

A	B	C	D	E	F	G	H	I	J	K
Product	WSAA Product Specification No. with Service Provider Specific Requirements	Manufacturer / Supplier	Trade Name	Size Range	Specified Requirements / Minimum Class	City of Gold Coast	Logan City Council	Redland City Council	QUU	Unitywater
1	<p><b>NOTES:</b></p> <p><b>WSAA Product Specification</b> WSAA Product Specifications are available from www.wsaa.asn.au . Section 4 of the WSAA Product Specifications is for "Agency or Project Specific Requirements". The SEQ requirements are specified below.</p> <p><b>Manufacturer/Supplier</b> Products may be sourced from alternative Suppliers than those listed provided that the products are manufactured by a Manufacturer whose name, and the products' trade name, appear on the list.</p> <p><b>Size Range</b> Size ranges need to be read in conjunction with the relevant clauses of the SEQ versions of the WSAA Codes (e.g. Water Supply Code Clause 3.1.1; Sewerage Code Clause 10.6; Pressure Sewerage Code Clause 4.5.3.1; etc.)</p> <p><b>Blank Cells</b> In the five columns under the service provider's names cells that are blank indicate that the product listed on that row are acceptable to the service provider.</p> <p><b>'Use is subject to acceptance by SP'</b> Contact the service provider to determine if the use of this product is acceptable in the proposed circumstance.</p> <p><b>'Flange'</b> All flanges used for pressure systems shall be PN16 or PN35 complying with AS4087.</p>									
2										
3	<b>Category: SEWERAGE PIPES AND FITTINGS - NON PRESSURE</b>									
4	PVC-U pipe and fittings - DWV system	230 4.1 - Plain Wall 4.2 - Elastomeric Seal 4.3 - Stiffness as per 230.2.(c) or as required by SP 4.3 - RRJ @ SBR & EPDM	Iplex Vinidex Pentair Micron Pipelines Pipemakers	DWV PIPE DWV SEWER D-FLO Micron Pipelines Pipemakers	DN 100 150 225 300 375 DN 100 - DN 300	Plain wall only accepted	DN100 at SN6 minimum, DN150 and larger at SN8 and Moulded Fittings at SN6 minimum	DN100 at SN6 minimum, DN150 and larger at SN8 and Moulded Fittings at SN6 minimum Use of Pipemakers product is subject to acceptance by SP	DN100 at SN6 minimum, DN150 and larger at SN8 and Moulded Fittings at SN6 minimum Use of Pipemakers product is subject to acceptance by SP	Use is subject to acceptance by SP  DN100 at SN10, DN150 and larger at SN8 and Fittings at SN8 minimum
5	PVC-U Pressure pipe Sewer using Std DWV Juncions	211 4.1 - PN12 4.2 - Deep Sewers or Minimum Cover 4.3 - Standard Packaging & Delivery 4.4 - Series 1 4.5 - RRJ @ SBR & EPDM	Iplex Vinidex Pentair		DN 150 225 300		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	<b>NOT ACCEPTED BY SP</b>  Mandatory for sewers deeper than 3 metres and for sewers with minimum cover All details to be confirmed with SP
6	DI pipe	202S 4.1 - PN16 4.2 - Soc-Soc & Sp-Sp & FI-FI & FI-Soc/Sp 4.3 - Polyurethane lining 4.4 - Restrained Joints on Zinc/Bitumen coated pipe 4.5 - Zinc/Bitumen coating or Polyurethane coating 4.6 - SBR and EPDM	Von Roll / Reece	Ducpur/ Ecopur	DN 80 - 700	Polyurethane internal protection		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP
7		200 4.1 - PN35 4.2 - Soc-Soc & Sp-Sp & FI-FI & FI-Soc/Sp 4.3 - CAC cement lining 4.4 - Zinc/Bitumen coating 4.5 - SBR and EPDM	Pentair	Tytonxtreme	DN100 - 750	CAC cement lining	<b>NOT ACCEPTED BY SP</b>	<b>NOT ACCEPTED BY SP</b>	Use is subject to acceptance by SP	Tytonxtreme accepted in applications where DI pipe is specified e.g. building over sewer applications  <b>NOT ACCEPTED BY SP</b>
8	Steel pipe	203 4.1 - By design and PN16 min 4.2 - SEQ Code nominal DN's 4.3 - Seal coat not required for sewage 4.4 - Extra protection by design 4.5 - Joints by design to SEQ Code Standards	Pentair	Sintapipe		Internal lining would be required, either Epoxy or Sintaline		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Sintapipe accepted in applications where steel pipe is specified.
9	Polypropylene (PP) pipe	240 4.1 - Type B - ID Series 4.2 - SN10,000 4.3 - RRJ @ SBR & EPDM	Vinidex Iplex	SewerPRO SewerMAX	DN 150 - 900 DN 225 - 600					<b>NOT ACCEPTED BY SP</b>
10	PE pipe - NuSewers	207 4.1 - Minimum PN8 SDR21 PE100 4.2 - Gravity Sewer fully welded 4.3 - Pipes lengths for DN160 and larger with coils accepted for DN110 4.4 - External colour light grey Solid or Striped with Internal colour white or light colour, see POP203 4.5 - PE100 only	Iplex Vinidex PPI Pentair Poly Pipe	POLIplex Sewertech Hi-Vis SewerFlex	DN 110 160 250 315 400 500 630 800 1000 1200		<b>NOT ACCEPTED BY SP</b>	<b>NOT ACCEPTED BY SP</b>	<b>NOT ACCEPTED BY SP</b>	PE is mandatory pipe for reticulation sewers, PE is preferred pipe for larger sewers
11	PE fittings - Moulded	208 4.1 - PN10 preferred 4.2 - Electrofusion or butt welding 4.3 - Couplings and Saddles 4.4 - Bolting Flanges not required. 4.5 - Elastomeric Seals not permitted And Electrofusion fitting Standards AS4129, EN1555, EN12201, EN13244-4	George Fischer/lpex Friatec/Philmac Plasson/Vinidex	Lightfit		Electrofusion fitting to be long type.	<b>NOT ACCEPTED BY SP</b>	<b>NOT ACCEPTED BY SP</b>	<b>NOT ACCEPTED BY SP</b>	
12	PE fittings - Fabricated	216 4.1 - PN10 preferred 4.2 - Electrofusion or butt welding Including Sweep Bends, MH Connectors, Sediment Traps, Tee and Bends for drop pipes and Sweep Junctions.	Vinidex Iplex			Electrofusion fitting to be long type. PE MH connectors shall have Hydrophilic seals both sides of puddle flange.	<b>NOT ACCEPTED BY SP</b>	<b>NOT ACCEPTED BY SP</b>	<b>NOT ACCEPTED BY SP</b>	
13	VC pipe	231 4.1 - DN100/150 Crushing Strength 34, DN225 and larger Class 160 4.2 - Sp-Soc and Sleeve Coupling 4.3 - All seal materials accepted	Hepworth Steinzeug Keramo Naylor/Rocla	Supersleeve Keramo Denlok	DN 100-1200					Use is subject to acceptance by SP May only be used as jacking pipes  Use is subject to acceptance by SP
14	DI IO bends or X Drop fitting	201 4.1 - Sp-Soc ends to serve PVC-U DWV pipe 4.2 - Refer Standard drawings 4.3 - Standard RRJ for accept PVC-U DWV pipe 4.4 - SBR & EPDM 4.5 - Thermal-bonded polymeric coated and lined	Crevet Pentair							Use is subject to acceptance by SP  <b>NOT ACCEPTED BY SP</b>
15	Metal-banded flexible coupling	235 4.1 - Need for adaptor bushes where difference between OD of pipe and ID of coupling greater than 16mm 4.2 - Metal band and bolts shall be min SS316	Flex-Seal	Flex-Seal	Up to DN600					
16	DI mechanical couplings - Non End Thrust Restraint	270 4.1 - PN16 4.2 - All pipe materials except PE 4.3 - Long Series 4.4 - Straight Soc-Soc 4.5 - Stepped coupling require SP approval 4.6 - Flange end not used 4.7 - SBR & EPDM And SS316 bolts, nuts and washers	Pentair Crevet AVK Viking Johnson Derwent DEKS	Gibault Ezigib & Varigib Gibault & Universal Gibault & Universal MaxiFit, QuickFit DEKS FLEXI-GIB	DN 80 to 600				Use of DEKS FLEXI-GIB is subject to acceptance by SP	Use of DEKS FLEXI-GIB is subject to acceptance by SP

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1	Reinforced Concrete pipe	233 4.1 - Class 4 4.2 - Bends not permitted 4.3 - In corrosive soils coat external face with 250 micron DFT High Build Epoxy 4.4 - Lifting holes not permitted 4.5 - 2.0mm PE sheet Factory cast-in liner with Invert overlapped but not welded 4.6 - No additional cover 4.7 - SBR & EPDM	Rocla Humes							Use is subject to acceptance by SP	Use is subject to acceptance by SP
17	Polycrete pipe	No WSA-PS 4.1 - Class to suit design 4.2 - Bends not permitted 4.3 - Compliance with ASTM D 6783, DIN 54815-1 and DIN 54815-2 4.4 - SBR and EPDM Sewer Pipe and Jacking Pipe approved	Iplex Global Pipe	Meyer pipe Al Watani	DN 200 to 2600					Use is subject to acceptance by SP	Use is subject to acceptance by SP Coupling Grade 316 Stainless Steel (min.)
