



Clarence Valley Council

West Yamba Development Servicing Plan Sewerage Services

October 2020

Executive Summary

This Development Servicing Plan (DSP) covers sewerage developer charges in regard to the West Yamba Urban Release Area (WYURA) served by Clarence Valley Council (CVC).

This DSP document has been prepared in accordance with the *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (2016) issued by the NSW Department of Primary Industries Office of Water (NSW DPI Office of Water), pursuant to section 306 (3) of the *Water Management Act, 2000*.

The area covered by this DSP and the existing and proposed works serving the area are shown in Section 2.1.

The timing and expenditure for works servicing the areas covered in this DSP are discussed in Section 4.

Levels of service to be provided in the DSP areas are shown summarised in Section 5.

The sewerage developer charges for the areas covered by this DSP have been determined as summarised in Table E-1 below.

Table E-1 Sewerage Developer Charges

DSP Name	Calculated Developer Charge (\$/ET)	Adopted Developer Charge (\$/ET)	Cross-subsidy (\$/ET)	Resulting Increase in the Typical Residential Bill (\$)
West Yamba Sewerage Scheme	\$13,419	\$13,419	\$0	\$0

Developer charges relating to this DSP will be reviewed after a period of 4 to 8 years, concurrently with the review of the CVC Development Servicing Plan – Sewerage Services, GHD 2017.

In the period between any review, developer charges will be indexed annually on the basis of movements on the Consumer Price Index (CPI) for Sydney, excluding the impact of Goods and Services Tax (GST).

The Developer shall be responsible for the full cost of the design and construction of reticulation works within subdivisions. The design and construction of the works shall be in accordance with Council's development specifications for sewerage services. Background information containing all the critical data including calculation models behind this DSP is available from Council's offices by appointment. To review these documents, please contact Council on (02) 6643 0200.

This DSP should be read in conjunction with the adopted WYURA Water Supply and Sewer Servicing Strategy, by HunterH2O, July 2019.

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1. Introduction

Section 64 of the *Local Government Act, 1993* enables a local government Council to levy developer charges for water supply, sewerage and stormwater. This derives from a cross-reference in that Act to Section 306 of the *Water Management Act 2000*.

A Development Servicing Plan (DSP) details the sewerage developer charges to be levied on development areas using a local utility's sewerage infrastructure.

This DSP covers sewerage developer charges in respect of development of the West Yamba Urban Release Area (WYURA) served by Clarence Valley Council (CVC).

This DSP has been prepared in accordance with the *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (2016) issued by the Minister for Lands and Water, pursuant to section 306 (3) of the *Water Management Act, 2000*.

This DSP document supersedes previous sewerage DSPs and requirements related to sewerage developer charges for the areas covered by this DSP adopted by the Council prior to the adoption of this DSP. This DSP document takes precedence over any of Council's codes or policies where there are any inconsistencies relating to the sewerage developer charges.

1.1 Purpose of the Plan

The purpose of this DSP is to set out the contributions payable by developments to the authority responsible for providing infrastructure and other facilities.

In developing this DSP and calculation of the contributions payable, the following aims and objectives have been taken into consideration:

- Ensure that adequate sewerage infrastructure is provided as part of new developments
- Provide a comprehensive strategy for the assessment, collection, expenditure accounting and review of contributions on an equitable basis
- Ensure that the existing community is not burdened by the provision of sewerage infrastructure as a result of future development
- Enable Council to be both publicly and financially accountable in its assessment and administration of the DSP.

1.2 Disclaimer

This report has been prepared by GHD for Clarence Valley Council and may only be used and relied on by Clarence Valley Council for the purpose agreed between GHD and the Clarence Valley Council as set out in Section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than Clarence Valley Council arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

2. Administration

2.1 DSP Name and Area Covered

DSP Name and Area Covered in this DSP is known as *West Yamba Development Servicing Plan – Sewerage Services*.

It is noted that previously West Yamba was included in the CVC Development Servicing Plan – Sewerage Services (2017), however the 2017 DSP did not make provision for the specific infrastructure requirements in West Yamba. West Yamba therefore requires its own DSP. The area to which this DSP applies is shown in Figure 12-1.

DSP Name	West Yamba Sewerage Scheme
DSP Area	The area covered by this DSP is shown in Figure 12-1.
DSP Boundaries	The DSP area boundary is defined as the area included in the The West Yamba Urban Release Area (WYURA), with the exception of the R5 land.

2.2 Date of DSP Commencement

Council approved this DSP on 28 July 2020 for public exhibition. The DSP will come into effect once adopted by Council after the public exhibition period. Once adopted, the DSP will be forwarded to the NSW Office of Water (NOW) for registration.

The charges in this Plan will apply to all Development Applications determined on or after the date Council resolves the plan to commence.

2.3 Payment of Developer Charges

Developer charges will be determined and levied in accordance with the provisions of the current DSP at the time of considering an application for a compliance certificate under section 305 of the *Water Management Act 2000*, a construction certificate under section 109 of the *Environmental Planning and Assessment Act 1979* or at the time of issuing a notice or other form of written advice, e.g. Section 5.3, 5.5 or 5A.2 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

A time limit for payment of developer charges must be included in any developer charge determination or advice provided to developers.

