

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

# **CONSULTATION REPORT**

January 2013



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# 1. Overview

Chapter 4A of the *South-East Queensland Water (Distribution and Retail Restructuring) Act 2009* requires the SEQ water service providers to develop a SEQ Design and Construction (D&C) Code<sup>1</sup> that “provides for technical standards relating to the design and construction of water [supply and sewerage]<sup>1</sup> infrastructure in the SEQ region”.

Section 99BA of the *Act* sets out the particular matters to be covered by the Code<sup>2</sup>.

## 99BA Particular matters for code

- (1) The SEQ design and construction code may provide for design and construction standards for water infrastructure and water infrastructure works, including, for example, standards about any of the following—
- (a) meters and connections to water infrastructure;
  - (b) gravity and pressure pipelines;
  - (c) demand and peaking factors for flow of water and wastewater;
  - (d) location of access chambers;
  - (e) reservoirs, pump stations and wastewater pump stations;
  - (f) water reticulation and distribution pipelines;
  - (g) wastewater pipelines;
  - (h) recycled water supply.

Currently, when developers, engineers, authorities, consultants and retail distributors are planning to design, and connect into, existing water supply and sewerage infrastructure across SEQ, there are hundreds of documents and codes they need to comply with. The introduction of one consolidated set of technical standards will streamline the design of water supply and sewerage infrastructure for the whole of SEQ.

The Code applies to reticulation network assets (pipes up to 300 mm diameter). It gives guidance for large diameter trunk infrastructure. It does not apply to the design and construction of treatment plants.

The draft Code was advertised for public comment on 9 June 2012. The documentation was freely available on the internet ( [www.seqcode.com.au](http://www.seqcode.com.au) ) and in hardcopy form at the offices of the SEQ water service providers. On 17 July 2012 the consultation period closed. Submissions were received from 24 individuals/organisations.

This report summarises the common themes from the submissions and the responses by the SEQ water service providers to those issues.

<sup>1</sup> Feedback from industry (particularly in relation to the website) indicated a preference to include the words ‘Water Supply and Sewerage’ into the title in order to provide clarity as to what is covered by the technical standards in the Code, and by default what is not covered by the Code.

<sup>2</sup> Hereafter the word ‘Code’ refers to the SEQ Water Supply and Sewerage Design and Construction Code.

## 2. Purpose

The purpose of this report is to respond to the issues raised in the consultation period about the draft Code by the individuals/organisations who made submissions, and to indicate how the Code has been amended in response to those submissions.

The detail in the submissions were captured in about 550 individual comments/requests. Many of these comments were further subdivided into greater detail. This report summarises the responses from the SEQ water service providers to the general themes raised. It does not address every issue individually.

## 3. Chapter 4A of the *Restructuring Act*

Chapter 4A of the *Restructuring Act* is relatively short in word length. It has four parts: General provision about code; Process for making or amending code; Minister's powers in relation to code; and Miscellaneous.

Key clauses describe public notification; free availability<sup>3</sup>; consideration of all submissions; the approval requirements before the Code can be brought into effect; limitations on the ability to amend the Code without further public consultation; and the Minister's powers to make directions; etc.

The service providers have at all times satisfied the requirements of Chapter 4A of the *Restructuring Act*. For example, the Code was advertised for 10 days longer than the 28 days mandated by the *Restructuring Act* and 900+ individuals/organisations were advised by e-mail in the week prior to advertising and again before the submission period ended.

The service providers have acted in good faith to understand and if possible adopt the recommendations of the individuals/organisations that made submissions. Some submissions were clarified over the telephone.

At key points in the development of the Code the service providers have sought to communicate with members of the SEQ water industry through open presentations and e-mails to 900+ individuals/organisations.

## 4. The Code and other water reform initiatives

The Code sits within a hierarchy of documents. Figure 1 (on the next page) places the Code in relation to other key documents. Earlier versions of Figure 1 (with only minor differences) were presented to the water industry on a number of occasions including amongst the documentation that was advertised for public submissions.