18	GRP pipe and Fittings	205S 4.1 - PN1 4.2 - SN10,000 minimum 4.3 - Bends, T-piece, Y-piece, Saddles, Reducers, Flanges and MH Couplings 4.4 - Soc-Sp RRJ 4.5 - Standard Glass 4.6 - SBR & EPDM	Iplex Global Pipe	Flowtite HOBAS Superlit	DN 300 - 2400 DN 300 - DN 3000	Sewer Pipe	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP Flowtite - open cut only
19			Global Pipe	Hobas Superlit	DN up to 3000 DN 400 - DN 1400	Jacking pipes	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP Hobas - Coupling Grade 316 Stainless Steel (min.) for Pipe Jacking
20	Knife gate valve	266 4.1 - PN16 4.2 - Wafer or Lugged 4.3 - Clockwise closing, rising spindle	Keystone Challenger		Up to DN600	Stainless Steel 316			Use is subject to acceptance by SP		Unitywater accepts PN10 valves for sewage pump station inlet isolation valves
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22											
23											

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1	<b>Category: SEWERAGE PIPES AND FITTINGS - PRESSURE</b>										
24	PVC-M pipe	209 4.1 - PN16 4.2 - Sewer Rising main 4.3 - Series 2 only 4.4 - Cream refer POP203 4.5 - SBR & EPDM	Iplex Vinidex Pentair Micron Pipelines Pipemakers	BLUERHINO Hydro TUF-FLO Micron Pipelines Pipemakers Environmain	DN 100 150 200 225 250 300 & 375 DN 100 - DN 300			Use is subject to acceptance by SP	Use of Pipemakers product is subject to acceptance by SP	Use is subject to acceptance by SP	<b>NOT ACCEPTED BY SP</b>
25	PVC-O pipe	210 4.1 - PN16 4.2 - MRS400 or MRS450 4.3 - Sewer Rising main 4.4 - Series 2 only, Cream refer POP203 4.5 - SBR & EPDM	Iplex Vinidex Micron Pipelines	ApolloBLUE Supermain Micron Pipelines	DN 100 150 200 225 250 300 & 375 DN 100 - DN 375				Use is subject to acceptance by SP	<b>NOT ACCEPTED BY SP</b>	Use is subject to acceptance by SP
26	DI pipe	200 and WSAA TN6 4.1 - All Pressure Classes - see Column G 4.2 - Seal Coat not required for Sewerage 4.3 - Cement Mortar Linings - see Column G 4.4 - All fittings to be Fusion Bonded Polymeric Coated 4.5 - Restraint Joint Seals by approval 4.6 - SBR and EPDM	Pentair	Tytonxcel	DN 100 150 250 300 375 450 500 600 & 750 (not 225)	PN20	Cement Mortar lining of any type is not permitted within 5.0 meters of the HGL at pump stop. Alternative non-corrosive lining or pipe and fittings required.	Cement Mortar lining of any type is not permitted within 5.0 meters of the HGL at pump stop. Alternative non-corrosive lining or pipe and fittings required.	Cement Mortar lining of any type is not permitted within 5.0 meters of the HGL at pump stop. Alternative non-corrosive lining or pipe and fittings required.	<b>NOT ACCEPTED BY SP</b>	<b>PN20 NOT ACCEPTED BY SP</b>
27			Pentair	Tytonxtreme		PN20 for corrosive flows				<b>NOT ACCEPTED BY SP</b>	<b>PN20 NOT ACCEPTED BY SP</b>
28			Pentair Crevet	Tytonxcel		PN35				Use is subject to acceptance by SP	Restraint joint seals not suitable for: PN20 pipe; Aboveground applications; Combining joint restraint and thrust blocks; Epoxy or fusion coated spigots (incl Tytonxtreme pipe); Other manufacturers sockets or other pipe materials.
29			Pentair	Tytonxtreme		PN35 for corrosive flows				Use is subject to acceptance by SP	
30			Pentair	Tytonxcel		Flange Class				Use is subject to acceptance by SP	Cement mortar lining of any type is not permitted at locations where there is a potential of the pipe lining in contact with air/gas continuously or intermittently. At such locations, non-corrosive pipes or metal pipes with non-corrosive linings shall be used.
31			Pentair	Tytonxtreme		Flange Class for corrosive flows				Use is subject to acceptance by SP	All linings of pipes and fittings at such locations shall be non-corrosive.
32	DI fittings	201 4.1 - Soc-Soc & Sp-Sp & FI-FI & FI-Soc/Sp 4.2 - Standard and PN16 fittings 4.3 - Restraint Joint Seals by approval 4.4 - SBR & EPDM	Pentair Crevet Vinidex Derwent Gillies Himgiri Castings/Galvin	Tyton Joint Superlink Galvin	Up to DN750 (not 225) Up to DN750 (not 225) Up to DN750 (not 225) Up to DN750 (not 225) DN100 & DN150 DN80 to DN150	Thermal bonded polymeric coating is the standard material in WSA PS 201 and WSA PS212		Use of Galvin fitting is subject to acceptance by SP	Use of Galvin fitting is subject to acceptance by SP	Restraint joint seals not suitable for: PN20 pipe; Aboveground applications; Combining joint restraint and thrust blocks; Epoxy or fusion coated spigots (incl Tytonxtreme pipe); Other manufacturers sockets or other pipe materials. Use of Restrained Joint Rubber Rings (Tytonlok) subject to acceptance by SP. Use of Galvin fitting not accepted by SP.	
33	Bolts	No WSA-PS Refer Standard Drawing SEQ-WAT-1313-1 etc.				316 Stainless steel bolts	Refer Standard Drawing	Refer Standard Drawing	Refer Standard Drawing	SS316	Grade 316 Stainless Steel (min.)
34	Flange 316 SS off-take clamps	313 4.1 - Type F and R 4.2 - DN size as required 4.3 - Offtake size as required	Crevet Pentair Hawle/Hygrade Water	Wang Haku	DN100 to DN300 DN100 to DN300 DN125 to DN355	Min. PN16, Approved on DI and CI host pipes only, to Pipe manufacturers specifications	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use of Hawle Haku fitting is subject to acceptance by SP	
35	Metal-banded flexible couplings	235 4.1 - Need for adaptor bushes where difference between OD of pipe and ID of coupling greater than 16mm 4.2 - Metal band and bolts shall be min SS316	Flex-Seal	Flex-Seal	Up to DN600		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	<b>NOT ACCEPTED BY SP</b>	<b>NOT ACCEPTED BY SP</b>
36	DI mechanical couplings - Non End Thrust Restraint	270 4.1 - PN16 4.2 - All pipe materials except PE 4.3 - Long Series 4.4 - Straight Soc-Soc 4.5 - Stepped coupling require SP approval 4.6 - Flange end not used 4.7 - SBR & EPDM And SS316 bolts, nuts and washers	Pentair Crevet AVK Viking Johnson Derwent DEKS	Gibault Ezigib & Varigib Gibault & Universal Gibault & Universal MaxiFit, QuickFit DEKS FLEXI-GIB	DN 80 to 600				Use of DEKS FLEXI-GIB is subject to acceptance by SP	Use of DEKS FLEXI-GIB is subject to acceptance by SP	
37	DI mechanical fittings - End Thrust Restraint ( Gripper Type )	271 for DI, 245 for PE 4.1 - PN16 4.2 - DI and PE 4.3 - Short and Long Series 4.4 - Straight and Stepped and Flange Adaptor 4.5 - All DN Range options 4.6 - Flange Figure as specified with SS316 bolts, nuts and washers 4.7 - SBR & EPDM & Nitrile And SS316 bolts, nuts and washers	1- Hawle (Hygrade) 2- AVK 3- Viking Johnson 4- +GF+	1- System 2000 for PE 1- Synoflex PN16 Restraint for AC, PVC, DICL, SCL, PE 2- Supa Plus Restraint for PE 3- Aquafast and Aquagrip Restraint for PE 4- Multi/ joint 3000 Plus restraint type for AC, PVC, DI, SCL, PE	DN 50-300					The use of Synoflex, AquaFast or AquaGrip is subject to acceptance by SP	
38	DI flanged telescopic flexible fitting	No WSA-PS Aligned to WSA_PS 201 and 270 with Flanges to AS 4087 Figure B5 To comply with WSA PS-201S when published	Hawle (Hygrade) Vario WSA PA 12/09	Vario	DN50 - DN200					Use is subject to acceptance by SP	
39	Dismantling joints for Flange Pipe and Fittings	201 4.1 - FI-FI for DJ & FI/Sp for UniFlange 4.2 - Thrust type and non-thrust type minimum PN16 4.3 - Thrust Restraint by Fitting 4.4 - SBR & EPDM	Pentair Viking Johnson			Thrust type and non-thrust type are Flanged to AS4087 PN16. SS316 bolts, nuts and washers. Larger sizes of UniFlange shall be assessed for available Fitting PN vs Pipeline Test Head.					
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1	PE pipe	207 4.1 - PN16 4.2 - Sewer Rising main 4.3 - Coil pipe permitted up to DN125 with Pipe lengths for larger DN 4.4 - Cream refer POP203 4.5 - PE100 only	Iplex Vinidex PPI Pentair Poly Pipe	POLIplex Sewertech Hi-Vis  SewerFlex	DN 40 50 63 90 125 180 250 315 355 450 560 630 800		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	PE is preferred pipe material	PE is preferred pipe material		
41	PE pipe installed by directional drilling	207 Refer above. Install with SS316 tracer wire	Iplex Vinidex PPI		DN 40 50 63 90 125 180 250 315 355 450 560 630 800	PE100 Min. SDR 9 unless specified. "Pipe wall thickness to be designed for installation forces"	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP				
42	PE fittings	208 2(a) - AS/NZS4129 or EN1555 or EN12201 or EN13244 is acceptable 4.1 - PN16 4.2 - Electrofusion and butt weld 4.3 - Couplings, Reducers, End Caps, Bends, Tees, Flange stubs 4.4 - Flanges & SS backing rings to AS/NZS 4087 Fig B5 or B7 4.5 - SBR & EPDM	George Fischer Friatec/ Philmac Plasson			Electrofusion fitting to be long type. Stub flange only to be used for DN450 and larger sizes.	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP				
43	Full face PE flanges	208 4.1 - PN16 4.2 - Electrofusion and butt weld 4.3 - Full Face Flange with SS backing ring 4.4 - Flange standard AS/NZS 4087 B5 or B7 4.5 - SBR & EPDM	Plasson / Vinidex		DN80/DN100	Slotted flanges & backing rings suit both DN80 and DN100 to WSAA 98/50	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP		Use of stub flanges is subject to acceptance by SP		
44	Full face PE flanges	208 4.1 - PN16 4.2 - Electrofusion and butt weld 4.3 - Full Face Flange with SS backing ring 4.4 - Flange standard AS/NZS 4087 B5 or B7 4.5 - SBR & EPDM	Iplex		Up to DN355	Full bore connections	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP				
45			Friatec / Philmac	Frialen	Up to DN180	Metal insert in the flange, backing rings not required	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP		
46			Rodney / Vinidex	Maxi Stub	Up to DN355	Full bore connection	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP			
47	Steel pipe	203 4.1 - MPa 1.6 minimum 4.2 - DN by Design subject to SP approval 4.3 - Seal Coat not required 4.4 - Sintakote minimum for above ground 4.5 - Joint requirements by Design 4.6 - Cathodic Protection by design 4.7 - Standard pressure tests 4.8 - Sintapipe lining 4.9 - SBR & EPDM 4.10 - Sintakote minimum	Pentair	Sintapipe	DN 324 - 813	RRJ unless otherwise approved	Use is subject to acceptance by SP DN610 minimum size	Use is subject to acceptance by SP DN610 minimum size	Use is subject to acceptance by SP DN610 minimum size	Use is subject to acceptance by SP	Use is subject to acceptance by SP		
48	Resilient seated gate valves, thermal bonded polymeric coating	260 4.1 - PN16 4.2 - All End configurations accepted 4.3 - Integral By-pass on DN450 and larger 4.4 - Gear Box on DN600 and larger 4.5 - Anti-Clockwise closing 4.6 - No requirement for spindle cap colour 4.7 - Extension Spindle to WSA PS - 262 4.8 - Spindle Cap 4.9 - SBR & EPDM	AVK	Series 55 & 57	Up to DN600	For PE pipes PE gripper Sluice Valves by Hawle E2 System 2000 or AVK Supa Plus Coupling Series 01/70 or equal Sluice Valves with PE stubs for electrofusion acceptable Some valves may do not need by-pass (check with SEQ SPs) WSAA Appraisal 11/26 Issue 2							
49			Hawle	E 2									
50			Pentair	Series 500									
51			Karon/Challenger	Karon	DN80 - DN600							Use is subject to acceptance by SP	
52			AVFI									Use is subject to acceptance by SP	
53			Betta	BETTA	DN 100 - DN 375							Use is subject to acceptance by SP	Use is subject to acceptance by SP
54	AAP Industries	Maxiflo	DN80 to DN300						Use is subject to acceptance by SP	Use is subject to acceptance by SP			
55	Ball Valves	274 4.1 - PN16 4.2 - Body material: 316 stainless steel 4.3 - Clockwise closing	Pentair		Up to DN50	BSPT threaded connections							
56	GRP Pipe and Fittings	205S 4.1 - PN16 4.2 - SN10,000 minimum 4.3 - Standard DI Fittings 4.4 - Sp-Sp & RRJ Coupling 4.5 - Standard Glass 4.6 - SBR & EPDM	Iplex Global Pipe	Flowtite HOBAS Superlit	DN 300 - 2400 DN 300 - DN 3000	DI Fittings to WSA PS 201 for Tees and Bends			Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP Coupling - Grade 316 Stainless Steel (min.)		
