# ADOPTED INFRASTRUCTURE CHARGES RESOLUTION FOR THAT PART OF COUNCIL'S LOCAL GOVERNMENT AREA COVERED BY Redcliffe City Planning Scheme 2005

1. This resolution applies to that part of the Moreton Bay Regional Council local government area covered by *Redcliffe City Planning Scheme 2005*.

To remove any doubt, it is declared that this resolution does not form part of *Redcliffe City Planning Scheme 2005* or any of the other planning schemes for the Moreton Bay Regional Council local government area.

- 2. This resolution has effect on, and from, the day that the *Draft State Planning Regulatory Provision (adopted charges)* comes into effect.
- 3. This resolution adopts an infrastructure charge for various forms of development and, in each case, that charge is less than the maximum adopted charge prescribed in *State planning regulatory provision* (adopted charges) for that form of development.

To enable the adopted infrastructure charges schedule appearing in Table 2 of the *State planning regulatory provision (adopted charges)* to be applied to the "use types" set out in *Redcliffe City Planning Scheme 2005*, Table 1 of this resolution identifies the corresponding "use types" for each of the classes of development appearing in Table 2 of the *State planning regulatory provision (adopted charges)*.

Table 1 – Corresponding "Use Types" for the Classes of Development to Which Adopted Infrastructure Charges may be Applied

Redcliffe City Planning Scheme 2005 "Use Types"	Classes of development identified in Table 2 of the State planning regulatory provision (adopted charges)
Duplex Dwelling,	Residential
House,	
Multiple Dwelling,	
Relative's Accommodation	
Accommodation Unit,	Accommodation (short term)
Caravan Park,	
Hotel (residential component),	
Caretaker's Residence,	Accommodation (long term)
Special Needs Housing	
Club	Places of Assembly

Outdoor Sales Premises,	Commercial (bulk goods)
Showroom/Superstore	
Food Service,	Commercial (retail)
Service Station,	
Shop	
Business Premises,	Commercial (office)
Display Home/Estate Sales Office,	
Education Centre	Education Facility
Hotel (non-residential component)	Entertainment
Indoor Entertainment, Sport or Recreation	Indoor Sport and Recreational Facility
General industry,	Industry
Service Trade,	
Warehouse	
Industry with Substantial Impacts	High Impact Industry
	Low Impact Rural
	High Impact Rural
Community Well-Being Infrastructure,	Essential Services
Government Infrastructure	
Aerodrome,	Specialised Uses
Car Park,	
Community Well-Being Facilities,	
Entertainment Outdoor,	
Market,	
Rural Activities,	
Sport and Recreation Outdoor,	
Stable,	
Transport Interchange,	
Utility Installation	
Employment Related Storage,	Minor Uses
Home Based Business,	
Park	

4. Under the *Sustainable Planning Act 2009*, an adopted infrastructure charge may be levied for the trunk infrastructure that is planned to serve the premises on which development is undertaken.

The types of development that may trigger the levying of an adopted infrastructure charge under this adopted infrastructure charges resolution are:-

- (a) reconfiguring a lot; and
- (b) a material change of use of premises; and
- (c) a combination of (a) and (b) above.
- 5. Table 2 identifies Council's adopted infrastructure charges at 1 July 2011 for each of the types of development that may trigger the levying of an adopted infrastructure charge under this adopted infrastructure charges resolution. The adopted infrastructure charges in Table 2 are to automatically change in line with future adjustments to the adopted infrastructure charges schedule as they are gazetted by the Minister. At all times, Council's adopted infrastructure charges are to match the maximum adopted charges appearing in the adopted infrastructure charges schedule current at that point in time. Unless otherwise exempted elsewhere in this resolution, Council's adopted infrastructure charges apply to development undertaken under a development approval or compliance permit anywhere within that part of Council's local government area covered by *Redcliffe City Planning Scheme 2005*.

Table 2 – Council's Adopted Infrastructure Charges

Development for Which an Adopted Infrastructure	Set in the Infrastruct Schedule Planning Provision	lopted Charge e Adopted ure Charges of the State Regulatory n (adopted rges)	Council's Infrastructi	Adopted ure Charge
Charge May Apply	Charge for all Trunk Infrastructure Networks Other than Stormwater	Charge for Trunk Stormwater Network	Council's Adopted Infrastructure Charge for all Trunk Infrastructure Networks Other than Stormwater	Council's Adopted Infrastructure Charge for Trunk Stormwater Network
Residential- 3 or more bedroom dwelling	\$28,000 per dwelling unit		\$28,000 per	dwelling unit
Residential- 1 or 2 bedroom dwelling	\$20,000 per dwelling unit		\$20,000 per	dwelling unit
Accommodation (short term)	\$10,000 per dwelling unit (1 or 2 bedroom dwelling) Or \$14,000 per dwelling unit (3 or more bedroom dwelling)		(1 or 2 bedro	or dwelling unit
Accommodation (long term)	\$20,000 per dwelling unit (1 or 2 bedroom dwelling) Or \$28,000 per dwelling unit		(1 or 2 bedro	dwelling unit om dwelling) or dwelling unit

	(3 or more bedroom dwelling)		(3 or more bed	room dwelling)
Places of Assembly	\$70 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>	\$70 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>
Commercial (bulk goods)	\$140 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>	\$140 per m <sup>2</sup> of GFA	\$10 per impervious m²
Commercial (retail)	\$180 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>	\$180 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>
Commercial (office)	\$140 per m <sup>2</sup> of GFA	\$10 per impervious m²	\$140 per m <sup>2</sup> of GFA	\$10 per impervious m²
Education Facility	\$140 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>	\$140 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>
Entertainment	\$200 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>	\$200 per m <sup>2</sup> of GFA	\$10 per impervious m²
Indoor Sport and Recreational Facility	\$200 per m <sup>2</sup> of GFA, court areas at \$20 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>	\$200 per m <sup>2</sup> of GFA, court areas at \$20 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>
Industry	\$50 per m <sup>2</sup> of GFA	\$10 per impervious m²	\$50 per m <sup>2</sup> of GFA	\$10 per impervious m²
High Impact Industry	\$70 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>	\$70 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>
Low Impact Rural		charge	Nil charge	
High Impact Rural	\$20 per m <sup>2</sup> of GFA	N/A	\$20 per m <sup>2</sup> of GFA	N/A
Essential Services	\$140 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>	\$140 per m <sup>2</sup> of GFA	\$10 per impervious m <sup>2</sup>
Specialised Uses	Use and demand determined at time of assessment		"classes of develor this table and a ch	natching "class of
Minor Uses	Nil charge		Nil ch	narge

- 6. For this resolution, the charges information provided in Table 2 above (including the wording used in that charges information) is to be interpreted in the following way:
  - (a) "dwelling unit" for purposes of determining the charge for Residential development has the meaning given to that term in the *Queensland Planning Provisions*;
  - (b) for Accommodation (short term) and Accommodation (long term), a room containing 3 or more beds (regardless of the bed size or form) constitutes a "dormitory";
  - (c) for "dormitory" sleeping accommodation within Accommodation (short term) or Accommodation (long term), each bed (regardless of its size or form) constitutes half of a "bedroom", eg, a room containing 4 separate beds is regarded as 2 "bedrooms";
  - (d) a single "dwelling unit" for Accommodation (short term) and Accommodation (long term) is:
    - (i) each Caretaker's Residence; or
    - (ii) each caravan, tent or relocatable home within a Caravan Park; or
    - (iii) each room provided as sleeping accommodation, (including a room that has more than one function and one of those functions is sleeping accommodation),

- within a Hotel, Special Needs Housing or Accommodation Unit development (other than motel accommodation) where the sleeping accommodation is not provided in "dormitory" form; or
- (iv) each unit within a motel or the like;
- (e) where sleeping accommodation for Accommodation (short term) or Accommodation (long term) is provided in "dormitory" form:
  - a building containing no more than 4 beds (regardless of the bed size or form) constitutes a single 2 bedroom dwelling unit;
  - (ii) a building containing 5 or 6 beds (regardless of the bed size or form) constitutes a single 3 bedroom dwelling unit; and
  - (iii) a building containing more than 6 beds (regardless of the bed size or form) is regarded as more than one dwelling unit. In such instances, each group of 6 beds constitutes a single 3 bedroom dwelling unit;
- (f) gross floor area (GFA) for purposes of determining Council's adopted infrastructure charge has the meaning given to that term in the *Queensland Planning Provisions*;
- (g) "impervious area" for purposes of determining Council's adopted infrastructure charge has the meaning given to that term in the *Queensland Urban Drainage Manual* (QUDM);
- (h) for purposes of determining Council's adopted infrastructure charge for reconfiguring a lot:
  - (i) each proposed lot within a Low Density Residential, Mixed Residential, Medium Density Residential zone, (other than a lot which is intended to be transferred to Council, Unitywater or the Crown for community purposes), is taken to be equivalent to "Residential" development for a 3 or more bedroom dwelling;
  - (ii) each proposed lot within an Industry zone, (other than a lot which is intended to be transferred to Council,
     Unitywater or the Crown for community purposes), is taken to be equivalent to "Industry" development having:
    - a GFA equal to the developable area of the lot multiplied by the "plot ratio" for the zone of the land prescribed in Table 3; and
    - an impervious area equal to the area of the lot multiplied by the "fraction impervious" for the zone of the land prescribed in Table 4;
  - (iii) each proposed lot within a Retail Core or Frame
    Business zone, (other than a lot which is intended to be
    transferred to Council, Unitywater or the Crown for
    community purposes), is taken to be equivalent to
    "Commercial (retail)" development having:
    - a GFA equal to the developable area of the lot multiplied by the "plot ratio" for the zone of the land prescribed in Table 3; and
    - an impervious area equal to the area of the lot multiplied by the "fraction impervious" for the zone of the land prescribed in Table 4;
  - (iv) each proposed lot within a Health Services or Community Purposes zone is taken to be equivalent to "Essential Services" development having:

- ➤ a GFA equal to the developable area of the lot multiplied by the "plot ratio" for the zone of the land prescribed in Table 3; and
- an impervious area equal to the area of the lot multiplied by the "fraction impervious" for the zone of the land prescribed in Table 4;
- (v) each proposed lot within an Open Space and Recreation or Harbour Purposes zone is taken to be equivalent to "Specialised Uses" development;
- (vi) each proposed lot within a Natural Values zone is taken to be equivalent to "Minor Uses" development; and
- (vii) the area of new road is taken to be equivalent to "Essential Services" development having no new floor area but an impervious area equal to 90% of the overall area to be dedicated as new road.

For both this section and Table 3 below, "developable area" is that part of the lot which is not affected in terms of development potential for urban purposes by any of the following constraints:

- Q100 flood inundation;
- > slopes in excess of 25%;
- endangered regional ecosystems or "of concern" regional ecosystems under the Vegetation Management Act.

Table 3 – Plot Ratios for Non-Residential Development

Zone of the Land	Plot Ratio
(as described in <i>Redcliffe City</i> Planning Scheme 2005)	(expressed as m <sup>2</sup> GFA/m <sup>2</sup> of developable area)
Retail Core	0.75
Frame Business	0.5
Industry	0.5
Health Services	0.5
Community Purposes	0.5

Table 4 – Impervious Area for Non-Residential Development

Zone of the Land	Fraction Impervious
(as described in Redcliffe City Planning Scheme 2005)	(expressed as a percentage of lot area)
Retail Core	100%
Frame Business	90%
Industry	90%
Health Services	90%
Community Purposes	90%

- 7. This resolution declares that an adopted infrastructure charge does not apply to any development undertaken by, or on behalf of, Council for reconfiguring a lot or other development involving any of the land uses listed in Table 5 unless the goods and/or services being offered:-
  - (a) are being charged for at a level which Council would normally be expected to know is significantly in excess of that required to meet the normal operating and lifecycle costs of the facility, including all government subsidies on offer; or
  - (b) would normally be provided as part of a viable business concern in that context by private enterprise.

**Table 5 - Council Activities Exempt from Adopted Infrastructure Charges** 

Land Use as Described in Redcliffe City Planning Scheme 2005		
Car park	Indoor Entertainment, Sport or Recreation	
Caravan Park	Market	
Community Well-Being Facilities	Park	
Community Well-Being Infrastructure	Sport and Recreation Outdoor	
Education Centre	Transport Interchange	
Entertainment Outdoor	Utility Installation	
Government Infrastructure		

- 8. This resolution states how a charge for further development of premises is to be discounted to take into account demand credits for the existing usage of trunk infrastructure by those premises. Demand credits are to be calculated in the following way:
  - (a) The demand credit is the greater of:-
    - (i) the monetary equivalent of the actual demand generated by an existing lawful use of the premises, calculated using the adopted infrastructure charges in Table 2; and
    - (ii) the monetary contributions for trunk infrastructure that have been previously made, escalated to present value by applying the movements of the Consumer Price Index (all Groups) for Brisbane between the date that the payment was made and 1 July 2011.
  - (b) No demand credit will be applied in those instances where the right to establish the use has been secured but the use has not been established, or the existing use does not actually place a demand on the network for which credit is sought. The only exception to this is in relation to residential lots on which no dwelling unit has been constructed. In such exceptional cases, a demand credit equivalent to a three bedroom dwelling for each lot that is proposed to be further developed will be allowed.
  - (c) The maximum amount of any demand credit allocated under this resolution is not to exceed the actual demand arising from the proposed development.

