



Preliminary Utility Servicing Report

for

Seniors Living Precinct - Newcastle Golf Club

for Principle Living

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Revision	Report Status	Issue Date	Prepared	Reviewed	Admin
1	Preliminary	02 Jul 2021	AB	CS	BBR
2	Final Draft	02 Aug 2021	AB	CS	BBR
3	Final	24 Nov 2021	AB	GB	BBR
A	Amended Layout	12 Oct 2023	AB	GB	ZJ
B	Amended Project Description	28 Nov 2023	AB	GB	ZJ

1. Introduction

At the request of Principle Living, Northrop have undertaken a preliminary investigation in relation utility servicing for a proposed new Seniors Living development on the western portion of the Newcastle Golf Club site fronting Nelson Bay Road. The site is currently registered as Lot 4, DP823114 835921, 4A Vardon Road Fern Bay NSW 2295, however, we understand the Seniors Living precinct will be subdivided to become a separate Torrens Titled lot. Figure 1 below depicts the proposed location of the Seniors Living lot in the context of the greater golf course site.

The information outlined below is commensurate with a preliminary investigation in the endeavour to assist Site Compatibility and Development Assessment for the proposed Seniors Living development. This report is not intended to provide detailed information, design, or cost estimation, but rather it is expected that further investigation, design, and Authority assessment will be required in due course.



Figure 1 – Location of the proposed Seniors Living development.

2. Proposed Development

The proposal is a Seniors Living Development and includes the following key components:

- Site preparation and establishment activities – clearing existing vegetation, demolition of existing golf course via earthworks, bulk earthworks.
- Establishment of vehicular access from Nelson Bay Road.
- Construction and occupancy of a seniors living development comprising:
 - Three (3) apartment buildings containing 125 serviced self-care dwellings.
 - Forty-seven (47) single storey (villas) serviced self-care dwellings.
- Carparking - 295 spaces across the site with each villa being provided with a double garage (94 spaces) and 201 basement carparking spaces within the three apartment buildings.
- Provision of pedestrian and vehicular access to and from the site.
- Establishment of a Community centre and administration building.
- Pickle ball courts, lawn bowls facility, open space, landscaping, picnic shelter, public art, open lawn area for passive recreational activities and formal striking planting.
- Civil works including internal access roads, pedestrian linkages to Nelson Bay Road and the golf club.
- Connection to Country 'Keeping Place'.
- Extension and enhancement of physical infrastructure utilities as needed.

As noted above, the development is proposed to be accessed directly from Nelson Bay Road. The site is proposed to be cut and filled, generally in a balanced earthworks manner, with the resulting development platform in the order of 3m to 7m AHD. Figure 2 below depicts the proposed development site layout plan.

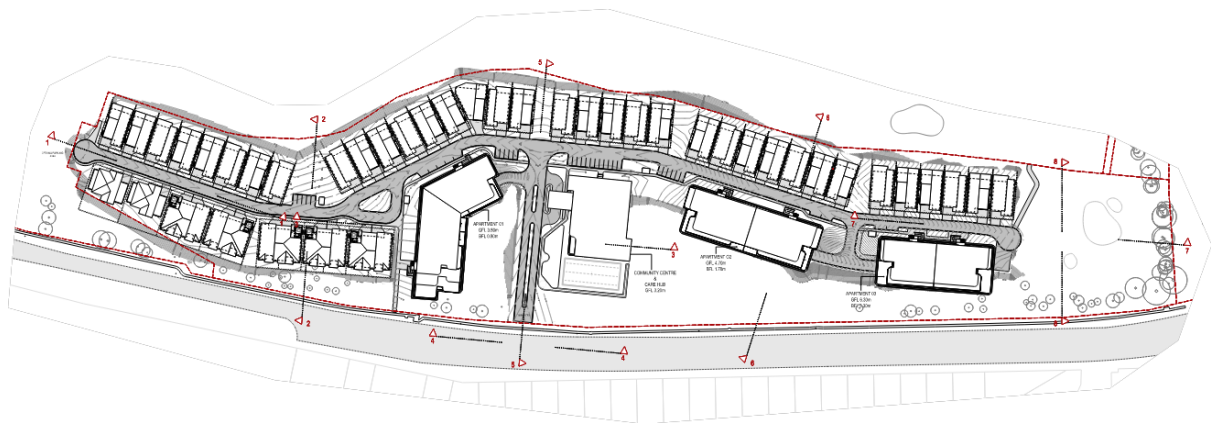


Figure 2 – Proposed site layout plan.

