



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

NATIONAL WATER RESOURCE STRATEGY 2 IMPLEMENTATION

OVERVIEW

NOV 2014

OUTLINE

- Background
- Overview
- Implementation Approach
- Monitoring, evaluation, reporting and review
- Implementation Progress
- Example of Skills Implementation Plan (Chapter 15)
- Preparation for NWRS3
- Chapter 5 Implementation Plans

BACKGROUND

- Legislative requirement: National Water Act requires NWRS to be regularly reviewed/updated
- NWRS1 developed through water use consultative process; limited implementation despite comprehensive implementation programme
- Process of developing NWRS2
 - Cabinet approved draft NWRS2 for publication in Government Gazette on **7 Aug 2012**
 - Public Consultation commenced **7 Sept 2012**
 - Extensive consultation process conducted from **September 2012 - March 2013**
 - Strategy redrafted to take into account comments and alignment with Government's objectives and existing frameworks - significant improvement
 - Policy issues, policy positions drafted, consultation with water users, Cabinet approval in Dec 2014
- Cabinet approval on **26 June 2013**; printed document available
- Involvement of Chapter Leaders; also Sector Leaders (in implementation)

OVERVIEW OF NWRS2

- South Africa's Vision for 2030 demands sufficient water resources
- Water must provide for growth & development
- Our water resource is already stressed
- Water scarcity threatens energy production, food security, economic growth & quality of life
- This strategy addresses current & future water demands for 2030 vision and simultaneously ensure the sustainability of our water resource

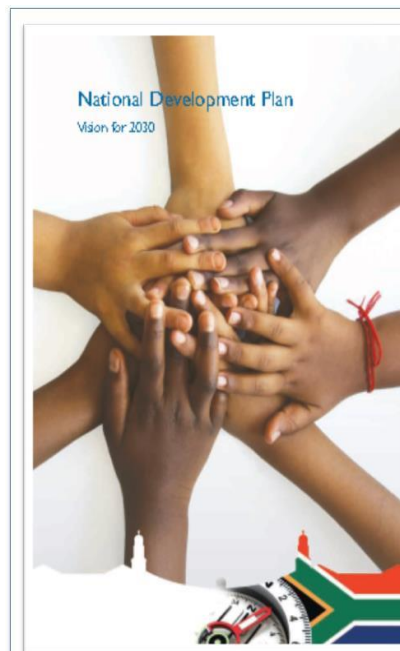
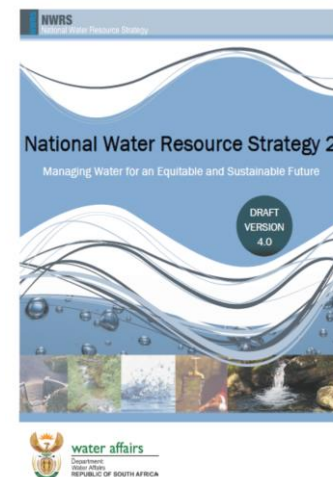
Overview of achievements and challenges in NWRS1

Achievements	Outstanding Challenges
<ul style="list-style-type: none"> • Sustaining reliable supplies • Development of new water resources infrastructure and investment in improved dam safety of state dams • Improved insights into future water demands and supplies • A significant proportion of reserve determinations complete and first examples of implemented environmental flows in place • Water reconciliation studies done in the major urban areas • Incentive based regulation through the blue and green drop assessments • Improved sector collaboration and participation • Development of a Learning Academy to improve skills and capacity within the sector • Two CMAs established and functional • Support provided to a number of resource poor farmers • Verification of water use well underway • Water sharing agreements and institutional arrangements in place in all trans-boundary basins 	<ul style="list-style-type: none"> • Achievement of the Water Conservation and Demand Management targets • Streamlined water allocation reform to redress past racial and gender imbalances in access to water for productive uses and to address poverty and inequality • Implementation of environmental flow monitoring and water resource classification • Establishment of water management institutions and the decentralisation of water resources management • Strengthening of regulation of water resources and compliance monitoring and enforcement • Improvement of technical and management skills to implement developmental water management • Improvement in the integration of monitoring and information management • Reduction in the backlog of infrastructure maintenance

Alignment with National Development Plan “Equity, Growth and Development”

NWRS2 Strategic objectives are now aligned to National Water Act **and** NDP, ensuring that:

- **Water** supports development and elimination of poverty and inequality
- **Water** contributes to the economy and job creation
- **Water** is protected, used, developed, conserved & managed
- **Water** is controlled sustainably and equitably