Council may elect to determine developer charges at the time of considering a development application. Such a determination would accompany the development consent, and must specify a time limit for payment. If the developer charges have not been paid in full within the specified time limit, subject to the development consent remaining valid, no further adjustment to the developer charges may be made at the time of considering an application for a Compliance Certificate. If the developer charges have not been paid in full within the specified time limit, the developer charges will be determined by the Local Water Utility (LWU) at the time of considering an application for a Compliance Certificate using the LWU's then current DSP document.

It is noted that section 64 developer charges do not apply for developments serviced by a licenced operator under the *Water Industry Competition Act 2006* (WICA) or *Water Industry Competition Amendment (Review) Act 2014*. The capital cost of the infrastructure serving such developments would be recovered through annual access and usage charges.

2.4 Developer Charges for Crown Developments

Under section 306 (4) and (5), of the *Water Management Act, 2000*, the Minister for Planning and Infrastructure may make a determination in respect of developer charges levied on Crown developments.

Crown developments for essential community services (education, health, community services, and law and order) are exempt from general developer charges. Council can only charge crown developments for the portion of cost associated with direct connection costs relating to the development.

2.5 Refunds

If this DSP is revised to correct a major error in the calculation, Council will provide a refund to developers for any resulting over-payments.

2.6 Developments Outside the Development Servicing Areas

When considering development outside the boundaries of this DSP, Council may either:

- Apply the developer charges adopted for the DSP to the new development; or
- Prepare a new DSP for the new development.

Such a development is likely to require the construction of specific assets. Refer to Section 2.7 for discussion on funding of out-of-sequence development.

2.7 Out-of-Sequence Development

Council has assumed infrastructure development will occur in accordance with the sequence of development defined in the WYURA Water Supply and Sewer Servicing Strategy, prepared by HunterH2O, July 2019. If a Developer wishes to proceed with a development not in the same sequence, i.e. before essential assets are in place, the Council may require and/or approve construction of the shared assets ahead of time provided that there are no other constraints to the development.

In such cases the assets will be designed and constructed by the Developer in accordance with the requirements of this DSP and the HunterH2O Servicing Strategy, and the full capital cost would initially be met by this Developer. If the assets funded by this Developer will serve other future development, the Developer shall receive a discount on their developer charges. The Council and the Developer must enter into an agreement stating how the Developer will be reimbursed for shared infrastructure.

2.8 Consultation and Dispute Resolution

A Developer who is dissatisfied with how the Council has calculated a developer charge has a right of appeal pursuant to the *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (NSW DPI Office of Water, 2016). The following process must be followed:

1. A Developer who is dissatisfied with how Council has calculated the developer charge for a particular development may lodge a formal complaint to the Council
2. The CVC General Manager is to review the complaint or cause it to be reviewed
3. CVC is not a member of the Energy and Water Ombudsman (EWON). If the developer is not satisfied with the General Manager's response, the matter may be referred to the Ombudsman

4. If the complaint is on technical matters or issues of interpretation of the *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (NSW DPI Office of Water, 2016), the Developer may refer the complaint to NOW. NOW will respond to the complaint. Where warranted, NOW may refer the matter to the expert technical panel, which includes representatives from NOW, Independent Pricing and Regulatory Tribunal (IPART), the NSW Water Directorate, local water utilities and the development industry
5. The Developer, if still dissatisfied, may request that the matter be reviewed by way of arbitration by an arbitrator, who is to be appointed by agreement between the Developer and the Council (The *Commercial Arbitration Act, 1984* applies to any such arbitration)
6. The decision of the arbitrator is binding on both the Developer and Council
7. Costs of the arbitration are to be borne equally by the Developer and Council.

3. Demographic and Land Use Planning Information

3.1 Growth Projections

Growth projections for population and number of sewerage Equivalent Tenements (ETs) are shown in Table 3-1 below. These projections are from the present year (2021) to 2051 (30 years).

ET calculations are included in Section 13.

Table 3-1 Growth Projections

Time Period	Cumulative Equivalent Tenements (ETs)	Number of New ETs / year
2020/21	0	0
2021/22	53	53
2022/23	106	53
2023/24	159	53
2024/25	212	53
2025/26	265	53
2026/27	318	53
2027/28	371	53
2028/29	424	53
2029/30	477	53
2030/31	530	53
2031/32	583	53
2032/33	636	53
2033/34	689	53
2034/35	742	53
2035/36	795	53
2036/37	848	53
2037/38	901	53
2038/39	954	53
2039/40	1,007	53
2040/41	1,060	53
2041/42	1,113	53
2042/43	1,166	53
2043/44	1,219	53
2044/45	1,273	53
2045/46	1,327	54
2046/47	1,327	0
2047/48	1,327	0
2048/49	1,327	0
2049/50	1,327	0
2050/51	1,327	0

3.2 Land Use Information

This DSP should be read in conjunction with the *CVC Strategic Business Plan for Sewerage Services* (GHD, 2019), the *Clarence Valley Local Environmental Plan* (CVC, 2011) and the *WYURA Water Supply and Sewer Servicing Strategy* (HunterH2O, July 2019).