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58													
59													

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<b>Category: SEWERAGE MISCELLANEOUS ITEMS</b>											
1											
60	Maintenance structure covers, frames and risers	290 4.1 - DN600 4.2 - Round Solid Top ( Conc Infill - QUU only ) Watertight Type 'd' 4.3 - 600mm Clear Opening 4.4 - Class B and Class D 4.5 - Rocking of cover in frame not permitted 4.6 - Lifting Key as per Standard Drawings 4.7 - Markings to AS3996 Clause 1.6 (a) to (f). 4.8 - No Hinge 4.9 - Standard Packaging and Delivery 4.10 - QUU require QUU cast in as per Standard Drawings 4.11 - Standard Coating 4.12 - Bolt down for Surcharge and overland flow areas, 4 x M8 (min) SS316 Bolts	Gatic/Milne East Jordan (Havestock) Webforge Tellam Durham Hygrade		Refer Standard Drawings.  Covers with another Service Provider's name not accepted.  Use of Square and Rectangular Covers and Frames subject to SP approved based on Design needs	Concrete Infill Covers NOT ACCEPTED BY SP	Concrete Infill Covers NOT ACCEPTED BY SP	Concrete Infill Covers NOT ACCEPTED BY SP		Concrete Infill Covers NOT ACCEPTED BY SP	
61											
62	Maintenance shaft covers, frames and risers DN<=450	292 4.1-DN<=450 Round 4.2-DN360 min clear opening 4.3-Std Lifting Key 4.4-Markings to AS3996 Clause 1.6 (a) to (f) 4.5-Std packaging 4.6-No specific markings required 4.7-No bolt down required	Smartstream	Smartstream Top Hat-P8HDS	DI-Class D		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP		
63			Smartstream	Smartstream Top Hat-P8PEC	PE - Class B		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP		
64			SYI Foundary/Aymroo	Aymroo	360mm clear opening	CI - Class B	Use is subject to acceptance by SP		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP
65	Maintenance hole lightweight composite lids and frames (non corrosive)	292 4.1-DN>=600 Round 4.2-DN600 min clear opening 4.3-Std Lifting Key 4.4-Markings to AS3996 Clause 1.6 (a) to (f) 4.5-Std packaging 4.6-No specific markings required 4.7-Bolt down for Surcharge and overland flow areas, 2 x M8 min SS316 Bolts	Terra Firma		Composite - Class D		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	
66			ACO SAKU		Composite - Class B	Non-Corrosive MH lids and frames are required for Discharge Manholes and all Manholes for sewers DN300 and larger	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	
67			Prime Composites			Composite - Class B and D		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP
68	Emergency Storage maintenance hole cover	290 4.1 - DN1000 4.2 - Two part round 4.3 - 920mm Clear Opening 4.4 - Class C 4.5 - Rocking of cover in frame not permitted 4.6 - Hand grip lifting points 4.7 - No requirements 4.8 - Central Hinge not required 4.9 - Standard Packaging and Delivery 4.10 - No requirements 4.11 - No requirements 4.12 - 4 x 3/8" Allen Key SS 316 Bolts 4.13 - Nil Seat ring SS 316	Treloar	MC1000-Manway Cover	DN900	Class C Fabricated S/Steel grade 316 ring Nitrile gasket seal			Use is subject to acceptance by SP		
69	Step Irons	314 4.1 - Single Step 4.2 - Comlies with Figure 5.10 of AS1657 4.3 - Steel bar internal with Plastic encapsulation or SS316 4.4 - Plastic encapsulation or SS316 4.5 - No reflectors required 4.6 - No other safety devices required	Miyama/Nextep Amyroo C & C Plastics/Havestock Industrial Steps & Ladders	Miyama Amyroo Posistep Sure-Step	M053		NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	
70	Ladders	315 4.1 - Type D - Fixed Ladder with two Stiles 4.2 - PBT, FRP, SS316, Galvanised Steel or Aluminium 4.3 - Reflectors optional 4.4 - 150mm from CL of rung to MH wall 4.5 - Colour as per material	Miyama/Nextep	Miyama		Fibre reinforced plastics (yellow). Brackets & Fasteners to be SS316 Min. Clearances for Rung Type Ladders as per AS1657 <i>Fixed Platforms, Walkways, Stairways and Ladders - Design and Installation</i>	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	
71			Industrial Steps & Ladders	Add-A-Step		Revised installation procedure WSAA Product Update 1-2011, Subject to WSAA appraisal 5/11 and WSAA Product Alert 1-2010. Brackets as per manufacture specification. Fasteners to be SS316. Bright yellow.	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	
72			Galvanised Steel			Refer to Standard Drawings	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	Use is subject to acceptance by SP	NOT ACCEPTED BY SP
73			Stainless Steel or Aluminium			Refer to Standard Drawings	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	Aluminium not accepted	
74	Maintenance Shaft PVC	321 4.1 - Inlet and Outlet at DN150 to DN225 4.2 - Max depth 4.0 meters FSL to Top of Pipe 4.3 - Configurations as shown in Standard drawings 4.4 - Inlet and Outlet Sewer connection RRJ 4.5 - Cap as shown in Standard Drawings 4.6 - Connect to PCV-U DWV pipe	Aymroo SMS	Aymroo SMS # MS3 DN150 Only	DN225 PVC-U Riser Shaft				NOT ACCEPTED BY SP		

	A	B	C	D	E	F	G	H	I	J	K
	Product	WSAA Product Specification No. with Service Provider Specific Requirements	Manufacturer / Supplier	Trade Name	Size Range	Specified Requirements / Minimum Class	City of Gold Coast	Logan City Council	Redland City Council	QUU	Unitywater
1	Maintenance Shafts PE	<b>322</b> 4.1.a - Inlet and Outlet at DN150 to DN225 for PVC RIGSS 4.1.b - Inlet and Outlet at DN160 to DN250 for PE Nusewer 4.2 - Max depth 5.0 meters FSL to Invert of Pipe 4.3 - Configurations as shown in Standard drawings 4.4.a - Inlet and Outlet PVC Sewer connection RRJ 4.4.b - Inlet and Outlet PE Sewer connection Electrofusion 4.5 - Cap as shown in Standard Drawings	Smartstream	Poo-Pit		RIGSS DN225 PVC riser shaft. Nusewer fully welded with DN250 PE risers and sewer stubs.	Approved for DN 150 to DN225 RIGSS only. Refer Standard Drawing SEQ-SEW-1314-Set for other approved PE MS and MH options	<ul style="list-style-type: none"> <li>Maximum sewer diameter DN225.</li> <li>Maximum depth to invert 2 metres.</li> <li>Minimum Riser diameters:                             <ul style="list-style-type: none"> <li>DN600 where there are drop sewer entries;</li> <li>DN300 where there are drop house connection entries;</li> <li>DN300 where there are 2 or more incoming pipes into the MS base; else</li> <li>DN225 is the minimum under all other circumstances.</li> </ul> </li> </ul>	Approved for DN 150 to DN225 RIGSS only. Refer Standard Drawing SEQ-SEW-1314-Set for other approved PE MS and MH options		
75											
76	Maintenance Shaft Polypropylene	<b>330</b> 4.1 - DN600 4.2 - DN150 and DN225 4.3 - Ribbed Wall 4.4 - Rubber Ring Joints 4.5 - Conc surround no internal Lid 4.6 - DI MH cover and frame	Iplex	EZIpit PA 09/01		Refer Standard Drawings	Approved for DN 150 to DN225 RIGSS only Base is single DN size	<ul style="list-style-type: none"> <li>Maximum sewer diameter DN225.</li> <li>Maximum depth to invert 2 metres.</li> <li>Minimum Riser diameters:                             <ul style="list-style-type: none"> <li>DN600 where there are drop sewer entries;</li> <li>DN300 where there are drop house connection entries;</li> <li>DN300 where there are 2 or more incoming pipes into the MS base; else</li> <li>DN225 is the minimum under all other circumstances.</li> </ul> </li> </ul>	Approved for DN 150 to DN225 RIGSS only Base is single DN size	NOT ACCEPTED BY SP	
77		<b>330</b> 4.1 - DN600 4.2 - DN150 4.3 - Ribbed Wall 4.4 - Rubber Ring Joints 4.5 - Conc surround no internal Lid 4.6 - DI MH cover and frame	SMS	SMS PA 09/08 parts 0 to 5 Code : MS1 Code : MS2 Code : MS5		Refer Standard Drawings	Approved for DN 150 RIGSS only	<ul style="list-style-type: none"> <li>Maximum sewer diameter DN225.</li> <li>Maximum depth to invert 2 metres.</li> <li>Minimum Riser diameters:                             <ul style="list-style-type: none"> <li>DN600 where there are drop sewer entries;</li> <li>DN300 where there are drop house connection entries;</li> <li>DN300 where there are 2 or more incoming pipes into the MS base; else</li> <li>DN225 is the minimum under all other circumstances.</li> </ul> </li> </ul>	Approved for DN 150 RIGSS only	NOT ACCEPTED BY SP	
78	Pre-cast Maintenance Holes	<b>323</b> 4.1.a - DN1000 minimum MH 4.1.b - DN600 minimum MS 4.2 - Configurations as per Standard Drawings 4.3 - No step irons or ladders 4.4 - Elastomeric and Butyl rubber seals accepted 4.5 - Standard aggregates no additional cover 4.6 - No special treatments 4.7 - Base format as per SEQ SP approval 4.8 - Configurations as per Standard Drawings	Humes Rocla Everhard Tellam		MH and MS DN150 and DN225 sewers	Refer Standard Drawings Use for larger Sewer DN's and MH diameters is subject to acceptance by SP	DN600 Pre-cast pre-benched Channel base and Bowl base Maintenance shafts approved as shown in Standard Drawings	Use of MS is subject to acceptance by SP	Use of MS is subject to acceptance by SP	NOT ACCEPTED BY SP	Humes and Rocla pre-cast MHs accepted  Everhard and Tellam MHs NOT ACCEPTED BY SP & Use of MS is subject to acceptance by SP



	A	B	C	D	E	F	G	H	I	J	K
	Product	WSAA Product Specification No. with Service Provider Specific Requirements	Manufacturer / Supplier	Trade Name	Size Range	Specified Requirements / Minimum Class	City of Gold Coast	Logan City Council	Redland City Council	QUU	Unitywater
1	Plastic Maintenance Holes	No WSA-PS Refer details of Type K1 on SEQ-WAT-1314-2	Smartstream		DN150 to DN300 sewers	Refer Standard drawings		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP
