

Connection Code Bulletin 2008 - 1

Issue/s: Proposed Changes to Procedure for Acceptance of Sewerage Infrastructure Assets
Audience: Proponents, Project Managers, Designers, Construction Supervisors and Constructors
Date: 11 April 2008

Introduction

Power and Water propose changes to the procedures for the acceptance of gifted sewerage infrastructure.

When does the opportunity to comment close?

Please provide comments by close of business, Tuesday 29 April 2008.

Comments can be made to Service Development North and can be forwarded via post, facsimile or e-mail to the address provided below.

When does Power and Water intend to introduce these new procedures?

Provided that issues raised in response to this bulletin can be quickly resolved, Power and Water expects to introduce the new procedures before 30 June 2008.

What is proposed?

To minimise or avoid confined space entry to the sewer system during sewerage handover inspections, a number of changes are proposed. In particular, it is proposed that a full CCTV inspection of the new sewerage infrastructure be undertaken by the proponent prior to handover.

It is proposed that the new procedures require:

- 1) All new sewer assets be CCTV inspected prior to handover inspection
- 2) Power and Water standard documentation be used (where published)

The following documentation will be required prior to the handover inspections of new sewerage assets:

To be submitted to Power and Water before CCTV inspection dates are finalised:

- 'As constructed' drawings highlighting the location of the sewer lines to be inspected

To be submitted to Power and Water prior to requesting handover inspection:

- Certification that all defects noted at CCTV inspection have been rectified
- Completed CCTV Inspection form, complete with photos and videos as identified on the form
- Any other relevant photos and videos taken at the inspection

It is not intended to inspect short sewer extensions (less than 100 metres) using CCTV.

An example of documentation is attached.

Example of Completed form and attachments

Please note that this is for use as an example purposes only and as such the defects are completely fictitious and not a true reflection of the subdivision.

CCTV inspection

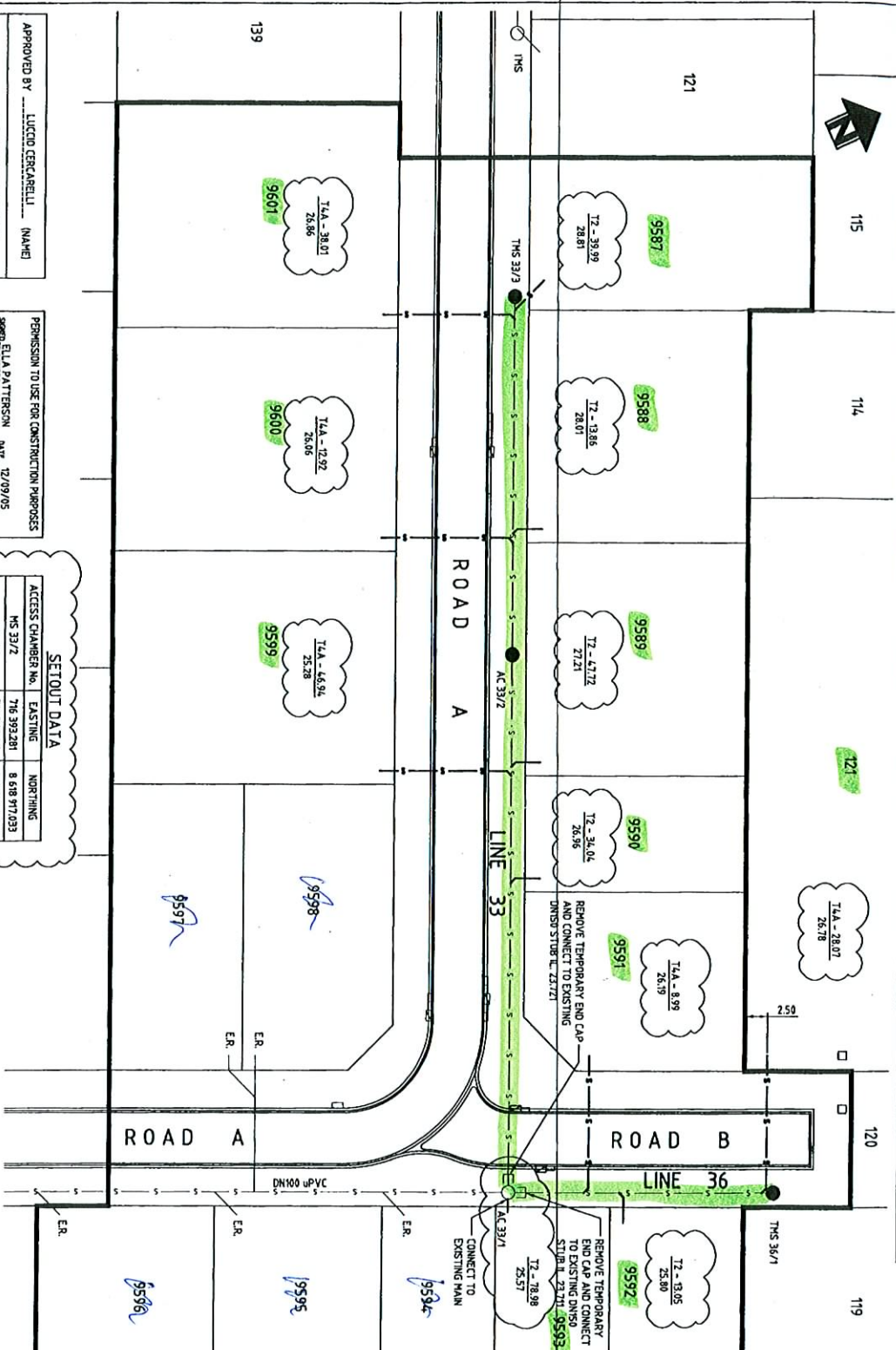
Location: <u>The Chase Stage 7-2</u>	Date of inspection: <u>1st Jan 2008</u>
Lot Number/s: <u>9587 to 9593 & 9599 to 9601</u>	Asset Number/s: <u>AC 33/1 & 33/2, TMS 33/3 & 36/1</u>
Parent Parcel: <u>Lot 4640</u>	Size: <u>DN150</u>
Date of Construction of Sewer: <u>December 2007</u>	Material: <u>UPVC SNB</u>
Drawings Attached: <u>Yes/No BOS-3009 & 3010</u>	Handover scheduled for: <u>14th Jan 2008</u>