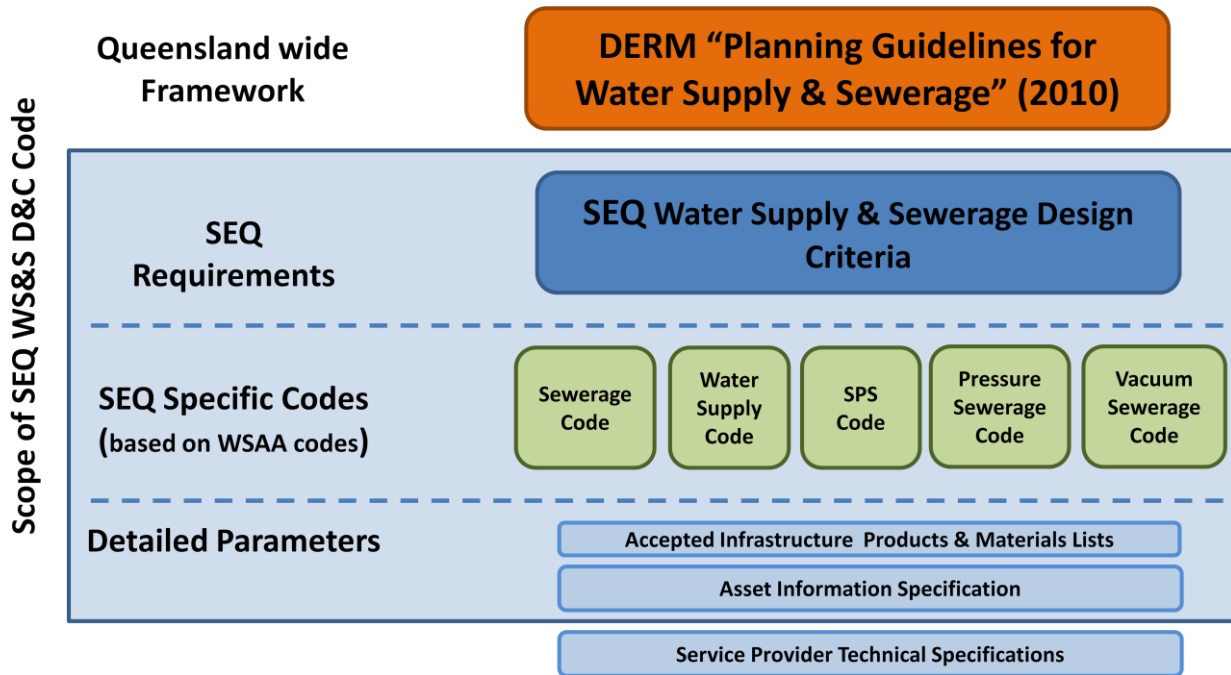
From time to time the State Government and/or regulators will mandate other documents and initiatives that may impact on the technical requirements set out in the Code, or simply cross-reference the Code. The service providers see it in their interest to keep the Code up-to-date and relevant. It is also in the service provider's interest to keep the SEQ water industry informed of the implications changes that impact on the technical requirements set out in the Code.

Industry consultation will not end when the Code is approved and brought into effect.

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<sup>3</sup> Subject to copyright restrictions held by third parties.

Figure 1 – Document hierarchy



## 5. Development of the Code

When the *Restructuring Act* was legislated in 2009, with its Chapter 4A setting out the requirement for the Code, there was at that time many different technical standards in effect. These standards had been inherited from the different pre-amalgamation Councils.

Three years later, when the draft Code was advertised in June 2012, the three new service providers had undertaken some consolidation of their own technical standards. The draft Code that was advertised on 9 June 2012 then proposed a significant further consolidation of the standards then in effect. Nevertheless a common theme in the submissions from industry was that further consolidation would be desirable. (See also Section 7.2.)

Prior to advertising the draft Code staff from the then three SEQ service providers met in regular workshops to agree on technical standards. The first decision was to base the Code on the five WSAA National Codes and to limit the scope of the supporting documents to what was needed by industry and was achievable by the deadline of 1 July 2013.

The workshops compared and contrasted the different text amendments to the WSAA National Codes that were then in effect across SEQ. Workshop participants sought to find common ground on best appropriate practice and to minimise variations.

The workshops then focused on applicable standard drawings. This work was particularly important because since the release of the new WSAA Water Supply Code in 2011, WSAA has decided that standard drawings will no longer be included in revisions of the National Codes. Consensus on best appropriate practice and minimising variations was again in sharp focus.

