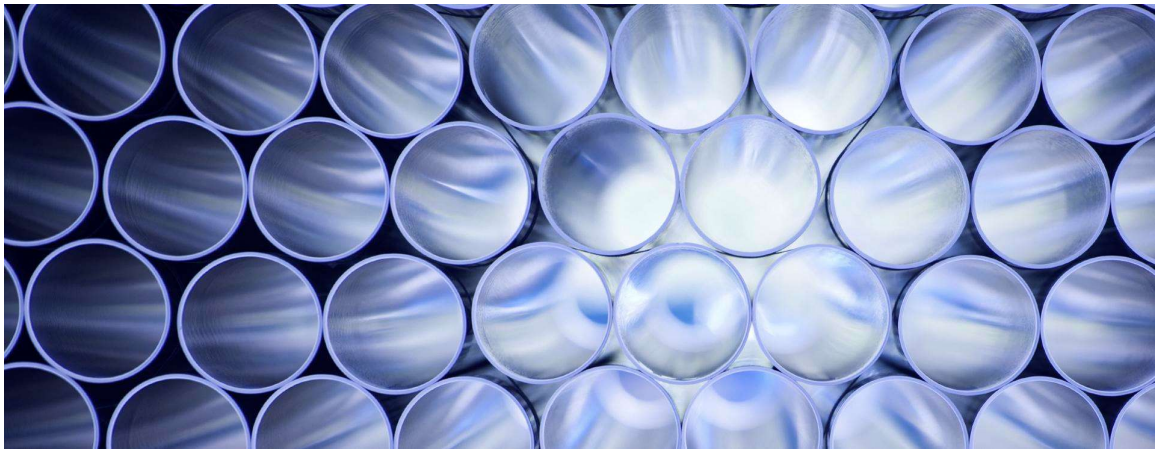
SEQ Water Supply and Sewerage Design & Construction Code (SEQ WS&S D&C Code)

WATER SUPPLY CODE SCHEDULE OF AMENDMENTS

Amendment No.4 – V1.4 – March 2024



Schedule of Amendments to Water Supply Code
(Changes from August 2019 Version 1.3 to March 2024 Version 1.4)

The tables below reflect the amendments to the SEQ Water Supply Code.
NOTE: Errors in formatting of the document and spelling are not noted in this amendment schedule.

Bulk amendments:
- GCCC amended to CoGC
- QUU amended to UU

KEY to changes in the text:
Text that is shown as struck out ~~(for example)~~ has been removed from the SEQ Water Supply Code
Text in **bold** has been added to the SEQ Water Supply Code

SEQ Water Supply Code		
Section	**Clause**	**Change**
PART 0 - GLOSSARY OF TERMS AND ABBREVIATIONS	Acknowledgements	New additions Acknowledgement of Country SEQCode Edition Acknowledgements
	Appendices	Amended
	Work Health and Safety (WHS) Laws	New Section
	National Standard for Construction Work	New Section
	Glossary	Minor updates to some terms
PART 1 - PLANNING AND DESIGN	1.2.5.2	WSAA Change: Inserted New Item (o) climate requirements (e.g. Alpine and/or frost areas)
	1.2.7	Remove first paragraph within clause, as this is a duplication of the fourth paragraph
	2.8.3	Insert informative text: *Where significant operating storage can be provided, pumping station capacity may be reduced provided that the **operating storage** in the service **reservoir** can be replenished within the specified **design period***
	2.12	Remove some repeated text: Once the system has been planned and layout established, a network analysis shall be conducted to demonstrate compliance with at least the following issues:
	3.7	WSAA Change: Replace Table 3.4 and Notes
	4.1	Update to CoGC, LCC and RCC require DI pipes to be used for water mains in carriageways, industrial areas or commercial areas unless otherwise approved by the SP. For dual water supply systems CoGC may also use the specified PE pipes as per 3.1.4 Dual water supply systems.
	4.2.5	WSAA Change: Replace Table 4.1 and Notes
	4.3.1	WSAA Change: The titles of numerous Product Specifications have been amended and links provided.
	4.3.2 (a) and 4.4.2 (a)	LCC and RCC don't allow pre-tapping connections.

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Section	**Clause**	**Change**
PART 1 - PLANNING AND DESIGN	4.3.3	WSAA Change: Replace note with following : AS/NZS 2280 provides for seal coating of cement mortar lined DI pipes subject to compliance with *ISO 16132 Ductile iron pipes and fittings – Seal coats for cement mortar linings*. Insert addition informative text under the revised Note: *The intended purpose of a seal coating is to reduce the contact between the cement mortar lining and the contents of the water main, thereby restricting lime leaching and consequent high pH levels when conveying soft (i.e. low carbonate alkalinity) water, especially in small diameter pipelines where flow rates are low and residence times are lengthy.* *AS/NZS 2280 suggests that consideration should be given to the use of seal coatings where the total alkalinity of the water being conveyed is less than 30 mg/L.* *Many Australian water utilities specify seal coatings as mandatory for pipes up to and including DN 300.*
	4.3.6	Replace the first paragraph with the following: Flanges shall comply with AS/**NZS** 4087. **Select bolting in accordance with Appendix C of AS/NZS 4087. Gaskets shall comply with WSA 109.** The Design Drawings shall specify the type of flange gasket and the tightening sequence (see Figure 4.1). Corrosion protection of bolted connections shall be specified in accordance with 4.8.8 Bolted connections.
	4.3.7	WSAA Change – New Clause **4.3.7. Coatings**
	4.4	WSAA Change: The titles of numerous Product Specifications have been amended and links provided.
	4.4.2	RCC requirements added
	4.5	WSAA Change: The titles of numerous Product Specifications have been amended and links provided. (Changed to 4.5.1) Replace the second Note in Clause 4.5 with the following in 4.5.2: NOTE PIPA Industry Guideline POP007 provides guidelines for the geometric specification of metal backing **rings** ~~flanges~~ suitable for use with PE flange adaptors in the sizes DN 20 through to DN 1000 and flanges in accordance with AS 2129, AS/NZS 4331.1 (ISO 7005-1) and AS/**NZS** 4087.
	4.5 (a) changed to 4.5.2 (a)	change to bullet point (a) is below: (a) For property services, either electrofusion welded tapping saddles or mechanical tapping saddles/bands (only mechanical tapping saddles/bands in LCC) shall be used ~~at all times~~ with new and existing PE pipe. (Refer also to WSA 01 and 5.11 PROPERTY SERVICES) ~~For existing installations of PE pipe, electrofusion fittings shall be used unless this is impracticable, in which case mechanical tapping saddles/bands (only bands in LCC) may be used~~.

