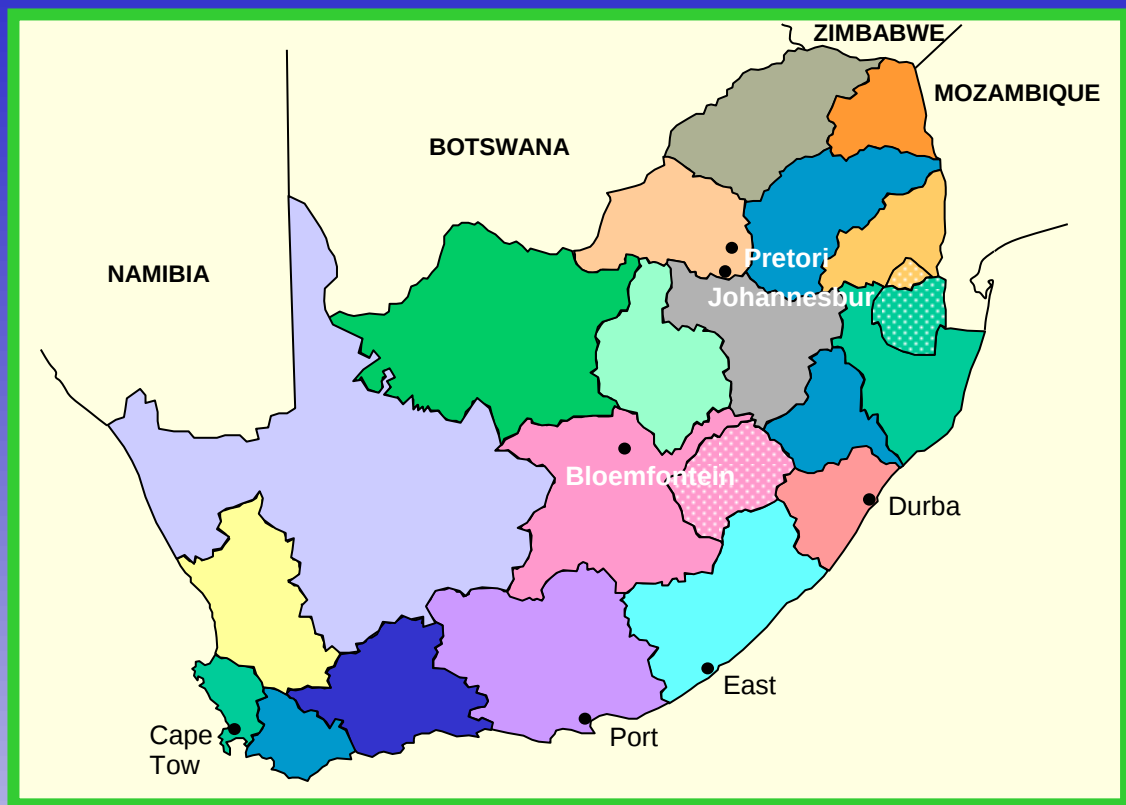




THE WATER MANAGEMENT AREAS OF SOUTH AFRICA

AUGUST 1999

**CATCHMENT
MANAGEMENT
REPORT**



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1) BACKGROUND

South Africa has developed a new water policy and legislation, in order to ensure that all people have equitable access to water. The cornerstone principles underlining the National Water Act (36 of 1998) are equity, optimal use and sustainability. The National Water Act of 1998 prescribes a two-tier approach to the development of strategies to facilitate the management of water resources.

At a **National level**: the Act requires the progressive development, by the Minister, of a National Water Resource Strategy. The National Water Resource Strategy provides the framework for the protection, use, development, conservation, management and control of water resources for the country as a whole. It also provides the framework within which water will be managed at regional or catchment level, in defined **Water Management Areas**.

At **catchment level**, the Act provides for the progressive establishment, by the Minister, of **catchment management agencies** for **each Water Management Area**. Every catchment management agency is required to progressively develop a catchment management strategy for the water resources within its Water Management Area. Catchment management strategies must be in harmony with the national water resource strategy. In the process of developing this strategy, a catchment management agency must seek co-operation and agreement on water-related matters from the various stakeholders and interested persons situated within the Water Management Area.

The purpose of establishing these agencies is to devolve water resources management to the regional or catchment level and to involve local communities, within the framework of the National Water Resources Strategy. Whilst the ultimate aim is to establish catchment management agencies for all Water Management Areas, the Minister acts as the catchment management agency in a Water Management Area where one has not been established.

The Minister has published a schedule of the proposed Water Management Areas in the **Government Gazette of 31 December 1998** for written comment **Appendix A**. Comments from stakeholders were received and considered by the Department (see **Appendix B**), after which, taking into account these comments the boundaries of the Water Management Areas, were finalised (see **Appendix C**).

2) PURPOSE OF THIS DOCUMENT

The purpose of this document is to create a platform on which the water management institutions will be established and can operate. This document will define the finalised boundaries of Water Management Areas taking into account the comments received from all the stakeholders as well as the criteria that were considered in formulating the preliminary proposals for Water Management Area.