* Use multiple copies of this form where the size of the subdivision requires it

Photo Number/s	From MH/MS	To MH/MS	Distance to downstream A/C	Comment	Acceptable	Not Acceptable
Video1 Photo1	AC 33/1	AC 33/2	60m	Flattening of pipe 37.5m downstream of 33/2		✓
				Lot 9590	✓	
				9599	✓	
				9589	✓	
					✓	
	AC 33/2	TMS 33/3	40m			
				Lot 9600	✓	
				9588	✓	
				9601	✓	
				9587	✓	
Video2 Photo2	AC 33/1	TMS 36/1	30m	Slipped rubber ring 20.0m downstream of 36/1		✓
Photo3.				Lot 9591	✓	
				9592	✓	✓
				121	✓	

Comments:

.....
 Lines require cleaning.....
 Connection to AC 33/1 has been made.....
 Concrete surround missing to service to lot 9590.....
 Numbers not engraved on AC lids.....



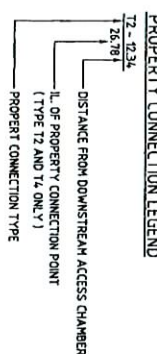
APPROVED BY: LUCCO CERABELLI (NAME)
 PALMERSTON CITY COUNCIL
 On behalf of the Agency responsible for the road reserve.
 This drawing is approved for the alignment and location of services in the road reserve.
 SIGNED: LUCCO CERABELLI DATE: 22/09/25

PERMISSION TO USE FOR CONSTRUCTION PURPOSES
 SIGNED: ELIA PATTERSON DATE: 22/09/25
 ON BEHALF OF LAND DEVELOPMENT FOR THE INCORPORATION INTO POWER AND WATER CONNECTIONS NETWORK
 This permission is given in full knowledge that the Developer and/or Contractor is not absolved from their responsibility for the design and safety of the design and/or documents as presented.

