

ORDINARY COUNCIL

Thursday 16 March 2023

Ordinary Council Meeting

Thursday, 16 March 2023

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1 Leadership and Governance

What we are trying to achieve

A community that works together in decision making that is defined as ethically, socially and environmentally responsible.

What the result will be

We will have:

- A community that has the opportunity to be involved in decision making
- Open, easy, meaningful, regular and diverse communication between the community and decision makers
- Partnerships and collaborative projects, that meet the community's expectations, needs and challenges
- Knowledgeable, skilled and connected community leaders
- Strong corporate management that is transparent

How we will get there

- 1.1 Inform and engage with the community about what Council does using varied communication channels
- 1.2 Maintain strong partnerships between all stakeholders - local, state and federal — so that they are affective advocates for the community
- 1.3 Demonstrate leadership
- 1.4 Use innovative, efficient and sustainable practices
- 1.5 Ensure strong corporate and financial management that is transparent and accountable



Investment Report

February 2023

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Executive Summary

Compliance

Compliance Measure	Within Policy Limits (Y/N)	Reason if Not Compliant
Term to Maturity	Yes – Compliant	n/a
Counterparty	Yes – Compliant	n/a
Credit Quality	Yes – Compliant	n/a

Performance

As at 28/02/2023	1m (actual)	1m (% p.a.)	FYTD (actual)	FYTD (% p.a.)
AusBond Bank Bill Index	0.24%	3.18%	1.68%	2.54%
Council's Portfolio[^]	0.16%	2.16%	1.27%	1.92%
Relative Performance	-0.08%	-1.02%	-0.41%	-0.62%

[^]Total portfolio performance excludes Council's cash account holdings.

Market Update Summary

Risk markets were generally sold off in February after several stronger-than-expected reports on the US economy (particularly employment) changed the outlook on the peak of the interest rate cycle.

Domestically, the RBA continues to signal that it expects to increase interest rates, with at least two or three more 25bp hikes over the months ahead, likely locking in a March rate hike, and then possibly another in April and/or May. Thereafter, noting the lags in monetary policy, a pause around the end of Q2-Q3 is likely whilst the RBA monitors the economic data. Interestingly, RBA Governor Lowe commented that *"if inflation expectations stay well anchored, the supply-side problems get fixed up, wage growth and wage setting doesn't move up too fast and we can come back on that narrow path. So that is a plausible scenario: that rates rise and then start coming down next year. But a few things are going to have to go right for that to happen. It's possible, but there are other scenarios as well"*.

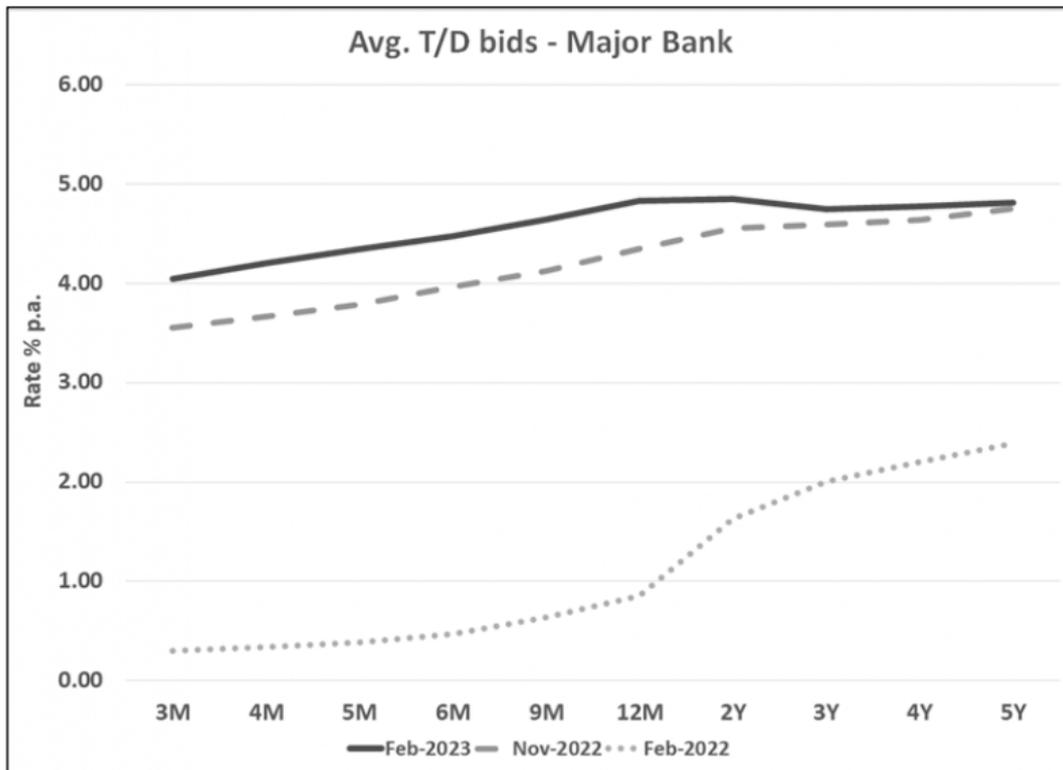
The biggest impact to Council's investment portfolio is with regards to its largest exposure being assets held in bank term deposits, which accounts for around ~88½% of Council's total investment, and cash (~6% of the total investment portfolio).

