

APPENDIX 6 TO WATER MANAGEMENT CONTRACT [004]

Appendix 6
Performance Standards Appendix

**PERFORMANCE STANDARDS APPENDIX
APPENDIX #6 TO THE GENERAL CONDITIONS
FOR A
MANAGEMENT CONTRACT
FOR THE PROVISION OF
WATER AND WASTEWATER SERVICES**

ARTICLE 1 - GENERAL

1.1 Documents Comprising the Performance Standards Appendix

(1) The Performance Standards Appendix consists of,

- (a) the Performance Standards General Provisions; and
- (b) the Performance Standards Appendix Chart.

(2) The Performance Standards Appendix Chart sets out the performance standards with reference to the Services Appendix Sections.

1.2 Supplementing the General Conditions and Services Appendix

The Performance Standards Appendix supplements the General Conditions and the Services Appendix for the purpose of providing greater specificity of the performance standards which the Operator is required to meet.

ARTICLE 2 - THE PERFORMANCE STANDARDS CHART

2.1 Services Appendix Description

The descriptions contained in the column of the Performance Standards Appendix Chart entitled, “Description of Service” are for the convenience of the Operator and do not supersede the actual wording of the Services Appendix.

2.2 Quality Operating Standards

(1) Where the term “Quality Operating Standard” is used in the Performance Standards Chart it means a standard of performance which,

- (a) is competent, efficient, economical and in accordance with internationally accepted techniques used in the water and wastewater industry;
- (b) is in accordance with professional engineering, accounting and consulting standards, as applicable, recognized by international professional bodies;
- (c) is in accordance with sound management, commercial, technical and engineering practices;
- (d) employs appropriate technology and safe and effective equipment, machinery and methods;
- (e) protects the interests of the Authorities;
- (f) is in accordance with the Applicable Law;

- (g) is at least equal to the standard of performance in place in the Base Year; and
- (h) is in accordance with the technical specifications and design standards of the YWSC as provided to the Operator.

(2) The Operator shall, at all times, carry out the Services in accordance with the Performance Standards as specified and, where a specific standard of quality of performance has not been specified, the Operator shall perform the Services to the standard of “Quality Operating Standards” set out in Section 2.2(1) of the Performance Standards Appendix.

(3) Where the Operator’s performance is based on improvement from the Base Year data, the Base Year data must be certified by an independent inspection agency.

SAMPLE

SERVICES APPENDIX SECTION #	DESCRIPTION OF SERVICE	PERFORMANCE STANDARD	DELIVERABLE	YEARLY TARGET				
				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 2.2	Base Year Data Report							
SA 2.2	• develop Base Year Data Report	• no later than 60 days after the Starting Date	Report	100%	100%			
SA 2.3	Water and Wastewater Operations and Maintenance Procurement							
SA 2.3(2)	• develop Procurement Guidelines	• no later than 30 days after Starting Date	Guidelines	100%	100%			
SA 2.3(4)	• implement Procurement Guidelines	• Approved Guidelines	Procurement	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 3.1.1	Water Quality Sampling and Testing							
SA 3.1.1(1)	• prepare and submit the Water Quality Monitoring Program to the YWSC	• no later than 30 days after Starting Date	Draft Program	100%	100%			
SA 3.1.1(3)	• implement Water Quality Monitoring Program	• no later than 30 days after program is approved	Program	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

SERVICES APPENDIX SECTION #	DESCRIPTION OF SERVICE	PERFORMANCE STANDARD	DELIVERABLE	YEARLY TARGET				
				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 3.1.2	Safety Conditions of the Facilities							
SA 3.1.2(1)	• conduct physical inspection of the Facilities	• no later than 60 days after Starting Date	Physical Inspection Report	100%	100%			
SA 3.1.2(2)	• prepare Safety Deficiencies Correction Plan	• no later than 90 days after the Starting Date	Safety Deficiencies Correction Plan	100%	100%			
SA 3.1.2(3)	• implement Safety Deficiencies Correction Plan	• immediately on completion of the plan	Implementation of Plan	100%	40%	75% cumulative	100% cumulative	
SA 3.1.3	Occupational Health and Safety							
SA 3.1.3(1)	• develop Safety Program	• no later than 60 days after the Starting Date	Safety Program	100%	100%			
SA 3.1.3(2)	• occupational health and safety training	• ongoing	Training	100%	25%	50% cumulative	75% cumulative	100% cumulative