3) DEFINITION OF A WATER MANAGEMENT AREA

The difference between a Water Management Area and a catchment is explained below:

- A **“Water Management Area”** is an area established as a management unit in the National Water Resource Strategy within which a catchment management agency will conduct the protection, use, development, conservation, management and control of water resources.
- A **“catchment”** means the area from which any rainfall will drain into the watercourse or watercourses or part of a watercourse, through surface flow to a common point or points.

In other words, a catchment boundary comprises the watershed and the sea and is a topographical fact. The Water Management Area on the other hand, is an institutional concept and is determined by the Minister after following the prescribed consultative process. The catchment boundaries are however an important criteria in determining Water Management Area boundaries.

Conceivably, a Water Management Area could either coincide with a catchment, comprises a portion or portions of a catchment, or could incorporate an area larger than a single catchment.

Furthermore, the area of operation of a catchment management agency is the Water Management Area, and not the catchment. Hence, the Act requires a catchment management agency to progressively develop a catchment management strategy for the water resources within its Water Management Area.

3.1) Criteria Used for Defining Water Management Areas

In determining a Water Management Area, the National Water Act prescribes that the Minister must take into account:

- (a) Watercourse catchment boundaries;
- (b) Social and economic development patterns;
- (c) Efficiency consideration; and
- (d) Communal interests within the area in question.

Hence, the following considerations are important in determining the boundary of a Water Management Area:

- Natural hydrological boundaries.
- The potential for achieving the catchment management agency’s financial viability in the medium to long-term. The financial viability would in turn depend on factors such as the size and demographics of the population and the volume and value of potential water sales.
- The requirements for knowledge, expertise and experience in respect of:
 - Water resource management,
 - Operation and management of existing water-related infrastructure,
 - Co-ordination of interactions among water use sectors and political groupings, and
 - Interaction with other institutions.

3.2) Large versus small Water Management Areas

Before delineating Water Management Areas, an indication is required of the size of an optimum Water Management Area, or stated differently, an indication is required on approximately how many Water Management Areas should be delineated in order to achieve countrywide coverage.

Two approaches are possible, each with their merits and drawbacks. Countrywide coverage could be obtained through many (say 100 or more) Water Management Areas of relatively small size delineated around issues of local concern. Alternatively there could be relatively few Water Management Areas with catchment management agencies responsible for multi-catchment management and empowered to resolve issues of regional importance.

In deciding on an approach, the following should be considered:

- A balance must be found between selecting areas that are too big for the catchment management agency to manage effectively on a regional basis or of such limited geographic extent that special interest groups dominate them.
- A catchment management agency needs to be financially self-sustainable, which presupposes a certain minimum critical scale of operations.
- Smaller Water Management Areas would dictate a larger input by the Central Government in order to resolve numerous inter-catchment water allocation issues, which implies that the national water resources strategy would need to be concerned with micro level strategy. Larger Water Management Areas on the other hand would enable the resolution of many inter-catchment water allocation problems by the catchment management agency. In other words, larger catchment management agencies would promote the resolution of inter-regional (within a region) water allocation and other interfaces problems at a regional level by regional representatives, while freeing the national strategy to focus on inter-regional (between regions) allocations and interfaces.
- The overheads and senior staff requirements of a large number of smaller Water Management Areas may be an unnecessary drain on the limited pool of skills and financial resources available in the country.
- There can be only one catchment management agency per Water Management Area. A Catchment Management Agency is empowered to delegate specific water management functions relating to specific geographic areas, within its Water Management Area, to local level sub-committees or management units and may also be informed on local issues by non-statutory catchment forums.

- It would not be easy to combine smaller catchment management agencies into a larger catchment management agency at a later stage. New Water Management Areas would have to be established to change the area of jurisdiction of a catchment management agency, which implies the dismissal of existing Boards and CEO's. Subdividing a large catchment management agency into two or more smaller catchment management agencies would also require the establishment of new Water Management Areas but it is thought that this would be easier to accomplish as additional CEO's and Boards would be required, rather than fewer. Ideally, however, the boundaries of Water Management Areas would remain stable over time so that the establishment of strong institutions and the development and implementation of catchment management strategies can proceed without major disruptions.

Strategically it would be prudent to rather start with fewer, but relatively large, Water Management Areas, which can be managed by establishing sub-committees or management units under each catchment management agency, as the need arises. These sub-committees or management units within the declared Water Management Area will accommodate the participation of local interest groups within the umbrella of the larger and financially viable catchment management agency, which would be a body with sufficient area of jurisdiction to be capable of resolving issues of catchment-wide importance.

In making an initial selection of the Water Management Areas it is accordingly suggested that approximately 20 Water Management Areas would be an optimum number to achieve countrywide coverage.

Knowledge and expertise was made available by existing regional offices water boards, water user associations, catchment forums, and organised stakeholder groups within the Water Management Area.

4) PROCESS FOLLOWED IN DEFINING AND FINALISING THE BOUNDARIES OF THE WATER MANAGEMENT AREAS.