3. Utility Infrastructure

3.1. General

Preliminary investigations in relation to Authority utility services were undertaken to identify the existing infrastructure in the local area. These investigations considered water, sewer, electrical, communications, and gas, and included:

- Review of Dial Before You Dig (DBYD) information.
- Site inspection and observations.
- Submission of a formal application with Hunter Water Corporation (HWC) for 'Notice of Formal Requirements'.
- Review of Ausgrid asset infrastructure database.

The objective of this report is to assist early development planning and Development Assessment protocols and provide an indication of the lead-in utility infrastructure (e.g. external back-haul, connection, or upgrade infrastructure) that is likely required to service the development. This does not consider the infrastructure that reticulates within the development, as such infrastructure is relatively standard and should be able to be designed/ installed in an appropriate fashion to adequate service proposed development.

Figure 3, located in Appendix A, depicts the existing authority mains infrastructure in the vicinity site and along Nelson Bay Road. We note the vast majority of existing water infrastructure is located within the Nelson Bay Road Reserve, however there is infrastructure within the proposed development site.

Figure 3 also depicts a variety of proposed new or modified infrastructure, including:

- The expected utility connection location(s) for each utility service (i.e. water, sewer, gas, electrical and communications).
- A potential location for a proposed private Wastewater Pump Station (WWPS) – discussed further below.

3.2. Water Supply

We note the following:

- Hunter Water Corporation (HWC) are the administering Utility Authority.
- The golf course site is currently serviced by Authority Water supply mains from Vardon Street.
- A formal application to attain development servicing advice (Notice of Formal Requirements, NoFR) has been lodged with HWC and a copy of the application response is included in Appendix B. We note this response correspondence indicates the proposed development can be adequately serviced and would be directly serviced from the Nelson Bay Road infrastructure.
- The lot has direct frontage to existing HWC main infrastructure on Nelson Bay Road.
- The proposed development has approximately 174 dwellings/ apartments, corresponding to approximately 146ET in accordance with HWC WSAA for water supply.
- It is expected the existing HWC mains infrastructure has adequate capacity and pressure to service the proposed development.

- It is expected servicing infrastructure would be relatively standard and comprise a network of water mains (along with hydrants, valving, building/ allotment connections, etc) along the internal private roads. The size of the site servicing main is expected to be in the order of 100 to 150mm diameter and a water booster/meter is expected to be located adjacent to the site entry access road.
- Network interconnection for supply security is expected to be required as part of the detailed design consideration and can be achieved directly with Nelson Bay Road for each connection.

3.3. Sewerage

The proposed Seniors Living development is expected to be serviced as a standard customer by Hunter Water Corporation (i.e. connected to their existing wastewater transportation network).

We note the following:

- The site is currently not serviced by Authority infrastructure and the existing golf course development has its own private wastewater management system.
- Hunter Water Corporation (HWC) are the administering Utility Authority where connection as a standard customer is expected to be the most likely servicing option. Any onsite wastewater management would be administered by Newcastle City Council (NCC).
- A formal application to attain development servicing advice (Notice of Formal Requirements, NoFR) has been lodged with HWC and a copy of the application response is included in Appendix B. We note this response correspondence indicates the proposed development can be adequately serviced from the existing HWC wastewater network in Fern Bay.
- HWC have existing sewer infrastructure to the south of the site in Fern Bay, including a network of gravity mains and a WWPS adjacent to the Fern Bay Community Hall off Vardon Street (approximately 300m from the proposed development site on a direct route, or approximately 480m traversing the road network).
- It is expected that a private onsite Wastewater Pumpstation (WWPS) will be required to service the proposed development and this WWPS will incorporate a rising main to connect to the existing HWC infrastructure. Figure 3 depicts the proposed location for the private WWPS and rising main route.
- There are a number of potential connection points, however we expect the most likely point of connection to HWC infrastructure will be at the existing WWPS off Vardon Street.
- The topographic relationship along the expected route between the development and the existing WWPS is ranges between approximately 2.5 to 6m AHD and is expected to be conducive to a standard pumpstation and rising main infrastructure.
- A network of either gravity mains or pressure sewer servicing each building is proposed.
- The proposed development has a total of 174 dwellings/ apartments, corresponding to approximately 136ET in accordance with HWC WSAA for sewer drainage. This equates to theoretical flows of:
 - ADWF ~1.49 L/s
 - PDWF ~4.63 L/s
 - PWWF ~14.72 L/s

