1. Water and Sanitation Management

SCHEDULE OF ACTIONS — Menu — Help

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Level 1: Key Actions	Level 2: Supporting Actions	Level 3: Regional Actions	Nat., Reg. & System (N)/ Prov. (P)/ Local (L)	Baseline / Status Quo	Drivers / Goals	Major Measurable Deliverable	Overall targets: Target Date: Start date	Overall targets: Target Date: Compl. Date	Responsible Institutions: Lead	Responsible Institutions: Support	Present Value Cost (VAT excl.) R million (2018) (MP horizon)	Breakdown of deliverables per time segment: 2018-2020: Deliverable	2018-2020: Date	2018-2020: PV Cost R million	2021-2025: Deliverable	2021-2025: Date	2021-2025: PV Cost R million	2026-2030 (current MP horizon, to vary in future): Deliverable	2026-2030: Date	2026-2030: PV Cost R million	Note	2031-2050 (beyond current MP horizon): Deliverable	2031-2050: Date	2031-2050: PV Cost R million	Priority: Magnitude of impact if action does not occur (1) Critical, (2) Serious, (3) important (4) minor	Priority: Is it a foundation action: (1) Other actions highly dependent; (2) Few direct dependencies (3) no direct dependencies	Priority: What level of impact will the investment generate? (1) Major benefit (>x10); (2) moderate benefit (>x2) (3) limited benefit	What has prevented action from being completed to date?
									TOTAL Water and Sanitation Management:		R 548 637		TOTAL:	R 145 815		TOTAL:	R 336 461		TOTAL:	R 66 360			TOTAL:	R 142 516				
1.1 Reducing water demand and increasing supply									TOTAL Reducing water demand and increasing supply:		R 173 041		TOTAL:	R 19 795		TOTAL:	R 92 486		TOTAL:	R 60 760			TOTAL:	R 2 802				
Reduce water demand	1.1.1 Reduce Non Revenue Water (NRW) and water losses in all municipalities to 15% below the business as usual	National	Local	41% Non-revenue water	A.4; B.6	26% Non-revenue water	2019	2030	DWS	CoGTA	R 562	15% Non-revenue water	2020	R 72	15% Non-revenue water	2025	R 360	15	2030	R 130		15	2050	R 864	1	1	1	Lack of commitment from DWS to capture submitted reports and to follow-up on non-submission of reports
		Eastern Cape	WSA	46,3% Non-revenue water		31,3% Non-revenue water	2018	2030	WSAs	CoGTA	R 55	31,3% Non-revenue water	2020	R 7	16% Non-revenue water	2025	R 35	16	2030	R 13	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	16,3	2050	R 84	1	1	1	Lack of commitment from WSA to submit their monthly reports to DWS.
		Free State	WSA	42,3% Non-revenue water		27,3% Non-revenue water	2018	2030			R 74	27,3% Non-revenue water	2020	R 10	12% Non-revenue water	2025	R 48	12	2030	R 17	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	12,3	2050	R 114	1	1	1	Lack of commitment from WSA to submit their monthly reports to DWS.
		Gauteng	WSA	34,7% Non-revenue water		20% Non-revenue water	2018	2030			R 35	19,7% Non-revenue water	2020	R 5	5% Non-revenue water	2025	R 23	5	2030	R 8	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	5	2050	R 54	1	1	1	Lack of commitment from WSA to submit their monthly reports to DWS.
		Kwazulu-Natal	WSA	45% Non-revenue water		30% Non-revenue water	2018	2030			R 55	30% Non-revenue water	2020	R 7	15% Non-revenue water	2025	R 35	15	2030	R 13	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	15	2050	R 84	1	1	1	Lack of commitment from WSA to submit their monthly reports to DWS.
		Limpopo	WSA	50,3% Non-revenue water		35,3% Non-revenue water	2018	2030			R 39	35,3% Non-revenue water	2020	R 5	20% Non-revenue water	2025	R 25	20	2030	R 9	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	20,3	2050	R 60	1	1	1	Lack of commitment from WSA to submit their monthly reports to DWS.
		Mpumalanga	WSA	46,2% Non-revenue water		31,2% Non-revenue water	2018	2030			R 66	31,2% Non-revenue water	2020	R 9	16% Non-revenue water	2025	R 43	16	2030	R 15	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	16,2	2050	R 102	1	1	1	Lack of commitment from WSA to submit their monthly reports to DWS.
		North West	WSA	41,2% Non-revenue water		26,2% Non-revenue water	2018	2030			R 39	26,2% Non-revenue water	2020	R 5	11% Non-revenue water	2025	R 25	11	2030	R 9	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	11,2	2050	R 60	1	1	1	Lack of commitment from WSA to submit their monthly reports to DWS.
		Northern Cape	WSA	43,5% Non-revenue water		28,5% Non-revenue water	2018	2030			R 101	28,5% Non-revenue water	2020	R 13	14% Non-revenue water	2025	R 65	14	2030	R 23	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	13,5	2050	R 156	1	1	1	Lack of commitment from WSA to submit their monthly reports to DWS.
		Western Cape	WSA	20,2% Non-revenue water		20% Non-revenue water	2018	2030			R 98	5,2% Non-revenue water	2020	R 13	5% Non-revenue water	2025	R 63	5	2030	R 23	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	5	2050	R 150	1	1	1	Lack of commitment from WSA to submit their monthly reports to DWS.
	1.1.2 Set cap on water use with reducing targets over time	National		233 l/c/d	A.4; B.6	Reduce per capita consumption to world average consumption of approx. 173 l/c/d. • Assess water usage per WSA/system • Establish targets per water use sector • Implement usage targets less 15% by 2020	2018	2030	DWS	DWS, CMAs	R 158			R 72			R 43			R 40			R 864	1	1	1	No commitment
		Eastern Cape	WSA	200 l/c/d			2018	2030	WSAs	DWS, CoGTA	R 15	190 l/c/d	2020	R 7	173 l/c/d	2025	R 4	n/a	2030	R 4	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	173 l/c/d	2050	R 84	1	1	1	
		Free State	WSA	209 l/c/d			2018	2030			R 21	199 l/c/d	2020	R 10	179 l/c/d	2025	R 6	173	2030	R 6	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	173 l/c/d	2050	R 114	1	1	1	
		Gauteng	WSA	305 l/c/d			2018	2030			R 10	290 l/c/d	2020	R 5	261 l/c/d	2025	R 3	235	2030	R 3	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	173 l/c/d	2050	R 54	1	1	1	
		Kwazulu-Natal	WSA	225 l/c/d			2018	2030			R 15	214 l/c/d	2020	R 7	192 l/c/d	2025	R 4	173	2030	R 4	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	173 l/c/d	2050	R 84	1	1	1	
		Limpopo	WSA	182 l/c/d			2018	2030			R 11	173 l/c/d	2020	R 5	n/a	2025	R 3	n/a	2030	R 3	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	173 l/c/d	2050	R 60	1	1	1	
		Mpumalanga	WSA	205 l/c/d			2018	2030			R 19	195 l/c/d	2020	R 9	175 l/c/d	2025	R 5	173	2030	R 5	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	173 l/c/d	2050	R 102	1	1	1	
		North West	WSA	238 l/c/d			2018	2030			R 11	226 l/c/d	2020	R 5	203 l/c/d	2025	R 3	183	2030	R 3	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	173 l/c/d	2050	R 60	1	1	1	
		Northern Cape	WSA	186 l/c/d			2018	2030			R 29	177 l/c/d	2020	R 13	173 l/c/d	2025	R 8	n/a	2030	R 8	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	173 l/c/d	2050	R 156	1	1	1	
		Western Cape	WSA	201 l/c/d			2018	2030			R 28	191 l/c/d	2020	R 13	173 l/c/d	2025	R 8	n/a	2030	R 8	Budget req. = R.3 mill to implement and R.1 mill to maintain per WSA	173 l/c/d	2050	R 156	1	1	1	
	1.1.3 Reduce the water demands and water losses at all major irrigation and agricultural schemes by 2030, without affecting productions	National		7 998	A.4; B.6	Achieve a reduction of total water use per unit of production by 10% over a 10 year period. Review and improve the regulatory instruments to promote sound infrastructure O&M practices and renewal of ageing infrastructure at all major irrigation and agricultural schemes managed by WUA or private owners to	2018	2030	DWS	DAFF	R 10 000	7 832,5	2020	R 1 670	4 542,9	2025	R 4 165	2635	2030	R 4 165	R10 Billion Rand capital cost to refurbish and rebuild irrigation schemes as most of them are old, infrastructure conditions declines, lack proper water measurement and adequate staff to ensure effective operation and maintenance of schemes including direct river abstractions within the schemes		2050	R	2	2	2	Irrigation the responsibility of DAFF, but DWS to provide water.
		Berg-Olifants	WUA	877			2018	2030				862,1			500,0	2025		290	2030					2050	R	2	2	2	
		Breede-Gouritz	WUA	610			2018	2030				599,6	2020		347,8	2025		202	2030					2050	R	2	2	2	
		Inkomati-Usuthu	WUA	1 229			2018	2030				1 208,1	2020		700,7	2025		406	2030					2050	R	2	2	2	
		Limpopo	WUA	1 448			2018	2030				1 462,7	2020		848,4	2025		492	2030					2050	R	2	2	2	
		Mzimvubu-Tsitsikamma	WUA	955			2018	2030				938,8	2020		544,5	2025		316	2030					2050	R	2	2	2	
		Olifants	WUA	356			2018	2030				349,9	2020		203,0	2025		118	2030					2050	R	2	2	2	
		Orange	WUA	786			2018	2030				766,7	2020		444,7	2025		258	2030					2050	R	40	2	2	
		Pongola-Mtamvuna	WUA	207			2018	2030				203,5	2020		118,0	2025		68	2030					2050	R	85	2	2	
		Vaal	WUA	1 446			2018	2030				1 441,1	2020		835,8	2025		485	2030					2050	R	120	2	2	
	1.1.4 Reduce water demand and increase water efficiencies of industrial users	National	N		A.4; B.6	Achieve a reduction of total water use per unit of production by 5% to 10% over a 10 year period.	2016	2026	DWS	the dti	R 23 900			R 8 150			R 7 875			R 7 875				R	1	2	2	Cost to industry
		Eskom	N	307 million m³							R 5 000			R 5 000											1	1	1	
		Mines	N	1.4 m³/ton							R 18 900	Mining sector to improve its WUE by 5-10% until 2030	2020	R 3 150	Mining sector to improve its WUE by 5-10% until 2030	2025	R 7 875	Mining sector to improve its WUE by 5-10% until 2030	2020	R 7 875	Assuming that each operational mine (total of which is estimated to be 350 in the country) spends an average of R4.5 million per annum on WCWDM initiatives = R 4,5x106 x 350 = R 1,58 billion per annum to be spent by mining sector to improve its WUE by 5-10% over the next…years				1	1	2	
		Sasol	N								R -														1	2	2	
		Wet industries	N								R -														2	2	3	
Integrated Water Resources Planning and management	1.1.5 Develop, update and maintain reconciliation planning studies to achieve optimal water mix (surface water, groundwater, re-use and desalination, and incorporate climate change into studies)	National	N, P, L	See SQ per system	A.1; A.5; B.5; B.7; B.8	• Monitor intervention actions of all Strategies • Identify other major systems that may require Reconciliation Strategies, not included in All Town Studies (prioritise basins and towns in terms of current deficit or when deficit to be realised) • Procure PSPs for Continuation of 13 Reconciliation Strategies, each system over 3 year cycles • Current water balance, availability each source, demand projection each sector, cost resource options, cost bulk options, funding, institutional arrangements, environmental • Liaise with stakeholders through Strategy Steering Committee • Monitor Intervention Actions	2018	2030	DWS	CMAs, WSAs	R 353	As for Systems	2020	R 62	As for Systems	2025	R 151	As for Systems	2030	R 140		As for Systems	2050	R 560	2	2	3	• Lack of responsibility to proceed with studies • Supply chain issues • Insufficient budget
		Vaal River System	N, P, L	Recon Strategy 2009, 2nd continuation			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4	• Appointment of PSP for next phases of Continuation • Updated Strategy	2025	R 10	• Appointment of PSP for next phases of Continuation • Updated Strategy	2030	R 10	13 Strategy continuations at about R8m (2018 value) each, for each three year cycle	• Appointment of PSP for next phases of Continuation • Updated Strategy	2050	R 40	2	2	3	
		Orange River System	N, P, L	Recon Strategy 2014, ???? continuation			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Kwa-Zulu Natal Coastal Metropolitan Bulk Water Supply System	N, P, L	Recon Strategy 2010, 2nd continuation			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Richards Bay Water Supply System	N, P, L	Recon Strategy 2014, ??? continuation			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Mbombela Bulk Water Supply system	N, P, L	Recon Strategy 2014, ??? continuation			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Western Cape Water Supply System	N, P, L	Recon Strategy 2007, 2nd continuation			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Amatole Bulk Water Supply System	N, P, L	Recon Strategy 2008, ??? continuation			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Algoa Water Supply System	N, P, L	Recon Strategy 2010, ??? continuation			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Limpopo WMA	N, P, L	Recon Strategy 2016			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Olifants River Water Supply System	N, P, L	Recon Strategy 2011, ??? continuation			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Crocodile (West) River System	N, P, L	Recon Strategy 2009, 2nd continuation			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Greater Bloemfontein Bulk Water Supply System	N, P, L	Recon Strategy 2011, ?? continuation			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Levuvhu and Letaba Water Supply System	N, P, L	Recon Strategy 2015			2018	2030	DWS	CMAs, WSAs	R 24	• Appointment of PSP for next phases of Continuation • Updated Strategy	2020	R 4		2025	R 10		2030	R 10			2050	R 40	2	2	3	
		Mahikeng Municipal Water Supply System	N, P, L	No Reconciliation Strategy yet		• Procure PSP for the Development of the Reconciliation of the Mahikeng Municipal Water Supply System • Create water balance, availability each source, demand projection each sector, cost resource options, cost bulk options, funding, institutional arrangements, environmental • Create Strategy Steering Committee • Monitor Intervention actions	2019	2030	DWS	CMAs, WSAs	R 41	• Appointment of PSP • Some of the tasks for Reconciliation Strategy	2020	R 10	• Draft and final Reconciliation Strategy • Appointment of PSP for 1st Continuation • Updated Strategy	2025	R 21	• Appointment of PSP for next Continuations • Updated Strategy (2nd)	2030	R 10	R25m to develop Strategy (2019 to 2022), and about R8m for each continuation (from 2023 to 2050) in 2018 money	• Appointment of PSP for next Continuations • Updated Strategies	2050	R 40	2	2	3	
	1.1.6 Do detailed feasibility study (including EIA) of high priority interventions (identified in Reconciliation Strategies) and develop bankable projects, with business case of required infrastructure, financing, institutional arrangements for ownership and operations as implementation mandate.	National	N		A.1; A.5; B.5; B.7; B.8	• Procure PSPs for feasibility studies • Complete Feasibility Studies (listed below), including RID (for implementation) • Procure funding for implementation (either Gov or Private)	2018	2050	WSAs	DWS; CMAs	391	As for Systems	2020	91	As for Systems	2025	220	As for Systems	2034	80	Planning cost will be between 1 and 0.5% of proposed capital cost of projects	As for Systems	2050	165	2	2	2	
		Vaal River System: re-use larger municipalities	L	Indirect re-use implemented by Tshwane.	A.1; A.5; B.5; B.7; B.8	Feasibility study for re-use at larger municipalities	2018	2040	WSAs	DWS; CMA	-		2020			2025			2030		Complete all feasibility studies before 2030 for implementation as required related to growing demand and supply from LHWP2.	Jana & Metsetsin dams bridging study	2040	40	1	2	1	• Lack of responsibility to proceed with studies
		Orange River System: Vioolsdrift, Verbeeldingskraal/Boskraai dams, further phases of LHWP	N	Vioolsdrift feasibility study almost complete, but additional options are being investigated.		• Vioolsdrift Feasibility Study, incl. RID • Verbeeldingskraal/Boskraai Dam Feasibility Study, incl. RID	2015	2030	WSAs	DWS; CMA	80	• Vioolsdrift Feasibility Study, incl. RID	2019	10	• Verbeeldingskraal/Boskraai Dam Feasibility Study, incl. RID	2025	30	Further phases of LHWP (bridging studies)	2030	40	Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	n/a	n/a		2	2	2	• Need completion of Vioolsdrift Study, before continuing with other studies
		Kwa-Zulu Natal Coastal Metropolitan: uMWP-2, Isithundu Dam	N	Feasibility study for uMkhomazi Water Project Phase 1 completed		Feasibility studies for: uMkhomazi Water Project Phase 2 (proposed Impendle Dam), Isithundu Dam	2020	2050	WSAs	DWS; CMA	-	n/a	n/a	-	n/a	0		n/a	n/a	-	Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	• uMWP-2 Feasibility study (2038) • Isithundu Dam Feasibility study (>2040)	2050	65	3	2	1	Currently not needed
		Richards Bay: preferred option to be selected, Mfolozi off-channel dam	N	Options identified for pre-feasibility comparison as per Recon Strat		• Mfolozi Off-channel Dam feasibility study • Select preferred options for feasibility study • Nsezeni River Dam	2018	2034	WSAs	DWS; CMA	49	• procure and commission Mfolozi Off-channel Dam feasibility study	2020	4	• Mfolozi Off-channel Dam feasibility study	2021	20	Nsezeni River Dam Compare other selected interventions for feasibility	2034	25	Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	n/a	n/a		3	2	2	• Timing of next actions
		Mbombela: Regional scheme on Crocodile East River	N	Interventions identified in Recon Strat		Regional scheme on the Crocodile East River	2018	2022	WSAs	DWS; CMA	30	• Procure and commission Regional Scheme on Crocodile East River	2020	5	• Regional Scheme on Crocodile East River feasibility study, incl. RID	2022	25	n/a	n/a	-	Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	n/a	n/a	-	3	2	2	• Lack of responsibility to proceed with studies • Supply chain issues • Insufficient budget
		Western Cape: Michell's Pass diversion, Voëlvlei Augmentation Phase 2	N	Interventions identified in Recon Strat		Michell's Pass diversion, Voëlvlei Augmentation Phase 2 feasibility studies	2018	2023	WSAs	DWS; CMA	50	• Procure and commission Michell's Pass diversion feasibility study	2022	25	• Voëlvlei Augmentation Phase 2 feasibility study	2027	25	n/a	n/a	-	Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	n/a	n/a	-	1	1	1	• Supply chain issues • Insufficient budget
		Amatola: re-use, Nahoon River Dam, Transfer from Keiskamma River (Sandile Dam)	N, L	Interventions identified in Recon Strat		Nahoon River Dam, Transfer from Keiskamma River (Sandile Dam) feasibility study	2020	2025	WSAs	DWS; CMA	50	Procure and commission Nahoon River Dam, Transfer from Keiskamma River	2023	25	Nahoon River Dam, Transfer from Keiskamma River (Sandile Dam)	2025	25	n/a	n/a	-	Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	n/a	n/a		1	1	2	• Timing of next interventions
		Algoa: Nooitgedacht Low-level Scheme Phase 2, Groundwater, Re-use, Desalination, Raising of Kouga Dam	N, L	Interventions identified in Recon Strat		Nooitgedacht Low-level Scheme Phase 2, Groundwater, Re-use, Desalination, Raising of Kouga Dam feasibility studies	2018	2050	WSAs	DWS; CMA	2	Procure and commission Groundwater feasibility study	2020	2	Groundwater, Re-use, Desalination, Nooitgedacht Low-level Scheme Phase 2, Raising of Kouga Dam feasibility study	2025	25	Groundwater, Re-use, Desalination, Nooitgedacht Low-level Scheme Phase 2, Raising of Kouga Dam feasibility study				Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	Groundwater, Re-use Desalination Nooitgedacht Low-level Scheme Phase 2, Raising of Kouga Dam feasibility study	n/a	n/a		1	1	2	• Timing of next interventions
		Limpopo: Groundwater, Supply from Zimbabwe	N, L	Interventions identified in Recon Strat		Groundwater, Supply from Zimbabwe feasibility studies	2021	2030	WSAs	DWS; CMA	25	n/a	n/a	-	Groundwater feasibility studies	2025	10	Supply from Zimbabwe feasibility studies	2030	15	Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	n/a	n/a		2	2	2	• Lack of responsibility to proceed with studies • Supply chain issues • Insufficient budget
		Olifants River: Groundwater, Re-use (mine water & domestic)	N, L	Interventions identified in Recon Strat		Groundwater, Re-use (mine water & domestic) feasibility studies	2021	2025	WSAs	DWS; CMA	15	n/a	n/a	-	Procure Groundwater, Re-use (mine water & domestic) feasibility studies	2025	15	n/a	n/a	-	Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	n/a	n/a		1	1	2	• Timing of next interventions

