

SCOTTISH WATER

DELIVERY PLAN 2010-15

SECTION K: INVESTMENT PLAN
Table K2: Summary - Outputs

Line Ref.	Description	Units	Field Type	Report Year Pre 2010		Forecast Year 2010-11		Forecast Year 2011-12		Forecast Year 2012-13		Forecast Year 2013-14		Forecast Year 2014-15		Forecast Year 2015-16		Forecast Total 2010-16	
				cg		cg		cg		cg		cg		cg		cg		cg	
Growth																			
K2.1	Strategic Capacity - Water Treatment [WG1]	Pe	I	0	A3	389	A3	21965	A3	90	A3	221	A3	0	A3	0	A3	22665	A3
K2.2	Strategic Capacity - Wastewater Treatment [SG1]	Pe	I	0	A3	9613	A3	358	A3	6827	A3	4961	A3	796	A3	0	A3	22555	A3
K2.3	Strategic Water Network Capacity (Infrastructure Charge) [WG5]	Pe	I	0	A3	6953	A3	0	A3	0	A3	0	A3	0	A3	0	A3	6953	A3
K2.4	Strategic Wastewater Network Capacity (Infrastructure Charge) [SG5]	Pe	I	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3
Q&Sillb Enhancements - Drinking Water Quality - OMD																			
K2.5	Number of Zones with reduced lead levels to meet the standard [DW1A]	No.	I	0	A3	6	A3	7	A3	28	A3	23	A3	0	A3	0	A3	64	A3
K2.6	Number of treatment works improved to meet drinking water quality standards [DW3]	No.	I	0	A3	0	A3	0	A3	1	A3	5	A3	0	A3	0	A3	6	A3
K2.7	Length of mains rehabilitated (including flushing & swabbing) to improve drinking water quality [DW5]	km	I	0.000	A3	0.000	A3	32.143	A3	1287.743	A3	1222.282	A3	414.980	A3	1574.827	A3	4532	A3
K2.8	Number of DMA's subject to water quality investigations [DW5A]	No.	I	0	A3	50	A3	93	A3	0	A3	0	A3	0	A3	0	A3	143	A3
K2.9	Number of tanker fill points installed [DW8]	No.	I	0	A3	0	A3	13	A3	1	A3	0	A3	0	A3	0	A3	14	A3
K2.10	Number of sites with increased physical security [DW9]	No.	I	0	A3	0	A3	22	A3	324	A3	218	A3	26	A3	0	A3	590	A3
K2.11	Type A Raw Water Supplies provided with treatment [DW10]	No.	I	0	A3	0	A3	0	A3	0	A3	3	A3	2	A3	0	A3	5	A3
K2.12	Number of WwTW with Backflow prevention devices installed [DW11]	No.	I	0	A3	0	A3	52	A3	74	A3	96	A3	53	A3	0	A3	275	A3
K2.13	Number of WTW receiving improved disinfection control [DW13]	No.	I	0	A3	0	A3	3	A3	9	A3	6	A3	16	A3	0	A3	34	A3
K2.14	Number of zones covered with Water safety plans [DW16]	No.	I	0	A3	80	A3	81	A3	13	A3	0	A3	0	A3	0	A3	174	A3
K2.15	Number of WTW with reduced Cryptosporidium risk [DW23]	No.	I	0	A3	0	A3	0	A3	7	A3	21	A3	17	A3	0	A3	45	A3
K2.16	Number of raw water sampling points provided to comply with WFD [DW24]	No.	I	0	A3	0	A3	0	A3	0	A3	0	A3	230	A3	0	A3	230	A3
K2.17	Lead communications pipe survey completed	No.	I	0	A3	0	A3	0	A3	1	A3	0	A3	0	A3	0	A3	1	A3
K2.18	Number of water resource zones with company Level of Service restored (excluding 7 stage) [WG4]	No.	I	0	A3	0	A3	0	A3	1	A3	0	A3	0	A3	0	A3	1	A3
Q&Sillb Enhancements - Environment - OMD																			
K2.19	Number of UID's improved to meet new standard (excluding 7 stage) [EC01B, EC03B, EC10B]	No.	I	0	A3	0	A3	22	A3	2	A3	2	A3	0	A3	0	A3	26	A3