79	Vent poles	<b>325</b> Project Specific outcome Product Appraisal Report PA 0906 for RPC	1- RPC Technologies 2- Ingal EPS			Refer Standard Drawings Tapered, Galvanised, height as design preferred colour: heritage or mist green	Accepted option is RPC for a GRP pole @ designed height	Accepted option is RPC for a GRP pole @ designed height	Accepted option is RPC for a GRP pole @ designed height	1- RPC Use is subject to acceptance by SP 2- Ingal EPS -Accepted height 12.0m	1- RPC Use is subject to acceptance by SP 2- Ingal EPS-Use Accepted - Min Height 6.0m
80	Valve box and cover C.I. & D.I.	No WSA-PS Refer details on SEQ-WAT-1305-1 and SEQ-WAT-1305-2	Pentair NIBF Gatic/Milne Tellam			Refer Water Code Standard Drawings for approved Valve Box and Cover					
81	Loose PE sleeving to DI pipe	<b>320</b> Cream Colour to POP203	Pentair Crevet	BLUEBOSS Cream		Mandatory sleeving to all DI pipe	Gravity pipe Grey colour Pressure pipe Cream colour	Gravity pipe Grey colour Pressure pipe Cream colour	Gravity pipe Grey colour Pressure pipe Cream colour		
82	Embedment material - crushed rock	<b>351</b> 4.1 - Single sized 4.2 - Nominal 5 or 7mm									
83	Embedment material - recycled concrete	<b>366</b> 4.1 - Single sized 10mm nominal 4.2 - Moisture Content by design	Queensland Recycling				NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP		NOT ACCEPTED BY SP
84	Concrete-Normal Class	<b>357</b> 4.1 - As follows N20 Thrust Blocks N25 for reinforced embedment 4.2 - Slump as required for placement									
85	Concrete-Special Class (for Maintenance hole and for concrete in aggressive environment)	<b>358</b> 4.1 - SCC40 with Fly Ash/Type SR Portland Cement ratio of 0.25 to 0.30. 4.2 - Slump as required for placement 4.3 - Standard aggregate at 20mm					Cast in-situ MH's Refer details on Standard Drawings Concrete N32 minimum	Cast in-situ MH's Refer details on Standard Drawings Concrete N32 minimum	Cast in-situ MH's Refer details on Standard Drawings Concrete N32 minimum	Calcareous aggregates shall be used Admixtures shall be non-chloride type	
86	Gas release valves	<b>275</b> Refer Appendix B of AS4883 Size of Valve - DN50 BSP, DN50 to DN200 Flanged. Class of valve - PN16 Type of Port - Full and Reduced port Type of Valve - As per design needs Hydraulic Data - By design to AS4883 Appendix B	ARI Flow control Bermad Vent-O-Mat Odour Technologies AVFI ISCO	Vinloc-Smartvalve ARV-3-N Vent Master PX	DN 50 - 200	PN16, Anti Slam as required, Thermal bonded polymeric coating or 316 Stainless steel	DN225 and larger mains to only use Vinloc-Smartvalve	The use of Valmatic Valve is subject to acceptance by SP	The use of Valmatic Valve is subject to acceptance by SP	See drawing SEQ-SPS-1605-1 for standard gas release valve arrangement (manual operation). When QUU requires an automatic gas release valve, Vent Master PX is accepted. Use of others is subject to acceptance.	
87	Non-return valves - Swing check with counterweight lever arm	<b>264</b> Refer Appendix B of AS4794 a) Class - PN16 min - Size by Design b) Medium - Sewage c) Installation - Horizontal d) Spindle - Extended e) Lever and Counterweight minimum with switches and indicators by Design j) Flanged to AS 4087 Figure B5	HMA Valveco Dobbie Dico AVK ---- AVK ---- Challenger Valves AVFI Pty Ltd	Valmatic Swing-flex Dobbie Dico AVK Swing Check Valve 41/25 ---- AVK Swing Check Valve 41/8X ---- Challenger - RSSC AVFI - RSFC	DN 50 - DN 600 DN 80 - DN 900 DN 50 ---- DN 80 - DN 300 ---- DN 80 - DN 375 DN 50 - DN 300	MIN. PN16, Thermal bonded polymeric coating	CoGC only accepts Non-Return Valves with Lever arm and Counterweight - Lever to directly control swing check for open and close <b>CHALLENGER, VALVECO and AVFI NOT ACCEPTED BY SP</b>	SP only accepts Non-Return Valves with Lever arm and Counterweight - Lever to directly control swing check for open and close. Use of valves that do not meet this requirement are subject to case by case approval by SP	Use is subject to acceptance by SP	Use of Challenger and AVFI Valves are subject to acceptance by SP	UW prefers non-return valves without counterweight lever arms. Refer item (e) of the Product Specification column.  One piece NBR Nylon Reinforced Steel disc
88	PVC-U Fabricated Fittings Fibreglass reinforced PVC Type 'D' junctions & fittings	<b>230</b> 4.1 - Plain Wall only 4.2 - Solvent Cement joints for Fabricated assemblies with Elastomeric Seal on Fitting Socket Ends 4.3 - Pipe DN100 @ SN6 min and Pipe DN150 and larger SN8 min. Fittings SN6 min 4.3 - RRJ @ SBR & EPDM	Vinidex Iplex Fabfit M.E. Christensen	Deep Sewer Junction & Reinforced Fittings	DN 100-300	DWV uPVC Moulded Fitting reinforced to SEQ Standards. Type D Junction from moulded fittings welded and fibreglass wrapped. 45 Deg Oblique Jn and Property Connection bends fibreglass wrapped. Fabricator has Certification to Section 6 of AS/NZS 1260 and fittings fibreglass wrapped as shown on the drawings SEQ-SEW-1104-1 and SEQ-SEW-1105-1.				NOT ACCEPTED BY SP	
89	PVC-U SN8 long radius bends	<b>236</b> 1 - SN8 minimum 2.1 - DN150 only, 3.0 meter radius as a formed bend with standard socket and spigot RRJ ends. No ovality variation permitted. 2.2 - DN225 only, 3.0 meters radius preferred, spigot spigot ends as a formed bend or as a fabricated bend with 7.5 degree segments with minimum 100mm segment length on inside springline 2.3 - All long radius bends by Certified fabricators to AS/NZS 1260 Section 6 3 - SBR & EPDM	Vinidex Iplex Tri Underground Fabfit M.E. Christensen	Long radius 3000mm bends	DN150 as bent pipe & DN225 as bent or fabricated pipe	AS/NZS 1260 SN8 DN150 Bends available from 5Deg to 45Deg. DN225 and larger individually fabricated to 45Deg.		Use is subject to acceptance by SP	Use is subject to acceptance by SP	NOT ACCEPTED BY SP	
90	Detectable marker tape	<b>318</b> 4.1 - Tape/Product Colour - Drinking Water = Blue preferred (Green accepted via SP approval). Non-Drinking Water = Purple. Sewerage = Cream 4.2 - Message = " Caution PRODUCT Buried Below " 4.3 - SS 316 tracer wire 4.4 - See 4.1 above	Boddington Tapex								UW accepts only blue detectable marker tape for drinking water
91	Security fencing				AS1725.1 Chain Link Fabric Fencing-powder coated black		Fence details generally to CoGC Standard Drawing 05-05-004	Fence details generally to CoGC Standard Drawing 05-05-004	Fence details generally to CoGC Standard Drawing 05-05-004		
92	Hydrophilic Seal			Hydrotite							
93	Protective lining & coating (including PE lining)	Refer to Mechanical IPAM list	Refer to Mechanical IPAM list	Refer to Mechanical IPAM list	Refer to Mechanical IPAM list	Refer to Mechanical IPAM list	Refer to Mechanical IPAM list	Refer to Mechanical IPAM list	Refer to Mechanical IPAM list	Refer to Mechanical IPAM list	Refer to Mechanical IPAM list
94											
95											

	A	B	C	D	E	F	G	H	I	J	K
	Product	WSAA Product Specification No. with Service Provider Specific Requirements	Manufacturer / Supplier	Trade Name	Size Range	Specified Requirements / Minimum Class	City of Gold Coast	Logan City Council	Redland City Council	QUU	Unitywater
1	<b>Category: WATER SUPPLY PIPES - PRESSURE</b>										
96	PVC-M pipe	209 4.1 - PN16 4.2 - Drinking Water 4.3 - Series 2 only 4.4 - Blue 4.5 - SBR & EPDM	Iplex Vinidex Pentair Micron Pipelines Pipemakers	Reiber Blue Hydro Blue Tuf-Flo Micron Pipelines Pipemakers Enviromain	DN 100 to DN 300 DN 100 - DN 300	Series 2 PN16, Min SN 10 Reiber ring accepted		Use is subject to acceptance by SP	Use of Pipemakers product is subject to acceptance by SP	Use of Micron and Pipemakers pipes are subject to acceptance by SP	<b>NOT ACCEPTED BY SP</b>
97	PVC-O pipe	210 4.1 - PN16 4.2 - MRS400 or MRS450 4.3 - Water main 4.4 - Series 2 only, Blue for Drinking Water and Purple for No-Drinking Water refer POP203 4.5 - SBR & EPDM	Iplex Vinidex Micron Pipelines	Apollo Blue Supermain Micron Pipelines	DN 100 to DN 300 DN 100 - DN 375	Series 2 PN16, Min SN 10 MRS400 or MRS450			Use is subject to acceptance by SP	<b>NOT ACCEPTED BY SP</b>	
99	DICL pipe	200 and WSAA TN6 4.1 - All Pressure Classes - see Column G 4.2 - Cement Mortar Lining 4.3 - All fittings to be Fusion Bonded Polymeric Coated 4.4 - Restraint Joint Seals by approval 4.5 - SBR and EPDM	Pentair	Tytonxcel	DN 225 - 750	PN 20	Seal coat on pipes >= 450 PN20 - Use is subject to acceptance by SP	Seal coat on pipes >= 450 PN20 - Use is subject to acceptance by SP	Seal coat on pipes >= 450 PN20 - Use is subject to acceptance by SP	<b>NOT ACCEPTED BY SP</b>	Seal coat on pipes >= 450 PN20 - Use is subject to acceptance by SP
100			Pentair Iplex/Crevet	Tytonexcel Irontite	Up to DN 750	PN 35	Seal coat on pipes >= 450 PN20 - Use is subject to acceptance by SP	Seal coat on pipes >= 450 PN20 - Use is subject to acceptance by SP	Seal coat on pipes >= 450 PN20 - Use is subject to acceptance by SP	Seal coating required for all sizes	Seal coat on pipes >= 450 Seal Coat requirement is dependant on water quality
101			Pentair	Flange Class	Up to DN 750	Flange Class	Seal coat on pipes >= 450 PN20 - Use is subject to acceptance by SP	Seal coat on pipes >= 450 PN20 - Use is subject to acceptance by SP	Seal coat on pipes >= 450 PN20 - Use is subject to acceptance by SP		Seal coat on pipes >= 450 Restraint joint seals not suitable for: PN20 pipe; Aboveground applications; Combining joint restraint and thrust blocks; Epoxy or fusion coated spigots (incl Tytonextreme pipe); Other manufacturers sockets or other pipe materials.