Council's term deposit portfolio was yielding 2.23% p.a. as at 28/02/2023, with a weighted average duration of around 586 days or ~1.60 years. We note the current interest rates in the term deposit market:

- The highest deposit rate from any rated ADI in the market is now ~5.15% p.a. for 5 years;
- The highest deposit rates amongst the "AA-" rated ADIs (major banks) is now yielding between 4.90%-5.00% p.a. (depending on terms between 12m – 5 years);
- The highest deposit rates amongst the "A" rated ADIs was yielding between 4.95%-5.15% p.a. (depending on terms between 12m – 5 years);
- The highest deposit rates amongst the "BBB" rated ADIs was yielding between 4.95%-5.15% p.a. (depending on terms between 12m – 5 years).



The deposit market has largely already factored in the current rate hike cycle, reflected by the flattening of the curve over the past few months, particularly at the long end of the curve (+2yrs). Interestingly, some 2-5 year deposit rates continue to be offered slightly below or close to the same level as the 12 month rate from a number of ADIs, as the market factors in the potential for a recession and official rates to subsequently fall in coming years:



Source: Imperium Markets

'New' investments above 4¾% p.a. is currently available if Council can continue to place the majority of its surplus funds for terms of 12 months to 2 years. *With recessionary fears being priced in coming years, investors may take an 'insurance policy' against future rate cuts by investing across 3-5 year fixed deposits and locking in rates above or close to 5% p.a. (small allocation only).*



Council's Portfolio

Asset Allocation

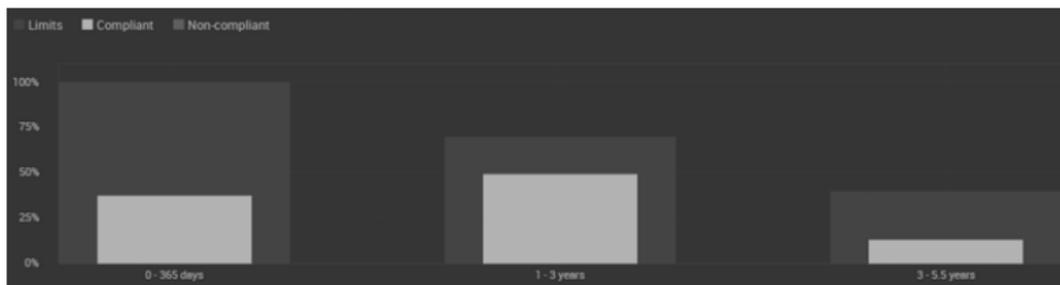
The portfolio is predominately directed to fixed term deposits (88.55%). The remainder of the portfolio is directed to fixed bonds with the Northern Territory Treasury Corporation (4.71%), the overnight cash account with Westpac (6.03%) and the single FRN with Bendigo-Adelaide (0.71%).

Senior FRNs remain relatively attractive as spreads have widened over the past year – new issuances should now be considered again on a case by case scenario. In the interim, fixed deposits for 12 months to 3 years appear quite appealing following the spike in medium-to longer-term yields during the rate hike cycle. With recessionary fears being priced in coming years, investors can choose to allocate some longer-term surplus funds and undertake an insurance policy against any potential future rate cuts by investing across 3-5 year fixed deposits, locking in and targeting yields close to or above 5% p.a.



Term to Maturity

All maturity limits (minimum and maximum) comply with the Investment Policy. Short-Medium Term (1-3 years) assets account for around 49% of the total investment portfolio, with capacity of around \$87m remaining. Future investments should be directed to the 1-3 year horizon as this is where we currently see the best value.



Where there is (counterparty) capacity to invest in attractive 1-3 year investments, we recommend this be allocated to new any remaining attractive fixed term deposits (refer to respective sections below).



Compliant	Horizon	Invested (\$)	Invested (%)	Min. Limit (%)	Max. Limit (%)	Available (\$)
✓	0 - 365 days	\$159,133,650	37.48%	0%	100%	\$265,507,381
✓	1 - 3 years	\$209,507,381	49.34%	0%	70%	\$87,741,341
✓	3 - 5.5 years	\$56,000,000	13.19%	0%	40%	\$113,856,412
✓	5.5 - 10 years	\$0	0.00%	0%	10%	\$42,464,103
		\$424,641,031	100.00%			

Counterparty

As at February 2023, Council did not have an overweight position to any single ADI. Overall, the portfolio is diversified across the investment grade credit spectrum (rated BBB- or higher).