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Section	**Clause**	**Change**
PART 1 - PLANNING AND DESIGN	4.5 (c) changed to 4.5.2 (c)	Change to bullet point (c) is below: (c) Acceptable jointing types for PE to PE connections are electro-fusion and/or butt welding and/or mechanical restraint / gripper couplings at all times with new and existing installations. ~~with the following exceptions:~~ ~~(i) valves may be connected to a PE pipeline system with electro-fusion, butt welding or restraint gripper couplings. Flanged valves may connect to the PE main as per (e) of this Clause;~~ ~~(ii) mechanical compression fittings or transition couplings may be used for PE pipe sizes of DN63 and smaller;~~ ~~and~~ ~~(iii) where the use of electro-fusion and butt welding are determined to be impracticable, restraint gripper couplings may be used for rehabilitation installations or connections to existing PE mains.~~
	4.5 (d) changed to 4.5.2 (d)	Add the following text to bullet point (d): The use of hand scrapers is not permitted.
	4.6.1	WSAA Change: The titles of numerous Product Specifications have been amended and links provided.
	4.6.5	WSAA Change: Replace the first paragraph with the following Flanges shall comply with AS/**NZS** 4087.**Select bolting in accordance with Appendix C of AS/NZS 4087. Gaskets shall comply with WSA 109.** The Design Drawings shall specify the class of flange, the type of flange gasket and the tightening sequence (See Figure 4.1). *Gasket types should generally be designated as either full face (FF) or inside bolt circle (IBC) or tongue and grove (TG) or spigot and recess (SR). Gaskets may be single flat sheet or laminated ply or moulded.*
	4.7	WSAA Change: The titles of numerous Product Specifications have been amended and links provided.
	4.8.3	Note changed to the following: All DI fittings and valves are required to be thermal-bonded polymeric coated in accordance with AS/NZS 4158. Other coating systems for fittings may be specified by the Water Agency. The availability of coating systems should be checked with the manufacturer.
	4.8.5	Added informative text and note as follows: *WSAA Materials Fact Sheet No.1 provides information to assist the water industry in its understanding of CP, how it works, where its application may be appropriate and the considerations that shall be taken into account.* *WSAA Material Fact Sheet No 1 can be downloaded through the WSAA Shop.*

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Section	**Clause**	**Change**
PART 1 - PLANNING AND DESIGN	4.8.7 changed to 4.8.7.3	WSAA Change: Replace the last paragraph with the following: *Guidance notes for laying drinking water pipelines in contaminated ground are outlined in the following publications:* a. *Plastics Industry Pipe Association of Australia Polyolefins and PVC Guidelines POP207 Installation of Potable Watermains in Contaminated Ground available at https://pipa.com.au/technical/pop-guidelines/* b. *Water Regulation Advisory Service (WRAS) Information and Guidance Note No 9-04-03: "The Selection of Materials for Water Supply Pipes to be laid in Contaminated Land". This is a freely available document from their website www.wras.co.uk.* c. *Foundation for Water Research Report No. FR 0448 November 1994 available at www.fwr.org.* *UKWIR report "Guidance for the Selection of Water Pipes to be used in Brownfield sites" Report Ref No. 10/WM/03/21 August 2010 available at https://ukwir.org.*
	4.8.8	WSAA Change: Replace the first and second paragraph with the following: Bolted connections using grade 316 (see note below) stainless steel bolts, nuts and washers (and backing **rings** ~~plates~~ if required) of ~~fusion-bonded plastics~~ for PE, stainless steel, copper or **polymeric** coated metallic flanges shall be provided with sleeving for thread protection. Bolted connections using galvanised steel bolts, nuts and washers (and backing rings ~~plates~~ if required) of ~~fusion-bonded plastics~~ shall be provided with additional corrosion protection in the form of an encapsulating system of bolt head and nut sealing caps filled with corrosion prevention priming paste, wrapped with petrolatum tape or with PE sleeving and taped.
	5.1.1	Updated to GDA2020/BCSG02. Replace the last paragraph with the following Horizontal alignment shall be referenced to the Australian Geodetic Datum GDA2020, and, where possible, to local property boundaries. Levels shall be referenced to AHD.
	5.1.5	WSAA Change – New Clause **5.1.5 Survey Control**
	Table 5.3	Notes and References updated
	5.4.1	WSAA Change Insert new item (iv) (iv) minimise potential damage to other assets in the event of a water main failure. Insert new item (F) (F) Where practical avoidance of placement of mains on the fill sides of roads and other Service Utilities.

