database:* A poverty database is needed if a targeting approach is used.

Consumer relations

Good communication with consumers is necessary for a local 'free basic water' policy to be successful. This is particularly important over the transition where consumers (and the un-served) will often not know what is expected of them.

Payment for services fosters some level of accountability on the part of the service provider to the customer (consumer). With the introduction of a free service this line of accountability is weakened. The service provider may tend to reprioritise accountability to the payer (WSA). It is important to involve communities in the planning process particularly on decisions regarding service standards and types of services to be offered by the WSPs including the related subsidies. This will help to mobilise the communities to assist the WSA in monitoring and regulating the WSPs.

Monitoring arrangements

Water services authorities need to set up monitoring arrangements to assess the extent to which a 'free basic water' initiative is working. These arrangements must include formal mechanisms of getting feedback from consumers.

Worked examples Step 10

Notes: The management arrangements required are complex and, typically, integrate with the normal activities of an effective water services institution. Therefore, it is not possible in this guideline to identify everything which needs to be done. However, some pointers are raised below for each worked example.

Municipality U	**Municipality M**	**Municipality R**
As the municipality retains the WSP function for the 'urban' core, the monitoring of external organisations is limited to farmers who may be appointed as WSPs.	Key issues with regard to management arrangements are similar to those for Municipality R.	The WSA sets up a regulatory unit to oversee the contracts with all its WSPs and support services agents. This units collects information on the performance of the WSPs and takes action against those who do not perform. With regard to free basic water the unit ensures that funds allocated to the WSPs are properly used to provide services to the poor. The WSA also ensures the WSPs maintain sound relations with their customers, particularly those receiving 'free' services.