

**ORDINARY MEETING****3 JUNE 2014****5.5**

**PROPOSED AMENDMENT TO THE FAR NORTH QUEENSLAND  
REGIONAL ORGANISATION OF COUNCILS DEVELOPMENT MANUAL  
PLANNING SCHEME POLICY**

**Michael Matthews: No.421500**

**Paul Hoyer-General Manager Operations**

**RECOMMENDATION:**

**That Council:**

- 1. Resolves to amend the Far North Queensland Regional Organisation of Council's Development Manual Planning Scheme Policy in accordance with Chapter 3 Part 5 of the *Sustainable Planning Act 2009*.**
- 2. Resolves to proceed to public consultation of the proposed amendments as required under the *Sustainable Planning Act 2009*.**

**EXECUTIVE SUMMARY:**

The Far North Queensland Regional Organisation of Councils (FNQROC) has recently undertaken a review of the Regional Development Manual "the manual". The manual provides a comprehensive set of guidelines for carrying out various civil engineering works within the local government areas of: Cairns, Cassowary Coast, Cook, Douglas, Mareeba and Tablelands.

The purpose of these latest amendments (referred to as Issue 6), are to ensure the manual continues to be functional and up-to-date and to provide a consistent set of standards to which all can refer.

**BACKGROUND:**

The FNQROC Development Manual (Version 1) was adopted as a Planning Scheme Policy. The aim is to review the manual annually, however due to the impending State Planning Policy and de-amalgamations it has been two (2) years since the previous review. This latest proposed revision (ie: Issue 6) includes all recommended revisions from the submissions received over the past two (2) years. The Development Manual Planning Scheme Policy No 6 supports the Planning Scheme.

Representatives from each of the local governments regularly meet and work together to review and make amendments to the manual. This is an ongoing process to ensure the manual is contemporary and reflects the needs of the users.

### **PROPOSAL:**

An explanatory statement and summary of the proposed amendments is attached to this report. To reduce the bulk and size of this report it was deemed impractical to include a copy of all proposed amendments as an attachment to this report, however a hard copy has been on display at the Council's offices in Mossman.

A table summarising the planned actions and responsibilities over the coming months is as follows:

<b>Action</b>	<b>Date</b>	<b>Responsibility</b>
Councils to resolve to amend manual and go to public consultation	Between 14 May and 19 June 2014	Council
Advertise proposed amended policy	20 June 2014	FNQROC
Public Consultation	20 June to 1 August 2014	FNQROC
Workshops with Industry – council reps in attendance – Water and Waste Sections (W&W)	23 July 2014	FNQROC and Council representatives
Workshops with Industry – Council reps in attendance – Remaining manual (not W&W)	23 July 2014	FNQROC and Council representatives
Editing of public submissions into document and send to Council reps	4 August to 14 August 2014	FNQROC
Council working group to review public submissions and make recommendation – W&W only	2 September 2014	FNQROC and Council representatives
Council working group to review public submissions and make recommendation – remaining manual	3 September 2014	FNQROC and Council representatives
Final report to Councils for adoption	18 September 2014	FNQROC
Council adoption	18 September 2014 onwards	Council
Notification of effective date of Issue 6 in Gazette	After adoption	Council

As noted above public consultation is currently planned to commence on Saturday, 20 June 2014, and conclude Friday, 1 August 2014. During this time, two (2) workshops will be undertaken with industry to explain the changes. The FNQROC Executive Officer has managed the review process and will coordinate the advertising and response to any submissions. A further report on any submission received will be presented in another report to the September Council meeting following the public consultation process and subsequent review of submissions received.

The FNQROC Development Manual was prepared to ensure a consistent set of standards across the region. The manual is a living document that needs to be continually reviewed to ensure it remains contemporary and reflects the needs of users.

Under Part 5 of the *Sustainable Planning Act 2009*, Council must resolve to amend the Planning Scheme Policy as the first step in the amendment process, and then proceed to public consultation.

### **CORPORATE/OPERATIONAL PLAN, POLICY REFERENCE:**

#### **Corporate and Operational Plans:**

The amendment to the FNQROC Development Manual supports Theme 2 of the draft Corporate Plan – Building a Sustainable Economic Base.

#### **Statutory:**

The Regional Development Manual is a Planning Scheme Policy and amendments must follow Part 5 of the *Sustainable Planning Act 2009*. This includes a minimum 20 day consultation period, and review and response to any submissions received during the consultation period.

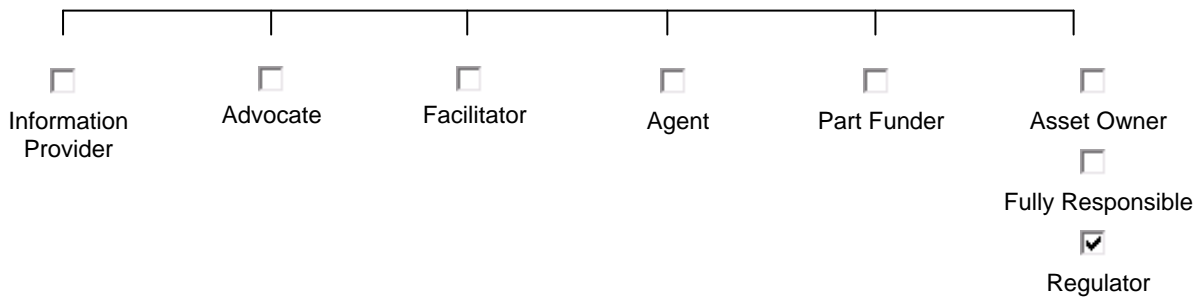
#### **Policy:**

The FNQROC Development Manual is a Planning Scheme Policy of Council.

### **COUNCIL'S ROLE:**

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following areas outline where Council has a clear responsibility to act:



<b>Regulator:</b>	Meeting the responsibilities associated with regulating activities through legislation or local law.
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### **RISK MANAGEMENT IMPLICATIONS:**

The risk of not continually updating the manual is that Council will eventually have a manual that is not functional in providing a consistent set of relevant standards to which developers and Council can refer.