K2.20	Number of legislative requirements met through improved WwTW discharges [EC01A, EC03A, EC04A, EC10A]	No.	I	0	A3	0	A3	21	A3	33	A3	12	A3	8	A3	0	A3	74	A3
K2.21	First Time provision of wastewater treatment [SG3]	No.	I	0	A3	0	A3	0	A3	32	A3	0	A3	0	A3	0	A3	32	A3
K2.22	Number of WwTW discharges improved to meet existing licence standards [WQ01]	No.	I	0	A3	0	A3	4	A3	15	A3	4	A3	2	A3	0	A3	25	A3
K2.23	Number of WwPS improved to meet existing licence conditions [WQ01C]	No.	I	0	A3	0	A3	1	A3	15	A3	6	A3	1	A3	0	A3	23	A3
K2.24	Number of surface water systems improved [EC09B, EC10D]	No.	I	0	A3	0	A3	0	A3	0	A3	0	A3	6	A3	0	A3	6	A3
K2.25	Number of dual manhole systems improved [EC01C, EC04D]	No.	I	0	A3	0	A3	0	A3	3	A3	7	A3	0	A3	0	A3	10	A3
K2.26	Number of sludge treatment facilities improved to comply with safe sludge matrix [EC06]	No.	I	0	A3	0	A3	0	A3	0	A3	0	A3	2	A3	0	A3	2	A3
K2.27	Number of WwTW brought into compliance with non-sanitary requirements [WQ01A]	No.	I	0	A3	0	A3	0	A3	20	A3	36	A3	27	A3	0	A3	83	A3
K2.28	Number of wastewater network asset brought into compliance with non-sanitary requirements [WQ01B]	No.	I	0	A3	0	A3	4	A3	74	A3	102	A3	50	A3	0	A3	230	A3
K2.29	Number of environmental studies undertaken [EC01D, EC03C, EC04C, EC07C, EC08C, EC10E, NH01A, SG3, EC16, WR1A, WR2B]	No.	I	0	A3	11	A3	15	A3	84	A3	0	A3	0	A3	0	A3	110	A3
K2.30	Number of asset covered by flooding risk assessments [CS16W & CS16S]	No.	I	0	A3	0	A3	212	A3	57	A3	25	A3	0	A3	0	A3	294	A3
Q&Sillb Enhancements - Customer Service - OMD																			
K2.31	Number of WwTW where malodour is reduced [CS2]	No.	I	0	A3	0	A3	0	A3	1	A3	0	A3	2	A3	0	A3	3	A3
K2.32	Number of PFI WwTW where malodour is reduced [CS2]	No.	I	0	A3	0	A3	0	A3	1	A3	0	A3	0	A3	0	A3	1	A3
K2.33	Number of properties removed from the low pressure register [CS1]	No.	I	0	A3	221	A3	772	A3	711	A3	605	A3	0	A3	0	A3	2309	A3
K2.34	Number of properties removed from the low pressure register (Exclusions under Water (Scotland) Act 1980) [CS1A]	No.	I	0	A3	25	A3	61	A3	22	A3	20	A3	0	A3	0	A3	128	A3
K2.35	Number of properties/areas alleviated from external sewer flooding risk [CS15]	No.	I	0	A3	0	A3	0	A3	0	A3	92	A3	0	A3	0	A3	92	A3
K2.36	Number of assets protected from flood risk [CS16W]	No.	I	0	A3	0	A3	0	A3	16	A3	9	A3	1	A3	0	A3	26	A3
K2.37	Number of models to support flooding bill [CS16S]	No.	I	0	A3	0	A3	1	A3	1	A3	2	A3	1	A3	0	A3	5	A3
Q&Sillb Enhancements - Climate Change - OMD																			
K2.38	Number of climate change studies [CC3, CC4, CC5, CC6]	No.	I	0	A3	0	A3	5	A3	6	A3	1	A3	0	A3	0	A3	12	A3
K2.39	Renewable power generation capacity provided [CC1W]	GW/h	I	0	A3	0	A3	0	A3	0	A3	0	A3	25	A3	0	A3	25	A3
Q&Sillb Enhancement - 7 Stage Process - OMD																			
K2.40	Number of UID's improved to meet new standard (under 7 stage) [EC04B, EC10B]	No.	I	0	A3	0	A3	0	A3	0	A3	0	A3	197	A3	0	A3	197	A3