SERVICES APPENDIX SECTION #	DESCRIPTION OF SERVICE	PERFORMANCE STANDARD	DELIVERABLE	YEARLY TARGET				
				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 3.1.4	Inventory Management							
SA 3.1.4(1) and (3)	<ul style="list-style-type: none"> develop Inventory Management Program 	<ul style="list-style-type: none"> no later than 6 months after the Starting Date 	Inventory Management Program					
SA 3.1.4(2)	<ul style="list-style-type: none"> implement Inventory Management Program 	<ul style="list-style-type: none"> Approved Program 	Implementation	100%	25%	60%	100%	
SA 3.1.5	Emergency Response Plans							
SA 3.1.5	<ul style="list-style-type: none"> familiarize with existing Emergency Response Plans 	<ul style="list-style-type: none"> ongoing Quality Operating Standard 	N/A	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 3.1.6	Standard Operating Procedures							
SA 3.1.6(1)	<ul style="list-style-type: none"> prepare and submit for approval Standard Operating Procedures 	<ul style="list-style-type: none"> no later than 1 year after Starting Date Quality Operating Standard 	Standard Operating Procedures	100%	100%			

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 3.1.6(2)	<ul style="list-style-type: none"> provide training on the Standard Operating Procedures and implement 	<ul style="list-style-type: none"> Quality Operating Standard 	Training Program	100%	100%			
SA 3.1.6(3)	<ul style="list-style-type: none"> update Standard Operating Procedures 	<ul style="list-style-type: none"> Annually Quality Operating Standards 	Annual Updated Standard Operating Procedures	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 3.1.7	Operations and Maintenance Manuals							
SA 3.1.7(1)	<ul style="list-style-type: none"> prepare and submit for approval Operations and Maintenance Manuals 	<ul style="list-style-type: none"> no later than 1 year after Starting Date Quality Operating Standards 	Operations and Maintenance Manuals	100%	100%			
SA 3.1.7(3)	<ul style="list-style-type: none"> provide training on the Operations and Maintenance Manuals 	<ul style="list-style-type: none"> Quality Operating Standard 	Training Program	100% of Operations Staff/ Management Staff		100% of Operations Staff/ Management Staff	All new Operations Staff/ Management Staff	All new Operations Staff/ Management Staff

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 3.1.7(4)	<ul style="list-style-type: none"> • update Operations and Maintenance Manuals 	<ul style="list-style-type: none"> • Annually • Quality Operating Standards 	Updated Operations and Maintenance Manuals	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 3.1.8	Energy Management Plan							
SA 3.1.8(1)	<ul style="list-style-type: none"> • develop and implement an Energy Management Plan 	<ul style="list-style-type: none"> • no later than 150 days after Starting Date 	Energy Management Plan	25% reduction in kilowatt hours per million cubic meters from baseline	5% reduction from baseline	15% reduction from baseline	20% reduction from baseline	25% reduction from baseline
SA 3.1.9	Illegal Connections							
SA 3.1.9(1)	<ul style="list-style-type: none"> • develop and submit Illegal Connections Program 	<ul style="list-style-type: none"> • no later than 90 days after Starting Date 	Illegal Connections Program	100%	100%			
SA 3.1.9(2)	<ul style="list-style-type: none"> • implement program to convert Illegal Connections to legal connections 	<ul style="list-style-type: none"> • Approved Program 	Implementation	100% of illegal connections corrected	50%	100% cumulative		

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 3.1.10	Staff Training and Development							
SA 3.1.10(1)	<ul style="list-style-type: none"> prepare and submit Training and Development Program 	<ul style="list-style-type: none"> no later than 6 months after Starting Date 	Training and Development Program	100%	100%			
SA 3.1.10(2)	<ul style="list-style-type: none"> implement Training and Development Program 	<ul style="list-style-type: none"> Approved Program 	Training	100%	15%	35%	35%	15%
SA 3.1.11	Vehicles and Equipment							
SA 3.1.11(1)	<ul style="list-style-type: none"> repair and maintain all vehicles and equipment 	<ul style="list-style-type: none"> ongoing in accordance with the Preventive Maintenance Program 	Implementation	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
3.1.12	System Mapping							
SA 3.1.12(1)	<ul style="list-style-type: none"> system mapping 	<ul style="list-style-type: none"> Percent of water and wastewater transmission and water distribution storage mapped 	<ul style="list-style-type: none"> Computerized map of water transmission, water distribution storage and wastewater 	100%	100%			