### **SUSTAINABILITY IMPLICATIONS:**

Provision of well-planned, integrated and timely infrastructure is a core matter to be considered in the preparation of a planning scheme and in achieving financial, environmental and social sustainability.

**INTERNAL/EXTERNAL CONSULTATION:**

Council officers from across the region have been involved in and contributed to the review of the FNQROC Development Manual. Industry representatives have also contributed to the review process throughout the past two (2) years and these contributions have been considered within the proposed manual.

Under the *Sustainable Planning Act* 2009 the proposed amendments must be advertised for a minimum of 20 days during which the community and industry groups may make comment. The public consultation period is currently planned to commence on Saturday, 20 June 2014, and conclude on Friday, 1 August 2014. During this time, two (2) workshops will also be undertaken with the development industry to explain the changes.

**ATTACHMENTS:**

1. Explanatory statement
2. Summary of proposed amendments

**ATTACHMENT 1 – EXPLANATORY STATEMENT****AMENDMENT TO FNQROC REGIONAL DEVELOPMENT  
MANUAL**

Far North Queensland Regional Organisation of Councils (FNQROC) has recently undertaken a review of the REGIONAL DEVELOPMENT MANUAL. The manual provides a comprehensive set of guidelines for carrying out various civil engineering works within the local government areas of: Cairns, Cassowary Coast, Cook, Douglas, Mareeba and Tablelands.

The purpose of the amendment is to ensure the manual continues to be functional and provide a consistent set of standards to which all can refer.

Representatives from each of the local governments have worked together to review and make amendments to the manual. Attachment A contains a summary list of the amendments proposed to the manual.



Section	Title	Amendment	action
<b>LG SPECIFIC</b>			
Cook Shire Council - Local Government Specific	Cook Shire Council	Inclusion of new council logo	Recommended
Douglas Shire Council - Local Government Specific	Douglas Shire Council	Create a local government specific for Douglas Shire Council	Recommended
Mareeba Shire Council - Local Government Specific	Mareeba Shire council	Create a local government specific for Mareeba Shire Council	Recommended
Mareeba Shire Council - Local Government Specific	D7.16	rewrite point 2. Operation levels for pump stations to be controlled by 'King Fisher' probes or hydrostatic probes and not by float switches. Major pump stations as determined by the Council shall be controlled by ultra sonic level controllers.	Recommended
Cairns Regional Council - Local Government Specific	D2.05 Clearing	Insert after Point 2: To assist appropriate, design the involvement of an AQF Level 5 certified Arborist should be involved to advise on the Tree Protection Zones and condition of trees which may be selected for possible retention.	Not recommended for default manual - Recommended for CRC Local Government Specific
Cairns Regional Council - Local Government Specific	D2.05 Clearing	Additional to this, where trees are selected for retention, the Surveyor should include the size of the canopy and trunk diameter of the tree on the plan TO SCALE. This will assist the Designer to determine the TPZ and SRZ as per AS4970-2009, to avoid design conflicts with the trees.	Not recommended for default manual - Recommended for CRC Local Government Specific
Cairns Regional Council - Local Government Specific	D2.05 Clearing	Add: 8 (or 9 if additional 2 is kept). As part of the clearing process and before any grading or other earthworks take place, tree protection zones as per AS4970-2009 are to be delineated and installed for those trees selected for retention.	Not recommended for default manual - Recommended for CRC Local Government Specific
Cairns Regional Council - Local Government Specific	D6.07 Design Criteria	Add: 8.4 Road crossings under minor rural roads and low density residential roads or lessor shall be a minimum 63mm diameter where they service up to two dwellings, otherwise they must be a minimum 100mm diameter.	Recommended
<b>USER GUIDE</b>			
Page 9 of 9	Document Amendment Register	Delete Document amendment Register	Recommended

**APP PROCEDURES 1**

AP1.02	Pre-Lodgement Discussions	Insert between 1 (f) and (g) "Identification of Environmental Relevant Activities"	Recommended
AP1.06	Local Authority Approval	Item 2. - Simplify and Reword "In all but critical aspects and the nominated non-complying aspects, Council's review will be on an audit basis only" to "Council's review of the applications engineering documentation is on an audit basis only except for certain critical elements and disclosed non-complying elements which are subject to detailed examination."	Recommended
AP1.06	Local Authority Approval	Amend item 3 - "A subsequent review fee <del>will</del> may be levied in these cases in accordance with Council's fees and charges."	Recommended
AP1.07	Approval of other authorities and referral agencies	Amend Item 2. "All works on State controlled roads will be subject to <del>Department of Main Roads</del> the approval of the relevant state authority approval and is ....."	Recommended
AP1.08	Supporting Information - General	1.f - delete 'Part A', Insert 'Form 1'	Recommended
AP1.08	General Information - General	1.g - delete 'Part E', Insert 'Form 6'	Recommended
AP1.08	Supporting Information	Amend item 7. Insert the "relevant state authority" instead of the "Department of Main Roads"	Recommended
AP1.08	Supporting Information	Amend Item m. Reword "Water and Sewerage reticulation networks in a format compatible with Council's network system" to "Hydraulic analysis reports of the water and sewerage network"	Recommended
AP1.08	Supporting Information	Amend item u (i) - "Water including pump stations and water storages"	Recommended
AP1.08	Supporting Information	Amend Item u. Correct numbering to make (xiii) "With Stage 1 development and with updated copies to be provided with each subsequent ....."	Recommended
AP1.09	General Requirements	3. As per AP1.08 xix and xxi - delete xix and xxi - incorrect reference	Recommended
AP1.16	Drawings required	Amend Item k. "Water Reticulation Plan, pump station and water storage details"	Recommended
AP1.26	Sewer Concept Plan	Amend Item 3. change "(refer Section D7-07) delete the .07 to avoid need for renumbering"	Recommended
AP1.27	Sewerage Reticulation Plan and Longitudinal Section	Amend Item 1 (ee) spelling "Floatation"	Recommended
AP1.27	Sewerage Reticulation Plan and Longitudinal Section	Amend Item 1. Insert (ii) "Privately owned water and sewerage infrastructure, where applicable"	Recommended
AP1.27	Sewerage Reticulation Plan and Longitudinal Section	Amend Item 1 - Insert (jj) "Location and dimensions of easements"	Recommended
AP1.30	Landscape Plan	Amend Item 1 (d) Correct numbering. Item (vii) should actually be "e."	Recommended
AP1.30	Landscape Plan	Amend Item 1 (y) change "couplings" to "connection point"	Recommended
AP1 - Appendix A	Statement of Compliance	Correct spelling in certification paragraph "completed" not "competed"	Recommended
AP1 - Appendix A	Statement of Compliance	Amend "Water reticulation, pump stations and water storages"	Recommended