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Level 1: Key Actions	Level 2: Supporting Actions	Level 3: Regional Actions	Nat., Reg. & System (N)/ Prov. (P)/ Local (L)	Baseline / Status Quo	Overall targets: Drivers / Goals	Major Measurable Deliverable	Target Date: Start date	Target Date: Compl. Date	Responsible Institutions: Lead	Responsible Institutions: Support	Present Value Cost (VAT excl.) R million (2018) (MP horizon)	Breakdown of deliverables per time segment 2018-2020: Deliverable	2018-2020: Date	2018-2020: PV Cost R million	2021-2025: Deliverable	2021-2025: Date	2021-2025: PV Cost R million	2026-2030 (current MP horizon, to vary in future): Deliverable	2026-2030: Date	2026-2030: PV Cost R million	Note	2031-2050 (beyond current MP horizon): Deliverable	2031-2050: Date	2031-2050: PV Cost R million	Priority: Magnitude of impact if action does not occur (1) Critical, (2) Serious, (3) Important (4) minor	Priority: Is it a foundation action: (1) Other actions highly dependent; (2) Few direct dependencies (3) no direct dependencies	Priority: What level of impact will the investment generate? (1) Major benefit (>x10); (2) moderate benefit (>x2) (3) limited benefit	What has prevented action from being completed to date?
										TOTAL Water and Sanitation Management:	R 548 637		TOTAL:	R 145 815		TOTAL:	R 336 461		TOTAL:	R 66 360			TOTAL:	R 142 516				
		Crocodile (West) River System	N	Studies on Transfer to Mokolo completed		n/a	n/a	n/a	WSAs	DWS, CMA	-	n/a	n/a	-	n/a	n/a	-	n/a	n/a		Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	n/a	n/a	-	4	3	3	-
		Greater Bloemfontein: Xhariep pipeline, Augmentation of Knellpoort Dam, re-use	N, L	Feasibility study on Xhariep pipeline commenced.		Xhariep pipeline, Augmentation of Knellpoort Dam, re-use feasibility studies	2018	2025	WSAs	DWS, CMA	55	Xhariep pipeline feasibility study	2020	20	Augmentation of Knellpoort Dam, re-use feasibility studies	2025	35	n/a	n/a		Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	n/a	n/a	-	2	2	2	• Timing of next interventions
		Levuvhu and Letaba: Groundwater, Dam in the Mutale River	N, L	Interventions identified in Recon Strat		Groundwater, Dam in the Mutale River feasibility studies	2021	2025	WSAs	DWS, CMA	35	n/a	n/a	-	Groundwater, Dam in the Mutale River feasibility studies	2025	35	n/a	n/a		Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	n/a	n/a	-	2	2	2	• Lack of responsibility to proceed with studies • Supply chain issues • Insufficient budget
		Mahikeng Municipal Water Supply System	N	No interventions identified yet		n/a	n/a	n/a	WSAs	DWS, CMA	-	n/a	n/a	-	n/a	n/a	-	n/a	n/a		Estimated cost for Feasibility Studies from Reconciliation Interventions identified. Includes EIA and Geotech investigations	n/a	n/a	-	4	3	3	
	1.1.7 Water Resources Catchment studies (Continuously undertake hydrological monitoring in order to improve the resiliency and sustainability of the available sources on account of future climate change)	National	N		A.1; A.5; B.5; B.7; B.8	Water resource/catchment studies such as: • Internal Strategic Perspective (ISP) studies • Water Availability Assessment Study (WAAS) Including the following: • Update/extent hydrology • Update current land use • Update System Models • include Reserve objectives • include climate change scenarios	2018	2050	DWS	CMAs	R 4 890	As for Systems	2020	R 815	As for Systems	2025	R 2 038	As for Systems	2030	R 2 038		As for Systems	0	R	3	2	2	• Lack of responsibility to proceed with studies • Supply chain issues • Insufficient budget
		Berg-Olifants	CMA				2018	2050	DWS	CMA	R 88	5 new sites to be developed	2020	R 15	5 new sites to be developed	2025	R 36	5 new sites to be developed	2030	R 36					3	2	2	
		Breede-Gourtz	CMA				2018	2050	DWS	CMA	R 856	15 new sites to be developed	2020	R 143	15 new sites to be developed	2025	R 357	15 new sites to be developed	2030	R 357					3	2	2	
		Inkomati-Usuthu	CMA				2018	2050	DWS	CMA	R 249	10 new sites to be developed	2020	R 42	10 new sites to be developed	2025	R 104	10 new sites to be developed	2030	R 104					2	2	2	
		Limpopo	CMA				2018	2050	DWS	CMA	R 810	20 new sites to be developed	2020	R 135	20 new sites to be developed	2025	R 337	20 new sites to be developed	2030	R 337					2	2	2	
		Mzimvubu-Tsitsikamma	CMA				2018	2050	DWS	CMA	R 527	25 new sites to be developed	2020	R 88	25 new sites to be developed	2025	R 219	25 new sites to be developed	2030	R 219					4	2	2	
		Olifants	CMA				2018	2050	DWS	CMA	R 538	20 new sites to be developed	2020	R 90	20 new sites to be developed	2025	R 224	20 new sites to be developed	2030	R 224					2	2	2	
		Orange	CMA				2018	2050	DWS	CMA	R 573	31 new sites to be developed	2020	R 96	31 new sites to be developed	2025	R 239	31 new sites to be developed	2030	R 239					2	2	2	
		Pongola-Mtamvuna	CMA				2018	2050	DWS	CMA	R 279	15 new sites to be developed	2020	R 46	15 new sites to be developed	2025	R 116	15 new sites to be developed	2030	R 116					3	2	2	
		Vaal	CMA				2018	2050	DWS	CMA	R 971	23 new sites to be developed	2020	R 162	23 new sites to be developed	2025	R 405	23 new sites to be developed	2030	R 405					2	2	2	
	1.1.8 Develop a guideline for the protection, recharge, use and monitoring of groundwater.	National	N	Groundwater Strategy completed.	A.1; A.4; A.5; A.6; B.5; B.7; B.8	Groundwater guidelines	2018	2022	DWS	WRC, CSIR	15	n/a	n/a	-	• Draft Groundwater guidelines for stakeholder comments • Finalise, publish and provide training on Groundwater guidelines	2020	15	n/a	n/a	-	DWS provided cost estimate	n/a	n/a	-	3	2	2	???
	1.1.9 Integrate results of All Towns studies and reconciliation studies into sectoral plans (domestic, agriculture, energy, mining, industrial development, land reform and rural development)	National	N	931 All Town Strategies completed	A.1; A.5; B.5; B.7; B.8	Review selected All Town Strategies	2018	2050	DWS	DAFF, DoE, DMR, the dti, DRDLR	R 245	As per Province	2020	R 41	As per Province	2025	R 102	As per Province	2030	R 102		As per Province	2050	R 409	3	2	2	• Lack of responsibility to proceed with studies • Supply chain issues • Insufficient budget
		Eastern Cape	P	133 All Town Strategies completed		Review selected 50 Strategies per 3 year cycle	2018	2050	DWS	DAFF, DoE, DMR, the dti, DRDLR	R 30	Review 50 Strategies	2020	R 5	Review 50 Strategies	2025	R 13	Review 50 Strategies	2030	R 13	R7.5m to review and update 50 All Town Strategies per Province over 3 year cycle	Review 50 Strategies	2050	R 50	3	2	2	
		Free State	P	74 All Town Strategies completed		Review selected 50 Strategies per 3 year cycle	2018	2050	DWS	DAFF, DoE, DMR, the dti, DRDLR	R 30	Review 50 Strategies	2020	R 5	Review 50 Strategies	2025	R 13	Review 50 Strategies	2030	R 13		Review 50 Strategies	2050	R 50	3	2	2	
		Gauteng	P	9 All Town Strategies completed		Review selected 9 Strategies per 3 year cycle	2018	2050	DWS	DAFF, DoE, DMR, the dti, DRDLR	R 5	Review 9 Strategies	2020	R 1	Review 9 Strategies	2025	R 2	Review 9 Strategies	2030	R 2		Review 9 Strategies	2050	R 9	3	2	2	
		Kwazulu-Natal	P	173 All Town Strategies completed		Review selected 50 Strategies per 3 year cycle	2018	2050	DWS	DAFF, DoE, DMR, the dti, DRDLR	R 30	Review 50 Strategies	2020	R 5	Review 50 Strategies	2025	R 13	Review 50 Strategies	2030	R 13		Review 50 Strategies	2050	R 50	3	2	2	
		Limpopo	P	150 All Town Strategies completed		Review selected 50 Strategies per 3 year cycle	2018	2050	DWS	DAFF, DoE, DMR, the dti, DRDLR	R 30	Review 50 Strategies	2020	R 5	Review 50 Strategies	2025	R 13	Review 50 Strategies	2030	R 13		Review 50 Strategies	2050	R 50	3	2	2	
		Mpumalanga	P	58 All Town Strategies completed		Review selected 50 Strategies per 3 year cycle	2018	2050	DWS	DAFF, DoE, DMR, the dti, DRDLR	R 30	Review 50 Strategies	2020	R 5	Review 50 Strategies	2025	R 13	Review 50 Strategies	2030	R 13		Review 50 Strategies	2050	R 50	3	2	2	
		North West	P	101 All Town Strategies completed		Review selected 50 Strategies per 3 year cycle	2018	2050	DWS	DAFF, DoE, DMR, the dti, DRDLR	R 30	Review 50 Strategies	2020	R 5	Review 50 Strategies	2025	R 13	Review 50 Strategies	2030	R 13		Review 50 Strategies	2050	R 50	3	2	2	
		Northern Cape	P	92 All Town Strategies completed		Review selected 50 Strategies per 3 year cycle	2018	2050	DWS	DAFF, DoE, DMR, the dti, DRDLR	R 30	Review 50 Strategies	2020	R 5	Review 50 Strategies	2025	R 13	Review 50 Strategies	2030	R 13		Review 50 Strategies	2050	R 50	3	2	2	
		Western Cape	P	140 All Town Strategies completed		Review selected 50 Strategies per 3 year cycle	2018	2050	DWS	DAFF, DoE, DMR, the dti, DRDLR	R 30	Review 50 Strategies	2020	R 5	Review 50 Strategies	2025	R 13	Review 50 Strategies	2030	R 13		Review 50 Strategies	2050	R 50	3	2	2	
Increasing water supply	1.1.10 Development of strategic water resources infrastructure	National	N	As per project below	A.1; A.5; B.5; B.7; B.8	Delivery of water	2018	2050	Different institutions as per infrastructure tab		R 130 691	As per Project	2020	R 8 362	As per Project	2025	R 76 784	As per Project	2028	R 45 546		As per Project	0	R	2	2	2	
		Construct LHWP Phase 2 (9)	N	Design		Delivery of water to Gauteng	2018	2024	LHDA	DWS	R 23 000	Design	2020	R 2 300	Implementation	2024	R 20 700	n/a	n/a	R	Budget from LHWP tender	n/a	n/a	R	1	1	1	
		Construct Western Cape Water Supply System Augmentation Project (Voëlvlei Dam) (10)	N	Financing		Delivery of water City of Cape Town	2018	2024	DWS		R 400	Design	2020	R 40	Implementation	2024	R 360	n/a	n/a	R	Cost estimate from Reconciliation strategy	n/a	n/a	R	1	1	1	
		Construct Cape Town emergency desalination plants (11)	N	Concept and viability		Delivery of water City of Cape Town	2015	2022	WSA	DWS	R 4 800	Design	2020	R 480	Implementation	2022	R 4 320	n/a	n/a	R	Cost estimate from Reconciliation strategy	n/a	n/a	R	2	1	1	
		Olifants River Water Resources Development Project	N	Implementation		Delivery of water for domestic and mining use in Limpopo	2012	2022	DWS		R 993	Completion of Phases 2A, 2B, 2C, 2E and 2F Commence Phase 2D	2020	R 543	Completion of Phase 2D	2022	R 450	n/a	n/a	R	Budget as per DWS Minister budget speech 30/5/2018	n/a	n/a	R	2	2	2	
		Groot Letaba River Development Project	N	Design		Raising of Tzaneen Dam Implementation of Nwamitwa Dam	2016	2025	DWS		R 1 825	Commence and complete Raising of Tzaneen Dam and commence	2020	R 456	Complete implementation of Nwamitwa Dam	2025	R 1 369	n/a	n/a	R	Budget as per DWS Minister budget speech 30/5/2018	n/a	n/a	R	3	3	3	
		Mdloti River Development Project	N	Implementation		Raising of Hazelmere Dam	2016	2018	DWS		R 110	Complete raising of Hazelmere Dam	2018	R 110	n/a	n/a	R -	n/a	n/a	R	Budget as per DWS Minister budget speech 30/5/2018	n/a	n/a	R	1	1	2	
		Construct uMkhomazi Water Project Phase 1 (81 m high Smithfield Dam, tunnel and pipeline) (12)	N	Concept and viability		Delivery of water Umgeni Water	2020	2028	WB	DWS	R 23 800	Financing and approval	2020	R 476	Design, Implementation	2025	R 9 044	Implementation	2028	R 14 280	Cost estimate from Feasibility study				1	1	1	
		Construct desalination of AMD from the Wits mining basins in Gauteng ≤ 54.8 million m³/annum (13)	N	Phase 1: Construction		Zero polluted AMD water draining into Vaal System Delivery of treated water to Vaal System	2013	2028	TCTA	DWS	R 10 000	Design	2020	R 500	Implementation	2025	R 7 500	Implementation	2028	R 2 000	Budget for 2018 to 2021 as per DWS Minister budget speech 30/5/2018	n/a	n/a	R	1	1	1	
		Construct Thukela • Goedertrouw Emergency Water Transfer Scheme (14)	N	Design		Delivery of water Richards Bay	2018	2022	DWS	WSA	R 420	Design & Implementation	2020	R 200	Implementation	2022	R 220	n/a	n/a	R	Budget as per DWS Minister budget speech 30/5/2018	n/a	n/a	R	1	2	2	
		Clanwilliam Dam raising	N	Design		Clanwilliam Dam raising	2018	2022	DWS		R 1 800	Implementation	2020	R 1 009	Completion of Raising of Clanwilliam Dam	2022	R 791	n/a	n/a	R	Budget as per DWS Minister budget speech 30/5/2018	n/a	n/a	R	2	2	2	
		Mokolo and Crocodile Water Augmentation Project (MCWAP)	N	Design		MCWAP: Phase 2A	2018	2022	DWS		R 16 000	Implementation MCWAP-2A	2020	R 590	Completion of MCWAP-2A	2022	R 15 410	n/a	n/a	R	Budget as per DWS Minister budget speech 30/5/2018	n/a	n/a	R	2	1	1	
		Construct Lower uMkhomazi Scheme (15)	N	Design		Delivery of water Upper South Coast	2019	2025	WB	DWS	R 3 600	Design	2020	R 360	Completion of Lower uMkhomazi	2025	R 3 240	n/a	n/a	R	Cost estimate from Feasibility study	n/a	n/a	R	1	1	2	
		Mzimvubu Water Project	N	Design		Delivery of water and hydropower	2018	2019	DWS		R 20 000	Design & Implementation	2019	R 100		2025	R 5 000	n/a	n/a	R	14 900 Budget as per DWS Minister budget speech 30/5/2018	n/a	n/a	R	4	3	3	
		Other water resources infrastructures development	N, P	Different phases as per infrastructure tab		Different deliverables as per infrastructure tab	2018	2050	Different institutions as per infrastructure tab		R 23 943		2020	R 1 197			R 8 380	n/a	n/a	R	14 366 See infrastructure spreadsheet for cost estimates	n/a	n/a	R	2	2	2	
	1.1.11 Refurbish gauging stations	National	N	979	A.1; A.5; B.5; B.7; B.8	1066	2019	2027	DWS	CMAs	R 246		2020	R 31		2025	R 154		2027	R 61	Cost from DWS, "Review, Evaluation and optimisation of the SA Water Resources Monitoring Network", February 2017				1	1	2	
		Limpopo	WMA	128		134	2019	2027	CMA	DWS	R 32	Refurbish 128 sites and Implement 6 new monitoring sites	2020	R 4	Refurbish 128 sites and Implement 6 new monitoring sites	2025	R 20	Refurbish 128 sites and Implement 6 new monitoring sites	2027	R 8					1	1	2	
		Olifants	WMA	95		102	2019	2027	CMA	DWS	R 20	Refurbish 95 sites and Implement 7 new monitoring sites	2020	R 2	Refurbish 95 sites and Implement 7 new monitoring sites	2025	R 12	Refurbish 95 sites and Implement 7 new monitoring sites	2027	R 5					1	1	2	
		Inkomati-Usuthu	WMA	79		88	2019	2027	CMA	DWS	R 12	Refurbish 79 sites and Implement 9 new monitoring sites	2020	R 1	Refurbish 79 sites and Implement 9 new monitoring sites	2025	R 7	Refurbish 79 sites and Implement 9 new monitoring sites	2027	R 3					1	1	2	
		Pongola-Mtamvuna	WMA	146		157	2019	2027	CMA	DWS	R 14	Refurbish 146 sites and Implement 11 new monitoring sites	2020	R 2	Refurbish 146 sites and Implement 11 new monitoring sites	2025	R 9	Refurbish 146 sites and Implement 11 new monitoring sites	2027	R 4					1	1	2	
		Vaal	WMA	105		117	2019	2027	CMA	DWS	R 68	Refurbish 105 sites and Implement 12 new monitoring sites	2020	R 9	Refurbish 105 sites and Implement 12 new monitoring sites	2025	R 43	Refurbish 105 sites and Implement 12 new monitoring sites	2027	R 17					1	1	2	
		Orange	WMA	69		92	2019	2027	CMA	DWS	R 45	Refurbish 69 sites and Implement 23 new monitoring sites	2020	R 6	Refurbish 69 sites and Implement 23 new monitoring sites	2025	R 28	Refurbish 69 sites and Implement 23 new monitoring sites	2027	R 11					1	1	2	
		Mzimvubu-Tsitsikamma	WMA	137		154	2019	2027	CMA	DWS	R 27	Refurbish 137 sites and Implement 17 new monitoring sites	2020	R 3	Refurbish 137 sites and Implement 17 new monitoring sites	2025	R 17	Refurbish 137 sites and Implement 17 new monitoring sites	2027	R 7					1	1	2	
		Breede-Gourtz	WMA	153		157	2019	2027	CMA	DWS	R 12	Refurbish 153 sites and Implement 4 new monitoring sites	2020	R 1	Refurbish 153 sites and Implement 4 new monitoring sites	2025	R 7	Refurbish 153 sites and Implement 4 new monitoring sites	2027	R 3					1	1	2	
		Berg-Olifants	WMA	67		65	2019	2027	CMA	DWS	R 16	Refurbish 67 sites and Implement 0 new monitoring sites	2020	R 2	Refurbish 67 sites and Implement 0 new monitoring sites	2025	R 10	Refurbish 67 sites and Implement 0 new monitoring sites	2027	R 4					1	1	2	
	1.1.12 Increase groundwater use (including artificial recharge) and re-use of water	National	N, L	GW levels at Dec 2017	A.1; A.5; B.5; B.7; B.8	Increase the water use from groundwater	2019	2027	WBs, DWS	DWS, CMAs, WBs	R 1 590	Develop wellfields and management plans according the needs in the All Towns studies and reconciliation studies	2020	R 430	Develop wellfields and management plans according the needs in the All Towns studies and reconciliation studies	2025	R 580	Develop wellfields and management plans according the needs in the All Towns studies and reconciliation studies	2030	R 580		Develop and maintain groundwater management	0	R -	2	2	2	Groundwater were not been taken serious as a water resource and the value and benefit it hold.
		Eastern Cape		69,3% GW level		Increase the groundwater use in Eastern Cape	2019	2027	WSAs		R 160	Develop 3 wellfields and management plans	2020	R 40	Develop 5 wellfields and management plans	2025	R 60	Develop 5 wellfields and management plans	2030	R 60					1	2	2	
		Free State		36,7% GW level		Increase the groundwater use in Free State	2019	2027	WSAs		R 170	Develop 4 wellfields and management plans	2020	R 50	Develop 5 wellfields and management plans	2025	R 60	Develop 5 wellfields and management plans	2030	R 60					3	3	2	
		Gauteng		22,2% GW level		Increase the groundwater use in Gauteng	2019	2027	WSAs		R 85	Develop 2 wellfields and management plans	2020	R 25	Develop 2 wellfields and management plans	2025	R 30	Develop 2 wellfields and management plans	2030	R 30					3	3	3	
		Kwazulu-Natal		26,5% GW level		Increase the groundwater use in Kwazulu-Natal	2019	2027	WSAs		R 170	Develop 5 wellfields and management plans	2020	R 50	Develop 5 wellfields and management plans	2025	R 60	Develop 5 wellfields and management plans	2030	R 60					3	3	3	
		Limpopo		54,1% GW level		Increase the groundwater use in Limpopo	2019	2027	WSAs		R 240	Develop 6 wellfields and management plans	2020	R 80	Develop 6 wellfields and management plans	2025	R 80	Develop 6 wellfields and management plans	2030	R 80					1	1	1	
		Mpumalanga		19,2% GW level		Increase the groundwater use in Mpumalanga	2019	2027	WSAs		R 130	Develop 2 wellfields and management plans	2020	R 30	Develop 4 wellfields and management plans	2025	R 50	Develop 4 wellfields and management plans	2030	R 50					3	3	3	
		North West		47,1% GW level		Increase the groundwater use in North West	2019	2027	WSAs		R 210	Develop 4 wellfields and management plans	2020	R 50	Develop 6 wellfields and management plans	2025	R 80	Develop 6 wellfields and management plans	2030	R 80					2	1	1	
		Northern Cape		32,7% GW level		Increase the groundwater use in Northern Cape	2019	2027	WSAs		R 215	Develop 5 wellfields and management plans	2020	R 55	Develop 6 wellfields and management plans	2025	R 80	Develop 6 wellfields and management plans	2030	R 80					1	1	1	
		Western Cape		70,2% GW level		Increase the groundwater use in Western Cape	2019	2027	WSAs		R 210	Develop 4 wellfields and management plans	2020	R 50	Develop 6 wellfields and management plans	2025	R 80	Develop 6 wellfields and management plans	2030	R 80					2	2	2	
1.2 Redistributing water for transformation										TOTAL Redistributing water for transformation:	R 45		TOTAL:	R 22		TOTAL:	R 13		TOTAL:	R 10			TOTAL:	R -				
Redistributing water for transformation	1.2.1 Identify alternative sources of water and water that is not utilized (e.g. as mines are closing, resulting from War on Leaks etc) for transformation	National	N	Existing Water Allocation Reform (WAR) programme	A.1; B.1	Initial mapping by 2019; allocation of water to begin in 2019	2018	2019	DWS	CMAs, WSAs	R 3	Mapping of available resources	2019	R 3	n/a	n/a	R -	n/a	n/a	R -	Cost estimate based on desktop study obtaining information from registered water use, V&Vs and reconciliation strategies	n/a	n/a	R -	2	2	3	
	1.2.2 Identify where more water can be made available in government water schemes for transformation	National	N	Existing Water Allocation Reform (WAR) programme	A.1; B.1	Initial mapping by 2019, substantial transfers by 2023	2018	2019	DWS	CMAs, WBs, DAFF/PDAs	R 5	Identified schemes	2019	R 5	n/a	n/a	R -	n/a	n/a	R -	Cost estimate based on desktop study obtaining information from registered water use, V&Vs and reconciliation strategies	n/a	n/a	R -	2	2	3	
	1.2.3 Implement the Water Administration System on all government irrigation schemes for transformation	National	N	WAS not implemented	A.1; B.1	Number of schemes where WAS implemented	2018	2024	DWS	DAFF / PDAs	R -	As per WMA	0	R -	As per WMA	0	R -	As per WMA	0	R -	DWS to provide cost info	As per WMA	0	R -				
		Berg-Olifants	P				2018	2024			R -																	
		Breede-Gourtz	P				2018	2024			R -																	
		Inkomati-Usuthu	P				2018	2024			R -																	
		Limpopo	P				2018	2024			R -																	
		Mzimvubu-Tsitsikamma	P				2018	2024			R -																	
		Olifants	P				2018	2024			R -																	
		Orange	P				2018	2024			R -																	
		Pongola-Mtamvuna	P				2018	2024			R -																	
		Vaal	P				2018	2024			R -																	