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 3.1.12(2)	<ul style="list-style-type: none"> plan for mapping water distribution and wastewater collection 	<ul style="list-style-type: none"> Prior to the expiration of the first Contract Year 	<ul style="list-style-type: none"> Plan 					
SA 3.2.1	Management of Water Sources Facilities							
SA 3.2.1(1)	<ul style="list-style-type: none"> operate and maintain water sources Facilities 	<ul style="list-style-type: none"> Quality Operating Standards YWSC Annual Instruction Approved Standard Operating Procedures and Operations and Maintenance Manuals 	Operation and Maintenance	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 3.2.1(2)	<ul style="list-style-type: none"> manage the extraction of water from water sources 	<ul style="list-style-type: none"> Quality Operating Standards YWSC Annual Instructions Approved Standard Operating Procedures and Operations and Maintenance Manuals 	Operation	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 3.2.1(3)(a)	<ul style="list-style-type: none"> carry out inspection of water sources Facilities 	<ul style="list-style-type: none"> no later than 90 days after Starting Date 	Inspection	100%	100%			
SA 3.2.1(3)(b)	<ul style="list-style-type: none"> submit Water Sources Facilities Inspection Report 	<ul style="list-style-type: none"> no later than 30 days after Inspection 	Water Source Facilities Inspection Report	100%	100%			
SA 3.2.1(3)(c)	<ul style="list-style-type: none"> correct deficiencies identified in Water Sources Facilities Inspection Report 	<ul style="list-style-type: none"> Approved Water Source Facilities Inspection Report 	Implementation	100%	20%	20%	60%	

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 3.2.1(3)(d)	<ul style="list-style-type: none"> establish and implement water sources protection and monitoring 	<ul style="list-style-type: none"> To the satisfaction of the YWSC 	Implementation	100%	Ongoing	Ongoing	Ongoing	Ongoing
SA 3.2.2	Pumping of Raw Water and Supply and Distribution to Customers							
SA 3.2.2(1)(a) to (u)	<ul style="list-style-type: none"> various water operations responsibilities 	<ul style="list-style-type: none"> Quality Operating Standard Armenian Standards for Drinking Water Quality Approved Standard Operating Procedures and Operations and Maintenance Manuals 	Operation	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 3.3.1	Collection, Treatment and Disposal of Wastewater							
SA 3.3.1(1)(a)	<ul style="list-style-type: none"> • install new service connections 	<ul style="list-style-type: none"> • YWSC Policy • Standard Operating Procedures (Approved) • Quality Operating Standards 	Implementation	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 3.3.1(1)(c)	<ul style="list-style-type: none"> • regularly inspect surcharged sewers 	<ul style="list-style-type: none"> • Standard Operating Procedures (Approved) • Quality Operating Standards 	Operations	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 3.3.1(1)(d)	<ul style="list-style-type: none"> • monitor flow blockages 	<ul style="list-style-type: none"> • Approved Standard Operating Procedures • Quality Operating Standards 	Operations	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 3.3.1(1)(e)	<ul style="list-style-type: none"> • monitor industrial discharges 	<ul style="list-style-type: none"> • Approved Standard Operating Procedures • YWSC Policy • Armenian Standards for Effluent 	Operations	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 3.3.1(1)(b) and (f) (g) (h)	<ul style="list-style-type: none"> • various wastewater operations 	<ul style="list-style-type: none"> • Quality Operating Standard • Approved Standard Operating Procedures • Armenian Standards for Effluent 	Operations	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 4.1	Corrective Maintenance							
SA 4.1(1)	<ul style="list-style-type: none"> • carry out Corrective Maintenance 	<ul style="list-style-type: none"> • YWSC Base Year level in accordance with Budget 	Operations	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 4.2	Preventive Maintenance							
SA 4.2(1)(a)	<ul style="list-style-type: none"> develop Preventive Maintenance Program 	<ul style="list-style-type: none"> no later than 6 months after Starting Date 	Preventive Maintenance Program	100%	100%			
SA 4.2(1)(b)	<ul style="list-style-type: none"> implement Preventive Maintenance Program 	<ul style="list-style-type: none"> Approved Preventive Maintenance Program 	Implementation	100%	25%	100% cumulative		
SA 5.1	Repairs, Rehabilitation and Improvements and the Operating Investment Fund							
SA 5.1(1)	<ul style="list-style-type: none"> carry out repairs, rehabilitation and improvements 	<ul style="list-style-type: none"> in accordance with Operating Investment Fund Quality Operating Standards 	Implementation	100%	Ongoing	Ongoing	Ongoing	Ongoing
SA 5.2	Inventory/Condition of the Facilities							
SA 5.2.1(1)(a)	<ul style="list-style-type: none"> complete physical inspection of the Facilities 	<ul style="list-style-type: none"> no later than 60 days after Starting Date 	N/A	100%	100%			