- 9. Under this resolution, Council wishes to make it clear that, in determining the quantum of any adopted infrastructure charge payable for a development proposal, allowance will be made for trunk infrastructure that a development proponent either intends to construct/dedicate, or is required to construct/dedicate, as part of undertaking that proposed development. However, the methodology to be used in such instances must be agreed between the development proponent and the relevant owner of the trunk infrastructure that is intended to be constructed/dedicated and must be confirmed in an infrastructure agreement. Unless that agreement is in place at the due time for payment of the adopted infrastructure charge, a default allowance of \$0 will apply.
- 10. Until the *Priority Infrastructure Plan* within *Redcliffe City Planning Scheme 2005* comes into effect:
  - (a) the trunk infrastructure networks to which this resolution applies are:
    - the trunk water supply network;
    - (ii) the trunk sewerage network;
    - (iii) the trunk stormwater network;
    - (iv) the trunk transport network; and
    - (v) the public open space network;
  - (b) the extent of the trunk infrastructure for each of the networks identified in (a) above is shown in the Plans for Trunk Infrastructure contained in Appendix C to this resolution;
  - (c) the standards of service adopted for each of the networks identified in (a) above are set out in Appendix A to this resolution; and
  - (d) the establishment cost, (expressed as replacement cost at 1 July 2009), for each of the networks identified in (a) above is shown in Appendix B to this resolution.

# APPENDIX A – Adopted Standards of Service for Each Trunk Infrastructure Network

## 1. Trunk Water Supply Network

For the water supply network, Council has adopted the following standards of service:-

- (1) Water supplied for human consumption complies with the National Health and Medical Research Council (NHMRC) Australian Drinking Water Guidelines for colour, turbidity and microbiology.
- (2) Potable water is collected, stored, treated and conveyed from source to consumers in the manner prescribed, and to the standards required, under the *Water Act 2000*.
- (3) Non-revenue water loss does not exceed industry best practice.
- (4) The water supply network is designed and constructed to the standards prescribed in *Redcliffe City Planning Scheme 2005* and its associated planning scheme policies; i.e.; it achieves the levels for the "adopted design parameters" listed in Table 6.

Table 6: Adopted Design Parameters for the Water Supply Network

Item	Description	Adopted Design Parameter	
Water	Water Demand		
1	Average Day Demand (AD)	Existing and Future Demand – 296 litres/equivalent person (water supply)/day (L/EPW/d)  AD is calculated as follows:  AD= (230 x 1.2) + System Losses  Where:  230 L/EPW/day is the demand target under SEQ 'permanent water conservation measures';  1.2 is an operational flexibility factor that provides sufficient capacity to maintain an adequate level of service in the event that an element of the trunk infrastructure fails; and  System Losses of up to 20 L/EPW/day are catered for. Note that, in this context, one equivalent person (water	
		supply) is equivalent to the service demand from a single occupant of an average occupied house.	
Peaki	ng Factors		
2	Mean Day Maximum Month (MDMM/AD)	1.2 x AD (355.2 L/EPW/day)	
3	Maximum Day (MD/AD)	1.6 x AD (473.6 L/EPW/day)	
4	Maximum Hour (MH/AD)	4.3 x AD (53.03 L/hr/EPW)	
Syste	System Pressure		
5	Minimum Operating Pressure	At maximum hour demand, the minimum pressure at the water meter shall not be less than 22m of head. (In isolated high level areas, the minimum operating pressure may be reduced to 16 m above the highest elevation on any lot with the water level in the reservoir not more than 1.0 m above reservoir floor level.)	

Item	Description	Adopted Design Parameter			
6	Maximum Operating Pressure	80m of head at the property's water meter			
Fire F	Fire Fighting Requirements				
7	System Pressure	12 m minimum pressure head at the hydrant/dedicated service location, and minimum 6m pressure head at any location in the water supply zone during the fire event with model conditions as detailed in Items 8, 9 and 10.			
8	Fire Flow	<ul> <li>For predominantly residential development no more than 3 storeys in height - 15 L/s simultaneous with the background demand prescribed in Item 9 for a period of 2 hours.</li> <li>For predominantly commercial/industrial development or residential buildings greater than 3 storeys in height - 30 L/s simultaneous with the background demand prescribed in Item 9 for a period of 4 hours.</li> <li>Note that each special risk/hazard land use may require an even greater fire flow.</li> </ul>			
9	Background demand	<ul> <li>For predominantly Residential Area - 2/3 of MH demand</li> <li>For predominantly Commercial/Industrial Area - MH demand (generally between 10 am to 4 pm)</li> </ul>			
10	Reservoir level	With the reservoir at an assumed Mid-Water Level at the commencement of the fire event, the reservoir must not empty during the event assuming a fire flow demand for the applicable context specified in item 8 with supply pumps turned off.  Mid-Water Level = (Top Water Level + Floor Level) ÷ 2 (AHD).			
Stora	ge	` '			
11	Design Condition	<ul> <li>Reservoirs must not empty in less than 3 consecutive days at MD demands.</li> <li>During MDMM demand the reservoir shall have net positive inflow and shall be capable of continuous operation under this demand.</li> </ul>			
12	Ground Level Storage	Required Storage = [3 x (MD – MDMM)] + Fire Fighting Storage.  Where:  Fire Fighting Storage = 4 hrs of MDMM demand or 0.5 ML whichever is the greater.			
13	Elevated Storage	Required Storage Volume = Operating Volume + Fire Fighting Reserve Where:  Operating Volume = 6 x (MH – 1/12 MDMM) Fire Fighting Reserve = 150 kL			
Pump	Pumping Capacity				
14	Duty pump capacity to serve ground level reservoirs.	Supply MDMM demand in no more than 20 hours of operation in any 24 hour period.			
15	Pumps serving elevated storage.	Pump must discharge not less than:- [(6 x MH) – Operating Volume]/(6 x 3600) Where: Operating Volume is as prescribed in item 13 above.			
16	Standby Pump	Equal to the capacity of the largest duty pump			

Item	Description	Adopted Design Parameter
	Capacity	
Pipeli	ne Design	
17	Trunk Main Capacity	Sized for MDMM flows
18	Reticulation Capacity	Sized for Maximum Hour and Fire Flow
19	Friction Default Values	<ul> <li>Hazen Williams Coefficients of Friction:</li> <li>C = 100 (diameters ≤ 150 mm)</li> <li>C = 110 (diameters between 150 mm and 300 mm)</li> <li>C = 120 (diameter ≥ 300 mm)</li> </ul>
20	Maximum Flow Velocity	Not to exceed 2.5 m/s

### 2. Trunk Sewerage Network

For the sewerage network, Council has adopted the following standards of service:-

- (1) A reliable network that collects, stores and treats sewage from premises to industry best practice is provided.
- (2) The sewerage network is designed and constructed to the standards prescribed in:-
  - (a) Council's adopted standards identified in *Redcliffe City Planning Scheme* 2005 and its associated planning scheme policies;
  - (b) Water Services Association of Australia (WSAA) guidelines;
  - (c) Water Act 2000;
  - (d) all Environmental Protection Agency (EPA) licence conditions; and
  - (e) the adopted design parameters identified in Table7.

**Table 7: Adopted Design Parameters for the Sewerage Network** 

Item	Description	Adopted Design Parameter	
Sewa	Sewage Loading		
1	Average Dry Weather Flow (ADWF).	185 L/EPS/d. Note that, in this context, one equivalent person (sewerage) is equivalent to the service demand from a single occupant of an average occupied house.	
2	Peak Wet Weather Flow (PWWF).	6 x ADWF	
3	Peak Dry Weather Flow (PDWF).	$C_2$ X ADWF where $C_2$ = Peaking factor shown on dgr no A3-99480 of the Queensland Department of Natural Resources, Mines and Energy (QDNRM&E) Guidelines	
Gravi	Gravity Sewer Design		
4	Flow calculation method.	Manning's Equation	
5	Manning's 'n'.	0.013	
6	Minimum velocity at PWWF.	0.6 m/s	
7	Minimum velocity at PDWF.	0.3 m/s	
8	Depth of Flow at PWWF – Existing system.	Maximum hydraulic grade level = 1.0 m below MH cover level and no spillage through overflow structures.	

Item	Description	Adopted Design Parameter	
9	Depth of Flow at PWWF – Proposed sewers.	Full pipe capacity.	
Pump	oing Station Desig	ın	
10	For Fixed Speed Pumps: Wet Well Operating Volume (kL).	0.9xQ N Where Q is the flow rate (L/s) of a single pump operating and N is the allowable number of pump starts (as per QDNRM&E Guidelines). The number of pump starts (N) should be not more than 10 for pumps less than 50 kW rating. For pumps greater than 50 kW rating, pumps start limits are to be in accordance with manufacturer's recommendations	
11	For Variable Speed Pumps: Wet Well Operating Volume (kL).	0.9xQ N Where Q = discharge of a single pump (L/s) operating at 50 Hz N= maximum number of starts per hour recommended by the motor manufacturer.	
12	Single pump capacity.	<ul> <li>C1 x ADWF where serving more than 1,000 EPs</li> <li>5 x ADWF where serving no more than 1,000 EPs</li> <li>C1 = Peaking Factor shown on dgr A3-99480 of the QDNRM&amp;E guidelines</li> </ul>	
13	Emergency Storage.	6 hours of ADWF	
14	Total Pump Station Capacity.	Not less than 5 x ADWF	
Risin	Rising Main Design		
15	Flow Equation.	Hazen Williams.	
16	Friction Factors.	Ks = 0.3mm	
17	Minimum Velocity (on a Daily Basis).	0.75 m/s (but 1.2m/sec preferred minimum)	
18	Maximum Velocity.	2.5 m/s	

### 3. Trunk Stormwater Network

For the stormwater network, Council has adopted the following standards of service:-

- (1) Stormwater flows for anticipated flood events from existing and planned future land use is collected and conveyed to a suitable point of discharge in a manner aimed at protecting life as well as preventing both unreasonable nuisance and inundation of habitable rooms.
- (2) The stormwater network is designed and constructed to a standard which complies with that identified in *Redcliffe City Planning Scheme 2005* and its associated policies while also being in general accord with the *Queensland Urban Drainage Manual* [In particular, the design standards for stormwater drainage works dealt with in chapter 6 of the "Development Standards Manual" for the former Redcliffe City which forms part of Planning Scheme Policy 10 "Works (Development Standards Manual)" are to be met].
- (3) Road crossing structures are designed and constructed to a standard that provides the level of flood immunity set out in chapter 6 of the "Development Standards Manual" for the former Redcliffe City which forms part of Planning Scheme Policy 10 "Works (Development Standards Manual)".

- (4) Council's adopted water quality objectives as outlined in the following Catchment Management Plans and reports are met at all times:-
  - (a) Humpybong Creek Catchment Management Plan (CMP) 2007 plan by Place Environmental:
  - (b) Saltwater Creek CMP 2000 plan by GEO-ENG Australia Pty Ltd;
  - (c) Bells Creek Rehabilitation Options 2009 report by Natural Solutions;
  - (d) Catchment D37 Stormwater Management Study 1996 report by Willing and Partners.
- (5) The water quality system is designed and constructed in a manner aimed at ensuring that the water quality criteria set out in the documents entitled "Pine Rivers and Redcliffe Creeks Environmental Values and Water Quality Objectives", and "Moreton Bay, North Stradbroke, South Stradbroke, Moreton and Moreton Bay Islands Environmental Values and Water Quality Guidelines", published by the former Environmental Protection Agency in March 2007, are met.

### 4. Trunk Transport Network

The transport network, in this context, comprises two separate categories, the trunk roads network and the pathways network.

- (1) For the trunk roads network, Council has adopted the following desired standards of service:-
  - (a) A functional urban road hierarchy that supports settlement patterns, commercial and economic activities, freight movement and public transport is provided; and
  - (b) The road network is designed and constructed to a standard that complies with the following:-
    - (i) Council's adopted standards identified in *Redcliffe City Planning Scheme 2005* and its associated planning scheme policies;
    - (ii) all relevant Austroads guides;
    - (iii) Department of Main Roads Road Planning and Design Manual;
    - (iv) maximum road volume to capacity ratios identified in Table 8; and
    - (v) maximum degree of saturation for intersections identified in Table 9.