1. Water and Sanitation Management

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										TOTAL Water and Sanitation Management:	**R 548 637**		**TOTAL:**	**R 145 815**		**TOTAL:**	**R 336 461**		**TOTAL:**	**R 66 360**			**TOTAL:**	**R 142 516**				
	1.2.4 Implement pilot project on voluntary contributions from farmers for water reallocation in prioritised catchments	National	N	Existing Water Allocation Reform (WAR) programme	A.1; B.1	Identify pilot project Implemented pilot project Analyse and publish results	2018	2020	DWS	DAFF	R 10	Identify pilot project Implemented pilot project Analyse and publish results	2020	R 10											2	2	3	
	1.2.5 Identify areas where small dams or groundwater development can provide water for small scale black farmers	National	N	Existing Water Allocation Reform (WAR) programme	A.1; B.1	Initial mapping by 2019, substantial transfers by 2023	2018	Initial mapping by 2019	DWS	CMAs	R 5	Mapping of available resources: small dams and groundwater	2020	R 2	Water balance for available resources: small dams and groundwater	2023	R 3				Cost estimate based on desktop study obtaining information from registered water use, V&Vs and reconciliation strategies				2	2	3	
	1.2.6 Align water, land and agrarian reform programmes and link to the Irrigation Strategy	National	N	Existing Water Allocation Reform (WAR) programme	A.1; B.1	Coordinate water and agricultural and land distribution development plans on a regional level	2018	2030	DWS	CMAs, DAFF, DRDLR	R -										DWS to provide cost info				2	2	3	
	1.2.7 Use General Authorisation to enable small scale water use by black farmers	National	N	Existing Water Allocation Reform (WAR) programme	A.1; B.1		2018	2019	DWS	DAFF	R -										DWS to provide cost info				3	2	3	
	1.2.8 Investigate, revitalise, refurbish existing under-performing Black Owned schemes	National	N	Existing Irrigation Scheme	A.1; B.1		2018	2020	DAFF	DWS	R -										DWS to provide cost info				2	2	3	
	1.2.9 Define and implement process to allocate water (new/saved) to black applicants	National	N	Existing Water Allocation Reform (WAR) programme	A.1; B.1	-Process/guideline for allocation to black applicants - Implementation	2018	2030	DWS	DAFF	R 22	Process/guideline for allocation to black applicants	2020	R 2	Implementation	2025	R 10		2030	R 10	DWS to provide cost info				2	2	3	
1.3 Managing effective water and sanitation services										**TOTAL Managing effective water and sanitation services:**	**R 372 340**		**TOTAL:**	**R 125 013**		**TOTAL:**	**R 242 891**		**TOTAL:**	**R 4 436**			**TOTAL:**	**R 138 080**				
Water services planning	1.3.1 Develop and implement a long-term plan for the turn-around of water supply and sanitation services in the country based on a sector-wide approach, that recognises DWS as regulator of W&S provision (25) that includes the development of centralised programmes to obtain economies of scale and to ensure impact (e.g. driving municipal non-revenue-water improvements, and assessing the cost-effectiveness and appropriate systems for desalination)	National	N	No current national long term Turn Around Strategy (TAS) is in place	A.1; A.2; B.11	National Turn Around Strategy (TAS) to be rolled out per WSA	2019	2020	DWS	COGTA, NT, SALGA	R 216	Approved TAS	2020	R -			R 54			R 162				R	2	2	1	DWS role was minimised when WS provision was assigned to local government
		Eastern Cape	P; L	No WSA TAS in place		Implement TAS to fit WSA	2021	Annually	DWS	COGTA, NT, SALGA	R 24	n/a	n/a	R -	14 Customised TAS	2023	R 6	14 Customised TAS	2023	R 18		n/a	n/a	n/a	2	2	1	DWS role was minimised when WS provision was assigned to local government
		Free State	P; L	No WSA TAS in place		Implement TAS to fit WSA	2021	Annually	DWS	COGTA, NT, SALGA	R 24	n/a	n/a	R -	19 Customised TAS	2023	R 6	14 Customised TAS	2023	R 18		n/a	n/a	n/a	2	2	1	DWS role was minimised when WS provision was assigned to local government
		Gauteng	P; L	No WSA TAS in place		Implement TAS to fit WSA	2021	Annually	DWS	COGTA, NT, SALGA	R 24	n/a	n/a	R -	9 Customised TAS	2023	R 6	14 Customised TAS	2023	R 18		n/a	n/a	n/a	2	2	1	DWS role was minimised when WS provision was assigned to local government
		Kwazulu-Natal	P; L	No WSA TAS in place		Implement TAS to fit WSA	2021	Annually	DWS	COGTA, NT, SALGA	R 24	n/a	n/a	R -	14 Customised TAS	2023	R 6	14 Customised TAS	2023	R 18		n/a	n/a	n/a	2	2	1	DWS role was minimised when WS provision was assigned to local government
		Limpopo	P; L	No WSA TAS in place		Implement TAS to fit WSA	2021	Annually	DWS	COGTA, NT, SALGA	R 24	n/a	n/a	R -	10 Customised TAS	2023	R 6	14 Customised TAS	2023	R 18		n/a	n/a	n/a	2	2	1	DWS role was minimised when WS provision was assigned to local government
		Mpumalanga	P; L	No WSA TAS in place		Implement TAS to fit WSA	2021	Annually	DWS	COGTA, NT, SALGA	R 24	n/a	n/a	R -	17Customised TAS	2023	R 6	14 Customised TAS	2023	R 18		n/a	n/a	n/a	2	2	1	DWS role was minimised when WS provision was assigned to local government
		North West	P; L	No WSA TAS in place		Implement TAS to fit WSA	2021	Annually	DWS	COGTA, NT, SALGA	R 24	n/a	n/a	R -	10 Customised TAS	2023	R 6	14 Customised TAS	2023	R 18		n/a	n/a	n/a	2	2	1	DWS role was minimised when WS provision was assigned to local government
		Northern Cape	P; L	No WSA TAS in place		Implement TAS to fit WSA	2021	Annually	DWS	COGTA, NT, SALGA	R 24	n/a	n/a	R -	26 Customised TAS	2023	R 6	14 Customised TAS	2023	R 18		n/a	n/a	n/a	2	2	1	DWS role was minimised when WS provision was assigned to local government
		Western Cape	P; L	No WSA TAS in place		Implement TAS to fit WSA	2021	Annually	DWS	COGTA, NT, SALGA	R 24	n/a	n/a	R -	25 Customised TAS	2023	R 6	14 Customised TAS	2023	R 18		n/a	n/a	n/a	2	2	1	DWS role was minimised when WS provision was assigned to local government
	1.3.2 Plan for disaster management by implementing adequate flood protection and drought management on regional level	National	P; L	Gaps exist on system flows	A.4; A.5	• Comprehensive flood protection & disaster management plan that includes gap analysis on larger system regarding plans • Draft plans for larger systems	2021	0	DWS	CMAs, NWRSA, WBs	R 116			R -	n/a	n/a	R 58	n/a	n/a	R 58		n/a	n/a	R	2	2	2	DWS has a monitoring system in place but it has gaps that needs to be addressed
		Berg-Olifants	WMA	Gaps exist on system flows	A.4; A.5	Improved 100% coverage of Flood Protection plan specific to the WMA	2021	0	CMA	DWS	R 10	n/a	n/a	R -	Prioritise river systems	n/a	R -	n/a	n/a	R 10	Planning of flood protection at a high level, without surveys for the main rivers	n/a	n/a	R	2	2	2	DWS has a monitoring system in place but it has gaps that needs to be addressed
		Breede-Gouritz	WMA	Gaps exist on system flows	A.4; A.5	Improved 100% coverage of Flood Protection plan specific to the WMA	2021	0	CMA	DWS	R 10	n/a	n/a	R -	n/a	n/a	R -	n/a	n/a	R 10	Planning of flood protection at a high level, without surveys for the main rivers	n/a	n/a	R	2	2	2	DWS has a monitoring system in place but it has gaps that needs to be addressed
		Inkomati-Usuthu	WMA	Gaps exist on system flows	A.4; A.5	Improved 100% coverage of Flood Protection plan specific to the WMA	2021	0	CMA	DWS	R 10	n/a	n/a	R -	n/a	n/a	R 10	n/a	n/a	R -	Planning of flood protection at a high level, without surveys for the main rivers	n/a	n/a	R	2	2	2	DWS has a monitoring system in place but it has gaps that needs to be addressed
		Limpopo	WMA	Gaps exist on system flows, Limpopo River is about 1750 km long	A.4; A.5	Improved 100% coverage of Flood Protection plan specific to the WMA	2021	0	CMA	DWS	R 19	n/a	n/a	R -	n/a	n/a	R 1	n/a	n/a	R 18	Planning of flood protection at a high level, without surveys for the main rivers	n/a	n/a	R	2	2	2	DWS has a monitoring system in place but it has gaps that needs to be addressed
		Mzimvubu-Tsitsikamma	WMA	Gaps exist on system flows, Great Fish is 692 km	A.4; A.5	Improved 100% coverage of Flood Protection plan specific to the WMA	2021	0	CMA	DWS	R 10	n/a	n/a	R -	n/a	n/a	R 10	n/a	n/a	R -	Planning of flood protection at a high level, without surveys for the main rivers	n/a	n/a	R	2	2	2	DWS has a monitoring system in place but it has gaps that needs to be addressed
		Olifants	WMA	Gaps exist on system flows	A.4; A.5	Improved 100% coverage of Flood Protection plan specific to the WMA	2021	0	CMA	DWS	R 10	n/a	n/a	R -	n/a	n/a	R -	n/a	n/a	R 10	Planning of flood protection at a high level, without surveys for the main rivers	n/a	n/a	R	2	2	2	DWS has a monitoring system in place but it has gaps that needs to be addressed
		Orange & Lesotho	WMA	Gaps exist on system flows, Orange River is about 2200 km long	A.4; A.5	Improved 100% coverage of Flood Protection plan specific to the WMA	2021	0	CMA	DWS	R 22	n/a	n/a	R -	n/a	n/a	R 22	n/a	n/a	R -	Planning of flood protection at a high level, without surveys for the main rivers	n/a	n/a	R	2	2	2	DWS has a monitoring system in place but it has gaps that needs to be addressed
		Pongola-Mtamvuna	WMA	Gaps exist on system flows	A.4; A.5	Improved 100% coverage of Flood Protection plan specific to the WMA	2021	0	CMA	DWS	R 10	n/a	n/a	R -	n/a	n/a	R -	n/a	n/a	R 10	Planning of flood protection at a high level, without surveys for the main rivers	n/a	n/a	R	2	2	2	DWS has a monitoring system in place but it has gaps that needs to be addressed
		Vaal	WMA	Gaps exist on system flows, Vaal River about 1120 km long	A.4; A.5	Improved 100% coverage of Flood Protection plan specific to the WMA	2021	0	CMA	DWS	R 15	n/a	n/a	R -	n/a	n/a	R 15	n/a	n/a	R -	Planning of flood protection at a high level, without surveys for the main rivers	n/a	n/a	R	2	2	2	DWS has a monitoring system in place but it has gaps that needs to be addressed
	1.3.3 Revise levels of service for water supply and sanitation against issues of affordability	National	N	Free Basic Minimum LOS Standards	A.4; A.5; B.11	Strategy outlining the New Minimum Standards for "Basic" LOS and Cost Requirement	2018	2020	DWS	COGTA, NT, SALGA	R 72	2018	2020	R -	n/a	2025	R 72	n/a	n/a	R -		n/a	n/a	R	2	2	2	The minimum basic LOS has only recently been revised to yard connection during the revision of the national water and sanitation bill and the impact thereof on its affordability needs still to be determined
		Eastern Cape	WSA	Free Basic Minimum LOS Standards	A.4; A.5; B.11	Implementation Plan for Minimum Basic LOS and Cost Recovery custom made per WSA	2021	2025	DWS	COGTA, NT, SALGA, WSAs	R 7	n/a	n/a	R -	Implementation Plan for Minimum Basic LOS and Cost Recovery	2025	R 7	n/a	n/a	R -	0	0	n/a	n/a	2	2	2	The minimum basic LOS has only recently been revised to yard connection during the revision of the national water and sanitation bill and the impact thereof on its affordability needs still to be determined
		Free State	WSA	Free Basic Minimum LOS Standards	A.4; A.5; B.11	Implementation Plan for Minimum Basic LOS and Cost Recovery custom made per WSA	2021	2025	DWS	COGTA, NT, SALGA, WSAs	R 10	n/a	n/a	R -	Implementation Plan for Minimum Basic LOS and Cost Recovery	2025	R 10	n/a	n/a	R -	0	0	n/a	n/a	2	2	2	The minimum basic LOS has only recently been revised to yard connection during the revision of the national water and sanitation bill and the impact thereof on its affordability needs still to be determined
		Gauteng	WSA	Free Basic Minimum LOS Standards	A.4; A.5; B.11	Implementation Plan for Minimum Basic LOS and Cost Recovery custom made per WSA	2021	2025	DWS	COGTA, NT, SALGA, WSAs	R 5	n/a	n/a	R -	Implementation Plan for Minimum Basic LOS and Cost Recovery	2025	R 5	n/a	n/a	R -	0	0	n/a	n/a	2	2	2	The minimum basic LOS has only recently been revised to yard connection during the revision of the national water and sanitation bill and the impact thereof on its affordability needs still to be determined
		Kwazulu-Natal	WSA	Free Basic Minimum LOS Standards	A.4; A.5; B.11	Implementation Plan for Minimum Basic LOS and Cost Recovery custom made per WSA	2021	2025	DWS	COGTA, NT, SALGA, WSAs	R 7	n/a	n/a	R -	Implementation Plan for Minimum Basic LOS and Cost Recovery	2025	R 7	n/a	n/a	R -	0	0	n/a	n/a	2	2	2	The minimum basic LOS has only recently been revised to yard connection during the revision of the national water and sanitation bill and the impact thereof on its affordability needs still to be determined
		Limpopo	WSA	Free Basic Minimum LOS Standards	A.4; A.5; B.11	Implementation Plan for Minimum Basic LOS and Cost Recovery custom made per WSA	2021	2025	DWS	COGTA, NT, SALGA, WSAs	R 5	n/a	n/a	R -	Implementation Plan for Minimum Basic LOS and Cost Recovery	2025	R 5	n/a	n/a	R -	0	0	n/a	n/a	2	2	2	The minimum basic LOS has only recently been revised to yard connection during the revision of the national water and sanitation bill and the impact thereof on its affordability needs still to be determined
		Mpumalanga	WSA	Free Basic Minimum LOS Standards	A.4; A.5; B.11	Implementation Plan for Minimum Basic LOS and Cost Recovery custom made per WSA	2021	2025	DWS	COGTA, NT, SALGA, WSAs	R 9	n/a	n/a	R -	Implementation Plan for Minimum Basic LOS and Cost Recovery	2025	R 9	n/a	n/a	R -	0	0	n/a	n/a	2	2	2	The minimum basic LOS has only recently been revised to yard connection during the revision of the national water and sanitation bill and the impact thereof on its affordability needs still to be determined
		North West	WSA	Free Basic Minimum LOS Standards	A.4; A.5; B.11	Implementation Plan for Minimum Basic LOS and Cost Recovery custom made per WSA	2021	2025	DWS	COGTA, NT, SALGA, WSAs	R 5	n/a	n/a	R -	Implementation Plan for Minimum Basic LOS and Cost Recovery	2025	R 5	n/a	n/a	R -	0	0	n/a	n/a	2	2	2	The minimum basic LOS has only recently been revised to yard connection during the revision of the national water and sanitation bill and the impact thereof on its affordability needs still to be determined
		Northern Cape	WSA	Free Basic Minimum LOS Standards	A.4; A.5; B.11	Implementation Plan for Minimum Basic LOS and Cost Recovery custom made per WSA	2021	2025	DWS	COGTA, NT, SALGA, WSAs	R 13	n/a	n/a	R -	Implementation Plan for Minimum Basic LOS and Cost Recovery	2025	R 13	n/a	n/a	R -	0	0	n/a	n/a	2	2	2	The minimum basic LOS has only recently been revised to yard connection during the revision of the national water and sanitation bill and the impact thereof on its affordability needs still to be determined
		Western Cape	WSA	Free Basic Minimum LOS Standards	A.4; A.5; B.11	Implementation Plan for Minimum Basic LOS and Cost Recovery custom made per WSA	2021	2025	DWS	COGTA, NT, SALGA, WSAs	R 13	n/a	n/a	R -	Implementation Plan for Minimum Basic LOS and Cost Recovery	2025	R 13	n/a	n/a	R -	0	0	n/a	n/a	2	2	2	The minimum basic LOS has only recently been revised to yard connection during the revision of the national water and sanitation bill and the impact thereof on its affordability needs still to be determined
	1.3.4 Investigate and promote alternative service delivery models such as BOTT (build, operate, train and transfer), management contracts and concessions.	National		Successful programme was implemented in Regions between 1996 - 2000	A.1; A.2	Revive BOTT programme to fast track service delivery: Develop and implement BOTT guidelines and delivery plan with associated budgets	2018	2025	NT	DWS	R 189	Infrastructure BOTT Business Model	2020	R 54	Implementation plan with budgets to be rolled out per Region and managed by the National Water Resources and Services Authority	2025	R 135								3	2	2	
	1.3.5 Provide direct Water Services Development Planning support to WSAs as part of a legal requirement and integration into Municipal IDPS	National	N	0	A.4; A.5; B.11	144 Credible and Council appr	2019	2025	DWS	COGTA, NT, SALGA, 27 DM	R 324	144	2020	R 66	144	2025	R 165	144	2030	R 165	Budget = R 3 mill per annum per province and R 6 mill per annum for national co-ordination	n/a	n/a	R -	1	1	1	NDP 2030 and SDG 6 resulted in the change from water services backlogs eradication to providing reliable water services by 2019
		Eastern Cape	DM	Base zero	A.4; A.5; B.11	14	2019	2025	WSAs	DWS, CoGTA, SALGA, NT	R 36	14	2020	R 6	14	2025	R 15	14	2030	R 15	Budget = R 3 mill per annum per province	n/a	n/a	R -	1	1	1	NDP 2030 and SDG 6 resulted in the change from water services backlogs eradication to providing reliable water services by 2019
		Free State	DM	Base zero	A.4; A.5; B.11	19	2019	2025	WSAs	DWS, CoGTA, SALGA, NT	R 36	19	2020	R 6	19	2025	R 15	19	2030	R 15	Budget = R 3 mill per annum per province	n/a	n/a	R -	1	1	1	NDP 2030 and SDG 6 resulted in the change from water services backlogs eradication to providing reliable water services by 2019
		Gauteng	DM	Base zero	A.4; A.5; B.11	9	2019	2025	WSAs	DWS, CoGTA, SALGA, NT	R 36	9	2020	R 6	9	2025	R 15	9	2030	R 15	Budget = R 3 mill per annum per province	n/a	n/a	R -	1	1	1	NDP 2030 and SDG 6 resulted in the change from water services backlogs eradication to providing reliable water services by 2019
		Kwazulu-Natal	DM	Base zero	A.4; A.5; B.11	14	2019	2025	WSAs	DWS, CoGTA, SALGA, NT	R 36	14	2020	R 6	14	2025	R 15	14	2030	R 15	Budget = R 3 mill per annum per province	n/a	n/a	R -	1	1	1	NDP 2030 and SDG 6 resulted in the change from water services backlogs eradication to providing reliable water services by 2019
		Limpopo	DM	Base zero	A.4; A.5; B.11	10	2019	2025	WSAs	DWS, CoGTA, SALGA, NT	R 36	10	2020	R 6	10	2025	R 15	10	2030	R 15	Budget = R 3 mill per annum per province	n/a	n/a	R -	1	1	1	NDP 2030 and SDG 6 resulted in the change from water services backlogs eradication to providing reliable water services by 2019
		Mpumalanga	DM	Base zero	A.4; A.5; B.11	17	2019	2025	WSAs	DWS, CoGTA, SALGA, NT	R 36	17	2020	R 6	17	2025	R 15	17	2030	R 15	Budget = R 3 mill per annum per province	n/a	n/a	R -	1	1	1	NDP 2030 and SDG 6 resulted in the change from water services backlogs eradication to providing reliable water services by 2019
		North West	DM	Base zero	A.4; A.5; B.11	10	2019	2025	WSAs	DWS, CoGTA, SALGA, NT	R 36	10	2020	R 6	10	2025	R 15	10	2030	R 15	Budget = R 3 mill per annum per province	n/a	n/a	R -	1	1	1	NDP 2030 and SDG 6 resulted in the change from water services backlogs eradication to providing reliable water services by 2019
		Northern Cape	DM	Base zero	A.4; A.5; B.11	26	2019	2025	WSAs	DWS, CoGTA, SALGA, NT	R 36	26	2020	R 6	26	2025	R 15	26	2030	R 15	Budget = R 3 mill per annum per province	n/a	n/a	R -	1	1	1	NDP 2030 and SDG 6 resulted in the change from water services backlogs eradication to providing reliable water services by 2019
		Western Cape	DM	Base zero	A.4; A.5; B.11	25	2019	2025	WSAs	DWS, CoGTA, SALGA, NT	R 36	25	2020	R 6	25	2025	R 15	25	2030	R 15	Budget = R 3 mill per annum per province	n/a	n/a	R -	1	1	1	NDP 2030 and SDG 6 resulted in the change from water services backlogs eradication to providing reliable water services by 2019
Water services planning	1.3.6 Develop and implement Provincial Water Services Delivery Master Plans to provide reliable and sustainable water supply and sanitation to all households within South Africa: • Provincial Bulk Services	National	N	One provincial MP(EC) and	A.1 - A.8	8 overarching provincial WS MI	2018	2030	DWS	DWS,CoGTA, SALGA, NT, WBs	R 626	8 provincial WMP	2020	R 62	n/a	n/a	R 154	n/a	n/a	R 410	Budget = R1,5 mill/annum per WSA + R3mill per annum for national coordination until 2025. Thereafter R,5 mill /annumWSA for monitoring	n/a	n/a	R -	3	2	2	Regional Heads except EC not complying to instruction to develop MP
		National	N	Base zero	A1 - A8	Monitoring of the progress mad	2025	2030	DWS	DWS,CoGTA, SALGA, NT, WBs	R 360	n/a	n/a		n/a	n/a		Monitoring of the progres	2030	R 360	Budget = R,5 mill /annumWSA for monitoring	n/a	n/a	R -	3	2	2	
		Eastern Cape	WSA	1 Provincial MP	A.1 - A.8	14	2018	2025	WSA	DWS,CoGTA, SALGA, NT, WBs	R 26	3.0	2020	R 6	14	2025	R 15	14	2025	R 5	Budget = R1,5 mill/annum per WSA + R3mill per annum for national coordination until 2025. Thereafter R,5 mill /annumWSA for monitoring	n/a	n/a	R -	3	2	2	Lack of WSAs commitment to annually review their WSDPs that is build from a detailed WSDAP and MP process