Following receipt of the submissions on the draft Code, representatives from the then five service providers had a further series of workshops to go through each submission line by line and drawing annotation by drawing annotation. All submissions were treated with due respect.

The Code as it is has now been revised corrects the errors that crept in to the draft version that was advertised. It does represent best appropriate practice, and does faithfully address the issues raised in the submissions.

## 6. Consultation

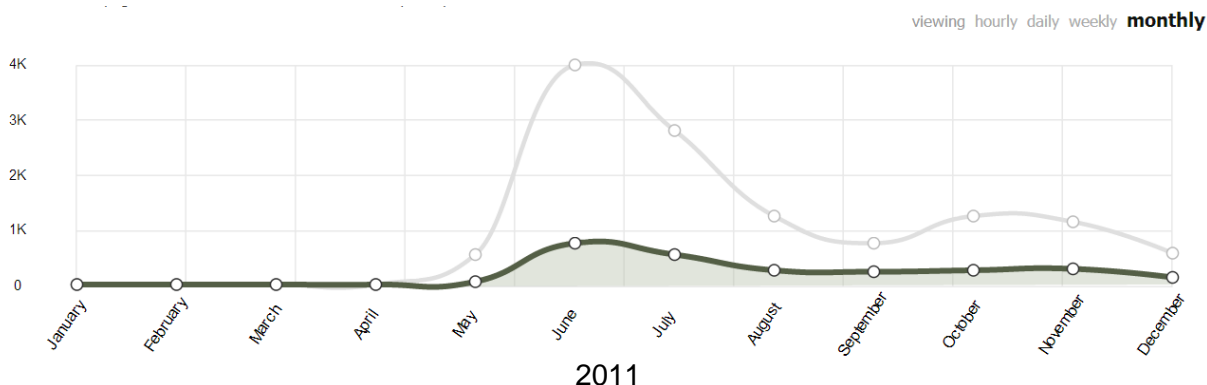
The SEQ water service providers made a significant effort to make known to the water industry that the Code was being developed and that submissions were welcome.

Consultation included the following.

1. One industry briefing in February 2012.
2. One briefing of industry associations in the week prior to the 38 day consultation period commencing.
3. Advertisements in seven newspapers operating in SEQ at the start of the 38 day consultation period. (Refer to Appendix B.)
4. A website with all the key documentation readily accessible.
5. Hardcopies of the documentation available for viewing at the offices of the SEQ water service providers.
6. E-mails sent to 900+ individuals/organisations with a potential interest in the Code at the start of the 38 day consultation period.
7. Five industry/public briefings across the SEQ region during the consultation period.
8. A follow-up reminder e-mail to 900+ individuals/organisations a week before the consultation period closed.

Figure 2 shows visits during 2011 to the website that was developed to allow industry to freely access the Code. The top line shows total views in each month. The lower line shows the total number of unique visitors.