K2.41	Number of water resource zones with company Level of Service restored (under 7 stage) [WG4]	No.	I	0	A3	0	A3	0	A3	0	A3	14	A3	0	A3	0	A3	14	A3
Q&Sillb Enhancement - Drinking Water - Non OMD																			
K2.42	Number of opportunistic lead pipe replacements undertaken [DW1B]	No.	I	0	A3	0	A3	0	A3	0	A3	0	A3	14862	A3	0	A3	14862	A3
K2.43	Number of customer requested lead pipe replacements undertaken [DW1C]	No.	I	0	A3	0	A3	0	A3	0	A3	0	A3	2500	A3	0	A3	2500	A3
K2.44	Number Type B (customer requested) Raw Water Supplies provided with treatment [DW10]	No.	I	0	A3	0	A3	0	A3	0	A3	0	A3	50	A3	0	A3	50	A3
Q&Sillb Enhancement - Customer Service - Non OMD																			
K2.45	Creation of external sewer flooding register [CS17]	Item	I	0	A3	0	A3	1	A3	0	A3	0	A3	0	A3	0	A3	1	A3
Q&Sillb Enhancement - Outputs Monitoring Group - Non OMD																			
K2.46	Encouraging Section 29E opportunities [CS18S]	TBC	I	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3
K2.47	Incentivising developers to adopt water efficiency measures [CS18W]	TBC	I	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3
K2.48	Pilot household metering trials [CS19]	TBC	I	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3
K2.49	Strengthening the Regulatory framework [CS20]	TBC	I	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3
K2.50	Sustainable solutions to Cryptosporidium	TBC	I	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3
K2.51	Permanent lowest cost solution to Dalmeir WwTW (PFI)	TBC	I	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3	0	A3
Q&Sillb Enhancement - Drinking Water Quality - Non OMD																			
K2.52	Improve disinfection control for 4m people	Pe	I	3052251	A3	710021	A3	512000	A3	1140	A3	35000	A3	0	A3	0	A3	4310412	A3
K2.53	Water resource zones with reduced abstraction	No.	I	55	A3	15	A3	3	A3	5	A3	0	A3	0	A3	0	A3	78	A3
K2.54	Number of flood studies undertaken	No.	I	24	A3	5	A3	0	A3	0	A3	0	A3	0	A3	0	A3	29	A3
K2.55	Sites with increased security	No.	I	1005	A3	11	A3	0	A3	0	A3	0	A3	0	A3	0	A3	1016	A3
Q&Sillb Enhancement - Environment - Non OMD																			
K2.56	Unsatisfactory intermittent discharges improved	No.	I	198	A3	81	A3	14	A3	15	A3	11	A3	0	A3	0	A3	319	A3
K2.57	Wastewater treatment works discharges improved to meet new consent standards	No.	I	0	A3	5	A3	0	A3	0	A3	0	A3	0	A3	0	A3	27	A3
K2.58	First time provision projects to meet environmental objectives in the directions	No.	I	6	A3	3	A3	0	A3	0	A3	0	A3	0	A3	0	A3	9	A3
K2.59	Wastewater treatment works upgraded to meet existing consent requirements	No.	I	16	A3	1	A3	1	A3	0	A3	0	A3	0	A3	0	A3	18	A3
Q&Sillb Enhancement - Customer Service - Non OMD																			
K2.60	Works where odour problem is addressed	No.	I	11	A3	3	A3	0	A3	0	A3	0	A3	0	A3	0	A3	14	A3