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Section	**Clause**	**Change**
PART 1 - PLANNING AND DESIGN	5.4.9.1	WSAA Change Replace 2nd paragraph with the following The crossing shall be at 90° to the road, service, etc. if practicable. Otherwise variation shall be subject to approval by the Water Agency and other owner of the infrastructure. Insert new 4th and 5th paragraph Elastomeric seal joints or flanges are not permitted below obstructions. The maximum depth of cover to mains crossing obstructions shall be 1.5 m. The maximum length of obstruction(s) over the main shall be 1.5 m. Where maximum cover or length of obstruction is exceeded, refer to 7.12 INSTALLATION TREATMENTS FOR WATER MAINS . *Subject to approval by the Water Agency, installation of PE mains using trenchless methods below obstructions may be permitted without mechanical protection.*
	5.4.9.2	WSAA Change: Insert new first paragraph The encasing pipe shall be capable of withstanding all installation (e.g. jacking, grouting etc.) and post installation loads (e.g. soil overburden, groundwater, traffic, rail, etc.).
	5.4.13 (f)	Change last sentence of item (f) to the following: Designers and constructors shall take early and due consideration of both the relevant SEQ-SP's requirements and AS 4970 Protection of Trees on Development Sites.
	5.4.14	amend Clause 5.4.14 to be consistent with Note 14 of the drawing SEQ-WAT-1102-1 Removed the following text: Option (a) PE system only shall be used for curved alignments. Replaced CoGC specific text with the following for all SEQ-SPs: Where the PE mains are used then Option (a) is required and where the RRJ pipe such as DICL or PVC pipes are used then Option (c) is required. Added the following text: Cold bending of any PVC-M, PVC-O, PVC-U pipe is not permitted.
	5.4.16.3	Changed first sentence to the following: All new property services shall be installed in accordance with 5.11 PROPERTY SERVICES .

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Section	**Clause**	**Change**
PART 1 - PLANNING AND DESIGN	5.5	WSAA Change: Delete 1st paragraph and replace with the following *The use of trenchless techniques for pipelaying can reduce environmental impact, social costs and at the same time provide economic alternatives to traditional open cut methods of installation, renewal or repair.* *Installations using trenchless techniques such as directional drilling, thrust-boring, micro-tunnelling, pipe-jacking and similar processes as well as "plough-in" type installation methods should be considered on their merits with respect to grade, alignment, ground conditions, obstructions and environmental and economic considerations including externalities.* *Trenchless techniques should be evaluated for alignments:* a. *(a) passing through:* i. *(i) environmentally sensitive areas;* ii. *(ii) built-up or congested areas to minimise disruption and reinstatement; and* iii. *(iii) other areas, particularly where the location is not suitable for trenching e.g. railway and freeway crossings; and* b. *(b) where the impact of the works on existing pavements and trees can be reduced.* Where trenchless technology is adopted for pipelaying or installation of other network infrastructure, the Designer shall prepare a construction specification in consultation with the installer, the pipe manufacturer and the asset Owner.
	Table 5.5	Updated table to include clearances required for QBWSA (Queensland Bulk Water Supply Authority trading as Seqwater)
	5.7	WSAA Change: Insert informative text: *Duplicate mains typically provide operational flexibility, such as in the event of failure of one of two parallel mains, thus preventing loss of supply to an excessive number of customers.* Replace item (a) informative text with the following: *(a) Major roads (particularly in road reserves wider than 30 m, such as roads with more than 4 marked lanes), to avoid long cross-road property service connections.* Insert new last paragraph Hydrants on the duplicate mains shall be provided in accordance with 8.8 Hydrants.
	5.8	WSAA Change: Insert new last paragraph Hydrants, where necessary on the distribution main and/or rider main, shall be provided in accordance with 8.8 Hydrants.
	5.9	WSAA Change: Insert new Heading and text, new product specifications added including links.
	5.9.2	Agreed to include guidance on Managing Coal Tar Coating to Steel mains (potential hazardous material – Asbestos, PAH, PCB) at the bottom of Clause:

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Section	**Clause**	**Change**
PART 1 - PLANNING AND DESIGN	5.10.3	Replace whole clause with the following wording. Chlorination/disinfection assemblies are required on all new mains to enable chlorination/disinfecting, swabbing (where required) and sampling for water quality testing purposes. Chlorination/disinfection assemblies shall consist of the following elements, which shall be shown as part of the design: pitot point (chlorination/disinfectant injection point); swab entry and exit points (as required on specific works); and test point(s). Test points shall be installed at the end of all new mains for the purposes of checking the disinfectant concentration during commissioning and operation of the mains. Hydrants may be used instead of pitot points (chlorination/disinfectant injection points) and test points (as per SEQ-WAT-1410-1). Hydrants may not be used for swabbing mains larger than DN100 (refer to 8.7 SWABBING POINTS). In the case of dual water supply systems , chlorination/disinfection assemblies shall be installed on both drinking water and non-drinking water mains.
	5.11.1	Insert new text after fourth (4th) paragraph as follows: Details of larger water meter supply connections and associated water services shall comply with the details shown on drawing set SEQ-WAT-1111. change to seventh (7th) paragraph of clause: For PE systems, water services shall be connected to the new mains and existing mains with electrofusion fittings or mechanical tapping saddles/bands (only mechanical tapping saddles/bands in LCC). ~~only. For renewals, mechanical tapping fittings can be used when use of electrofusion fittings is not practicable.~~
	5.11.2	Add Property service connections shall not be located within road carriageway, laneway or driveway.
	5.11.3	Water services and meters shall not be located under existing and proposed driveways
	5.11.5	Change first sentence to the following: Conduits shall be provided as shown in the standard drawings SEQ-WAT-1106-1, SEQ-WAT-1107-1, SEQ-WAT-1107-2, SEQ-WAT-1108-1, SEQ-WAT-1109-3 and SEQ-WAT-1110-1.