The proposed trunk sewerage assets serving the area covered by this DSP is outlined in Section 4.1.

4. Sewerage Infrastructure

This DSP levies developer charges towards the cost of providing sewerage infrastructure to service new development. This infrastructure includes the value of future sewerage assets serving the new development area.

Assets covered by this DSP include, but are not limited to:

- Trunk infrastructure.

As the West Yamba Sewerage Scheme will connect into the existing Yamba Sewage Treatment Plant (STP), the developer charges associated with existing and proposed sewerage assets in the (Greater) Yamba DSP Area (detailed in the CVC Development Servicing Plan – Sewerage Services, GHD 2017) are applicable to this DSP. Assets covered by the previous DSP include, but are not limited to:

- Distribution and Trunk Mains.
- Sewerage Pumping Stations.
- Wastewater Treatment Works.
- Trunk Infrastructure.
- Recycled Water Infrastructure.

4.1 Existing and Future Sewerage Services

The shared sewerage infrastructure required to serve the area covered by this DSP is detailed in the WYURA Water Supply and Sewer Servicing Strategy (HunterH2O, July 2019). In summary, the proposed sewerage infrastructure includes:

1. Pipe 1: 2,848 metres of DN200 pressure sewer main connecting into the Yamba STP.
2. Pipe 2: 313 metres of DN200 pressure sewer main.
3. Pipe 3: 237 metres of DN120 pressure sewer main.

These are described further in Section 15. The infrastructure required to be in place for each development has been tabulated in Table 4-1. Developments requiring common infrastructure (pipes, 1, 2 and 3 above) have been grouped into a development area.

Table 4-1 Proposed Sewerage Infrastructure by Development Area

Development Area	Development	Proposed Sewerage Infrastructure
A	Carrs Drive Stage 1	Pipe 1 and 2
	Carrs Drive Stage 2	
	Carrs Drive Stage 3	
	NE1 subsystem	
	SE subsystem	
B	Land south of Miles Street	Pipe 1, 2 and 3
	SW subsystem	
C	NE2 subsystem	Pipe 1

Capital works specific to this DSP (including a description and MEERA costs) are summarised in Section 15.

A schematic of the proposed West Yamba Sewerage Scheme is presented in Figure 12-1.

4.2 Existing Capital Cost

The estimated Modern Engineering Equivalent Replacement Asset (MEERA) capital cost of the existing sewerage assets serving the area covered by this DSP is detailed in the CVC Development Servicing Plan – Sewerage Services, GHD 2017.

Table 4-2 Summary of the Existing Capital Charge (from the 2017 CVC Development Servicing Plan - Sewerage Services)

DSP Name	Existing (2017) Capital Charge (\$ / ET)	Existing (2017) Reduction Amount (\$ / ET)	Existing (2017) Calculated Maximum Developer Charge (\$ / ET)	Existing (2017) Adopted Developer Charge (\$ / ET)	Existing 2020 ¹ Developer Charge (\$/ET)
Yamba	\$12,073	\$557	\$11,516	\$11,516	\$12,175

¹ This value has been taken from the CVC Adopted 2020/21 Fees and Charges, Section 7.11 (previously Section 94 contributions) Current Plans and Section 64 Contributions.

4.3 Future Capital Works Program

The timing and expenditure for future sewerage capital works serving the area covered by this DSP and which contribute to the capital charge are provided in Section 15.

The timing and expenditure for future sewerage capital works (including backlog works) in the greater Yamba area is detailed in the CVC Development Servicing Plan – Sewerage Services, GHD 2017.

Capital costs were estimated using the *NSW Office of Water (formerly Ministry of Energy and Utilities) NSW Reference Rates Manual Valuation of Water Supply, Sewerage and Stormwater Assets (2014)* in accordance with the requirements of the *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (NSW DPI Office of Water, 2016).

4.3.1 Backlog Works

There are no Backlog works to be considered for the WYURA. Only new developments are required to pay developer charges in accordance with this DSP.

4.3.2 Reticulation Works within a Development

The Developer shall be responsible for the full cost of the design and construction of sewerage works, including pump stations, within subdivisions that service only that development. The design and construction of the works shall be in accordance with Council's development specifications for sewerage services.

5. Level of Service

System design and operation are based on providing Council's current levels of service (LOS) as outlined below.

The sewerage network is required to meet CVC's current LOS outlined in the Table 5-1. CVC are currently reviewing their LOS to ensure compliance with minimum legislative requirements outlined in the *NSW Water and Sewerage Strategic Business Planning Guidelines* (NSW Office of Water, 2011). This is discussed in detail in *CVC Strategic Business Plan – Sewerage Services* (GHD, 2017).