3.4. Electrical

We note the following:

- Ausgrid are the administering electrical Utility Authority where connection to the grid is proposed.
- There is existing Authority owned high voltage overhead infrastructure along the eastern side of Nelson Bay Road.
- The golf course site is currently serviced by Authority electrical mains from the high voltage overhead infrastructure along the eastern side of Nelson Bay Road.
- There are several connection options for the proposed Senior Living development, with the most likely being a direct connection as a standard customer to 'the existing Ausgrid network'. The connection is expected to be in a similar location to the current golf course overhead connection.
- The existing overhead electrical connection traversing the site can be diverted/ realigned if necessary.

3.5. Communications

Existing communications infrastructure (NBN and Telstra) are available, and we note:

- The existing golf course site is serviced by NBN/ Telstra network from Vardon Street.
- Existing communications infrastructure (NBN and Telstra) is located within Nelson Bay Road Reserve and would be the expected connection point for future development.
- It is expected the proposed new development would be serviced by a standard NBN network customer connection.

4. Conclusion

Our investigation indicates the proposed Seniors Living site is fronted by all relevant utility services and is, in general, able to appropriately support a Seniors Living development in relation to utility servicing. There is existing utility infrastructure within the vicinity of the site for water, sewer, electricity and communications which is either adequate or can be augmented to adequately service the proposed redevelopment.

The information outlined within this report is commensurate with a preliminary investigation in the endeavour to assist Site Compatibility and Development Assessment for the proposed Seniors Living development. It is not intended to provide detailed information or outcomes, but rather it is expected that further investigation and design will be required to be undertaken in due course to confirm and further development design outcomes.

Limitation Statement

Northrop Consulting Engineers Pty Ltd (Northrop) has been retained to prepare this report based on specific instructions, scope of work and purpose pursuant to a contract with its client. It has been prepared in accordance with the usual care and thoroughness of the consulting profession for the use by Principle Living. The report is based on generally accepted practices and standards applicable to the scope of work at the time it was prepared. No other warranty, express or implied, is made as to the professional advice included in this report.

Except where expressly permitted in writing or required by law, no third party may use or rely on this report unless otherwise agreed in writing by Northrop.

Where this report indicates that information has been provided to Northrop by third parties, Northrop has made no independent verification of this information except as expressly stated in the report. Northrop is not liable for any inaccuracies in or omissions to that information.

The report was prepared on the dates shown and is based on the conditions and information received at the time of preparation.

This report should be read in full, with reference made to all sources. No responsibility is accepted for use of any part of this report in any other context or for any other purpose. Northrop does not purport to give legal advice or financial advice. Appropriate specialist advice should be obtained where required.

To the extent permitted by law, Northrop expressly excludes any liability for any loss, damage, cost or expenses suffered by any third party relating to or resulting from the use of, or reliance on, any information contained in this report.

Appendix A – Existing Authority Mains Infrastructure


VERIFIER: AB
JOB MANAGER: AB
DESIGNED: BBR
DRAWN: BBR



LEGEND

- EXISTING TELSTRA
- EXISTING SEWER GRAVITY MAIN
- EXISTING SEWER RISING MAIN
- EXISTING 1050kPa HIGH PRESSURE GAS MAIN
- EXISTING WATER
- PROPOSED PRIVATE WWPS RISING MAIN ALIGNMENT - TO BE CONFIRMED WITH HWC
- PROPOSED PRIVATE WWPS LOCATION