- Firstly an internal DWAF workshop was held to determine criteria for definition of Water Management Areas and formulating preliminary proposals for the boundaries of Water Management Areas
- Obtained approval for proposed Water Management Areas from DWAF Management (MANCO)
- The boundaries were refined with input from Regional offices
- Minister published a notice in Gazette on 31 December 1998
- The Water Management Area map was published in 18 newspapers nation wide. The regional offices held workshops, forum meetings and one-on one approach with the stakeholders.
- Comments received by stakeholders 31 March 1999
- Comments received from external stakeholders and regional offices were divided amongst Water Management Areas.
- A copy of the comments was forwarded to each Regional office having jurisdiction over the relevant Water Management Area.

- A meeting was scheduled between the relevant Directorates at head office where the comments and proposals were considered.
- Meetings were scheduled between the Directorate Catchment Management and the regional offices, (external stakeholders were also invited in the Water Management Areas where they made a contribution)
- Consensus was reached at the above-mentioned meetings.
- DWAF management approved the finalised boundaries on 4 August 1999.
- The Minister's approval of the Water Management Areas (September 1999)
- Publication of the Water Management Areas in the Government Gazette (1 October 1999, Notice No. 1160)

5) FINALISED WATER MANAGEMENT AREA BOUNDARIES

The Water Management Areas that are finalised for publication are as follows:

1. The Limpopo WMA.
2. The Luvuvhu and Letaba WMA.
3. The Crocodile (West) and Marico WMA.
4. The Olifants WMA.
5. The Inkomati WMA.
6. The Usutu to Mhlathuze WMA.
7. The Thukela WMA.
8. The Upper Vaal WMA.
9. The Middle Vaal WMA.
10. The Lower Vaal WMA (Bloemhof Dam down to the confluence of the Vaal and Orange).
11. The Mvoti to Umzimkulu WMA.
12. The Mzimvubu to Keiskamma WMA.
13. The Upper Orange WMA.
14. The Lower Orange WMA.
15. The Fish to Tsitsikamma WMA.
16. The Gouritz WMA.
17. The Olifants/Doorn WMA.
18. The Breede WMA.
19. The Berg WMA.

The **changes** made to the proposed Water Management Area boundaries (see Appendix A for the Government Notice) can be summarised as follows:

Major changes:

- The Upper/Middle Vaal was split into two separate Water Management Areas, namely, the Upper and Middle Vaal, both of which are financially viable. The Mooi River, Wilge River and Wonderfontein spruit are incorporated into the Upper Vaal WMA because these are interconnected with the dolomitic water sources as well as the mining activities around the area.

Relatively minor changes:

- Quaternary catchment D41A was incorporated into the Crocodile (West) and Marico Water Management Area as the ground water (dolomitic water) sources feed into this Water Management Area.
- Quaternary catchment D73A was incorporated into the Lower Vaal Water Management Area so as to include Postmasberg, which is reliant on water from this Water Management Area. Also the boundary of the Lower Vaal was extended to the confluence of the Kuruman and Molopo Rivers.
- Quaternary catchment C92C was incorporated into the Lower Orange Water Management Area so as to include some of the farmers reliant on irrigation supply from this Water Management Area (as requested by the Oranje Vaal Irrigation Board).
- Tertiary drainage region K70 was incorporated into the Gouritz Water Management Area as the rivers in this drainage region form part of Nature's Valley and have very similar ecological characteristics as others in the lower Gouritz Water Management Area.
- The stakeholders reached consensus and the regional office for the Water Management Area to remain the same as proposed except that the northern boundary follows the watershed between tertiary drainage regions G10 and G30 up to the town of Aurora. From Aurora the boundary runs directly to the coast in a westerly direction.
- Tertiary drainage region F50 was moved from the Olifants/Doorn Water Management Area and was incorporated into the Lower Orange. Groundwater from this drainage region provides an important resource for the Lower Orange.
- The names of Water Management Areas 9 and 10 were amended to be Mzimvubu to Keiskamma (previously Mzimvubu to Buffalo) and Fish to Tsitsikamma (previously Fish to Gamtoos), respectively.

6) DETAILS OF FINALISED WATER MANAGEMENT AREAS AND BOUNDARIES

A map of the finalised Water Management Areas is given in Appendix C, however, a description of these areas is provided below.

1. Limpopo WMA

No comments were received and so the Water Management Area boundary is to remain unchanged. This Water Management Area covers tertiary drainage regions A41, A42, A50, A61 to A63, A71, A72 and A80.

2. Luvuvhu and Letaba WMA

Comments received by stakeholders were withdrawn. The Water Management Area and boundary to stay the same as proposed. This Water Management Area incorporates tertiary drainage regions A91, A92, B81 to B83 and B90.

3. Crocodile (West) and Marico WMA

The finalised Water Management Area covers tertiary drainage regions A10, A21 to A24, A31, A32 and quaternary drainage region D41A.

4. Olifants WMA

No comments were received. As a result the Water Management Area boundary is to remain unchanged and covers tertiary drainage regions B11, B12, B20, B31, B32, B41, B42, B51, B52, B60 and B71 to B73.