Compliant	Issuer	Rating	Invested (\$)	Invested (%)	Max. Limit (%)	Available (\$)
✓	NAB	AA-	\$69,000,000	16.25%	30.00%	\$58,392,309
✓	North. Territory	AA-	\$20,000,000	4.71%	30.00%	\$107,392,309
✓	Westpac	AA-	\$103,633,650	24.41%	30.00%	\$23,758,659
✓	ICBC Sydney	A	\$72,000,000	16.96%	20.00%	\$12,928,206
✓	ING Bank	A	\$53,000,000	12.48%	20.00%	\$31,928,206
✓	Aust. Military	BBB+	\$3,000,000	0.71%	10.00%	\$39,464,103
✓	Australian Unity	BBB+	\$5,000,000	1.18%	10.00%	\$37,464,103
✓	BOQ	BBB+	\$28,000,000	6.59%	10.00%	\$14,464,103
✓	Bendigo- Adelaide	BBB+	\$3,007,381	0.71%	10.00%	\$39,456,722
✓	AMP Bank	BBB	\$8,000,000	1.88%	10.00%	\$34,464,103
✓	Auswide Bank	BBB	\$3,000,000	0.71%	10.00%	\$39,464,103
✓	MyState Bank	BBB	\$18,000,000	4.24%	10.00%	\$24,464,103
✓	P&N Bank	BBB	\$39,000,000	9.18%	10.00%	\$3,464,103
			\$424,641,031	100.00%		

We remain supportive of the regional and unrated ADI sector (and have been even throughout the post-GFC period). They continue to remain solid, incorporate strong balance sheets, while exhibiting high levels of capital – typically, much higher compared to the higher rated ADIs. Some unrated ADIs have up to 25-40% more capital than the domestic major banks, and well above the Basel III requirements.

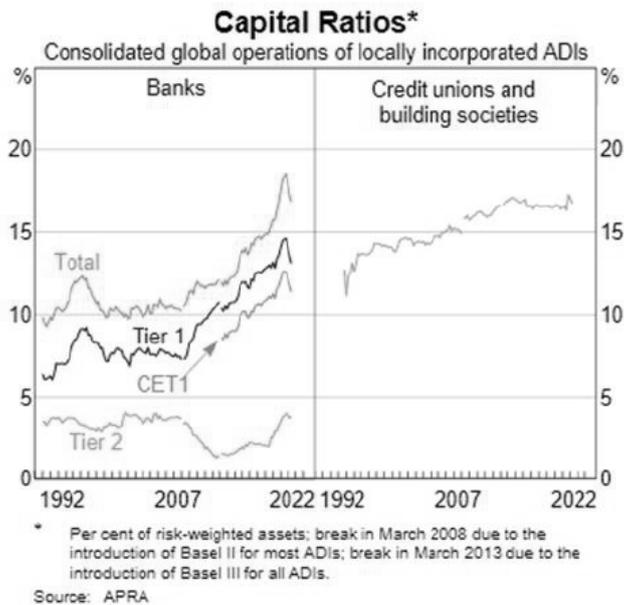
Overall, the lower rated ADIs (BBB and unrated) are generally now in a better financial position than they have been historically (see the Capital Ratio figure below). The financial regulator, APRA has recently noted that the Common Equity Tier 1 capital of Australian banks now exceeds a quarter of a trillion dollars. It has increased by \$110 billion, or more than 70%, over the past eight years. Over the same time, banks' assets have grown by 44%. Some of the extra capital is supporting growth in the banking system itself but clearly, there has been a strengthening in overall resilience and leverage in the system is lower.

We believe that deposit investments with the lower rated ADIs should be considered going forward, particularly when they offer 'above market' specials. Not only would it diversify the investment



portfolio and reduce credit risk, it would also improve the portfolio’s overall returns. The lower rated entities are generally deemed to be the more ‘ethical’ ADIs compared to the higher rated ADIs.

In the current environment of high regulation and scrutiny, all domestic (and international) ADIs continue to carry high levels of capital. There is minimal (if any) probability of any ADI defaulting on their deposits going forward – this was stress tested during the GFC and the pandemic period. **APRA’s mandate is to “protect depositors” and provide “financial stability”.**





Fossil Fuel Investments

What is Council's current exposure to institutions that fund fossil fuels?

Using the following link <http://www.marketforces.org.au/banks/compare>, based on the Council's investment portfolio balance as at 28/02/2023 (\$424.64m), we can roughly estimate that ~83% of the investments have some form of exposure.

Transition to investments without major exposure to fossil fuels

Council has not made a decision to divest from the current portfolio of investments which have exposure to fossil fuels. To do so would have unfavourable implications to the credit quality, rating and interest income forecasts.

However, where possible, and within the ministerial and policy guidelines, Council will continue to favour newly issued fossil fuel free investment products, providing it does not compromise the risk and return profile.

In time it is Council's intention to move to a more balanced portfolio which has less exposure to fossil fuels, providing it is prudent to do so.

What would be implications on our portfolio credit rating?

By adopting a free fossil fuel policy or an active divestment strategy, this would eliminate the major banks rated "AA-" as well as some other "A" rated banks (e.g. Macquarie and ING). Council would be left with a smaller sub-sector of banks to choose to invest with.

What would be risks and implications on Council's portfolio performance?