SETOUT DATA

ACCESS CHAMBER NO.	EASTING	NORTHING
MS 33/2	716 392.881	8 618 917.033
AC 33/2	716 397.435	8 618 934.542
MS 36/1	716 460.596	8 618 918.901

WARNING
 BEWARE OF UNDERGROUND SERVICES
 The location of underground services are approximate only and their exact location should be proven on site. No guarantee is given that all services are shown.



NOTES

- DESIGN AND CONSTRUCTION OF THE WATER AND SEWERAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE P&W CONNECTION CODE AND ASSOCIATED DOCUMENTS.
- ALL LEVELS GIVEN TO A.M.D.
- ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE.
- HANDRAIL COVER TO PIPE IS 75mm IN TRAFFICABLE AREAS, 50mm IN OTHER AREAS.
- PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR SHALL CHECK THE LOCATION OF ALL EXISTING UNDERGROUND SERVICES AND COVER FINISHED SURFACE LEVELS AND THE INVERT LEVELS OF EXISTING STUBS TO BE INCORPORATED IN THE WORKS.
- IT IS NOT GUARANTEED THAT ALL SERVICES HAVE BEEN SHOWN ON THE DRAWINGS.
- OBTAIN PERMITS FROM THE RELEVANT ROAD AUTHORITY PRIOR TO ROAD EXCAVATION.
- ALL WATER AND SEWERAGE HYDRAULIC WORKS SHALL BE CARRIED OUT AS SHOWN ON THE LATEST AMENDMENT OF THE DESIGN DRAWINGS.
- CONSTRUCTION SITE DRAWINGS MUST BE SIGNED AS 'APPROVED FOR CONSTRUCTION' BY A LAND DEVELOPMENT OFFICER.
- SEVEN (7) DAYS NOTICE HAS TO BE GIVEN TO LAND DEVELOPMENT, P&W (FACSIMILE 892 722 - NORTHERN REGION & 881 7121 - SOUTHERN REGION), WITH A NOTICE OF INTENTION TO START WORK PRIOR TO COMMENCEMENT OF WORK.
- ANY CHANGES TO THE DRAWINGS, REQUIRED OR DESIRED DURING THE CONSTRUCTION PHASE MUST BE AUTHORIZED BY A LAND DEVELOPMENT OFFICER.
- *AS CONSTRUCTED DRAWINGS* MUST BE PROVIDED TO LAND DEVELOPMENT, P&W PRIOR TO HANDOVER INSPECTION.
- DESIGNED TO CONTACT LAND DEVELOPMENT, P&W TO ARRANGE FOR HANDOVER INSPECTIONS. SEVEN (7) DAYS NOTICE MUST BE PROVIDED PRIOR TO HANDOVER INSPECTION.
- CONNECTIONS TO EXISTING SEWER MAINS WILL ONLY BE CARRIED OUT WHEN ALL WORKS UPSTREAM OF THE CONNECTION ARE COMPLETED, I.E. TESTED, BACKFILLED AND CERTIFICATES SUBMITTED IN ACCORDANCE WITH THE APPROVED DESIGN DRAWINGS, AND HAVING SATISFACTORILY PASSED FINAL HANDOVER INSPECTION.
- P&W PERSONNEL SHALL INST. ALL WATER AND SEWER CONNECTIONS TO EXISTING MAINS ONLY AFTER ACCEPTANCE OF THE WORK HAS BEEN AGREED. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTION FEES, MATERIALS AND LABOUR FOR EXCAVATION, BACKFILLING AND REINSTATEMENT.
- ALL GRAVITY SEWER PIPES SHALL BE 400mm CLASS SW, WITH STRAIGHT-BUT-LADDER RUBBER RING JOINTS (RRJ), UNLESS NOTED OTHERWISE.
- SEWER SHALL BE OFFSET FROM PROPERTY BOUNDARIES A DISTANCE OF 1.0m IN ROAD RESERVES AND 1.5m IN PRIVATE PROPERTY, EXCEPT WHERE SHOWN OTHERWISE ON THE DRAWINGS.
- ALL GRAVITY SEWERS ARE DMSA, UNLESS NOTED OTHERWISE.
- THE SUPERINTENDENT SHALL DETERMINE SEWER PIPE BEDDING TYPE AFTER INSPECTION OF THE EXCAVATED TRENCH.
- ACCESS CHAMBER AND MAINTENANCE SHAFT COVER SLABS SHALL FINISH AT:
 - FINISHED SURFACE LEVEL IN ROAD RESERVES AND FOOTPATH.
 - 50mm ABOVE SURFACE LEVEL IN PRIVATE PROPERTY AND OPEN SPACE.
 THE CONSTRUCTOR SHALL INSURE THE COVERS WITH THE IDENTIFYING NUMBER AS SHOWN ON THE DRAWINGS.