5. Inkomati WMA

This Water Management Area boundary is to remain unchanged. This Water Management Area covers primary drainage region X.

6. Usutu to Mhlatuze WMA

This Water Management Area boundary is to remain unchanged and covers primary drainage region W.

7. Thukela WMA

This Water Management Area boundary is to remain unchanged and covers primary drainage region V.

8. Upper Vaal WMA

The downstream boundary of this Water Management Area is the southern and western boundaries of the tertiary drainage regions C23, C81 and C83. Therefore, this Water Management Area covers tertiary drainage regions C11 to C13, C21 to C23 and C81 to C83.

9. Middle Vaal WMA

The downstream boundary for the Middle Vaal Water Management Area is Bloemhof dam and therefore, covers tertiary drainage regions C24, C25, C41 to C43, C60 and C70.

10. Lower Vaal WMA

The Postmasburg area is incorporated into the Lower Vaal area to include the Vaal-Gamagara bulk water supply. This area therefore covers tertiary drainage regions C31 to C33, C91, C92 (excluding quaternary catchment C92C), D41 (excluding quaternary catchment D41A), and quaternary catchments D73A and portions of D42C, D42D, D73B, D73C, D73D and D73E. The western boundary of this area runs from the confluence of the Kuruman River with the Molopo River along the watershed between quaternary catchments D42C and D42D until it meets the boundary of the Kalahari East Water Board. The Water Management Area boundary then follows this Water Board boundary to Westbury, east of Postmasburg. The Water Management Area boundary then runs South East to meet the watershed between quaternary catchments D73A and D73B. The boundary then follows this watershed, and that between D73A and D71B, until it meets the watershed of tertiary catchment C92.

11. Mvoti to Umzimkulu WMA

The boundaries of this Water Management Area are to remain unchanged. This Water Management Area covers primary drainage region U and tertiary drainage regions T40, T51 and T52.

12. Mzimvubu to Keiskamma WMA

The boundary of this Water Management Area is to remain unchanged and covers primary drainage regions R and S, and also tertiary drainage regions T11 to T13, T20, T31 to T36, T60, T70, T80 and T90.

13. Upper Orange WMA

This Water Management Area has been altered slightly and covers tertiary drainage regions C51, C52, D11 to D18, D21 to D24, D31, D32, D34 and D35.

14. Lower Orange WMA

The Water Management Area boundary with the Lower Vaal has been adjusted to incorporate tertiary drainage region F50 and quaternary catchment C92C. Therefore, this Water Management Area incorporates primary drainage region F (excluding tertiary drainage region F60), tertiary drainage regions D33, D42 (excluding quaternary catchment D42C and portions of D42D), D51 to D58, D61, D62, D71 to D73 (excluding quaternary catchment D73A and portions of D73B, D73C, D73D and D73E), D81, D82, and quaternary catchment C92C.

15. Fish to Tsitsikamma WMA

Water Management Area boundary to remain unchanged and covers primary drainage regions L, M, N, P, Q and tertiary drainage regions K80 and K90.

16. Gouritz WMA

This Water Management Area was changed slightly to include tertiary drainage region K70 and, therefore, covers primary drainage region J and tertiary drainage regions H80, H90, and K10 to K70.

17. Olifants/Doorn WMA

This Water Management Area was changed slightly in that tertiary drainage region F50 was moved to the Lower Orange Water Management Area. Therefore, this Water Management Area now covers primary drainage region E and tertiary drainage regions G30 and F60.

18. Breede WMA

The external stakeholders and regional office reached consensus for the Water Management Area to remain the same and covers tertiary drainage regions G40, G50, and H10 to H70.

19. Berg WMA

This Water Management Area incorporates tertiary drainage regions G10, G21, and G22, but has changed slightly in that the boundary follows the watershed between G10 and G30 up to the town of Aurora, from where it runs directly to the coast in a westerly direction.

7) CONCLUSIONS

The finalised Water Management Areas create a framework where in the catchment management agencies can be established to perform the functions of protect use develop conserve manage and as well as contribute to the national water resource strategy.

8) APPENDIX A

This Appendix includes the **Government Gazette of 31 December 1998**, which published a schedule of the proposed Water Management Areas for written comment.

9) APPENDIX B

This Appendix includes tabulated comments received in response to the Government Notice No. 1697 dated 31 December 1998 relating to the Water Management Areas.

GENERAL COMMENTS

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
1	Dated 23/3/99 and received 26/3/99	Director: Mineral Development, KwaZulu-Natal, Department of Minerals and Energy	Concerning WMA's covered by the Department of Minerals and Energy: KwaZulu-Natal, there are no comments on the condition that these areas do not tie up or sterilises any of the mineral resources of this Province.	Noted.
2	Dated and received 31/3/99	F C van Zyl Chairman: Jukskei River Water Quality Steering Committee and Crocodile River Catchment Task Team	WMA's do not reflect population distribution, type of consumption, political boundaries or social economic activities. A rational approach to subsidisation of areas that are not independently financially viable will need consideration. The areas are too big and will not facilitate cooperative and participative management. Real integrated management will not be achieved.	See Section 3.1. Noted. See Section 3.2.
3	Dated and received 11/3/99	K H Cooper Director: Wildlife and Environment Society of South Africa	WMA's are large and there is a concern that if the CMA is responsible for too large an area, then the structure required to communicate with committees and forums will be too large.	See Section 3.2. The establishment of Catchment Management Committees mitigates this. (See Sections 82(5) and 86 of the NWA)