Some implications include:

- High concentration risk – limiting Council to a selected number of banks;
- Increased credit/counterparty risk;
- May lead to a reduction in performance (e.g. most of the senior FRN issuances are with the higher rated ADIs);
- Underperformance compared to other Councils which could result in a significant loss of income generated – could be in excess of hundreds of thousands or millions of dollars per annum.

It may actually be contrary to Council's primary objective to preserve capital as the investment portfolio's risk would increase (all things being equal). Council may not be maximising its returns – this is one of the primary objectives written in the Investment Policy.



Council's exposure is summarised as follows:

Counterparty	Credit Rating	Funding Fossil Fuel
NAB	AA-	Yes
NTTC	AA-	Yes
WBC	AA-	Yes
ICBC, Sydney	A	Yes
ING Bank Australia	A	Yes
Australian Military	BBB+	No
Australian Unity	BBB+	No
BoQ	BBB+	Yes
Bendigo-Adelaide	BBB+	No
AMP	BBB	Yes
Auswide	BBB	No
MyState Bank	BBB	No
P&N Bank	BBB	No

Source: <https://www.marketforces.org.au/info/compare-bank-table/>

Funding Fossil Fuel	Amount	Invested %	Wgt. Avg. Yield % p.a.
Yes	\$353,633,650	83%	2.14%
No	\$71,007,381	17%	2.89%
Total / Wgt. Avg.	\$424,641,031	100%	2.27%



T/D Rates Before & After COVID

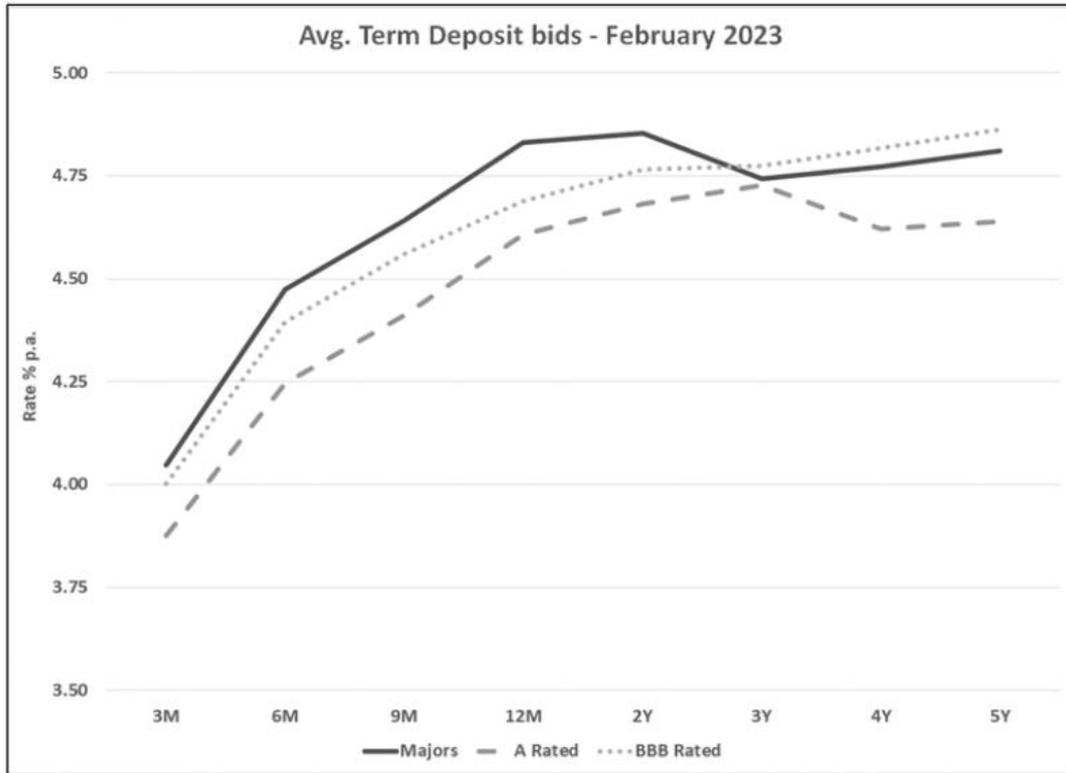
Pre-pandemic (March 2020), a 'normal' marketplace meant the lower rated ADIs (i.e. BBB category) were offering higher rates on term deposits compared to the higher rated ADIs (i.e. A or AA rated). But due to the cheap funding available provided by the RBA via their Term Funding Facility (TFF) since mid-2020¹, allowing the ADIs to borrow as low as 0.10% p.a. fixed for 3 years, those lower rated ADIs (BBB rated) did not require deposit funding from the wholesale deposit from the likes of PMHC. Given the higher rated banks had more capacity to lend (as they have a greater pool of mortgage borrowers), they subsequently were offering relatively attractive deposit rates. In fact, some of the lower rated banks were not even offering deposit rates at all. This is why PMHC has invested a higher proportion of deposit investments with the higher rated (A or AA) banks over the past ~3 years.