Table 8: Maximum Volume to Capacity Ratios for the Road Network

Road Class	Maximum volume to capacity ratio
Arterial Road	90%
Sub-Arterial Road	90%
Collector Road	90%

### Notes:-

- (a) Capacity ratios identified in Table 8 are derived / allocated in the manner prescribed in the Austroads Guide to Traffic Engineering Practice.
- (b) A sub-category of the road classes listed in this table is the "foreshore/tourist/CBD" class of roads shown in the transport network "plans for trunk infrastructure".

**Table 9: Maximum Degree of Saturation for Road Intersections** 

Road / Intersection Type	Maximum degree of intersection saturation by road type
Signals	80%
Roundabout	80%
Give Way	80%

Note:-

Saturation ratios identified in Table 9 are derived / allocated in the manner prescribed in the *Austroads Guide to Traffic Engineering Practice*.

- (2) For the pathways network, Council has adopted the following standards of service:-
  - (a) Trunk pathways are designed and constructed to a standard that provides a safe, attractive and convenient network that links residential areas to major activity nodes and public transport interchanges, thereby encouraging walking and cycling as acceptable travel alternatives; and
  - (b) Trunk pathways are designed and constructed to a standard that complies with Council's adopted standards identified in *Redcliffe City Planning Scheme 2005* and its associated planning scheme policies.

### 5. Trunk Public Open Space Network

For the public open space network, Council has adopted the following standards of service:-

- (1) A connected and accessible network of parks, open space and land for community facilities that meets the reasonable needs of residents, visitors and employees of local businesses is provided at the rate of provision identified in Table 10 and proximity standards outlined in Table 11.
- (2) Each parcel of public park has:-
  - (a) an area of no less than that identified in Table 12; and
  - (b) a configuration, slope, road frontage, orientation, and acceptable level of flood immunity which satisfies Council's adopted standards identified in Table 14.
- (3) Public parks are embellished in a way that achieves the intended purpose and maximises its usability. The minimum level of embellishment sought for each park type is set out in Table 13.

Table 10: Rate of Land Provision for Open Space Facilities by Type

Infrastructure	Rate of provis	ion (Ha/1000 reside	ent population)
Туре	Local	District	City
Recreation park	Local Park – 0.6 Neighbourhood Park – 0.7 Linkage Park – not specified	District Park – 0.1	City Park - 0.1 Foreshore Park - 0.8
Sporting Facility	0.7	0.2	0.4

**Table 11: Proximity Standards for Open Space Facilities** 

Infrastructure	Proximity to Targe	Proximity to Target Users – maximum travel distance (km)							
Type	Local	District	City						
Recreation park	Local Park – 0.4 Neighbourhood Park – 0.7 Linkage Park – not specified	District – 1.5	City Park – 10 Foreshore Park – not specified						
Sporting Facility	1	2	10						

**Table 12: Size of Open Space Facilities** 

Infrastructure		Minimum size (Ha	)
Туре	Local	District	City
Recreation park	Local Park – 0.4 Neighbourhood Park – 0.7 Linkage Park – not specified	District Park – 4	City Park – 10 Foreshore Park – not specified
Sporting Facility	1.8	4	10

**Table 13: Standard Embellishments for Public Open Space Facilities** 

		Re	creati	ion Pa	ark			Sporting Facility	
Embellishment type	Local	Neighbourhood	District	City	Linkage	Foreshore	Local	District	City
Play Equipment									
Softfall (mulch)									
Softfall (rubber)									
Edging									
Connecting pathways									
Bikeway									
Seating									
Tab/Bubbler									
Bin									
Signage									
Landscaping									
Shade Trees									
Bollards									
Slip rail									
Electric BBQ									
Shelter									

		Re	creati	ion Pa	ark			portin acility	
Embellishment type	Local	Neighbourhood	District	City	Linkage	Foreshore	Local	District	City
Picnic table									
Multi-use Court									
General Lighting									
Public toilet									
Irrigation									
Feature Infrastructure									
Feature Trees									
Hard pavement									
Dog off-leash area									
On-site car parking									
On-site access road									
Event space									
Hard courts									
Playing fields (inc irrigation)									
Sports field Lighting									
Toilet/Change room									
Court/Field Shelters									
Maintenance compound									
Beach Shower									
Beach Access									
Turf									
Earthworks									
Services									

Table 14: Configuration, Slope, Road Frontage, Orientation and Flood Immunity Criteria

			Recre	eation Park				Sporting Facilit	у
	Local	Neighbourhood	District	City	Linkage	Foreshore	Local	District	City
Configuration	Square / compact Average ratio (width- depth) at least 0.5 No less than 15m in width at any point	Square / compact Average ratio (width- depth) at least 0.5 No less than 30m in width at any point	Average ratio (width- depth) at least 0.75 No less than 30m in width at any point	Average ratio (width-depth) at least 0.75 No less than 30m in width at any point	For Linkage Parks along waterways, minimum width of 75m overall or 30m each side (measured from top of bank), whichever is the greater. In all other cases 30m minimum width.	Minimum width 50m at activity nodes (measured from the line of the highest astronomical tide)	Square, circular or other compact shape	Square, circular or similar compact shape	Square, circular or similar compact shape
Slope	Reasonably flat At least one area 15mx15m, < 5%	Reasonably flat At least one area 20mx20m, < 5%	Reasonably flat At least one area 25mx25m, < 5%	Reasonably flat At least one area 50mx50m, < 5%	-	Reasonably flat At least one area 25mx25m, < 5%	Contains at least one area 200m x 150m with a slope < 1:200 suitable for sporting fields	Contains several areas of 200x150m with a slope of <1:200 suitable for sporting fields	Contains several areas of 200x150m with a slope of <1:200 suitable for sporting fields

			Recre	eation Park			9	Sporting Facility	у
	Local	Neighbourhood	District	City	Linkage	Foreshore	Local	District	City
Road frontage	at least 50% of park perimeter	at least 40% of park perimeter	at least 40% of park perimeter	at least 30% of park perimeter	Sufficient for passive surveillance and maintenance access	at least 30% of park perimeter	at least 40% of park perimeter	at least 40% of park perimeter	at least 30% of park perimeter
Orientation	Private allotments address the park (where possible)	Private allotments address the park (where possible)	Private allotments address the park (where possible)	Private allotments address the park (where possible)	-	Private allotments address the park (where possible)	Able to accommodate formalised sporting activities and have minimal impact on residential amenity Long axis generally orientated north-south	Able to accommodate formalised sporting activities and have minimal impact on residential amenity Long axis generally orientated north-south	Able to accommodate formalised sporting activities and have minimal impact on residential amenity Long axis generally orientated north-south
Flood immunity	At least 0.4 ha of park area above Q20	At least 0.7ha of park area above Q20	At least 4ha of park area above Q20	At least 10ha of park area above Q20	-	-	At least 1.8 ha of park area above Q20	At least 4ha of park area above Q20	At least 10ha of park area above Q20

			Recre	ation Park				Sporting Facilit	y
	Local	Neighbourhood	District	City	Linkage	Foreshore	Local	District	City
Activity area location	At least 10m from private lots and 20m from roads	At least 10m from private lots and 20m from roads	At least 10m from private lots and 20m from roads	At least 20m from private lots and 50m from roads	At least 10m from private lots and 20m from roads	At least 10m from private lots and 20m from roads	At least 10m from private lots and 20m from roads	At least 20m from private lots and 50m from roads	At least 20m from private lots and 50m from roads

#### Notes:-

- (a) For Tables 10 to 14, recreation park covers the following sub-categories shown on the plans for trunk infrastructure:-
  - (i) Local Park
  - (ii) Neighbourhood Park
  - (iii) District Park
  - (iv) City Park
  - (v) Linkage Park
  - (vi) Foreshore Park
- (b) For tables 10 to 14, sports park covers the following shown on the plans for trunk infrastructure:-
  - (i) Local Sporting Facility
  - (ii) District Sporting Facility
  - (iii) City Sporting Facility
- (c) Linkage Parks provide for connectivity between recreation and sport facilities as well as providing land for the construction of recreational trails and bikeways.

# APPENDIX B – Establishment Cost for Each Trunk Infrastructure Network

### 1. Trunk Water Supply Network

- (1) The establishment cost of the water supply network up to 2026 is \$64,082,214 (net present value, including the value of Government grants and subsidies, at the base date 1 July 2010).
- (2) The net present value of the establishment cost as at the base date 1 July 2010 has been calculated using a discount rate of 9.88% being the former Moreton Bay Water's 2010 weighted average cost of capital (WACC).
- (3) Table 15 summaries the establishment cost for the water supply network apportioned to each service catchment. Where trunk infrastructure is shared between service catchments, the cost of that infrastructure has been apportioned in direct proportion to the relative demands.

Table 15 - Water Supply Network – Summary of Establishment Cost Funded by Infrastructure Charges

Service	Establishment cost* (excluding the value of Government grants and subsidies)								
Catchment	Existing inf	rastructure	Future infrastructure	Total					
	Active	Passive							
Margate	\$9,342,195	\$35,693,954	\$64,544	\$45,100,693					
Rothwell	\$2,179,540	\$6,075,147	\$670,150	\$8,924,837					
Totals	\$11,521,735	\$41,769,101	\$734,694	\$54,025,530					

<sup>\*</sup> Establishment costs are expressed in net present value terms at the base date (1 July 2010)

- (4) All existing infrastructure has been valued at current replacement cost at 1 July 2010.
- (5) The establishment cost of future trunk infrastructure at its programmed construction date has been determined by inflating the Council's unit rates by the following:-
  - (a) construction costs the 2010 ten year average of Rawlinson's "building price index" for Brisbane (5.97%); and
  - (b) land acquisition costs Council's adopted "Land Value Index" at 1 July 2010 (7.11%);
  - and then applying the contingencies referred to in (7) as well as the administration fee referred to in (6) below.
- (6) The establishment cost of the water supply network includes an allowance for the costs associated with preparing and administering this trunk infrastructure charges regime over time. These costs equate to 2% of the establishment cost of the water supply network.
- (7) The establishment cost of trunk infrastructure for the water supply network includes an allowance of 22% for design and supervision costs. It also includes a contingency to deal with construction, utility relocation and land acquisition cost variations. These contingency allowances are listed in Table 16.

**Table 16 - Contingency Allowances** 

Contingency	Contingency (% of construction and land acquisition cost)							
	5 years   10 years   15 years   20 years							
Total contingency	25% 25% 25% 25%							

### 2. Trunk Sewerage Network

- (1) The establishment cost of the sewerage network up to 2026 is \$71,893,783 (net present value, including the value of Government grants and subsidies, at the base date 1 July 2010).
- (2) The net present value of the establishment cost as at the base date 1 July 2010 has been calculated using a discount rate of 9.88% being the former Moreton Bay Water's 2010 weighted average cost of capital (WACC).
- (3) Table 17 summarises the establishment cost for the sewerage network apportioned to each service catchment. Where trunk infrastructure is shared between service catchments, the cost of that infrastructure has been apportioned in direct proportion to the relative demands.

Table 17 - Sewerage Network – Summary of Establishment Cost Funded by Infrastructure Charges

	Establishment cost* (excluding the value of Government grants and subsidies)					
Service	Exist	ing infrastru	cture	Future infr	astructure	
Catchment	<b>Local Active</b>	Regional Active	Passive	Local Active	Regional Active	Total
S1	\$2,553,434	\$4,630,452	\$3,815,340	\$891,478	\$772,429	\$12,663,133
S2	\$3,657,165	\$3,030,354	\$4,360,062	\$0	\$505,508	\$11,553,090
S3	\$7,805,085	\$3,384,253	\$3,029,789	\$0	\$564,544	\$14,783,672
<b>S4</b>	\$4,932,001	\$3,997,263	\$6,154,444	\$2,576,232	\$666,803	\$18,326,743
Total	\$18,947,685	\$15,042,322	\$17,359,636	\$3,467,709	\$2,509,285	\$57,326,637

<sup>\*</sup> Establishment costs are expressed in net present value terms at the base date (1 July 2010).

- (4) All existing infrastructure has been valued at current replacement cost at 1 July 2010.
- (5) The establishment cost of future trunk infrastructure at its programmed construction date has been determined by inflating the Council's unit rates by the following:-
  - (a) construction costs the 2010 ten year average of Rawlinson's "building price index" for Brisbane (5.97%); and
  - (b) land acquisition costs Council's adopted "Land Value Index" at 1 July 2010 (7.11%);
  - and then applying the contingencies referred to in (7) as well as the administration fee referred to in (6) below.
- (6) The establishment cost of the sewerage network includes an allowance for the costs associated with preparing and administering this trunk infrastructure

- charges regime over time. These costs are equal to 2% of the establishment cost of the sewerage network.
- (7) The establishment cost of trunk infrastructure for the sewerage network includes an allowance of 22% for design and supervision costs. It also includes a contingency to deal with construction, utility relocation and land acquisition cost variations. These contingency allowances are listed in Table 18.