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Section	**Clause**	**Change**
PART 1 - PLANNING AND DESIGN	5.11.8	Update the second paragraph LCC requires 20 and 25 mm meters supplying a single residential property to be housed in PE meter boxes in ground (refer SEQ-WAT-1110-1 & SEQ-WAT-1110-2). All water meters not supplying a single residential dwelling are to be considered as commercial water meters and shall be installed above ground and within the property boundary. RCC requires property service meters to be located above ground and within the property boundary. UW and UU require 32 mm and larger meters to be installed above ground and within the property boundary. At the end of the clause add All meter boxes shall sit flush with the surrounding surface level.
	5.11.10	Change the third sentence of this clause to the following: Drawings containing irrigation services shall have a notation indicating that all irrigation services shall have backflow prevention devices specified in accordance with AS/NZS 3500.1.
	5.11.13	New Clause 5.11.13 Disusing Water Services
	5.12.5.1	Update to read: Details of underground services and Owner specific clearance requirements shall be obtained from the relevant Owner. If the Owner specific clearance requirements differ from those specified in Table 5.5 then the greater of the two shall apply.
	7.1	WSAA Change: Change first paragraph to the following: The water main installation shall be designed to resist structural failure. The design of flexible pipelines shall be in accordance with Table 2.1 of AS/NZS 2566.1:1998/Amdt 1:2017 and Table 7.1. Details of the final design requirements shall be shown on the Design Drawings **Table 7.1** has been revised.
	7.9.1	Add the requirement of "All valves shall be restrained as shown in SEQ-WAT-1301-1 and SEQ-WAT-1206-1"
	7.9.2.2	Change back to italics for the original WSAA text Include reference to drawing SEQ-WAT-1205-1.
	7.9.5	Refer to 7th edition of "Thrust Restraint Design for Ductile Iron Pipe" publication rather than 6th edition.
	7.12	WSAA Change: New clause added: 7.12 Installation Treatments for Water Mains New Table 7.6 added.
	8.1.4	WSAA Change: Replace last paragraph with the following: Flange dimensions and drillings shall be specified to be in accordance with AS/**NZS** 4087 PN 16. Where pump isolation and non-return valve flanges do not match the pump flanges, adaptors (spool pieces) shall be provided to achieve flange compatibility with AS/**NZS** 4087.

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Section	**Clause**	**Change**
PART 1 - PLANNING AND DESIGN	8.2.4	Delete: ~~Stop Valves may not be required on a 100 mm ID main leading from a 100 mm or 150 mm ID main where no more than 20 residential lots are located within a cul-de-sac or between adjacent stop valves.~~
	8.2.5	Show (ii) as (deleted) Change the clause to Isolating valves shall be: (i) resilient seated gate valves complying with WSA PS-260; or (ii) deleted.
	8.6.1	Add grey highlighting to "For CoGC, RCC and UW unless....."
	8.6.4 Table 8 .4	Remove italicized for "Scours shall be sized in accordance with Table 8.4" Table 8.4 last row: “>375 - ≤750” changed to “≥375 to ≤750”
	8.6.5	Amend Clause 8.6.5 CoGC, LCC and UW will not allow discharge to (ii) or (iii) Delete the following text: ~~Where there is no kerb and channel, the scour shall discharge in a 750 (L) x 300 (W) x 300 (D) concrete apron constructed at a grassed area. See Figure 8.28:~~ ~~NOTES:~~ ~~1.Have a 45° bend come up to 20 mm from the surface as with Kerb and Channel.~~ ~~2.Concrete encased at 45° bend and taper extra concrete down pipe as per detail.~~ ~~3.300 mm long recess to be formed to allow scour to discharge.~~ ~~4.Concrete should be finished level and broom finished.~~
	8.8.8	Amend as follows: (b) Properties other than those that are part of a community title scheme or that have a land area > 800m2 (not inclusive of the handle area for a battle-axe block), shall have a hydrant within 90 m of the furthest point of any existing, proposed or future Class 1 buildings, measured along the street to the property entrance and around the perimeter of the building. Where this requirement cannot be met from hydrants on SEQ-SP mains in public streets, a private fire main shall be provided on the property; Appendix H – Amend Table and remove AllConnex. Put in CoGC, LCC & RCC. Update SEQ-SP hydrant spacing requirements to 80m as per Hydrant Spacing requirements in 8.8.8
	8.10.2	Remove reference to SEQ-WAT-1305-2
	9.2.4	Delete Note: ~~NOTE:~~ ~~Sub-clause (u) is not mandatory.~~
	9.2.4.1	Update Clause heading to state: “Locality plan (refer to SEQ AIS ~~to be replaced by ADAC requirements~~)”
	9.2.4.2	Update Clause heading to state: “Site plan (refer to SEQ AIS ~~to be replaced by ADAC requirements~~)”