**CONSTRUCTION PROCEDURES 1**

CP1.03	Construction Inspections	delete (e) "Records compatible with Council's ....."	Recommended
CP1.05	Contractors Sediment and Control Plan	Amend point 11 to include: Non-erosive design capacity 12-24 months at 5 years, 24months+ at 10 years, and temporary culvert crossing at 1 year	Recommended
CP1.05	Contractors Sediment and Control Plan	Delete point 12 - reference documents (information contained within D5)	Recommended
CP1.08	Documentation to be provided prior to Pre-start	Add to the list. 5. Any engineering plans or reports required to be supplied prior to the pre-start meeting as set out in the OWA.	Recommended
CP1.09	Pre Start Meeting	Item 2. - Delete "m. Sewerage and water pump station commissioning plan"	Recommended
CP1.19	Introduction	Item 2.a - correction ".....or early plan sealing inspection for bonding <del>of</del> of uncompleted works...."	Recommended
CP1.19	Introduction	Item 2.e - reword "Approval Compliance Certification has been given issued by Council or private certifier for construction of any buildings or building works forming part of the operational works approval"	Recommended
CP1.21	"As Constructed" Submission	AS Constructed Submission point 4 (j) indicates that the submission must include "Any necessary information required for Council's asset management records" This statement needs to be expanded to include the specific information required. This could be included as an Appendix. For specific information required for asset management purposes (refer to 'As Constructed information' Tab).	Recommended - has been included within amendments to Appendix P
CP1.25	Project Documentation	Item 4.b - reword "The name of the pump station identifier and RTU number"	Recommended
CP1.27	Bonding of Uncompleted works	Item 2.p - Delete "p." (there is nothing associated with this item)	Recommended
CP1.27	Bonding of Uncompleted works	Replace entire section	Recommended
CP1.28	Sealing of Plan of Survey	AMEND title to read "APPROVAL OF PLAN SURVEY"	Recommended
CP1.28	Sealing of Plan of Survey	Item 1 - Replace 'sealing' with 'approval'	Recommended
CP1.28	Sealing of Plan of Survey	Item 4 - DELETE 'under seal'	Recommended
CP1.28	Sealing of Plan of Survey	Item 4 - first line - amend to lower case 'p' and 's' in Plan and Survey	Recommended
CP1.28	Sealing of Plan of Survey	Item 5 - Replace 'sealing' with 'approval of' and 'resealing' with 're-approval'	Recommended
CP1 - Appendix E	Security Bond	Amend Construction Security Bond minimum from \$500 to \$1,000	Recommended
CP1 Appendix G	Sewer Reticulation	Add new item between f) and g) "All property connection branch markers located?"	Recommended Also need to amend S3005 to include markers.
CP1 Appendix G	Water Reticulation	Item e, second point - Correct spelling "sets" not "setts"	Recommended
CP1 Appendix H	Sewerage Reticulation	Insert new line item after c) therefore d) PCB markers have been visually located"	Recommended
CP1 Appendix I	Precommissioning checklist	Page 7 of 19, Concrete item 8 - correct spelling "sewer" not "SEWL"	Recommended
CP1 Appendix P	As constructed' digital Data and Attributes	A significant review has been undertaken on the attributes and 'as constructed' digital data required by councils.	Recommended
CP1 Appendix P	3. "As Constructed" Drawings	Point b. amend A1 sheets to read A3 sheets	Recommended
CP1 Appendix P	13. Sewer linework	Include linework for property sewers (private)	Recommended
CP1 Appendix P	15. Stormwater linework	Include linework for house drainage (private)	Recommended
NEW Appendix Q	Early Approval of Survey Plans - Template Deed of Agreement	ADD new appendix Q Early Approval of Survey Plans - template deed of agreement	Recommended in partnership with changes to CP1.27



## DESIGN PRINCIPLES 1

DP1.07	Figure DP1.2	Amend Figure DP1.2 Typical Road Hierarchy Change "Trunk Collector Street" to "Sub Arterial & Change "External Road" to "Arterial Road"	Recommended
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## DESIGN GUIDELINES