Prior to the pandemic, PMHC locked in higher yields with the BBB rated banks given they were generally offering higher rates than the higher rated banks (a 'normal' market). This is also the reason why the BBB category's current yield is still higher than the higher rated banks - it is largely driven by the investments placed prior to the pandemic.

In the interim, the 'abnormal' marketplace still largely exists, with the higher rated banks (majors) often paying a higher rate of return over the lower rated institutions across various parts of the curve on any particular day.

Over the next few years, with the RBA now removing these cheap borrowing facilities, this should result in some of the lower rated banks (BBB rated) starting to become more competitive as the market starts to 'normalise'. PMHC should have a larger opportunity to invest a higher proportion of its surplus funds with the lower rated institutions (up to Policy limits), from which the majority are not lending to the Fossil Fuel industry. We are slowly seeing this trend emerge, as has been the case in recent months:

¹ The RBA's Term Funding Facility (TFF) allowed the ADI to borrow as low as 0.10% fixed for 3 years: <https://www.rba.gov.au/mkt-operations/term-funding-facility/overview.html>



Source: Imperium Markets



Credit Quality

The portfolio remains diversified from a credit ratings perspective. The portfolio is mainly directed to the investment grade ADIs (BBB- or higher). There is high capacity to invest in the higher rated ADIs (A or higher), particularly after the downgrades of BoQ and Bendigo-Adelaide Bank in May 2017.

There is currently sufficient capacity to invest with the "BBB" rated ADIs (~\$42m remaining as at the reporting date). From a ratings perspective, the "BBB" rated banks now generally dominate the number of ADIs issuing deposits within the investment grade space. There has been further signs of appetite developing in the wholesale deposit market as additional lower rated ("BBB" and unrated) ADIs have come to market to raise 'new' money.

Over the coming year, we may start to see a more 'normalised' environment where the lower rated banks start to offer higher rates compared to the higher rated banks as the competition for deposits grow. As more of these banks become more competitive for funds, Council may look to allocate additional funds amongst this sector, particularly with those ADIs that are not lending to the Fossil Fuel industry i.e. the more 'ethical' banks.

If there are any attractive deposits being offered in the "BBB" rated sector (outside of BoQ, which Council is close to maximum limits), we will inform Council to take advantage and invest accordingly.

All ratings categories are within the current Policy limits:

Compliant	Credit Rating	Invested (\$)	Invested (%)	Max. Limit (%)	Available (\$)
✓	AA Category	\$192,633,650	45.36%	100%	\$232,007,381
✓	A Category	\$125,000,000	29.44%	60%	\$129,784,619
✓	BBB Category	\$107,007,381	25.20%	35%	\$41,616,980
✓	Unrated ADIs	\$0	0.00%	5%	\$21,232,052
		\$424,641,031	100.00%		



Performance

Council's performance for the period ending February 2023 is summarised as follows:

Performance (Actual)	1 month	3 months	6 months	FYTD	1 year	2 years	3 years
Official Cash Rate	0.25%	0.77%	1.42%	1.70%	1.81%	0.95%	0.70%
AusBond Bank Bill Index	0.24%	0.76%	1.40%	1.68%	1.76%	0.89%	0.66%
Council's T/D Portfolio	0.17%	0.52%	0.99%	1.29%	1.80%	1.74%	1.93%
Council's FRN Portfolio	0.32%	0.99%	1.99%	2.68%	4.04%	2.51%	2.07%
Council's Bond Portfolio	0.09%	0.30%	0.60%	0.80%	1.20%	-	-
Council's Portfolio[^]	0.16%	0.51%	0.98%	1.27%	1.78%	1.73%	1.91%
Outperformance	-0.08%	-0.25%	-0.42%	-0.41%	0.03%	0.84%	1.25%

[^]Total portfolio performance excludes Council's cash account holdings. Overall returns would be lower if cash was included.

Performance (% p.a.)	1 month	3 months	6 months	FYTD	1 year	2 years	3 years
Official Cash Rate	3.35%	3.18%	2.89%	2.56%	1.81%	0.95%	0.70%
AusBond Bank Bill Index	3.18%	3.11%	2.85%	2.54%	1.76%	0.89%	0.66%
Council's T/D Portfolio	2.20%	2.11%	2.01%	1.94%	1.80%	1.74%	1.93%
Council's FRN Portfolio	4.19%	4.08%	4.06%	4.06%	4.04%	2.51%	2.07%
Council's Bond Portfolio	1.24%	1.21%	1.21%	1.20%	1.20%	-	-
Council's Portfolio[^]	2.16%	2.08%	1.99%	1.92%	1.78%	1.73%	1.91%
Outperformance	-1.01%	-1.03%	-0.86%	-0.62%	0.03%	0.84%	1.25%

[^]Total portfolio performance excludes Council's cash account holdings. Overall returns would be lower if cash was included.