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Section	**Clause**	**Change**
PART 1 - PLANNING AND DESIGN	9.2.4.3	Update Clause heading to state: "Tabulations plan (refer to SEQ AIS ~~to be replaced by ADAC requirements~~)"
PART 2 - CONSTRUCTION	13.4	WSAA Change: Replace last sentence with the following: Submit a blasting plan that includes management of the blasting and means to be used to satisfy the requirements of AS 2187.**2 Appendix A** and the authorising parties.
	15.5.1	Refer to clause 5.9.2 regarding working on pipes that may contain hazardous material.
	15.5.4 (e)	Refer to AS/NZS 1554.1**:2014**
	15.8	change to the sixth (6th) and seventh (7th) paragraphs: "Where tapping is specified for PE mains use an authorised electrofusion tapping saddle complying with WSA PS–329, or ~~Where the use of electrofusion tapping saddles at nominated locations on a PE main is determined impracticable by the Project Manager, use~~ an authorised mechanical tapping saddle/band complying with WSA PS–~~327~~310. Add new text as follows: Refer to 5.9.2 General regarding working on pipes that may contain hazardous material. Insert new item (iii) as follows: (iii) where under pressure tapping is performed, use tapping equipment that employs a plug cutter that can retain the PE pipe wall plug within the cutter; and
	15.11	Amend text to read: Sleeve **all** ~~bitumen coated~~ buried ductile iron **items (including DI Thermal Bonded Polymeric Coated items/fittings)** with polyethylene, fixed with PVC tape complying with AS 3680. Install sleeving to AS 3681. Do not allow sleeved items to be exposed to sunlight for more than seven (7) days.
	15.19	Change references WSAA Change: Replace 3rd and 4th paragraph with the following For reticulation PE pipelines sizes ≤ DN 355, use flange/gripper adaptors and full face full bore PE flanges with SS316 backing ring as per **4.5.2 Sizes and configurations item (g)**. *Further information on metal backing **rings** ~~flanges for pipe flange adaptors~~ for use with PE ~~pipelines~~ pipe flange adapters is given in the Plastics Industry Pipe Association Technical Guideline POP007.*
	15.20.1	Refer to AS/NZS 1554.1**:2014**
	15.20.2	Change text at beginning of fourth sentence as follows: Attach flanges ~~by~~**with** one of the following ~~procedures~~**joint configurations**, depending on steel plate thickness:

SEQ Water Supply Code		
Section	**Clause**	**Change**
PART 2 - CONSTRUCTION	15.20.3	WSAA Change Delete the last paragraph and replace it with: For spherical slip-in welded joint pipes < DN 750, consideration should be given to internal corrosion from the water being conveyed. If corrosion control is required this could be achieved by the specification of ≥ 150µm of zinc metal spray with a seal coating applied to the internal socket surfaces; or alternatively utilising a welded collar joint (with no joint deflection), minimal joint gap and ≥ 8mm weld collar thickness; or using CML/FBPE welded joints (CLPEWJ - for ≥324mm OD pipe), Refer to Figure 15.5.
	15.20.4	New Clause 15.20.4.1 General added with the following text: The tape manufacturers recommended procedures shall be followed. In addition, the following requirements shall apply. The tape manufacturer shall also supply the primer and overwrap. Clause 15.20.4.1 renumbered to 15.20.4.2 and items (d) & (e) changed to the following: (d) Remove all loose deposits, mill scale and surface rust by abrasive or bristle blasting to achieve a AS 1627.4. Class 2 ½ preparation on all surfaces to be wrapped and (e) Ensure all surfaces to be wrapped are dry. Clause 15.20.4.2 renumbered to 15.20.4.3 and item (a) changed to the following: (a) Use only the butyl primer supplied by the tape manufacturer; Clause 15.20.4.3 renumbered to 15.20.4.4 changed to the following: As necessary apply the **butyl** mastic filler to the area to be reinstated for the specific joint configurations in accordance with Figures 15.1 to 15.4 inclusive as follows: (a) Use only the **butyl** mastic filler supplied by the tape manufacturer; and (b) Contour any irregular profiles with filler to ensure the tape will not bridge when applied. Clause 15.20.4.4 renumbered to 15.20.4.5 and changed to the following: Apply the **butyl** tape **system** to the area to be reinstated for the specific joint configurations in accordance with Figures 15.1 to 15.4 inclusive as follows: (a) Spirally apply the tape; (b) Ensure at least a 55% overlap between successive layers is achieved; (c) Ensure tape is free of wrinkles and voids; and (d) Ensure the tape overlaps the existing coating by at least 150 mm. **(e) Note some systems use a secondary tape. Where used such tape shall have an overlap of at least 10%.** **(f) Apply a thin PVC overwrap tape to completely cover the butyl tape using at least a 10% overlap.**