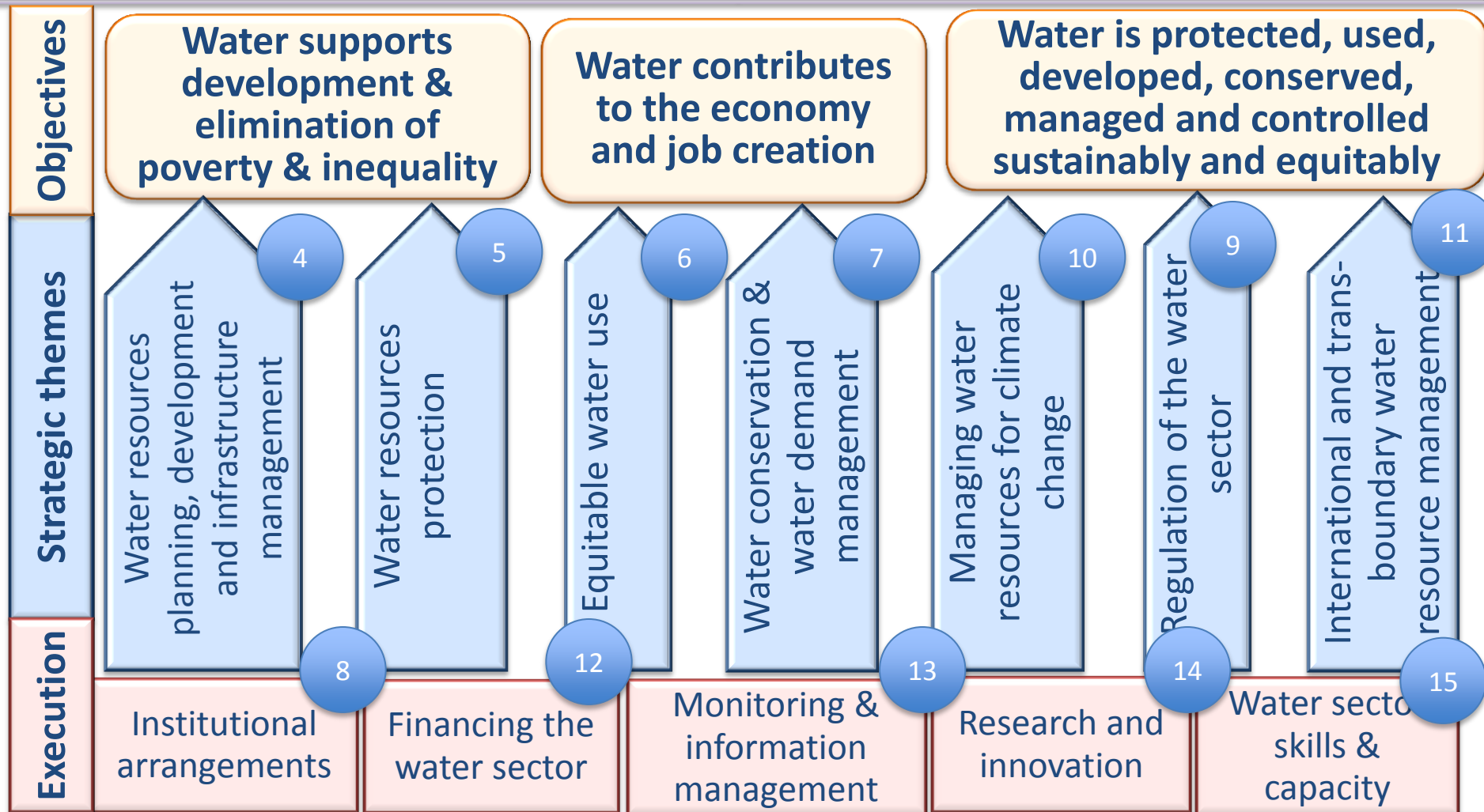
- Create jobs and livelihoods
- Expand infrastructure
- Transition to a low carbon economy
- Transform urban and rural spaces
- Improve education and training
- Provide quality health care
- Build a capable state
- Fight corruption and enhance accountability
- Transform and unite society

Vision of NWRS2

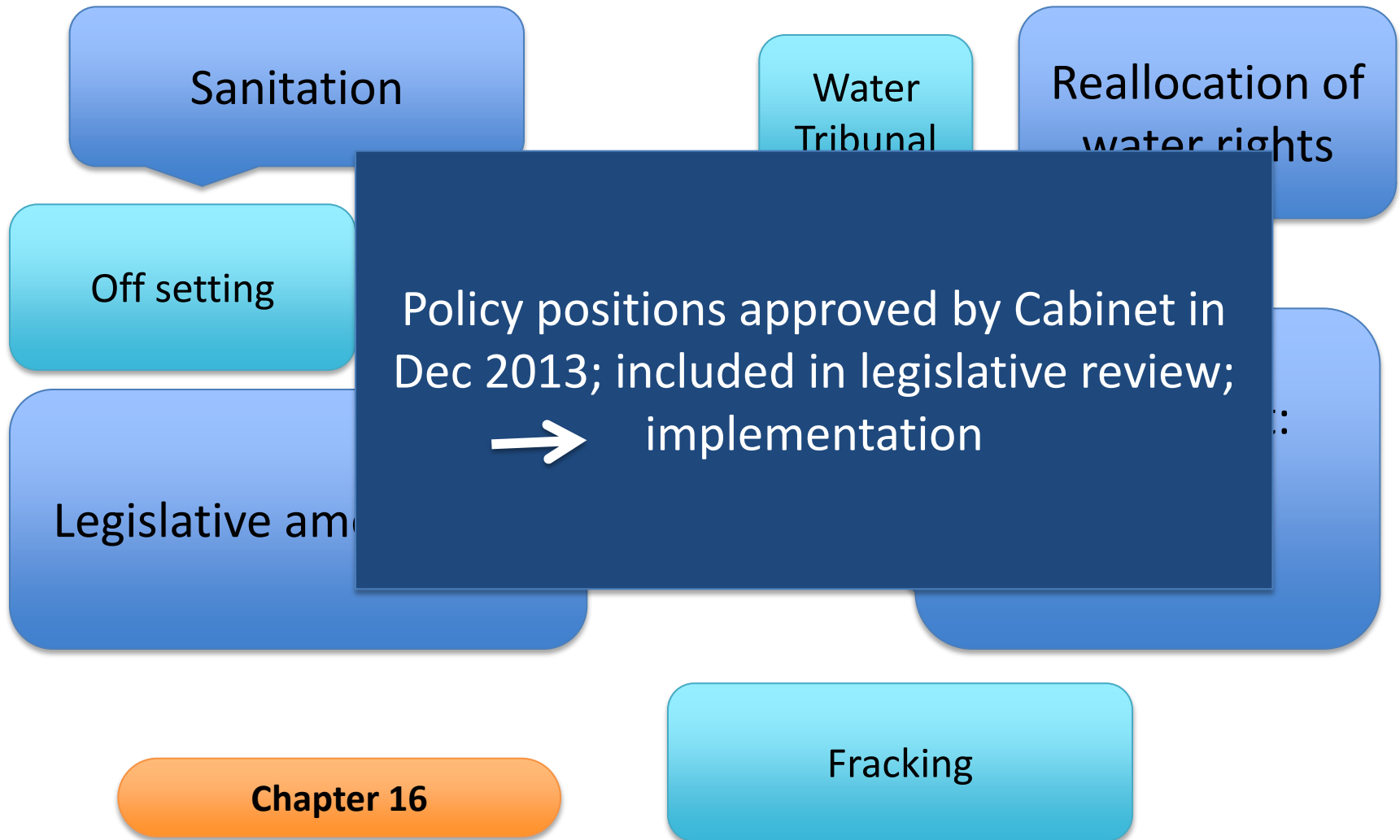
Sustainable, equitable and secure water for a better life and environment for all