1.Water and Sanitation Management

SCHEDULE OF ACTIONS Menu Help

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Level 1: Key Actions	Level 2: Supporting Actions	Level 3: Regional Actions	Nat., Reg. & System (N)/ Prov. (P)/ Local (L)	Baseline / Status Quo	Overall targets: Drivers / Goals	Major Measurable Deliverable	Target Date: Start date	Target Date: Compl. Date	Responsible Institutions: Lead	Responsible Institutions: Support	Present Value Cost (VAT excl.) R million (2018) (MP horizon)	Breakdown of deliverables per time segment 2018-2020: Deliverable	2018-2020: Date	2018-2020: PV Cost R million	2021-2025: Deliverable	2021-2025: Date	2021-2025: PV Cost R million	2026-2030 (current MP horizon, to vary in future): Deliverable	2026-2030: Date	2026-2030: PV Cost R million	Note	2031-2050 (beyond current MP horizon): Deliverable	2031-2050: Date	2031-2050: PV Cost R million	Priority: Magnitude of impact if action does not occur (1) Critical, (2) Serious, (3) important (4) minor	Is it a foundation action: (1) Other actions highly dependent; (2) Few direct dependencies (3) no direct dependencies	What level of impact will the investment generate? (1) Major benefit (>x10); (2) moderate benefit (>x2) (3) limited benefit	What has prevented action from being completed to date?
										TOTAL Water and Sanitation Management:	R 548 637		TOTAL:	R 145 815		TOTAL:	R 336 461		TOTAL:	R 66 360			TOTAL:	R 142 516				
	Master Plans - Reliable Services Delivery Action Plans that includes a backlog analysis and infrastructure asset management plans	Free State	WSA	No Provincial MP	A.1 - A.8	19	2018	2025	WSA	DWS,CoGTA, SALGA, NT, WBs	R 35	4,1	2020	R 8	19	2025	R 20	19	2025	R 7	Budget = R1,5 mill/annum per WSA + R3mill per annum for national coordination until 2025. Thereafter R,5 mill /annumWSA for monitoring	n/a	n/a	R -	3	2	2	Lack of WSAs commitment to annually review their WSDPs that is build from a detailed WSDAP and MP process
		Gauteng	WSA	No Provincial MP	A.1 - A.8	9	2018	2025	WSA	DWS,CoGTA, SALGA, NT, WBs	R 17	1,9	2020	R 4	9	2025	R 10	9	2025	R 3	Budget = R1,5 mill/annum per WSA + R3mill per annum for national coordination until 2025. Thereafter R,5 mill /annumWSA for monitoring	n/a	n/a	R -	3	2	2	Lack of WSAs commitment to annually review their WSDPs that is build from a detailed WSDAP and MP process
		Kwazulu-Natal	WSA	No Provincial MP	A.1 - A.8	14	2018	2025	WSA	DWS,CoGTA, SALGA, NT, WBs	R 26	3,0	2020	R 6	14	2025	R 15	14	2025	R 5	Budget = R1,5 mill/annum per WSA + R3mill per annum for national coordination until 2025. Thereafter R,5 mill /annumWSA for monitoring	n/a	n/a	R -	3	2	2	Lack of WSAs commitment to annually review their WSDPs that is build from a detailed WSDAP and MP process
		Limpopo	WSA	No Provincial MP	A.1 - A.8	10	2018	2025	WSA	DWS,CoGTA, SALGA, NT, WBs	R 19	2,1	2020	R 4	10	2025	R 11	10	2025	R 4	Budget = R1,5 mill/annum per WSA + R3mill per annum for national coordination until 2025. Thereafter R,5 mill /annumWSA for monitoring	n/a	n/a	R -	3	2	2	Lack of WSAs commitment to annually review their WSDPs that is build from a detailed WSDAP and MP process
		Mpumalanga	WSA	No Provincial MP	A.1 - A.8	17	2018	2025	WSA	DWS,CoGTA, SALGA, NT, WBs	R 31	3,6	2020	R 7	17	2025	R 18	17	2025	R 6	Budget = R1,5 mill/annum per WSA + R3mill per annum for national coordination until 2025. Thereafter R,5 mill /annumWSA for monitoring	n/a	n/a	R -	3	2	2	Lack of WSAs commitment to annually review their WSDPs that is build from a detailed WSDAP and MP process
		North West	WSA	No Provincial MP	A.1 - A.8	10	2018	2025	WSA	DWS,CoGTA, SALGA, NT, WBs	R 19	2,1	2020	R 4	10	2025	R 11	10	2025	R 4	Budget = R1,5 mill/annum per WSA + R3mill per annum for national coordination until 2025. Thereafter R,5 mill /annumWSA for monitoring	n/a	n/a	R -	3	2	2	Lack of WSAs commitment to annually review their WSDPs that is build from a detailed WSDAP and MP process
		Northern Cape	WSA	No Provincial MP	A.1 - A.8	26	2018	2025	WSA	DWS,CoGTA, SALGA, NT, WBs	R 48	5,6	2020	R 11	26	2025	R 28	26	2025	R 9	Budget = R1,5 mill/annum per WSA + R3mill per annum for national coordination until 2025. Thereafter R,5 mill /annumWSA for monitoring	n/a	n/a	R -	3	2	2	Lack of WSAs commitment to annually review their WSDPs that is build from a detailed WSDAP and MP process
		Western Cape	WSA	No Provincial MP	A.1 - A.8	25	2018	2025	WSA	DWS,CoGTA, SALGA, NT, WBs	R 46	5,4	2020	R 11	25	2025	R 27	25	2025	R 9	Budget = R1,5 mill/annum per WSA + R3mill per annum for national coordination until 2025. Thereafter R,5 mill /annumWSA for monitoring	n/a	n/a	R -	3	2	2	Lack of WSAs commitment to annually review their WSDPs that is build from a detailed WSDAP and MP process
Water services infrastructure	1.3.7 Deliver services to achieve (100%) universal sanitation coverage (Municipal Sanitation Projects)	National	N	1400	A.4, A.5, B.11	2968	2018	2030	WSAs	DWS	R 87 425	1400	2020	R 32 169	1568	2025	R 55 256	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Eastern Cape	WSA	282 number of projects	A.4, A.5, B.11	549	2018	2030	WSAs	DWS	R 18 432	282	2020	R 8 809	267	2025	R 9 623	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Free State	WSA	347 number of projects	A.4, A.5, B.11	438	2018	2030	WSAs	DWS	R 8 607	347	2020	R 5 536	91	2025	R 3 071	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Gauteng	WSA	143 number of projects	A.4, A.5, B.11	330	2018	2030	WSAs	DWS	R 21 188	143	2020	R 6 197	187	2025	R 14 991	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Kwazulu-Natal	WSA	63 number of projects	A.4, A.5, B.11	81	2018	2030	WSAs	DWS	R 3 601	63	2020	R 1 347	18	2025	R 2 254	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Limpopo	WSA	104 number of projects	A.4, A.5, B.11	171	2018	2030	WSAs	DWS	R 9 440	104	2020	R 3 529	67	2025	R 5 910	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Mpumalanga	WSA	68 number of projects	A.4, A.5, B.11	203	2018	2030	WSAs	DWS	R 3 288	68	2020	R 662	135	2025	R 2 606	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		North West	WSA	77 number of projects	A.4, A.5, B.11	143	2018	2030	WSAs	DWS	R 3 461	77	2020	R 1 795	66	2025	R 1 666	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Northern Cape	WSA	86 number of projects	A.4, A.5, B.11	274	2018	2030	WSAs	DWS	R 9 556	86	2020	R 1 293	188	2025	R 8 263	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Western Cape	WSA	230 number of projects	A.4, A.5, B.11	779	2018	2030	WSAs	DWS	R 9 873	230	2020	R 3 001	549	2025	R 6 872	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
	1.3.8 Deliver services to achieve (100%) universal water services provision (Municipal Water Supply Projects)	National	L	3484	A.4, A.5, B.11	6693	2018	2030	WSAs	DWS	R 272 760	3484	2020	R 90 673	3748,0	2025	R 182 087	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Eastern Cape	WSA	581	A.4, A.5, B.11	1006	2018	2030	WSAs	CoGTA, DWS	R 48 162	581	2020	R 17 896	425	2025	R 30 266	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Free State	WSA	291	A.4, A.5, B.11	458	2018	2030	WSAs	CoGTA, DWS	R 14 281	291	2020	R 3 772	167	2025	R 10 509	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Gauteng	WSA	176	A.4, A.5, B.11	372	2018	2030	WSAs	CoGTA, DWS	R 9 151	176	2020	R 4 801	196	2025	R 4 351	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Kwazulu-Natal	WSA	444	A.4, A.5, B.11	626	2018	2030	WSAs	CoGTA, DWS	R 61 014	444	2020	R 21 935	182	2025	R 39 080	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Limpopo	WSA	820	A.4, A.5, B.11	1495	2018	2030	WSAs	CoGTA, DWS	R 67 934	820	2020	R 21 667	675	2025	R 46 267	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Mpumalanga	WSA	407	A.4, A.5, B.11	776	2018	2030	WSAs	CoGTA, DWS	R 17 541	407	2020	R 7 619	369	2025	R 9 922	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		North West	WSA	236	A.4, A.5, B.11	401	2018	2030	WSAs	CoGTA, DWS	R 14 647	236	2020	R 5 287	165	2025	R 9 360	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Northern Cape	WSA	288	A.4, A.5, B.11	679	2018	2030	WSAs	CoGTA, DWS	R 22 991	288	2020	R 5 641	391	2025	R 17 351	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Western Cape	WSA	241	A.4, A.5, B.11	880	2018	2030	WSAs	CoGTA, DWS	R 17 037	241	2020	R 2 055	639	2025	R 14 982	n/a	n/a	R -	Implement municipal WS projects	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
Water services Operation and management	1.3.9 O&M of water resources and services infrastructure	Dam safety rehabilitation programme	N	Recommendations from the dam safety evaluation reports	A1.3	Design Report, Construction Drawings, Completion report, As-build drawings and completion certificate	2018	2050	DWS		R 1 760	Rehabilitation of 8 Dams	2020	R 260	Rehabilitation of 11 Dams	2025	R 750	Rehabilitation of 5 Dams	2030	R 750	R150m per year			R 3 000	2	2	2	
	1.3.10 Align interventions with CoGTA on failing municipalities with existing support programmes e.g. MISA	National	N	Skeleton PMO office	A.8, B.11	4 Fully Functional PMO office dealing with WS complimented by 2 seconded staff members per DM	2018	2020	CoGTA,	MISA, DWS	R 1 010	42	2020	R 210	64	2025	R 800	0	2030	R -	R2.5 mill/DM/annum	n/a	n/a	R -	2	2	2	Slow progress in the establishment of a fully operational PMO office
		Eastern Cape	DM	4	A.8, B.11	2 Seconded Competent Staff members per DM (8, 10)	2019	2025	CoGTA,	MISA, DWS	R 155	6	2020	R 30	10	2025	R 125	n/a	n/a	R -	R2.5 mill/DM/annum	n/a	n/a	R -	2	2	2	Slow progress in the establishment of a fully operational PMO office
		Free State	DM	2	A.8, B.11	2 Seconded Competent Staff members per DM (2, 10)	2019	2025	CoGTA,	MISA, DWS	R 135	2	2020	R 10	10	2025	R 125	n/a	n/a	R -	R2.5 mill/DM/annum	n/a	n/a	R -	2	2	2	Slow progress in the establishment of a fully operational PMO office
		Gauteng	DM	0	A.8, B.11	2 Seconded Competent Staff members per DM (2, 8)	2019	2025	CoGTA,	MISA, DWS	R 110	2	2020	R 10	8	2025	R 100	n/a	n/a	R -	R2.5 mill/DM/annum	n/a	n/a	R -	2	2	2	Slow progress in the establishment of a fully operational PMO office
		Kwazulu-Natal	DM	4	A.8, B.11	2 Seconded Competent Staff members per DM (16,6)	2019	2025	CoGTA,	MISA, DWS	R 155	16	2020	R 80	6	2025	R 75	n/a	n/a	R -	R2.5 mill/DM/annum	n/a	n/a	R -	2	2	2	Slow progress in the establishment of a fully operational PMO office
		Limpopo	DM	2	A.8, B.11	2 Seconded Competent Staff members per DM (8,2)	2019	2025	CoGTA,	MISA, DWS	R 65	8	2020	R 40	2	2025	R 25	n/a	n/a	R -	R2.5 mill/DM/annum	n/a	n/a	R -	2	2	2	Slow progress in the establishment of a fully operational PMO office
		Mpumalanga	DM	0	A.8, B.11	2 Seconded Competent Staff members per DM (2, 4)	2019	2025	CoGTA,	MISA, DWS	R 60	2	2020	R 10	4	2025	R 50	n/a	n/a	R -	R2.5 mill/DM/annum	n/a	n/a	R -	2	2	2	Slow progress in the establishment of a fully operational PMO office
		North West	DM	2	A.8, B.11	2 Seconded Competent Staff members per DM (4, 4)	2019	2025	CoGTA,	MISA, DWS	R 70	4	2020	R 20	4	2025	R 50	n/a	n/a	R -	R2.5 mill/DM/annum	n/a	n/a	R -	2	2	2	Slow progress in the establishment of a fully operational PMO office
		Northern Cape	DM	0	A.8, B.11	2 Seconded Competent Staff members per DM (2, 8)	2019	2025	CoGTA,	MISA, DWS	R 110	2	2020	R 10	8	2025	R 100	n/a	n/a	R -	R2.5 mill/DM/annum	n/a	n/a	R -	2	2	2	Slow progress in the establishment of a fully operational PMO office
		Western Cape	DM	0	A.8, B.11	2 Seconded Competent Staff members per DM(12)	2019	2025	CoGTA,	MISA, DWS	R 150	0	2020	R -	12	2025	R 150	n/a	n/a	R -	R2.5 mill/DM/annum	n/a	n/a	R -	2	2	2	Slow progress in the establishment of a fully operational PMO office
	1.3.11 Lifecycle planning (asset management) conditions to be set by DWS	National	N	No comprehensive asset management strategy exists	A.1, A.2	Comprehensive National Asset Management Life Cycle Strategy and Plan with focus to be on maintaining and restoring existing infrastructure rather than the construction of new infrastructure	2018	2020	DWS		R 130	Comprehensive National Asset Management Life Cycle Strategy and Plan	2020	R 130	n/a	n/a	R -	n/a	n/a	R -	WSA will implement national plan as part of their O&M plan	n/a	n/a	R -	1	1	1	Lack of comprehensive asset management plans on municipal level
	1.3.12 A National water and wastewater treatment performance turnaround plan to be developed and implemented. Turn around the functionality of five, currently dysfunctional, large water and wastewater treatment works with an accompanying publicity campaign, followed by a programme addressing the rest	National	N	679	A.2	679	2018	2030	DWS	WSAs, NT, WB	R 6 854	113	2020	R 1 012	283	2025	R 2 921	283	2030	R 2 921		n/a	n/a	R 135 060	1	1	1	Lack of comprehensive asset management plans on municipal level that combines management, financial, engineering, economics and social practices and techniques within a coherent management framework, asset management plan and processes.
		Eastern Cape	WSA	49	A.2	49	2018	2030	WSAs	CoGTA, DWS	R 416	8	2020	R 69	20	2025	R 173	20	2030	R 173	Budget req. = R3,5 mill/Ml to implement and R 1 mill/Ml to maintain per WwTW	173	2050	R 11 238	1	1	1	Lack of comprehensive asset management plans on municipal level that combines management, financial, engineering, economics and social practices and techniques within a coherent management framework, asset management plan and processes.
		Free State	WSA	102	A.2	102	2018	2030	WSAs	CoGTA, DWS	R 49	17	2020	R 7	43	2025	R 21	43	2030	R 21	Budget req. = R3,5 mill/Ml to implement and R 1 mill/Ml to maintain per WwTW	116	2050	R 315	1	1	1	Lack of comprehensive asset management plans on municipal level that combines management, financial, engineering, economics and social practices and techniques within a coherent management framework, asset management plan and processes.
		Gauteng	WSA	72	A.2	72	2018	2030	WSAs	CoGTA, DWS	R 3 604	12	2020	R 527	30	2025	R 1 538	30	2030	R 1 538	Budget req. = R3,5 mill/Ml to implement and R 1 mill/Ml to maintain per WwTW	160	2050	R 105 188	1	1	1	Lack of comprehensive asset management plans on municipal level that combines management, financial, engineering, economics and social practices and techniques within a coherent management framework, asset management plan and processes.
		Kwazulu-Natal	WSA	188	A.2	188	2018	2030	WSAs	CoGTA, DWS	R 371	31	2020	R 54	78	2025	R 159	78	2030	R 159	Budget req. = R3,5 mill/Ml to implement and R 1 mill/Ml to maintain per WwTW	208	2050	R 2 374	1	1	1	Lack of comprehensive asset management plans on municipal level that combines management, financial, engineering, economics and social practices and techniques within a coherent management framework, asset management plan and processes.
		Limpopo	WSA	100	A.2	100	2018	2030	WSAs	CoGTA, DWS	R 1 605	17	2020	R 235	42	2025	R 685	42	2030	R 685	Budget req. = R3,5 mill/Ml to implement and R 1 mill/Ml to maintain per WwTW	139	2050	R 9 659	1	1	1	Lack of comprehensive asset management plans on municipal level that combines management, financial, engineering, economics and social practices and techniques within a coherent management framework, asset management plan and processes.
		Mpumalanga	WSA	61	A.2	61	2018	2030	WSAs	CoGTA, DWS	R 264	10	2020	R 39	25	2025	R 113	25	2030	R 113	Budget req. = R3,5 mill/Ml to implement and R 1 mill/Ml to maintain per WwTW	105	2050	R 2 324	1	1	1	Lack of comprehensive asset management plans on municipal level that combines management, financial, engineering, economics and social practices and techniques within a coherent management framework, asset management plan and processes.
		North West	WSA	33	A.2	33	2018	2030	WSAs	CoGTA, DWS	R 168	6	2020	R 25	14	2025	R 72	14	2030	R 72	Budget req. = R3,5 mill/Ml to implement and R 1 mill/Ml to maintain per WwTW	66	2050	R 2 734	1	1	1	Lack of comprehensive asset management plans on municipal level that combines management, financial, engineering, economics and social practices and techniques within a coherent management framework, asset management plan and processes.
		Northern Cape	WSA	43	A.2	43	2018	2030	WSAs	CoGTA, DWS	R -	7	2020	R -	18	2025	R -	18	2030	R -	Budget req. = R3,5 mill/Ml to implement and R 1 mill/Ml to maintain per WwTW	85	2050	R -	1	1	1	Lack of comprehensive asset management plans on municipal level that combines management, financial, engineering, economics and social practices and techniques within a coherent management framework, asset management plan and processes.
		Western Cape	WSA	31	A.2	31	2018	2030	WSAs	CoGTA, DWS	R 378	5	2020	R 55	13	2025	R 161	13	2030	R 161	Budget req. = R3,5 mill/Ml to implement and R 1 mill/Ml to maintain per WwTW	162	2050	R 1 229	1	1	1	Lack of comprehensive asset management plans on municipal level that combines management, financial, engineering, economics and social practices and techniques within a coherent management framework, asset management plan and processes.

1.Water and Sanitation Management

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Level 1: Key Actions	Level 2: Supporting Actions	Level 3: Regional Actions	Nat., Reg. & System (N)/ Prov. (P)/ Local (L)	Baseline / Status Quo	Overall targets: Drivers / Goals (Drivers)	Overall targets: Major Measurable Deliverable	Overall targets: Target Date: Start date	Overall targets: Target Date: Compl. Date	Overall targets: Responsible Institutions: Lead	Overall targets: Responsible Institutions: Support	Present Value Cost (VAT excl.) R million (2018) (MP horizon)	Breakdown of deliverables per time segment 2018-2020: Deliverable	2018-2020: Date	2018-2020: PV Cost R million	2021-2025: Deliverable	2021-2025: Date	2021-2025: PV Cost R million	2026-2030 (current MP horizon, to vary in future): Deliverable	2026-2030: Date	2026-2030: PV Cost R million	Note	2031-2050 (beyond current MP horizon): Deliverable	2031-2050: Date	2031-2050: PV Cost R million	Priority: Magnitude of impact if action does not occur (1) Critical, (2) Serious, (3) Important (4) minor	Priority: Is it a foundation action: (1) Other actions highly dependent; (2) Few direct dependencies (3) no direct dependencies	Priority: What level of impact will the investment generate? (1) Major benefit (>x10); (2) moderate benefit (>x2) (3) limited benefit	What has prevented action from being completed to date?
									TOTAL Water and Sanitation Management:		R 548 637		TOTAL:	R 145 815		TOTAL:	R 336 461		TOTAL:	R 66 360			TOTAL:	R 142 516				
Water services planning	1.3.13 Roll-out of Feasibility and Implementation Readiness studies to align with national grant funding programmes	National	N	0	A.4; A.5; B.11	63	2018	2025	WSAs	DWS	R 858	90	2020	R 390	255	2025	R 468	n/a	n/a	R -	Budget = R 10 mill /Province/Annum = R 4.5 mill for National/annum	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Eastern Cape	WSA	Base zero	A.4; A.5; B.11	per annum over a 7-year period	2018	2025	WSAs	DWS	R 274	10	2020	R 222	25	2025	R 52	n/a	n/a	R -	Budget = R 10 mill /Province/Annum	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Free State	WSA	Base zero	A.4; A.5; B.11	per annum over a 7-year period	2018	2025	WSAs	DWS	R 73	10	2020	R 21	25	2025	R 52	n/a	n/a	R -	Budget = R 10 mill /Province/Annum	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Gauteng	WSA	Base zero	A.4; A.5; B.11	per annum over a 7-year period	2018	2025	WSAs	DWS	R 73	10	2020	R 21	25	2025	R 52	n/a	n/a	R -	Budget = R 10 mill /Province/Annum	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Kwazulu-Natal	WSA	Base zero	A.4; A.5; B.11	per annum over a 7-year period	2018	2025	WSAs	DWS	R 73	10	2020	R 21	25	2025	R 52	n/a	n/a	R -	Budget = R 10 mill /Province/Annum	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Limpopo	WSA	Base zero	A.4; A.5; B.11	per annum over a 7-year period	2018	2025	WSAs	DWS	R 73	10	2020	R 21	25	2025	R 52	n/a	n/a	R -	Budget = R 10 mill /Province/Annum	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Mpumalanga	WSA	Base zero	A.4; A.5; B.11	per annum over a 7-year period	2018	2025	WSAs	DWS	R 73	10	2020	R 21	25	2025	R 52	n/a	n/a	R -	Budget = R 10 mill /Province/Annum	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		North West	WSA	Base zero	A.4; A.5; B.11	per annum over a 7-year period	2018	2025	WSAs	DWS	R 73	10	2020	R 21	25	2025	R 52	n/a	n/a	R -	Budget = R 10 mill /Province/Annum	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Northern Cape	WSA	Base zero	A.4; A.5; B.11	per annum over a 7-year period	2018	2025	WSAs	DWS	R 73	10	2020	R 21	25	2025	R 52	n/a	n/a	R -	Budget = R 10 mill /Province/Annum	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
		Western Cape	WSA	Base zero	A.4; A.5; B.11	per annum over a 7-year period	2018	2025	WSAs	DWS	R 73	10	2020	R 21	25	2025	R 52	n/a	n/a	R -	Budget = R 10 mill /Province/Annum	n/a	n/a	R -	2	2	1	Total cost requirement exceeds the annual available funding allocation
1.4 Regulating the water and sanitation sector									TOTAL Regulating the water and sanitation sector:		R 819		TOTAL:	R 443		TOTAL:	R 231		TOTAL:	R 145			TOTAL:	R 149				
Regulating the water and sanitation sector	1.4.1 Revitalise the Green, Blue and No Drop programmes and publish results and revise and establish norms and standards.	National	N, P, L	BDS last published in 2014; GDS last published in 2014; NDS Not received since 2013,	A.3; A.4; A.6; B.7	• Obtain annual BD and GD Assessments reports • Obtain from 144 WSAs IWA Water Balance requirements	2018	Annual	DWS		R 29		A	R 29			R -		R -				R	2	2	1	• lack responsibility
		Eastern Cape	L	BDS last published in 2014; GDS last published in 2014; NDS Not received since 2013,		• Monthly submission of 14 IWA Water Balance requirements (No Drop report) to DWS • Annual submission of 14 BD and GD compliance assessments			WSAs	DWS	R 3	Improve monthly reporting by 50%	2020	R 3	14 monthly reports… Over period	annual	n/a	14 monthly reports… Over period	annual	n/a	About R200k for each WSA	14 monthly reports… Over period	annual	n/a	2	2	1	• lack responsibility
		Free State		BDS last published in 2014; GDS last published in 2014; NDS Not received since 2013,		• Monthly submission of 19 IWA Water Balance requirements (No Drop report) to DWS • Annual submission of 19 BD and GD compliance assessments			WSAs	DWS	R 4	Improve monthly reporting by 50%	2020	R 4	n/a	n/a	n/a	n/a	n/a	n/a	About R200k for each WSA	n/a	n/a	n/a	2	2	1	• lack responsibility
		Gauteng		BDS last published in 2014; GDS last published in 2014; NDS Not received since 2013,		• Monthly submission of 9 IWA Water Balance requirements (No Drop report) to DWS • Annual submission of 9 BD and GD compliance assessments			WSAs	DWS	R 2	Improve monthly reporting by 50%	2020	R 2	n/a	n/a	n/a	n/a	n/a	n/a	About R200k for each WSA	n/a	n/a	n/a	2	2	1	• lack responsibility
		Kwazulu-Natal		BDS last published in 2014; GDS last published in 2014; NDS Not received since 2013,		• Monthly submission of 14 IWA Water Balance requirements (No Drop report) to DWS • Annual submission of 14 BD and GD compliance assessments			WSAs	DWS	R 3	Improve monthly reporting by 50%	2020	R 3	n/a	n/a	n/a	n/a	n/a	n/a	About R200k for each WSA	n/a	n/a	n/a	2	2	1	• lack responsibility
		Limpopo		BDS last published in 2014; GDS last published in 2014; NDS Not received since 2013,		• Monthly submission of 10 IWA Water Balance requirements (No Drop report) to DWS • Annual submission of 10 BD and GD compliance assessments			WSAs	DWS	R 2	Improve monthly reporting by 50%	2020	R 2	n/a	n/a	n/a	n/a	n/a	n/a	About R200k for each WSA	n/a	n/a	n/a	2	2	1	• lack responsibility
		Mpumalanga		BDS last published in 2014; GDS last published in 2014; NDS Not received since 2013,		• Monthly submission of 17 IWA Water Balance requirements (No Drop report) to DWS • Annual submission of 17 BD and GD compliance assessments			WSAs	DWS	R 3	Improve monthly reporting by 50%	2020	R 3	n/a	n/a	n/a	n/a	n/a	n/a	About R200k for each WSA	n/a	n/a	n/a	2	2	1	• lack responsibility
		North West		BDS last published in 2014; GDS last published in 2014; NDS Not received since 2013,		• Monthly submission of 10 IWA Water Balance requirements (No Drop report) to DWS • Annual submission of 10 BD and GD compliance assessments			WSAs	DWS	R 2	Improve monthly reporting by 50%	2020	R 2	n/a	n/a	n/a	n/a	n/a	n/a	About R200k for each WSA	n/a	n/a	n/a	2	2	1	• lack responsibility
		Northern Cape		BDS last published in 2014; GDS last published in 2014; NDS Not received since 2013,		• Monthly submission of 26 IWA Water Balance requirements (No Drop report) to DWS • Annual submission of 26 BD and GD compliance assessments			WSAs	DWS	R 5	Improve monthly reporting by 50%	2020	R 5	n/a	n/a	n/a	n/a	n/a	n/a	About R200k for each WSA	n/a	n/a	n/a	2	2	1	• lack responsibility
		Western Cape		BDS last published in 2014; GDS last published in 2014; NDS Not received since 2013,		• Monthly submission of 25 IWA Water Balance requirements (No Drop report) to DWS • Annual submission of 25 BD and GD compliance assessments			WSAs	DWS	R 5	Improve monthly reporting by 50%	2020	R 5	n/a	n/a	n/a	n/a	n/a	n/a	About R200k for each WSA	n/a	n/a	n/a	2	2	1	• lack responsibility
	1.4.2 Include water use efficiency and conservation targets in the KPIs of municipal managers and municipal water services managers, and in municipal implementation plans	National	P, L	Not included in peformance agreements	A.1 - A.8; B.12	Revised published performance agreements per WSAs	2018	2019	CoGTA	Municipalities	R 9	Signed revised performance agreements	2019	R 9	n/a	n/a	R -	n/a	n/a	R -	Continuous process	n/a	n/a	R	2	2	1	Not previously required
		Eastern Cape					2018	2019	CoGTA	Municipalities	R 1		2019	R 1	n/a	n/a	R -	n/a	n/a	R -	Continuous process	n/a	n/a	R	2	2	1	
		Free State					2018	2019	CoGTA	Municipalities	R 1		2019	R 1	n/a	n/a	R -	n/a	n/a	R -	Continuous process	n/a	n/a	R	2	2	1	
		Gauteng					2018	2019	CoGTA	Municipalities	R 1		2019	R 1	n/a	n/a	R -	n/a	n/a	R -	Continuous process	n/a	n/a	R	2	2	1	
		Kwazulu-Natal					2018	2019	CoGTA	Municipalities	R 1		2019	R 1	n/a	n/a	R -	n/a	n/a	R -	Continuous process	n/a	n/a	R	2	2	1	
		Limpopo					2018	2019	CoGTA	Municipalities	R 1		2019	R 1	n/a	n/a	R -	n/a	n/a	R -	Continuous process	n/a	n/a	R	2	2	1	
		Mpumalanga					2018	2019	CoGTA	Municipalities	R 1		2019	R 1	n/a	n/a	R -	n/a	n/a	R -	Continuous process	n/a	n/a	R	2	2	1	
		North West					2018	2019	CoGTA	Municipalities	R 1		2019	R 1	n/a	n/a	R -	n/a	n/a	R -	Continuous process	n/a	n/a	R	2	2	1	
		Northern Cape					2018	2019	CoGTA	Municipalities	R 1		2019	R 1	n/a	n/a	R -	n/a	n/a	R -	Continuous process	n/a	n/a	R	2	2	1	
		Western Cape					2018	2019	CoGTA	Municipalities	R 1		2019	R 1	n/a	n/a	R -	n/a	n/a	R -	Continuous process	n/a	n/a	R	2	2	1	
	1.4.3 Establish Water Efficiency Labelling and Standards (WELS) Scheme	National	N	No	A.4; A.5	• Develop norms and standards for WELSS • Implement WELSS	2019	2025	SABS	DWS, organised Industry, Regulator	R 48	Approved WELSS for RSA	2019	R 8	WELS Roll out plan	2015	R 40	n/a	n/a	R		n/a	n/a	R	3	2	2	Value of water efficiency is underestimated
	1.4.4 Identify and prosecute major non-compliant abstractors (water thieves) across the country, with a national communication campaign to accompany the action inclusive of reviving the Blue Scorpions	National	N,S	Non Compliance to WUL, Directives, Notices, and prosecution	A.4; A.6; B.12	• 10 by 2020; additional 10 by 2023 • Non Compliance and Compliance, Compliance promotion, Audit/inspections • Do physical inspections supported by updated V&V and build prosecution case material together with dedicated NPA team.	2018	2020	CMAs	NPA, SAPS, DEA, Regulator, DMR, DWS, Blue Scorpions	R 72	18 Deployed Scorpions	2020	R 72		0	R -		0	R -	Continuous process		0	R -	Illegal water use will continue	Authorisation/Water Users	Collapse in the following: Water quality, Ilegal Abstraction, Non compliance to standard. Impact on planning.	The value of BS is underestimated
		Berg-Olifants	S	CMA not yet establish	A.4; A.6; B.12				CMA	NPA, SAPS, DEA, Regulator, DMR, DWS, Blue Scorpions	R 8	2 Deployed Blue Scorpion Officials per WMA	2020	R 8	n/a	n/a	R -	n/a	n/a	R	Initial processes to assess the non-complaint abstractors, then Scorpions will take over	n/a	n/a	R	3	2	2	The value of the BS is underestimated
		Breede-Gouritz	S	CMA not yet establish	A.4; A.6; B.12				CMA	NPA, SAPS, DEA, Regulator, DMR, DWS, Blue Scorpions	R 8	2 Deployed Blue Scorpion Officials per WMA	2020	R 8	n/a	n/a	R -	n/a	n/a	R	Initial processes to assess the non-complaint abstractors, then Scorpions will take over	n/a	n/a	R	3	2	2	The value of the BS is underestimated
		Inkomati-Usuthu	S	CMA not yet establish	A.4; A.6; B.12				CMA	NPA, SAPS, DEA, Regulator, DMR, DWS, Blue Scorpions	R 8	2 Deployed Blue Scorpion Officials per WMA	2020	R 8	n/a	n/a	R -	n/a	n/a	R	Initial processes to assess the non-complaint abstractors, then Scorpions will take over	n/a	n/a	R	3	2	2	The value of the BS is underestimated
		Limpopo	S	CMA not yet establish	A.4; A.6; B.12				CMA	NPA, SAPS, DEA, Regulator, DMR, DWS, Blue Scorpions	R 8	2 Deployed Blue Scorpion Officials per WMA	2020	R 8	n/a	n/a	R -	n/a	n/a	R	Initial processes to assess the non-complaint abstractors, then Scorpions will take over	n/a	n/a	R	3	2	2	The value of the BS is underestimated
		Mzimvubu-Tsitsikamma	S	CMA not yet establish	A.4; A.6; B.12				CMA	NPA, SAPS, DEA, Regulator, DMR, DWS, Blue Scorpions	R 8	2 Deployed Blue Scorpion Officials per WMA	2020	R 8	n/a	n/a	R -	n/a	n/a	R	Initial processes to assess the non-complaint abstractors, then Scorpions will take over	n/a	n/a	R	3	2	2	The value of the BS is underestimated
		Olifants	S	CMA not yet establish	A.4; A.6; B.12				CMA	NPA, SAPS, DEA, Regulator, DMR, DWS, Blue Scorpions	R 8	2 Deployed Blue Scorpion Officials per WMA	2020	R 8	n/a	n/a	R -	n/a	n/a	R	Initial processes to assess the non-complaint abstractors, then Scorpions will take over	n/a	n/a	R	3	2	2	The value of the BS is underestimated
		Orange	S	CMA not yet establish	A.4; A.6; B.12				CMA	NPA, SAPS, DEA, Regulator, DMR, DWS, Blue Scorpions	R 8	2 Deployed Blue Scorpion Officials per WMA	2020	R 8	n/a	n/a	R -	n/a	n/a	R	Initial processes to assess the non-complaint abstractors, then Scorpions will take over	n/a	n/a	R	3	2	2	The value of the BS is underestimated
		Pongola-Mtamvuna	S	CMA not yet establish	A.4; A.6; B.12				CMA	NPA, SAPS, DEA, Regulator, DMR, DWS, Blue Scorpions	R 8	2 Deployed Blue Scorpion Officials per WMA	2020	R 8	n/a	n/a	R -	n/a	n/a	R	Initial processes to assess the non-complaint abstractors, then Scorpions will take over	n/a	n/a	R	3	2	2	The value of the BS is underestimated
		Vaal	S	CMA not yet establish	A.4; A.6; B.12				CMA	NPA, SAPS, DEA, Regulator, DMR, DWS, Blue Scorpions	R 8	2 Deployed Blue Scorpion Officials per WMA	2020	R 8	n/a	n/a	R -	n/a	n/a	R	Initial processes to assess the non-complaint abstractors, then Scorpions will take over	n/a	n/a	R	3	2	2	The value of the BS is underestimated
	1.4.5 Replace all Existing Lawful Use (ELU) with licences with enforceable water use conditions	National	N	Revise Norms and Standards for Water Use Conditions Incomplete Validation and Verification (V&V) of ELU and unregistered water users	B.12	• Develop regulations, amend the legislation and make a call for ELU and implement compulsory licensing. • Implement compulsory licensing in deficit or near deficit catchments Implement metering of all abstractions and reporting as a licence condition. • Develop regulations to implement and enforce industry specific license conditions and incorporate in water use licenses by 2018. • Compulsory Licensing, and Finalisation of the NWA&SA, Identifying all your user. • Quantifying all the ELUs (roll out V&V in provinces) • Link to CMA studies	2018	2030	DWS	CMAs	R 261			R 135			R 63									1	1	1	Importance to water use licensing underestimated.
		Berg-Olifants	S	Incomplete Validation and Verification (V&V) of ELU and unregistered water users	B.12	Completed V&V All water users registered and licenced	2018	2030	CMA	DWS	R 29	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R 7		n/a	n/a	R	2	2	1	Lack of quality water resource management
		Breede-Gouritz	S	Incomplete Validation and Verification (V&V) of ELU and unregistered water users	B.12	Completed V&V All water users registered and licenced	2018	2030	CMA	DWS	R 29	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R 7		n/a	n/a	R	2	2	1	Lack of quality water resource management
		Inkomati-Usuthu	S	Incomplete Validation and Verification (V&V) of ELU and unregistered water users	B.12	Completed V&V All water users registered and licenced	2018	2030	CMA	DWS	R 29	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R 7		n/a	n/a	R	2	2	1	Lack of quality water resource management