D1.01	Scope	Amend Point 2. to read This Manual will be read in conjunction with the Institute of Public Works Engineering Australia publication Design Guidelines for Subdivisional Street works 'Queensland Streets'. Council will consider principles adopted within Design Guidelines for Subdivisional Street works - 'Complete Streets'.	Recommended
D1.03	Reference Documents	Delete 'Design Guidelines for Subdivisional Street works, Queensland Streets', Insert 'Complete Streets - Guidelines for Urban Street Design'	Recommended for inclusion but maintain Complete Streets
D1.08	Vertical Curves	Vertical Curves - change reference to "Trunk Collector" to "Sub Arterial"	Recommended
D1.09	Table D1.1	Amend lighting category for Cook Shire Council residential streets to V5 instead of P4	Recommended
D1.09	Table D1.1	<ul style="list-style-type: none"> <li>change design speed of Major Collector Road to 60 km/h.</li> </ul>	Recommended
D1.09	Table D1.1	<ul style="list-style-type: none"> <li>include note 14 to design speed for Access Place and Access Street – Note 14 to read: 'Design speed for Access Place and Access Street is lower than the default urban speed limit of 50 km/h, however, a design speed of 30 km/h for Access Place and Access Street is deemed to be a safe operating speed'.</li> </ul>	Recommended
D1.09	Table D1.1	<ul style="list-style-type: none"> <li>include note 15 to design speed for Minor Collector Road, Major Collector Road and Sub Arterial/Arterial – Note 15 to read: 'Design speed shall be greater than or equal to the posted speed limit'.</li> </ul>	Recommended
D1.12	Intersections	<p>Intersections:</p> <ul style="list-style-type: none"> <li>point 3 - remove reference to "Trunk Collector"</li> <li>point 5 - change reference to "Trunk Collector" to just "Collector"</li> <li>point 8 - Replace point 8 with 'The choice of design vehicle depends on the functional classification, land use and composition of traffic expected to negotiate the intersection. "Austroads Design Vehicle and Turning Path Templates Guide, 2013" should be used to select the appropriate design vehicle for the intersection design'.</li> </ul> <p>Remove Figure D1.3.</p> <ul style="list-style-type: none"> <li>point 13 - remove reference to "Trunk Collector"</li> </ul>	Recommended
D1.13	Roundabouts	<p>Roundabouts</p> <ul style="list-style-type: none"> <li>Remove reference to "Austroads Guide to Traffic Engineering Practice" this guideline has been superseded. Reference should just be made to "relevant Austroads Guidelines"</li> <li>Add note that roundabouts should be designed to accommodate the appropriate intersection design vehicle which is dependent on the hierarchies of the intersecting roads. A mountable area in the centre island should be provided to cater for larger vehicles. On all potential bus routes, buses should be able to circumnavigate the roundabout without needing to mount the centre island</li> </ul>	Recommended
D1.15	Local Area Traffic management	<p>Local Area Traffic Management</p> <ul style="list-style-type: none"> <li>Remove reference to "Austroads Guide to Traffic Engineering Practice" this guideline has been superseded. Reference should just be made to "relevant Austroads Guidelines"</li> </ul>	Recommended
D1.16	Table D1.2	Bus Stops Table D1.2 - remove reference to "Trunk Collector"	Recommended
D1.24	Pedestrian Foot Bridges	Item 1 - Pedestrian foot bridges are to be provided where necessary and are to be constructed from concrete, steel, timber or similar suitable material (all steel work is to be hot dipped galvanised) and shall be provided with handrails / fences for pedestrian safety, if required by relevant Standards.	Recommended
D1.29	Intersections	<p>Intersections (Rural)</p> <ul style="list-style-type: none"> <li>Remove reference to "Austroads Guide to Traffic Engineering Practice" as this guideline has been superseded. Reference should just be made to "relevant Austroads Guidelines"</li> </ul>	Recommended
D1 - Discussion	Rural Access Standard drawing (Trucks)	TRC considers it appropriate that a rural access standard drawing be included in the review of the DM. Attached two DTMR standards for consideration - no need to reinvent the wheel - just reference DTMR Standard.	Recommend amendment to S1105 to include elements of DTMR PDRPA001VB. Note 6 to apply to all councils, change width to min 3m and max 6m, change radius to min 4.5m and include visibility triangle
D2.05	Clearing	Insert after Point 2: To assist appropriate, design the involvement of an AQF Level 5 certified Arborist should be involved to advise on the Tree Protection Zones and condition of trees which may be selected for possible retention.	Not recommended for default manual - Recommended for CRC Local Government Specific
D2.05	Clearing	Additional to this, where trees are selected for retention, the Surveyor should include the size of the canopy and trunk diameter of the tree on the plan TO SCALE. This will assist the Designer to determine the TPZ and SRZ as per AS4970-2009, to avoid design conflicts with the trees.	Not recommended for default manual - Recommended for CRC Local Government Specific
D2.05	Clearing	Add: 8 (or 9 if additional 2 is kept). As part of the clearing process and before any grading or other earthworks take place, tree protection zones as per AS4970-2009 are to be delineated and installed for those trees selected for retention.	Not recommended for default manual - Recommended for CRC Local Government Specific
D2.13	Retaining Walls	Paragraph 1 & 2 - Replace 900mm with 1.0m	Recommended
D2.14	Earthworks on Hill slopes	3. Delete 'meters', Insert 'metres'	Recommended
D3.03	Reference Documents	Amend to read Queensland Government Department of Transport and Main Roads and associated manuals/guidelines	Recommended
D3.03	Reference Documents	Amend to read AUSTROADS /ARRB publications associated manuals/guidelines	Recommended
D3.05	Design Traffic	Point 2 - remove references to specific manuals/guidelines and refer the lead organisation	Recommended
D3.06	Subgrade Evaluation	Point 2 - remove references to specific manuals/guidelines and refer the lead organisation	Recommended
D3.07	Environmental Factors	Point 1 - remove reference to specific manuals/guidelines and refer the lead organisation	Recommended
D3.08	Materials Testing	Amend to read Queensland Government Department of Transport and Main Roads	Recommended
D3.10	Flexible Pavements	Point 1 - remove reference to specific manuals and guidelines and reference lead organisation	Recommended
D3.10	Flexible Pavements	Point 2 - amendment reference to Queensland Government Department of Transport and Main Roads	Recommended
D3.14	Asphaltic concrete	Amend 4b to read Queensland Government Department of Transport and Main Roads	Recommended
D3.14	Asphaltic Concrete	4.b. Amend to read - b. Asphalt 40mm or thicker is required to be a dense graded asphalt (DG14) in accordance with Queensland Government Department of Transport and Main Roads "Standard Specifications	Recommended
D3.14	Asphaltic Concrete	4.c - Amend to read - Asphalt of 30 - 40 mm thickness must be a dense graded asphalt (DG10) in accordance with Main Roads "Standard Specifications Roadworks".	Recommended
D4.03	Reference Documents	Include Environmental Protection Act, The Environmental Protection (Water) Policy and Queensland Water Guidelines	Recommended
D4.04	General	Item 6 - Change 'will result in increased runoff' to 'will result in increased peak flows'	Recommended
D4.05	Table 4.3	Amend Note 1 to remove 1/03 after State Planning Policy	Recommended with a process to commence to amend ARI to AEP over time as it is introduced
D4.06	Design Rainfall Data	Add to point 1: If the location of the proposed development falls between two IFD Charts or is not covered by the charts, Council should be contacted to confirm the appropriate table to be used. Alternatively IFD Charts can be generated using the Bureau of Meteorology online Rainfall IFD Data System ( <a href="http://www.bom.gov.au/water/designRainfalls/ifa/index.shtml">http://www.bom.gov.au/water/designRainfalls/ifa/index.shtml</a> )	Recommended
D5.04	Reference Documents	Include State Planning Policy	Recommended
D5.04	Reference Documents	Include Sustainable Planning Act, Queensland Water Quality Guidelines. Remove version information related to BCC Water Quality Management Guidelines	Recommended
D5.07	Site based water quality issues	Amend point 3 to read: 3. Site based infrastructure will be focussed on interception of pollutants such as suspended solids (80%), gross pollutants (90% >3mm), phosphorus (80%), hydrocarbons prior to their entry into drainage systems and water ways.	Recommended
D5.07	Site based water quality issues	<p>Add point 5 &amp; 6 :</p> <p>5. The default bio-retention treatment area to comply with load reduction targets of 1.5% of the contributing catchment area.</p> <p>6. Degraded waterways may seek alternative discharge management objectives to achieve waterway stability. For peak flow for the 100% AEP event, use collocated storages to attenuate site discharge rate of stormwater.</p>	Recommended
D5.08	Acceptable Design Solutions	Amend point 2 to read: 2. Water quality interception devices or a combination of interception devices and treatments are required to remove at least 95% of total suspended solids (litter) of size greater than 3.0mm as well as sand, 60% of total phosphorus, and 40% of nitrogen and shall be configured to prevent re-injection of captured contaminants.	Recommended
D5.08	Acceptable Design Solutions	Add to the end of point 3 - "The use of proprietary Wet Well Gross Pollutant Traps (GPT's) will not be accepted as a means of treating dissolved nitrogen and phosphorus.	Recommended
D5.09	General	<p>Add Point 6 &amp; 7:</p> <p>6. Dispose of waste containing contaminant at authorised facilities.</p> <p>5.7. Waterway stability and flood flow management – for peak flow for the 100% AEP event and 1% AEP event, use constructed sediment basins to attenuate the discharge rate of stormwater from the site.</p>	Recommended
D5.10	Erosion and Sediment Control Strategy	Amend 4.d to read: d. Determination of the risk of erosion and anticipated sediment yields using local rainfall, erosivity, rainfall depth,	Recommended
D5.10	Erosion and Sediment Control Strategy	Add 4.i: i. Design stormwater for sediment basing sizing is 80th% five day event	Recommended
D5.11	Acceptable Design Solutions	Add to 1. : Design capacity excludes minimum 150mm freeboard	Recommended
D5.11	Acceptable Design Solutions	Amend Table D5.1 to include ARI for 12-24months (5 years), 24 months+ (10 years) and Temporary Culvert crossing (1 year)	Recommended
D5.12	Design Guidance	Remove reference to versions and add Water by Design	Recommended
D6.01	Scope	Item 3 - Add ".....with the following provisions in order of precedence"	Recommended
D6.01	Scope	Item 3 dot point 1 - Change "Council's general criteria" to "Council's design criteria....." and delete ".....Drawings that are based on the Desired Standards of Service"	Recommended
D6.01	Scope	Item 3 dot point 2 - Spelling "The criteria contain ed....."	Recommended
D6.01	Scope	Item 3 dot point 4 - Change "Department of Environment and Resource Management" to "relevant state government department"	Recommended
D6.01	Scope	Item 5 - Change "land development Guidelines" to just "Development Guidelines"	Recommended
D6.02	General	Item 1 - Add text ".....in accordance with this section as a minimum standard"	Recommended
D6.02	General	Item 3 - Where a water supply source is being developed to service the development, the source shall either meet or exceed the Australian Drinking Water Guidelines (ADWG), or the developer shall provide the necessary infrastructure to treat the source to the ADWG, including disinfection before storage and/or distribution. <del>6.</del>	Recommended
D6.03	Objective	Amend Item 1 - The objective of a water supply system is to provide to the consumer a reticulated potable water supply to meet the demands imposed upon it by both the consumers and network level fire fighting requirements. Provision for on-lot fire fighting requirements is outside the scope of the water supply network and is the responsibility of the Building Owner.	Recommended