LEGEND

- 5 — EXISTING SEWER MAIN
- 5 — EXISTING ACCESS CHAMBER
- 5 — NEW SEWER MAIN
- AC 27/3 NEW ACCESS CHAMBER
- MS 27/2 NEW MAINTENANCE SHAFT
- ER — EXISTING PROPERTY CONNECTION TO REBANK

PWC DRG. No. B05-3009
AS CONSTRUCTED

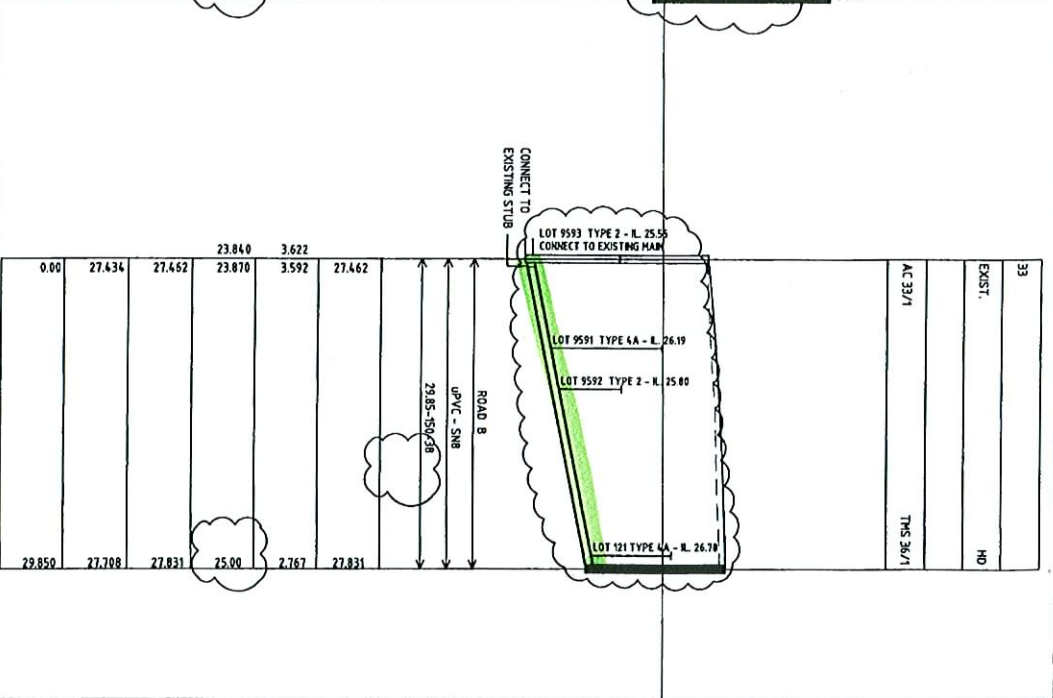
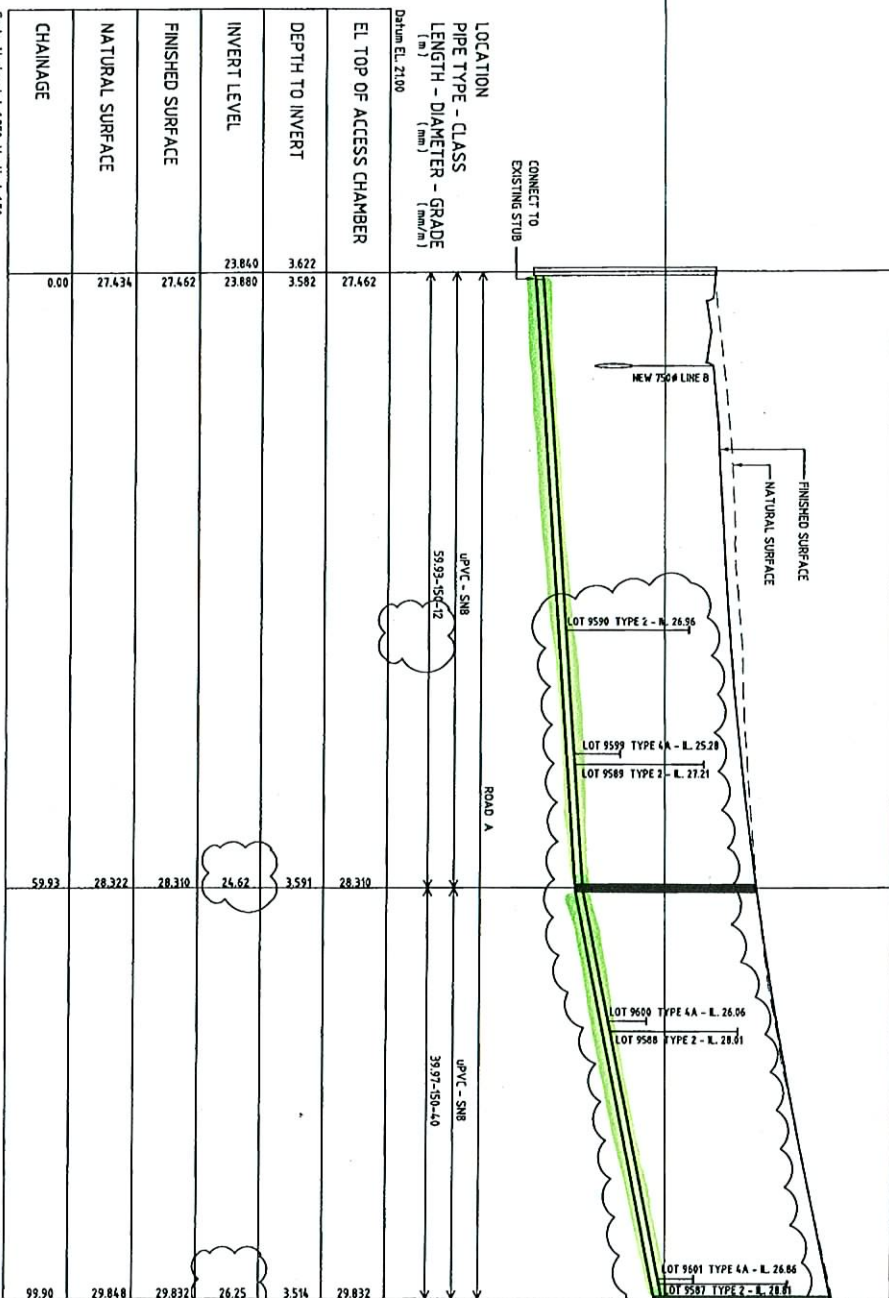
Kelllogg Brown & Root Pty Ltd