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Level 1: Key Actions	Level 2: Supporting Actions	Level 3: Regional Actions	Nat., Reg. & System (N)/ Prov. (P)/ Local (L)	Baseline / Status Quo	Overall targets: Drivers / Goals (Drivers)	Major Measurable Deliverable	Target Date: Start date	Target Date: Compl. Date	Responsible Institutions: Lead	Responsible Institutions: Support	Present Value Cost (VAT excl.) R million (2018) (MP horizon)	Breakdown of deliverables per time segment 2018-2020: Deliverable	2018-2020: Date	2018-2020: PV Cost R million	2021-2025: Deliverable	2021-2025: Date	2021-2025: PV Cost R million	2026-2030 (current MP horizon, to vary in future): Deliverable	2026-2030: Date	2026-2030: PV Cost R million	Note	2031-2050 (beyond current MP horizon): Deliverable	2031-2050: Date	2031-2050: PV Cost R million	Priority: Magnitude of impact if action does not occur (1) Critical, (2) Serious, (3) Important (4) minor	Priority: Is it a foundation action: (1) Other actions highly dependent; (2) Few direct dependencies (3) no direct dependencies	Priority: What level of impact will the investment generate? (1) Major benefit (>x10); (2) moderate benefit (>x2) (3) limited benefit	What has prevented action from being completed to date?
										TOTAL Water and Sanitation Management:	R 548 637		TOTAL:	R 145 815		TOTAL:	R 336 461		TOTAL:	R 66 360			TOTAL:	R 142 516				
		Limpopo	S	Incomplete Validation and Verification (V&V) of ELU and unregistered water users	B.12	Completed V&V All water users registered and licenced	2018	2030	CMA	DWS	R 29	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R 7		n/a	n/a	R	2	2	1	Lack of quality water resource management
		Mzimvubu-Tsitsikamma	S	Incomplete Validation and Verification (V&V) of ELU and unregistered water users	B.12	Completed V&V All water users registered and licenced	2018	2030	CMA	DWS	R 29	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R 7		n/a	n/a	R	2	2	1	Lack of quality water resource management
		Olifants	S	Incomplete Validation and Verification (V&V) of ELU and unregistered water users	B.12	Completed V&V All water users registered and licenced	2018	2030	CMA	DWS	R 29	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R 7		n/a	n/a	R	2	2	1	Lack of quality water resource management
		Orange	S	Incomplete Validation and Verification (V&V) of ELU and unregistered water users	B.12	Completed V&V All water users registered and licenced	2018	2030	CMA	DWS	R 29	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R 7		n/a	n/a	R	2	2	1	Lack of quality water resource management
		Pongola-Mtamvuna	S	Incomplete Validation and Verification (V&V) of ELU and unregistered water users	B.12	Completed V&V All water users registered and licenced	2018	2030	CMA	DWS	R 29	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R 7		n/a	n/a	R	2	2	1	Lack of quality water resource management
		Vaal	S	Incomplete Validation and Verification (V&V) of ELU and unregistered water users	B.12	Completed V&V All water users registered and licenced	2018	2030	CMA	DWS	R 29	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R 7		n/a	n/a	R	2	2	1	Lack of quality water resource management
	1.4.6 Development and implementation of the MoU between the DWS and strategic users	National	N	Should Agric Not be	A.8; B.12	Signed MoU that considers water re-allocation, transformation of lawful reduced water use	2018	2020	DWS	Chamber of Mines, Eskom, Industries	R 4	Signed MoU between affected parties	2020	R 4	n/a	n/a	R -	n/a	n/a	R	-	n/a	n/a	R	3	2	1	Lack of quality water resource management
		Chamber of mines	N	3%																					1	2	1	
		Eskom	N	1%																					2	2	2	
		Wet industries	N	22%																					2	2	2	
	1.4.7 Develop and implement municipal bylaws to protect water quality	National	N	No prescribed bylaws	A.3; A.6; B.3	Publication of updated bylaws that includes Project of Raw Water Quality	2018	2020	DWS (Water Sector Support)	WSAs	R -														2	1	1	Leadership DWS
	1.4.8 Identify and prosecute big polluters across the country (including municipalities), with a national communication campaign to accompany the action inclusive of reviving the Blue Scorpions	National	N	Green Scorpions not assigned to CMAs	B.12	Establish mandatory national standards for water discharge and include in norms and standards. Develop public awareness strategy to communicate non compliance Do physical inspections/audits supported by ELU/WULA and build case material together with dedicated NPA team.		10 by 2020; additional 10 by 2023	CMAs	NPA, SAPS, DEA, DMR, DWS, Blue Scorpions	R 198			R 135			R 63			R	-			R	2	2	1	
		Berg-Olifants	S	No CMA yet	B.12	Completed V&V All water users registered and licenced	2018	2025	CMA	NPA, SAPS, DEA, DMR, DWS, Blue Scorpions	R 22	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R	-	n/a	n/a	R	2	2	1	Lack of quality water resource management
		Breede-Gouritz	S	No CMA yet	B.12	Completed V&V All water users registered and licenced	2018	2025	CMA	NPA, SAPS, DEA, DMR, DWS, Blue Scorpions	R 22	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R	-	n/a	n/a	R	2	2	1	Lack of quality water resource management
		Inkomati-Usuthu	S	No CMA yet	B.12	Completed V&V All water users registered and licenced	2018	2025	CMA	NPA, SAPS, DEA, DMR, DWS, Blue Scorpions	R 22	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R	-	n/a	n/a	R	2	2	1	Lack of quality water resource management
		Limpopo	S	No CMA yet	B.12	Completed V&V All water users registered and licenced	2018	2025	CMA	NPA, SAPS, DEA, DMR, DWS, Blue Scorpions	R 22	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R	-	n/a	n/a	R	2	2	1	Lack of quality water resource management
		Mzimvubu-Tsitsikamma	S	No CMA yet	B.12	Completed V&V All water users registered and licenced	2018	2025	CMA	NPA, SAPS, DEA, DMR, DWS, Blue Scorpions	R 22	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R	-	n/a	n/a	R	2	2	1	Lack of quality water resource management
		Olifants	S	No CMA yet	B.12	Completed V&V All water users registered and licenced	2018	2025	CMA	NPA, SAPS, DEA, DMR, DWS, Blue Scorpions	R 22	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R	-	n/a	n/a	R	2	2	1	Lack of quality water resource management
		Orange	S	No CMA yet	B.12	Completed V&V All water users registered and licenced	2018	2025	CMA	NPA, SAPS, DEA, DMR, DWS, Blue Scorpions	R 22	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R	-	n/a	n/a	R	2	2	1	Lack of quality water resource management
		Pongola-Mtamvuna	S	No CMA yet	B.12	Completed V&V All water users registered and licenced	2018	2025	CMA	NPA, SAPS, DEA, DMR, DWS, Blue Scorpions	R 22	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R	-	n/a	n/a	R	2	2	1	Lack of quality water resource management
		Vaal	S	No CMA yet	B.12	Completed V&V All water users registered and licenced	2018	2025	CMA	NPA, SAPS, DEA, DMR, DWS, Blue Scorpions	R 22	Completed V&Vs	2020	R 15	Comprehensive e-WULAAS	2025	R 7	n/a	n/a	R	-	n/a	n/a	R	2	2	1	Lack of quality water resource management
	1.4.9 Establish a mechanism for applying administrative penalties	National	N, P	An Environmental Management Inspectorate Network does exist within the Department but needs to be strengthened.	A.3; B.7	Strengthening Compliance and Enforcement training modules to build the capacity of EMIs in-house Strengthen the CME, finalisation of the Strategy and Implemented Plan Appoint Environmental Management Inspectors (EMI) to conduct CME	2018	2023	DWS	Dept of Justice	R 11	Strengthening Compliance and Enforcement training modules to build the capacity of EMIs in-house	2020	R 6	Strengthen the CME, finalisation of the Strategy and Implemented Plan Appoint Environmental Management Inspectors (EMI) to conduct CME	2021	R 5	n/a	n/a	R	-	n/a	n/a	R	2	2	2	Skills, Resources, understanding of legislation needs to be strengthened within DWS
	1.4.10 Develop improved regulatory approaches to manage pollution from land-based and in-stream activities (SA1, SA7, SA20 & SA29)	Revise and gazette mandatory national waste discharge standards	N	Dated standards that require revision	B.12	Gazetted waste discharge standards	2018/2019	2021/2022	DWS		R 36	Updated standards gazetted	2020	R 9	Implementation monitored and standards improved	2025	R 12	Implementation monitored and standards improved	2030	R 15		Implementation monitored and standards improved	2050	R 25	2	1	1	Capacity and budgetary constraints, systems integration is lacking
		Gazette unconventional gas (fracking) regulations	N	Initial studies completed	B.12	Gazetted unconventional gas (fracking) regulations	2017/2018	2019/2020	DWS		R 27	Gazetted regulation	2020	R 6	Regulations strengthened	2025	R 9	Implementation monitored and standards improved	2030	R 12		Implementation monitored and standards improved	2050	R 20	1	1	2	
		Gazette revised regulations on the use of water for mining related activities (Government Notice GN704)	N	Mine-water management policy	B.12	Gazetted amended GN 704 Regulations	2017/2018	2019/2020	DWS		R 16	Gazetted regulation	2020	R 3	Regulations strengthened	2025	R 5	Implementation monitored and standards improved	2030	R 8		Implementation monitored and standards improved	2050	R 18	2	1	2	
		Develop and gazette regulations for other impacting sectors (e.g. feedlots, industries, etc.)	N	Limited regulations in place	B.12	Gazetted regulations	2025/2026	2029/2030	DWS		R 31	Gazetted regulation	2020	R 8	Regulations strengthened	2025	R 10	Implementation monitored and standards improved	2030	R 13		Implementation monitored and standards improved	2050	R 20	3	1	2	
	1.4.11 Develop and implement an action plan to strengthen water use authorisation processes (SA24, SA25, SA26, SA27 & SA28)	Develop and implement (an) approach(is) to ensure that the conditions in water use authorisations, including those that specify effluent discharge standards, ensure compliance to resource directed measures (RDMs)	N, P, L	Existing ones need to be strengthened	B.12	Protocol for implementation of RQOs and conversion to licence conditions	2018/2019	2021/2022	DWS	CMAs, WRC, CSIR	R 13	Protocol in place	2019	R 2	Implementation monitored and protocol improved	2025	R 4	Implementation monitored and standards improved	2030	R 7		Implementation monitored and standards improved	2050	R 16	1	1	1	Capacity and budgetary constraints, systems integration is lacking
		Develop and implement a protocol to differentiate between water users in terms of risk	N, P, L	Limited consideration of risk	B.12	Protocol for determining risk-based water use categories, corresponding licence application fees and for extending the financial provisioning requirements to all high risk water polluters	2019/2020	2021/2022	DWS	CMAs	R 28	Protocol in place	2020	R 8	Implementation monitored and protocol improved	2025	R 8	Implementation monitored and standards improved	2030	R 12		Implementation monitored and standards improved	2050	R 22	3	2	3	
		Develop and implement a protocol for integrated licencing processes to streamline authorisations	N, P, L	Strengthen and integrate existing licence protocols	B.12	Protocol for implementation of an integrated licencing processes	2019/2020	2020/2021	DWS	CMAs, DEA, DMR, DAFF	R 36	Protocol for integrated licence	2020	R 9	Implementation monitored and protocol improved	2025	R 12	Implementation monitored and standards improved	2030	R 15		Implementation monitored and standards improved	2050	R 28	2	2	3	
	1.4.12 Implement measures to ensure that water users use and discharge water responsibly and adhere to regulatory requirements		N, P, L		B.12	Gazetted regulations	2021	2022	DWS	CMAs, WSAs		Gazetted regulation																
1.5 Improving raw water quality										TOTAL Improving raw water quality:	R 1 947		TOTAL:	R 341		TOTAL:	R 705		TOTAL:	R 901			TOTAL:	R 1 388				
	1.5.1 Determine in-stream Resource Water Quality Objectives (RWQOs), based on the SA Water Quality Guidelines (SA36), in support of RQO's	Develop national RWQOS	N	RWQOs	A.3; B.3 WQM TARGET #1: Water in, or from water resources shall be fit for use.	Publish the RWQOs for water quality	2017/2018	2018/2019	DWS	CMAs	R 33	Updated national RWQOs	2020	R 6	Updated national RWQOs	2025	R 12	Updated national RWQOs	2030	R 15	Note: RQOs are already gazetted for the Letaba, Inkomati, Olifants, Vaal, Olifantsdoorn and Mvoti to Mzimkulu river systems. Supporting RWQOs were set for the Vaal, Orange and Olifants river systems.	Updated national RWQOs	2050	R 25	2	1	1	Capacity, budgetary constraints
		Support RQOs in specified catchments wt integrated water quality management	N	RWQOs	A.3; B.3 WQM TARGET #1: Water in, or from water resources shall be fit for use.	RQOs adequately reflect IWQM requirements	2018/2019	2019/2020	CMAs	DWS	R 43	RQOs strengthened to include IWQM	2020	R 8	RQOs monitored to ensure WQ improvements	2025	R 15	RQOs monitored to ensure WQ improvements	2030	R 20		RQOs monitored to ensure WQ improvements	2050	R 30	2	1	1	
	1.5.2 Routinely monitor resource water quality (SA46, SA47 SA48)	Resolve supply chain management challenges to ensure the availability of back-to-back laboratory services to effectively address technical needs	N	Laboratory facilities not readily available in all WMAs hampering IWQM	A.3; B.3 WQM TARGET #1: Water in, or from water resources shall be fit for use.	Approach for the sustainable procurement of future laboratory services and active contracts to secure continuous laboratory services	2018/2019	2019/2020	CMAs	DWS	R 360	Procurement protocol developed and Laboratory facilities available in all WMAs	2020	R 90	Laboratory facilities available in all WMAs	2025	R 120	Laboratory facilities available in all WMAs	2030	R 150		Laboratory facilities available in all WMAs	2050	R 220	1	1	2	Poor monitoring network and system support
		Undertake routine national water quality monitoring, considering the recommendations of the Review of the South African Water Resource Monitoring Network	N	National monitoring network in place but coverage requires expansion		An efficient and coordinated national monitoring programme and consistent monitoring	2018/2019	2029/2030	DWS	CMAs	R 59	National water quality monitoring network reviewed and strengthened	2020	R 14	National water quality monitoring networks strengthened	2025	R 25	National water quality monitoring network reviewed and strengthened	2030	R 20		National water quality monitoring network reviewed and strengthened	2050	R 20	2	2	2	
		Realign/ establish regional water quality monitoring programmes in cooperation with all relevant role-players and undertake routine regional monitoring	N	Regional water quality programmes insufficient to manage pressure on water resources		Efficient and coordinated regional monitoring programmes and consistent monitoring	2018/2019	2029/2039	DWS	CMAs, civil society, academia, DEA, DOH, DAFF, water users, local government(DWS Provincial Offices)	R 87	Regional water quality monitoring programmes strengthened	2020	R 27	Regional water quality monitoring programmes reviewed and strengthened	2025	R 40	Regional water quality monitoring programmes reviewed and strengthened	2030	R 20		Regional water quality monitoring programmes reviewed and strengthened	2050	R 20	1	1	1	
		Development and implement a programme to create and support citizen-based water quality monitoring programmes	N, P, L	Regional and local water quality programmes insufficient to manage pressure on water resources		Citizen-based monitoring programmes developed and implemented	2022/2023	2030 and beyond	DWS	CMAs, WRC, public(N Jaffa, DWS Project Manager: Adopt a River)	R 26	Concept strategy and protocols developed	2020	R 4	Citizen-based monitoring programme developed and implemented	2025	R 12	Programme reviewed and strengthened	2030	R 10		Programme reviewed and strengthened	2050	R 15	3	2	1	
	1.5.3 Establish and maintain appropriate and accessible information management system(s) for resource water quality (SA49, SA51 & SA60)	Improve the effectiveness and efficiency of the water quality data management system(s) through the implementation of the findings of the Data Acquisition and Management (DAM) Strategy pertaining to water quality	N	WMS system functional but not utilised nationally. Staff capacity to use system requires strengthening	A.3; B.3 WQM TARGET #1: Water in, or from water resources shall be fit for use.	One corporate Water Management System (WMS) for improved information management and availability (to support/strengthen water quality planning and management)	2018/2019	2023/2024	CMAs	DWS	R 29	WMS reviewed and improvement programme developed	2020	R 8	WMS strengthened and is utilised nationally	2025	R 9	WMS reviewed and updated periodically	2030	R 12		WMS reviewed and updated periodically	2050	R 25	1	1	1	Capacity, lack of alignment, complexities, capacity challenges, complex system integration challenges
		Harmonise the systems and approaches being used across sector Departments and catchments for resource water quality data and information	N	Limited exchange of data and information. No integrated systems supporting.	A.3	Coordinated systems and approaches for cooperative and cost effective information management	2022/2023	2029/2030	DWS	CMAs, civil society, academia, DEA, DOH, DAFF, DMPE, Stats SA, water users, local government	R 16				Integration protocol developed	2022	R 6	Systems development supports exchange of data and information	2030	R 10		Systems reviewed and updated periodically	2050	R 15	3	2	3	
		Ensure that the link between WARMS, WMS and SAP is successful and live as part of the Waste Discharge Charge System (WDCS) implementation process	N	Connectivity between systems not as effective in order to support the implementation of the WDCS	A.3; B.3 WQM TARGET #1: Water in, or from water resources shall be fit for use.	Systems that support WDCS implementation	2018/2019	2020/2021	DWS	DWS	R 17	WARMS-SAP operational link developed	2019	R 1	Ongoing improvements to systems	2025	R 4	Ongoing improvements to systems	2030	R 12		Ongoing improvements to systems	2050	R 20	1	1	1	
	1.5.4 Assess resource water quality information (SA52 & SA59)	Compile annual national resource water quality status report(s)	N	No reports	A.3; B.3 WQM TARGET #1: Water in, or from water resources shall be fit for use.	Routine national assessments of water quality and input in support of the SDG process	2018/2019	2029/2030	DWS		R 23	National Annual Reports published	2020	R 4	National Annual Reports published	2025	R 9	National Annual Reports published	2030	R 10		National Annual Reports published	2050	R 40	2	2	2	Limited information
		Compile annual catchment resource water quality status report(s)	N	No reports		Routine catchment assessments of water quality and the identification of "hot spots" for potential water quality management intervention	2018/2019	2029/2030	CMA	DWS	R 137	Catchment Annual Reports published	2020	R 27	Catchment Annual Reports published	2025	R 50	Catchment Annual Reports published	2030	R 60		Catchment Annual Reports published	2050	R 80	1	1	1	