D6.04	Reference Documents	Add "Sustainable Planning Act"	Recommended
D6.04	Reference Documents	Change Department of "Environment and Resource Management" to "Energy and Water"	Recommended
D6.05	Reticulation - General	Amend Item 5 - <del>Prior to proceeding with detailed design, the Consultant shall liaise with Council to ascertain whether a network analysis (to determine the optimum size of the internal mains) is required by Council as part of the design submission for the development unless written agreement for waiver of this requirement has been obtained from council. For the design of water reticulation schemes and where Council requires a network analysis, it the network analysis shall be completed by the Consultant following discussions with Council and be based on the design criteria detailed in Section D6.07 below.</del>	Recommended
D6.05	Reticulation - General	Amend Item 6 - If a network analysis is required, the designer will be required to liaise with council regarding appropriate boundary conditions for the proposed development. Typically this will include a requirement for a hydrant test to be conducted, at the developers expense. For multi-stage developments, as a minimum, the network analysis must demonstrate compliance for both the ultimate development, and the stage subject to the application. <del>provide digital data compatible with Councils software, with the design submission, to enable the reticulation network to be input into Council's network model for checking. The network analysis shall be undertaken using EPANet compatible software and available for handover to Council for incorporation into the Council network program.</del>	Recommended
D6.05	Reticulation - General	Delete item 7	Recommended
D6.05	Reticulation - General	Item 9 - Reword as follows:- "The network design shall be planned to satisfy the requirements of this manual <del>and to meet Council Customer Service Standards, which are published pursuant to the requirements of the Water Supply (Safety and Reliability) Act, at a minimum whole of life cost (capital cost, operational and maintenance cost) for an environmentally acceptable solution and not simply a least capital cost solution.</del> "	Recommended
D6.07	Design Criteria	Amend Item 3, Table row1, column 1 - Residential (i.e. <del>An area comprising of predominantly</del> Residential dwellings to a maximum of 3 storeys)	Recommended
D6.07	Design Criteria	Amend Item 3, Table row 1, column 1 - Commercial (i.e. <del>An area comprising of</del> shop and office accommodation of a maximum of 3 storeys), High Density Residential (Residential building in excess of 3 stories) and Industrial	Recommended
D6.07	Design Criteria	Amend Item 3 Table row 2, Column 2 - 30 L/s for 4 hours <del>For schemes serving a population of less than 1000 a fire flow of 15 L/s for 2 hours should be satisfactory except where a special hazard or risk development exists</del>	Recommended
D6.07	Design Criteria	Amend Item 3 - Table Row 3, Column 2 - To be determined in consultation with council. Alternative methods of provision may be required (i.e. on-site storage).	Recommended
D6.07	Design Criteria	Amend Item 3, Table row 4 - Residual pressure is to be 12m minimum at hydrant <del>and at the required background demand time all times</del> , assuming that the elevation of the supply point is equal to the ground elevation at the hydrant. 6m minimum residual pressure is to be retained in the mains for all other areas of the water supply zone at the required background demand time. Positive residual pressures must exist at peak hour, within the reticulation during the fire event.	Recommended with minor wording changes
D6.07	Design Criteria	Item 3 - New heading after background pressures - <del>On-Lot Fire Systems. The purpose of fire provision specified in this manual is to meet network level fire fighting requirements. Water supply network design in accordance with this manual is not intended to cater for individual property fire fighting flow requirements. Provision for on-lot fire fighting requirements is the responsibility of the Building Owner. Council does not guarantee a standard of service available from its mains for such fire fighting systems. While a hydrant test certificate may indicate the FNQROC desired standards of service were exceeded at the time of the test, it should not be assumed that this level of service will be available at all times and during a fire event. Selection, or adoption, of flows and pressures in excess of the FNQROC desired standards of service is at the owners/hydraulic consultants risk. If a pumped fire fighting system is proposed, it is Council's preference not to allow a direct pump connection to its mains. Council's preference is for a "break tank" that will serve as a physical hydraulic separation between the pump operation and the upstream hydraulic impact on Council's system.</del>	Recommended
D6.07	Design Criteria	Item 4, table row 2 - delete row	Recommended
D6.07	Design Criteria	Item 5 table row 2 - delete row	Recommended
D6.12	Hydrants	Amend 2 to read 80m spacing in all areas	Recommended
D6.19	Dual Water supply systems	New paragraph at end - Minimum domestic demand pressure requirements as specified in D6.07 will apply to Dual Water Supply Systems, unless written approval is obtained from council for an alternative pressure requirement.	Recommended
D7.01	Scope	Item 7 - Reword "Smart Sewer planning, design, construction and certification may be carried out in accordance with Queensland Urban Utilities Sewerage Standards - No Sewer - Design and Construction Specification Version 5 SEQ Water Supply and Sewerage Design and Construction Code, and aspects of modification or clarification are detailed in Appendix D of this manual and approved by Council. The design criteria shall be confirmed with Council prior to commencement of detailed design"	Recommended
D7.01	Scope	Amend Item 1 - Remove the words cross out as follows: " This section also covers <del>certain service connection issues relating to development approvals and private infrastructure</del> that need to be to Council standards"	Recommended
D7.01	Scope	Amend Item 2 - add "The sewer reticulation system shall be defined as gravity sewers...."	Recommended
D7.01	Scope	Amend Item 2 - Corrections "This definition of sewer reticulation systems applies only to <del>these</del> this FNQROC Sewerage Design Manual and Specification, and is independent of the definition of trunk infrastructure as relates to trunk infrastructure charges."	Recommended
D7.01	Scope	Amend Item 3 - Insert ".....carried out in accordance with the following provisions in order of precedence:-"	Recommended
D7.01	Scope	Amend Item 3a - "Council's <del>general</del> design criteria .....and drawings <del>that are based on the Desired Standards of service</del> ; and"	Recommended
D7.01	Scope	Amend Item 3b - "The criteria contain <del>ed</del> within...."	Recommended
D7.01	Scope	Amend Item 3d - Substitute "relevant State Government Department" for "Department of Environment and Resource Management"	Recommended
D7.01	Scope	Item 5 - Delete item 5	Recommended
D7.03	Objective	Item 2 - Reword ".....should <del>meet least community cost for the whole lifecycle</del> represent the least whole of life cost."	Recommended
D7.04	Reference Documents	Include "Sustainable Planning Act 2009" under QLD Government Legislation	Recommended
D7.04	Reference Documents	Change "Queensland Urban Utilities Sewerage Standards" to "SEQ Water Supply and Sewerage Design and Construction Code" and Delete the dotpoint	Recommended
D7.05	General	Item 1 - Reword ".....calculated on the basis of <del>their</del> future development with Council's Strategic Plan Council's planning scheme, and accordingly, shall...."	Recommended
D7.05	General	Add new item - 4. The designer is required to demonstrate that downstream capacity is available in the sewage network, from the proposed connection point to the nearest downstream trunk sewer.	Recommended
D7.07	Unconventional Infrastructure	Item 1. Reword ".....Lift stations, <del>area</del> pumping stations and ....."	Recommended
D7.07	Unconventional Infrastructure	Item 2. Reword ".....Council may not have <del>approved</del> design criteria....."	Recommended
D7.08	Design Criteria	Table 7.1 - clarify calculation for 3+ bedroom unit	Recommended
D7.09	Sewer Alignment Table 7.6	Change alignment in Vergé to "1.6m" delete "Not usually permitted, subject to Council Approval"	Recommended subject to council approval
D7.09	Sewer Alignment	Item 5 - Add ".....the lower side of retaining walls and in these instances the sewer must be located in the road reserve"	Recommended
D7.09	Sewer Alignment	ADD Item 8 - "Where benched sites are developed sewers must be located on the lower side of the batter or retaining wall."	Recommended
D7.10	Manholes	Item 1 - Add "f. At maximum spacing of 100m"	Recommended
D7.10	Manholes	Item 5 - Correction ".....manholes less than 1400 <del>1425</del> mm deep....."	Recommended
D7.12	Dedication of land, easements, and permits to enter	Item 1c - Reword ".....the pump station <del>setback offset</del> as indicated in D7.16 "pump stations"".	Recommended
D7.13	Property connections	Replace Item 4. wording with "Where sewers are greater than 1.5m deep then alternative property connection branch types should be considered such as y-branch and maintenance shafts. The use of alternatives should be confirmed with council prior to detailed design."	Recommended
D7.13	Property connections	Item 8 - Reword ".....the property connection is to extend within the allotment with the riser of the PCB located no more than a distance of 1.0m into the allotment. For battle-axe..." and "..... Where a sewer is contained within a stormwater drainage easement, then the riser of the property connection should be located <del>extend. a minimum of no more than</del> 1m past the easement boundary and into the lot its serving. All ....."	Recommended
D7.16	Pump Stations	Item 1. Add wording ".....Project Specific design drawings are to be provided with the operational works submission which include the following among other things: Relative levels (A through G) as denoted on these drawings as well as all pump start, stop and alarm levels appropriate to operating conditions shall be provided with the pump station design, detailed site plan showing pump station relative to existing and proposed surface contours and in relation to boundaries, flood levels and other elements and features, cross-section and plans of the pump station drawn to scale and dimensioned, pipework and ancillary elements drawn to scale and correct orientation, generator building if applicable, switchboard drawings and detailed cross-section and plan of emergency storage tank."	Recommended with some amendments
D7.16	Pump Stations	Add new point 7. Water supply - 25mm with RP2D backflow device - If water supply available	Recommended excluding Cairns Regional Council
D7.16	Pump Stations	Amend 9ii. To read... 30mm asphalt on 100mm sub-base and 100mm base course, subject to the sub grade strength indicated by the CBR	Recommended
D7	Appendix A	Last paragraph modified same as D7.13 Item 8 above	Recommended - delete Appendix A 5.6
D7	Appendix A	Delete Addendum Item 5.7	Recommended
D7	Appendix D	Delete Appendix D	Recommended
D8.07	Table D8.1	Lighting Categories - Amend existing table as per the attached for the introduction of energy efficient lamps.	Recommended