Goal

Water is efficiently and effectively managed for equitable and sustainable growth and development



Let's put the emerging policy issues on the table



NWRS priority focus areas

Achieving Equity and
Water Allocation
Reform

Water Conservation
and Demand
management

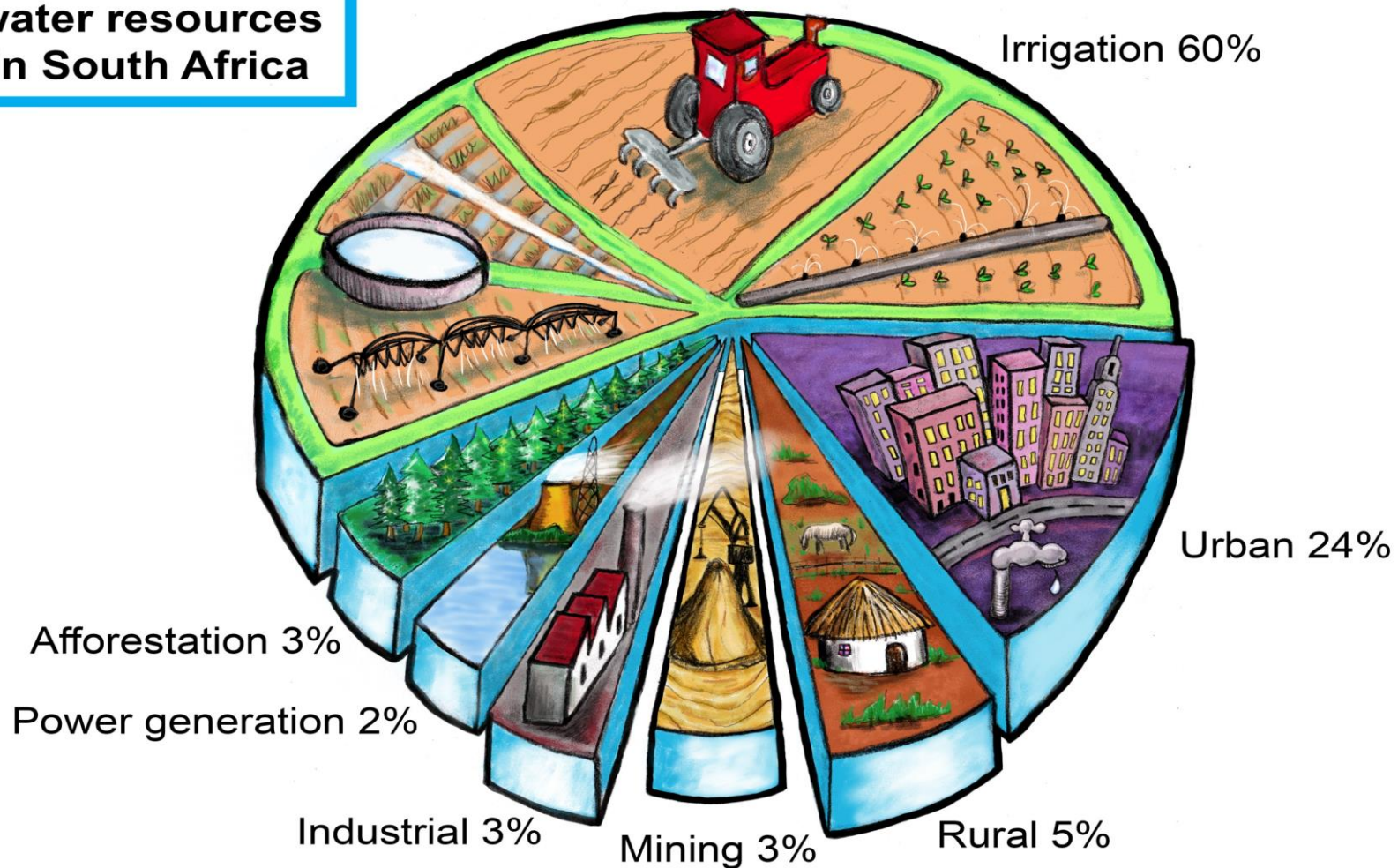
Institutional
establishment and
governance

