Olifants River Water Supply System Reconciliation Strategy

Welcome and Introductions (Item 1)

Strategy Steering Committee No. 1

Forever Resorts Loskop Dam, 7 March 2013

Presented by Dr P van Niekerk

Chief Directorate: Integrated Water Resources Planning





Purpose of Strategy

- DWA recently completed the development of a Olifants River Water Supply System Reconciliation Strategy
- The developed Strategy for the Olifants River aim to:
 - meet legitimate current and future water requirements
 - recommend the most suitable interventions to balance the water requirements and water resources
 - identify responsible institutions and provide target dates for implementation of the strategy

Purpose of Meeting

- Strategy Steering Committee (SSC) to be formed to guide the implementation and maintenance of the Reconciliation Strategy
- This is the 1st Strategy Steering Committee Meeting
- The aim of the 1st SSC Meeting is to:
 - Establish Strategy Steering Committee
 - Provide an overview of Olifants River Water Supply System Reconciliation Strategy
 - Assign responsible institutions for Strategy Interventions

Assignment

PSP Team appointed

- Assignment Name: Continuation of the Olifants River Water Supply System Reconciliation Strategy – Phase 1
- Period: 2012 2015
- PSPs: Hydrosol Consulting, WRP Consulting Engineers, Knight Piésold Consulting and others
- Role of assignment
 - Provide secretariat function to DWA and the SSC
 - Provide technical support to DWA and SSC to monitor, maintain and update the Strategy

DWA, SSC & PSP Team



Team Introductions

- Chair: Dr. Peter van Niekerk (CD: IWRP)
- DWA Study Manager: Mr. Tendani Nditwani
- PSP Study Leader: Mr Pieter van Rooyen
- PSP Deputy Study Leader: Mr. Bennie Haasbroek
- Stakeholder Participation: Ms. Amelia Briel

Olifants River Water Supply System Reconciliation Strategy

Attendance and Apologies (Item 2)

Strategy Steering Committee No. 1

Forever Resorts Loskop Dam, 7 March 2013

Presented by Dr P van Niekerk

Chief Directorate: Integrated Water Resources Planning



Attendance

- Registers distributed please return to A. Briel
- Stakeholder Database Distributed Will be referred to during the meeting.

Apologies

???

Olifants River Water Supply System Reconciliation Strategy

Acceptance of Agenda (Item 3)

Strategy Steering Committee No. 1

Forever Resorts Loskop Dam, 7 March 2013

Presented by Dr P van Niekerk

Chief Directorate: Integrated Water Resources Planning



Agenda

1	WELCOME AND INTRODUCTIONS	P. van Niekerk	9:00 – 9:10 (10 Minutes)
	 Purpose of Strategy and Assignment Purpose of Meeting 		
2	ATTENDANCE AND APOLOGIES	P. van Niekerk	9:10 – 9:20 (10 Minutes)
3	ACCEPTANCE OF AGENDA	P. van Niekerk	9:20 – 9:25 (5 Minutes)
4	TERMS OF REFERENCE AND MEMBERSHIP OF THE SSC	T. Nditwani	9:25 – 9:35 (10 Minutes)
5	THE OLIFANTS WATER SUPPLY SYSTEM RECONCILIATION		
5.1	Overview	T. Nditwani	9:35 – 9:55 (20 Minutes)
5.2	Questions for clarity	T. Nditwani	9:55 – 10:10
5.3	Strategy actions and interventions: Assigning responsible institutions	T. Nditwani	10:10 – 10:40 (30 Minutes)
	TEA AND COFFEE	ALL	10:40 – 10:55 (15 Minutes)

Agenda (Continued)

5.3	Strategy actions and interventions: Assigning responsible institutions (Continued)	T. Nditwani	10:55 – 11:30 (35 Minutes)
6	STUDY TASKS	P. van Rooyen	11:30 – 11:50 (20 Minutes)
7	LINKAGES WITH OTHER WATER INITIATIVES	P. van Rooyen	11:50 – 12:00 (10 Minutes)
8	COMMUNICATION AND MEMBERSHIP	A. Briel	12:00 – 12:15 (15 Minutes)
9	GENERAL DISCUSSIONS AND COMMENTS	P. van Niekerk	12:15 – 12:40 (25 Minutes)
10	WAY FORWARD	P. van Niekerk	12:40 – 12:50 (10 Minutes)
11	DATE OF NEXT MEETING	P. van Niekerk	12:50 – 12:55 (5 Minutes)
12	CLOSURE	P. van Niekerk	12:55 – 13:00 (5 Minutes)
13	LUNCH		13:00