DELFIN MANAGEMENT SERVICES PTY LTD
 THE CHASE - STAGE 12
 SEWERAGE COMPILATION PLAN

NO.	DESCRIPTION	DATE	BY	FOR	SCALE	PROJECT NO.	REVISIONS
1	AS CONSTRUCTED	22/09/25	LUCCO CERABELLI	CONSTRUCTION	1:250	DEV505.002	1

JOINS WITH LINE No.	36		
ACCESS CHAMBER & COVER TYPE	EXIST.		
ACCESS CHAMBER DROP TYPE		CRD	
ACCESS CHAMBER No.	AC 33/1	AC 33/2	THIS 33/3



LOCATION	PIPE TYPE - CLASS	LENGTH - DIAMETER - GRADE	EL TOP OF ACCESS CHAMBER	DEPTH TO INVERT	INVERT LEVEL	FINISHED SURFACE	NATURAL SURFACE	CHAINAGE
uPVC - S18		59.93-156.12	27.462	3.622	23.840	27.462	27.434	0.00
uPVC - S18		39.97-150.40	29.832	3.592	23.870	27.462	27.434	29.850

LOCATION	PIPE TYPE - CLASS	LENGTH - DIAMETER - GRADE	EL TOP OF ACCESS CHAMBER	DEPTH TO INVERT	INVERT LEVEL	FINISHED SURFACE	NATURAL SURFACE	CHAINAGE
uPVC - S18		29.85-150.38	27.831	2.767	25.00	27.831	27.708	29.850

Scale Horizontal 1:250 Vertical 1:50

NOTES

- EL'S SHOWN FOR TOP OF ACCESS CHAMBERS ARE INDICATIVE ONLY. FINAL LEVELS ARE TO BE DETERMINED ON SITE IN ACCORDANCE WITH THE FOLLOWING: ROAD RESERVES - FLUSH WITH FINISHED SURFACE LEVEL.
- ACCESS CHAMBER TYPES AND COVER:
 - CRD - 1050# CIRCULAR ACCESS CHAMBER WITH HEAVY DUTY RECTANGULAR COVER.
 - CR8 - 1050# CIRCULAR ACCESS CHAMBER WITH LIGHT DUTY RECTANGULAR COVER.
 - MAINTENANCE SHEET TYPES AND COVER.
 - HD - DIGITS DI ACCESS COVER AND FRAME WITH HEAVY DUTY ACCESS COVER SURROUND.

PERMISSION TO USE FOR CONSTRUCTION PURPOSES

SIGNED: E.L.A. PATTERSON DATE: 12/09/05

ON BEHALF OF PALMERSTON CITY COUNCIL

AS THE AGENCY RESPONSIBLE FOR THE ROAD RESERVE.

THIS DRAWING IS APPROVED FOR THE ALIGNMENT AND LOCATION OF SERVICES IN THE ROAD RESERVE.

SIGNED: LUCCIO CERREARELLI DATE: 12/09/05

REVISIONS

NO.	DESCRIPTION	DATE
1	AS SHOWN	12/09/05

APPROVALS

NAME	DATE	ROLE
N. PELHAM		SEALING
T. REES		DESIGN
J. CLARK		CLIENT

CLIENT INFORMATION

DELFIN MANAGEMENT SERVICES PTY LTD
THE CHASE - STAGE 72
SEWERAGE LONGITUDINAL SECTION

DRAWING INFORMATION

PROJECT No. DEV505.002
DWG No. DWG-015
SCALE: A1

Below is a table outlining the documentation requirements for gifted sewer assets:

Documentation Requirements						
	Construction	Testing	Pre Handover documentation	Handover	Title Release	Off Maintenance
Sewer	1. Certified Photo Audit	1. Hydrostatic 2. CCTV 3. Field Returns	1. Survey Plans (All pegs to be installed for inspection) 2. As Constructed drawings 3. Certification 4. Submission of CCTV inspection (defects noted in CCTV inspection have been rectified and certified by the consulting engineer)	1. Handover inspection	1. No major defects 2. Connection fees paid	1. Release to Power and Water after end of defect period (either 1 or 2 years)

List of available CCTV inspectors

This list does not preclude other companies from providing CCTV services.

Those currently available to undertake CCTV sewer inspections include:

Northern Region

- John Mousellis
- Renoflow

Southern Region

- Centre Plumbing
- SDA

As a guide for budget purposes, a cost of \$4.50/metre should be allowed.

How can I get more information on the proposed change?

Further information can be obtained by contacting Ella Patterson on (08) 8924 5215 or ella.patterson@powerwater.com.au.

Northern Region

Service Development North
 Water Services Operations Centre (Bunker)
 Iliffe Street, Stuart Park
 Postal Address: PO Box 37471
 WINNELLIE NT 0821
 Telephone: (08) 8924 5282
 Facsimile: (08) 8924 5287
LandDevelopmentNorth@powerwater.com.au

Southern Region

Service Development South
 Sadadeen Valley
 Berger Court, Alice Springs
 Postal Address: PO Box 1521
 ALICE SPRINGS NT 0871
 Telephone: (08) 8951 7312
 Facsimile: (08) 8951 7347
LandDevelopmentSouth@powerwater.com.au