NOT FOR CONSTRUCTION

REV		DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	PROJECT		DRAWING TITLE		JOB NUMBER		
1	INFORMATION		BBR	AB	AB	02/08/21	PRINCIPLE LIVING	EJE ARCHITECTURE	ALL SETUP TO ARCHITECT'S DRAWINGS. DIMENSIONS TO BE VERIFIED WITH ARCHITECT AND BUILDER BEFORE COMMENCING SHOP DRAWINGS OR SITE WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY.	 <div>Northrop Newcastle</div> <div>Suite 4, 215 Pacific Hwy, Charlestown NSW 2290 P.O. Box 180, Charlestown NSW 2290 Ph (02) 4943 1777 Fax (02) 4943 1577 Email newcastle@northrop.com.au ABN 81 094 433 100</div>	SENIOR LIVING PRECINCT - NEWCASTLE GOLF CLUB	UTILITY SKETCH	NL166557-01		
2	INFORMATION		BBR	AB	AB	24/11/21								DRAWING NUMBER FIGURE 3	REVISION A
A	INFORMATION		AB	AB	AB	19/10/23									
DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED						THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD			DRAWING SHEET SIZE = A1						

Appendix B – HWC Notice of Formal Requirements



Hunter Water Corporation
ABN 46 228 513 446

PO Box 5171
HRMC NSW 2310
36 Honeysuckle Drive
NEWCASTLE NSW 2300
1300 657 657 (T)
(02) 4979 9625 (F)
hunterwater.com.au

20 July 2021

Ref: 2021-456

Newcastle Golf Club Limited
C/- Northrop Consulting Engineers
P O Box 180
Charlestown NSW 2290

Attention: Andrew Brown

Dear Andrew,

RE PRELIMINARY SERVICING ADVICE

Hunter Water offers the following preliminary servicing advice for the provision of water and sewerage facilities to the development of Seniors Living at Lot 4 DP 823114, 4A Vardon Road, Fern Bay.

As the development may be subject to rezoning and approval by Council any information offered by Hunter Water is only preliminary and may be subject to significant change prior to proceeding.

The preliminary servicing advice offered is not binding on Hunter Water. Once Development Consent has been granted and you wish to proceed with your development you will be required to lodge an application for Notice of Requirements from Hunter Water and comply with these requirements prior to the issue of a Section 50 Compliance Certificate.

Hunter Water's preliminary servicing advice provides general information on water and sewer issues relevant to the proposed development. The information provided is based on Hunter Water's knowledge of current system performance and other potential development in the area. There could be significant change prior to lodging a Development Application and therefore these preliminary requirements may be different to the Notice of Requirements provided in the future.

Network Infrastructure and Delivery

1 Water Supply

The proposed development has partial frontage to an existing DN100 CICL water main in Vardon Road.

As the proposed development is a commercial facility, a DN150 main will be required to meet minimum pipe size. The developer would be required to upgrade the cross connection between the nearby DN300 and DN100 water mains in Vardon Road, to a DN150 water main, and then upgrade the DN100 water main along the development frontage to DN150, to provide upgraded water main frontage and a water point of connection.

2 Wastewater Transportation

The proposed development site is located within the Shortland Waste Water Treatment Works (WWTW) Catchment, and has multiple nearby Waste Water Pump Stations (WWPS) which may be potential options for servicing the site. These pump stations, however, along with the Fern Bay and Stockton Sewer Networks, may have limited

available capacity for servicing the site and investigation will be required to understand the most suitable servicing method.

The developer would be required to complete a sewer servicing report, investigating options for providing sewer services to the proposed development.

- 3 Design and construct developer works under a **Developer Works Deed** with Hunter Water to connect the development to the existing water and sewer system(s). The works must be designed and certified by an Accredited Design Consultant and constructed by an Accredited Construction Contractor.

If the works involve a system shutdown or impact on existing customers you will be required to submit a request to Shutdownrequests@hunterwater.com.au prior to submitting the final design.

It is the responsibility of the Accredited Design Consultant to lodge the finished design Documentation and Design Compliance Certificate to Hunter Water at design.submission@hunterwater.com.au prior to construction starting.

All suppliers engaged by the developer must have insurances in place in accordance with the Deed.

If necessary, you will be required to pay a compensation fee for each maintenance structure constructed on a third party property.

Environmental Requirements

- 4 Submit a Review of Environmental Factors (REF) (refer Appendix HW 1 of Water Supply Code of Australia – Hunter Water Edition) to Hunter Water for the construction and operation of the proposed works. The REF will need to be approved by Hunter Water prior to the design process being finalised.

An REF considers the likely impacts a development may have on the environment. At all times, methods for preventing or reducing adverse environmental impacts should be considered and where appropriate, incorporated into the project design.

Hunter Water will make a determination in accordance with Environmental Planning and Assessment Act 1979. An environmental report assessment fee should be paid when the REF is submitted.