Compliance
monitoring and
enforcement

Planning,
infrastructure
development and
O&M

EXISTING WATER USE

How we use our
water resources
in South Africa



GDP, JOB CREATION & WATER NEEDS

Sector	GDP	Job creation	Water needs
Agriculture	3%	8.5 million	60%
Mining	8-10%	1 million	2.5%
Industrial	15.5%	13.3%	3%
Tourism	7%	0.575 million	

The NWRS1 estimated a high-scenario economic growth rate of over 4% up to 2025 and a low-scenario growth rate of 1.5% per year up to 2025. Government's NGP aims to create five million new jobs by 2020. Economic growth projections will have a significant impact on water resources and equitable allocation to all uses.

Principles and approach to NWRS2 implementation

- **Participatory approach** with emphasis on citizens' participation and implementation commitment by all water users and sector stakeholders
- **Partnerships** with private sector and civil society (the success of the NWRS2 is dependent on all stakeholders not just the public sector)
- **Good governance** including transparency, accountability, equity, responsiveness, predictability, integrated sectoral planning, clarification of roles and responsibilities
- **Centrality of water** in planning and decision making where all sectors consider water availability in their development planning
- **NWRS2 Implementation Framework will guide development of Implementation Plans to operationalise the Strategy**
 - Developed in collaborative manner with sector stakeholders and water users - per water use type and group

Commitments include (1)

- DWS will continue, in partnership with stakeholders, to develop and maintain **Reconciliation Strategies** for balancing water supply and demand in critical and water scarce catchments.
- For DWS funded infrastructure, DWS will require water institutions to **value-engineer infrastructure investment** plans to optimise the cost effectiveness & to evaluate the appropriateness of the technology envisaged.
- DWS will re-assess water resource infrastructure ownership and **transfer infrastructure to the appropriate organ of state.**
- Implementation of **National Ground Water Strategy** - promote the use of groundwater on a larger scale than before.
- DWS, with sector partners will explore use of new technologies for **re-using waste water and for using treated mine water**
- Development of **centres of excellence** at selected universities.

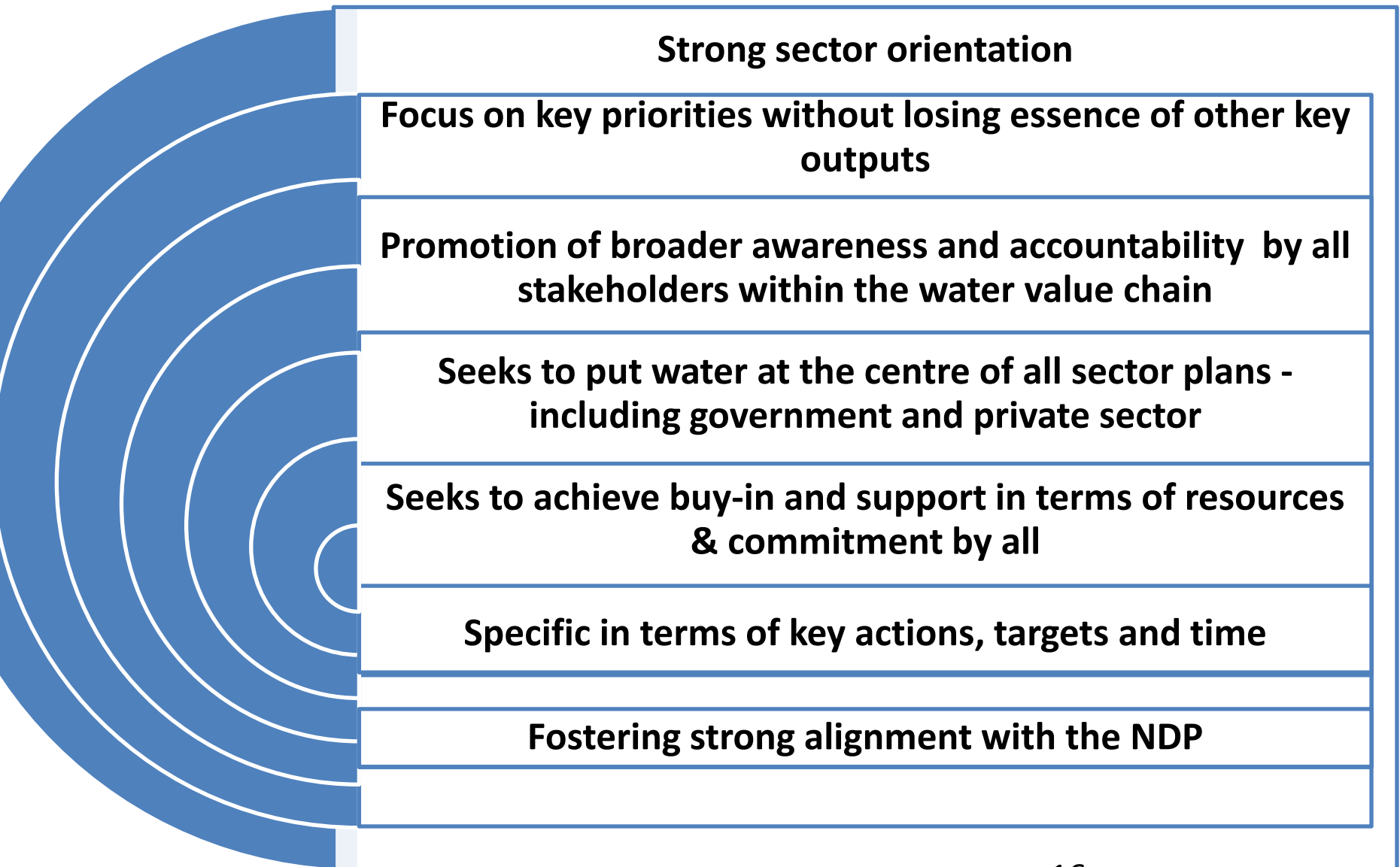
Commitments include (2)