Table 5-1 Current Levels of Service – Sewerage Services¹

Service Criteria	Service Target	Compliance Measure
Availability of service	Provide point of connection for all allotments within defined service areas	Availability of point of connection for all allotments within defined service areas.
Overflow of Sewerage to the Environment		
Major Overflow	No more than 6 per year	99% compliance across system as measured from records for each event
Minor Overflow	No more than 600 per year	99% compliance across system as measured from records for each event
Response Time to System Failures		
Priority 1 (major spill)	During Working Hours: 30 minutes After Working Hours: 1 hour	
Priority 2 (moderate spill)	During Working Hours: 1 hour After Working Hours: 2 hours	
Priority 3 (minor spill)	During Working Hours: 2 hours After Working Hours: 8 hours	
Minor Problems/General Enquires		
Oral	Within 5 working days	95% compliance
Written	Within 10 working days	95% compliance
Number of Incidences Causing Complaints		
Sewerage Related Incidents	Written or telephone complaints about sewerage related incidents	Less than 50 per year
Odours	Odour should not be detectable outside buffer zone (400 meters) around treatment works	Less than 5 per year
Effluent Quality	Meet EPA licence conditions for all sewerage treatment plants	95% compliance as measured from records.

5.1 Further Information

Further information on standards of service is available from:

- *Clarence Valley Council Strategic Business Plan – Sewerage Services* (GHD, 2017), which is available on Council's website.
- *NSW Water and Sewerage Strategic Business Planning Guidelines* (NSW Office of Water, 2011) (available at www.water.nsw.gov.au).

¹ Hunter Water Australia, Clarence Valley Council Strategic Business Plan for Sewerage Services, 2006, page 15

6. Design Parameters

CVC's peak planning documents include the following:

- Draft Sewerage Asset Management Plan, CVC, 2015.
- Integrated Water Cycle Management Simplified Strategy, CVC, 2009.
- Clarence Valley Council Sewerage Strategic Business Plan, CVC September 2017.

These documents determine the LOS for designing and delivering CVC's sewerage systems.

Investigation and design of sewerage system components is also based on the AUSPEC *Northern Rivers Local Government Development Design and Construction Manual, Development Design Specification D12 Sewerage System* (CVC et al., 2009). This refers to the following for sewerage design:

- Gravity Sewer Code of Australia, Water Services Association of Australia (WSAA), 2014.
- Pumping Station Code of Australia, Water Services Association of Australia (WSAA), 2005.
- Pressure Sewerage Code of Australia, Water Services Association of Australia (WSAA), 2007.

6.1 Planning and Design Parameters

The major components of the sewerage network were planned according to the following:

- Maclean Sewerage Scheme Augmentation Concept Development Report, NSW Department of Land & Water Conservation and Maclean Shire Council, 2001
- Yamba Wastewater Strategy Part 1, Geolink, 2002
- West Yamba Urban Release Area Water Supply and Sewer Servicing Strategy, HunterH2O, July 2019.

7. Calculated Developer Charges

Developer charges are up-front charges used to recover infrastructure costs incurred through the provision of services to new developments and service changes to existing developed areas. Developer charges are comprised of the following components:

- Capital charge – the cost of providing the asset; and
- Reduction amount – the cost recovered through annual charges.

The relationship between these components is as follows:

- Developer Charge = Capital Charge – Reduction Amount.

7.1 Summary

The developer charges for the area covered by this DSP (as described in 2.1) are as follows:

Table 7-1 Summary of Developer Charges

Development Area	Capital Charge (\$/ET)	Reduction Amount	Calculated Maximum Developer Charge (\$/ET)	Adopted Developer Charge (\$/ET)
West Yamba	\$13,419	\$0 ¹	\$13,419	\$13,419

¹ The reduction amount for this DSP was excluded from this developer charge. This is because the existing developer charge from the *2017 CVC DSP Sewerage Services* report included a reduction amount for Yamba (inclusive of West Yamba).

These amounts have been calculated on the basis of Section 7.2 to Section 7.7 below. Background information containing all the critical data including calculation models behind this DSP is available from Council's offices by appointment. To review these documents, please contact Council on (02) 6643 0200.

7.2 Service Areas

Developer charges have been calculated for a number of development areas within the WYURA. It is noted that WYURA is within the Yamba service area.

7.3 Equivalent Tenements (ETs)

The basis of future development in WYURA has been adopted from the WYURA Water Supply and Sewer Servicing Strategy, HunterH2O, July 2019.

Actual populations will be subject to the ultimate Council Development Approval.

ET projections are shown in Section 3.1. ET calculation details are shown in Section 13.

7.4 Capital Charge

The capital charge for each development area covered by this DSP has been calculated using the net present value (NPV) spreadsheet method.

Under the NPV spreadsheet method, the capital cost of relevant assets and projected ET's served in a development area are identified. These capital costs represent only the share of the asset capacity used by a development area. The present value (PV) of capital cost and the PV

of new ETs are calculated. The capital charge per ET is the PV of the capital cost divided by the PV of new ETs.

The calculation of the capital charge is summarised in tables presented in Section 16. A summary of the capital charge calculations prior to any agglomeration or cross-subsidy is shown in Table 7-2 below.