**Table 18 - Contingency Allowances** 

Contingency	Contingency (% of construction and land acquisition cost)				
	5 years 10 years 15 y		15 years	20 years	
Total contingency	25%	25%	25%	25%	

### 3. Trunk Stormwater Network

- (1) The establishment cost of the future stormwater network up to 2026 is \$120,876,422 (net present value at the base date 1 July 2010).
- (2) The net present value of the establishment cost as at the base date 1 July 2010 has been calculated using a discount rate of 8.08% being Council's 2010 weighted average cost of capital (WACC).
- (3) Table 19 summarises the establishment cost for the stormwater network apportioned to each service catchment.

Table 19 - Stormwater – Summary of Establishment Cost Funded by Infrastructure Charges

0	Establishment cost *				
Service Catchment	Existing Info	rastructure	Future Infr	astructure	Total
	Quantity	Quality	Quantity	Quality	1000
Bells Creek	\$6,836,259.99	\$0.00	\$0.00	\$1,498,366.64	\$8,334,626.63
Humpybong Creek	\$3,651,681.90	\$113,365.31	\$0.00	\$5,020,713.45	\$8,785,760.65
Margate					
Balance	\$2,521,079.47	\$0.00	\$26,538,023.38	\$2,667,625.98	\$31,726,728.82
Redcliffe	\$13,017,921.33	\$0.00	\$0.00	\$1,071,220.54	\$14,089,141.87
Rothwell					
Balance	\$6,377,225.22	\$680,191.84	\$0.00	\$444,380.17	\$7,501,797.23
Saltwater					
Creek	\$20,527,091.88	\$453,461.22	\$0.00	\$15,339,303.48	\$36,319,856.59
Scarborough					
Coastal	\$6,549,302.03	\$340,095.92	\$0.00	\$1,167,369.11	\$8,056,767.06
<b>Woody Point</b>					
Coastal	\$5,554,359.55	\$113,365.31	\$0.00	\$394,018.65	\$6,061,743.50
Totals	\$65,034,921.36	\$1,700,479.59	\$26,538,023.38	\$27,602,998.02	\$120,876,422.35

<sup>\*</sup> Establishment costs are expressed in net present value terms at the base date (1 July 2010).

- (4) All existing infrastructure has been valued at current replacement cost at 1 July 2010.
- (5) The establishment cost of future trunk infrastructure at its programmed construction date has been determined by inflating the Council's unit rates by the following:-
  - (a) construction costs the 2010 ten year average of Rawlinson's "building price index" for Brisbane (5.97%); and
  - (b) land acquisition costs Council's adopted "Land Value Index" at 1 July 2010 (7.11%);
  - and then applying the contingencies referred to in (7) as well as the administration fee referred to in (6) below.
- (6) The establishment cost of the stormwater network includes an allowance for the costs associated with preparing and administering this infrastructure charges regime over time. These costs are equal to 2% of the establishment cost of the stormwater network.
- (7) The establishment cost of trunk infrastructure for the stormwater network includes an allowance of 15% for design and supervision costs. It also includes a contingency to deal with construction, utility relocation and land acquisition cost variations. These contingency allowances are listed in Table 20.

Contingency (% of construction and land acquisition cost)

5 years 10 years 15 years 20 years

Total contingency 30% 30% 30% 30%

**Table 20 - Contingency Allowances** 

### 4. Trunk Transport Network

- (1) For the trunk roads network, the methodology used for cost apportionment and development of charge rates attributed the value of existing spare capacity within the network as well as the value of new works not required to address existing deficiencies in the network to future development. As such, the establishment costs listed for this network are limited to those new works and spare capacity.
- (2) The establishment cost of the future trunk road network up to 2026 is \$153,599,334 (net present value at the base date 1 July 2010).
- (3) The net present value of the establishment cost as at the base date 1 July 2010 has been calculated using a discount rate of 8.08% being Council's 2010 weighted average cost of capital (WACC).
- (4) Table 21 summarises the establishment cost for the trunk roads network apportioned to each service catchment.

Table 21 - Trunk Roads Network – Summary of Establishment Cost Funded by Infrastructure Charges

Service	Establishment cost*				
Catchment	Existing infrastructure				
ALL	\$142,294,562	\$11,304,771	\$153,599,334		

<sup>\*</sup> Establishment costs are expressed in net present value terms at the base date (1July 2010).

- (5) All existing infrastructure has been valued at current replacement cost at 1 July 2010.
- (6) The establishment cost of future trunk roads infrastructure at its programmed construction date has been determined by inflating the Council's unit rates by the following:-
  - (a) construction costs the 2010 ten year average of Rawlinson's "building price index" for Brisbane (5.97%); and
  - (b) land acquisition costs Council's adopted "Land Value Index" at 1 July 2010 (7.11%);
  - and then applying the contingencies referred to in (8) as well as the administration fee referred to in (7) below.
- (7) The establishment cost of the trunk roads network includes an allowance for the costs associated with preparing and administering this infrastructure charges regime over time. These costs are equal to 2% of the establishment cost of the trunk roads network.
- (8) The establishment cost of future trunk roads infrastructure includes an allowance of 8% for design and supervision costs. It also includes a contingency to deal with construction, utility relocation and land acquisition cost variations. These contingency allowances are listed in Table 22.

**Table 22 - Contingency Allowances** 

Contingency	Contingency (% of construction and land acquisition cost)				
	5 years 10 years 15 years 20 year		20 years		
Total contingency	15%	15%	15%	15%	

- (9) The establishment cost of trunk pathways infrastructure up to 2026 is \$36,420,591 (net present value at the base date 1 July 2010). In this context, only those pathways deemed to be of regional significance are classified as trunk infrastructure. The costs have been distributed equally across the entire area covered by Redcliffe City Planning Scheme 2005. However, that distribution specifically excludes the component which can be directly attributed to external users.
- (10) The net present value of the establishment cost as at the base date 1 July 2010 has been calculated using 8.08% being Council's 2010 weighted average cost of capital.
- (11) Table 23 summaries the establishment cost for trunk pathways infrastructure apportioned to each service catchment.

Table 23 – Trunk Pathways Network – Summary of Establishment Cost Funded by Infrastructure Charges

Service	Establishment Cost *			
Catchment	Existing Infrastructure	Future Infrastructure	Total	
ALL	\$19,982,362	\$16,438,229	\$36,420,591	

<sup>\*</sup> Establishment costs are expressed in net present value terms at the base date (1 July 2010).

- (12) All existing infrastructure has been valued at current replacement cost at 1 July 2010.
- (13) The establishment cost of future trunk pathways infrastructure has been determined by inflating Council's unit rates by the following:-
  - (a) construction costs the 2010 ten year average of Rawlinson's "building price index" for Brisbane (5.97%); and
  - (b) land acquisition costs Council's adopted "Land Value Index" for 1 July 2010 (7.11%);
  - and then applying the contingencies referred to in (15) as well as the administration fee referred to in (14) below.
- (14) The establishment cost of the future trunk pathways infrastructure includes an allowance for the costs associated with preparing and administering this Infrastructure charging regime over time. These costs are equal to 2% of the establishment cost of the future infrastructure.
- (15) The establishment cost of the future trunk pathways infrastructure includes an allowance of 10% for design and supervision costs. It also includes a contingency to deal with construction, utility relocation and land acquisition cost variations. These contingency allowances are listed in Table 24.

**Table 24 – Trunk Pathways Network - Contingency Allowances** 

Contingency	Contingency (% of construction and land acquisition cost)				
	5 years	10 years	15 years	20 years	
Total contingency	15%	15%	15%	15%	

### 5. Public Open Space Network

- (1) The establishment cost of the public open space network up to 2026 is \$127,640,254 (net present value at the base date 1 July 2010).
- (2) The net present value of the establishment cost as at the base date 1 July 2010 has been calculated using a discount rate of 8.23% being Council's 2010 weighted average cost of capital (WACC).
- (3) Table 25 summarises the establishment cost for the public open space network (which is to be apportioned equally across all users, including non-residential and external users of the network).

Table 25 – Public Open Space Network – Summary of Establishment Cost Funded by Infrastructure Charges

Service	Establishment Cost			
Catchment	Existing Future Total			
Catchinent	Infrastructure	Infrastructure		
ALL	\$66,020,934	\$61,619,320	\$127,640,254	

### Notes:-

- (a) Establishment costs are expressed in net present value terms at the base date (1 July 2010).
- (b) This table excludes the value allocated to the users neither working nor residing in the area covered by *Redcliffe City Planning Scheme 2005*.

- (c) The proportion of future infrastructure expenditure being allocated to future development demand at 1 July 2010 is equivalent to 21% of the value of future embellishment cost. The remaining 79% of future embellishment costs will be funded directly by Council so that costs associated with 'deficiencies' within the existing network are not passed to proponents of development approved after 1July 2010.
- (d) Differences between the total value and the sum of the column can occur due to values being displayed without cents. Background calculations including cents are correct.
- (4) All existing infrastructure has been valued at current replacement cost as at 1 July 2010 and specifically excludes the land component of land acquired prior to 1 January 1990.
- (5) The establishment cost of future trunk infrastructure at its programmed construction date has been determined by inflating the Council's unit rates by the following:-
  - (a) construction costs the 2010 ten year average of Rawlinson's "building price index" for Brisbane (5.97%); and
  - (b) land acquisition costs Council's adopted "Land Value Index" at 1 July 2010 (7.11%);
  - and then applying the contingencies referred to in (7) as well as the administration fee referred to in (6) below. Note that no additional land requirement is envisaged.
- (6) The establishment cost of the public open space network includes an allowance for the costs associated with preparing and administering this infrastructure charges regime over time. These costs are equal to 2% of the establishment cost of the open space network.
- (7) The establishment cost of trunk infrastructure for the public open space network does not include an allowance for design and supervision costs but does include a contingency to deal with construction and utility relocation cost variations. These contingency allowances are listed in Table 26.

**Table 26 - Contingency Allowances** 

	Contingency (% of construction cost)			
Contingency	5 years 10 years 15 years 20 years			
Total Contingency	20%	20%	20%	20%

# **APPENDIX C – The Plans for Trunk Infrastructure**

For this Appendix, the "Plans for Trunk Infrastructure" are shown as network maps with "project IDs" for each item of future trunk infrastructure and a series of tables which provide details of each of those "project IDs".

Table 27 - Trunk Infrastructure Networks, Systems and Items

Network	System	Items
Water	Active Assets (mainly above ground visible assets)	Reservoirs, tanks, pumping stations, telemetry systems. (Note that all other active assets have now transferred to State control under the SEQ Water Reforms.)
	Passive Assets (underground assets)	Trunk delivery and distribution mains at least 300mm diameter as well as pipe fittings.
Sewerage	Active Assets (mainly above ground visible assets)	Treatment plants, pumping stations, telemetry systems.
	Passive Assets (underground assets)	Gravity mains at least 225mm diameter and fittings, pressure mains at least 150mm diameter and fittings, manholes.
Stormwater	Stormwater Quality Infrastructure	<ol> <li>corridor revegetation and rehabilitation together with any necessary ancillary infrastructure and works; and</li> <li>land and works for stormwater treatment including bioretention systems, gross pollutant traps, trash racks, sedimentation basins, wetlands and swales.</li> </ol>
	Stormwater Quantity Infrastructure	<ol> <li>facilities for conveyance and detention of stormwater flows including any necessary land component;</li> <li>underground piped drainage, overland flow paths and any necessary land acquisition; and</li> <li>crossing upgrades including bridges and culverts.</li> </ol>
Transport	Local government controlled roads	Council controlled arterial roads, sub-arterial roads and collector roads (including the sub-category designated "foreshore/tourist/CBD roads").
	Pathways	All routes designated as being of "regional significance".
Public open space	Parks	<ul> <li>Local Park</li> <li>Neighbourhood Park</li> <li>District Park</li> <li>City Park</li> <li>Linear Linkage Park</li> <li>Foreshore Park</li> </ul>
	Sporting Facilities	Sporting Facilities

Table 28 - Schedule of Proposed Land / Works —Water Supply Network

Project ID	Trunk Infrastructure Item
<b>Pumping Stat</b>	ions
RPIPWS0001	Emergency Power Supply for Rothwell Pumps
RPIPWS0002	Petrie Main Booster pumps upgrade
Mains	
RPIPWS0003	Remaining work on Cathodic protection of Petrie main
	Upgrade of Nathan Road Main up to Newport development
RPIPWS0004	connection(225mm pipe 700m and two section valves)