4	Dated and received 7/4/99	Regional Director Water Resource Management: Eastern Cape	If rivers do not have to be used in the names of WMA's, collective names describing the WMA's might be preferred.	Noted.
5	Dated and received 11/03/99	T Demana Standards and Environment Department of Trade and Industry	WMA's seem to have been appropriately drawn up for their intended purposes and will be beneficial to South African communities.	Noted.

GENERAL COMMENTS (continued)

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
6	Dated 6/04/99 and received 7/4/99	A J Dippenaar Chief Executive Goudveld Water	The WMA's may overlap with more than one Water Boards' area and a Water Board's area may span more than one WMA.	Noted.

COMMENTS ON THE FISH TO GAMTOOS

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
7	Dated and received 5/11/98	Regional Director Water Resource Management: Eastern Cape	The L, M, N, P, and Q primary catchments should be lumped together as both the Port Elizabeth Metropolitan Area and Grahamstown are dependant on all of these catchments. The Tsitsikamma and Kromme rivers are should fall into the Fish to Gamtoos WMA as they have been earmarked to provide water for Port Elizabeth.	Notice amended see WMA No. 10. Notice amended.
8	Dated and received 29/3/99	City Engineer Port Elizabeth City Engineers Department	Fish to Gamtoos WMA should be named Algoa WMA	The WMA may be renamed and this will be considered.
9	Dated 31/3/99 Received on 12/4/99	Dr B. Gale AquaCatch cc	Fish and Gamtoos should be split into separate WMA's due to differing ecological characteristics and environmental requirements. Need a South Coast and a South East Coast WMA in the lower parts of these catchments as these small coastal systems have similar characteristics in distinct climatological zones.	See Section 3.2 and Comment 7.

COMMENTS ON THE FISH TO GAMTOOS (continued)

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
10	Dated and received 7/4/99	Regional Director Water Resource Management: Eastern Cape	Fish to Gamtoos WMA should be named Fish to Tsitsikamma or Fish to Bloukrans	Notice amended.

COMMENTS ON THE MZIMVUBU TO BUFFALO

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
11	Dated and received 5/11/98	Regional Director Water Resource Management: Eastern Cape	Umzimvubu should be included together with the Mbashe and Buffalo rivers as this would mean that this would be the responsibility of the Eastern Cape Region and not a shared responsibility with KwaZulu-Natal. Furthermore, the priorities of users in the Umgeni and Umzimvubu catchments are somewhat different. The Umzimvubu and Mtata should be brought together, as these catchments have been ear-marked for major afforestation development.	Notice amended. Notice amended.
12	Dated and received 11/12/99	Regional Director Water Resource Management: KwaZulu-Natal	The Mzimvubu should not be included in this WMA.	See Comment 11.
13	Dated and received 7/4/99	Regional Director Water Resource Management: Eastern Cape	Name should be changed to Uzimvubu to Keiskamma as the name currently implies that the Buffalo catchment is the last one, which it is not.	Notice amended.

COMMENTS ON THE LUVUVHU AND LETABA

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
14	Dated and received 7/12/98	M L J. Botha Chief Engineer Water Resource Management: Northern Province	There is no Pafuri River catchment. The Nwanedzi River is situated between the Nzhelele and Mutale River catchments, and should be included. Supports the demarcation.	Noted. Notice amended. Noted.
15	Dated and received 31/3/99	F C van Zyl Chairman: Jukskei River Water Quality Steering Committee and Crocodile River Catchment Task Team	The Luvuvhu should be incorporated into the Limpopo WMA and the Letaba should be incorporated into the Olifants WMA	The Regional Office does not support this recommendation: Northern Province.

COMMENTS ON THE MVOTI TO UMZIMKULU

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
16	Dated and received 11/12/98	Regional Director Water Resource Management: KwaZulu-Natal	The Mtamvuna should be included in this WMA as this river supplies water to the coastal towns from Port Shepstone to Port Edward, as does the Umzimkulu.	See Comment 11.
16a	Dated and received 20/7/99	Regional Director Water Resource Management: Eastern Cape	Tertiary drainage regions T31 to T36, as well as T60 must remain in WMA 9 and should not be included in the Mvoti to Umzimkulu WMA.	Notice amended.
17	Dated 4/3/99 and received 5/3/99	Regional Director Water Resource Management: KwaZulu-Natal	The Mzimvubu catchment should be included in the Mvoti to Umzimkulu WMA as it has strong economic ties with this WMA.	See Comment 11.
18	Dated and received 11/3/99	K H Cooper Director: Wildlife and Environment Society of South Africa	This WMA should be altered to incorporate the Provincial boundary, and therefore should include the Mtamvuna River.	See Comment 11 and see Section 3.1.