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 5.2(1)(b)	<ul style="list-style-type: none"> prepare Facilities Data Base 	<ul style="list-style-type: none"> no later than 2 years after Starting Date 	Facilities	100%	50%	100% cumulative		
SA 5.2.1(1)(c)	<ul style="list-style-type: none"> prepare Initial Condition Survey 	<ul style="list-style-type: none"> no later than 90 days after Starting Date 	Initial Condition Survey	100%	100%			
SA 5.2.1(2)	<ul style="list-style-type: none"> develop and implement program to correct deficiencies 	<ul style="list-style-type: none"> Initial Condition Survey Operating Investment Fund 	Implementation	100%	Ongoing	Ongoing	Ongoing	Ongoing
SA 5.2.1(3)	<ul style="list-style-type: none"> update Facilities Data Base 	<ul style="list-style-type: none"> Annually Quality Operating Standards 	Updated Facilities Data Base			Ongoing	Ongoing	Ongoing
SA 5.2.2	<ul style="list-style-type: none"> prepare Final Condition Survey 	<ul style="list-style-type: none"> no later than 90 before the End Date 	Final Condition Survey	100%				100%

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 5.3	Repairs, Rehabilitation and Improvement of the Facilities Under the Annual Operating Investment Fund Plan							
SA 5.3(1)(a)	<ul style="list-style-type: none"> correct deficiencies identified in Initial Condition Survey 	<ul style="list-style-type: none"> Initial Condition Survey Quality Operating Standards 	Implementation	100%	Ongoing	Ongoing	Ongoing	Ongoing
SA 5.3.1(b)	<ul style="list-style-type: none"> develop program to improve measurements of water production/ identify baseline 	<ul style="list-style-type: none"> no later than 6 months after Starting Date 	Program	100%	100%			
SA 5.3(1)(c)	<ul style="list-style-type: none"> identify Base Year Accounted for Water 	<ul style="list-style-type: none"> Baseline Identification no later than 60 days after the Starting Date 	Base Year Measurement	100%	100%			
	<ul style="list-style-type: none"> increase Accounted for Water 	<ul style="list-style-type: none"> Percentage Points from Baseline 	Implementation	25 percentage points from baseline	5 percentage points from baseline	15 percentage points from baseline	20 percentage points from baseline	25 percentage points from baseline

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 5.3(1)(d)	<ul style="list-style-type: none"> improve Constancy of Supply 	<ul style="list-style-type: none"> % of total hours per months that all consumers can draw water from system in accordance with calculation for Constancy of Supply 1 	<ul style="list-style-type: none"> Improved constancy of water 	75%	20%	40% cumulative	60% cumulative	75% cumulative
SA 5.3(1)(e)	<ul style="list-style-type: none"> install, repair and replace water meters 	<ul style="list-style-type: none"> Quality Operating Standards Operating Investment Fund Annual Plan 	<ul style="list-style-type: none"> 100% Production Metering 	100%	100%			
			<ul style="list-style-type: none"> Retail metering implementation 	20,000	5,000	7,500	7,500	
SA 5.3(1)(f)	<ul style="list-style-type: none"> continue and enhance leak detection and repair 	<ul style="list-style-type: none"> Quality Operating Standards 	<ul style="list-style-type: none"> Program 	1500km	500km	500km	250km	250km
SA 5.3(1)(g)	<ul style="list-style-type: none"> identify/reduce frequency of breakdown repairs (water) 	<ul style="list-style-type: none"> Baseline identification no later than 60 days after the Starting Date 	<ul style="list-style-type: none"> Baseline Identification 	100%	100%			

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
		<ul style="list-style-type: none"> Percentage reduction from baseline level 	<ul style="list-style-type: none"> Improvements/ Implementation 	80% reduction from baseline	20% reduction from baseline	40% reduction from baseline	60% reduction from baseline	80% reduction from baseline
	<ul style="list-style-type: none"> identify/reduce frequency of breakdown repairs (wastewater) 	<ul style="list-style-type: none"> Baseline Identification no later than 60 days after the Starting Date Percentage reduction from baseline level 	<ul style="list-style-type: none"> Improvements/ Implementation 	50% reduction for baseline	12% reduction from baseline	25% reduction from baseline	37 % reduction from baseline	50% reduction from baseline
SA 5.3(1)(h)	<ul style="list-style-type: none"> identify/reduce response time for repairs 	<ul style="list-style-type: none"> Baseline identification no later than 60 days after the Starting Date 	<ul style="list-style-type: none"> Baseline Identification 					
		<ul style="list-style-type: none"> Percentage reduction from baseline level Quality Operating Standards 	<ul style="list-style-type: none"> Improvements Implementation 	80% reduction from baseline	20% reduction from baseline	40% reduction from baseline	60% reduction from baseline	80% reduction from baseline