102	SCL pipe	203 4.1 - MPa 1.6 minimum 4.2 - DN by Design subject to SP approval 4.3 - Seal Coat required for DN450 and larger 4.4 - Sintakote minimum for above ground 4.5 - Joint requirements by Design 4.6 - Cathodic Protection by design 4.7 - Standard pressure tests 4.8 - Sintapipe lining option 4.9 - SBR & EPDM 4.10 - Sintakote minimum	Pentair	Sintakote	OD 114, 168, 219, 257, 273, 324 to 2159.	Minimum thickness DN100 - 4.8mm, >DN100 - 5mm	Accepted for sizes >DN 600	Accepted for sizes >DN 600	Accepted for sizes >DN 600		Seal Coat requirement is dependant on water quality
103	PE pipe	207 4.1 - PN16 SDR11 PE100 4.2 - Drinking and Non-Drinking Water 4.3 - Pipes lengths for DN160 and larger and coils accepted for DN110 and smaller 4.4 - Mains Colour Blue Solid for Drinking Water and Purple solid for Non-Drinking Water with Water Service pipe Black with Blue Stripes for Drinking Water and Purple solid for Non-Drinking Water, refer POP203. 4.5 - PE100 only	Iplex Vinidex PPI Cromford Poly Pipe Pentair	Identi-pipe Advantage/TYCO10	OD 25 32 40 50 63 90 125 180 250 315 355 450 560 630 800	PE100 PN16 Blue colour - solid or striped for drinking water Purple colour - solid for non-drinking water	1 - Used as Water Service pipe at DN25 and DN32 recommend PE80B pipe ( DN50 and DN63 by CoGC) 2 - Used as Drinking Water main at DN63 and DN110 in Dual Water Supply 3 - Used as A+ Non Drinking Water main for Cul-de-sac terminal end at DN63 in Dual Water Supply 4 - Used as Drinking Water main for Cul-de-sac terminal end at DN63 in traditional Drinking Water Reticulation		Use is subject to acceptance by SP	Preferred pipe material for single and dual water supply system Either solid or striped colours are permitted for single and/or dual water supply systems.	
104	Copper pipe	214 4.1 - Annealed for all pipe 4.2 - Natural pipe colour	Port Kembla Copper				Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP		Use is subject to acceptance by SP
105	GRP Pipe and Fittings	205 4.1 - DN300 and larger 4.2 - PN16 minimum 4.3 - SN 10,000 minimum 4.4 - Standard bend forms permitted 4.5 - Sp-Sp RRJ Coupling and FI Joints 4.6 - SBR & EPDM 4.7 - Standard Glass	Iplex	Flowtite	DN 300 - 900	SN10000, PN16	Use is subject to acceptance by SP DI Fittings preferred	Use is subject to acceptance by SP DI Fittings preferred	Use is subject to acceptance by SP DI Fittings preferred	Use is subject to acceptance by SP	Use is subject to acceptance by SP
106			Global Pipe	Hobas							
107					Superlit						
108											
109											



	A	B	C	D	E	F	G	H	I	J	K	
	Product	WSAA Product Specification No. with Service Provider Specific Requirements	Manufacturer / Supplier	Trade Name	Size Range	Specified Requirements / Minimum Class	City of Gold Coast	Logan City Council	Redland City Council	QUU	Unitywater	
1	<b>Category: WATER SUPPLY FITTINGS - PRESSURE</b>											
110	Lightweight DI bends, tees/branches & connectors	201 4.1 - Soc-Soc, Soc-FI & FI-FI 4.2 - PN16 fittings 4.3 - SBR & EPDM	Pentair	Auslite	DN 100 & 150	Lightweight fittings Thermal bonded polymeric coating All DI to be wrapped					Use of Restrained Joint Rubber Rings (Tyton-lok) subject to acceptance by SP	
111	DI bends, tapers, tees/branches, connectors, risers & caps/blank ends	201 4.1 - Soc-Soc, Sp-Sp, FI-FI, Soc-Sp, Soc-FI & Sp-FI 4.2 - Standard and PN16 fittings 4.3 - Restraint Joint Seals by SP approval 4.4 - SBR & EPDM	Pentair Crevet Vinidex Derwent Gillies Himigiri Castings/Galvin	Tyton Joint Superlink	Up to DN750 Up to DN750 Up to DN750 DN100 & 150 DN80 to 150	Thermal bonded polymeric coating All DI to be wrapped			The use of Galvin DI fittings is subject to acceptance by SP	The use of Galvin DI fittings is subject to acceptance by SP	Use of Restrained Joint Rubber Rings (Tyton-lok) subject to acceptance by SP. Use of Galvin fittings not accepted by SP	
112	DI mechanical couplings - Non End Thrust Restraint	270 4.1 - PN16 4.2 - All pipe materials except PE 4.3 - Long Series 4.4 - Straight Soc-Soc 4.5 - Stepped coupling require SP approval 4.6 - Flange end not used 4.7 - SBR & EPDM And SS316 bolts, nuts and washers	Pentair Crevet AVK Viking Johnson Derwent DEKS	Gibault Ezigib & Vari-Gib Gibault & Universal Multigib Gibault & Universal MaxiFit, QuickFit	DN up to 750  DN 80 to 600	Long type All DI to be wrapped			Use of DEKS FLEXI-GIB is subject to acceptance by SP	Use of DEKS FLEXI-GIB is subject to acceptance by SP		
113	DI mechanical couplings - End Thrust Restraint ( Gripper Type )	271 4.1 - PN16 4.2 - DI 4.3 - Short and Long Series 4.4 - Straight and Stepped and Flange Adaptor 4.5 - All DN Range options 4.6 - Flange Figure as specified with SS316 bolts, nuts and washers 4.7 - SBR & EPDM & Nitrile And SS316 bolts, nuts and washers	1- Hawle (Hygrade)  2- +GF+	1- Synoflex PN16 Restraint coupling for AC, PVC, DIDL, SCL  2- Multi joint 3000 Plus restraint type for AC, PVC, DIDL, SCL	DN 50-300					The use of Synoflex is subject to acceptance by SP		
114	DI flanged telescopic flexible fitting	No WSA-PS Aligned to WSA_PS 201 and 270 with Flanges to AS 4087 Figure B5 To comply with WSA PS-201S when published	Hawle (Hygrade) Vario WSA PA 12/09	Vario	DN50 - DN200					Use is subject to acceptance by SP		
115	Pretapped connectors	201 4.1 - Soc-Soc only 4.2 - Standard and PN16 fittings 4.3 - Restraint Joint Seals by approval 4.4 - SBR & EPDM DN100 to DN150 with 4 x 20BSP tappings at 2 per side and DN200 to DN300 1 x 50BSP tapping	Pentair Crevet Vinidex	Readytap Pretapped Superlink	DN 100 to 300 DN 100 & 150 DN 100 & 150	Thermal bonded polymeric coating			<b>SP USE ONLY</b>			
116		246 4.1 - Blue or Black for DW and Purple for NDW	4N Products & Stockbrands	Supertap	DN 100 & 150	Only used on Series 2 PVC pipe Not suitable for DI pipe WSAA Appraisal 12/18			<b>SP USE ONLY</b>		Use is subject to acceptance by SP	
117	Flange 316 SS off-take clamps	313 4.1 - Type F and Type R subject to pipe material 4.2 - Pipe DN by SP approval 4.3 - Off-take DN by approval	Crevet Pentair Hawle/Hygrade Water	Wang Haku	DN100 to DN300 DN100 to DN300 DN125 to DN355	Min. PN16, Approved on DI and CI host pipes only, to Pipe manufacturers specifications	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use of Hawle Haku fitting is subject to acceptance by SP		
118	Resilient seated gate valves, thermal bonded polymeric coating.	260 4.1 - PN16 4.2 - All End configurations accepted 4.3 - Integral By-pass on DN450 and larger 4.4 - Gear Box on DN600 and larger 4.5 - Clockwise for opening 4.6 - No requirement for spindle cap colour 4.7 - Extension Spindle to WSA PS - 262 4.8 - Spindle Cap 4.9 - SBR & EPDM	AVK	Series 57 (light type only with DN100 & 150) Series 36/80 Series 01/71 Series 55	Up to DN400 Up to DN150 Up to DN150 DN450 to 600	Anchor legs approved PE Pipe ended approved Gripper ends approved						
119			Hawle (Hygrade)	E 2 FL Ends E.2 System 2000 A Valve FL & E-F Ends	DN 50 - 200 DN 50 - 300 DN80 - 200	WSAA Appraisal 04/03 WSAA Appraisal 06/07			Use is subject to acceptance by SP			
120			Pentair	Series 500 Auslite Auslite II Bayard	Up to DN600 DN80, 100 & 150 DN100 to DN300 DN 50 - DN200	Anchor Legs approved With PE pipe tails approved		Use of Auslite II is subject to acceptance by SP	Use of Auslite II is subject to acceptance by SP	Use of Auslite II is subject to acceptance by SP		
121			Karon/Challenger	Karon	DN80 - DN600							
122			AVFI								Use is subject to acceptance by SP	
123			Betta	BETTA	DN100 - DN375						Use is subject to acceptance by SP	Use is subject to acceptance by SP
124			AAP Industries	Maxiflo	DN80 to DN300	WSAA Appraisal 11/26 Issue 2				Use is subject to acceptance by SP	Use is subject to acceptance by SP	
125	Butterfly Valves	263 4.1- PN16 4.2- resilient seated wafer, lugged or double flanged	Pentair	Keystone	DN 50-600 for wafer/lugged DN100-1000 double flanged	Stainless Steel 316, Thermal Bonded Polymeric Coated, Body Coatings FC to AS/NZS4158, Certified for contact with drinking water to AS 4020, Valve flanges to comply with AS4087-PN16	Small DN Property Service valves are lugged. Trunk DN valves are double flanged.	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP		
126	Hydrants	267 4.1 - DN80 and DN100 Flanges	AVK Pentair Civil Pipe Supplies	Series 30/00 non-swab and 30/10 for swab Sureflow BETTA normal & Swab		Removable Top Cap & Internal Assembly. Thermal bonded polymeric coating. Purple body and lug for recycled water.	DN80 Flange to A.S.4087 Fig B5 Purple Body and Lug for A+ Recycled water Swabbing type at main ends refer SEQ-WAT-1302-1	DN80 Flange to A.S.4087 Fig B5 Swabbing type at main ends refer SEQ-WAT-1302-1	DN80 Flange to A.S.4087 Fig B5 Swabbing type at main ends refer SEQ-WAT-1302-1	Swab type DN100 flanged to AS 4087 Fig B5. 100mm hydrant riser shall be used. For PE system, additional to DN125, a DN90 PE riser may be used with Plasson slotted flange adaptor set. Use of Betta hydrant is subject to acceptance by SP	All new hydrants are to be 100 mm DI FBCE coated with a removable top cap and internal assembly to allow direct full bore access to the pipeline for swabbing/flushing. All new hydrants shall have 100 mm flanges, 100 mm risers and spring heads.	