D8.07	Table D8.1	Lighting Categories Notes - Replace wording for Point 3 - The Nostalgia street light is only to be used for Category P4 lighting on a residential access street and / or access place road.	Recommended
D8.07	Table D8.1	Lighting Categories Notes - Delete Point 4 - As energy efficient lamps are now listed in Table D8.1.	Recommended
D8.07	Table D8.1	Lighting Categories Notes - Replace the wording "Type 4 - Aeroscreen" to Type 4 - Full Cut Off.	Recommended
D8.07	Road Lighting	Add item - (g.) Depending on the traffic generated by the development, at least two spans of lighting on each approach leg of an existing road leading to an access driveway or intersection constructed to provide the ingress/egress for a new development, as determined by Council.	Recommended
D8.08	Park Lighting	Park Lighting - Add paragraph - (4.) If reticulated electricity is not readily available, the use of luminaires powered by solar panels / wind turbine technology can be considered as an alternate power source in parks or remote / isolated locations provided the lamp output is appropriate and the system is to be of sufficient capacity to ensure a reliable energy supply for the lamp to operate from sunset to sunrise seven days a week with an autonomy of 5 to 7 nights.	Recommended
D9.03	Reference Documents	Insert: AS4970-2009 Protection of Trees on Development Sites and AS 4373-2007 Pruning of Amenity Trees	Recommended
D9.07	Street Tree Planting	Add point 9 (wording to be provided) to describe 2 options for planting of street trees, being: 1. The developer plant the trees and maintain it for 13 weeks (nominally prior to Final Works Acceptance) 2. The developer pays Council a contribution at Final Works Acceptance/Plan Sealing stage for planting street trees after the completion of houses on the lots. A landscaping plan needs to be provided to prospective purchasers indicating location for street trees.	Recommended with amendment
D9.23	General	7. amend 3 months to read 'a minimum of 12 months'	Recommended until final works acceptance