In addition, please refer to the Hunter Water Review of Environmental Factors Guidance Notes, located in the Building & Development section of the Hunter Water website. The Guidance Notes provide the minimum requirements and an example template for the preparation of a REF.

Please note that a Controlled Activity Approval will be required from the NSW Office of Water for any excavation within 40 metres of a water body or should groundwater be present.

Financial Requirements

- 5 A reimbursement contribution may be required towards the cost of any water and sewer infrastructure that is constructed by a third-party developer and utilised to serve this development. The reimbursement payment includes GST. Reimbursements cannot be determined until the connection points are defined. You will be advised of any reimbursements after the design documentation is lodged by your Accredited Design Consultant with Hunter Water.

Entry Requirements

- 6 The proposed works will require entry to another property. You will need to arrange for entry and have evidence of consent by way of a signed Entry Permit with the affected landowner. The Permit is to be submitted with the Design submission.

These preliminary requirements are not commitments by Hunter Water and maybe subject to significant change prior to this development proceeding.

Yours faithfully



WESLEY JONES
Development Services

Enquiries:	Wesley Jones
Tel:	0429 159 488
Email:	wesley.jones@hunterwater.com.au

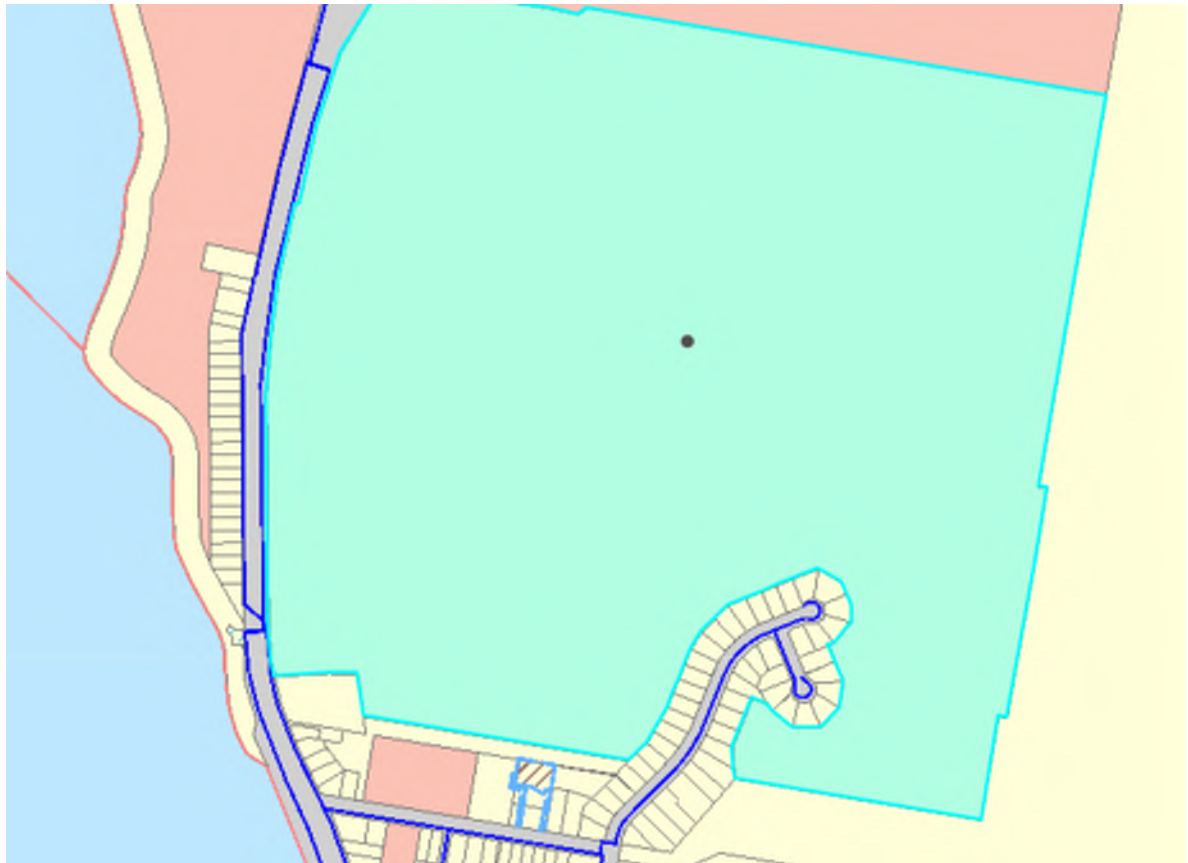


Figure 1 – Local water servicing infrastructure within the vicinity of the proposed development site (note the water main frontage on the western side of the lot)