Table 7-2 Capital Charge Calculation

Development Area	PV of New ETs for pre-1996 assets @ 3%	PV of New ETs for post-1996 assets @ 5%	PV of capital cost from pre-1996 assets @ 3%	PV of capital cost from post-1996 assets @ 5%	Capital charge for pre-1996 assets (\$ / ET)	Brought forward Capital Charge from the adopted 2020/21 Fees and Charges (\$/ET) ¹	Capital charge for post-1996 assets (\$ / ET)	Capital charge per ET (\$ / ET) ²
West Yamba	N/A	786	N/A	N/A	N/A	\$12,175	\$1,244	\$13,419

¹ As noted in Section 4, key works included in the capital charge calculated for the existing Yamba Sewerage DSP area will support developments in the West Yamba Urban Release area, therefore this component of the capital charge has not been recalculated for this DSP.

² The capital charge value for Yamba \$12,175/ET (taken from the Clarence Valley Council Adopted 2020/21 Fees and Charges, Section 7.11 (previously Section 94 contributions) Current Plans and Section 64 Contributions) has been added to the calculated capital charge for WYURA of \$1,244/ET to derive the total capital cost per ET for WYURA developments.

7.5 DSP Areas

The *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (NSW DPI Office of Water, 2016) permit the agglomeration of service areas into DSP areas which have capital charges that are within 30% of each other. Agglomeration is intended to minimise the number of different developer charges within the LGA. No agglomeration calculations were undertaken as West Yamba was identified as being a single development area.

7.6 Reduction Amount

The reduction amount is defined as the NPV of the future net income expected from providing sewer-related services to the new residents in the DSP area.

The previous CVC sewerage services DSP (GHD, 2017) included the WYURA, and the key works used in the existing developer charge for Yamba which will support future development within the release area. The existing developer charge has therefore been added to the new capital charge calculated in this DSP (which is for works specific to the WYURA). As the existing developer charge already incorporates a reduction amount into its final developer charge calculation, no further reduction amount is applicable for the works in this DSP.

7.7 Cross-Subsidy

The calculated developer charges are the maximum value that may be levied by a water utility. In accordance with *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (NSW DPI Office of Water 2016), a utility may elect to levy less than the calculated developer charge.

The cross-subsidy is the percentage difference between the annual bill with the calculated maximum developer charge and the proposed lower developer charge.

No cross-subsidy has been applied to the DSP areas in this DSP.

8. Reviewing / Updating of Calculated Developer Charges

In line with the *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (NSW DPI Office of Water, 2016) the developer charges relating to this DSP will be reviewed after a period of 4 to 8 years from the implementation of this plan, concurrently with the review of the CVC Development Servicing Plan – Sewerage Services, GHD, 2017. If the review indicates that the developer charges in this DSP are still applicable this DSP will apply for a further five years once the Council releases a public notice to this effect. However, if the developer charges in this DSP are found to no longer apply and it is believed that a new DSP is warranted, a new DSP shall be prepared, audited, exhibited and registered.

If a major change occurs, such as a requirement for significant capital works, which was not considered in the DSP, Council may carry out a review in less than 4 years, subject to NOW approval. If the review identifies that a new DSP is required, the new DSP must to be prepared, audited, exhibited and registered.

In the period between any review developer charges will be adjusted annually on 1st July on the basis of movements in the Consumer Price Index (CPI) for Sydney, in the preceding 12 months to December, excluding the impact of Goods and Services Tax (GST).

9. Background Information

Background information and calculations relating to this DSP are contained in the following documents:

1. 2011 Australian Census, Australian Bureau of Statistics, 2011
2. Clarence Valley Local Environmental Plan, Clarence Valley Council, 2011
3. Northern Rivers Local Government Development Design and Construction Manual, Development Design Specification D12 Sewerage System, CVC, et al, 2009
4. Yamba Wastewater Strategy Part 1, Geolink, 2002
5. Clarence Valley Council Sewerage Strategic Business Plan, GHD, 2016
6. West Yamba Urban Release Area Water Supply and Sewer Servicing Strategy, HunterH2O, July 2019
7. Clarence Valley Council Development Servicing Plans for Sewerage Services, Hunter Water Australia, 2005
8. Clarence Valley Council Sewerage Strategic Business Plan, GHD, September 2017
9. Maclean Sewerage Scheme Augmentation, NSW Department of Land & Water Conservation and Maclean Shire Council, 2001
10. 2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater, NSW Department of Primary Industries Office of Water, 2016
11. NSW Reference Rates Manual – Valuation of Water Supply, Sewerage and Stormwater Assets, NSW Government Office of Water, Ministry of Energy and Utilities, 2003 with amendments in 2010
12. NSW Water and Sewerage Strategic Business Planning Guidelines. NSW Office of Water, 2011
13. Section 64 Determinations of Equivalent Tenements Guidelines, Water Directorate, May 2009 Addendum
14. Gravity Sewer Code of Australia, Water Services Association of Australia, 2014
15. Pressure Sewerage Code of Australia, Water Services Association of Australia, 2007
16. Pumping Station Code of Australia, Water Services Association of Australia, 2005
17. Excel spreadsheets used in calculating developer charges

All other documents can be reviewed in Council's offices by appointment. To review the documents, please contact Council on (02) 6643 0200.