#### SPECIFICATIONS

S1.02	Reference Documents	Add: Australian Standards AS4970 - 2009 Protection of Trees on Development Sites Add: Australian Standard AS4373-2007 Pruning of Amenity Trees	Recommended
S1.06	General	Add: 2. Specific reference is made to AS4970-2009 in relation to earthworks near trees selected for retention, i.e. no removal of topsoils should take place within the Tree Protection Zone as this destroys the Mycorrhizal root zone the tree needs for nutrient uptake. Add: 3. Specific Reference is made to AS4373-2007 in relation to pruning work to be performed on any trees selected for retention	Recommended
S1.08	Clearing and Grubbing	Add: 7. Any trees, shrubs and overhanging branches identified in the Project Drawings to be retained or protected must be clearly fenced off as per AS4970 - 2009 prior to the commencement of any clearing and grubbing. Any clearing and other works within the Tree Protection Zones must only be done under direction of the Project Arborist.	Recommended with amendment to read 'suitably qualified person'
S1.09	Topsoil Operations	Insert after point 1: 2. For trees selected for retention and protection, no stripping of topsoil is to be done within the Tree Protection Zone as per AS4970-2009, unless under the direction of or advice from the Project Arborist.	Recommended with amendment to read 'suitably qualified person'
S1.11	Excavations	Add: 8. No excavations may take place within the Tree Protection Zone of trees selected for retention and protection unless under the direction or approval of the Project Arborist.	Recommended with amendment to read 'suitably qualified person'
S1.13	Trenching Operations	Add: 6. No trenching operations may be performed within the Tree Protection Zone of trees selected for retention and protection unless under the direction or approval of the Project Arborist.	Recommended with amendment to read 'suitably qualified person'
S2.17	Asphaltic Concrete Surfacing	Amend 2.17.1 - Same as Item S2.17.2 - Not sure why we call for AC10 over DG10 - especially when it requires additional design works as per Tables 3.2.1 & 3.2.2 page 21 of 40 National Asphalt Specifications	Recommended to delete point 1 and amend point 2
S2.17	Asphaltic Concrete Surfacing	Delete point 4 as it is covered in the DTMR specification	Recommended
S3.02	Reference Documents	Delete 'Paver Note 1 - Specifying and Laying Clay Pavers', Insert 'Clay Paving Design and Construction'.	Recommended
S3.04	Clay Segmental Pavers	2. - Delete 'Paver Note 1 - Specifying Clay Pavers of Paver Note 1 - Specifying and Laying Clay Pavers', Insert 'Clay Brick and Paver Institute's Clay Paving Design and Construction'.	Recommended
S3.04	Clay Segmental Pavers	Delete 3 & 4	Recommended
S4.26	CCTV Inspection of Stormwater Drainage	Denote Local Government specific for MSC and Denote commentary is available	Recommended
S6.03	Pipes General	Denote Local Government specific for DSC	Recommended
S6.21	Manholes	Denote Local Government specific for DSC	Recommended
S6.23	Pump Stations	Denote Local Government specific for DSC	Recommended