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 6.1	Operator Not Responsible But Shall Cooperate (Capital Investment Program)							
SA 6.1(2) and (3)	<ul style="list-style-type: none"> cooperate with Capital Investment Program 	<ul style="list-style-type: none"> Quality Operating Standards 	<ul style="list-style-type: none"> Cooperation/ recommendations as appropriate 	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 6.1(4)	<ul style="list-style-type: none"> nominate liaison person 	<ul style="list-style-type: none"> no later than 30 days after Starting Date 	Nomination	100%	100%			
SA 7.1	Information System - Billing, Collection and Customer Service							
SA 7.1(1)(a)	<ul style="list-style-type: none"> review existing computerized data base of Customers and advise 	<ul style="list-style-type: none"> no later than 90 days after Starting Date 	Recommendations	100%	100%			
SA 7.1(1)(b)	<ul style="list-style-type: none"> implement recommendations re: the computerized data base of Customers 	<ul style="list-style-type: none"> Approved recommendations 	Implementation	100%	40%	100% cumulative		
SA 7.1(2)(a)	<ul style="list-style-type: none"> develop/ review computerized system for billing 	<ul style="list-style-type: none"> no later than 90 days after Starting Date 	Recommendations /Implementation	100%		100%		

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 7.1(2)(b)	• develop/ review computerized system to track collection/ receivables	• no later than 90 days after Starting Date	Recommendations /Implementation	100%		100%		
SA 7.1(2)(c)	• develop/ review computerized system for tracking Customer service	• no later than 90 days after Starting Date	Recommendations /Implementation	100%		100%		
SA 7.1(4)	• develop computerized accounting system	• no later than 1 year after Starting Date	Computerized Accounting System	100%	100%			
SA 7.2	Billing							
SA 7.2(1)(a)	• read Customer meters	• Quality Operating Standards	Meter Read Register	100% read per year	100% read per year	100% read per year	100% read per year	100% read per year
SA 7.2(1)(b)	• register meter readings	• no later than 1 year after Starting Date	Meter Register	100%	100%			

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 7.2(1)(c)	<ul style="list-style-type: none"> monitor meter accuracy 	<ul style="list-style-type: none"> Quality Operating Standards 	<ul style="list-style-type: none"> Annual Report Monitoring Program 	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 7.2(1)(d)	<ul style="list-style-type: none"> develop/ implement monitoring plan for meters 	<ul style="list-style-type: none"> no later than 90 days after Starting Date Quality Operating Standards 	Monitoring Plan	100%	100%			
SA 7.2(1)(e)	<ul style="list-style-type: none"> develop and implement plan to estimate consumption 	<ul style="list-style-type: none"> no later than 6 months after Starting Date 	Program	100%	100%			
SA 7.2(1)(f)	<ul style="list-style-type: none"> provide meter reading advice re: Accounted for Water 	<ul style="list-style-type: none"> no later than 6 months after Starting Date 	Recommendations	100%	100%			
SA 7.2(1)(g)	<ul style="list-style-type: none"> convert meter reading to billing 	<ul style="list-style-type: none"> Quality Operating Standards 	Billing Registers	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 7.2(1)(h)	<ul style="list-style-type: none"> identify consumption anomalies 	<ul style="list-style-type: none"> Quality Operating Standards 	Exception Reports	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

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				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 7.2(1)(i)	<ul style="list-style-type: none"> identify meters not read 	<ul style="list-style-type: none"> Quality Operating Standards 	Exception Report	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 7.2(1)(j)	<ul style="list-style-type: none"> review existing system for payment of bills by Customers provide recommendations 	<ul style="list-style-type: none"> no later than 6 months after Starting Date 	<ul style="list-style-type: none"> Report of Recommendations 	100%	100%			
	<ul style="list-style-type: none"> implement recommendations 	<ul style="list-style-type: none"> Approved Recommendations 	<ul style="list-style-type: none"> Implementation of Approved Recommendations 	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 7.2(2)(a)	<ul style="list-style-type: none"> respond to meter malfunctions 	<ul style="list-style-type: none"> no later than 5 days after complaint 	Incident report and recommendations	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 7.2(2)(b)	<ul style="list-style-type: none"> resolve Customer complaints 	<ul style="list-style-type: none"> no later than 30 days after complaint 	Resolution report	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 7.3	Collections							
SA 7.3(1)(a)	<ul style="list-style-type: none"> collect all amounts due from Customers 	<ul style="list-style-type: none"> Quality Operating Standards 	Collections Report	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