General Arrangements

- Facilities
- Tea, Coffee and Lunch
- Meeting:
 - Announcement of name for minutes (Either name or number on Stakeholder Database)
 - Discussions and questions times indicated on Agenda

Thank you

Olifants River Water Supply System Reconciliation Strategy

Draft Terms of Reference (TOR) for the Study Steering Committee (SSC) (Item 4)

Strategy Steering Committee No. 1

Forever Resorts Loskop Dam, 7 March 2013

Presented by Mr Tendani Nditwani Chief Water Resource Planner: DWA



Outline

- Introduction
- Objectives of the Strategy Steering Committee (SSC)
- Roles and Responsibilities of SSC members
- Scope of work in maintaining the Reconciliation Strategy
- Arrangements
- Representation

Introduction

- National Water Act (NWA): consultation with "society at large" in development of water resource strategies
- No specific provision in NWA for creating non-statutory forums – but have proved to be valuable in the management of the country's water resources
- DWA recently completed the development of a Olifants River Water Supply System Reconciliation Strategy
- Strategy Steering Committee: guide the implementation and maintenance of the Reconciliation Strategy



Objectives of the SSC

- Ensure implementation of recommendations of the Olifants River Water Supply System Reconciliation Strategy
- Update Strategy to ensure that it remains relevant
- Ensure Strategy and recommendations are appropriately communicated

Ensure Implementation

- Monitor implementation of recommendations
- Monitor and address progress with set targets and objectives
- Assess implications of deviations
- Make recommendations on mitigation measures for ongoing reconciliation

Update the Strategy

- Monitor, assess and reconcile requirements and system yields annually
- Update planning scenarios with changes in requirements, supplies and timing of selected interventions
- Adjust recommended interventions, if required
- Review and revise Strategy
- Recommend more detailed studies

Communicate with stakeholders

- Communicate on implementation
- Liaise with Departments involved in producing National and Provincial Strategies and provide input into Provincial Strategies
- Brief relevant municipalities and Water User Associations on imminent decisions
- Inform politicians of process and need for the reconciliation of supply and requirement
- Provide information for relevant institutions' websites

Arrangements

- SSC meetings facilitated and chaired by DWA
- Meetings every 6 months
- PSP team appointed to
 - support implementation of the Strategy, and
 - provide secretariat functions to the SSC
- Workshops with specific stakeholders to discuss specific technical matters, if required. Feedback to the SSC

SSC Terms of Reference

- Draft ToR distributed
- Input required
- To be finalised at next meeting
- Dynamic document

Representation

- SSC database made available
- Must be expanded to include champions for all Strategy actions
- To be discussed under Point 5.3 of Agenda

Thank you

Olifants River Water Supply System Reconciliation Strategy

The Olifants River Water Supply System Reconciliation Strategy: Overview (Item 5.1)

Strategy Steering Committee No. 1 Forever Resorts Loskop Dam, 7 March 2013

Presented by Mr Tendani Nditwani Chief Water Resource Planner: DWA



NWRS 1 (2004)

- Chapter 2 and Appendix D summarised water resource situation
- Addressed the scarcity of fresh water in SA
- Fresh water is limited and unevenly distributed
- Situation varies from area to area

Building on NWRS 1

- NWRS information on broad overview level
- Can for instance not be used to build infrastructure
- More detail required
- ISPs CMS level, but still not detailed enough
- Reconciliation Strategies
 - Large systems supplying areas of large economic importance
 - Rest of towns covered in "All Town Strategies"

Reconciliation Strategy Studies

- Develop future water requirement scenarios in consultation with users
- Investigate all possible water resources and other interventions
- Investigate all possible methods for reconciling the requirements with the available resources
- Make recommendations for development and implementation of interventions

NSDP: Key demand centres





Assessment of the Ultimate Potential and Future Marginal Cost of Water Resources in South Africa

SEPTEMBER 2010

Olifants River system



Reconciliation Strategies: Key messages

- Confirmed broad reconciliation strategies already in the NWRS1
- Added desalination as a strategy
- Olifants strategy (shown later) is fully aligned with these national key strategic messages
- All recommendations are reflected in new NWRS2