- Research institutions and private sector to cooperate to support development of **desalination** technologies.
- DWS will develop **WAR Implementation Plans** and ensure the consequent mobilisation of resources to realise programme implementation.
- DWS, in a consultative process, will determine specific race and gender **water re-allocation targets** for each project area, using the national WAR target as a baseline (currently 30%).
- Sector strengthening of institutional capacity to manage & regulate **WCWDM** effectively.
- DWS will accelerate and streamline the **water use authorisation** process by establishing a single authorisation process with DEA and DMR as well as a joint **CME** between DEA and DWS.

Commitments give sector direction

- The twelve existing water boards will be consolidated into nine viable **Regional Water Utilities** (RWU) to strengthen the development, financing, management, operation and maintenance of regional bulk water and wastewater infrastructure. Target 2015
- DWS will **drive the establishment of the nine CMAs by 2016**
- An appropriate institutional model for **National Water Resources Infrastructure Management** will be established to take responsibility for the ownership, financing, development, management, and operations and maintenance of national water resources infrastructure by 2015.

IMPLEMENTATION AND KEY OUTCOMES



IMPLEMENTATION: EXTERNAL ROLL OUT

Identify and use existing platform to engage stakeholders

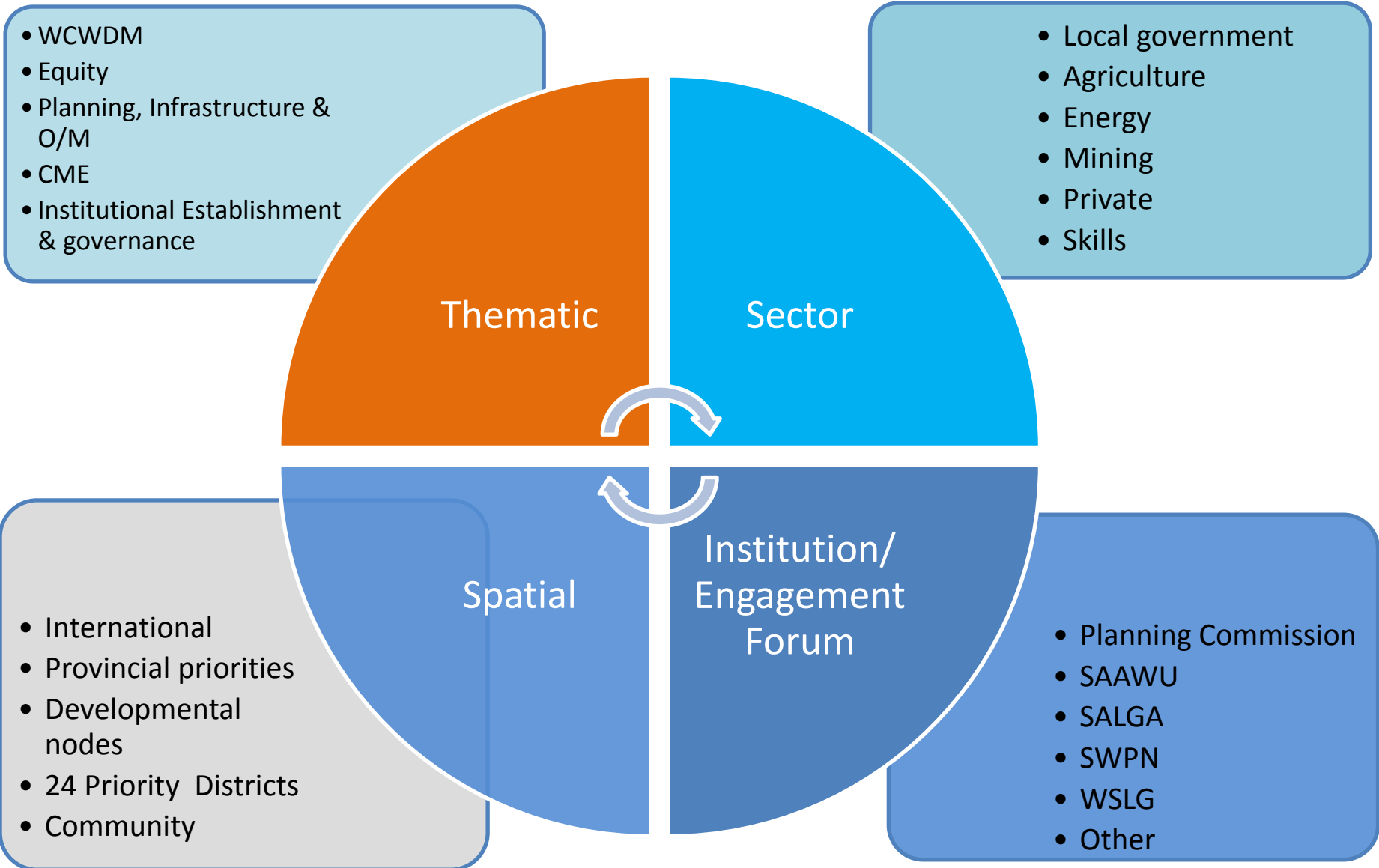
Indicate the key water and developmental challenges for each sector and the need for collective effort to address water resource constraints through implementation of NWRS2 Strategic Actions