Table 29 - Schedule of Proposed Land / Works —Sewerage Network

Project ID	Trunk Infrastructure Item	Infrastructure Level		
<b>Pumping Stat</b>	ions			
PIPS00001	SPS 19X Hercules road (Renewal of existing pumps as interim solution)	Local		
PIPS00002	SPS 19X Hercules road (Design of upgrade to cater for Newport Development)	Local		
PIPS00003	SPS 19X Hercules road (Upgrading to cater for Newport Development)	Local		
PIPS00004	SPS 16X, Grice street Decommission	Local		
PIPS00005	Duplication of pumps(3x2.1 Kw,9Kw,2x4.5Kw)	Regional		
PIPS00006	SPS23 & 23A, McGahy St West Decommissioning	Local		
PIPS00015	Hercules road New PS for Newport(43L/s, 3255EP)	Local		
PIPS00009	SPS 5 - Humpybong Creek	Local		
PIPS00010	SPS 21 - Nathan Road	Local		
PIPS00011	SPS9 Whitecliffe Parade-Renewal of pumps, Converting PS to submersible type and add emergency storage	Local		
PIPS00012	SPS 2 X Landsborough Avenue	Local		
Gravity Sewers/Pressure Mains				
PIPS00013	Rising mains replacement/upgrades	Regional		
PIPS00014	Hercules road (Newport main 250mmx330m)	Local		

Table 30 - Schedule of Proposed Land / Works —Stormwater Network

Project ID	Trunk Infrastructure Item	Quality/ Quantity Infrastructure
BEL_BIO_1	Bells Creek Bioretention Basin	Quality
HUM_BIO_1	Humpybong Creek Bioretention Basin	Quality
HUM_BIO_2	Humpybong Creek Bioretention Basin	Quality
HUM_BIO_3	Humpybong Creek Bioretention Basin	Quality
HUM_BIO_4	Humpybong Creek Bioretention Basin	Quality
HUM_BIO_5	Humpybong Creek Bioretention Basin	Quality
HUM_BIO_6	Humpybong Creek Bioretention Basin	Quality
BEL_SW_1	Bells Creek Bioswale	Quality
BEL_GPT_1	Bells Creek GPT	Quality
BEL_GPT_2	Bells Creek GPT	Quality

Project ID	Trunk Infrastructure Item	Quality/
		Quantity
		Infrastructure
BEL_GPT_3	Bells Creek GPT	Quality
BEL GPT 4	Bells Creek GPT	Quality
BEL_GPT_5	Bells Creek GPT	Quality
BEL_GPT_6	Bells Creek GPT	Quality
HUM_GPT_1	Humpybong Creek GPT	Quality
HUM_GPT_2	Humpybong Creek GPT	Quality
HUM_GPT_3	Humpybong Creek GPT	Quality
HUM_GPT_4	Humpybong Creek GPT	Quality
HUM_GPT_5	Humpybong Creek GPT	Quality
HUM_GPT_6	Humpybong Creek GPT	Quality
HUM_GPT_7	Humpybong Creek GPT	Quality
HUM_GPT_8	Humpybong Creek GPT	Quality
HUM_GPT_9	Humpybong Creek GPT	Quality
MGT_GPT_1	Margate Balance GPT	Quality
MGT_GPT_2	Margate Balance GPT	Quality
MGT_GPT_3	Margate Balance GPT	Quality
MGT_GPT_4	Margate Balance GPT	Quality
MGT_GPT_5	Margate Balance GPT	Quality
MGT_GPT_6	Margate Balance GPT	Quality
MGT_GPT_7	Margate Balance GPT	Quality
MGT_GPT_8	Margate Balance GPT	Quality
RED_GPT_1	Redcliffe GPT	Quality
RED_GPT_10	Redcliffe GPT	Quality
RED_GPT_11	Redcliffe GPT	Quality
RED_GPT_12	Redcliffe GPT	Quality
RED_GPT_13	Redcliffe GPT	Quality
RED_GPT_14	Redcliffe GPT	Quality
RED_GPT_15	Redcliffe GPT	Quality
RED_GPT_2	Redcliffe GPT	Quality
RED_GPT_3	Redcliffe GPT	Quality
RED_GPT_4	Redcliffe GPT	Quality
RED_GPT_5	Redcliffe GPT	Quality
RED_GPT_6	Redcliffe GPT	Quality
RED_GPT_7	Redcliffe GPT	Quality
RED_GPT_8	Redcliffe GPT	Quality
RED_GPT_9	Redcliffe GPT	Quality
ROT_GPT_1	Rothwell Balance GPT	Quality
ROT_GPT_2	Rothwell Balance GPT	Quality
ROT_GPT_3	Rothwell Balance GPT	Quality
ROT_GPT_4	Rothwell Balance GPT	Quality
ROT_GPT_5	Rothwell Balance GPT	Quality
ROT_GPT_6	Rothwell Balance GPT	Quality
ROT_GPT_7	Rothwell Balance GPT	Quality
ROT_GPT_8	Rothwell Balance GPT	Quality
SAL_GPT_24	Saltwater Creek GPT	Quality
SAL_GPT_25	Saltwater Creek GPT	Quality
SAL_GPT_26	Saltwater Creek GPT	Quality
SAL_GPT_27	Saltwater Creek GPT	Quality
SAL_GPT_28	Saltwater Creek GPT	Quality
SAL_GPT_29	Saltwater Creek GPT	Quality
SAL_GPT_30	Saltwater Creek GPT	Quality
SAL_GPT_31	Saltwater Creek GPT	Quality
SAL_GPT_32	Saltwater Creek GPT	Quality
SAL_GPT_33	Saltwater Creek GPT	Quality

Project ID	Trunk Infrastructure Item	Quality/ Quantity
		Infrastructure
SAL GPT 34	Saltwater Creek GPT	Quality
SAL GPT 35	Saltwater Creek GPT	Quality
SAL GPT 36	Saltwater Creek GPT	Quality
SAL_GPT_37	Saltwater Creek GPT	Quality
SAL_GPT_38	Saltwater Creek GPT	Quality
SAL_GPT_39	Saltwater Creek GPT	Quality
SAL_GPT_40	Saltwater Creek GPT	Quality
SCA_GPT_1	Scarborough Coastal GPT	Quality
SCA_GPT_10	Scarborough Coastal GPT	Quality
SCA_GPT_11	Scarborough Coastal GPT	Quality
SCA_GPT_12	Scarborough Coastal GPT	Quality
SCA_GPT_13	Scarborough Coastal GPT	Quality
SCA_GPT_14	Scarborough Coastal GPT	Quality
SCA_GPT_15	Scarborough Coastal GPT	Quality
SCA_GPT_2	Scarborough Coastal GPT	Quality
SCA_GPT_3	Scarborough Coastal GPT	Quality
SCA_GPT_4	Scarborough Coastal GPT	Quality
SCA_GPT_5	Scarborough Coastal GPT	Quality
SCA_GPT_6	Scarborough Coastal GPT	Quality
SCA_GPT_7	Scarborough Coastal GPT	Quality
SCA_GPT_8	Scarborough Coastal GPT	Quality
SCA_GPT_9	Scarborough Coastal GPT	Quality
WPT_GPT_1	Woody Point GPT	Quality
WPT_GPT_2	Woody Point GPT	Quality
WPT_GPT_3	Woody Point GPT	Quality
WPT_GPT_4	Woody Point GPT	Quality
WPT_GPT_5	Woody Point GPT	Quality
WPT_GPT_6	Woody Point GPT	Quality
WPT_GPT_7	Woody Point GPT	Quality
MGT_PD_1	Margate Balance Pipe Drainage	Quantity
MGT_PD_2	Margate Balance Pipe Drainage	Quantity
BEL_REV_1	Bells Creek Revegetation	Quality
BEL_REV_2	Bells Creek Revegetation	Quality
RED_TR_1	Redcliffe Trash Rack	Quality
RED_TR_2	Redcliffe Trash Rack	Quality
RED_TR_3	Redcliffe Trash Rack	Quality
RED_TR_4	Redcliffe Trash Rack	Quality
BEL_WET_1	Bells Creek Wetland	Quality
SAL_WET_19	Saltwater Creek Wetland	Quality
SAL_WET_20	Saltwater Creek Wetland	Quality
SAL_WET_21	Saltwater Creek Wetland	Quality
SAL_WET_22	Saltwater Creek Wetland	Quality
SAL_WET_23	Saltwater Creek Wetland	Quality
SAL_WET_24	Saltwater Creek Wetland	Quality
SAL_WET_25	Saltwater Creek Wetland	Quality
SAL_WET_26	Saltwater Creek Wetland	Quality
SAL_WET_27	Saltwater Creek Wetland	Quality
SAL_WET_28	Saltwater Creek Wetland	Quality
SAL_WET_29	Saltwater Creek Wetland	Quality

Table 31 - Schedule of Proposed Land / Works — Transport Network

Project ID	Trunk Infrastructure Item	Category (Intersection / Road / Pathway)
RPIPRD0003	Buchanan Rd extension Bremner rd to Gynther Rd	Road
RPIPRD0012	Klingner Rd/Broadman Rd Intersection	Intersection
RPIPRD0013	Klingner Rd/Prince Edward Pde	Intersection
RPIPRD0014	Grifith Road/Newport Dr	Intersection
RPIPRD0015	MacDonnell Rd/Victoria Av Roundabout	Intersection
RPIPRD0016	Klinger Rd/Scarborough Rd Roundabout	Intersection
RPIPRD0017	Duffield Rd/Victoria Av	Intersection
RPIPRD0018	Duffield Rd/Maine Rd Roundabout	Intersection
RPIPRD0019	Victoria Av/King St	Intersection
RPIPRD0020	Klingner Rd/Ashmole Rd Roundabout	Intersection
RPIPRD0021	Morris Rd/Cambridge St	Intersection
RPIPRD0022	Hercules Rd northern connection to Anzac Av	Road
RPIPSP0200	Klingner Road	Pathway
RPIPSP0201	Klingner Road	Pathway
RPIPSP0202	Oxley Avenue	Pathway
RPIPSP0203	Scarborough Road	Pathway
RPIPSP0204	Griffith Road	Pathway
RPIPSP0205	Boardman Road	Pathway
RPIPSP0206	Ashmole Road	Pathway
RPIPSP0207	Recreation Street	Pathway
RPIPSP0208	Victoria Avenue	Pathway
RPIPSP0209	Macdonnell Road	Pathway
RPIPSP0210	Duffield Road	Pathway
RPIPSP0211	Maine Road	Pathway
RPIPSP0212	King Street	Pathway
RPIPSP0213	Duffield Road	Pathway
RPIPSP0214	Macdonnell Road	Pathway
RPIPSP0215	Elizabeth Avenue	Pathway
RPIPSP0216	Bell Street	Pathway
RPIPSP0217	Cornelius Street	Pathway
RPIPSP0218	Georgina Street	Pathway
RPIPSP0219	Lilla Street	Pathway
RPIPSP0220	Earnest Street	Pathway
RPIPSP0221	Kate Street	Pathway
RPIPSP0222	Dover Road	Pathway
RPIPSP0223	Balmoral Street	Pathway
RPIPSP0224	Magnolia Street	Pathway
RPIPSP0225	Kirkwood Street	Pathway
RPIPSP0226	Trilby Street	Pathway
RPIPSP0227	Plume Street	Pathway
RPIPSP0228	Porter Street	Pathway
RPIPSP0229	Portwood Street	Pathway
RPIPSP0230	Shields Street	Pathway
RPIPSP0231	Eversleigh Road	Pathway
RPIPSP0232	Ashmole Road	Pathway
RPIPSP0233	George Street	Pathway
RPIPSP0234	Oxley Avenue	Pathway
RPIPSP0235	Donkin Street	Pathway
RPIPSP0236	Sunnyside Road	Pathway
RPIPSP0237	Michel Road	Pathway
RPIPSP0238	Jeays Street	Pathway

Project ID	Trunk Infrastructure Item	Category (Intersection / Road / Pathway)
RPIPSP0239	Scarborough Road	Pathway
RPIPSP0240	Rock Street	Pathway
RPIPSP0241	Miller Street	Pathway
RPIPSP0242	Cascade Street	Pathway
RPIPSP0243	Ballina Street	Pathway
RPIPSP0244	Hercules Road	Pathway
RPIPSP0245	Euston Street	Pathway
RPIPSP0246	Nottingham Street	Pathway
RPIPSP0247	Regency Street	Pathway
RPIPSP0248	Chelsea Street	Pathway
RPIPSP0249	Nathan Road	Pathway
RPIPSP0250	Morris Road	Pathway
RPIPSP0251	Cambridge St	Pathway
RPIPSP0252	Kelliher Streeet	Pathway
RPIPSP0253	Drysdale Street	Pathway
RPIPSP0254	Dobell Street	Pathway
RPIPSP0255	Gynther Road	Pathway
RPIPSP0256	Wattle Road	Pathway