**Figure 2 – Website visits**

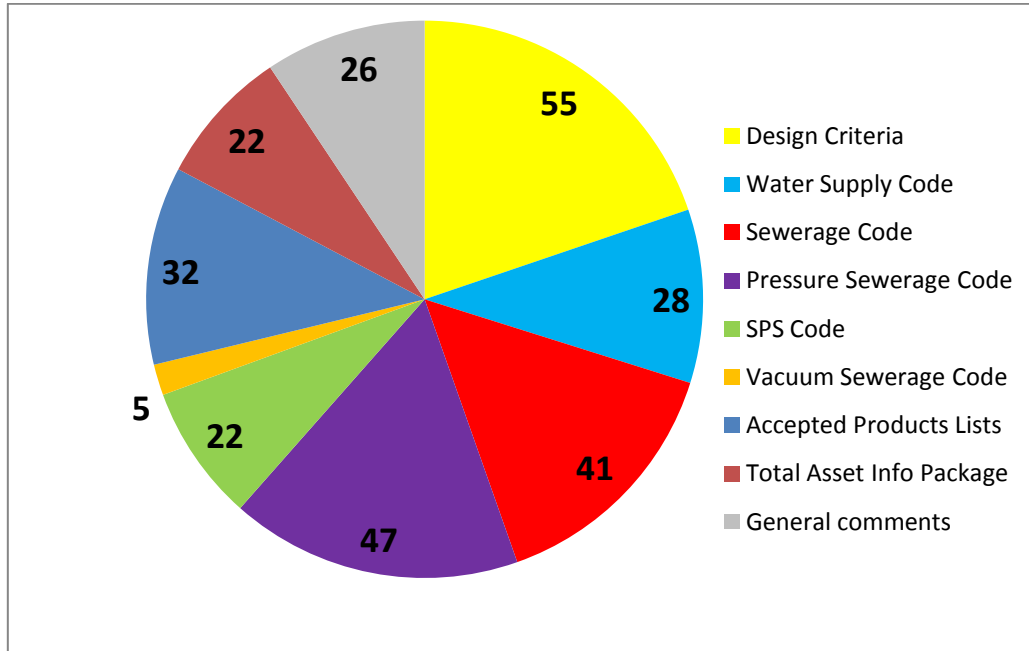


## 7. Common themes from submissions

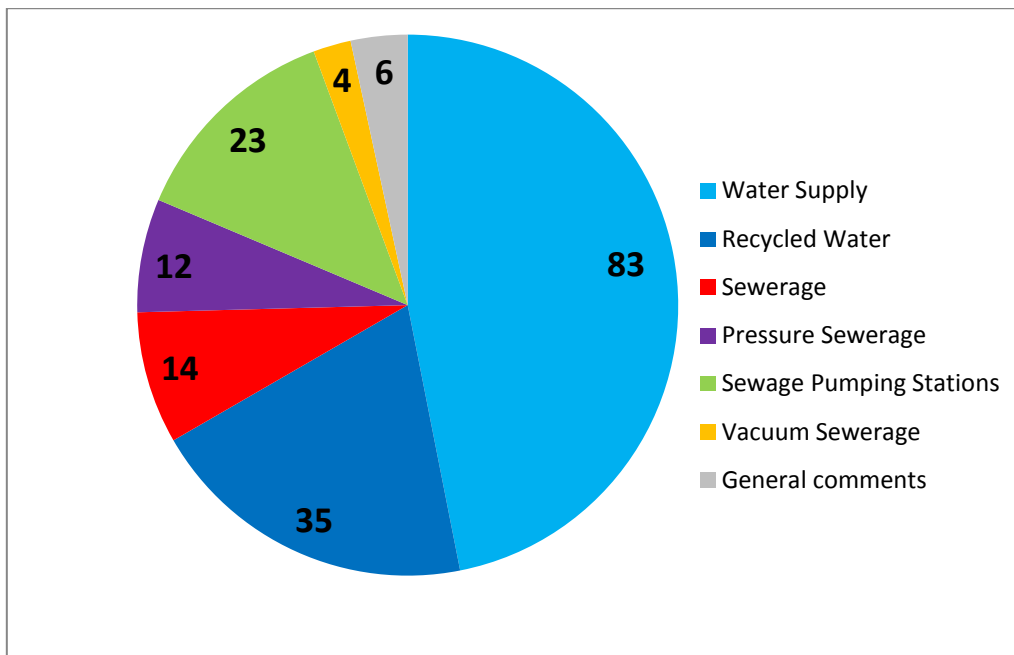
### 7.1. General

The following charts ignore the five submissions that only commented on Building Over and Adjacent to Assets documentation. (Refer also to Section 7.4 and Appendix A.)