Allow stakeholders to define Strategic Action indicators within the sector and indicate roles and responsibilities

Ensure clear commitment on key milestones and resources to support implementation

Develop sector implementation plans and adopt MoUs with the different sectors containing statements of commitment and clear frameworks for reporting & monitoring of progress

CATEGORISATION & INTERFACE



CONSOLIDATED IMPLEMENTATION PLAN FORMAT FOR THE NWRS FOCUS AREAS

Priority	Strategic actions	KPI	Responsibility	Time frame
WCWDM				
Equity				
Planning, Infrastructure development & O/M				
Institutional establishment & governance				
Compliance Enforcement and Monitoring				

M&E FRAMEWORK CONSIDERATIONS

Measures achievement of broader NWRS objectives

- Support for economic growth and job creation
- Impact on developmental priorities- achieving equity / water allocation reform
- Progress on protection, efficient usage, conservation, development, management & control of water
- Planning, infrastructure development and O&M
- Institutional establishment and governance
- Compliance enforcement and monitoring

**Alignment to
existing M&E
frameworks**

**Measures progress on
the implementation of
all priorities & evaluation
of impact**

**Tracking of progress
on commitments by
sector stakeholders**

IMPLEMENTATION PROGRESS

- Progress on NWRS2 implementation (see next slide)
- Quick Guides (to assist sector in participation): drafts available for Local Government, agriculture, mining
- MOUs being prepared (drafts for DWS/SALGA; DWS/BUSA; DWS/CoM)
- DWS APP and Business Plans: 14/15 being implemented – M&E; 15/16 being drafted
- Policy positions: implementation and capturing in amended legislation
- Sector commitments; implementation plans for identified NWRS2 Strategic Actions being drafted: sector workshops held in Sept 2014
- Provincial workshops: multi-sectoral (DWS and water users): October 2014
- Preparing for review of NWRS2 or development of National Water and Sanitation Strategy during sessions on implementation: capture issues during process

KEY MILESTONES: IMPLEMENTATION ROLL-OUT

No	Activity	Time Frame
1	DG approval of Implementation approach	18 Dec 2013
2	National capacitation workshop: National, Provincial offices, Water Boards and WRC	19 & 20 Feb 2014
3	Interdepartmental workshop	10 April 2014
4	Preliminary sessions: organised representatives of the different sectors	Oct 2014
5	Capacitation of 9 DWS Provincial Offices	Mid Aug 2014
6	Sector workshops to develop Sector Implementation Plans	Sept 2014
7	Provincial multi-sectoral workshops	Oct, Nov 2014
8	Finalise Consolidated National Water Sector NWRS2 Implementation Plan	Nov, Dec 2014
9	Finalise NWRS2 Implementation Plan Monitoring Framework	Dec 2014
10	Launch the Consolidated Implementation Plan and associated Monitoring Framework	March 2015
11	Develop annual NWRS2 Implementation Progress Report	June 2015
12	Produce NWRS2 Mid-Term Review Report	Dec 2016
13	Prepare for review of NWRS2	June 2016
14	Finalise National Water and Sanitation Strategy 1	June 2018 22

CONSIDERATIONS FOR THE NEW DEPARTMENT OF WATER AND SANITATION

- Focus for the next year will be on policy and law reforms to ensure full integration between water and sanitation
- The NWRS2 and the Strategic Framework for Water Services remain relevant and sections can be updated as needed
- The Department will indicate in the new Water and Sanitation Bill what will be required in terms of a strategy
- The trend is develop 10 year plans/strategies
- WSLG meeting in Dec 2014

5.4.1 Manage for sustainability using Resource Directed Measures

Strategic Action activities	KPI	Implementation mechanisms	Timeframe
<p>A management class, and associated Reserve and resource quality objectives (RQO) have been set and approved for every significant water resource in the country.</p> <p>Resource quality objectives (RQOs) are regularly monitored for compliance, which informs enforcement and a strategic adaptive management cycle.</p> <p>Water ecosystems are maintained in the desired state.</p>	<p>DWS MA; Programme 2; page 25; PPI 29: # of river systems with determined resource quality objectives</p> <p>Monitor compliance with RQOs at required sites, according to set targets, required variables and at required frequencies</p> <p>Desired state maintained as proven through auditing of compliance monitoring data; non-compliance addressed through enforcement mechanisms</p>	<p>DWS, through consultative PSCs</p> <p>Monitoring done according to agreed Framework being implemented, containing roles and responsibilities of DWS, CMAs, Water Boards, WSAs, water sector partners; Relevant MoUs; Data captured on Integrated Information System; Compliance assessed by Regulator Regular annual audit reports by Regulator; Directives issued by regulator</p>	<p>RQOs set for 10 systems by 2019</p> <p>Start assessing compliance in 2015 for 5 systems First annual report in 2016</p>