10. Other DSPs and Related Contribution Plans

Other DSP's and related plans include:

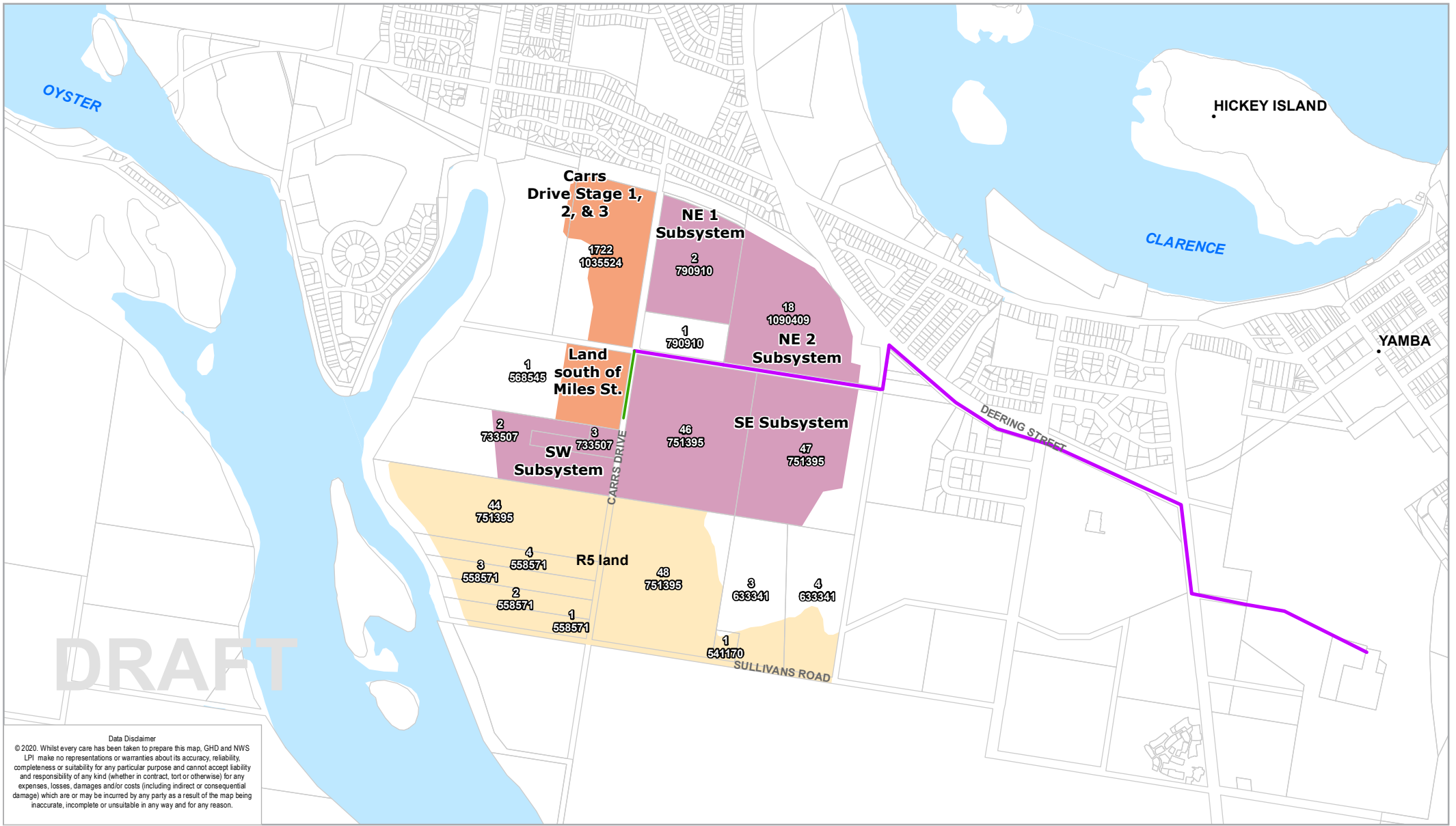
- Clarence Valley Council West Yamba Development Servicing Plan – Water Supply Services, GHD, 2020.
- Clarence Valley Council Development Servicing Plan – Sewerage Services, GHD, 2017
- Clarence Valley Council Development Servicing Plan – Water Supply Services, GHD, 2017.

CVC also levies developer contributions for various public amenities under Section 94 of the *Environmental Planning and Assessment Act, 1979*.