COMMENTS ON THE MVOTI TO UMZIMKULU (continued)

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
19	Dated and received 31/3/99	B Walford Chief Executive Officer: Umgeni Water Board	This WMA should be extended to include the Mooi River catchment as this River is to be used to augment the water requirements of the Mvoti to Umzimkulu WMA. The Mvoti to Umzimkulu WMA is economically stronger than the Mzimvubu to Buffalo WMA and therefore, the Mzimvubu should be included in the Mvoti to Umzimkulu WMA.	Not incorporated, as this will require the Thukela primary drainage region to be broken up. See Comment 11.

COMMENTS ON THE THUKELA

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
20	Dated 24/3/99 and received 1/4/99	Cathkin Park Transitional Local Council	Confirm that the water catchment area of Cathkin Park TLC is the southern portion of the area marked V13 of the Thukela WMA.	Noted.

COMMENTS ON THE USUTU TO MHLATUZE

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
21	Dated and received 11/3/99	K H Cooper Director: Wildlife and Environment Society of South Africa	This WMA should be altered to incorporate the Provincial boundary, and therefore should be Pongola to Mhlatuze.	Not considered a strong enough argument with regard to water resources management.

COMMENTS ON THE BREEDE

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
22	28-10-1998	Chief Director: Planning – Mr. P. van Niekerk	The Breede River should be treated as a separate WMA from the Berg as both are strong enough to support a CMA.	Notice amended.
23	18-12-1998	DWAF KZN – Mr. Norman Ward	The Breede and Berg WMAs should be combined forming a larger WMA, which could be easy to manage.	The Regional Office: Western Cape and their stakeholders do not support this idea.

24	04-03-1999 Received 05-03-1999	Kogelberg Biosphere Association	The Palmiet River catchment should be separated from the Breede WMA, and it should be grouped with some of the coastal river(s) to form a WMA: (i) The Palmiet River basin is an acclaimed area of special conservation status of international importance and it would be difficult for this catchment to comply with UNESCO's requirements if it is included in a WMA going beyond the borders of the biosphere reserve. (ii) The Breede and Sonderend rivers vastly differ from the Palmiet river system.	The Regional Office: Western Cape and their stakeholders do not support this recommendation after discussion with Head Office.
25	12-03-1999 Received 17-03-1999	Bredasdorp Municipality	Areas of Worcester, Robertson and Ceres should be excluded from the Breede WMA	See Comment 24.
26	24-03-1999 Received 15-04-1999	Onrust Lagoon Trust	Each river needs to be treated as a separate entity by the controlling body. There was no public exposure of the proposed WMA compiled by Q. P. Wolmarans on the 05-03-1999 it is therefore critical that the zoning should be reviewed.	This will lead to hundreds of WMA's, which will not be manageable by DWAF, nor will they be financially viable.

COMMENTS ON THE BREEDE (continued)

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
27	Received 29-03-1999	Department of Economic Affairs, Agriculture and Tourism – Western Cape	The public was not involved before the proposal of WMAs was published. No acknowledgement has been given to unique conditions that exist as well as requirements of the coastal rivers along the Overberg and Southern Cape area. There should be a WMA for the Overberg area and this should exclude the Steenbras River and include the Riversonderend system. (i) Riversonderend is a source of water for the whole Overberg (ii) Climatic, agricultural and vegetation conditions in this area are the same. (iii) The water on the Overberg area is more pristine as compared to the Breede River system, which has a high salt load.	Unfair comment: DWAF published the proposals for comment. There are many unique conditions, however, the aim is water resources management and not just the management of these unique areas. See Comment 24.
28	31-03-1999 Received 12-04-1999	Dr B Gale Aqua Catch cc	The Breede, Gouritz, Berg and Olifants/Doring WMAs should be demarcated by their specific catchment boundaries and exclude all the short coastal systems.	See Comment 24.

29	Received 31 03 1999	Department of Water Affairs – Western Cape Region	The Palmiet catchment should be removed from the Breede and be incorporated in the Overberg WMA. This proposal was made after some public consultation with the stakeholders in the different catchments. It was also agreed upon that the Breede and the Overberg should be separate WMAs to ensure better management of the areas.	See Comment 24.
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COMMENTS ON THE GOURITZ

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
30	Received 30-03 1999	Outeniqua Farmers Union	In the Gouritz WMA, the karoo area should be separated from the coastal area. (i) Climatic conditions are different. (ii) The topography is different and as thus the farming practices are also different. (iii) These therefore result in different risk profiles and could lead to faulty management decisions. Therefore cross subsidization from the intensive water users of the Outeniqua to the extensive water users of the Karoo would not be acceptable.	See Comment 24.
31	Received 31 03 1999	Rondebosch River Furrow Users Association	The Gouritz WMA should be divided into two; the coastal area and the inland area. The coastal area would be able to manage their eco-water systems, which cater for the ecology tourism and holiday destinations.	See Comment 24.
32	Received 31 03 1999	Department of Water Affairs – Western Cape Region	The Keurbooms River catchment must be included in the proposed Gouritz WMA.	Notice amended.
33	Received 19-04-1999	Modderivier (George) Waterwerke	The Gouritz WMA is too big and thus suggests that it should be separated from the sub-region depicted on the map (Knysna, Plattenbergbaai, and George) for effective control of the water.	See Comment 24.