1. Water and Sanitation Management

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Level 1: Key Actions	Level 2: Supporting Actions	Level 3: Regional Actions	Nat., Reg. & System (N)/ Prov. (P)/ Local (L)	Baseline / Status Quo	Overall targets: Drivers / Goals	Major Measurable Deliverable	Target Date: Start date	Target Date: Compl. Date	Responsible Institutions: Lead	Responsible Institutions: Support	Present Value Cost (VAT excl.) R million (2018) (MP horizon)	Breakdown of deliverables per time segment: 2018-2020 Deliverable	2018-2020 Date	2018-2020 PV Cost R million	2021-2025 Deliverable	2021-2025 Date	2021-2025 PV Cost R million	2026-2030 (current MP horizon, to vary in future) Deliverable	2026-2030 Date	2026-2030 PV Cost R million	Note	2031-2050 (beyond current MP horizon) Deliverable	2031-2050 Date	2031-2050 PV Cost R million	Priority: Magnitude of impact if action does not occur (1) Critical, (2) Serious, (3) Important (4) minor	Priority: Is it a foundation action: (1) Other actions highly dependent; (2) Few direct dependencies (3) no direct dependencies	Priority: What level of impact will the investment generate? (1) Major benefit (>x10); (2) moderate benefit (>x2) (3) limited benefit	What has prevented action from being completed to date?
										TOTAL Water and Sanitation Management:	R 548 637		TOTAL:	R 145 815		TOTAL:	R 336 461		TOTAL:	R 66 360			TOTAL:	R 142 516				
	1.5.5 Implement adaptive source control-based water quality management interventions, in accordance with relevant catchment plans and strategies (SA34 & SA35)	Develop and implement action plans for the implementation of the mine water management policy	N, P, L	Mine-Water Management Policy developed and approved	WQM TARGET #3: Integrated Water Quality Management (IWQM) shall be implemented at all levels, including the trans-boundary (international), national, Water Management Area (WMA) and sub-catchment levels	Execution of action Plans for the implementation of the policy on mine water management	2019/2020	2030 and beyond	Chamber of Mines	DWS, CMAs, DMR	R 18	Implementation Plan to support the Mine-water Policy	2020	R 3	Implementation Plan to support the Mine-water Policy	2025	R 5	Implementation Plan to support the Mine-water Policy	2030	R 10		Implementation Plan to support the Mine-water Policy	2050		1	2	1	Lack of implementation of policies and strategies
	1.5.6 Develop and implement a strategic action plan for the rehabilitation and upgrade of prioritized WWTWs (SA17)	Turn around the functionality of five, currently dysfunctional large wastewater treatment works with an accompanying publicity campaign, followed by a programme to address the rest	N., P, L	WWTW not performing optimally	WQM TARGET #2: All waste/water containing waste generated by households and by economic activities shall be disposed of/ discharged lawfully and safely	Public campaign and five functional WWTWs with maintenance plans and turnaround strategy	2018/2019	2022/2023	DWS	WSAs, NT, SALGA, COGTA(Water Services)	R 153	Strategy and implementation plan developed	2020	R 3	Plan implemented	2022	R 100	Works monitored and adaptive improvements made	2030	R 50		Works monitored and adaptive improvements made	2030	R 50	1	1	1	Complex intergovernmental relations
		Turn around the functionality of the remaining dysfunctional wastewater treatment works	L	WWTW not performing optimally		Programme to address the remaining WWTWs and functional WWTWs with maintenance plans	2023/2024	2029/2030	WSAs	DWS, SALGA, CoGTA, NT	R 260	Improvement Strategy and Maintenance Action Plan developed	2020	R 10	Strategy and implementation plan rolled out	2025	R 100	Strategy and implementation plan rolled-out	2030	R 150		Strategy and implementation plan rolled-out	2050	R 200	1	1	1	
	1.5.7 Adopt an integrated planning approach at trans-boundary (international), national, Water Management Area and sub-catchment levels (SA16, SA17, SA18, SA21, SA22, SA23 & SA33)	Ensure that co-basin organisations adequately support IWQM in shared river basins	N, P	Transboundary interactions on water quality management are currently only advisory in nature. Upstream-downstream challenges are significant.	WQM TARGET #3: Integrated Water Quality Management (IWQM) shall be implemented at all levels, including the trans-boundary (international), national, Water Management Area (WMA) and sub-catchment levels	Shared objectives and cooperation with respect to IWQM	2017/2019	2029/2030	DWS	Co-basin states	R 22	Transboundary water quality management strategy developed	2020	R 8	Transboundary water quality management strategy implemented and monitored	2025	R 6	Transboundary water quality management strategy revised and implemented	2030	R 8		Transboundary water quality management strategy revised and implemented	2050	R 10	3	2	2	Complex intergovernmental relations, require stronger IGR
		Determine water quality trends and management priorities in South Africa through planning-level reviews	N	Limited reviews of sufficient standards	WQM TARGET #3: Integrated Water Quality Management (IWQM) shall be implemented at all levels, including the trans-boundary (international), national, Water Management Area (WMA) and sub-catchment levels	Planning-level review of water quality trends in South Africa	2019/2020	2030 and beyond	DWS		R 18	Water Quality trends report	2020	R 4	Water Quality trends report	2025	R 6	Water Quality trends report	2030	R 8		Water Quality trends report	2050	R 10	3	2	2	
	1.5.8 Implement the Waste Discharge Charge System (WDCS) in priority catchments (SA5, SA41, SA42, SA43 & SA44)	Promulgate a Money Bill for the Waste Discharge Levy	N	Draft Money Bill developed	WQM TARGET #3: Integrated Water Quality Management (IWQM) shall be implemented at all levels, including the trans-boundary (international), national, Water Management Area (WMA) and sub-catchment levels	Money Bill gazetted	2018/2019	2019/2020	NT(Nosie Mazwi, DRPW and CD: Legal Services), CMAs	DWS	R 1	Approved Money Bill	2020	R 1										1	1	1	Legislative amendments required, implementation readiness within DWS insufficient
		Pilot and implement the WDCS in the Upper Crocodile (West) catchment	N, P, L	Draft WDCS Business plan for Upper Crocodile-West Marico	WQM TARGET #3: Integrated Water Quality Management (IWQM) shall be implemented at all levels, including the trans-boundary (international), national, Water Management Area (WMA) and sub-catchment levels	Functional WDCS and collection of revenue	2018/2019	2030 and beyond	CMA	DWS	R 18	Final WDCS Business plan	2020	R 3	WDCS business plan implemented	2025	R 6	WDCS business plan implemented	2030	R 9		WDCS business plan implemented	2050	R 20	1	1	1	
		Pilot and implement the WDCS in the Upper Vaal catchment	N, P, L	Draft WDCS Business plan for Upper Vaal	WQM TARGET #3: Integrated Water Quality Management (IWQM) shall be implemented at all levels,	Functional WDCS and collection of revenue	2018/2019	2030 and beyond	CMA	DWS	R 18	Final WDCS Business plan	2020	R 3	WDCS business plan implemented	2025	R 6	WDCS business plan implemented	2030	R 9		WDCS business plan implemented	2050	R 20	1	1	1	
		Pilot and implement the WDCS in the Upper Olifants catchment	N, P, L	Draft WDCS Business plan for Upper Olifants	WQM TARGET #3: Integrated Water Quality Management (IWQM) shall be implemented at all levels, including the trans-boundary (international), national, Water Management Area (WMA) and sub-catchment levels	Functional WDCS and collection of revenue	2018/2019	2030 and beyond	CMA	DWS	R 18	Final WDCS Business plan	2020	R 3	WDCS business plan implemented	2025	R 6	WDCS business plan implemented	2030	R 9		WDCS business plan implemented	2050	R 20	1	1	1	
	1.5.9 Ensure IWQM is supported by effective departmental arrangements (SA8 & SA9)	Reconfigure the DWS water quality management function and structures as needed to ensure efficiency and effectiveness	N, P, L	Existing DWS Structure	A.3	Re-aligned water quality management function and structure in DWS	2017/2018	2019/2020	DWS	HR Organisational Design	R 20	Revised IWQM structures approved	2020	R 5	IWQMS functioning and structures reviewed and updated	2025	R 7	Ongoing improvements to structures and functioning	2030	R 8		Ongoing improvements to structures and functioning	2050	R 12	3	1	1	Uncertainty in WQM institutional arrangements
	1.5.10 Formalise governance frameworks to support engagements on water quality management (SA10, SA11, SA12, SA13, SA14, SA15, SA54 & SA61)	Establish an action plan to strengthen inter-governmental structures for water quality management at trans-boundary (international), national and provincial levels to ensure efficient coordination and joint action supported by regular reporting	N, P, L	Build from IGR framework and SADC protocols	A.3	Action plan and relevant structures	2019/2020	2021/2022	DWS	CMAs, basin organisations	R 23	IWQM intergovernmental frameworks implemented	2020	R 2	IWQM intergovernmental frameworks implemented	2025	R 9	IWQM intergovernmental frameworks implemented	2030	R 12		IWQM intergovernmental frameworks implemented	2050	R 20	2	2	1	Poor IGR, uncertainty wrt institutional frameworks
		Strengthen and foster strategic sector partnerships and enable active participation of civil society	N	SWPN operational and other partnerships under development	A.8	Partnerships, catchment forums and active participation supporting IWQM	2018/2019	2030 and beyond	DWS	CMAs, WSAs	R 23	Partnership Guidelines developed	2020	R 3	Partnerships developed and supported	2025	R 8	Partnerships developed and supported	2030	R 12		Partnerships developed and supported	2050	R 15	2	2	1	
	1.5.11 Ensure fiscal support for IWQM (SA38 & SA39)	Restructure the grant funding mechanisms and conditions for water supply and sanitation so as to ensure a focus on maintaining and restoring existing infrastructure, rather than the construction of new infrastructure.	N, P, L	Existing Grants		Restructured grant funding mechanism(s), including lifecycle planning (asset management) conditions and prioritisation of maintenance grants for social schemes	2019/2020	2020/2021	DWS	WSAs (Water Services and Infrastructure Branch)	R 37	Protocol for Grants developed	2020	R 10	Monitoring of grants system and improvements	2025	R 12	Monitoring of grants system and improvements	2030	R 15					1	1	1	Significant budgetary constraints,
		Standardise and enforce required O&M budgeting and expenditure	N, L	Existing O&M policies and procedures are not being adequately applied		Sufficient budgets for O&M ensure infrastructure is adequately maintained	2019/2020	2020/2021	DWS	WSAs (Water Services Regulation)	R 36	Review of O&M expenditure and financing	2020	R 10	Strategy and implementation plan rolled out to improve financing of O&M	2025	R 6	Three yearly reviews of infrastructure O&M	2030	R 20		Three yearly reviews of infrastructure O&M	2050	R 100	1	1	1	
		Develop an IWQM investment framework	N, P, L	Not developed to date		Investment framework for broadening funding sources and ring-fencing funds for IWQM	2019/2020	2021-2022	DWS	CMAs, NT	R 13	IWQM Investment Framework development initiated	2020	R 4	IWQM Investment Framework developed	2025	R 4	Investment framework implemented	2030	R 5		Investment framework implemented	2050	R 5	2	1	2	
	1.5.12 Build water quality management capacity through recruitment, education and training (SA63, SA54, SA55 & SA56)	Develop and implement a capacity building programme for officials in DWS, CMAs and other sector departments, and for civil society on systems-based, adaptive IWQM	N, P, L	CB Framework developed	A.7	Training committee appointed and training programme on IWQM developed and implemented	2018/2019	2030 and beyond	DWS	CMAs, WRC, CSIR, SETA	R 47	IWQM Training Programme implemented	2020	R 12	IWQM Training Programme implemented and revised	2025	R 15	IWQM Training Programme implemented and revised	2030	R 20		IWQM Training Programme implemented and revised	2050	R 50	1	1	1	Financial constraints, lack of coordination, poor capacity
		Define (and reinstate in some cases) career paths with defined training and on the job experience to build a cadre of sector professionals	N, P, L	Career paths not developed	A.7	Career paths defined and implemented	2018/2019	2019/2020	DWS	Water Management and Water Services Institutions	R 11	Career paths and job specifications developed	2020	R 6	Approved and Implement Job Specification implemented and monitored	2025	R 2	Approved and Implement Job Specification implemented and monitored	2030	R 3		Approved and Implement Job Specification implemented and monitored	2050	R 6	2	2	2	
		Establish regulations on required qualifications and experience for senior and technical positions in DWS, and in Water Management and Water Services Institutions	N, P, L	No regulations in place	A.7	Gazetted regulations to appoint (a) registration authority(ies) for the registration of professionals and the specification of tasks to be performed by them	2025/2026	2028/2029	DWS	CoGTA (DWS HR)	R 9	Regulations developed and gazetted	2020	R 4	Implementation of regulations monitored	2025	R 2	Implementation of regulations monitored	2030	R 3					3	2	3	
		Provide bursaries and/or learnerships pertaining to water quality management at tertiary institutions	N	Limited bursaries available	A.7	Bursaries and learnerships pertaining to water quality management	2018/2019	2030 and beyond	Public & private sector	DWS HR and Learning Academy	R 23	Policy and strategy for bursaries developed	2020	R 1	Bursary strategy implemented	2025	R 10	Bursary strategy implemented	2030	R 12		Bursary strategy implemented	2050	R 20	3	3	3	
		Develop and implement a programme for recruiting and retaining experienced and qualified technical and managerial staff with technical qualifications in South Africa and externally	N	General retention strategy	A.7	Programme for recruiting and retaining of experienced and qualified technical and managerial staff, and recruit and retain staff	2018/2019	2019/2020	DWS	COGTA, DIRCO(DWS HR)	R 10	Revised recruitment and retention strategy developed	2020	R 4	Recruitment and retention strategy implemented and monitored	2025	R 2	Recruitment and retention strategy implemented and monitored	2025	R 4		Recruitment and retention strategy implemented and monitored	2050	R 6	1	2	1	
	1.5.13 Create an informed, supportive and responsible public (SA62)	Establish and strengthen IWQM awareness creation campaigns at national, Water Management Area and municipal levels	N, P, L	DWS Website and some materials developed	Critical actions	IWQM awareness creation campaigns, including anti-litter campaigns	2019/2020	2030 and beyond	DWS	CMAs, WSAs (DWS Communications)	R 22	IWQM Communication Strategy revised and materials developed	2020	R 6	IWQM Communication Strategy revised and materials developed	2025	R 6	IWQM Communication Strategy revised and materials developed	2030	R 10		IWQM Communication Strategy revised and materials developed	2050	R 20	3	2	1	Capacity constraints, IGR issues, and poor systems support
	1.5.14 Develop and implement a diffuse pollution source strategy that includes the regulation of land use	Non-Point Source Strategy	N	Draft NPS strategy in place. NPS calculator utilised.		Approved NPSS	2019	2023	DWS	CMAs	R 23	Updated NPS strategy initiated	2019	R 5	NPS strategy developed and implemented	2023	R 8	NPS strategy implemented and revised	2030	R 10		NPS strategy implemented and revised	2050	R 25	1	1	1	Management decision to approve, complex IG issue
	1.5.15 Implement programmes to rehabilitate catchments through development of Catchment business plans	National	N	WDCS Strategy in place, IWQMS in place		Gazetted WDCS, Money Bill and Tariff Structure	2018	Planning 2018 - 2020; Implementation to start from 2021	DWS	NT, CMAs	R 294	Monitoring of IWQMS	2020	R 42	Revised operational strategies	2023	R 77	Revised operational strategies	2030	R 175		Revised operational strategies	2050	R 30	2	2	2	Financial and capacity constraints in catchments, systems issues to support the plans
		Berg-Olifants	L	On-going regulatory activity		Approved Business Plan	2022	2025	CMA	DWS	R 36	IWQM plan developed	2020	R 6	IWQM plan implemented	2022	R 10	IWQM plans implemented, monitored and revised	2030	R 20		IWQM plans implemented, monitored and revised	2050	R 35	2	2	2	
		Breede-Gouritz	L	On-going regulatory activity		Approved Business Plan	2022	2025	CMA	DWS	R 32	Development of focused IWQM plan initiated	2019	R 4	IWQM plan developed	2021	R 9	IWQM plans implemented, monitored and revised	2030	R 19		IWQM plans implemented, monitored and revised	2050	R 25	2	2	2	
		Inkomati-Usuthu	L	On-going regulatory activity		Approved Business Plan	2020	2024	CMA	DWS	R 36	IWQM plan developed	2020	R 6	IWQM plan implemented	2024	R 11	IWQM plans implemented, monitored and revised	2030	R 19		IWQM plans implemented, monitored and revised	2050	R 25	3	2	2	
		Limpopo	L	Draft WDCS business plan for Upper Crocodile-West Marico		Approved Business Plan	2019	2019	CMA	DWS	R 29	Development of focused IWQM plan initiated	2020	R 3	IWQM plan developed	2024	R 8	IWQM plans implemented, monitored and revised	2030	R 18		IWQM plans implemented, monitored and revised	2050	R 24	2	2	2	
		Mzimvubu-Tsitsikamma	L	On-going regulatory activity		Approved Business Plan	2022	2024	CMA	DWS	R 25	Development of focused IWQM plan initiated	2020	R 3	IWQM plan developed	2024	R 6	IWQM plans implemented, monitored and revised	2030	R 16		IWQM plans implemented, monitored and revised	2050	R 22	3	2	2	
		Olifants	L	Draft WDCS business plan case for Upper Olifants, IWQMP developed		Approved Business Plan	2019	2020	CMA	DWS	R 34	IWQM plan implemented	2020	R 6	IWQM plan revised	2024	R 9	IWQM plans implemented, monitored and revised	2030	R 19		IWQM plans implemented, monitored and revised	2050	R 25	1	1	1	
		Orange	L	On-going regulatory activity		Approved Business Plan	2020	2022	CMA	DWS	R 27	Development of focused IWQM plan initiated	2020	R 4	IWQM plan developed	2023	R 7	IWQM plans implemented, monitored and revised	2030	R 16		IWQM plans implemented, monitored and revised	2050	R 24	2	2	2	
		Pongola-Mtamvuna	L	On-going regulatory activity		Approved Business Plan	2020	2022	CMA	DWS	R 30	Development of focused IWQM plan initiated	2019	R 4	IWQM plan developed	2022	R 8	IWQM plans implemented, monitored and revised	2030	R 18		IWQM plans implemented, monitored and revised	2050	R 24	2	2	2	
		Vaal	L	Draft WDCS business plan for Upper Vaal		Approved Business Plan	2019	2021	CMA	DWS	R 45	Development of focused IWQM plan initiated	2021	R 6	IWQM plan developed	2021	R 9	IWQM plans implemented, monitored and revised	2030	R 30		IWQM plans implemented, monitored and revised	2050	R 40	1	1	1	
	1.6 Protecting and restoring ecological infrastructure									TOTAL Protecting and restoring ecological infrastructure:	R 444		TOTAL:	R 201		TOTAL:	R 135		TOTAL:	R 108			TOTAL:	R 117				
Protecting and restoring ecological infrastructure	1.6.1 Declare strategic water source areas and critical groundwater recharge areas and aquatic ecosystems recognised as threatened or sensitive as protected areas	National	N	The continuous over utilisation and inadequate protection of our ecological systems and infrastructure has lead to changed characteristics rivers and other water resources beyond the point where they can be restored to their original ecological condition	A.6	Identify and declare protected / sensitive areas per CMA 1) Strategic Water Source Areas 2) GW Recharge Areas 3) Aquatic Ecosystems Develop rehabilitation systems to monitor status quo	2018	2021	DWS	CMAs, DEA, Regulator	R 99			R 81			R 18			R -				R -	1	1	1	Technical Understanding Leadership
		Berg-Olifants	S			Implement rehabilitation systems to prevent further degradation Liaison with DEA	2018	2021	CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	

1. Water and Sanitation Management

SCHEDULE OF ACTIONS Menu Help

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Level 1: Key Actions	Level 2: Supporting Actions	Level 3: Regional Actions	Nat., Reg. & System (N)/ Prov. (P) Local (L)	Baseline / Status Quo	Overall targets: Drivers / Goals	Major Measurable Deliverable	Target Date: Start date	Target Date: Compl. Date	Responsible Institutions: Lead	Responsible Institutions: Support	Present Value Cost (VAT excl.) R million (2018) (MP horizon)	Breakdown of deliverables per time segment: 2018-2020 Deliverable	2018-2020 Date	2018-2020 PV Cost R million	2021-2025 Deliverable	2021-2025 Date	2021-2025 PV Cost R million	2026-2030 (current MP horizon, to vary in future) Deliverable	2026-2030 Date	2026-2030 PV Cost R million	Note	2031-2050 (beyond current MP horizon) Deliverable	2031-2050 Date	2031-2050 PV Cost R million	Priority: Magnitude of impact if action does not occur (1) Critical, (2) Serious, (3) important (4) minor	Priority: Is it a foundation action: (1) Other actions highly dependent; (2) Few direct dependencies (3) no direct dependencies	Priority: What level of impact will the investment generate? (1) Major benefit (>x10); (2) moderate benefit (>x2) (3) limited benefit	What has prevented action from being completed to date?
										TOTAL Water and Sanitation Management:	R 548 637		TOTAL:	R 145 815		TOTAL:	R 336 461		TOTAL:	R 66 360			TOTAL:	R 142 516				
		Breede-Gouritz	S			Implement rehabilitation systems to prevent further degradation Liaison with DEA	2018	2021	CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Inkomati-Usuthu	S			Implement rehabilitation systems to prevent further degradation Liaison with DEA	2018	2021	CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Limpopo	S			Implement rehabilitation systems to prevent further degradation Liaison with DEA	2018	2021	CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Mzimvubu-Tsitsikamma	S			Implement rehabilitation systems to prevent further degradation Liaison with DEA	2018	2021	CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Olifants	S			Implement rehabilitation systems to prevent further degradation Liaison with DEA	2018	2021	CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Orange	S			Implement rehabilitation systems to prevent further degradation Liaison with DEA	2018	2021	CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Pongola-Mtamvuna	S			Implement rehabilitation systems to prevent further degradation Liaison with DEA	2018	2021	CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Vaal	S			Implement rehabilitation systems to prevent further degradation Liaison with DEA	2018	2021	CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
	1.6.2 Review and promulgate aggressive restrictions within the legislation to restore and protect ecological infrastucture	National	N	Current restrictions not forceful enough	A.6	Develop enforceable restrictions to be implemented by DEA	2019	2020	DEA	DWS, CMAs, SANBI, CSIR, Regulator	R 30	Develop enforceable restrictions to be implemented by DEA	2020	R 30	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
	1.6.3 Implementation of the Reserve (The classification, RQO's and the Reserve (collectively known as Resource Directed Measures (RDM)) for main stem rivers starting with the Berg, Breede and Gouritz, Middle and upper Vaal WMA's)	National	N	Water resource protection limits	A.6	Gazetted RQOs, Classes and Reserve	2018	2022	DWS	CMAs	R 99			R 81			R 18			R -				R -	2	2	1	
		Berg-Olifants	S						CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Breede-Gouritz	S						CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Inkomati-Usuthu	S						CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Limpopo	S						CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Mzimvubu-Tsitsikamma	S						CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Olifants	S						CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Orange	S						CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Pongola-Mtamvuna	S						CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
		Vaal	S						CMA	DWS	R 11	Implement rehabilitation systems to prevent further degradation	2020	R 9	Implement rehabilitation systems to prevent further degradation	2021	R 2	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
	1.6.4 Secure funds for restoration and ongoing maintenance of ecological infrastructure through operationalising the water pricing strategy	National	N	Funds to ensure the protection of the ecological reserve limited	A.6	Develop funding programmes specially earmarked for the projects to endure the restorations and protection of the ecological reserve	2018	2020	DWS	DEA, SANBI, CMAs	R 216	Funding programme with projects	2020	R 9			R 99			R 108				R 117	2	2	1	
		Berg-Olifants	S			Include projects into annual budget plan	2021	Annually	CMA	DEA, DWS	R 24	n/a	n/a	R 1	List of Projects	2025	R 11	List of Projects	2025	R 12		List of Projects	2025	R 13	2	2	1	
		Breede-Gouritz	S			Include projects into annual budget plan	2021	Annually	CMA	DEA, DWS	R 24	n/a	n/a	R 1	List of Projects	2025	R 11	List of Projects	2025	R 12		List of Projects	2025	R 13	2	2	1	
		Inkomati-Usuthu	S			Include projects into annual budget plan	2021	Annually	CMA	DEA, DWS	R 24	n/a	n/a	R 1	List of Projects	2025	R 11	List of Projects	2025	R 12		List of Projects	2025	R 13	2	2	1	
		Limpopo	S			Include projects into annual budget plan	2021	Annually	CMA	DEA, DWS	R 24	n/a	n/a	R 1	List of Projects	2025	R 11	List of Projects	2025	R 12		List of Projects	2025	R 13	2	2	1	
		Mzimvubu-Tsitsikamma	S			Include projects into annual budget plan	2021	Annually	CMA	DEA, DWS	R 24	n/a	n/a	R 1	List of Projects	2025	R 11	List of Projects	2025	R 12		List of Projects	2025	R 13	2	2	1	
		Olifants	S			Include projects into annual budget plan	2021	Annually	CMA	DEA, DWS	R 24	n/a	n/a	R 1	List of Projects	2025	R 11	List of Projects	2025	R 12		List of Projects	2025	R 13	2	2	1	
		Orange	S			Include projects into annual budget plan	2021	Annually	CMA	DEA, DWS	R 24	n/a	n/a	R 1	List of Projects	2025	R 11	List of Projects	2025	R 12		List of Projects	2025	R 13	2	2	1	
		Pongola-Mtamvuna	S			Include projects into annual budget plan	2021	Annually	CMA	DEA, DWS	R 24	n/a	n/a	R 1	List of Projects	2025	R 11	List of Projects	2025	R 12		List of Projects	2025	R 13	2	2	1	
		Vaal	S			Include projects into annual budget plan	2021	Annually	CMA	DEA, DWS	R 24	n/a	n/a	R 1	List of Projects	2025	R 11	List of Projects	2025	R 12		List of Projects	2025	R 13	2	2	1	