127	Valve box & cover C.I.	No WSA-PS Refer details on SEQ-WAT-1305-1 and SEQ-WAT-1306-1	Pentair NIBF (Iplex) Tellam			Bitumen coated to AS 3750.4						
128			Gatic/Iplex									
129	Hydrant box & cover C.I.	No WSA-PS Refer details on SEQ-WAT-1305-1 and SEQ-WAT-1306-1	Pentair NIBF (Iplex) Tellam Gatic/Iplex			Bitumen coated to AS 3750.4						
130	Valve & hydrant boxes (recycled plastics) & DI Covers	No WSA-PS Refer details on SEQ-WAT-1305-1	Pentair Crevet Vinidex			Non-trafficable location only. H - Hydrants V - Valves AV - Air valve	Coloured to SEQ-WAT-1300-1 and SEQ-NDW-2309-1	Coloured to SEQ-WAT-1300-1 and SEQ-NDW-2309-1	Coloured to SEQ-WAT-1300-1 and SEQ-NDW-2309-1	Coloured to SEQ-WAT-1300-1, SEQ-NDW-2122-1 and SEQ-NDW-2125-2	Coloured to SEQ-WAT-1300-1 and SEQ-NDW-2209-1	
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	A	B	C	D	E	F	G	H	I	J	K
1	Product	WSAA Product Specification No. with Service Provider Specific Requirements	Manufacturer / Supplier	Trade Name	Size Range	Specified Requirements / Minimum Class	City of Gold Coast	Logan City Council	Redland City Council	QUU	Unitywater
132	Plastic surround to valve/hydrant boxes	No WSA-PS For sizes refer details on SEQ-WAT-1306-1	Repeat Plastics				Coloured to SEQ-WAT-1300-1 and SEQ-NDW-2309-1	Coloured to SEQ-WAT-1300-1 and SEQ-NDW-2309-1	Coloured to SEQ-WAT-1300-1 and SEQ-NDW-2309-1	Coloured to SEQ-WAT-1300-1, SEQ-NDW-2122-1 and SEQ-NDW-2125-2	Coloured to SEQ-WAT-1300-1 and SEQ-NDW-2209-1
133	Valve extension spindles	<b>262</b> 4.1 - DN100 to DN525/600 4.2 - Length by Design 4.3 - Bitumen coated Spindle support with bearing at 1 per installation minimum and at 1.8m max spacings	Pentair NIBF (Iplex) Forge Bros (Vinidex) Challenger			AS2638 Compliant	Use of Challenger extension valve is subject to acceptance by SP	Use of Challenger extension valve is subject to acceptance by SP	Use of Challenger extension valve is subject to acceptance by SP	Use of Challenger extension valve is subject to acceptance by SP	Use of Challenger extension valve is subject to acceptance by SP
134	Flanges MS	<b>204</b> - Flanges 4.1 - PN16 minimum 4.2 - DN by Design subject to SP approval 4.3 - Flanged 4.4 - Seal coating for DN450 and larger 4.5 - Sintakote minimum for above ground 4.6 - Flanged at PN16 minimum 4.7 - Cathodic Protection by design 4.8 - Sintapipe lining option 4.9 - SBR & EPDM 4.10 - Sintakote minimum	Pentair NIBF (Iplex)			Class 16 Thermal bonded polymeric coating					
135	Flange gaskets and 'O' rings	<b>312</b> 4.1 - PN16 min or as per Design 4.2 - Gasket as Standard with O-ring for required steel flanges 4.3 - Types WA, WC and WG subject to fluid needs 4.4 - DN as per design 4.5 - Hardness as per range in Table 2 of WSA 109-2011 4.6 - Thickness of 3.0mm at PN16 and 1.5mm at PN35									
136	Bolts	No WSA-PS Refer details on SEQ-WAT-1313-1				316 Stainless steel bolts					
137	PE mechanical compression fittings for Small Diameter Water Service pipes	<b>208</b> DN25 to DN50 2.(a) - AS/NZS4129 or EN 1254 acceptable Certification 4.1 - PN16 minimum 4.2 - Mechanical Polyethylene or Copper Alloy both with approved Plastic grippers/olives/thimbles 4.3.1 - Transition - PE to Male R thread to AS ISO 7.1 or Female Rp thread to AS ISO 7.1 4.3.2 - Coupling - PE to PE 4.4 - Flange not used 4.5 - SBR & EPDM	George Fischer Philmac Plasson Elster TOF Talbot Alprene Iplex Pentair		DN25 to DN63	PN16		Use of Iplex and Pentair fittings are subject to acceptance by SP	Use of fittings (other than Elster) subject to acceptance by SP	Use of Iplex and Pentair fittings are subject to acceptance by SP	
138	PE Fittings (for mains and large service pipes)	<b>208</b> DN63 and larger 2.(a) AS/NZS4129 or EN 1555 or EN 12201 or EN 13244 is acceptable. 4.1 - PN16 minimum 4.2 - Electrofusion and butt weld 4.3 - Couplings, tees, bends, elbows/adjustable end caps, stub flanges, saddles, reducers 4.4 - AS 4087 compatibility for mating flange 4.5 - SBR & EPDM	Plasson (Vinidex)		Coupler up to DN710		Accepted for DN63 and DN 110	Accepted for DN63 and DN 110	Accepted for DN63 and DN 110		
139			Georg Fischer	ELGEF Plus Draw - Lock			Accepted for DN63 and DN 110	Accepted for DN63 and DN 110	Accepted for DN63 and DN 110		
140			Cromford	Fusion Provida	Up to DN355	Comply with AS4129, PN16, Electrofusion fittings to be long type. Stub flanges only to be used for sizes DN450 and larger	Accepted for DN63 and DN 110	Accepted for DN63 and DN 110	Accepted for DN63 and DN 110		
141			Friatec / Philmac	Frialen			Accepted for DN63 and DN 110	Accepted for DN63 and DN 110	Use is subject to acceptance by SP	Use is subject to acceptance by SP	NOT ACCEPTED BY SP
142			Agru	Agru	Coupler up to DN630		Accepted for DN63 and DN 110	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP
143	Full face PE flanges (for reticulation sizes)	<b>208</b> DN63 and larger 2.(a) - AS/NZS4129 or EN 12201, EN 13244 or EN 14525 acceptable Certification 4.1 - PN16 minimum 4.2 - Electrofusion or Butt Weld 4.3 - Full Face Flange Adaptor with SS316 backing ring 4.4 - AS 4087 "Figure" compatibility for mating flange 4.5 - Refer "Flange Gaskets and 'O' Rings" above	Plasson / Vinidex		DN80/DN100	DN90 riser with slotted flanges suit both DN80 & DN100 flanged hydrants to WSA 98/50	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP		Use of stub flanges is subject to acceptance by SP
144			Iplex		Up to DN355	Full face full bore connections	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP		Use of stub flanges is subject to acceptance by SP
145			Friatec / Philmac	Frialen	Up to DN180	Metal insert in the flange, backing rings not required	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP
146			Rodney / Vinidex	Maxi Stub	Up to DN355	Full face full bore connections	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP		Use of stub flanges is subject to acceptance by SP
147	DI Restraint fittings (for PE) - couplings, flange adaptors, tees, bends, end caps	<b>245</b> Joining to PE Pipe only 2.(a) - EN 12201, EN 13244 or EN 14525 acceptable Certification 2.(b) - Plastic fittings not permitted 4.1 - PN16 4.2 - SBR & EPDM seal options with AS 4087 "Figure" compatibility for mating flange with WSA PS 312 gasket	Hawle (Hygrade)	System 2000 Synoflex	Up to DN630	Restraint type, Flange adaptor up to DN355 shall be full bore connection				The use of Synoflex, AquaFast or AquaGrip is subject to acceptance by SP	
148			+GF+	Multi/Joint 3000	Up to DN355						
149			AVK	Supa Plus	Up to DN315						
150			Viking Johnson (Philmac)	AquaFast AquaGrip	Up to DN630						

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	Product	WSAA Product Specification No. with Service Provider Specific Requirements	Manufacturer / Supplier	Trade Name	Size Range	Specified Requirements / Minimum Class	City of Gold Coast	Logan City Council	Redland City Council	QUU	Unitywater
1	PE scour Tees	216 4.1 - PN16 minimum 4.2 - Electrofusion/Butt Weld pipe joint with Full Face Flange Adaptor with SS316 backing ring and AS 4087 "Figure" compatibility for mating flange on outlet	Vinidex/Rodney Kingston Bridge/Iplex			Comply with AS4129	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP		
151	Air valves	265 Appendix B AS 4956 Size - DN20 and Larger Class - PN16 Type of Port - Full and Reduced Port Type of Valve - As per Design Hydraulic Data - As per Design Materials - DN20 and DN25 permitted with Plastic body. All other sizes End Connections - BSP Threaded or AS 4087 Flange with "Figure" compatibility to mating Flange	ARI Flow control Bermad Vent-O-Mat AVFI ISCO	DAV-MH Vent Master PX	DN 50 - 200	PN16, Double Orifice as required, Thermal bonded polymeric coating	DN40 and DN50 BSP threaded to have Brass base	DN40 and DN50 BSP threaded to have Brass base. Vent Master/ISCO not accepted by SP	DN40 and DN50 BSP threaded to have Brass base. Use of Vent Master/ISCO is subject to acceptance by SP	Use is subject to acceptance by SP	Vent Master/ISCO not accepted by SP
152	Non-return valves	264 Refer Appendix B of AS4794 a) Class - PN16 min Size - By Design b) Medium - Water c) Installation - Horizontal d) Spindle - Extended e) Lever and Counterweight minimum with switches and indicators by Design j) Flanged to AS 4087 Figure B5	HMA Valveco Dobbie Dico AVK ---- AVK ---- Challenger Valves AVFI Pty Ltd	Valmatic Swing-flex Dobbie Dico AVK Swing Check Valve 41/25 AVK Swing Check Valve 41/8X Challenger - RSSC AVFI - RSFC	DN 50 - 900 DN 80 - DN 900 DN 50 ---- DN 80 - DN 300 ---- DN 80 - DN 375 DN 50 - DN 300	Thermal bonded polymeric coating	CoGC only accepts Non-Return Valves with Lever arm and Counterweight - Lever to directly control swing check for open and close <b>CHALLENGER, VALVECO and AVFI NOT ACCEPTED BY SP</b>	Only use valves with capacity for lever arm to open and close the valve AVK and Dobbie Dico are acceptable <b>CHALLENGER and other valves without lever arm NOT ACCEPTED BY SP</b>	Use is subject to acceptance by SP	Use of Challenger and AVFI Valves are subject to acceptance by SP	UW prefers non-return valves without counterweight lever arms. Refer item (e) of the Product Specification column. One piece NBR Nylon Reinforced Steel disc
153	Pressure reducing valves	268 See Appendix B of AS5081:2008	Bermad Water Technologies Fluid Controls Sales & Installations Plasson Australia Pty Ltd Dorot Australia Pty Ltd Cla-Val Pacific /Challenger	Bermad Singer ---- Plasson C-Valve Dorot 300 Series Cla-Val	DN 40 - 900  DN 25 - 1200	Min PN16, Thermal bonded polymeric coating	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP (Plasson C-valve preferred by Unitywater)
154	Pressure sustaining valves and altitude valves	268 See Appendix B of AS5081:2008	Bermad Water Technologies Fluid Controls Sales & Installations Dorot Australia Pty Ltd Cla-Val Pacific /Challenger	Bermad Singer ---- Dorot 300 Series Cla-Val	DN 40 - 900  DN 25-1200(Sustaining) DN 80 - 1200 (Altitude)	Min PN16, Thermal bonded polymeric coating	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP
155	PE Flex Restraint Fitting (used as puddle flange)		+GF+		Up to DN1600	E-F type follow manufacturer's requirements.	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP		
156	Dismantling joints for Flange Pipe and Fittings	201 4.1 - FI-FI for DJ & FI/Sp for UniFlange 4.2 - Thrust type and non-thrust type minimum PN16 4.3 - Thrust Restraint by Fitting 4.4 - SBR & EPDM	Pentair Viking Johnson			Thrust type and non-thrust type are Flanged to AS4087 PN16. SS316 bolts, nuts and washers. Larger sizes of UniFlange shall be assessed for available Fitting PN vs Pipeline Test Head.					