5.4.2 Invest in strategic water source areas

Strategic actions	KPI	Resp	Time
<p>National Strategic Water Source Areas are endorsed and acknowledged as strategic national assets at the highest level in all sectors. They all enjoy legal protection that allows land to be managed in a way that does not significantly undermine their role as key water sources.</p> <p>The costs of catchment management of these areas are factored into the water price, and revenues are reinvested in the management of these areas for their water resources.</p>	<p>Guideline and legislation (regulation?) developed to indicate process to determine, acknowledge and endorse National Strategic Water Source Areas;</p> <p>National Strategic Source Areas identified to guideline & legislation, and endorsed and acknowledged</p> <p>Pricing Strategy revised to incorporate cost and reinvestment as envisaged</p>	<p>Developmental work being done by SANBI, CSIR, WWF; Relevant authority</p> <p>DWS</p>	<p>2015</p> <p>2017</p> <p>2018</p>

5.4.3 Strategic investment in maintenance & rehabilitation of water ecosystem

<p>Sufficient financial investment, through the Water Pricing Strategy and the waste discharge charge system must be allocated towards the maintenance and rehabilitation of key identified water ecosystems.</p>	<p>Water Pricing revised to provide for allocation of funds towards maintenance and rehabilitation of key identified water ecosystems;</p> <p>WDCS implemented in 3 catchments</p>	<p>DWS</p>	<p>Annual revision?</p> <p>2015</p>
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5.4.4 Maintain Freshwater Ecosystem Priority areas in good condition

Strategic actions	KPI	Responsibility	Time
All National Freshwater Ecosystem Priority Areas , which identify priorities for conserving water ecosystems and supporting the sustainable use of water resources, are considered in the determination of Resource Directed Measures.	DWS MA ; Programme 2; page 25; PPI 29: # of river systems with determined resource quality objectives	DWS, through consultative PSCs	RQOs set for 10 systems by 2019

5.4.5 Protect riparian & wetland buffers and critical groundwater recharge areas

Buffers and critical groundwater recharge areas are recognised as critical ecological infrastructure supporting water security and are kept intact, maintained and restored to support water quantity and quality.	Groundwater Strategy (2010) reviewed to provide for actions for identifying and recognising buffers and critical groundwater recharge areas; Ito revised GW strategy, critical ecological infrastructure is supporting water security and are kept intact, maintained and restored;	DWS Business Plans and APP	2016
	Groundwater protective zone data are captured in DWS Information system;	Water Use Authorisations; RQOs; MoUs; DWS, WBs, CMAs, Water users Regulator	2017 and beyond
	Data audited and appropriate actions taken		2018

5.4.6 Rehabilitate strategic water ecosystems to support water quantity & water quality

Strategic actions	KPI	Responsibility	Time
The priority rehabilitation needs of water ecosystems are identified, and an appropriate level of investment in the rehabilitation of degraded ecosystems is in place to improve the sustainability and performance of key water-related ecological infrastructure.	Developed programme of water ecosystems to be rehabilitated. Programme includes roles and responsibilities, funding and time frames;	DWS, CMAs, WBs, Water users	2017
	Programme implemented progressively		2017
	DWS MA ; Programme 4; page 37; PPI 45; # rivers where River Health Programme is implemented		2014/15

5.4.7 Monitor ecological health to inform management

Strategic actions	KPI	Resp	Time
<p>Sound monitoring (indicators, sites and frequency) is conducted by experienced inter-departmental / agency teams at the scale of WMAs.</p> <p>The resulting information on the state of, and trends in, ecosystem health is packaged and communicated to inform relevant water resource management, decision making and policy processes (see Chapter 13).</p>	<p>DWS MA; Programme 2; page 25; PPI 34: % completion of the review of the existing water monitoring networks</p> <p>DWS MA; Programme 2, page 25; PPI 27; Annual report on state of water</p> <p>DWS MA; Programme 4; page 37; PPI 45; # rivers where River Health Programme is implemented</p>	<p>Inter-departmental / agency teams at the scale of WMAs.</p> <p>DWS, CMAs, WBs, Water users</p> <p>DWS</p> <p>DWS RQS</p>	<p>2014/15</p> <p>2014/15</p> <p>14/15</p> <p>14/15</p>