Study Area



36
Objectives of the Olifants Reconciliation Strategy

- To meet legitimate current and future water requirements
- To recommend the most suitable interventions to balance the water requirements and water resources
- To identify responsible institutions and provide target dates for implementation of the strategy

Water Quality

- Number of serious water quality concerns
- The current quality of the water in the catchment is generally acceptable, but not for all users
- The water quality does not affect the availability of the resource (dilution is not required)
- A separate water quality management strategy is required to address the water quality management issues. It is recommended that this study commences as soon as possible.

Steering Committee

- Strategy developed under direction of a Study Steering Committee
- Membership
 - DWA various sections
 - Provinces
 - Municipalities
 - Mines
 - Eskom
 - Many other stakeholders
- Input information i.e. water use and future requirements checked and re-checked with users

Current Water Use (2010) Total 970 million m³/a



Irrigation

Eskom (Transfers into)

Urban

Mining

Rural

Polokwane and Mokopane (Transfer Out)

Forestry

Industrial

Projected Future Water Balance for the whole Olifants Catchment



Reconciliation scenario: all measures at 100% success



Current reconciliation strategy: some measures at 50% success



Options that will reduce

water requirements: some measures at 50% success

Option	Total savings possible	Starting year	Duration (years)	% success assumed	Scenario savings (mill m ³ /a)
WC/WDM Irrigation	35	2013	5	50	17
WC/WDM Urban	40	2013	5	50	20
WC/WDM mining	5	2015	10	100	5
Eradicate unlawful water use	17.4	2012	4	50	9
Total	97.4				51

Options that will increase resources: some measures at 50% success

Option	Yield poten.	Starting year	Duration (years) to full yield	% success assumed	Scenario yield (mill m ³ /a)
Removal of IAPs	21	2012	23	50	10.5
Development of groundwater	70	2012	23	50	35
Treatment of mine water in Witbank Dam catchment	12	2015	1	100	12
Treatment of mine water in Middelburg Dam catchment	10	2030	1	100	10
Sewage water re- use at Polokwane and Mokopane	11	2012	23	100	11
Total	124				78.5

Olifants Reconciliation Strategy in a Nutshell

- Operationalize the Reserve as soon as practical.
- Water to power stations will continue to be supplied from the Usuthu, Komati and Vaal systems.
- Water required to supply the current and future requirements for social and economic activities in the Olifants catchment will have to come from the catchment's local resources
- Water required by the Polokwane and Mokopane supply areas will be augmented from the Olifants catchment.

Olifants Reconciliation Strategy in a Nutshell (continued)

- Reconciliation achieved through:
 - Eliminating unlawful water use
 - Introducing water conservation and water demand management (WC/WDM) in all sectors
 - Utilisation of treated acid mine drainage water.
 - Removing of invasive alien plants
 - Developing groundwater
 - Additional reuse of return flows from Polokwane and Mokopane
- Solutions management rather development orientated
 - Orchestrated effort is necessary.
 - If not fully achieved, water will have to be moved from low value irrigation

Risks And Uncertainties

Risks and uncertainties are listed in the strategy report. A few crucial ones are listed below

- Extent of unlawful water use. Best estimates will have to suffice until V&V process is complete
- Success of purchasing WC/WDM savings is difficult to predict. A well structured policy is urgently needed
- Cooperation of WMIs, Local Authorities and mining companies
- Successful implementation of the strategy holds a significant risk if the establishment of the CMA is further delayed

Institutional Responsibilities

Intervention	Actions Required	Primary Responsibility	Target Date
	Validation and Verification	DWA Regions, later CMA	End 2016
Addressing Unlawful Irrigation Use (Compliance Monitoring and Enforcement)	Directives to unlawful water users	DWA Regions, later CMA	End 2018
	Legal action where needed	DWA Legal Services. Will later assist CMA	End 2018
	Maintenance of lawful water use in controlled areas	IBs, WUAs for CMA	Ongoing

Strategy Priorities

• Establish a Strategy Steering Committee to:

- Monitor implementation of the Reconciliation Strategy
- Adjust the strategy.
- Communicate