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158											

	A	B	C	D	E	F	G	H	I	J	K
	Product	WSAA Product Specification No. with Service Provider Specific Requirements	Manufacturer / Supplier	Trade Name	Size Range	Specified Requirements / Minimum Class	City of Gold Coast	Logan City Council	Redland City Council	QUU	Unitywater
1	<b>Category: WATER SERVICES</b>										
159	Tapping bands for DI & PVC pipes	<b>310</b> 4.1 - DN100 to DN300 4.2 - Without Electrical Isolation 4.3 - Female Rp thread to AS ISO 7.1	Pentair Gatic/Milne RMC Elster			Gunmetal - Positive stops	SP USE ONLY		SP USE ONLY		
160			4N Products & Stockbrands	4N	DN 100, 150, 200	Positive stops, coloured blue WSAA Appraisal PA10/18	NOT ACCEPTED BY SP		SP USE ONLY		
161						Gunmetal - Positive stops Only for where E-F saddles are not practicable	NOT ACCEPTED BY SP		SP USE ONLY		NOT ACCEPTED BY SP
162	Tapping bands for PE - mechanical	<b>327</b> 4.1 - Pipe DN63 and larger ( see WSA PS 207 above ) - Off-take ID 20mm minimum 4.2 - PN16 4.3 - Without electrical Isolation 4.4 - Female Rp thread to AS ISO 7.1	4N Products & Stockbrands	4N	DN 63, 90, 125 & 180	Positive stops, coloured black Only for where E-F saddles are not practicable WSAA Appraisal PA10/19	NOT ACCEPTED BY SP		SP USE ONLY		
163			Hawle (Hygrade Water)	Haku	DN 63 - DN 315	Ductile iron lower half		Use is subject to acceptance by SP	SP USE ONLY	Use is subject to acceptance by SP	
164			Hawle (Hygrade Water)	Haku	DN 250 - DN 630	Stainless steel strap lower half		Use is subject to acceptance by SP	SP USE ONLY	Use is subject to acceptance by SP	
165	Tapping saddle for PE - electrofusion	<b>329</b> 329.2.(a) - EN Standards accepted 4.1 - Pipe DN63 and larger ( see WSA PS 207 above ) - Off-take ID 20mm minimum 4.2 - PN16 4.3 - Without electrical Isolation 4.4 - Combined Saddle and Outlet off-take with integral cutter/shut off	Plasson (Vinidex) George Fischer Friatec / Philmac		DN 63, 90, 125 & 180		Accepted for DN63 and DN 110	SP USE ONLY	Accepted for DN63 and DN 110 Use of Friatec product is subject to acceptance by SP	Use of Friatec product is subject to acceptance by SP	Use of Friatec product is subject to acceptance by SP
166			Cromford	Fusion Provida	Up to DN250	Comply with AS4129 PN16	Accepted for DN63 and DN 110	SP USE ONLY	Accepted for DN63 and DN 110		
167	Ferrules - TPFNR Bonnet Ferrule Cocks	No WSA-PS 1 - Compliance with AS 4020, DR to AS 2345, AS 3718 and AS 3688. 2 - PN16 with ability for under pressure tapping 3 - Male R thread to AS ISO 7.1 4 - Outlet fitting PE to WSA PS 207 or Copper to WSA PS 214 5 - DN50 to include 90 degree bend with union connection to AS3688 at outlet	Gatic/Milne Elster RMC			Dezincification resistant material and comply with AS/NZS 3688	SP USE ONLY		SP USE ONLY		
168	Ball valves - Water Service	<b>274</b> 274.2(a) - Compliance with AS 4796 274.2.(b) - Plastic not permitted 4.1 - PN16 minimum 4.2 - Water Supply Property Service 4.3 - DR Copper Alloy 4.4 - Male R thread to AS ISO 7.1 or Female Rp thread to AS ISO 7.1 4.5 - 90 Degree closure with 38mm handle for maintap and 50mm handle for meter. Meter ball valve with Locking open/close function	Gatic/Milne Elster RMC TOF Cimberio/Strongcast	Strongcast		Dezincification resistant material and comply with AS/NZS 3688	Accepted for DN20 & DN 25	Accepted for DN20 and DN25 at meter end of services Use of Strongcast products are subject to acceptance by SP	Accepted for DN20 & DN 25 Use of Strongcast product is subject to acceptance by SP	Use of Strongcast products are subject to acceptance by SP	
169	Union stopcock	No WSA-PS 1 - Compliance with AS 4020, DR to AS 2345, AS 3718 and AS 3688. 2 - PN 16 3 - Male R thread to AS ISO 7.1 or Female Rp thread to AS ISO 7.1 4 - Watermark acceptance	Gatic/Milne Elster RMC			25 mm Dezincification resistant material and comply with AS/NZS 3688	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP		
170	Transition couplers	<b>208</b> Up to DN63 2.(a) - EN 1254 acceptable Certification 4.1 - PN16 minimum 4.2 - Mechanical Polyethylene or Copper Alloy both with approved Plastic grippers/olives/thimbles 4.3.1 - Transition - PE to Male R thread to AS ISO 7.1 or Female Rp thread to AS ISO 7.1 4.3.2 - Coupling - PE to PE not used 4.4 - Flange not used 4.5 - SBR & EPDM	Plasson +GF+ Friatec / Philmac			PE to BSP connections		Use of Friatec product is subject to acceptance by SP	Use of Friatec product is subject to acceptance by SP	Use of Friatec product is subject to acceptance by SP	Use of Friatec product is subject to acceptance by SP
171	Meters - 20 mm (direct metering applications)	No WSA-PS 1 - NSC/NMI Pattern Approved 2 - AS 3565.1 Certified 3 - Integral Strainer 4 - Std Tail Nut with gasket 5 - Colour and Check Valve requirements as per SEQ-SP requirements	Elster Metering RMC Itron	V100 (PSM-T) MRP, Endurance multijet TD8		Purple body for non-drinking water Accuracy Class 2	Meter brand and model subject to acceptance by SP	Meter brand and model subject to acceptance by SP	Meter brand and model subject to acceptance by SP	Use of V200 is permitted. V100 is only accepted for above ground installation. MRP shall only be installed horizontally.	Refer to Unitywater Water Meter Specification
172	Meters - 25 mm (direct metering applications)	No WSA-PS 1 - AS 3565.1 Certified 2 - Integral Strainer 3 - Std Tail Nut with gasket 4 - Colour and Check Valve requirements as per SEQ-SP requirements	Elster Metering RMC	V100 (PSM-T) MRP		Purple body for non-drinking water Accuracy Class 2	Meter brand and model subject to acceptance by SP	Meter brand and model subject to acceptance by SP	Meter brand and model subject to acceptance by SP		Refer to Unitywater Water Meter Specification
173	Meters - 32 & 40 mm (direct metering applications)	No WSA-PS 1 - AS 3565.1 Certified 2 - Integral Strainer 3 - Std Thread for attachment of a AS3565.1 Clause 2.6 (DR) Copper Alloy Oval Flange with two Bolts 4 - Colour and Check Valve requirements as per SEQ-SP requirements	Elster Metering RMC	V100 (PSM-T) MRP		Purple body for non-drinking water Accuracy Class 2	Meter brand and model subject to acceptance by SP	Meter brand and model subject to acceptance by SP	Meter brand and model subject to acceptance by SP		Refer to Unitywater Water Meter Specification
174	Meters - 50 mm and larger (direct metering applications)	No WSA-PS 1 - AS 3565.1 Certified 2 - Std integral Round Flange as per AS3565.1 Clause 2.5 to AS4087 Figure B5 with four Bolts 3 - Colour and Check Valve requirements as per SEQ-SP requirements	Itron Elster RMC Sensus	Woltex H4000 Helix Arad Meistream		Purple body for non-drinking water Accuracy Class 2	Meter brand and model subject to acceptance by SP Magflow meters not accepted.	Meter brand and model subject to acceptance by SP	Meter brand and model subject to acceptance by SP	Above ground installation with external top accessible (basket type) inline strainers are required	
175											

	A	B	C	D	E	F	G	H	I	J	K
	Product	WSAA Product Specification No. with Service Provider Specific Requirements	Manufacturer / Supplier	Trade Name	Size Range	Specified Requirements / Minimum Class	City of Gold Coast	Logan City Council	Redland City Council	QUU	Unitywater
1	Electromagnetic Flowmeters (both direct metering and sub-metering applications)	No WSA-PS 1- Flange to AS4087 Figure 5 2- PN16	Refer to Electrical IPAM List	Refer to Electrical IPAM List			Refer to Electrical IPAM List	Refer to Electrical IPAM List	Refer to Electrical IPAM List	Refer to Electrical IPAM List	Refer to Electrical IPAM List
176	Meters - 20 mm (sub-metering applications)	No WSA-PS 1 - NSC/NMI Pattern Approved 2 - AS 3565.1 Certified 3 - Integral Strainer 4 - Std Tail Nut with gasket 5 - Colour and Check Valve requirements as per SEQ-SP requirements	Elster Metering RMC Itron	V100 (PSM-T) MRP, Endurance multijet TD8		Purple body for non-drinking water Accuracy Class 2	SubMetering Accepted items - DCV: RMC - MRP & PD, Elster - V100, Actaris - 20000-20-DOSG	SubMetering Accepted items - DCV: RMC - MRP & PD, Elster - V100, Actaris - 20000-20-DOSG	SubMetering Accepted items - DCV: RMC - MRP & PD, Elster - V100, Actaris - 20000-20-DOSG	Use of V200 is permitted. V100 is only accepted for above ground installation. MRP shall only be installed horizontally.	Refer to Unitywater Water Meter Specification
177	Meters - 25 mm (sub-metering applications)	No WSA-PS 1 - AS 3565.1 Certified 2 - Integral Strainer 3 - Std Tail Nut with gasket 4 - Colour and Check Valve requirements as per SEQ-SP requirements	Elster Metering RMC	V100 (PSM-T) MRP		Purple body for non-drinking water Accuracy Class 2	SubMetering Accepted items - DCV: Elster V100, RMC WM252 PD, Actaris 25/022/00000	SubMetering Accepted items - DCV: Elster V100, RMC WM252 PD, Actaris 25/022/00000	SubMetering Accepted items - DCV: Elster V100, RMC WM252 PD, Actaris 25/022/00000		Refer to Unitywater Water Meter Specification
178	Meters - 32 & 40 mm (sub-metering applications)	No WSA-PS 1 - AS 3565.1 Certified 2 - Integral Strainer 3 - Std Thread for attachment of a AS3565.1 Clause 2.6 (DR) Copper Alloy Oval Flange with two Bolts 4 - Colour and Check Valve requirements as per SEQ-SP requirements	Elster Metering RMC	V100 (PSM-T) MRP		Purple body for non-drinking water Accuracy Class 2	SubMetering Accepted items: DN40: Elster V100, RMC WM402MRP	SubMetering Accepted items: DN40: Elster V100, RMC WM402MRP	SubMetering Accepted items: DN40: Elster V100, RMC WM402MRP		Refer to Unitywater Water Meter Specification
179	Meters - 50 mm and larger (sub-metering applications)	No WSA-PS 1 - AS 3565.1 Certified 2 - Std integral Round Flange as per AS3565.1 Clause 2.5 to AS4087 Figure B5 with four Bolts 3 - Colour and Check Valve requirements as per SEQ-SP requirements	Itron Elster RMC Sensus	Woltex H4000 Helix Arad Meistream		Purple body for non-drinking water Accuracy Class 2	SubMetering use subject to acceptance by SP Elster H4000, ABB Aquamaster	SubMetering use subject to acceptance by SP Elster H4000, ABB Aquamaster	SubMetering use subject to acceptance by SP Elster H4000, ABB Aquamaster	Above ground installation with external top accessible (basket type) inline strainers are required	
180	Automatic Meter Reading (AMR) Systems (sub-metering applications)		Enware Epitomy Halytech Utiligy Utility Technology				Hard-wired systems only			Use of Utiligy AMR system is subject to acceptance by SP.	