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Section	**Clause**	**Change**
PART 2 - CONSTRUCTION	Figure 15.5	WSAA Change Insert new figure 15.5 CML/FBPE WELDED JOINT (CLPEWJ)
	15.20.5.1	Replace this clause with the following text: Prepare the surfaces in accordance with 15.20.4.2 Surface preparation .
	15.20.5.2	Add the following text: Where a butyl primer is used the preheat can be reduced to a minimum of 30°C and 3°C above the dew point.
	15.21	Training requirement changed to normative text
	16.2.2	New Clause Added as follows: 16.2.2 Recycled, reused and waste materials Only use recycled, reused and waste materials for pipe embedment, trench fill or other purposes that conform to an appropriate product specification listed by the Water Agency and/or where prior project-specific Water Agency approval has been given. These materials shall be free from hazardous substances as defined in the Occupational Health and Safety Regulation and the Protection of the Environment Operations (Waste) Regulation. Carcinogenic substances such as asbestos or asbestos containing material in both friable and bonded forms shall not be present in these materials.
	16.6	Change wording, add bold word below: For encasement, **temporarily** set pipes to line and level on bags of natural fibre filled with sand and cement mix or on concrete blocks or saddles cast to the outside diameter of the barrel and located near the socket. At the junction of unencased pipeline and the concrete encased section, provide flexible connections as specified.
	17.1.3	Change first sentence to the following: Ensure trench fill compaction satisfies the requirements of 19.3 COMPACTION TESTING
	19.1	Insert a new line in between (b) and (c): Ensure the water main fire fighting capabilities (FH's, Fire Services) are operational. Also update Visual Inspection with additional wording: Visual inspection, including field confirmation that all FH's and Fire Services are operational/ connected/ reconnected
	19.3.1 (a)	Change item (a) to the following: The Contractor (or the consulting engineer for development works) shall be responsible for all compaction testing and shall arrange for the testing to be carried out by a NATA certified Test Laboratory. **Standard** Compaction tests to be used. Table 19.1 Updated.
	19.4.1	Additional text to the bottom of Cl 19.4.1 The SEQ-SP may at its discretion, require re-testing of newly constructed water infrastructure before SEQ-SP acceptance. *This would typically occur in situations where the water infrastructure has been constructed and pressure tested but not connected to the water network for some time.*

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Section	**Clause**	**Change**
PART 2 - CONSTRUCTION	19.4.3	Add the following text to the end of the third paragraph: to the same parameters as water mains Add the following text after the fourth paragraph: Where a new property service > 50 NB (which includes domestic services, fire services and combined fire/domestic services for Community Title Scheme townhouse developments) is being connected to an existing water main, the property service needs to be tested to the same parameters as the water main, and independently of the water main to avoid potentially over pressurising the existing water main and existing customer's private plumbing. Then alter the following paragraph to state: Where property services are required to be tested separate to mains testing, it is essential to open the maintap at each connection after the pressure test has been completed.
	19.8	Add new Sub Clause to Cl 19 Acceptance Testing, as per below: 19.8 Polyethylene Pipelines Installed Using HDD techniques. An additional 3 m length of pipeline shall be butt-welded to the leading end of the pipe string prior to placement. After the pipeline has been pulled through sufficiently to expose the additional 3 m length, the Superintendent and the Contractor shall jointly examine it. If the pipe length is significantly damaged, as defined below, complete replacement of the entire pipeline will be required. Significant damage is defined as: (a) Scratches deeper than 10% of the pipe wall thickness are evident; and/or (b) Any evidence of plastic failure of the pipe due to tensile forces (e.g. necking or reduction in outside circumference compared with the supplied pipe)
Appendix A	A1	Replace fourth and fifth sentences with the following: If this is the case, then it may be more effective to group components with similar ratings rather than treating the whole site as a single entity. Development of the site infrastructure protective treatments should include stakeholder engagement and legal advice as necessary.
	A3	Sub point (ii) separated into new sub points (ii) and (iii)
Appendix B	TABLE B1	WSAA Change TABLE B1 EQUIVALENT PE PIPE DIAMETER COPPER PIPE AS 1432—2004 has been amended SEQCode also amended the Table
	TABLE B2	WSAA Change TABLE B2 EQUIVALENT PE PIPE DIAMETER COMMONLY SPECIFIED WATER PIPE MATERIALS AND SIZES has been added and amended
Appendix C	C3.1.2	Previously omitted headloss formula included.
Appendix F	F5.5	Note (10) changed to the following: (10) Provide indicator marks at pipe joints in pit so pipe movements can be monitored. Painting to be in accordance with Water Agency's requirements.

SEQ Water Supply Code		
Section	**Clause**	**Change**
Appendix H	Table	WSAA Change Table H.1 replaced with four separate tables for individual states. Amend Table H.3 by noting SEQ-SP hydrant spacing requirements to 80m as per Hydrant Spacing requirements in 8.8
Appendix I	Table I.2 Drinking and Non-Drinking Water Quality Parameter Sample Tolerance Limits	Update text, table and notes regarding drinking and Non-drinking water quality parameter sample tolerance limits Updated the text under table title, above the table to the following: (For non-drinking water purposes, the values shown in the table are for Class A+ recycled water) New table note added and notes updated to the following: (1) The ADWG does not have a recommended value for EC. However, based on taste, Total Dissolved Solids (TDS) < 600 mg/L is regarded as good quality drinking water. TDS can be estimated by multiplying EC by 0.64 (2) The value of pH up to 9.2 is allowed for new cement lined mains (3) PCU = Platinum Cobalt Units (4) NTU = Nephelometric Turbidity Units (5) µS/cm = microsiemens per centimetre (6) mg/L = milligrams per litre (7) cfu/100 mL = colony forming units per 100 millilitres (8) cfu/mL = colony forming units per millilitre (9) MPN/100 mL = Most Probable Number of colony forming units per 100 millilitres (10) The Water Agency may require investigation and further action if the turbidity of sample B exceeds the turbidity of sample A by more than 2 NTU. (11) UW: This criterion is not relevant for hydrant samples.
	Annexure 1	First paragraph, first sentence, Reference to Table 19.2 amended to Table I.2.
	I4.3	Replace the last sentence of the first paragraph with the following: "A flow velocity of >1 m/sec is to be achieved. Tapping bands are not acceptable for flushing and cleaning purposes."