COMMENTS ON THE BERG

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
34	Received 31-03 1999	Mr. M. Obree Cape Metropolitan Council	Include the Palmiet and the upper reaches of the Riversonderend and Breede catchment areas within the Berg WMA. An agreement will be needed to define and resolve areas of overlap between functions of local government and the CMA.	See Comment 24.
35	Received 22-04-1999	Chairman Bergrivier Besproeiingsraad	The Berg WMA should only include the catchment of the Berg River itself. There will be conflict between the strong interests of those in the Berg River catchment and those in the greater Cape Town area.	See Comment 24.

COMMENTS ON THE OLIFANTS / DOORN

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
36	Received 31 03 1999	Department of Water Affairs – Western Cape Region	The boundary of the Olifants/Doorn area should be amended to include the F40 drainage area.	See Section 6, point 14. Also see Comment 41(1).
37	31-03-1999	Mr. F. Van Zyl Jukskei River Water Quality Steering Committee and Crocodile River Catchment Task Team	The proposed Olifants/Doorn could possibly be incorporated into the Berg area.	See Comment 24.

COMMENTS ON THE LOWER ORANGE

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
38	31-03-1999	Mr. F. Van Zyl Jukskei River Water Quality Steering Committee and Crocodile River Catchment Task Team	It would be financially viable to consider the amalgamation of the Upper and Lower Orange River catchments into one WMA.	Agreed, however, the area will be very large for one CMA to manage effectively.
39	23-03-1999 Received 12-04-1999	Oranje Vaal Irrigation Board.	The Orange Vaal Irrigation Board would prefer to be included in the Lower Orange WMA and should there be any changes on the existing boundaries, this should be taken into consideration.	Although the Douglas Weir will fall just inside the Lower Vaal WMA, the Lower Orange WMA will control a substantial part of the irrigation. The Northern Cape and Free State Regional Offices prefer this arrangement for practical reasons. This will be communicated to the irrigation board.
40	31-03-1999 Received 12-04-1999	Dr B Gale Aqua Catch c	The Upper & Middle Vaal, Lower Vaal, Upper Orange and Lower Orange should be amalgamated into the Orange WMA (15) with sub-WMAs as suggested above.	Considered, see Comment.

41	25-03-1999	Mr. L. J. Snyders DWAF Northern Cape	1. The boundary between the Lower Orange and the Olifants/Doorn should be moved southwards so as to group the groundwater sources around Garies with the sources to the north as these have common quantity and quality problems. 2. The boundary between the Lower Orange and Lower Vaal should be adjusted westwards so as to include the Upper Molopo river and the Kuruman river into the Lower Vaal WMA. This is mainly for a meaningful delineation of boundaries.	Notice amended. Agreed and altered.
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COMMENTS ON THE LOWER ORANGE (continued)

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
41(cont.)	25-03-1999	Mr. L. J. Snyders DWAF Northern Cape	3. The boundaries in the Postmasburg area should be changed so as to include the Vaal-Gamagara bulk water supply scheme in the Vaal WMA. This will ensure practical unity on the ground.	Agreed and notice amended.

COMMENTS ON THE UPPER ORANGE

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
42	Received 12-02-1999	City of Bloemfontein	They support the principle of involving local stakeholders in the management of catchment areas. A consideration for establishing advisory committees in each catchment as opposed to CMAs should be made so as to avoid new bureaucracies, which will have to be financed.	Noted. The aim is to create lean organisations that will manage the area.
43	23-03-1999 Received 26-03-1999	Bloem Water	They have concerns on the biological quality of the Caledon river, which seems to be deteriorating due to return flows from sewage purification plants in the area. Should be considered as a major role player in the establishment and operation of a CMA as they have the technical and financial capacity.	Noted.
44	25-03-1999	Mr. L. J. Snyders DWAF Northern Cape	The Upper Orange border should be moved down to the confluence of the Vaal River so as to improve the financial sustainability of the Upper Orange WMA.	Notice amended. However, this conflicts with the request of the Orange Vaal Irrigation Board.

COMMENTS ON THE LOWER AND UPPER/MIDDLE VAAL

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
45	Received 15-03-1999	Mr. M. W. Sutton Mooi River Catchment Advisory Committee	The Upper and Middle Vaal should be divided into two WMAs namely the Upper Vaal, that is the Vaal catchment above and including the Vaal Barrage; and the Middle Vaal that being the Vaal catchment downstream of the Vaal Barrage to the Bloemhof dam. (i) Both WMA are economically viable (ii) They become small enough for effective representation within a CMA. (iii) Each WMA has adequate infrastructure to accommodate a CMA. (iv) This would result in improved water quality control, as the Upper Vaal would be dominated by heavy industry, and the Middle Vaal by gold mining.	Notice amended.