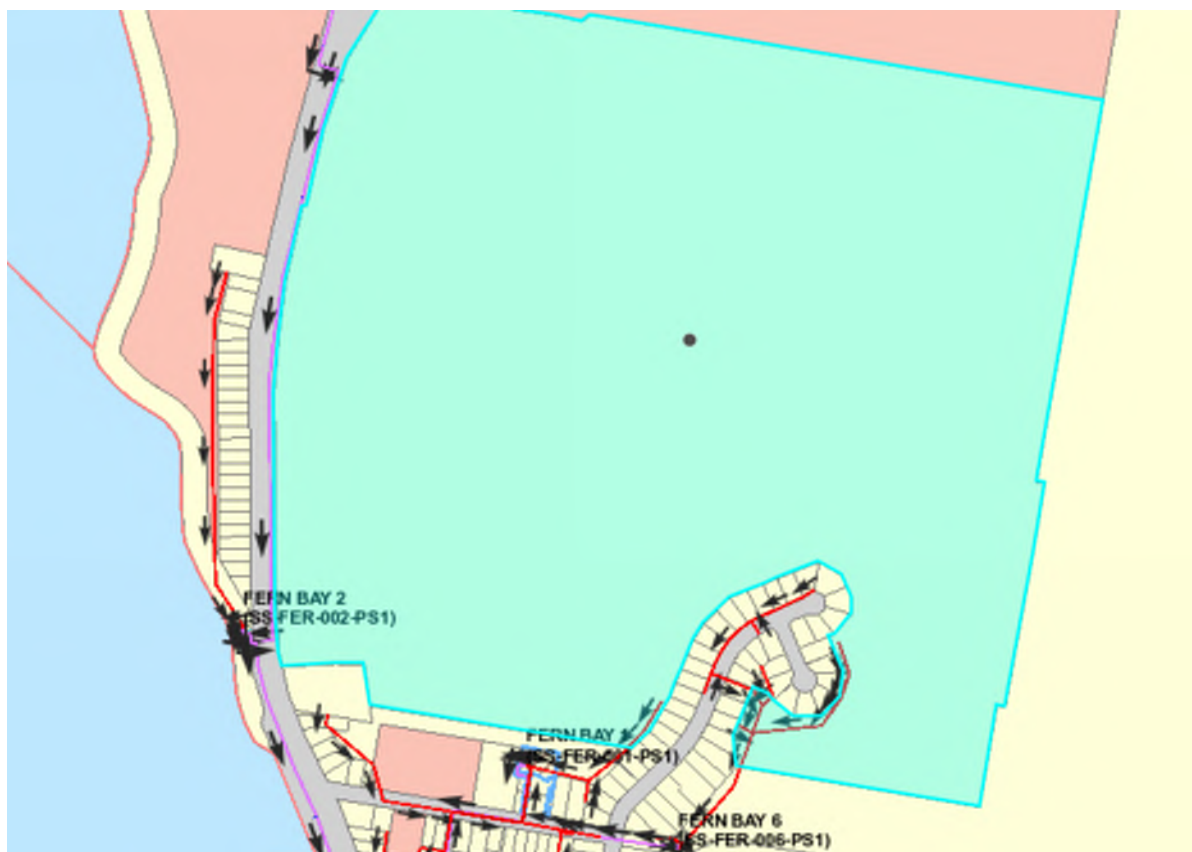


Figure 2 – Local sewer servicing infrastructure within the vicinity of the proposed development site