PART 4 - DRAWINGS

All drawings are now located on the SEQ Code website and are not bound into the e-book. Any link from a drawing in the e-book will be directed to the SEQ Code website.

The following amendments have been made on all Non-drinking Water and Drinking Water Drawings.

- GCCC amended to CoGC
- QUU amended to UU
- The following statements have been inserted into the title block.

These changes are not noted in the amendments below

NON-DRINKING WATER SUPPLY DRAWINGS

Drawing Number	Change
SEQ-NDW-INDEX	
SEQ-NDW-2100-1	
SEQ-NDW-2101-1	
SEQ-NDW-2102-1	
SEQ-NDW-2103-1	
SEQ-NDW-2104-1	
SEQ-NDW-2106-1	
SEQ-NDW-2110-1	
SEQ-NDW-2111-1	
SEQ-NDW-2122-1	
SEQ-NDW-2125-1	
SEQ-NDW-2125-2	
SEQ-NDW-2200-1	
SEQ-NDW-2201-1	
SEQ-NDW-2202-1	
SEQ-NDW-2203-1	
SEQ-NDW-2204-1	
SEQ-NDW-2205-1	
SEQ-NDW-2207-1	
SEQ-NDW-2208-1	
SEQ-NDW-2209-1	
SEQ-NDW-2211-1	

DRINKING WATER SUPPLY DRAWINGS	
Drawing Number	**Change**
SEQ-WAT-INDEX	Includes new drawings.
SEQ-WAT-INDEX	Includes new drawings.
SEQ-WAT-1100-1	
SEQ-WAT-1100-2	
SEQ-WAT-1101-2	Update drawing say "SCL Bends (welded)" instead of "MSBW" & correct some typos.
SEQ-WAT-1101-3	Replace should with shall in Notes.
SEQ-WAT-1101-4	**New** fire hydrant coverage standard drawing.
SEQ-WAT-1102-1	Update Note 8 & Note 15 with LCC & RCC requirements.
SEQ-WAT-1103-1	
SEQ-WAT-1104-1	Update Note 5 to read “PE PIPES TO BE CURVED IN ACCORDANCE WITH POP202 REQUIREMENTS (MINIMUM BEND RADIUS OF PN16 PE PIPE IS TO BE NO LESS THAN 15 TIMES PIPE OD)".
SEQ-WAT-1104-2	Update clearances to stormwater pipes as per BCC requirements.
SEQ-WAT-1105-1	Correct typo. Amend Note 10 and 11. Add new LCC requirement.
SEQ-WAT-1105-2	Correct typo.
SEQ-WAT-1105-3	
SEQ-WAT-1106-1	Add new Note 12 for boundary to boundary road crossing.
SEQ-WAT-1106-2	Minor change of typical depth.
SEQ-WAT-1107-1	
SEQ-WAT-1107-2	
SEQ-WAT-1107-3	
SEQ-WAT-1108-1	
SEQ-WAT-1108-2	
SEQ-WAT-1108-3	
SEQ-WAT-1109-1	Drawing title updated. Arrangement revised.
SEQ-WAT-1109-2	Drawing title updated. Arrangement revised.
SEQ-WAT-1109-3	NEW
SEQ-WAT-1110-1	
SEQ-WAT-1110-2	
SEQ-WAT-1111-1	NEW LARGE METER ARRANGEMENT
SEQ-WAT-1111-2	NEW LARGE METER ARRANGEMENT
SEQ-WAT-1111-3	NEW LARGE METER ARRANGEMENT
SEQ-WAT-1111-4	NEW LARGE METER ARRANGEMENT

DRINKING WATER SUPPLY DRAWINGS	
Drawing Number	**Change**
SEQ-WAT-1111-5	NEW LARGE METER ARRANGEMENT
SEQ-WAT-1111-6	NEW LARGE METER ARRANGEMENT
SEQ-WAT-1111-7	NEW LARGE METER ARRANGEMENT
SEQ-WAT-1111-8	NEW LARGE METER ARRANGEMENT
SEQ-WAT-1111-9	NEW LARGE METER ARRANGEMENT
SEQ-WAT-1111-10	NEW LARGE METER ARRANGEMENT
SEQ-WAT-1200-1	
SEQ-WAT-1200-2	
SEQ-WAT-1201-1	
SEQ-WAT-1202-1	Correct typo.
SEQ-WAT-1203-1	Add a Note 10 to say, "UNDER ROAD PAVEMENT, USE CONTINUOUS CONCRETE POUR AS BEAM (NO CONCRETE JOINTS)." Update Note 7 to read "PROVIDE GALVANISED DOWEL PINS WITH GREASE OR 'SUPER SLEEVE' TO ONE END, AS DETAILED IN DESIGN DRAWINGS AT EACH CONCRETE ENCASEMENT JOINT TO PREVENT PIPE DAMAGE.
SEQ-WAT-1204-1	
SEQ-WAT-1205-1	Correct typo.
SEQ-WAT-1206-1	A new note for valve restrained. Amendment to show split view for flanged valve between PE and Non-PE.
SEQ-WAT-1207-1	
SEQ-WAT-1208-1	Correct typo.
SEQ-WAT-1209-1	Correct typo.
SEQ-WAT-1210-1	End cap should change to PE.
SEQ-WAT-1211-1	Correct note numbering. Note 9 amended to show requirement between PE and non-PE pipes. Note 11 amended to show LCC & CoGC requirements. Note 12 amended to incorporate the requirements in CL 7.6.
SEQ-WAT-1212-1	LCC PREFERENCE FOR WATER MAIN (INSIDE ENCASING PIPE) IS DICL. Correct drawing references.
SEQ-WAT-1213-1	Incorporate the requirements in CL 7.6 LCC PREFERENCE FOR WATER MAIN (INSIDE ENCASING PIPE) IS DICL. Correct drawing references.
SEQ-WAT-1214-1	Amend Note 5 to clarify CoGC & RCC requirements for annulus grouting.
SEQ-WAT-1300-1	Amend typo. Note 5 and 15 amended to add LCC requirement.
SEQ-WAT-1300-2	Amend typo. The list of suppliers removed.
SEQ-WAT-1301-1	Add the new Note 15 to amend the requirement of concrete surround in road pavement. Add the new Note 16 to read as "All valves shall be restrained" .
SEQ-WAT-1302-1	Change the minimum hydrant top clearance from 75mm to 100mm. Add the new Note 11 to amend the requirement of concrete surrounds in road pavement.