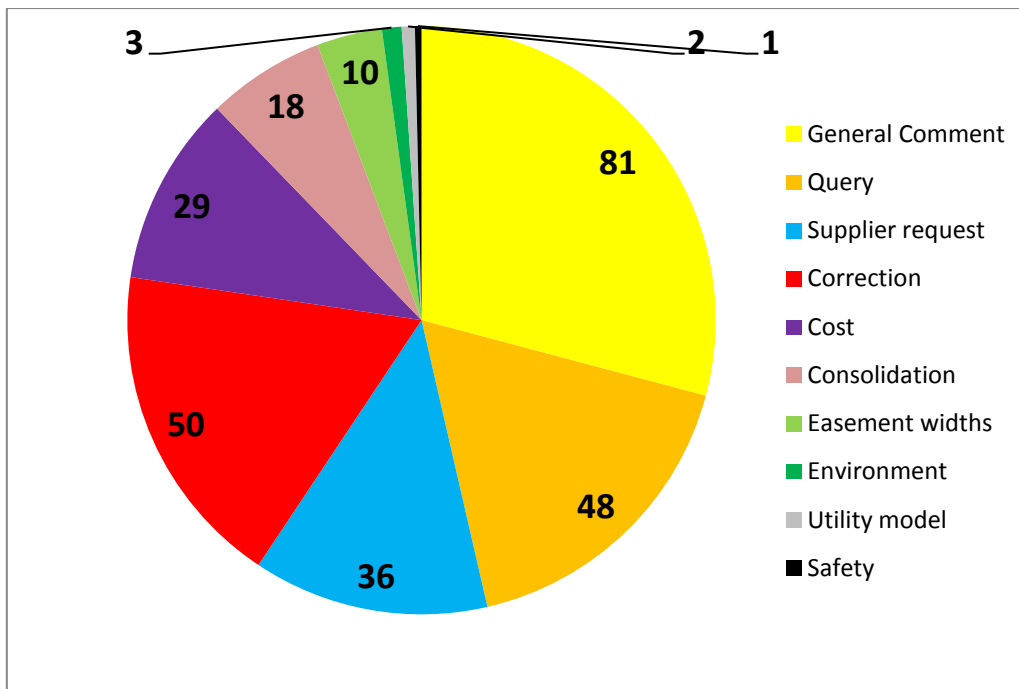
**Figure 3: Number of comments on text by document**



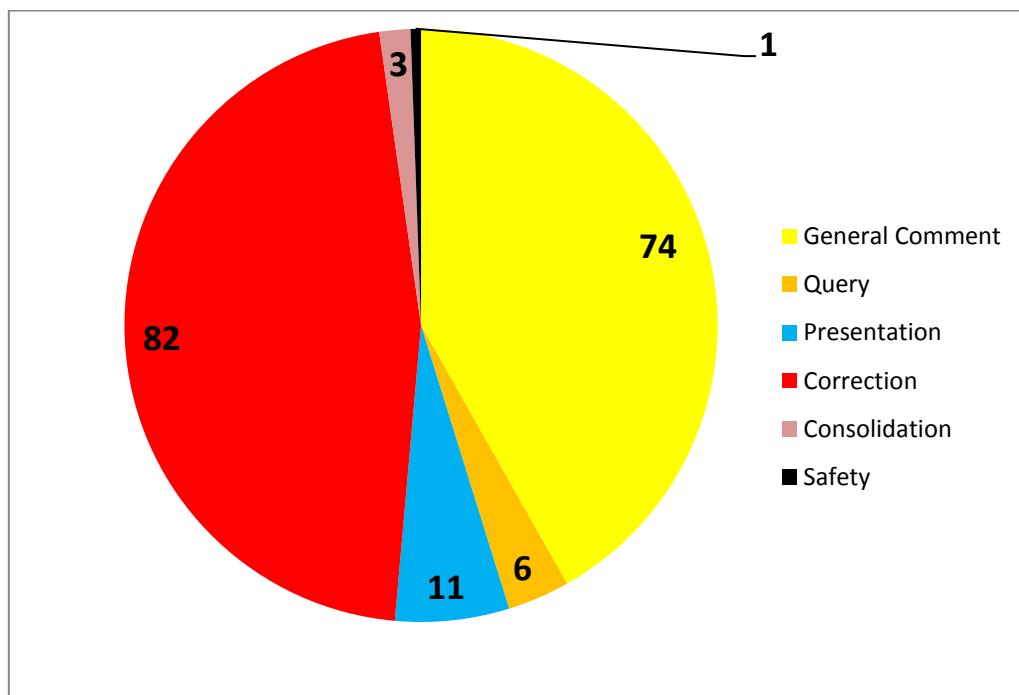
**Figure 4: Number of comments on standard drawings by asset type**



**Figure 5: Number of comments on text by comment type**



**Figure 6: Number of comments on standard drawings by comment type**



## 7.2. Consolidation

When the Code was advertised there were three water service providers in SEQ. Each service provider had their own technical standards and in some cases more than one set of standards. The heads of power for these standards were often the technical standards attached to the town plans of the SEQ councils.



In addition to this, the water service providers are to a degree constrained by the infrastructure that already exists. On the one hand it is not wise to depart too radically from what already exists as this may require the service providers to carry large variety of stock. On the other hand the service providers do not want to stifle innovation and to be locked into past practices.