For the month ending February 2023, the total portfolio (excluding cash) provided a solid return of +0.16% (actual) or +2.16% p.a. (annualised), underperforming the benchmark AusBond Bank Bill Index return of +0.24% (actual) or +3.18% p.a. (annualised). This relative 'underperformance' has been due to the unexpected aggressive rate hikes undertaken by the RBA. Whilst this 'underperformance' may continue in the short-term, we do anticipate this to be temporary. Council should also remind itself it has consistently 'outperformed' over longer-term time periods as demonstrated by the longer-term returns of the overall investment portfolio (+2yr tenors).

We are pleased that PMHC remains amongst the best performing Councils in the state of NSW where deposits are concerned. We have been pro-active in our advice about protecting interest income by strategically maintaining a slightly longer duration position. Council has reaped the benefits during the pandemic period and the portfolio should outperform by undertaking a similar strategy in the long-run.



Council's Term Deposit Portfolio & Recommendation

As at the end of February 2023, Council's deposit portfolio was yielding 2.23% p.a. (up 15bp from the end of the previous month), with a weighted average duration of ~1.61 years. Where possible, we recommend Council maintains this weighted average duration.

In the long-run, investors are rewarded if they can continue to maintain a slightly longer average duration. In a 'normal' marketplace, yields at the long-end are generally offered at a slight premium over shorter tenors.

At the time of writing, we see value in:

	LT Credit Rating	Term	T/D Rate
ING	A	5 years	5.13% p.a.
ING	A	4 years	5.12% p.a.
ING	A	3 years	5.11% p.a.
ING	A	2 years	5.10% p.a.
CBA	AA-	2 years	5.00% p.a.
BoQ	BBB+	2 years	5.00% p.a.
Westpac	AA-	2 years	4.95% p.a.
NAB	AA-	2 years	4.95% p.a.

The above deposits are suitable for investors looking to maintain diversification and lock-in a premium compared to purely investing short-term. For terms under 12 months, we believe the strongest value is currently being offered by the following ADIs (dependent on daily funding requirements):



ADI	LT Credit Rating	Term	T/D Rate
CBA	AA-	12 months	5.02% p.a.
ING	A	12 months	4.98% p.a.
NAB	AA-	12 months	4.95% p.a.
Westpac	AA-	12 months	4.95% p.a.
Hume Bank	BBB+	12 months	4.95% p.a.
BoQ	BBB+	12 months	4.90% p.a.
CBA	AA-	6 months	4.64% p.a.
WBC	AA-	6 months	4.62% p.a.
NAB	AA-	6 months	4.60% p.a.
CBA	AA-	3 months	4.25% p.a.

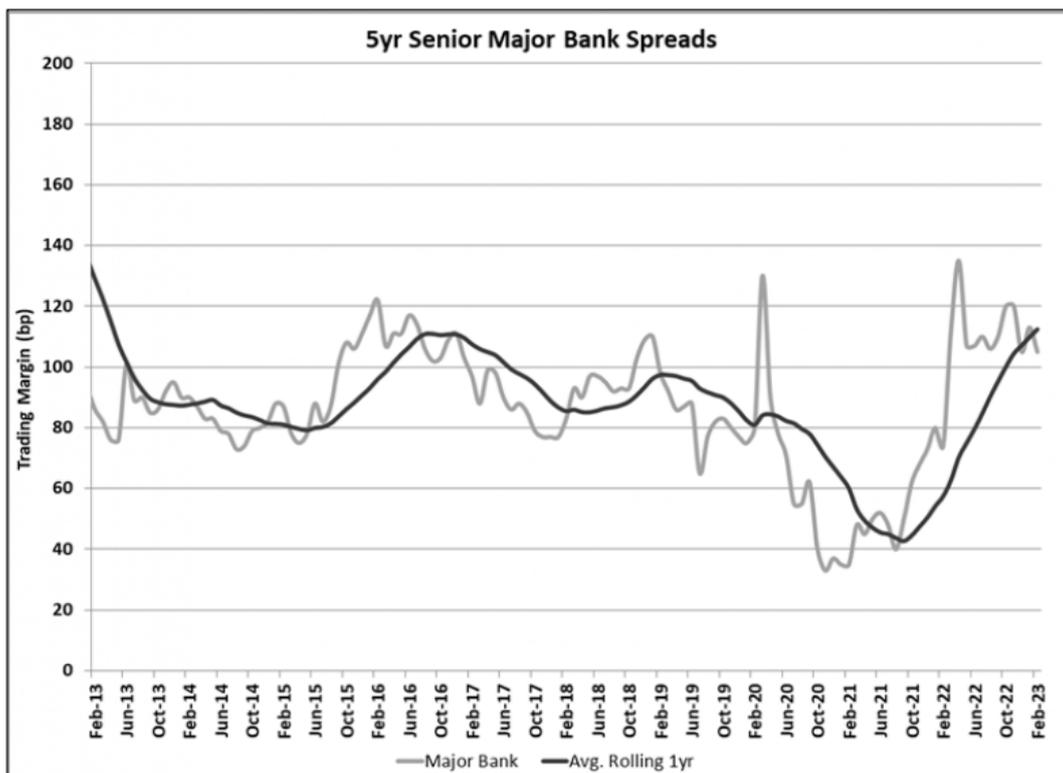
If Council does not require high levels of liquidity and can stagger its investments across the longer term horizons (2-5 years), it will be rewarded over coming years if it can roll for an average min. term of 12 months to 2 years (this is where we current value), yielding, on average, up to ¼-½% p.a. higher compared to those investors that entirely invest in short-dated (under 6 months) deposits.