• DWA for its responsibilities will

- Analyse recommendations
- Start with DWA part of the implementation
- High priority
 - Develop a policy and guideline on water trading
 - Accelerate establishment of CMA

Questions for Clarity and Discussions

Olifants River Water Supply System Reconciliation Strategy

Strategy actions and interventions: Assigning responsible institutions (Item 5.3)

Strategy Steering Committee No. 1 Forever Resorts Loskop Dam, 7 March 2013

Presented by Mr Tendani Nditwani Chief Water Resource Planner: DWA



Responsibilities

- Reconciliation Strategy recommended actions (interventions) for:
 - Reduction in water requirements
 - Increase in resources
- Appropriate champions to be identified for each action, to:
 - Identify the most appropriate enablers
 - Obtain feedback on progress with recommended interventions

100% Scenario Water Balance Contributions



Reduction in Requirements (% Total)

Increase in Resources (% Total)

50% Scenario Water Balance Contributions



Reduction in Requirements (% Total)

Increase in Resources (% Total)

Initial Low Growth Target Water Balance Contribution (50% Scenario)



High Growth Target Water Balance Contribution (100% Scenario)



Target Reductions in Requirements (50% Scenario)

Increase in Resources



Target Increase in Resources (50% Scenario)



Reduced Water Requirements

Strategy Intervention	Target saving	(million m³/a)	Start	Time to Full Saving
	50% Scenario	100% Scenario	Date	(Years)
WC/WDM – Urban Domestic and Industries	20	40	2013	5
WC/WDM – Irrigation	17	35	2013	5
Eliminating unlawful water use	9	17	2015	5
WC/WDM - Mining	5	5	2013	10
Total	51	97		

WC/WDM: Urban Domestic and Industries

	Target Saving (million m ³)		Types of Actions		
Urban Areas	50% Scenario	100% Scenario	Required	Primary Responsibility	Champions
Western Highveld	7.7	15.4		Rand Water, DM	
Emalahleni	7.2	14.4		DM? WB? LM?, WSP? WUA?	
Phalaborwa	1.6	3.2	Pressure Management	DM? WB? LM?, WSP? WUA?	
Lebowakgoma	0.7	1.4	 Leak detection & repairs 	DM? WB? LM?, WSP? WUA?	
Polokwane (only from Olifants)	0.7	1.4	Public awareness (e.g.	DM? WB? LM?, WSP? WUA?	
Lydenburg	0.7	1.4	billing, retrofitting of	DM? WB? LM?, WSP? WUA?	
Others (Middelburg, Bronkhorstspruit, Hoedspruit, Groblersdal, Marble Hall, Delmas, Belfast, Burgersfort, Cullinan)	1.6	3.2	water saving devices)	Rand Water, DM? WB? LM?, WSP? WUA?	
Total	20	40	15% - 18% Contribu	ution to water balance	

WC/WDM: Irrigation

Duiovity Invigation Area	Target Saving (million m ³)		Actions	Primary	Chempione	
Priority Irrigation Area	50% Scenario	100% Scenario	Required	Responsibility	Cnampions	
Loskop Area (Including Flag Boshielo, Hereford, Metzirr Scheme)	16.5	33.0	Improved Systems			
Steelpoort Area (Groot Dwars, Origstad, Central Steelpoort, Laer Spekboom, Kaspernek- Vyehoek, Groot Dwars	1	2	 Systems Convert to pipelines 	Irrigators or IBs on behalf of irrigators		
Total	17.5	35.0	13% - 16% Contribution to target water balance			

Eradication of Unlawful Use

Reservoir	Indicative Target Saving (million m ³)		Types of Actions	Primary	Champions		
Catchment Areas	50% Scenario	100% Scenario	Required	Responsibility	Champions		
Bronkhorstspruit	3.7	7.4					
De Hoop	2.0	4.0	 Validation and Verification Directives to unlawful water users Legal action where needed Maintenance of lawful water use in controlled 	DWA Regions, later CMA			
Loskop	1.5	3.0		 users Legal action where needed 	DWA Legal Services. Will later assist CMA IBs, WUAs for CMA	DWA Legal Services. Will later assist CMA	
Middelburg	1.1	2.2		IBs, WUAs for CMA			
Witbank	0.5	1.0	urcus				
Total	9	18	7% -8% Contribution	to water balance			