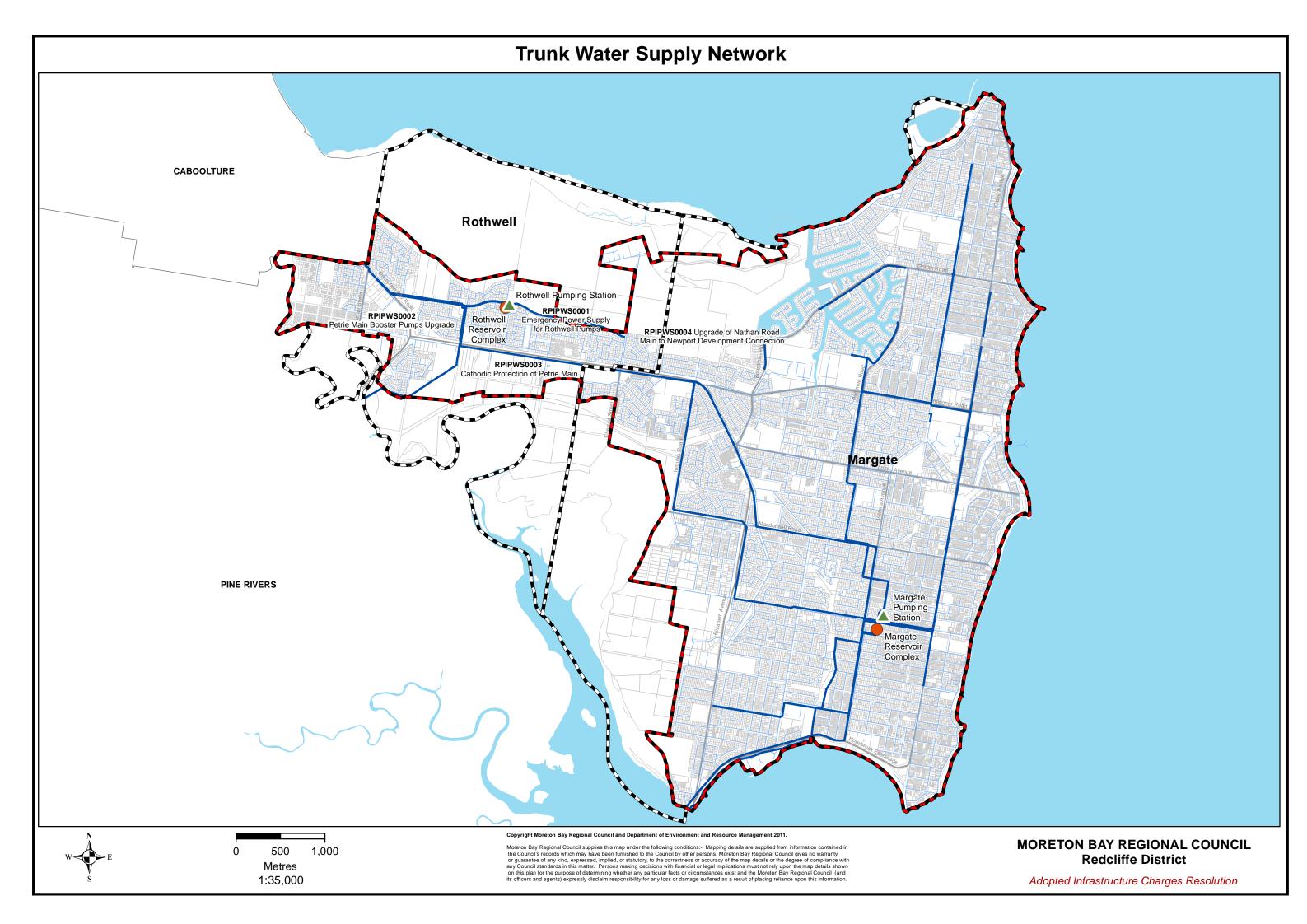
Table 32 - Schedule of Proposed Land / Works — Public Open Space Network

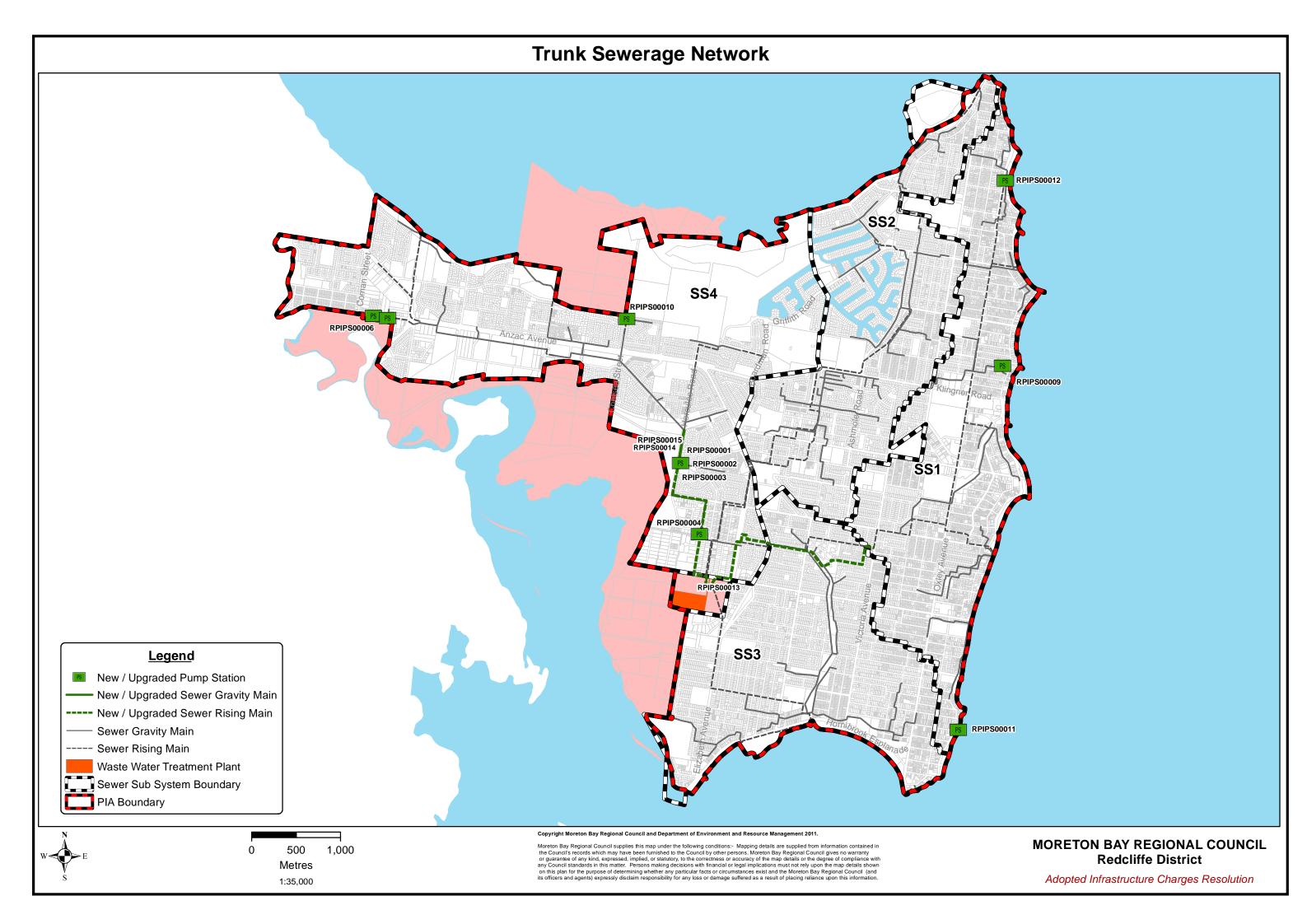
Project ID	Trunk Infrastructure Item	Infrastructure Type
RPIPPK00001	A.J. (Jock) Kelly Park	Local Sporting Facility
RPIPPK00029	Amity Park	Neighbourhood Park
RPIPPK00031	Apex Park	Neighbourhood Park
RPIPPK00032	Atkinson Park	Neighbourhood Park
RPIPPK00060	Atlanta Court Park	Local Park
RPIPPK00033	Barry Bolton Park	District Park
RPIPPK00081	Beacon Park	Local Park
RPIPPK00034	Bellevue Park	Neighbourhood Park
RPIPPK00035	Bells Beach Park	Foreshore Park
RPIPPK00095	Bell's Paddock Recreation & Ca	Linkage Park
RPIPPK00083	Bertie Dow Park	Local Park
RPIPPK00016	Bicentennial Park	Foreshore Park
RPIPPK00036	Bill Rogers Park	Neighbourhood Park
RPIPPK00086	Boama Park	Linkage Park
RPIPPK00003	Bradley Park	Local Sporting Facility
RPIPPK00038	Carrick Park	Local Park
RPIPPK00039	Charlish Park	Foreshore Park
RPIPPK00090	Clontarf Beach Park	Foreshore Park
RPIPPK00092	Cooper Park	Local Park
RPIPPK00093	Corscadden Park	Neighbourhood Park
RPIPPK00017	Crockatt Park	Foreshore Park
RPIPPK00004	Dalton Park	Local Sporting Facility
RPIPPK00096	Daphne Carpenter Park	Local Park
RPIPPK00040	Dobell Park	Neighbourhood Park