With recessionary fears being priced in coming years, Council can allocate some longer-term surplus funds and undertake an insurance policy by investing across 3-5 year fixed deposits and locking in rates close to or above 5% p.a. This will provide some income protection if central banks decide to cut rates in future years, assuming inflation is under control.



Senior FRNs Review

Over February, amongst the senior major bank FRNs, physical credit securities tightened by up to 10bp at the long-end of the curve. Nevertheless, major bank senior securities remain fairly attractive again in a rising rate environment (5 year margins above the +105bp level):



Source: IBS Capital

During February, there were other noticeable new primary issuance, mainly from the international banks:

- MUFG, Sydney Branch (A) 3 year senior FRN at +87bp
- Sumitomo, Sydney Branch (A+) 3 year senior FRN at +85bp
- RACQ (BBB+) 3 year senior FRN at +150bp
- DBS, Sydney Branch (AA-) 5 year dual senior security at +75bp
- Bank Australia (BBB) 4 year senior 'sustainable' FRN at +160bp
- Mizuho, Sydney Branch (A) 3 year FRN at +86bp
- HSBC, Sydney Branch (A+) 5 year dual senior security at +105bp

Amongst the "A" and "BBB" rated sector, the securities were marked between 5-10bp tighter at the 3-5 year part of the curve, with movements largely dictated by new issuances.



Credit securities are looking much more attractive given the widening of spreads in 2022. FRNs will continue to play a role in investor's portfolios mainly on the basis of their liquidity and the ability to roll down the curve and gross up returns over ensuing years (in a relatively stable credit environment).

Senior FRNs (ADIs)	28/02/2023	31/01/2023
"AA" rated – 5yrs	+105bp	+113bp
"AA" rated – 3yrs	+75bp	+88bp
"A" rated – 5yrs	+125bp	+130bp
"A" rated – 3yrs	+90bp	+103bp
"BBB" rated – 3yrs	+145bp	+150bp

Source: IBS Capital

We now generally recommend switches ('benchmark' issues only) into new primary issues, out of the following senior FRNs that are maturing:

- **On or before early 2025 for the "AA" rated ADIs (domestic major banks);**
- On or before early 2024 for the "A" rated ADIs; and
- Within 6-9 months for the "BBB" rated ADIs (consider case by case).

Investors holding onto the above senior FRNs ('benchmark' issues only) in their last few years are now generally holding sub-optimal investments and are not maximising returns by foregoing realised capital gains. In the current challenging economic environment, any boost in overall returns should be locked in when it is advantageous to do so, particularly as switch opportunities become available.

Council's FRN & Recommendation

In late August 2019, Council placed a bid of \$3m into the new Bendigo (BBB+) 5 year FRN at +97bp maturing 06/09/2024 (ISIN: AU3FN0050019). This FRN should be viewed as a 3½-4 year holding period, with the ability to 'roll down the curve', realise capital gains which would boost the overall return of the investment portfolio. As at 28/02/2023, the security was marked around +78.5bp (from +85.5bp at the end of the previous month) or a capital price ~\$100.25 or unrealised capital gain of ~\$7.0k. We recommend Council holds this FRN at this stage.



Council's Senior Fixed Bond

During September 2021, Council placed parcels in NTTC (AA-) fixed bonds as follows:

Investment Date	Maturity Date	Principal	Rate % p.a. [^]	Remaining Term (Yrs)	Interest Paid
7/09/2021	15/12/2024	\$5,000,000	0.90%	1.80 yrs	Annually
14/09/2021	15/12/2025	\$5,000,000	1.10%	2.80 yrs	Annually
2/09/2021	15/12/2026	\$5,000,000	1.40%	3.80 yrs	Annually
7/09/2021	15/12/2026	\$5,000,000	1.40%	3.80 yrs	Annually
Totals / Wgt. Avg.		\$20,000,000	1.20%	3.05 yrs	

[^]Council will receive the full rebated commission of 0.25% (plus GST) on the face value of investment on all these parcels (currently totalling \$55,000).

We believe these investments were prudent at the time of investment, especially after the rate cut delivered in early November 2020 and the RBA's forward guidance on official interest rates (no rate rises 'until at least 2024').

The NTTC bonds are a 'retail' offering and not 'wholesale' issuances. Given the lack of liquidity and high penalty costs if they were to be sold/redeemed prior to the maturity date, they are considered to be a hold-to-maturity investment and will be marked at par value (\$100.00) throughout the term of investment.



Senior Fixed Bonds – ADIs (Secondary Market)

As global inflationary pressures remain, this has seen a significant lift in longer-term bond yields (valuations fell) as markets have reacted accordingly.