WC/WDM: Mining

Applicable Mines and Area	Target Saving (million m ³)	Actions Required	Primary Responsibility	Champions
Platinum, chrome and iron mines in the Middle Olifants Catchment and Phalaborwa	5	 Process adaptations for enabling water recycling and water reuse Retrofitting water saving devices 	Mine owners, operators and industries	
Total	5	2% - 4% Contributio	n to target water	balance

Increase in Resources

Strategy Intervention		Target saving	Start	Time to Full	
		50% Scenario	100% Scenario	Date	Saving (Years)
Groundwater development		35	70	2012	23
Treatment of mines water in catchments	Witbank Dam	22	22	2012	20
	Middelburg Dam	22	22	2020	10
Removal of IAPs		11	21	2010	25
Sewage water reuse – Polokwane and Mokopane		11	11	2012	23
Total		79	124		

Development of Groundwater

Applicable	Target Increase in Yield (million m ³)		Actions Required	Primary	Champions	
Areas	50% Scenario	100% Scenario		Responsibility		
Diffuse over catchment in non-over allocated areas	35	70	 Borehole siting Drilling Infrastructure development Pre- and Feasibility Studies 	DMs, LMs, Water Boards, mine companies, industries, private individuals		
Total	35	70	27% - 32% Contril	bution to target	water balance	

Treatment of mine water

Mining Area	Target Increase in Yield (million m ³)	Actions Required	Primary Responsibility	Champions	
Witbank Catchment	12	Feasibility Study	DWA, Mining Companies,		
Middelburg Catchment	10	Tenders Construction	Eskom, DM's, LM's, WB		
Total	22	10% - 17% Contribution to target water balance			

Removal of IAP

Catchment Areas	Target Increase in Yield (million m ³)		Types of Actions	Primary	Champions	
	50% Scenario	100% Scenario	Kequirea	Responsibility		
Loskop	3.4	6.8				
Blyde River	3.0	6.0				
Flag Boshielo	1.6	3.2	 Removal of plants Rehabilitate land and re- establish DWA, Environme Affaire 	Removal of plants		
Witbank	1.1	2.1				
Moomba	0.6	1.1		establish Environmental		
Bronkhorstspruit	0.4	0.8	indigenous vegetation	Analis		
Rust de Winter	0.4	0.7	• Follow ups and maintenance			
Middelburg	0.2	0.3				
De Ноор	0.0	0.0				
Total	11	22	8% - 9% Contribution to water balance			

Sewage Water Reuse at Polokwane and Mokopane

Applicable Towns	Target Increase in Yield (million m ³)	Actions Required	Primary Responsibility	Champions
Sewage water re-use at Polokwane and Mokopane	11	 Assess current use and return flows Feasibility Studies and Options Analysis Infrastructure development 	DMs, LMs, DWA	
Total	11	5% - 9% Contribution to target water balance		

Thank You

Olifants River Water Supply System Reconciliation Strategy

Assignment Tasks (Item 6)

Strategy Steering Committee No. 1 Forever Resorts Loskop Dam, 7 March 2013

Presented by Mr Pieter van Rooyen



Assignment Overview

- Assignment Name: Continuation of the Olifants River Water Supply System Reconciliation Strategy – Phase 1
- Period: 36 Months (End Date: Sep 2015)
- Main aim of the assignment: Support the implementation of the Strategy by providing the administrative and technical assistance to the Strategy Steering Committee and DWA
- PSP's: Hydrosol Consulting, WRP Consulting Engineers, Knight Piesold Consulting and Golder and Associates.
Overview of tasks

- Inception Phase
- Task 1: Administrative Support to the SSC and updating of the Strategy
- Task 2: Technical Support
- Task 3: Closeout Report

Task 1: Administrative Support to SSC and updating of the Strategy

- Task 1.1: Meetings Organization
 - 1.1.1 Strategy Steering Committee
 - 1.1.2 Support Group
 - 1.1.3 Study Management Team
- Task 1.2: Stakeholder engagement
- Task 1.3: Project Management
- Deliverables: Scheduling, Agendas, Minutes, Progress Reports, Correspondence, Invites, New Letters, Press Releases, Status Reports, etc.