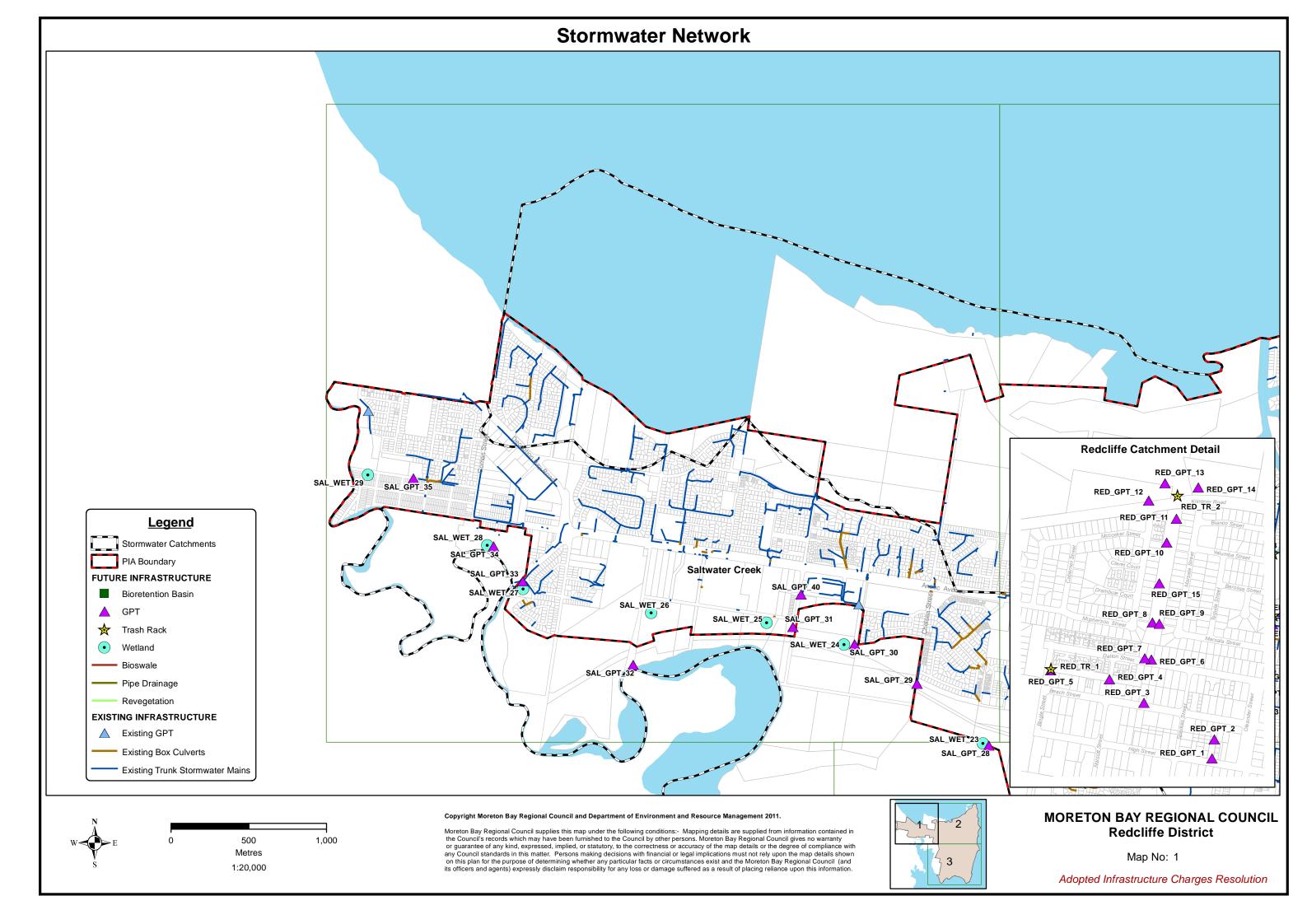
Project ID	Trunk Infrastructure Item	Infrastructure Type
RPIPPK00097	Donkin Street Park	Local Park
RPIPPK00030	Duffield Road Park 2	Local Park
RPIPPK00041	Endeavour Park	Foreshore Park
RPIPPK00005	Filmer Park	Local Sporting Facility
RPIPPK00042	Gayundah Arboretum Park	Foreshore Park
RPIPPK00082	Grant Park	Local Park
RPIPPK00043	Greg Enright Park	Local Park
RPIPPK00080	Griffith Road Park	Neighbourhood Park
RPIPPK00077	Halamka Park	Neighbourhood Park
RPIPPK00079	Ham Street Park	Local Park
RPIPPK00089	Hawk Canal Park	Linkage Park
RPIPPK00044	Henry Pieper Park	Neighbourhood Park
RPIPPK00045	Humpybong Park	Linkage Park
RPIPPK00111	Intrepid Park	Local Park
RPIPPK00112	Jabiru Canal Park	Linkage Park
RPIPPK00047	Jamieson Park	Neighbourhood Park
RPIPPK00114	Jim Mcgahey Park	Local Park
RPIPPK00115	John Oxley Park	Local Park
RPIPPK00008	K.r. Benson Park	Local Sporting Facility
RPIPPK00048	Kalowen Park	Local Park
RPIPPK00049	Kirami Park	Neighbourhood Park
RPIPPK00117	Kirkwood Square	Local Park
RPIPPK00099	Kite Canal Park	Linkage Park
RPIPPK00050	Kroll Gardens	Local Park
RPIPPK00051	Lahore Park	Neighbourhood Park
RPIPPK00052	Lancaster Park	Local Park
RPIPPK00009	Langdon Park	Local Sporting Facility
RPIPPK00053	Langtree Park	Local Park
RPIPPK00118	Leslie Slaughter Park	Local Park
RPIPPK00061	Lionheart Crescent Park	Linkage Park
RPIPPK00120	Macfarlane Park	Local Park
RPIPPK00121	Mackenzie Park	Local Park
RPIPPK00122	Madeleine Court Park	Local Park
RPIPPK00123	Magnolia Park	Linkage Park
RPIPPK00124	Mahogany Park	Local Park
RPIPPK00019	Margate Beach Park	Foreshore Park
RPIPPK00125	Marsala Park	Local Park
RPIPPK00091	Marsala Street Park	Linkage Park
RPIPPK00037	McDonnell Road Park	Local Park
RPIPPK00055	McKillop Park	Neighbourhood Park
RPIPPK00054	Mj Brown Park	Linkage Park
RPIPPK00056	Morgan Park	Neighbourhood Park
RPIPPK00101	Morris Road	District Sporting Facility
RPIPPK00057	Mungara Park	Local Park
RPIPPK00006	Newport Park	Local Park
RPIPPK00059	Owens Park	Local Park
RPIPPK00100	Oxley Avenue Park	Local Sporting Facility

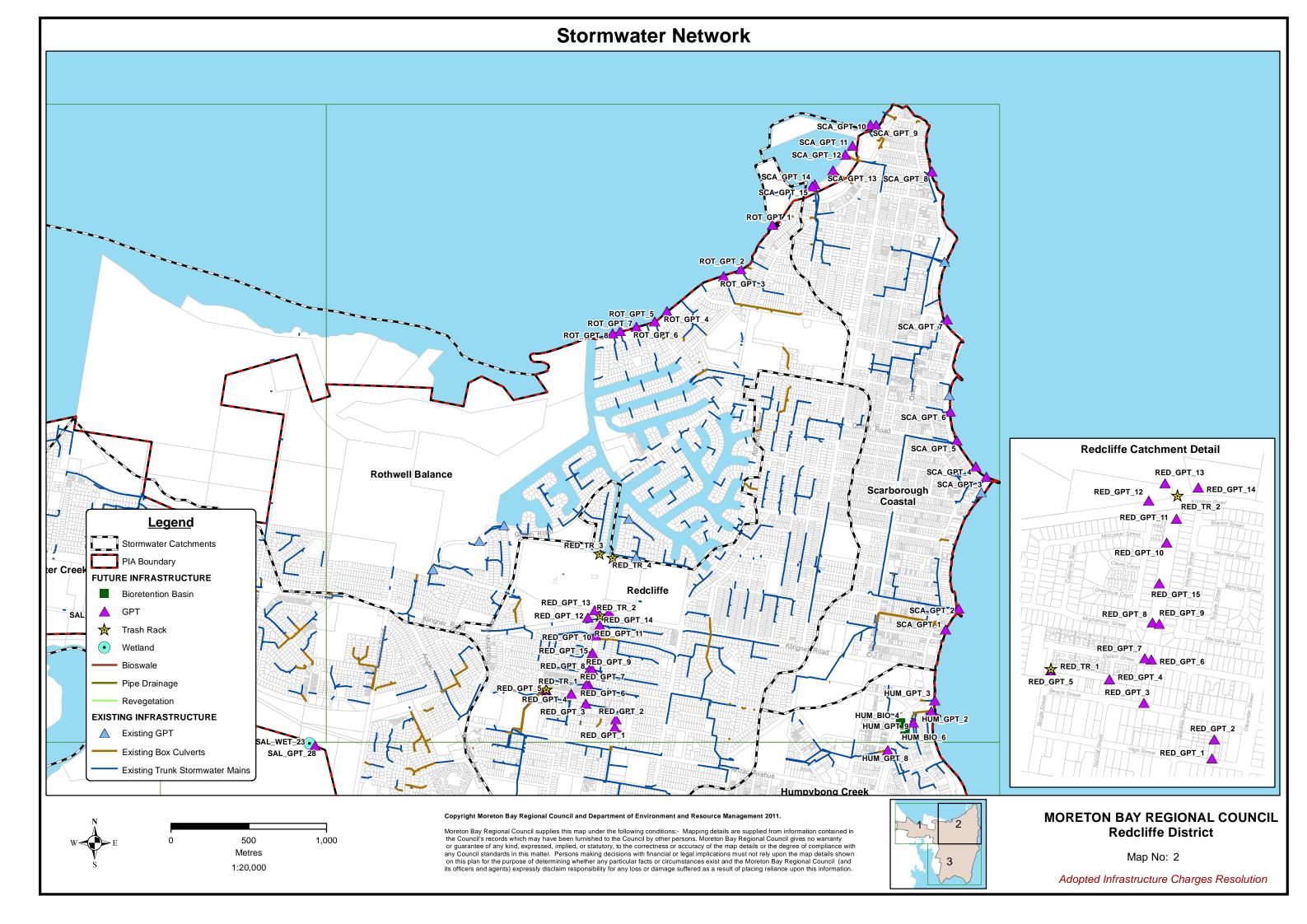
Project ID	Trunk Infrastructure Item	Infrastructure Type
RPIPPK00131	Paradise Park	Local Park
RPIPPK00132	Parsons Park	Neighbourhood Park
RPIPPK00133	Pask Park	Local Park
RPIPPK00011	Pearson Park	Neighbourhood Park
RPIPPK00020	Pelican Park	Foreshore Park
RPIPPK00062	Peter Morris Park	District Park
RPIPPK00063	Pikett Street Park	Local Park
RPIPPK00136	Plume Street Park	Linkage Park
RPIPPK00098	Portwood Street Park	District Sporting Facility
RPIPPK00064	Queens Beach Park	Foreshore Park
RPIPPK00012	Ray Frawley Fields	Local Sporting Facility
RPIPPK00065	Redcliffe Botanic Gardens Wallum	City Park
RPIPPK00021	Redcliffe Foreshore	Foreshore Park
RPIPPK00084	Redcliffe Peninsula Lions Memorial	Local Park
RPIPPK00013	Redcliffe Showgrounds	Local Sporting Facility
RPIPPK00010	Regency Park	Linkage Park
RPIPPK00067	Robert Dalton Park	Local Park
RPIPPK00068	Roma Street Park	Neighbourhood Park
RPIPPK00014	Rothwell Park	Local Sporting Facility
RPIPPK00069	Sandpiper Canal Park	Local Park
RPIPPK00022	Scarborough Beach Park	Foreshore Park
RPIPPK00070	Scotts Point Progress Park	Foreshore Park
RPIPPK00071	Seacrest Park	Linkage Park
RPIPPK00023	Settlement Cove Park	Foreshore Park
RPIPPK00072	Southern Cross Park	Local Park
RPIPPK00094	Stanley Jones Reserve	Local Park
RPIPPK00073	Sunstate Park	Neighbourhood Park
RPIPPK00024	Suttons Beach Park	Foreshore Park
RPIPPK00087	Sydney Street Park	Linkage Park
RPIPPK00074	Tacoma Park	Neighbourhood Park
RPIPPK00015	Talobilla Sporting Reserve	City Sporting Facility
RPIPPK00107	Taradale Park	Neighbourhood Park
RPIPPK00026	Teak Street Park	Local Park
RPIPPK00025	Thurecht Park	Foreshore Park
RPIPPK00150	Tingira Park	Local Park
RPIPPK00151	Tom Curry Park	Local Park
RPIPPK00152	Tom Wallace Park	Local Park
RPIPPK00058	Vista Court Park	Linkage Park
RPIPPK00076	Walker Park	Local Park
RPIPPK00007	Walsh Street Park	Local Park
RPIPPK00156	Wattle Park	Neighbourhood Park
RPIPPK00028	Woodland Street Park	Neighbourhood Park
RPIPPK00078	Woody Point Park	Local Park
RPIPPK00157	Yourth Park	Local Park
RPIPPK00027	Youth Park	Neighbourhood Park

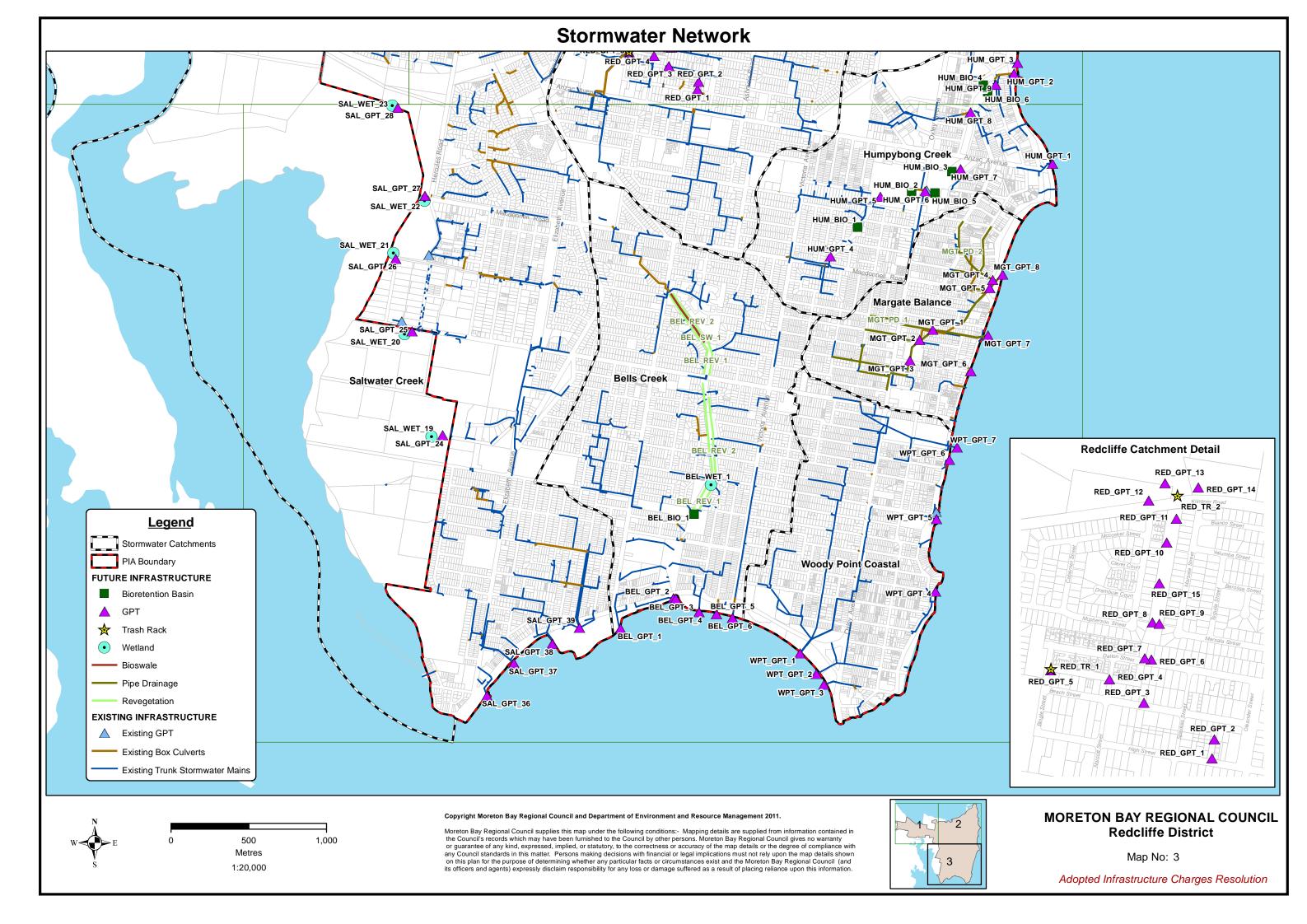
Note: All Trunk Infrastructure Items for the Public Open Space network listed in the Schedule above are for embellishment works only.