11. Glossary

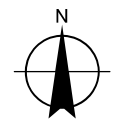
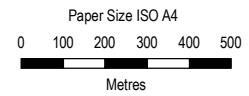
ADWF	Average Dry Weather Flow
AMT	Accepted Modern Technology
Capital Cost	The Present Value (MEERA basis) of assessment used to service the development.
Capital Charge	The capital cost per ET.
CPI	Consumer Price Index
CVC	Clarence Valley Council
Developer Charge	A charge levied on Developers to recover part of the capital cost incurred in providing infrastructure to a new development.
Discount Rate	The rate used to calculate the present value of money arising in the future.
DSP	Developer Servicing Plan
DCP	Development Control Plan
EP	Equivalent Person
EPA	Environmental Protection Authority
ET	Equivalent Tenement
et al.	et alia
EWON	Energy and Water Ombudsman
FU	Fixture Unit
GCC	Grafton City Council
GST	Goods and Services Tax
i.e.	id est
IDEA	Intermittently Decanted Extended Aeration
IPART	Independent Pricing and Regulatory Tribunal
LEP	Local Environmental Plan
LGA	Local Government Area
LOS	Level of Service
MEERA	Modern Equivalent Engineering Replacement Asset
NPV	Net Present Value
NSW DPI	NSW Department of Primary Industries
OMA	Operation, maintenance and administration (cost)
Post 1996 Asset	An Asset that was commissioned by a water utility on or after 1 January 1996 or that is yet to be commissioned
Pre-1996 Asset	An Asset that was commissioned by a water utility before 1 January 1996

PRP	Pollution Reduction Program
PV	Present Value. The value now of money, or ETs, in the future.
Reduction Amount	The amount by which the capital charge is reduced to arrive at the developer charge. The amount reflects the present value of the capital contributions that will be paid by the occupier of a development as part of future annual charges discounting OMA costs.
Service Area	An area served by a separate water supply system, an area served by a separate sewerage treatment works, a separate small town or village, or a new development of over 500 lots.
STP	Sewerage Treatment Plant
UV	Ultraviolet
WICA	Water Industry Competition Act
WSAA	Water Services Association of Australia
WWPS	Wastewater Pumping Station
WWTP	Wastewater Treatment Plant



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- Legend**
- Place names
 - DN120 pressure main
 - DN200 pressure main
 - Initial stages
 - Future stages
 - Waterways
 - Cadastre



Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 56

Clarence Valley Council
 Sewer and Water Development
 Servicing Plan Update (DSP)

Project No. **12528667**
 Revision No. **B**
 Date **8/07/2020**

**West Yamba Development Servicing
 Plan Areas – Sewerage Overview**

FIGURE 1

13. ET Projections

The basis of future development in WYURA has been adopted from the WYURA Water Supply and Sewer Servicing Strategy, by HunterH2O, July 2019. As such, the projected number of ETs is in accordance with the servicing strategy.

Table 13-1 ET Projections

Development	Proposed number of Lots	Calculated Sewerage ETs ¹
Carrs Drive Stage 1 ¹	57	57
Carrs Drive Stage 2 ¹	54	54
Carrs Drive Stage 3 ¹	50	50
Land south of Miles Street ²	200	150
All initial stages	361	311
NE1 subsystem	170	170
NE2 subsystem	256	256
SE subsystem	480	480
SW subsystem	110	110
All future stages	1,016	1,016
R5 land ³	42	-
Total	1,419	1,327

¹ For the development areas north of Miles Street (Carrs Drive stage 1, 2, and 3), 1 ET per lot is assumed for sewer planning purposes. This is based on 3-4-bedroom dwelling per lot (which is considered appropriate for the 450 to 560 sqm lot sizes).

² Council advised HunterH2O in February 2018 that the land south of Miles Street could adopt a 0.75 ET per lot rate for sewer planning purposes. This rate is based on 2 bedroom dwellings per lot.

³ It is noted that the associated load contribution from R5 land has only been considered for the water DSP, as per council advice, and as such has been excluded from the sewerage DSP.

13.1.1 Background

Background information provided to inform the population projection calculations included the following:

- West Yamba Urban Release Area Water Supply and Sewer Servicing Strategy (HunterH2O, 2019).

13.1.2 Assumptions

The following assumptions were made to produce the growth projections:

- Complete development within 25 years (2021 to 2046).
- A linear growth rate over the period.

A summary of the growth projections is provided in 3.1.

Table 13-2 Growth Projections

Time Period	Equivalent Tenements (ETs)	Number of New ETs / year
2020/21	0	0
2021/22	53	53
2022/23	106	53
2023/24	159	53
2024/25	212	53
2025/26	265	53
2026/27	318	53
2027/28	371	53
2028/29	424	53
2029/30	477	53
2030/31	530	53
2031/32	583	53
2032/33	636	53
2033/34	689	53
2034/35	742	53
2035/36	795	53
2036/37	848	53
2037/38	901	53
2038/39	954	53
2039/40	1,007	53
2040/41	1,060	53
2041/42	1,113	53
2042/43	1,166	53
2043/44	1,219	53
2044/45	1,273	53
2045/46	1,327	54
2046/47	1,327	0
2047/48	1,327	0
2048/49	1,327	0
2049/50	1,327	0
2050/51	1,327	0

14. Existing Capital Costs

A summary of assets and MEERA values is included in the CVC Development Servicing Plan – Sewerage Services, GHD, 2017. Below is a summary of the existing sewerage costs for Yamba.