DRINKING WATER SUPPLY DRAWINGS	
Drawing Number	**Change**
SEQ-WAT-1303-1	Add a new note to read as "All valves shall be restrained" as shown in SEQ-WAT-1206-1, SEQ-WAT-1301-1".
SEQ-WAT-1303-2	
SEQ-WAT-1304-1	Added the new Note 13 for alternative vent format.
SEQ-WAT-1305-1	Note 8 amended to add reference to footpath locations as well as changed 50mm to 20m for box top above FSL.
SEQ-WAT-1306-1	New note "Hydrant boxes with hinged lids not allowed."
SEQ-WAT-1307-2	
SEQ-WAT-1307-3	Change depth of sump pit to 400mm Change text on Type B detail from "TYPICAL SEWERAGE MANHOLE REFER SEQ-SEW-1307-1" to "Storage M.Hole (for pump out) - design as per typical sewerage M. Hole refer SEQ-SEW-1307-1".
SEQ-WAT-1308-1	Amend Note 7 to include CoGC requirements. Added the new Note 13 for sump requirements.
SEQ-WAT-1308-2	Added the new boxed note for CoGC requirements.
SEQ-WAT-1309-1	Added the new Note 12 for sump requirements. Added the new Note 13 for RCC requirements. Not applicable to LCC. Note 2 amended to include more drawing references.
SEQ-WAT-1309-2	Changed all Design Note to Notes D##. Added the new Note 6 for RCC requirements. Not applicable to LCC.
SEQ-WAT-1309-3	Amended sump sizes and requirements. Not applicable to LCC.
SEQ-WAT-1309-4	Amended sump sizes and requirements. Amended lid reference. Not applicable to LCC.
SEQ-WAT-1310-1	Amend some CoGC requirements; Make the drawings SEQ-WAT-1310-1 to 3 not applicable to LCC.
SEQ-WAT-1310-2	Amend some CoGC requirements; Make the drawings SEQ-WAT-1310-1 to 3 not applicable to LCC.
SEQ-WAT-1310-3	Amend some CoGC requirements; Make the drawings SEQ-WAT-1310-1 to 3 not applicable to LCC.
SEQ-WAT-1310-4	Added the new Note 14 for CoGC and LCC regarding davit base requirements.
SEQ-WAT-1310-5	NEW PRV DRAWING
SEQ-WAT-1310-6	NEW PRV DRAWING
SEQ-WAT-1310-7	NEW PRV DRAWING
SEQ-WAT-1310-8	NEW PRV DRAWING
SEQ-WAT-1310-9	NEW PRV DRAWING
SEQ-WAT-1310-10	NEW PRV DRAWING
SEQ-WAT-1310-11	NEW PRV DRAWING
SEQ-WAT-1311-1	
SEQ-WAT-1311-2	

DRINKING WATER SUPPLY DRAWINGS	
Drawing Number	**Change**
SEQ-WAT-1312-1	Update Note 8A to read: "ALL DI PIPES SHALL BE PROVIDED WITH A WEATHER RESISTANT COATING e.g. UV STABILISATION OR APPROVED EQUIVALENT ALTERNATIVES WITH PRODUCT MARKERS AT EACH SOCKET."
SEQ-WAT-1313-1	Correct typo. Notes 3 & 5 and Details B, C & D amended to include the requirement of sleeving.
SEQ-WAT-1314-1	Changed clearance to 600. Not applicable to LCC.
SEQ-WAT-1315-1	Not applicable to LCC.
SEQ-WAT-1316-1	Not applicable to LCC.
SEQ-WAT-1317-1	Not applicable to LCC
SEQ-WAT-1318-1	
SEQ-WAT-1400-1	
SEQ-WAT-1401-1	
SEQ-WAT-1402-1	
SEQ-WAT-1403-1	
SEQ-WAT-1404-1	
SEQ-WAT-1405-1	
SEQ-WAT-1406-1	Minor editorial change for Note 3.
SEQ-WAT-1407-1	
SEQ-WAT-1408-1	
SEQ-WAT-1409-1	
SEQ-WAT-1410-1	