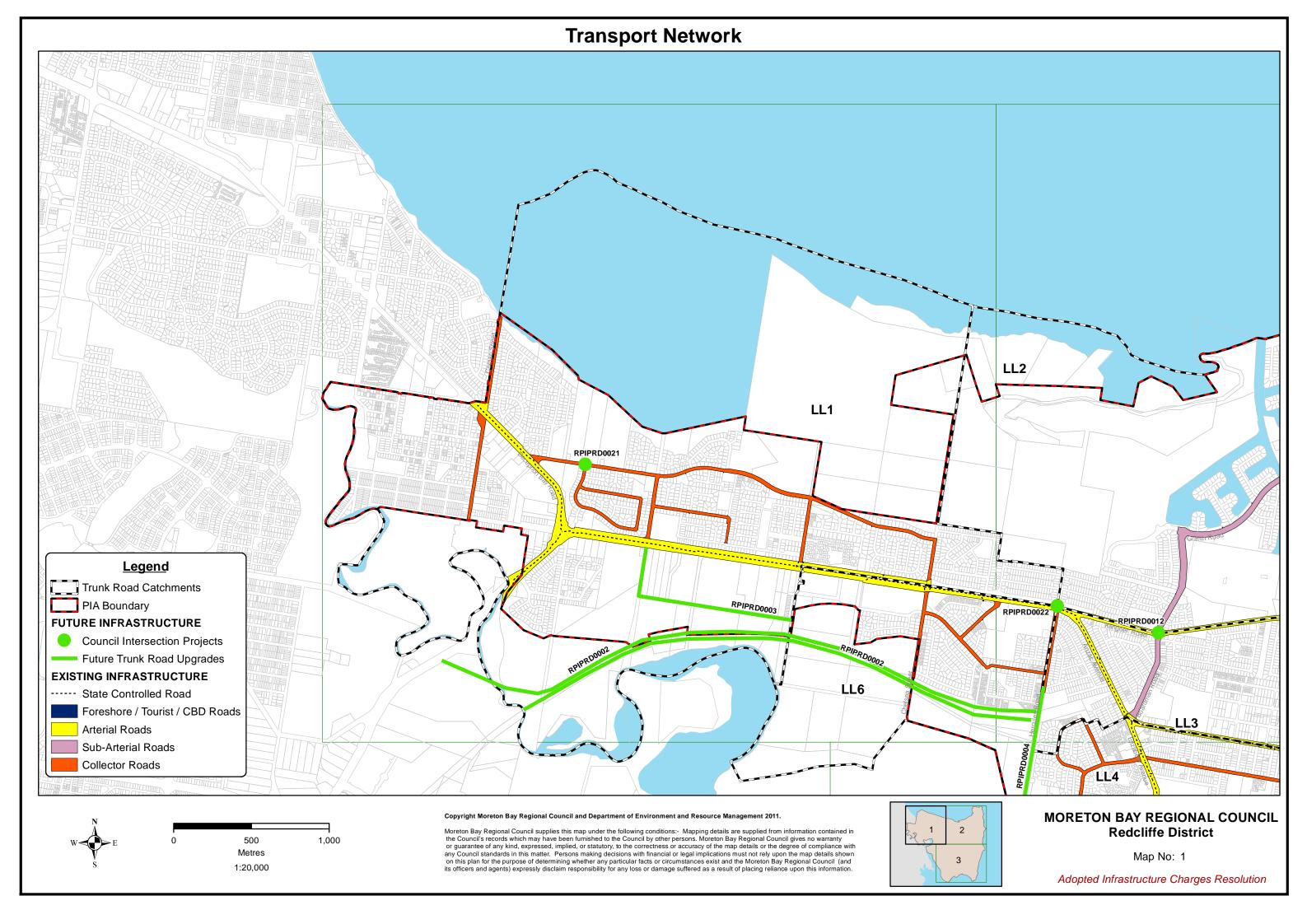


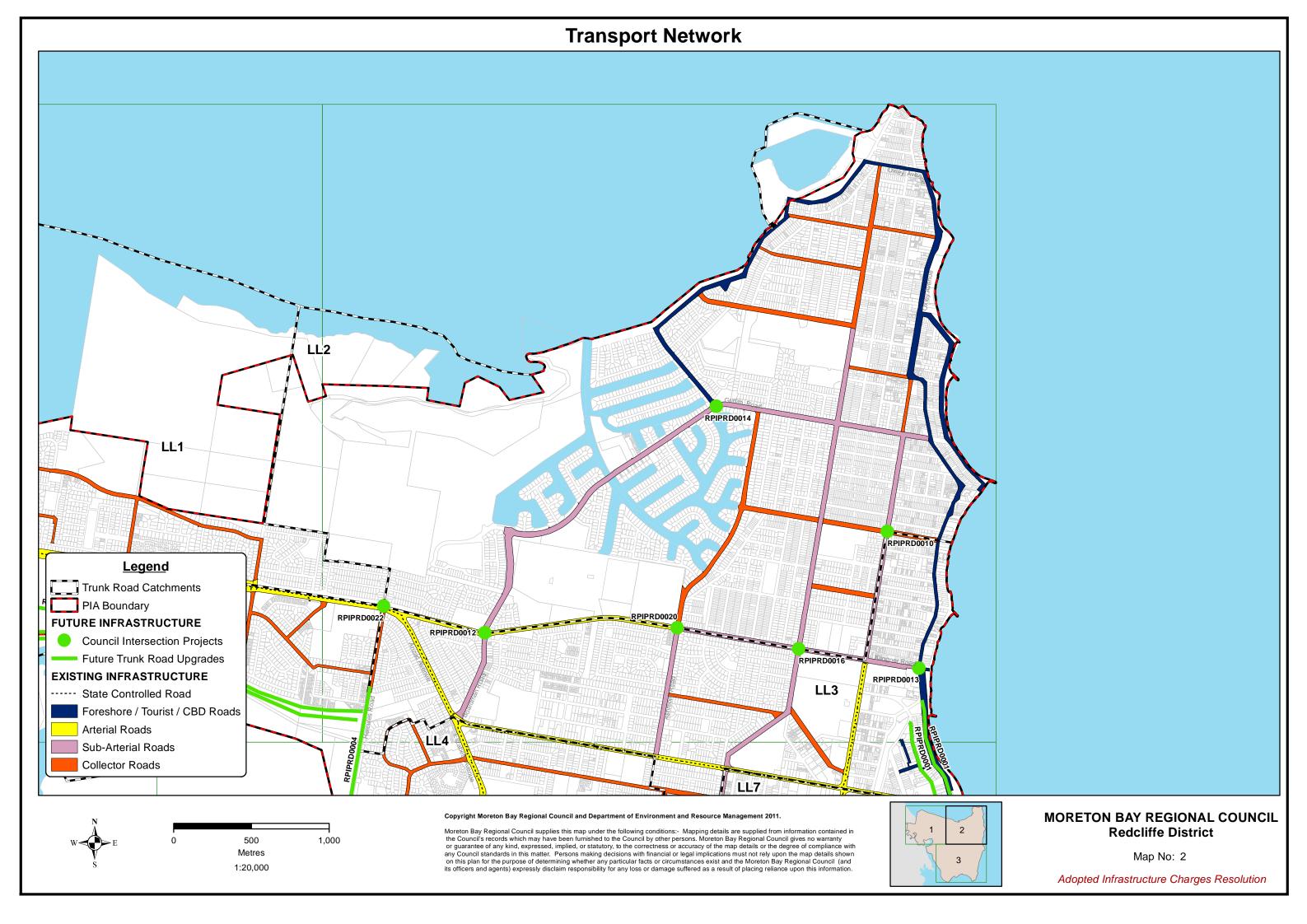


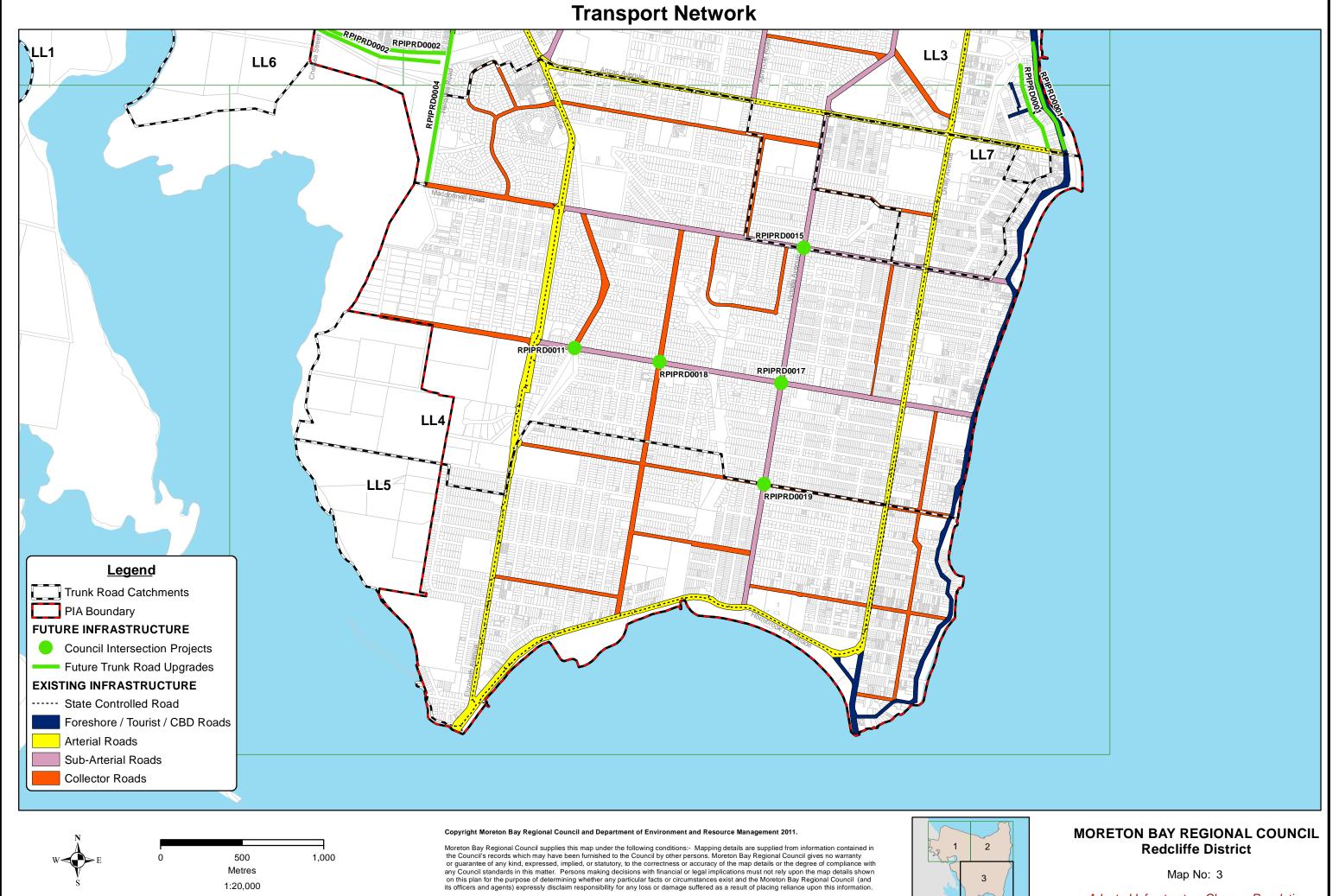












Adopted Infrastructure Charges Resolution