Table 14-1 Summary of the Existing Capital Charge (from the CVC Development Servicing Plan - Sewerage Services, GHD 2017)

DSP Name	Existing (2017) Capital Charge (\$ / ET)	Existing (2017) Reduction Amount (\$ / ET)	Existing (2017) Calculated Maximum Developer Charge (\$ / ET)	Existing (2017) Adopted Developer Charge (\$ / ET)	Existing 2020 ¹ Developer Charge (\$/ET)
Yamba	\$12,073	\$557	\$11,516	\$11,516	\$12,175

¹ This value has been taken from the CVC Adopted 2020/21 Fees and Charges, Section 7.11 (previously Section 94 contributions) Current Plans and Section 64 Contributions.

15. Future Capital Works Program

Future capital works including a description, construction year and MEERA costs are included in the CVC Development Servicing Plan – Sewerage Services, GHD, 2017 and Table 15-1 below.

Table 15-1 Future Sewerage Scheme Capital Expenditure (contributing to Capital Charge)

Amenity	Asset Name	Development Area	Stage / Development Area	Construction Year	Gross (2020/21\$)	Capital Charge (2021\$)
New System Asset	Pipe 1: 2,848 metres of DN200 pressure sewer main connecting into the Yamba STP	A, B, C	Initial stages / All Future stages / All	2021 - 2023	\$850,096	\$850,096
New System Asset	Pipe 2: 313 metres of DN200 pressure sewer main in Miles Street	A, B	Initial stages / All Future stages / SW, NE1 and SE Subsystem	2021 - 2023	\$93,427	\$93,427
New System Asset	Pipe 3: 237 metres of DN120 pressure sewer main	B	Initial stages / Land South of Miles Street Future stages / SW subsystem	2021 - 2023	\$59,292	\$59,292
Total:					\$1,002,815	\$1,002,815

16. Calculation of Capital Charge

A summary of the calculated capital charge per ET is provided in Table 16-1.

Table 16-1 Capital Charge Net Present Value, Summary of Calculations

Year Number	Year	Estimated Expenditure	PV factor (@5%)	PV of Capital Expenditure (@5%)	New ETs per year	PV of New ETs (@5%)	Capital Charge
1	2021/2022	\$501,407.85	1	\$501,407.85	53	53	
2	2022/2023	\$501,407.85	0.95	\$476,337.46	53	50	
3	2023/2024		0.91	\$-	53	48	
4	2024/2025		0.86	\$-	53	46	
5	2025/2026		0.82	\$-	53	44	
6	2026/2027		0.78	\$-	53	41	
7	2027/2028		0.75	\$-	53	40	
8	2028/2029		0.71	\$-	53	38	
9	2029/2030		0.68	\$-	53	36	
10	2030/2031		0.64	\$-	53	34	
11	2031/2032		0.61	\$-	53	32	
12	2032/2033		0.58	\$-	53	31	
13	2033/2034		0.56	\$-	53	30	
14	2034/2035		0.53	\$-	53	28	
15	2035/2036		0.51	\$-	53	27	
16	2036/2037		0.48	\$-	53	25	
17	2037/2038		0.46	\$-	53	24	
18	2038/2039		0.44	\$-	53	23	
19	2039/2040		0.42	\$-	53	22	
20	2040/2041		0.4	\$-	53	21	
21	2041/2042		0.38	\$-	53	20	
22	2042/2043		0.36	\$-	53	19	
23	2043/2044		0.34	\$-	53	18	
24	2044/2045		0.33	\$-	53	18	
25	2045/2046		0.31	\$-	53	16	
26	2046/2047		0.3	\$-	0	0	
27	2047/2048		0.28	\$-	0	0	
28	2048/2049		0.27	\$-	0	0	
29	2049/2050		0.26	\$-	0	0	
30	2050/2051		0.24	\$-	0	0	
End		\$1,002,815.70		\$977,745.31	1327	786	\$1,244

Table 16-2 Sewerage Capital Charge per ET, Summary of Calculations

Development Area	Future Works (\$/ET)	Existing Works Pre-1996 (\$/ET)	Existing Works Post-1996 (\$/ET)	Total Capital Cost per ET (\$/ET) ¹
West Yamba	\$1,244	-	-	\$13,419

¹ The capital charge value for Yamba \$12,175/ET (taken from the Clarence Valley Council Adopted 2020/21 Fees and Charges, Section 7.11 (previously Section 94 contributions) Current Plans and Section 64 Contributions) has been added to the calculated capital charge for WYURA of \$1,244/ET to derive the total capital cost per ET for WYURA developments.

17. Calculation of the Reduction Amount

As discussed in section 7.6 no reduction amount was calculated for this DSP.

18. Cross-subsidy Calculations

No cross-subsidy has been applied to the areas in this DSP.

19. Calculation of Developer Charge

The calculation of developer charges per ET is summarised in **Error! Reference source not found.**

Table 19-1 Developer Charges per ET, Summary of Calculations

Development Area	Capital Charge (\$/ET)	Reduction Amount	Adopted Developer Charge (\$/ET)
West Yamba	\$13,419	\$0	\$13,419

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