SERVICES APPENDIX SECTION #	DESCRIPTION OF SERVICE	PERFORMANCE STANDARD	DELIVERABLE	YEARLY TARGET				
				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 7.3(1)(b)	<ul style="list-style-type: none"> record/ identify all outstanding accounts 	<ul style="list-style-type: none"> no later than 45 days after each billing 	Outstanding Accounts Report	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 7.3(1)(c)	<ul style="list-style-type: none"> submit list of unpaid accounts 	<ul style="list-style-type: none"> monthly 	Unpaid Account List	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 7.3(1)(d)	<ul style="list-style-type: none"> develop collection procedures 	<ul style="list-style-type: none"> in accordance with SA 7.2(1)(j) 	Collection Procedures Report	100%	100%			
SA 7.3.1(e)	<ul style="list-style-type: none"> manage new and existing subscription contracts with Customers 	<ul style="list-style-type: none"> YWSC Procedures Quality Operating Standards 	Operations	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 7.3(2)(a)	<ul style="list-style-type: none"> improve collection of revenues from new sales 	<ul style="list-style-type: none"> % collected of new sales 	Current Collections Report	95% collected of new sales	75% collected of new sales	85% collected of new sales	90% collected of new sales	95% collected of new sales
SA 7.3(2)(b)	<ul style="list-style-type: none"> improve collection rate for Accounts Receivable 	<ul style="list-style-type: none"> Quality Operating Standards 	Accounts Receivable Report	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

SERVICES APPENDIX SECTION #	DESCRIPTION OF SERVICE	PERFORMANCE STANDARD	DELIVERABLE	YEARLY TARGET				
				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 7.4	Customer Service							
SA 7.4(1)(a)	<ul style="list-style-type: none"> carry out all Customer service related to new connections 	<ul style="list-style-type: none"> Quality Operating Standards YWSC Procedures 	Operations	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 7.4(1)(b) and (c)	<ul style="list-style-type: none"> receive and handle Customer complaints and requests 	<ul style="list-style-type: none"> Quality Operating Standards Approved Procedures 	Operations	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 7.4(1)(d)	<ul style="list-style-type: none"> analysis of advantages/ disadvantages of disconnection program 	<ul style="list-style-type: none"> no later than 6 months after Starting Date 	Report of Recommendations	100%	100%			
SA 7.4(1)(e)	<ul style="list-style-type: none"> manage Customer service offices 	<ul style="list-style-type: none"> Quality Operating Standards Approved Procedures 	Operations	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

SERVICES APPENDIX SECTION #	DESCRIPTION OF SERVICE	PERFORMANCE STANDARD	DELIVERABLE	YEARLY TARGET				
				FOUR YEAR TARGET	YEAR 1	YEAR 2	YEAR 3	YEAR 4
SA 7.4(2)(a)	• develop Customer services training program	• no later than 180 days after Starting Date	Program	100%	100%			
	• implement program	• Approved Program	Implementation	100%	100%			
SA 7.4(2)(b)(c)	• develop/ submit water and wastewater public information programs	• no later than 90 days after Starting Date	Program Report	100%	100%			
SA 8.1	Bi-monthly Reports							
SA 8.1(1)	• submit bi-monthly reports	• no later than 15 days after each bi-monthly period	Report	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
SA 8.2	Annual Report							
SA 8.2	• submit annual report	• no later than 30 days after the end of each Contract Year	Report	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

Endnotes to the Performance Standards Appendix

METHODS OF CALCULATION

1. Constancy of Supply

The Constancy of Supply will be measured as an average percentage of the time in which 100% of the customers have piped water supply available during the peak season (April through September). The Operator will install sufficient recording devices (flow and or pressure measuring devices) financed from the Operating Investment Fund and installed in locations identified by the YWSC, to record the measurement of flow in the pipeline.

$$\text{Average \% of continuous flow} = \frac{\text{Number of recorded hours of flow for April through September}}{6 \text{ months} \times 720 \text{ hours/month}} \times 100$$