HUNTER WATER CORPORATION

A.B.N. 46 228 513 446

Enquiries: 1300 657 657

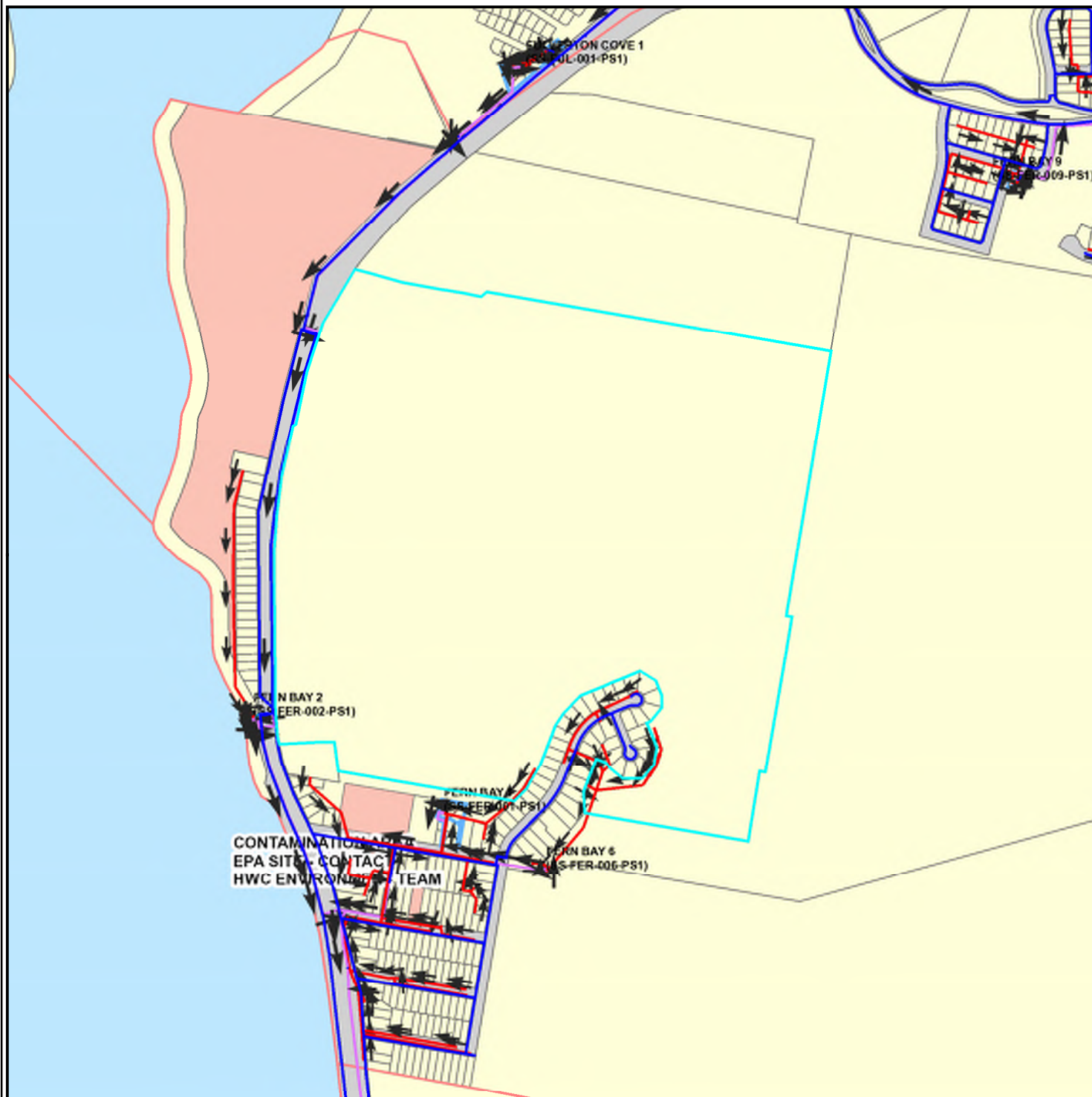
ArcGIS Web Map



RATEABLE_PREMISE_NO.: 2615100162

LOT/SECTION/DP: 4//823114

PROPERTY ADDRESS: 4A VARDON RD FERN BAY, 2295



HUNTER WATER ASSETS POSITION ARE APPROXIMATE ONLY.
SUBJECT PROPERTY BOLDED.
ALL MEASUREMENTS ARE METRIC.

IMPORTANT:

ANY INFORMATION ON THIS PLAN MAY NOT BE UP TO DATE
AND THE CORPORATION ACCEPTS NO RESPONSIBILITY FOR ITS
ACCURACY.

Date: 26/03/2021

Scale: at A4 1:12,000

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ELECTRICAL UTILITY DATA
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