Prepared by:
 Checked by:
 Authorised by:

SECTION K: INVESTMENT PLAN
Table K3: Summary - OMD Inputs & Q&SII & Q&SIIIa Project Sign Off

Q&SIIIb Enhancements - Drinking Water Quality - OMD Outputs								
Line Ref.	Output	Drivers	Total No Outputs	OMD Programme Group	Milestone Stage	Units	Field Type	
2010/11								
2011/12								
2012/13								
2013/14								
2014/15								
2015/16								
K3.1	Number of zones with reduced lead levels	DW1A	64	E	1	Zones	I	16
					2			16
					3			20
					4			31
					5			36
K3.2	Number of treatment works improved to meet drinking water quality standards	DW3 (A-H)	6	C	1	No.	I	1
					2			2
					3			3
					4			5
					5			6
K3.3	Km of mains rehabilitated (including flushing and swabbing) to improve drinking water quality	DW5	4532	A	1	km	I	4155
					2			4155
					3			4532
					4			4532
					5			4532
K3.4	Number of DMA's subject to investigations	DW5A	143	F	1	No.	I	30
					2			50
					3			100
					4			120
					5			120
K3.5	Number of tanker fill points installed	DW8	14	K	1	No.	I	14
					2			14
					3			14
					4			14
					5			14
K3.6	Number of sites with increased security	DW9A-E	590	L	1	No.	I	0
					2			40
					3			120
					4			305
					5			590
K3.7	Type A Raw Water Supplies provided with treatment	DW10	5	G	1	No.	I	5
					2			5
					3			5
					4			5
					5			5
K3.8	Number of backflow prevention devices installed	DW11	275	I	1	No.	I	0
					2			10
					3			80
					4			275
					5			275
K3.9	Number WTW receiving improved disinfection control	DW13	34	B	1	No.	I	14
					2			34
					3			34
					4			34
					5			34
K3.10	Number of sites covered by drinking water safety plans	DW16	174	J	1	No.	I	174
					2			174
					3			174
					4			174
					5			174
K3.11	Number of sites with reduced risk from cryptosporidium	DW23	45	D	1	No.	I	23
					2			42
					3			45
					4			45
					5			45
K3.12	Number of raw water sample points installed	DW24	230	H	1	No.	I	0
					2			0
					3			0
					4			0
					5			0
K3.13	Number of water resource zones receiving company standard for security of supply	WG4	1	N	1	No.	I	1
					2			1
					3			1
					4			1
					5			1
K3.14	Lead communications pipe survey completed	DW1B	1	AL	1	No.	I	1
					2			1
					3			1
					4			1
					5			1
K3.15	Number of UID improved (excluding 7 stage)	EC01B, EC03B, EC10B	26	R	1	No.	I	0
					2			26
					3			26
					4			26
					5			26
K3.16	Number of WwTW discharges improved to meet new licence requirements	EC01A, EC03A, EC04A, EC10A	74	T	1	No.	I	60
					2			64
					3			65
					4			67
					5			67
K3.17	Wastewater first time provision (properties)	SG3	32	O	1	No.	I	0
					2			0
					3			0
					4			0
					5			0
K3.18	Number of WwTW upgraded to meet existing licence requirements	WQ01	25	U	1	No.	I	15
					2			20
					3			22
					4			23
					5			23
K3.19	Number of WWPS upgraded to comply with existing licence requirement	WQ01C	23	V	1	No.	I	4
					2			17
					3			22
					4			23
					5			23
K3.20	Number of surface water systems upgraded	EC09B, EC10D	6	Y	1	No.	I	0
					2			0
					3			0
					4			0
					5			0
K3.21	Number of dual manhole systems upgraded	EC04D, EC01C	10	S	1	No.	I	0
					2			0
					3			0
					4			0
					5			0

Q&SIIIb Enhancements - Environment - OMD Outputs								
Line Ref.	Output	Drivers	Total No Outputs	OMD Programme Group	Milestone Stage	Units	Field Type	
2010/11								
2011/12								
2012/13								
2013/14								
2014/15								
2015/16								
K3.15	Number of UID improved (excluding 7 stage)	EC01B, EC03B, EC10B	26	R	1	No.	I	0
					2			26
					3			26
					4			26
					5			26
K3.16	Number of WwTW discharges improved to meet new licence requirements	EC01A, EC03A, EC04A, EC10A	74	T	1	No.	I	60
					2			64
					3			65
					4			67
					5			67
K3.17	Wastewater first time provision (properties)	SG3	32	O	1	No.	I	0
					2			0
					3			0
					4			0
					5			0
K3.18	Number of WwTW upgraded to meet existing licence requirements	WQ01	25	U	1	No.	I	15
					2			20
					3			22
					4			23
					5			23
K3.19	Number of WWPS upgraded to comply with existing licence requirement	WQ01C	23	V	1	No.	I	4
					2			17
					3			22
					4			23
					5			23
K3.20	Number of surface water systems upgraded	EC09B, EC10D	6	Y	1	No.	I	0
					2			0
					3			0
					4			0
					5			0
K3.21	Number of dual manhole systems upgraded	EC04D, EC01C	10	S	1	No.	I	0
					2			0
					3			0
					4			0
					5			0

1. Introduction
2. Methodology
3. Results
4. Discussion
5. Conclusion

The study aims to investigate the impact of various factors on the performance of the system. The methodology involves a series of experiments and data analysis. The results show that the system performs well under certain conditions, but there are some limitations. The discussion highlights the key findings and their implications. The conclusion summarizes the overall findings and suggests future research directions.

The data collected from the experiments is as follows:

Parameter	Value
Parameter 1	Value 1
Parameter 2	Value 2
Parameter 3	Value 3
Parameter 4	Value 4
Parameter 5	Value 5

The results indicate that the system is highly efficient and reliable. The performance is consistent across different scenarios. The data shows a clear trend in the system's behavior. The findings are supported by the experimental results. The overall performance is satisfactory.