The draft Code that was advertised on 9 June 2012 represented a proposed significant consolidation of the standards then in operation. Nevertheless many of the submissions requested greater consolidation.

Since the Code was advertised Allconnex Water has been disbanded and replaced by three service providers. There are now five water service providers in SEQ.

In response to the submissions (and requests from their own chief operating officers) the five water service providers have reviewed the documentation, made some concessions amongst themselves and further consolidated the documentation.

### **7.3. Presentation**

The standard drawings in the draft Code that was advertised had three different drawing styles. The service providers were aware of this but were keen to advertise the drawings and seek comment on the content of the drawings.

The style presentation of the drawings has subsequently been made more consistent.

### **7.4. Building over and adjacent to assets**

The documentation that was advertised included detailed requirements as to how applications to build over or adjacent to the assets of the service providers were to be assessed.

The service providers wish to consolidate these requirements across SEQ and to provide designers and certifiers with an all encompassing set of requirements. Unfortunately, Building Codes Queensland has a competing proposal that relates only to Class 1 and Class 10 building applications.

Some of the submissions supported the Building Codes Queensland proposal.

Negotiation between the water service providers and Building Codes Queensland is continuing in order to try to find a mutually acceptable solution.

The requirements as to how applications to build over or adjacent to the assets of the service providers were to be assessed that was advertised in conjunction with the Code are beyond the scope of Chapter 4A of the Restructuring Act. The service providers advertised the two things together in order to minimise costs.

The requirements as to how applications to build over or adjacent to the assets of the service providers are to be assessed are not part of the Code.

## 7.5. Clearances

Many submissions highlighted that the minimum clearances specified between adjacent assets would often be difficult to achieve. The clearance tables in the five original WSAA National Codes are not all consistent. The advertised Code amended the tables to make them consistent and did increase some of the specified minimum clearances.

The revised Code has reverted to the minimum clearances specified in the WSAA National Codes with the exception of those four vertical clearances shown in bold in the following table. For these critical infrastructure types the extra millimetres above what WSAA has specified represent a significant gain in safety and reliability. In many cases the owners of these utility services may specify even greater clearances.

**Clearances between SEQ service providers' infrastructure and other underground services\***

Utility (Existing or proposed)	Minimum horizontal clearance (mm)		Minimum vertical clearance (mm)
	Size of proposed pipe (NB)		
	≤ 200 mm	> 200 mm	
Water mains ≤ 375 mm	300/600/1000	600/1000	150/500
Water mains > 375 mm	600/1000	600/1000	300/500
Gravity sewers ≤ 300 mm	300/600/1000	600/1000	150/300/500
Gravity sewers > 300 mm	600/1000	600/1000	300/500
Pressure sewers	600/1000	600/1000	500
Vacuum sewers	300	600	<del>150/300</del> <b>500</b>
Gas mains	300	600	<del>150/300</del> <b>500</b>
Telecommunication conduits and cables	300	600/1000	<del>150/300</del> <b>300</b>
Electricity conduits and cables	500	1000	<del>225/300</del> <b>500</b>
Stormwater drains	300	600	150/300
Kerbs	150	600	150 (where possible)

\*Notes: The clearance tables in the SEQ versions of the five WSAA Codes include numerous footnotes. For simplicity, these footnotes have not been reproduced here.

If particular circumstances dictate that the clearances in the table above are too onerous then designers are always able to approach the water service providers and argue acceptable solutions that may achieve the service providers' requirements for safety and reliability.

## 7.6. Easements

Many submissions highlighted that the easement widths specified in the draft Code were excessive. Some of these submissions appeared to have interpreted the requirements incorrectly.

The larger easement widths specified in the Code have applied in the previous Brisbane Water standards for many years.

The wording of the standards relating to easements has been improved but the specified widths remain unchanged.

### 7.7. Affordability

Amongst the submissions were questions about cost and affordability. The water service providers take this issue seriously and are cognisant that over-specification will ultimately affect the community.

Each time an affordability issue was raised the service providers have analysed the request and made changes where appropriate. The service providers need to balance the costs associated with constructing infrastructure against the cost to operate and maintain assets. Minimising the likelihood of inflow and infiltration to sewers is a case in point.

In some instances the submissions requested changes to the Code that the service providers considered would inappropriately shift costs from the infrastructure developers to the service providers. In these instances the service providers could not agree to the proposed requests.