End of list

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Level 1: Key Actions	Level 2: Supporting Actions	Level 3: Regional Actions	Nat., Reg. & System (N)/ Prov. (P) Local (L)	Baseline / Status Quo	Overall targets: Drivers / Goals	Major Measurable Deliverable	Target Date: Start date	Target Date: Compl. Date	Responsible Institutions: Lead	Responsible Institutions: Support	Breakdown of deliverables per time: Present Value Cost (VAT excl.) R million (2018) (MP horizon)	2018-2020: Deliverable	2018-2020: Date	2018-2020: PV Cost R million	2021-2025: Deliverable	2021-2025: Date	2021-2025: PV Cost R million	2026-2030 (current MP horizon, to vary in future): Deliverable	2026-2030: Date	2026-2030: PV Cost R million	Note	2031-2050 (beyond current MP horizon): Deliverable	2031-2050: Date	2031-2050: PV Cost R million	Priority: Magnitude of impact if action does not occur (1) Critical, (2) Serious, (3) Important (4) minor	Priority: Is it a foundation action: (1) Other actions highly dependent; (2) Few direct dependencies (3) no direct dependencies	Priority: What level of impact will the investment generate? (1) Major benefit (>x10); (2) moderate benefit (>x2) (3) limited benefit	What has prevented action from being completed to date?
										TOTAL Enabling Environment:	R 21 868		TOTAL:	R 13 113		TOTAL:	R 8 357		TOTAL:	R 398			TOTAL:	R 298				
2.1 Creating effective water sector institutions										TOTAL Creating effective water sector institutions:	R 828		TOTAL:	R 826		TOTAL:	R 3		TOTAL:	R -			TOTAL:	R -				
Creating effective water sector institutions	2.1.1 Establish a business case for streamlined institutional arrangements in the water and sanitation sector		N	None	A.7; A.8	Development of Business Case to work towards Streamline institutions	2018	2020	DWS		R 4	Signed off Business Case ready for implementation	2020	R 4	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
	2.1.2 Establish a Municipal Intervention Unit for Water and Sanitation in DWS, staffed with highly competent experts to drive a national programme of intervention at the municipal level	Establishment of a PMU Unit within the Department	N	None	A.7; A.8	Functional PMU Unit Well staffed skilled ..... Start with core group	2019	2022	DWS		R 4	Functional PMU Unit	2020	R 2	Functional PMU Unit	2022	R 3	n/a	n/a	R -		n/a	n/a	R -	1	1	1	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
	2.1.3 Establish financially sustainable CMAs across the country, and transfer staff and budget and delegated functions, including licensing of water use and monitoring and evaluation of water resources	National	N	2 Proto Type CMAs	A.8	9 Functional Prototype CMAs	2018	2020	DWS		R 70	9 CMAs	2020	R 70	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
		Berg-Olifants	p	Functional Proto Type CMA	A.8	Appropriate regional staff to transfer to CMA. No duplication of functions, authority or mandates.	2019	2020	DWS		R 9	Berg-Olifants CMA	2020	R 9	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
		Breede-Gouritz	p	Functional Proto Type CMA	A.8	Appropriate regional staff to transfer to CMA. No duplication of functions, authority or mandates.	2019	2020	DWS		R 6	Breede-Gouritz CMA	2020	R 6	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
		Inkomati-Usuthu	p	Functional Proto Type CMA	A.8	Appropriate regional staff to transfer to CMA. No duplication of functions, authority or mandates.	2019	2020	DWS		R 10	Inkomati-Usuthu CMA	2020	R 10	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
		Limpopo	p	Functional Proto Type CMA	A.8	Appropriate regional staff to transfer to CMA. No duplication of functions, authority or mandates.	2019	2020	DWS		R 9	Limpopo CMA	2020	R 9	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
		Mzimvubu-Tsitsikamma	p	Functional Proto Type CMA	A.8	Appropriate regional staff to transfer to CMA. No duplication of functions, authority or mandates.	2019	2020	DWS		R 8	Mzimvubu-Tsitsikamma CMA	2020	R 8	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
		Olifants	p	Functional Proto Type CMA	A.8	Appropriate regional staff to transfer to CMA. No duplication of functions, authority or mandates.	2019	2020	DWS		R 6	Olifants CMA	2020	R 6	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
		Orange	p	Functional Proto Type CMA	A.8	Appropriate regional staff to transfer to CMA. No duplication of functions, authority or mandates.	2019	2020	DWS		R 6	Orange CMA	2020	R 6	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
		Pongola_Mzimkulu	p	Functional Proto Type CMA	A.8	Appropriate regional staff to transfer to CMA. No duplication of functions, authority or mandates.	2019	2020	DWS		R 6	Pongola_Mzimkulu CMA	2020	R 6	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
		Vaal	p	Functional Proto Type CMA	A.8	Appropriate regional staff to transfer to CMA. No duplication of functions, authority or mandates.	2019	2020	DWS		R 10	Vaal CMA	2020	R 10	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
	2.1.4 Establish the National Water Resources and Services Authority (NWRSA)	National	N	None	A.8	Established National Water Resources and Services Regulator Agree modification in Treaty and arrangements for TCTA. Integrate the Water Trading Entity and the Water Infrastructure Branch into the NW&SIA.Transfer all regional staff/components that manage regional clusters No duplication of authority or mandate to remain within DWS Provincial/Regional office.	2018	2020	DWS	NT	R 100	Established National Water Resources and Services Regulator	2020	R 100	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	2	No formal ownership from DWS on responsibility on water and sanitation service delivery. Unclear mandate between DWS and COGTA
	2.1.5 Determine the optimal configuration of water boards to manage regional bulk water supply, assist municipalities to perform their primary water and sanitation services mandate where necessary, manage regional water resources infrastructure, manage regional bulk WTWs and WWTWs	National	N	None	A.8	Fully Functional Water Boards	2018	2020	DWS	WBSs	R 630	Established National Water Resources and Services Regulator	2020	R 630	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	1	2	2	
		Rand Water	WMA	Existing Water Board(s)	A.8	Fully Functional Water Boards	2018	2020	DWS	Water Boards	R 105	Fully Functional Water Boards	2020	R 105	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	1	2	2	
		Kwazulu-Natal	WMA	Existing Water Board(s)	A.8	Fully Functional Water Boards	2018	2020	DWS	Water Boards	R 105	Fully Functional Water Boards	2020	R 105	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	1	2	2	
		Sedibeng	WMA	Existing Water Board(s)	A.8	Fully Functional Water Boards	2018	2020	DWS	WBSs	R 105	Fully Functional Water Boards	2020	R 105	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	1	2	2	
		Magalies	WMA	Existing Water Board(s)	A.8	Fully Functional Water Boards	2018	2020	DWS	WBSs	R 105	Fully Functional Water Boards	2020	R 105	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	1	2	2	
		Lepelle	WMA	Existing Water Board(s)	A.8	Fully Functional Water Boards	2018	2020	DWS	WBSs	R 105	Fully Functional Water Boards	2020	R 105	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	1	2	2	
		Bloem	WMA	Existing Water Board(s)	A.8	Fully Functional Water Boards	2018	2020	DWS	WBSs	R 105	Fully Functional Water Boards	2020	R 105	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	1	2	2	
	2.1.6 Establish the National Water Resources and Services Regulator (NWRSR)	National	N	Revise DWS regulatory	A.8	a - Create enabling legislation giving mandate and approach to funding of Regulator b - Establish Regulator. Transfer DWS Regulatory staff c - Shareholder compact with Minister.	2018	2023	DWS	NT	R 20			R 20	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	2	2	1	
	2.1.7 Transform all WUAs into local Water Resources Management Institutions as per the developed roadmap	National	N		A.8		2021	2021	DWS	WBs, WRMI																		
2.2 Managing Data and Information										TOTAL Managing Data and Information:	R 70		TOTAL:	R 24		TOTAL:	R 24		TOTAL:	R 22			TOTAL:	R [illegible]				
Managing data and information	2.2.1 Review and develop comprehensive and appropriate Management, Monitoring and Reporting Structures of the DWS data portal	Dam Safety Office - Monitor and report annually on streamflow, dam levels, key water quality parameters (S1)	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional, dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional, dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	1	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Electronic Water Use License Application and Authorisation System (e-WULAAS)	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	1	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Enterprise Geo Spatial Information (GIS)	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	1	1	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Groundwater	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Hydrology (Data, Dams, Floods and Flows)	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	1	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Institutional Oversight	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	1	1	1	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Integrated Water Quality Management Plan (IWQMP)	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Integrated Water Quality Management Strategy	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Integrated Water Resource Planning and Strategy Portal	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	1	1	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		National Integrated Water Information System (NIWIS)	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		National Water Resources Infrastructure Branch (NWRIB)	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Pricing and Economic Regulations Reforms Project (PERR)	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Reconciliation Strategies	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Review, Evaluation and Optimisation of the National Water Resources Monitoring (NWRM) Network Project	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	1	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		South African Youth Water Prize (SAYWP)	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Water Allocation Reform	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Water Services / Regulation Systems Menu (WSKWIS)	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Water Tribunal	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Water Use Licensing, Registration and Revenue Collection (WARMS) - Address the functionality of the Water Authorisation and Registration Management System (WARMS) to ensure records of water use are correct and are kept up to date. (S3)	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Projects and feasibility studies	N	Currently within DWS website (projects and Programmes)	A.4	Fully functional dated and relevant reporting tool	2018	Annual	DWS		R 3	Fully functional, dated and relevant reporting tool	2020	R 1	Fully functional dated and relevant reporting tool	2025	R 1	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
		Other (future relevant information to be included)	N	Incorporate additional / future projects / programmes	A.4	Additional fully functional, dated and relevant reporting tool	2018	Annual	DWS		R 5	Additional fully functional, dated and relevant reporting tool	2020	R 2	Fully functional dated and relevant reporting tool	2025	R 2	Fully functional, dated and relevant reporting tool	2030	R 1	Budget = R.5 for 2018/2020 then only R.2 until 2050	Fully functional, dated and relevant reporting tool	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.

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Level 1: Key Actions	Level 2: Supporting Actions	Level 3: Regional Actions	Nat., Reg. & System (N)/ Prov. (P)/ Local (L)	Baseline / Status Quo	Overall targets: Drivers / Goals	Major Measurable Deliverable	Target Date: Start date	Target Date: Compl. Date	Responsible Institutions: Lead	Responsible Institutions: Support	Breakdown of deliverables per time: Present Value Cost (VAT excl.) R million (2018) (MP horizon)	2018-2020: Deliverable	2018-2020: Date	2018-2020: PV Cost R million	2021-2025: Deliverable	2021-2025: Date	2021-2025: PV Cost R million	2026-2030 (current MP horizon, to vary in future): Deliverable	2026-2030: Date	2026-2030: PV Cost R million	Note	2031-2060 (beyond current MP horizon): Deliverable	2031-2060: Date	2031-2060: PV Cost R million	Priority: Magnitude of impact if action does not occur (1) Critical, (2) Serious, (3) important (4) minor	Priority: Is it a foundation action: (1) Other actions highly dependent; (2) Few direct dependencies (3) no direct dependencies	Priority: What level of impact will the investment generate? (1) Major benefit (>x10); (2) moderate benefit (>x2) (3) limited benefit	What has prevented action from being completed to date?
	2.2.2 Review and develop a comprehensive DWS information management strategy to include among other: • Amended authorisation conditions to provide for self reporting • Harmonization of monitoring actions by all responsible institutions • Perform information V&V audits	National	N	Data Management Strategies between projects and programmes not aligned	A.4	Approved comprehensive DWS Information Management Strategy and Plan	2018	Annual	DWS		R 5	Approved comprehensive DWS Information Management Strategy and Plan	2020	R 2	Updated comprehensive DWS Information Management Strategy and Plan	2025	R 2	Updated comprehensive DWS Information Management Strategy and Plan	2030	R 1	Budget = R,5 for 2018/2020 then only R,2 until 2050	Updated comprehensive DWS Information Management Strategy and Plan	2050	R 4	2	2	2	The majority of the sites are updated on a regular basis but there are gaps that needs to be addressed.
	2.2.3 Alignment of monitoring institutions to support National and International reporting programme, e.g. SDG, Agenda 63 and AMCO	National	N		A.4		2018	2021	DWS		R -														2	2	3	
2.3 Building Capacity for Action										**TOTAL Building Capacity for Action :**	**R 10 289**		**TOTAL:**	**R 10 091**		**TOTAL:**	**R 90**		**TOTAL:**	**R 108**			**TOTAL:**	**R 63**				
Building capacity for action	2.3.1 Establish regulations on required qualifications and experience for senior and technical positions in DWS, CMAs, water boards and municipal services institutions	National, Provincial & Local	N,P,L	Lack of requisite pool of skills results in poorly qualified staff being responsible for technical functions	Develop more formal requirements for staff in technical positions	Regulations and standards formalised	2019	2023	DWS	COGTA, SETA, Professional Bodies	R 19	Famework developed	2020	R 5	Regulations developed and formalised. Engagement and support to sector institutions.	2023	R 5	Support to sector institutions to roll-out regulations and standards	Ongoing	R 9		Ongoing support to sector institutions	Ongoing	R 9	1 (new for WSAs, but revive for other Institutions)	3	1	The sector did not recognise as a need. Due to collapsing services, this is now a need.
	2.3.2 Develop and implement programme for recruiting experienced technical and managerial staff in first South Africa and then internationally	National, Provincial & Local	N,P,L	No recruitment policy or strategy	Develop a consistently capacitated water sector	Recruitment policy and strategy developed and implemented. Annual analyses undertaken.	2019	2030	DWS	COGTA, DIRCO	R 37	Policy and strategy developed and tested with water sector	2020	R 15	Policy, strategy and implementation plan developed	2022	R 10	Implementation of strategy and plan	Ongoing	R 12		Implementation of strategy and plan	Ongoing	R 15	1	2	1	Conditions of work. Restrictive Policies
	2.3.3 Define (and reinstate in some cases) career paths with defined training and on the job experience to build a knowledgeable sector of professionals	National & Provincial	N, P	Limited career pathing of staff	Creating a stable, learning and developing water sector	Staff turnover in key sector institutions below 10%	2019	2023	DWS	WSAs, WBs, CMAs	R 3	Policy and strategy developed and tested with water sector	2020	R 3	Policy, strategy and implementation plan developed	2022		Implementation of strategy and plan	Ongoing			Implementation of strategy and plan	Ongoing		1	2	1	Not prioritised
	2.3.4 Develop and implement a mandatory, modular hands-on qualification for municipal water managers (technical manager) to be run over 18 months and accredited by EWSETA to include aspects such as asset management, tariffs and revenue management, drought management, stakeholder engagement and customer relations.	Orange River System: Vioolsdrift, Verbeeldingskraal/Boskraai dams, further phases of LHWP	N,P,	Limited qualification requirements	Creating a stable, learning and developing water sector	Develop programme - Obtain EWSETA accreditation - Obtain hand-on-qualification/ municipality - Place a senior retired municipal engineer as mentor	2019	First course to be run in 2020/21 and beyond	DWS	EWSETA; Institutions of Higher Learning	R 10 000	Develop programme	2020	R 10 000	Obtain EWSTA accreditation & develop implementation plan	2024		Implementation of plan	Ongoing			Implementation of plan	Ongoing		1	2	2	It was not considered as a priority
	2.3.5 Partner with institutions to fund training of water sector practitioners in the curation, management and use of data as well as the associated technologies	National		Few sector partnerships	Develop suite of supportive partnerships to strengthen capacity I the water sector	Key partnerships developed and formalised	2021	Ongoing	DWS	EWSETA	R 28	Identify key partnerships and develop plan	2020	R 6	Engage and formalise key partnerships	2025	R 10	Ongoing development and adjustment of partnerships	Ongoing	R 12		Ongoing development and adjustment of partnerships	Ongoing	R 14	2	2	1	Coordinated leadership required
	2.3.6 Initiate a focused research capability initiative in water sector economics to address this existing skills gap	National		Some assessments can provide indicative information	Strategic and structured approach to develop skills across the sector	Strategy developed and implementation initiated	2025	Ongoing	DWS	NRF, WRC, DST	R 37	Development of strategic framework	2020	R 7	Develop strategy and implementation plan	2025	R 10	Implementation of plan	Ongoing	R 20		Implementation of plan	Ongoing	R 25	2	2	1	Lack of adequate or prioritised leadership
	2.3.7 Continue to develop high end skills (post graduate) to ensure a future science, technology and innovation capability in South Africa			n/a	A.7	Masters and PHD enrolments	2018/19	Ongoing	DWS	DST, NRF, WRC, DTI (THRIP), Private	R 144	Support students	2020	R 48	Support students	2025	R 48	Support students	2030	R 48					2	2	2	
	2.3.8 Continue to support programmes that enable development of critical skills and exposure to emerging innovations (e.g. Young Engineers Programme)			n/a	A.7	Programme contracts	2018/19	Ongoing	SALGA	DST, WRC, DWS, COGTA, MISA	R 21	Link students to innovation sites	2020	R 7	Link students to innovation sites	2025	R 7	Link students to innovation sites	2030	R 7					2	2	2	
2.4 Ensuring Financial Sustainability		**Algoa: Nooitgedacht Low-level Scheme Phase 2, Groundwater, Re-use, Desalination, Raising of Kouga Dam**								**TOTAL Ensuring Financial Sustainability :**	**R 10 012**		**TOTAL:**	**R 2 008**		**TOTAL:**	**R 8 004**		**TOTAL:**	**R -**			**TOTAL:**	**R -**				
Ensuring Financial Sustainability	2.4.1 Develop and implement institutional arrangement that recognise the diversity of circumstances across South Africa, the legacy of Apartheid and allow for regional cross subsidisation.	National				Implemented Business Plan	2019	2021	NT	DWS	R 5	Business plan		R 1	Implementation		R 4								2	2	1	A one size fits all approach in legislation and a fragmentation of the value chain which does not allow for benefits to be derived from economy of scale. Preservation of the status quo with respect to bias to urban areas and irrigation schemes.
	2.4.2 Implement accurate billing and effective revenue management systems in all entities in the water value chain with a strict "No payment = no water' approach to agriculture/industrial/commercial users and restricted supply to domestic users.	National, Provincial & Local				Metrics to be developed on accuracy of billing. Metric on number of estimated invoices as % of invoices issued.	2019	2024	WSA	Water Boards, DWS, AGSA	R 5 000	This will be done per institution		R 1 000			R 4 000								1	2	1	Lack of understanding of the impact of inaccurate billing on customer relations and revenue stream. Lack of political will to restrict or stop water for non-payment.
	2.4.3 All conditional grants to be dependent on meeting of current payments to the next entity in the value chain, improvements to Blue Drop, Green Drop and No Drop Scores to meeting targets and audit outcome. Allow conditional grants to be used for operational costs.	National				Grants withheld due to no compliance	2019	2023	NT	AGSA, DWS	R 1	Policy		R 1											1	2	1	Focus by politicians, consultants and contractors on new infrastructure.
	2.4.4 Develop regulations in terms of Section 139 (8) of the Constitution, which allows for a national entity to take over the water service functions, including revenue and billing, in a municipality if service deliver criteria are not met.	National				Regulation approved by Parliament	2019	2022	DWS	CoGTA	R 1	Regulations		R 1											2	2	1	Political will
	2.4.5 Ensure that sufficient revenue is received through tariffs and grants to operate, maintain and improve the water supply and sanitation system. The tariff structure must allow for cross subsidisation for the indigent and building of a reserve for periods of drought.	National & Local				Improved Blue, Green and No Drop scores as well as Audit Outcomes	2019	2024	WSA	Water Boards, DWS, NT, AGSA	R 5 000	This will be done per institution		R 1 000			R 4 000								1	2	1	Lack of value attached to water and service provision by business and households due to a failure to understand the impact if the system fails
	2.4.6 In all entities put in place mechanisms to deal with accumulated debt	Mahikeng Municipal Water Supply System				Implemented Policy	2019	2020	WSA	Water Boards, DWS, NT, AGSA	R -										Part of billing and revenue collection				1	2	1	
	2.4.7 Roll out of ring-fenced institutional models to increase private sector investment	National				Increase in loans to the sector	2019	2021	DWS	NT, CoGTA	R 5	Workshopping of model		R 5											2	2	1	Models exist and have been operational for many years in South Africa but there has been no wide scale roll out.
	2.4.8 National Treasury – linkage to Medium Term Sector Expenditure Framework (MTSEF)																								1	1	1	
2.5 Legislation										**TOTAL Legislation:**	**R 55**		**TOTAL:**	**R 26**		**TOTAL:**	**R 29**		**TOTAL:**	**R -**			**TOTAL:**	**R -**				
Sustainable legislation, policies and strategies	2.5.1 Gazette the National Water Amendment Bill, Water Services Amendment Bill and Water Research Amendment Bill	National	N	Both bills in draft format	A.1 - A.8; B.1 - B.8; C.1 - C.17	Gazetted National Water and Sanitation Bill and Water Research Amendment Bill	2018	2019	DWS	Portfolio Committee, Standing Committee	R 2	Gazette bills	2019	R 2	n/a	n/a	R -	n/a	n/a	R -	Most of the work to be done by DWS, with assistance of Legal Specialist	n/a	n/a	R -	3	1	3	• Lack of responsibility and capacity to proceed with bills • Supply chain issues • Insufficient budget
	2.5.2 Hold public consultation on National Water Amendment Bill, Water Services Amendment Bill and Water Research Amendment Bill	National	N	Both bills in draft format		Public consultation on both bills, per Province, per National Sector Departments, Private Sector and Professional Bodies, and other	2018	2020	DWS	Portfolio Committee, Standing Committee	R 4	Minutes of public consultations	2020	R 4	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	3	1	3	
	2.5.3 Revise and promulgate the National Water Amendment Bill, Water Services Amendment Bill, and the Water Research Amendment Act	National	N	Both bills in draft format		Published acts	2018	2022	DWS	Portfolio Committee, Standing Committee	R 4	n/a	n/a	R -	Updated and promulgated acts	2022	R 4	n/a	n/a	R -		n/a	n/a	R -	3	1	3	

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Level 1: Key Actions	Level 2: Supporting Actions	Level 3: Regional Actions	Nat., Reg. & System (N)/ Prov. (P)/ Local (L)	Baseline / Status Quo	Overall targets: Drivers / Goals	Major Measurable Deliverable	Target Date: Start date	Target Date: Compl. Date	Responsible Institutions: Lead	Responsible Institutions: Support	Present Value Cost (VAT excl.) R million (2018) (MP horizon)	2018-2020 Deliverable	2018-2020 Date	2018-2020 PV Cost R million	2021-2025 Deliverable	2021-2025 Date	2021-2025 PV Cost R million	2026-2030 (current MP horizon, to vary in future) Deliverable	2026-2030 Date	2026-2030 PV Cost R million	Note	2031-2050 (beyond current MP horizon) Deliverable	2031-2050 Date	2031-2050 PV Cost R million	Priority: Magnitude of impact if action does not occur (1) Critical, (2) Serious, (3) Important (4) minor	Priority: Is it a foundation action: (1) Other actions highly dependent; (2) Few direct dependencies (3) no direct dependencies	Priority: What level of impact will the investment generate? (1) Major benefit (>x10); (2) moderate benefit (>x2) (3) limited benefit	What has prevented action from being completed to date?
	2.5.4 Review the Municipal Financial Management Act (MFMA) and the Municipal Systems Act (specifically chapter 8) to ensure that they provide an enabling environment for the provision of reliable water and sanitation services	National	N	Current Municipal Systems Act and MFA		Acts to facilitate sustainable water services	2018	2020	NT	DWS, CoGTA, SALGA	R 10	Updated MFMA & MSA	2020	R 10	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R	3	1	3	
	2.5.5 Develop new policies and strategies on matters not previously addressed, in consultation with all stakeholders, to facilitate the sustainability of various water sector programmes	National	N	Policies developed in 2017		Policies defined below	2018	2025	DWS		R 35	Policies defined below	2020	R 10	Policies defined below	2025	R 25	n/a	0	R -		n/a	0	R -	3	2	2	
		Mine Water Management Policy (2017)	N	Developed (2017), under review		Mine Water Management Policy	2018	2019	DWS	DMR	R 5	Mine Water Management Policy	2019	R -	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	3	2	2	
		Integrated Water Quality Management Policy (2017)	N	Developed (2017), under review		Integrated Water Quality Management Policy	2019	2020	DWS		R 5	Integrated Water Quality Management Policy	2020	R 5	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	3	2	2	
		Water for Development: Sustainable Livelihoods (2017?)		Developed (2017?), under review		Water for Development: Sustainable Livelihoods	2020	2021	DWS		R 5	n/a	n/a	R -	Water for Development: Sustainable Livelihoods	2021	R 5	n/a	n/a	R -		n/a	n/a	R -	3	2	2	
		Water Stewardship Policy (2017): Mechanisms for Partnerships in the Water and Sanitation Sector		Developed (2017), under review		Water Stewardship Policy: Mechanisms for Partnerships in the Water and Sanitation Sector	2021	2022	DWS		R 5	n/a	n/a	R -	Water Stewardship Policy: Mechanisms for Partnerships in the Water and Sanitation Sector	2022	R 5	n/a	n/a	R -		n/a	n/a	R -	3	2	2	
		Infrastructure Ownership and Management Policy (2017)		Under development		Infrastructure Ownership and Management Policy	2022	2023	DWS		R 5	n/a	n/a	R -	Infrastructure Ownership and Management Policy	2023	R 5	n/a	n/a	R -		n/a	n/a	R	3	2	2	
		Wetland Policy (2017)		Under development		Wetland Policy	2023	2024	DWS		R 5	n/a	n/a	R -	Wetland Policy	2024	R 5	n/a	n/a	R -		n/a	n/a	R	3	2	2	
		Sustainable Hydropower Development Policy (2017)		Under development		Sustainable Hydropower Development Policy	2024	2025	DWS		R 5	n/a	n/a	R -	Sustainable Hydropower Development Policy	2025	R 5	n/a	n/a	R -		n/a	n/a	R	3	2	2	
2.6 Enhancing Research, Development and Innovation										**TOTAL Enhancing Research, Development and Innovation:**	**R 473**		**TOTAL:**	**R 68**		**TOTAL:**	**R 173**		**TOTAL:**	**R 233**			**TOTAL:**	**R 27**				
Implement an enabling environment for research, development and innovation	2.6.1 Implement and regularly review/revise Research, Development and Innovation Policies, Plans and Roadmaps across the sector	National		n/a		Revised strategies	2018/19	2020/21 review	DWS	DST, WRC, CSIR	R 2	Link the water RDI Roadmap to the revised NWRS	2020	R -	Review the water RDI Roadmap/relevant strategy	2025	R 2		2030			Review the water RDI Roadmap/relevant strategy	2050	R 2	2	1	1	
	2.6.2 Unlock investment, procurement and other localisation barriers to reposition the sector to implement new/niche solutions and approaches and roadmap the NMIU			n/a		Catalytic study outputs/ sector engagements	agreed approach by 2020	Ongoing	DWS	National Treasury, COGTA, DST, NMIU	R 2	Series of sectoral engagements to outline and create awareness	2020	R 1	Ongoing sectoral engagements	2025	R 1		2030						2	1	1	
	2.6.3 Coordinate, and where needed establish new platforms, to enable a synergised set of institutions that enable the shifting of innovations into the market (including business development and SME support)			n/a		Coordinator performance agreements	2018/19		DWS	the dti, Dept. Small Business, EDD, Incubators	R 42	Coordination of key role players	2020	R 2	Business/innovation/enterprise development matchmaking	2025	R 20	Business/innovation/enterprise development matchmaking	2030	R 20					2	1	1	
	2.6.4 Strengthen partnerships with key water sector institutions to accelerate research and solutions into practice			n/a		Partnership mapping and agreements	2018/19	2020 for a plan in place, thereafter tracking	DWS	WRC, CSIR, DST, COGTA, SALGA, DTI, DAFF, municipalities, Utilities,	R 22	PMU in place	2020	R 4	PMU in place	2025	R 8	PMU in place	2030	R 10	PMU costing - 2 mil X 10 years - 20 million				1	1	1	
	2.6.5 Structure test bed partners with key water sector institutions in order to accelerate innovations to the market/public sector			n/a		Test bed network - WADER website, WADER team in place	2018/19	Ongoing	WRC	DWS, DST, SALGA, Municipalities	R 11	Initiate test bed research work	2020	R 1	Consolidate and grow test bed network	2025	R 5	Consolidate and grow test bed network	2030	R 5					3	2	2	
Invest in research that will support equitable redistribution of water	2.6.6 Fund research into new models to better understand implementation approaches for water allocation reform, and equity issues	National		n/a		Research reports, publications, sector consultations	2018/19	Ongoing	DWS	WRC, CSIR, DST	R 12	3 projects initiated	2020	R 5	3 projects initiated	2025	R 5	2 projects initiated	2030	R 3	1.5 mil X 8 = 12 million	8 projects concluded	2050	R -	3	2	2	
Invest in Research and Innovation deployment as part of preparing for changing supply/demand opportunities and challenges	2.6.7 Develop technologies, guidelines and implementation support tools that enable SA to use alternative and appropriate sources as part of water supply	National		n/a		Tech, guidelines, documents and tools	2018/19	2022/23	DWS	WRC, CSIR, DST, SALGA, Utilities, COGTA, WSAs	R 31	4 projects	2020	R 8	4 projects initiated	2025	R 8	3 tech activities underway	2030	R 15	2 mil per research guide/tool X8, 3X 5 mil on tech= 31 million total				2	3	2	
	2.6.8 Apply the concepts of water sensitive urban design to a robust city-wide case study to demonstrate and learn how a city can transition to a sustainable city					Site tour, partner Agreements	2022/23	2026/27	DWS	SALGA, Utilities, Metros and District Municipalities, COGTA	R 35	Feasibility underway	2020	R 5	Tech selection	2025	R 10	Roll out	2030	R 20	1 city - feasibility, tech selection and roll out - 60 million	Roll out continued	2050	R 25	2	3	2	
	2.6.9 Tools for agriculture early warning systems need to be developed and tested at scale					Tools, demo site visits	2018/19	Ongoing	WRC	DWS, DAFF, ARC, CSIR, Corporations	R 20	2 projects	2020	R 4	3 projects	2025	R 6	Demo underway	2030	R 10	2 mil per research guide/tool X5, 2X 5 mil on tech= 20 million total				2	3	2	
Support the development of an innovation-based domestic waste and industrial water industry	2.6.10 Scan and sort the innovation sector for solutions that are ready for application and invest in their implementation	National		n/a		Tech scan report	2018/19	2020/21	WRC	DST, DWS	R 2	Scan and sort	2020	R 2		2025			2030						1	1	2	
	2.6.11 Alternative Sanitation: Develop and demonstrate and validate appropriate alternative, water-less and off grid sanitation solutions (Current – 2025)					Test bed visits, tech validation reports	2018/19	Ongoing	DWS	WRC, CSIR, DST, BMGF, municipalities, DTI	R 50				Initiate demos	2025	R 25	Continue demos	2030	R 25					1	2	1	
	2.6.12 Domestic and industrial Waste Water: Develop and Demonstrate appropriate waste water technologies for cost effectiveness, energy efficiency and beneficiation.					Test bed visits, tech validation reports	Ongoing	Ongoing	DWS	TCTA, WRC, CSIR, the dti, DST, TIA, MINTEK, private sector	R 50		2020		Initiate demos	2025	R 25	Continue demos	2030	R 25					1	2	1	
Support the development of an innovation-based drinking water industry	2.6.13 Scan and sort the innovation sector for solutions that are ready for application and invest in their implementation	National		n/a		Tech scan report	2018/19	2020/21	WRC	DST, DWS, CSIR	R 2	Scan and sort	2020	R 2		2025			2030						1	1	2	
	2.6.14 Drinking Water Treatment: Develop and Demonstrate solutions that allow for the use of alternative sources of water for safe human consumption and water security					Test bed visits, tech validation reports	2018/19	Ongoing	DWS	WRC, CSIR, Municipalities, Utilities	R 40		2020		Initiate demos	2025	R 20		2030	R 20					1	2	1	
	2.6.15 Continue to invest in					Research reports and results	2018/19	Ongoing	DWS	WRC, CSIR, Municipalities, Utilities	R 20	Initiate projects	2020	R 6	Initiate projects	2025	R 8	Initiate projects	2030	R 6	2mil X10=20 million				2	2	2	
	2.6.16 Improving raw water quality,	National		n/a		CoP Coordinator contract and reporting	2018/19	Ongoing	DWS	DEA, SANBI, WRC, CSIR, DST, Utilities	R 18	Initiate CoP	2020	R 3	Sustain CoP	2025	R 8	Sustain CoP	2030	R 8	1.5 mil per year X 10 year=15 million				2	2	2	
Protecting and restoring ecological infrastructure	2.6.17 Link the Global Environment Fund 6 project on Water Pricing and Ecosystems to Water Master Plan implementation and position DWS to be closely involved in this process	National				GEF Steering Committee Reporting	2018/19	2023/24	DWS	DEA, SANBI, WRC, CSIR	R -	Join GEF 6 processes	2020	R -	sustain engagement with GEF 6	2025	R -				approximately 100 million coming form GEF, administered by SANBI on behalf of DBSA				2	2	2	
	2.6.18 Continue to do research on					Project deliverables	2018/19	Ongoing	WRC	DEA, DWS, DAFF, ARC, Utilities	R 27	Projects initiated	2020	R 9	Projects initiated	2025	R 9	Projects initiated	2030	R 9	3milX 9=27 million				2	2	2	
	2.6.19 Ongoing research, modelling and planning around climate change and its impacts on water security and water infrastructure needs to be conducted					Project deliverables	2018/19	Ongoing	DWS	DEA, DST, WRC, CSIR, Utilities	R 27	Projects initiated	2020	R 9	Projects initiated	2025	R 9	Projects initiated	2030	R 9	3milX 9=27 million				2	2	2	
Managing data and information	2.6.20 Initiate a hydrological monitoring centre for South Africa in order to re-establish a robust data, monitoring and information capability for more effective water resources planning and climate change forecasting in future	National		n/a		Business plan, centre performance agreement	2018/19	2021 to get the plan in place, thereafter implementation	DWS	DEA, ARC, DAFF, WRC, DST, SAWS, ARC, CSIR, STATs SA	R 34	Initiate TBC scoping and feasibility	2020	R 2	Continue feasibility and scoping	2025	R 2	Initiate centre	2030	R 30	4 mil on establishment and feasibility, 60 mil on centre set up (Later TBC in feasibility) For 2026-2030 : 30 (estimate, TBC in scoping)				1	3	2	
	2.6.21 Test a suite of ICT and citizen science tools for data sourcing			n/a		ICT demo	2018/10	Ongoing	WRC	DWS, WRC, CSIR, DST, COGTA, SALGA, the dti, DAFF municipalities, Utilities,	R 9	Run demo through wader	2020	R 3	Run demo through wader	2025	R 3	Run demo through wader	2030	R 3	1 mil X 9=9million				3	3	3	
	2.6.22 Partner with institutions to fund training of water sector practitioners in the curation, management and use of data as well as the associated technologies			n/a		Training role out	2021	Ongoing	DWS	EWSETA	R 15							Scope programme and initiate training	2030	R 15					2	2	2	
Building capacity for action	2.6.23 Review all relevant guidelines and R&D products to understand where training modules need to be developed around new knowledge	National		n/a	A.7	Desktop study	2022		DWS	WRC, CSIR, SETAs, WISA, DHET	R 3	Initiate study	2020	R 3											2	2	2	
2.7 Implementation of NWSMP										**TOTAL Implementation of NWSMP:**	**R 141**		**TOTAL:**	**R 71**		**TOTAL:**	**R 35**		**TOTAL:**	**R 35**			**TOTAL:**	**R 120**				
Implementation of NWSMP	2.7.1 Phakisa on water and sanitation masterplan	National	N, P	1st Phakisa on Master Plan to be organise	A.8, B.7, B.12	Organise national conference. Organise regional conferences to mobilize stakeholders	2019	2020	DWS	DPME	R 60	National Phakisa	2019	R 60	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	3	2	2	