5.4.7 Monitor ecological health to inform management (cont)

Strategic actions	KPI	Resp	Time
<p>Existing monitoring programmes, in varying phases of maturity, serve as a basis for refining, expanding and strengthening the monitoring of the health of water ecosystems. These programmes include the national River Health Programme, Wetland Health Programme and Estuary Health Programme.</p> <p>There is an urgent need to initiate an Aquifer Health Programme to monitor the health and extent of pollution of significant aquifers.</p> <p>Where necessary, programmes are revitalised, expanded and revised so that the location of monitoring sites considers National Freshwater Ecosystem Priority Areas (NFEPA)s.</p>	<p>Established and maintained National Aquatic Ecosystem Health Monitoring Programme consisting of the following</p> <ul style="list-style-type: none"> •River Health •Wetland Health •Aquifer Health <p>D: RQS: BP 13/14: page 13: Strategic Outcome Oriented Goal: Protection of freshwater ecosystems: SO 4.2: improve the protection of water resources and ensure their sustainability; Programme outputs: Fully operational water resource quality monitoring programmes: PI: effective implementation of operational monitoring programmes: PT: Compliance to sampling schedule for 4 national monitoring programmes (NCMP; NMMP; NEMP; RHP)</p> <p>PI: Estuaries monitoring programme: Implementation in 6 additional estuaries – continuation of others already implemented</p>	<p>Inter-depart / agency teams at the scale of WMAs. DWS, CMAs, WBs, Water users DWS RQS</p>	<p>2014/15</p> <p>29</p>

5.4.8 Minimisation of pollution from wastewater treatment works

Strategic actions	KPI	Responsibility	Time
Ensuring that efficient water use is sustainably implemented to reduce the amount of municipal sewage produced (Chap 7) should include the development and implementation of wastewater recycling systems to minimise the discharge of sewage into the water resources.	DWS Authorisation process; WSDP	DWS, CMAs, WBs, Water users	
Sustainable implementation of wastewater risk abatement plans, such as the Green Drop certification across all municipal and private wastewater treatment works, should be assessed	DWA Water Services Regulation; Green Drop auditing		2014/15

Strategic actions	KPI	Resp	Time
5.4.9 Establishing commitment to sustainable water resource management			
Water valuation must be integrated into water resource decision making by ensuring water resource protection gains acceptance among all stakeholders involved.	Stakeholder awareness raising and communication programmes developed; and implemented	Annual survey of water users DWS, WRC	2016
Current and appropriate valuation methods and processes need to be further developed and refined where the decision context can play a role in addressing water resource protection and enabling communities, business and decision makers to have ownership in the decisions made on water resource protection.	Developed and implemented appropriate valuation methods and processes to reflect strategic action	DWS, water users, communities DWS	2017
This includes stakeholder engagement in creating an enabling environment for appraising decisions where trade-offs between use(s) of water and/or services supported by it are evident.			2017
The pricing of water (see Chapter 12) needs to better reflect its value.	DWS MA ; Programme 2; page 22; PPI 19; revised Pricing Strategy.		2015

Strategic Action activities	KPI	Implementation mechanisms	Timeframe
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5.4.10 Target actions with immediate benefits

The sector led by DWS will identify priority actions that will result in immediate benefits for the country, including additional water available for irrigation use by emerging farmers, which has been estimated to be between 100 000 and 200 000 hectares.

Strategic Action to be transferred to Chapter 6

WWF DRAFT PROPOSAL: CHAPTER 5 (1)

Relevant Chapter 5 comp	Key area	Key actions	Resp Organization	Estimated Timeframe
5.1.6.	Acknowledgement of water source areas as a strategic natural asset.	WWF-SA in conjunction with DWS to present the programme to the various national departments. Meetings should be aimed at targeting strategic individuals within each department.		3 months
5.1.6. & 5.4.2.	Investment in our strategic water source areas	DWS and WWF-SA, SANBI, WRC, CSIR to jointly assess the mechanisms available for investing in strategic water source areas. Exploring models around corporate and community stewardship, EI bonds etc.		2-3 years
5.1.7.	Developing a common framework for the economic analysis of ecological benefits.	Discussions with DST, WRC, CSIR and WWF-SA on the best approach to take to conduct the research required to develop the framework.		2-3 years
5.1.7.	Discussing the elements of ecological risks assessments and economic benefit analysis.	To be incorporated as part of the report discussed above.		2-3 years

WWF DRAFT PROPOSAL: CHAPTER 5 (2)

Relevant Chapter 5 comp	Key area	Key actions	Resp Organization	Estimated Timeframe
5.1.7.	Promoting awareness around our strategic water source areas.	Make use of existing WWF-SA campaigns, like journey of water as well as discussing the involvement of water boards. Look at a national approach encouraging provinces to go on their own journey of water.		On-going
5.1.8.	Monitoring water ecosystems.	To be discussed further.		
5.4.3.	Strategic investment in the maintenance and rehabilitation of water ecosystems.	DWS and WWF-SA to jointly assess the mechanisms available for investing in strategic water source areas. Exploring models around corporate and community stewardship, EI bonds etc.		2-3 years
5.4.4.	Maintain freshwater ecosystem priority areas in good condition.	To be discussed further.		

WWF DRAFT PROPOSAL: CHAPTER 5 (2)

Relevant Chapter 5 comp	Key area	Key actions	Resp Organization	Estimated Timeframe
5.4.6.	Rehabilitation of strategic water ecosystems to support water quantity and water quality.	DWS and WWF-SA to jointly assess the mechanisms available for investing in strategic water source areas. Exploring models around corporate and community stewardship, EI bonds etc. Sector partners like SANBI, WRC can also be involved		2-3 years
5.4.9.	Establish commitment to sustainable water resource management.	Workshops with strategic sector partners around sustainable water resource management and investment in ecological infrastructure.		On-going



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