181	Meter boxes	No WSA-PS 1 - Lids Virgin HDPE with Box Virgin and/or regrind HDPE 2 - Lid in Box at Class A to AS 3996 3 - Lid shall have a slip resistant pattern that is certified to AS/NZS4586 for Table 2 ( Class W ) and Table 5 ( Classification R11 ). 4 - Lids shall snap-lock into the box and shall include a metal device for Location and a separate 2mm Galvanised Chain or 2mm SS304 wire rope fixed to the lid and box. 5 - The Lid shall have moulded on it's upper surface Water Meter and shall be coloured as per SEQ-SP's requirements.	Everhard Industries  Draper  Strongcast		368L * 271W * 316D 429L * 271W * 316D  440L * 275W * 280D  427L * 267W * 316D	Blue, Black or Green meter box lids	SubMetering Accepted items: Draper and Everhard, Blue Lid not permitted. Use of Strongcast meter box is subject to acceptance by SP	SubMetering Accepted items: Draper and Everhard Blue Lid not permitted Use of Strongcast product is subject to acceptance by SP	SubMetering Accepted items: Draper and Everhard Blue Lid not permitted Use of Strongcast product is subject to acceptance by SP	Solid purple lid with non-drinking water symbol and lettering for non-drinking water meters. Black or blue lid for drinking water meters. Green lid not permitted. Use of Strongcast box & 368L*271W*316D box is subject to acceptance by SP	Purple lid for non-drinking water meter box Black or green lid for drinking water meter box Blue lid not permitted
182	Single check detector check valves	No WSA-PS 1 - Single Check valve to AS/NZS 2845.1 2 - Fitted with compliant meters as per above	Pentair		DN100 & DN150	Model SC03. Flanged connection & spring set to 50 kPa	<b>NOT ACCEPTED BY SP</b>	<b>NOT ACCEPTED BY SP</b>	<b>NOT ACCEPTED BY SP</b>	Fitted with top accessible (basket type) inline strainer	
183	Double detector check valve, Reduce pressure zone device	No WSA-PS	Pentair Bermad	Cla-Val	DN40, 50, 100 & 150		Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	
184	Pre-assembled dual meter boxes	No WSA-PS 1 - Approved Supplier Assemblies as per SEQ-SP requirements	Elser Tellam		DN20	Drinking & Drinking or Drinking & Non-drinking	Install approved pre-assembled boxes as per SEQ-WAT-1106 set	Install approved pre-assembled boxes as per SEQ-WAT-1106 set	Install approved pre-assembled boxes as per SEQ-WAT-1106 set	Use is subject to acceptance by SP	Use is subject to acceptance by SP
185	Sub-meter assemblies	No WSA-PS 1 - Approved Supplier Assemblies as per SEQ-SP requirements	Elser Tellam All Valve	SMA20M	DN20	Drinking or Non-drinking	Only install approved sub-meter assembly SMA20M as per CoGC Sub-Meter Guideline	Only install approved sub-meter assembly SMA20M as per CoGC Sub-Meter Guideline	Install approved sub-meter assemblies as per CoGC Sub-Meter Guideline Use of SMA20M subject to acceptance by SP	Use is subject to acceptance by SP	See Unitywater Sub-Metering Policy Technical Specification <b>SMA20M NOT ACCEPTED BY SP</b>
186	Dual Check valves for Meter assemblies DN40 and Larger	No WSA-PS 1 - Certified to AS/NZS 2845.1 2 - Non-Testable 3 - PN16 and Flanged to AS4087 Figure B5 4 - Ductile iron body with AS4158 coating and lining or SS316 body or SS304 body if SS316 unavailable	Pentair				SubMetering Accepted items for external attachment to meter assembly : Tyco	SubMetering Accepted items for external attachment to meter assembly : Tyco	SubMetering Accepted items for external attachment to meter assembly : Tyco	Use is subject to acceptance by SP	
187	Backflow prevention device (RPZ)	No WSA_PS AS/NZS 2845	LW Gemmell RMC Pentair	RP03						Any brand with ISO Type 5 product certification to AS2845 is accepted	UW prefers RP03 RPZ
188											
189											



	A	B	C	D	E	F	G	H	I	J	K
1	Product	WSAA Product Specification No. with Service Provider Specific Requirements	Manufacturer / Supplier	Trade Name	Size Range	Specified Requirements / Minimum Class	City of Gold Coast	Logan City Council	Redland City Council	QUU	Unitywater
190	<b>Category: WATER SUPPLY MISCELLANEOUS ITEMS</b>										
191	Detectable marker tape	318 4.1 - Tape/Product Colour - Drinking Water = Blue preferred (Green accepted via SP approval). Non-Drinking Water = Purple. Sewerage = Cream 4.2 - Message = " Caution PRODUCT Buried Below " 4.3 - SS 316 tracer wire 4.4 - See 4.1 above	Boddington Tapex Gemmell								UW accepts only blue detectable marker tape for drinking water
192	Loose PE sleeving to DI pipe	320 Colours are Blue for Drinking Water and Purple for Non Drinking Water to POP203	Pentair Crevet	BLUEBOSS blue		Mandatory sleeving to all DI pipe					
193	PVC - M conduits	209 4.1 - PN12 4.2 - Water Service Conduit 4.3 - Series 1 SCJ 4.4 - White for Water Conduit 4.5 - SCJ only	Vinidex Iplex Pentair	Hydro S1		PN12 Series 1					UW requires uPVC PN9 series 1 with solvent weld joint- Refer drawing SEQ-WAT-1108-1.
194	Embedment material - crushed rock	351 4.1 - Single sized. 4.2 - Nominal 5 or 7mm									
195	Embedment material - recycled concrete	366 4.1 - Single sized 10mm nominal 4.2 - Moisture Content by design	Queensland Recycling				NOT ACCEPTED BY SP	NOT ACCEPTED BY SP	NOT ACCEPTED BY SP		NOT ACCEPTED BY SP
196	Bedding sand	AS/NZS 2566.2 Table G3 for sand.					Main pipe use is subject to acceptance by SP Service pipe use mandatory	Main pipe use is subject to acceptance by SP Service pipe use mandatory	Main pipe use is subject to acceptance by SP Service pipe use mandatory		
197	Concrete	357 4.1 - N20 for Thrust Blocks and Unreinforced embedment. N25 for reinforced embedment 4.2 - Slumps as required for placement				Normal class					
198	Security fencing				AS1725.1 Chain Link Fabric Fencing-powder coated black		Fence details generally to CoGC Standard Drawing 05-05-004	Fence details generally to CoGC Standard Drawing 05-05-004	Fence details generally to CoGC Standard Drawing 05-05-004	Use is subject to acceptance of SP	
199	Plastic marker post	1- Comply with Main Roads specification MRS11.14	Park International			As per SEQ-WAT-1300-2					
200											
201											
202											
203	<b>Category: EMERGENCY STORAGE CHAMBERS</b>										
204	Underground Storage Chamber		Envirotank Pty Ltd	Envirotank - Water/Wastewater Tank	From 4.8m x 1.2m dia. (5kl) to 16.4m x 3.0m dia. (110kl)	Fibreglass construction	Use Accepted - 30 Year Warranty	Use Accepted - 30 Year Warranty	Use Accepted - 30 Year Warranty	Use is subject to acceptance by SP	Use Accepted - 30 Year Warranty
205			Rocla Humes	Concrete Detention System	Conc. Box units (2.4m modules) Conc. Pipe units (2.44m modules)	Reinforced Concrete - Sacrificial layer or Plastilined	CoGC accepts only PE lined Pipe	LCC accepts only PE lined Pipe	RCC accepts only PE lined Pipe		UW accepts only PE lined Pipe
206				Plastic Detention System 'Plastream'	1.5m to 2.25m dia (10kl to 250kl)	PE spirally wound steel-reinforced pipe	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	Use is subject to acceptance by SP	NOT ACCEPTED BY SP
207											
208											
209											