NW&SMP 2. Enabling Environment

Menu Help

SCHEDULE OF ACTIONS

Please hover on cell headings to obtain definitions

Level 1: Key Actions	Level 2: Supporting Actions	Level 3: Regional Actions	Nat., Reg. & System (N)/ Prov. (P)/ Local (L)	Baseline / Status Quo	Overall targets						Breakdown of deliverables per time													Priority			
					Drivers / Goals	Major Measurable Deliverable	Target Date		Responsible Institutions		Present Value Cost (VAT excl.)	2018-2020			2021-2025			2026-2030 (current MP horizon, to vary in future)			Note	2031-2050 (beyond current MP horizon)			Magnitude of impact if action does not occur	Is it a foundation action:	What level of impact will the investment generate?	What has prevented action from being completed to date?
							Start date	Compl. Date	Lead	Support	R million (2018) (MP horizon)	Deliverable	Date	PV Cost R million	Deliverable	Date	PV Cost R million	Deliverable	Date	PV Cost R million		Deliverable	Date	PV Cost R million	(1) Critical, (2) Serious, (3) important (4) minor	(1) Other actions highly dependent; (2) Few direct dependencies (3) no direct dependencies	(1) Major benefit (>x10); (2) moderate benefit (>x2) (3) limited benefit	
	2.7.2 Determine cost required to implement NW&SMP and identify where reprioritisation or cost savings can be used to address the NW&SMP priorities	National	N, P, L	Draft NWSMP (2018)	A.8, B.12	Determine cost for each MP activity Prioritise activities per Level 1	2018	2019	DWS	WSA	R 1	Cost per activity Prioritised activities	2019	R 1	n/a	n/a	R -	n/a	n/a	R -		n/a	n/a	R -	1	1	1	
	2.7.3 Appoint skilled Management, Technical and Programme Manager staff for Delivery Unit	National	N	Draft NWSMP (2018)	A.8, B.12	Define PMU organogram Identify relevant management, technical and programme manager resources Appoint resources	2019	2019	DWS		R 12	Define PMU organogram Identify relevant management, technical and programme manager resources	2020	R 2	Define job descriptions for relevant resources Appoint resources	2025	R 5	Build capacity in PMU	2030	R 5	Skilled resources with suffice capacity will be responsible for the successful implementation	n/a	n/a	R -	1	1	1	
	2.7.4 Monitor, review, evaluate, report on and update NW&SMP	National	N, P, L	Draft NWSMP (2018)	A.8, B.12	- Establish a monitoring, evaluation, learning and reporting system for implementation of the NW&SMP - Include reporting in KPIs of Senior management for all affected National Departments, public entities, and other institutions identified in the NWSMP - Annual updating and reporting	2018	Annual report to Parliament	DPME	DWS	R 68	- Establish a monitoring, evaluation, learning and reporting system for implementation of the NW&SMP - Include reporting in KPIs of Senior management for all affected National Departments, public entities, and other institutions identified in the NWSMP	2020	R 8	- Annual updating and reporting	2025	R 30	- Annual updating and reporting	2030	R 30		- Annual updating and reporting	2050	R 120	2	1	1	

End of list

Project Name	Project Description	Province	Metro or District Municipality	Local Municipality	Water Management Area (WMA)	Catchment	Incremental Yield (million m^3/a)	Procurement	Project Cost (R million)		Start Date	End Date	Coordinates	
									Fiscus	Off-budget			Latitude (South)	Longitude (East)
								TOTAL (all)	R 73 581	R 57 000				
Surface Water									R 73 012	R 52 600				
Lesotho Highlands Water Project - Phase 2	The construction of the Polihali Dam, a tunnel and associated works to augment the Vaal River System, which supplies water to Gauteng and surrounding areas.	N/A	Cape Town (City of) Metropolitan Municipality	N/A	Orange	Senqu River Catchment (Lesotho)	470	Design	N/A	23 000	2020	2030		
Western Cape Water Supply System Augmentation Project	Voëlvlei Dam Supplement Scheme, including abstraction and bulk water conveyance infrastructure to augment the water supply to the City of Cape Town and the surrounding areas.	Western Cape	Cape Town (City of) Metropolitan Municipality		Berg_Olifants	Voelvlei River Catchment	20	Financing	400			2024	33°20'14.56"	19°02'1.25
Western Cape Water Supply System Desalination Plant and/or Water Re-use	Large Scale Desalination Plant and/or Water Re-use Plant that will require government assistance with funding.	Western Cape			Berg_Olifants		49	Concept and Viability		4 800		2025	33°55'32.41"	18°25'25.57"
uMkhomazi Water Project: Phase 1 Raw Water	The construction of the Smithfield Dam, a balancing dam, tunnel and pipeline to augment the Mgeni Water Supply System (WSS) that supplies eThekwini, uMgungundlovu and the surrounding areas. The Mgeni WSS is already in deficit.	KwaZulu Natal		Ingwe Local Municipality (KZ5a1)	Pongola_Mzimkulu	uMkhomazi River Catchment	215	Concept and Viability		23 800	2023	2028	29°46'33.36"	29°56'26.62"
Acid Mine Drainage (AMD) - Phase 2 Western Basin	The implementation of the long-term solution in the Witwatersrand Gold Fields Areas. The construction of water treatment plants, pipelines, and waste disposal facilities to address the AMD associated with the Eastern, Central and Western Basins, by desalination of the AMD to industrial and/or potable	Gauteng	Ekurhuleni Metropolitan Municipality	Randfontein Local Municipality (GT412)	Vaal	Middle Vaal River Catchment	220	Financing	10 000		2019	2 021	26°08'03.06"	27°42'58.37"
Acid Mine Drainage (AMD) - Phase 2 Central Basin			Ekurhuleni Metropolitan Municipality										26°13'01.71"	28°10'57.49"
Acid Mine Drainage (AMD) - Phase 2 Eastern Basin			uThungulu District Municipality										26°14'59.47"	28°29'17.64"
Thukela - Goedertrouw Emergency Water Transfer Scheme	Emergency scheme to transfer water from the Tugela River to the Goedertrouw Dam.	KwaZulu Natal	eThekwini Metropolitan Municipality	Umlazi Local Municipality (KZ284)	Pongola_Mzimkulu	Mhlatuze River Catchment	26	Design	420		2018	2021	28°46'29.86"	31°27'55.67"
Lower uMkhomazi Bulk Water Supply Scheme or South Coast Desalination at Illovo	Construction of the Ngwadini Off-channel Storage Dam and bulk water conveyance infrastructure, or the construction of the Illovo Desalination Plant, for augmentation of supply to the South Coast Water Supply Scheme.	KwaZulu Natal	Ugu District Municipality		Pongola_Mzimkulu	uMkhomazi River Catchment	36	Concept and Viability	3 600		2019	2023	30°06'06.89"	30°49'30.08"
Mzimvubu Water Project	Construction of the Ntabelanga Dam and the Lalini Dam on the Itsitsa River, a water treatment plant and bulk water conveyance infrastructure for multi-purpose development of, inter alia, irrigation, hydropower stations and possible inter basin transfers for domestic and industrial use.	Eastern Cape	OR Tambo District Municipality	Mhlontlo Local Municipality (EC156)	Mzimvubu_Tsitsikama	Mzimvubu River Catchment	60	Financing	20 000			2019 (too early)	31°07'01.40"	28°40'20.45"
Algoa Water Supply System - Re-use	Large-scale Water Re-use Plant that will require government funding assistance.	Eastern Cape	Sarah Baartman District Municipality		Mzimvubu_Tsitsikama		18	Design	800			2025	33°56'27.88"	25°33'57.51"
Kouga River Development	Raising of the Kouga Dam or a new dam on the Kouga River at Guernakop.	Eastern Cape	Sarah Baartman District Municipality	Kouga Local Municipality (EC108)	Mzimvubu_Tsitsikama	Kouga River Catchment		Pre-Feasibility	To be determined		To be determined	To be determined	33°41'48.95"	24°30'4.38"

Lusikisiki Regional Water Supply Scheme	Construction of the Zalu Dam on the Xura River, a water treatment plant, bulk water conveyance infrastructure, reservoirs and groundwater development to secure water supply for domestic and small-scale irrigation in Lusikisiki and surrounding areas.	Eastern Cape	OR Tambo District Municipality	Ngqushwa Local Municipality (EC126)	Mzimvubu_Tsitsikama	Msikaba River Catchment	7	Financing	2 100			2022	31°22'6.06"	29°34'7.54"
Orange-Fish-Sundays River Government Water Scheme	Construction of a balancing dam and pipeline to, with the aim to provide additional storage for Nelson Mandela Bay Municipality's water allocation from the Orange River.	Eastern Cape	Sarah Baartman District Municipality		Mzimvubu_Tsitsikama			Feasibility	To be determined		To be determined	To be determined	33°56'27.88"	25°33'57.51"
Koonap River Development	The construction of the Foxwood Dam, a water treatment works and bulk water conveyance infrastructure to secure water supply for domestic use and small-scale irrigation in Adelaide and surrounding areas.	Eastern Cape	Amatole District Municipality	Nxuba Local Municipality (EC128)	Mzimvubu_Tsitsikama	Koonap River Catchment	17	Financing	3 100			2024	32°42'25.72"	26°17'42.86"
Clanwilliam Dam Raising and Weir	Raising of the Clanwilliam Dam and the construction of a weir, extension of the bulk water conveyance infrastructure to augment agricultural and domestic water supplies to meet increasing demands.	Western Cape	Cape Winelands District Municipality	Cederberg Local Municipality (WC012)	Berg_Olifants	Olifants River Catchment (Western Cape)		Concept and Viability	1 800			2023	32°11'4.84"	18°52'28.43
Greater Brandvlei Scheme Upgrading - Phase 1	Increase the yield of the scheme with 33 million m^3/a through a small incremental raising of the freeboard (height of canal to prevent overtopping) of the gravity- fed canal	Western Cape	Cape Winelands District Municipality	Breede Valley Local Municipality (WC025)	Berg_Olifants	Breede River Catchment		Identification	7,2		To be determined	To be determined	33°45'53.76"	19°28'20.24"
Greater Brandvlei Scheme Upgrading - Phase 2	Increase the yield of the scheme with a further 51 million m^3/a through increasing the pump station capacity from 7 to 20 m^3/s	Western Cape	Cape Winelands District Municipality	Breede Valley Local Municipality (WC025)	Berg_Olifants	Breede River Catchment		Identification	To be determined		To be determined	To be determined	33°45'53.76"	19°28'20.24"
Mvoti Water Project	Dam developments on the Mvoti River, bulk water conveyance infrastructure and groundwater development to secure water supply for the domestic and industrial users in the Greytown and KwaDukuza (Stanger) Areas, increased water availability in the Mvoti River Catchment and for supply to the KZN North Coast Areas.	KwaZulu Natal	Ugu District Municipality	Maphumulo Local Municipality (KZ294)	Pongola_Mzimkulu	Mvoti River Catchment	To be reviewed	Definition	To be determined	To be determined	To be determined	To be determined	29°15'0.00"	31°00'30.00"
Mzimkulu River: Ncwabeni Off-channel Storage Dam	Construction of a Off-channel Storage Dam, weir, pump station and pipeline to ensure a reliable water supply to the Northern Part of the Lower KZN South Coast during dry periods.	KwaZulu Natal	Ugu District Municipality	Umzumbe Local Municipality (KZ213)	Pongola_Mzimkulu	uMzimkhulu River Catchment	12	Concept and Viability	1 000		2020	2028	30°36'27.60"	30°14'21.64"
Mfolozi River: Regional Water Supply Scheme	Raising of the Klipfontein Dam and the construction of two new off-channel storage dams, and/or water transfer from the Thugela River, Phase 3, to meet the medium and long-term water requirements of the Mfolozi River Catchment as well as for Ulundi, Mtubatuba and Richards Bay.	KwaZulu Natal	Amajuba District Municipality	Abaqulusi Local Municipality	Pongola_Mzimkulu	White Mfolozi River Catchment	To be determined	Definition	To be determined	To be determined	To be determined	To be determined	27°50'15.14"	30°48'50.34"
Buffalo River System Water Resource Development Project	The construction of dams, off-channel storage dams, bulk water conveyance infrastructure and groundwater development to meet the medium and long-term water requirements of the Newcastle, Durnaco, Utrecht, Dundee/Glencoe, Nqutu, Nondweni, Pomeroy and Sampofu Water Supply Schemes.	KwaZulu Natal	Amajuba District Municipality	Newcastle Local Municipality (KZ252)	Pongola_Mzimkulu	Buffalo River Catchment	To be determined	Identification	To be determined	To be determined	To be determined	To be determined	27°44'39.83"	29°56'13.25"

LTBWSS – Phase 2	Doubling the capacity of Phase 1 of the LTBWSS to further augment water supply to Umgeni Water for treatment to the KZN North Coast (Mdloti to Thukela Areas).	KwaZulu Natal	iLembe District Municipality	KwaDukuza Local Municipality (KZ292)	Pongola_Mzimkulu	Tugela River Catchment	20	Design	To be determined		To be determined	2021	29°10'05.81"	31°22'36.73"
KwaZulu Natal North Coast Water Re-use Scheme	Upgrading of the North Coast Waste Water Treatment Plants and planning for direct re-use of treated waste water.	KwaZulu Natal	iLembe District Municipality		Pongola_Mzimkulu	Mdloti River Catchment		Design	To be determined		To be determined	From 2017 to 2020		
The Stephen Dlamini Dam	Construction of a dam on the Luhane River for supply to the Harry Gwala District Municipality Regional Bulk Water Supply Scheme.	KwaZulu Natal	Harry Gwala District Municipality	Ingwe Local Municipality (KZ5a1)	Pongola_Mzimkulu	Luhane River Catchment	3	Financing	510		2019	2024	29°50'22.39"	29°44'20.50"
Crocodile East Water Project	Construction of a dam and bulk water conveyance infrastructure to meet the long-term water requirements of the Crocodile East River catchment, including Mbombela (Nelspruit) and surrounding areas.	Mpumalanga	Ehlanzeni District Municipality	Mbombela Local Municipality (MP322)	Inkomathi_Usuthu	Crocodile River East Catchment	To be determined	Definition	To be determined	To be determined	To be determined	2027	25°36'45.00"	31°16'15.00"
Lower Orange River - Vioolsdrift Dam	The construction a dam on the Orange River, which is jointly undertaken with Namibia, to increase the yield of the Orange River to cater for increasing demand in the area.	Northern Cape	Namakwa District Municipality	Nama Khoi Local Municipality (NC062)	Orange	Lower Orange River Catchment	80	Feasibility	650	1000	2021	2024	28°45'28.59"	17°36'47.11"
Greater Mangaung Water Augmentation Project.	The construction of the Gariep Pipeline, abstraction works and pump stations to augment supply to Bloem Water Board's Supply Area.	Free State	Mangaung	Pixley Ka Seme Local Municipality (MP304)	Orange	Middle Orange River Catchment	To be determined	Pre-Feasibility and Feasibility	5200	Unknown	To be determined	To be determined	30°37'24.18"	25°30'24.36"
ORWRDP - Phases 2B to 2H	Bulk Distribution and Sub Phase 2C. Under Phase 2B a pipeline from Flag Boshielo Dam to Mokopane, (Phase 2C) will be constructed. The pipeline from the De Hoop Dam to Steelpoort will link Phase 2D and a second pipeline from Steelpoort to Mooihoek, (Phases 2E to 2H) are under consideration. Balancing dams, operational infrastructure and appurtenant works will also be constructed.	Limpopo	Mopani District Municipality	Groblersdal (Greater) Local Municipality (NP03a5)	Olifants	Olifants River Catchment		Construction	2 800			2017	24°46'50.06"	29°25'32.66"
Groot Letaba Water Augmentation Project (GLeWAP) - Phase1	The Tzaneen Dam Raising and the construction of a water treatment plant, pipelines and reservoirs to meet the projected growing domestic water supply requirements to the year 2025 and to improve the water availability for the riverine ecosystem.	Limpopo	Mopani District Municipality	Tzaneen (Greater) Local Municipality (NP333)	Olifants	Groot Letaba River Catchment		Construction	125			2019	23°47'57.34"	30° 9'58.43"
GLeWAP - Phase 2.	The construction of the Nwamitwa Dam in the Groot Letaba River, a water treatment plant, pipelines and reservoirs to meet the projected growing domestic water requirements to the year 2025, to improve the water availability for the riverine ecosystem and to make provision for new resource poor farmers.	Limpopo	Mopani District Municipality	Tzaneen (Greater) Local Municipality (NP333)	Olifants	Groot Letaba River Catchment		Procurement	1 700			2022	23° 45' 14.68"	30° 29' 28.89"
Mokolo/Crocodile West Water Augmentation Project - Phase 1	The construction of a pump station, pipelines and balancing dams to augment domestic and industrial water supplies to the new Eskom/IPP power station/s, extension of associated mining activities and fast-growing population in the Lephalale Area.	Limpopo	Waterberg District Municipality	Lephalale Local Municipality (NP362)	Limpopo	Crocodile River West Catchment		Construction	2 100			2023	24°36'02.76"	27°15'57.40"

Mokolo/Crocodile West Water Augmentation Project - Phase 2	The construction of bulk water conveyance infrastructure to augment domestic and industrial water supplies to the new Eskom/IPP power station/s, extension of associated mining activities and fast growing population in the Lephalale Area and river management system.	Limpopo	Waterberg District Municipality	Lephalale Local Municipality (NP362)	Limpopo	Crocodile River West Catchment		Feasibility	13 900			2019	24°36'02.76"	27°15'57.40"
Dam Safety Rehabilitation Programme	The rehabilitation of water related assets and dam safety work – continuous projects.					Various		Construction	2 800			Ongoing		
Desalination									**R - R 4 400**					
Mhlatuze desalination plant Phase 1		Kwazulu-Natal	King Cetswayo Distric	Mhlatuze Local Municipality								2017	Feb-17	
Mhlatuze desalination plant Phase 2		Kwazulu-Natal	King Cetswayo District Municipality	Mhlatuze Local Municipality			4.4 (12 Mℓ/d)					2038		
Tongaat/Illovo		Kwazulu-Natal	iLembe District Municipality	KwaDukuza Local Municipality			55 (150 Mℓ/d)			4200		2022		
Mossel Bay Desal Plant		Western Cape	Eden District Municipality	Mossel Bay Local Municipality			5.5 (15 Mℓ/d)			200		2011		
Sedgefield Desal Plant		Western Cape	Eden District Municipality	George Local Municipality			0.7 (2 Mℓ/d)					2011		
Knysna Desal Plant		Western Cape	Eden District Municipality	Knysna Local Municipality			0.7 (2 Mℓ/d)					2012		
Plettenberg Bay Desal Plant		Western Cape	Eden District Municipality	Bitou Local Municipality			0.7 (2 Mℓ/d)					2012		
Lamberts bay Desal Plant		Western Cape	West Coast District Municipality	Cederberg Local Municipality			4.3 (Ph 1: 1.7 Mℓ/d)					2016		
Southern Namaqualand GWS (Desal Plant)		Northern Cape	Namakwa District Municipality				1.8 (Final 5 Mℓ/d)					1983		
Bushman's River Mouth Desal Plant		Western Cape	Eden District Municipality	Knysna Local Municipality			0,292							
Port Alfred		Eastern Cape	Sarah Baartman District Municipality	Ndlambe Local Municipality			0,66							
Desal Plant							0.7 (2 Mℓ/d)							
Re-use									**R 569 R -**					
Beaufort West	Western Cape	Western Cape					1.8 (5 Mℓ/d)							
Garden route dam	Eastern Cape	Eastern Cape					1.8 (5 Mℓ/d)							
Fishwater Flats Re-use	Eastern Cape	Eastern Cape	Cape Town (City of) Metropolitan Municipality				10							
City of Cape Town	Western Cape	Western Cape	uThungulu District Municipality				10							
Arboretum Effluent	KwaZulu Natal	KwaZulu Natal	iLembe District Municipality				10,95		569		2036			
Siza Water	KwaZulu Natal	KwaZulu Natal	iLembe District Municipality				0.18 (500 kℓ/d)				2015			
End of record														