#### STANDARD DRAWINGS

S1000	Concrete kerb and channell profiles	Add additional type	Recommended for public consultation
S1010C - CRC	Public Utilities on road verges	Amend to become Standard drawing rather than CRC specific	Recommended
S1015	Access Cross overs	Various amendments to standards and notes	Recommended for public consultation
S1016	Kerb Ramp	Amendment to note 2 & 5	Recommended for public consultation
S1035	Pathways / Bikeways	Various amendments throughout the drawing	Recommended for public consultation
S1100	Stormwater Drainage Entry Grates	Updated notes to specify stainless steel fixings, as attached and amend title block from 'grates' to 'grates'	Recommended for public consultation
S1105	Rural Allotment Accesses	Recommend amendment to S1105 to include elements of DTMR PDRPA001B. Note 6 to apply to all councils, change width to min 3m and max 6m, change radius to min 4.5m and include visibility triangle	Recommended in line with above D1 submission
S1110	concrete driveway for Allotment Access	Updated mesh notes for driveways, as attached	Recommended for public consultation
S3005	House Connection Branches	Amend to include markers in line with recommendation to change CP1 Appendix G to include all property connection branch markers located?	Recommended
S3020	Sewerage Pump Station Cast in situ	Proposed amendments to include Aluminium, Confined spaced tripod pad, Stainless steel fittings etc.	Recommended inclusion of tripod pad
S4100	Tree Guards	Typical Section note refers to Model 68 duckbill earth anchor. Where large specimen trees are planted this can be used if staking or cabling is not an option - PT.	Recommended for public consultation
S4110	Traffic Islands/Medians	Updated mesh notes for traffic islands, as attached	Recommended for public consultation
S4210	Street Tree Planing	Add note to indicate that irrigation pipe is only used in CBD, not residential areas. Also, remove "plastic multi-purpose chain ties or equivalent" with "hessian tree tie". Remove Brand Name "Arboregreen RC120" from all references and just use the term "Root cells" as there are different styles with different benefits.	Recommended for public consultation
S4210	Street Tree Planing	Replace "plastic multi-purpose chain ties or equivalent" with "hessian tree tie". - PT	Recommended for public consultation
S4220	Landscape Mounding Standard Drawing	Note 2: Irrigation is spelled incorrectly	Recommended for public consultation
S4220	Landscape Mounding Standard Drawing	Remove Brand Name "Arboregreen RC120" from all references and just use the term "Root cells" as there are different styles with different benefits.	Recommended for public consultation
S4300	Log Barrier Fencing and Timber Bollards	Add detail for removable bollard. Amend drawing to show concrete footing finishing above grass level. Revise note to include 125mm, 150mm and 200mm dia pine logs. Note 2: Remove "2" from middle of sentence	Recommended for public consultation
S4300	Log Barrier Fencing and Timber Bollards	Updated weather treatment notes for log fencing, as attached	Recommended for public consultation
S4340	Timber Bench Seat	Add to Note 2: 'or other approved products'	Recommended for public consultation
S4370	Playground Edging	Add to Notes: 'or other approved products' (e.g. Replas, maintenance kerbs and concrete edging) and updated weather treatment	Recommended for public consultation
S4380	Garden Bed Edging	Add note/detail of other approved products, e.g. Replas, maintenance kerbs and concrete edging.	Recommended for public consultation
S4390	Advisory Signs	Updated weather treatment notes for advisory signs, as attached	Recommended for public consultation
S9010	Park Access Gate	Add Note - Lock supplied by CRC in CRC	Recommended for public consultation
additional standard drawing	Standard kerb & channel NIB crossing	Additional drawing provided	Recommended for public consultation
New drawing	Road Hierarchy Standard drawing	Proposed new drawing	Recommended for public consultation

#### CRC SPECIFIC DRAWINGS

S4010-CRC	Typical Planting Plan and Plant Schedule	Remove Plant Schedule	Recommended
S4020-CRC	Typical Hard Landscape Plan	Change '1200mm' to '2m'. Change 'CCC' to 'CRC'	Recommended
S4160-CRC	Footpath Planter Type E	Change 'distance of 600 to 1000mm' to 'distance of 800mm or more'. Change 'CCC' to 'CRC'	Recommended
S4200-CRC	Verge Landscaping Guidelines - Tree Planting: Setout	Change ccc in notes to CRC	Recommended
S4200-CRC	Verge Landscaping Guidelines - Tree Planting: Setout	Change 'distance of 600 to 1000mm' to 'distance of 800mm or more'. Change 'CCC' to 'CRC'	Recommended
S4210-CRC	Urban Street Tree Planting	Please remove Brand Name "Arboregreen RC120" from all references and just use the term "Root cells" as there are different styles with different benefits.	Recommended
S4220-CRC	Car Park Tree Planting	Please remove Brand Name "Arboregreen RC120" from all references and just use the term "Root cells" as there are different styles with different benefits.	Recommended
S4310-CRC	Landscaping Guidelines - Timber Bollard	Remove bollard detail	Recommended

#### TRC SPECIFIC DRAWINGS

S2060TRC	Domestic Water Service Connection details	Include revised local government specific drawing S2060bTRC. Amending 425mm O>D POLY Class 12 to Class 16 (blue line).	Recommended
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