46	26-03-1999	Mr. R. Heath Rand Water Board	The Upper and Middle Vaal WMA is too large to manage due to complexities of Johannesburg and the surrounding areas. The Barrage structure could be the western boundary of this WMA. The mining activities around Welkom and Klerksdorp are of sufficient magnitude to enable the Lower Vaal WMA to be viable.	See Comment 45.
47	26-03-1999	Mr. F. Viljoen Blesbokspruit Forum	The Upper and Middle Vaal area should be split into three areas namely, Upper Vaal, Barrage and Middle Vaal as the Blesbokspruit and Vaal Barrage areas are quite sensitive.	See Comment 45.

COMMENTS ON THE LOWER AND UPPER/MIDDLE VAAL (continued)

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
48	31-03-1999	Ms C. Gardner Business South Africa	There should be clarity on how transboundary catchments would be handled e.g. the Limpopo River, which covers three catchment areas and four countries. The Upper and Middle Vaal regions are too large for effective management. A workshop on the Upper and Middle Vaal would be very useful. There is no provision given in the Act for conflict and co-ordination resolution for WMAs whose jurisdiction border on the same river system.	Noted. This will be addressed. See Comment 45. Rivers are not used as borders for the WMA's.
49	31-03-1999	Mr. F. Van Zyl Jukskei River Water Quality Steering Committee and Crocodile River Catchment Task Team	The Upper and Middle Vaal should be split into two as they have a water consumption of more than twice the other proposed management areas.	Notice amended.

COMMENTS ON THE LOWER AND UPPER/MIDDLE VAAL (continued)

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
50	18-03-1999 Received 06-04-1999	Dr. S. Meintjies Department of Minerals and Energy	WMA 15 must be split into two smaller areas in order to achieve effective management. (i) People from as far as Breyten and the Bloemhof Dam would not be able to manage problems related to the densely populated Gauteng squatter camps (ii) “Bottom-up” management of water resources would be voluntary and as thus it would be unreasonable to expect water suppliers such as Rand Water to participate fully in issues, which fall outside their era of interest. (iii) WMA could be split into sections representing the existing forums as the mines are represented in these and they are participating fully to try and alleviate the water pollution problem. WMA 15 should be split into the Upper Vaal; (Vaal catchment from Breyten to the Vaal dam), Middle Vaal (catchment between the Vaal Dam and the Bloemhof dam).	Notice amended.

COMMENTS ON THE LOWER AND UPPER/MIDDLE VAAL (continued)

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
51	25-03-1999	Mr. L. J. Snyders DWAF Northern Cape	1. The Vaal River could be divided into two new management areas with a possibility of a third area. The Upper Vaal downstream border should cut at Orkney. Thus C11, C12, C21, C22, C23, C81, C82 and C83. 2. The Middle and Lower Vaal would be a huge area. The homogeneity of the area is questionable and it could be a problem in the formation of a CMA. The designation of functions of the CMA between regions can prove problematic. 3. The proposal of the sub-division of this WMA into a Middle Vaal and a Lower Vaal/Upper Molopo WMA. The Middle Vaal will have a sustainable financial base and it is more homogenic. The Lower Vaal will have a sustainable financial base and it will be more homogenic.	Notice amended. The Middle and Lower Vaal are two different WMA's. See Comment above.

COMMENTS ON THE CROCODILE WEST/MARICO

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
52	Received 08-03-1999	Mr. Vogel DWAf (North West)	The upper portion of the Molopo river should be incorporated with the Crocodile/Marico WMA as this portion of the river has substantial development and underground dolomitic sources, which stretch into the Vaal WMA.	Notice amended.
53	31-03-1999	Mr. F. Van Zyl Jukskei River Water Quality Steering Committee and Crocodile River Catchment Task Team	The Marico river area has limited resources to be viable as a CMA on its own and as thus inclusion in the Crocodile CMA would give a broader base through the sharing of resources. There is a proposal to consider including Mmabatho into the Marico catchment, as it is part of the Marico groundwater system. The interests of both the urban and rural areas should be considered. The groundwater compartment of the Upper Molopo River should be incorporated into the proposed Crocodile/Marico area.	Notice amended. Notice amended. Agreed. Notice amended.
54	30-03-1999 Received 29-04-1999	Centurion Town Council	The proposed boundaries for the Crocodile West/Marico WMA are acceptable. The current name of the WMA should be abbreviated to "Crocodile River CMA".	Noted.

COMMENTS ON THE INKOMATI

Comment No.	Letter dated or received	Received from	Comments received	Departmental response
55	Received 12-03-1999	Mr. Van Niekerk Mpumulanga Agricultural Union	The Lowveld region of this organisation supports and endorses the objections, concerns, inputs and suggestions that were put forward by the Irrigation Boards of the Komati and Crocodile Rivers.	The comments by the irrigation boards were not received.
56	Dated 23/03/99 and received 1/04/99	R. Matare Director: Technology Support Services, Department of Agriculture, Mpumulanga Provincial Government	The Lomati and Queens Rivers are not mentioned in this WMA.	These are included in this WMA

10) APPENDIX C: A MAP OF THE FINALISED WATER MANAGEMENT AREAS