### 7.8. Acceptable products

Some suppliers took the opportunity to request that their products be added to the lists of acceptable products.

Each of the five SEQ service providers has separately considered these requests on their merits. The five SEQ service providers maintain separate product assessment processes. The acceptable products of each service provider are listed in parallel in order that they be readily available to designers, constructors, suppliers, etc working in South East Queensland.

Suppliers wishing to have their products added to the lists should approach each service provider separately to have their products assessed.

## 8. Future changes to the Code

The *Restructuring Act* allows for amendments to the Code that are to correct minor errors, or are not a change of substance without the need to readvertise the Code in SEQ newspapers, etc. The *Restructuring Act* also allows for amendments of a stated type where those statements form part of the Code.

Products on the Accepted Infrastructure Products and Materials (IPAM) Lists are changed on a monthly basis as product suppliers approach the service providers to have their products accepted. It would be impractical to advertise in SEQ newspapers every time there is a change to the Accepted IPAM Lists.

Likewise, the ADAC drafting standards change on a regular basis and it impractical to advertise in SEQ newspapers every time there is a change to the Asset Information Standard document.

The service providers remain open to suggestions for changes to the Code. Developers, consultants, suppliers etc are welcome to approach any of the five service providers with suggestions for amendments. The service providers will meet quarterly to review the Code and consider suggestions for improvement.

## 9. Conclusion

The SEQ water service providers would like to thank all those individuals/organisations that made submissions on the advertised Code.

The detail included in each submission has been carefully considered by the SEQ water service providers. Significant changes have been made as a result of the submissions but not every request in each submission has been accepted.

The revised documentation will appear on the internet ( [www.seqcode.com.au](http://www.seqcode.com.au) ) once it has been approved by:

- Gold Coast City Council;
- Logan City Council;
- Queensland Urban Utilities Board;
- Redland City Council;
- Unitywater Board; and
- Minister for Energy and Water Supply.

## Appendix A – Submissions received

The following individuals and organisations lodged submissions during the public consultation period.

### **State and Local Government**

Ipswich City Council

\*Logan City Council

Moreton Bay Regional Council

\*Department of Housing and Public Works, Building Codes Queensland

Department of Transport and Main Roads

### **Industry organisations**

\*Australian Institute of Building Surveyors

\*Master Builders Queensland

\*Property Council of Australia

### **Companies and individuals**

ACOR Baseline Consultants Pty Ltd

Auercon

Brown Consulting (QLD) Pty Ltd

Bligh Tanner Consulting Engineers

Cardno

EnviroEngineering Solutions

David Heape

Lend Lease Communities

Jim Moehead

QM Properties Pty Ltd

### **Product Suppliers**

Aquatec Fluid Systems PTY Ltd

Global Pipe Australia Pty Ltd

Hydro Innovations

Hygrade Water Australia

Rocla Pipeline Products Pty Ltd

Xylem Water Solutions Australia Limited

\* These government authorities and industry organisations only commented on the Building Over and Adjacent to Assets (BOAA) documentation.

## Appendix B – Advertisements

The advertisement below appeared in the following newspapers at the start of a consultation period that extended to 38 days.

Albert and Logan News	13 June 2012
Bayside Bulletin	12 June 2012
Caboolture Shire Herald	12 June 2012
The Courier Mail	9 June 2012
Gold Coast Bulletin	9 June 2012
Sunshine Coast Daily	9 June 2012
Queensland Times	15 June 2012

# HAVE YOUR SAY

**Do you have a role in water supply and sewerage infrastructure in South East Queensland?**

Allconnex Water, Queensland Urban Utilities and Unitywater are working together to draft the South East Queensland (SEQ) Design & Construction (D&C) Code.


The SEQ D&C Code provides consolidated technical standards relating to the design and construction of water supply and sewerage infrastructure in the SEQ region.

**This is your opportunity to have your say on the draft SEQ D&C Code.**

Visit [www.seqcode.com.au](http://www.seqcode.com.au) to:

- Download the draft SEQ D&C Code documentation
- Find out where you can view a hard copy
- Learn about our Q&A sessions to be held in SEQ
- Learn how to make your submission

Submissions on the draft SEQ D&C Code will be accepted until 5pm Tuesday 17 July, 2012.

 **allconnex water.** 