Technical Support for Strategy Recommendations



Intervention option contributions in million m³/annum

Technical Support Aims

- A. Configuration of risk based mathematical model, analyse reconciliation scenarios and verify timelines
- B. Investigate reduction in requirements.
- C. Investigate additional resources

Task 2: Technical Support

A: Configuration of risk based mathematical model, analyse reconciliation scenarios and verify timelines:

- 2.1 Salinity Modelling
- 2.2 Improving of the Water Resource Planning Model (WRPM)
- 2.3 Development of water requirement scenarios and monitor actual water use against projections
- 2.4 Updating WRPM with strategy plans

Water Resource Assessment

Completed:

- Hydrological assessment and database
- Network models configured
- Yield analysis of system components

Work required:

- Calibration of salinity model
- **Configure scenarios**



Risk analysis of reconciliation scenarios

3800

3600

3400

3200

3000

2800

2600

2400 2005 System

Yield

2015

2010





2025

desalination of mine water

2035

2040

2030



2050

Task 2: Technical Support

B: Investigate reduction in requirements.

• 2.5 Review of current WC/WDM plans

C: Investigate additional resources

- 2.6 Identification of significant GW resources
- 2.7 Review current WRPM mining module
- 2.8 Evaluate institutional financial model for AMD
- 2.9 Review and evaluate re-use option scenarios for Polokwane and Mokopane
- 2.10 & 2.11 Technical support Infrastructure Intervention Planning (i.e. ORWRDP Phases), Social and Environmental Impacts.

Programme (Up to December 2013)

(provisional depending on budget)

TaskDescription and Number							IMPLEMENTATION PHASE									
		2012			2013									1		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
IMPLEMENTATION PHASE	201	~ 1												_	S	SC 2
Task 1: Administrative Support for Implementation of the Strategy	201				>		1			1			Ľ		-	
1.1.1 Strategy steering Committee Meetings (5)	—	-	<u> </u>													1
1.1.2 Support Group Meetings (10)							4	<u>}</u>		4	<u>_</u>	/		4	<u> </u>	ł
1.1.3 SMT Meetings (12)		(<u> </u>		(P		(Υ		(1
1.2 Stakeholder Engagement																1
1.3 Project Management																
Task 2: Technical and Scientific Support to the Strategy																
2.1 Salinity Modelling	Τ								L ک	\mathbf{b}						1
2.2 Improving of current WRPM									L L	ļ						1
2.3 Development of water requirement scenarios			1							ľ						1
2.4 Updating WRPM with updated strategy plans							Į	<u>}</u>								ĺ
2.4.1 Disaggregation of final Classification EWR requirements									र	۶						1
2.4.2 Polokwane Augmentation from Olifants			1	1						Ł	>	1				
2.4.3 Effect on strategy by improved intervention estimates																
2.5 Review of current WC/WDM plans														\mathbf{b}		
2.6 Identification of significant GW resources														ł	ſ	1
2.7 Review current WRPM mining model																
2.8 Develop an institutional financial model for AMD													रि	٢		
2.9 Review and evaluate re-use option scenarios for Polokwane and																
	+	-														1
2.10 Ad hoc specialist technical input into infrastructure intervention planning																
2.11 Ad hoc specialist support to Social and Environmental Impacts																l
TERMINATION PHASE																
Task 3: Closure Reporting																
3.1 Revision of the Olifants River Reconciliation Strategy (2015)		-			_	_	_									
3.2 Close-out Report											-					80

Feedback

Olifants River Water Supply System Reconciliation Strategy

Linkages with other water initiatives (Item 7)

Strategy Steering Committee No. 1 Forever Resorts Loskop Dam, 7 March 2013

Presented by Mr Pieter van Rooyen



Known Initiatives

- Olifants River Classification Study
- Water Use Efficiency Studies
 - Mines (Chamber of Mines)
 - Municipalities (DWA)
 - Agricultural (WMA Plans)
- IAP Removal Initiatives
- Validation and Verification Studies
- Olifants River Resources Quality Objectives Study
- Development of a WQ Strategy for the Olifants River

Known Initiatives (Continued)

- DWA AMD initiatives from SD: WQP
- Waste Water Discharge Tariffs
- Olifants Water Resources Development Project

Feedback

Olifants River Water Supply System Reconciliation Strategy

Communication associated with the Reconciliation Strategy (Item 8)

Strategy Steering Committee No. 1 Forever Resorts Loskop Dam, 7 March 2013



SSC Communication Channels