This has resulted in some opportunities in the secondary market. We currently see value in the following fixed bond lines, with the majority now being marked at a significant discount to par (please note supply in the secondary market may be limited on any day):

ISIN	Issuer	Rating	Capital Structure	Maturity Date	~Remain. Term (yrs)	Fixed Coupon	Indicative Yield
AU3CB0255776	ING	AAA	Covered	07/09/2023	0.53	3.00%	4.46%
AU3CB0258465	Westpac	AA-	Senior	16/11/2023	0.72	3.25%	4.39%
AU3CB0265403	Suncorp	A+	Senior	30/07/2024	1.42	1.85%	4.91%
AU3CB0263275	Westpac	AA-	Senior	16/08/2024	1.47	2.25%	4.69%
AU3CB0265718	ING	AAA	Covered	20/08/2024	1.48	1.45%	4.82%
AU3CB0266179	ANZ	AA-	Senior	29/08/2024	1.50	1.55%	4.68%
AU3CB0266377	Bendigo	BBB+	Senior	06/09/2024	1.53	1.70%	4.9%
AU3CB0268027	BoQ	BBB+	Senior	30/10/2024	1.67	2.00%	5.07%
AU3CB0269710	ANZ	AA-	Senior	16/01/2025	1.89	1.65%	4.66%
AU3CB0269892	NAB	AA-	Senior	21/01/2025	1.90	1.65%	4.68%
AU3CB0270387	Macquarie	A+	Senior	12/02/2025	1.96	1.70%	4.91%
AU3CB0287415	Westpac	AA-	Senior	17/03/2025	2.05	2.70%	4.67%
AU3CB0291508	Westpac	AA-	Senior	11/08/2025	2.45	3.90%	4.72%
AU3CB0291672	CBA	AA-	Senior	18/08/2025	2.47	4.20%	4.67%
AU3CB0280030	BoQ	BBB+	Senior	06/05/2026	3.19	1.40%	5.24%
AU3CB0282358	ING	AAA	Covered	19/08/2026	3.48	1.10%	4.92%
AU3CB0284149	BoQ	BBB+	Senior	27/10/2026	3.67	2.10%	5.23%
AU3CB0286037	Westpac	AA-	Senior	25/01/2027	3.91	2.40%	4.91%



Economic Commentary

International Market

Risk markets were generally sold off in February after several stronger-than-expected reports on the US economy (particularly employment) changed the outlook on the peak of the interest rate cycle.

Across equity markets, the S&P 500 Index fell -2.61%, while the NASDAQ lost -1.11%. Europe's main indices bucked the trend, with gains led by France's CAC (+2.62%), Germany's DAX (+1.57%) and UK's FTSE (+1.35%).

The US FOMC agreed (unanimously among the voters) to lift rates another 25bp to 4.50%-4.75% range, downshifting hikes further from the two 50bp moves and earlier more aggressive 75bp moves.

US headline payrolls came in at +517k vs. +188k expected, and the unemployment rate fell 0.10% to 3.4% (its lowest in 54 years), versus an expected rise to 3.6%. US Fed Chair Powell noted how the strength in the labour market underscores why the Fed thinks it could take time to bring inflation down. Powell then remarked that *"we think we're going to have to do further [rate] increases, and we think we'll have to hold policy at a restrictive level for some time"*.

US CPI came in marginally above consensus. The core and headline came in-line with the median forecast at +0.4% m/m and +0.5% m/m, but they slowed less than expected on a year-ended basis. Headline CPI fell to +6.4% from +6.5%, while the core CPI fell to +5.6% y/y from +5.7%.

Canada's employment rose +150k, where consensus was for just +15k and the unemployment rate remained at 5.0%.

UK Q4 GDP was flat, as expected, following Q3's -0.2% q/q decline, with year-ended growth coming in at +0.4%. That sees the economy avoiding a recession for now. The Bank of England (BoE) hiked rates by 50bp, in line with the consensus forecast to 4%.

The RBNZ raised the OCR by 50bp to 4.75% as widely anticipated and there was only a minor tweak to the projected track, with the peak still assumed to be 5.5% but taking slightly longer to get there.

China's inflation data remained low by global standards and did nothing to warn authorities against keeping policy stimulatory. CPI rose to +2.1% y/y from +1.8%, in line with expectations.

The IMF raised its 2023 world GDP growth forecast to +2.9%, up from +2.7% forecast last October, supported by China's reopening. China is now expected to grow by +5.2% in 2023.

The MSCI World ex-Aus Index fell -2.42% for the month of February:

Index	1m	3m	1yr	3yr	5yr	10yr
S&P 500 Index	-2.61%	-2.70%	-9.23%	+10.35%	+7.91%	+10.12%
MSCI World ex-AUS	-2.42%	-0.25%	-8.98%	+8.29%	+5.19%	+7.04%
S&P ASX 200 Accum. Index	-2.45%	+0.30%	+7.16%	+7.93%	+7.90%	+8.10%

Source: S&P, MSCI



Domestic Market

The RBA raised rates by 25bp to 3.35%, the ninth consecutive increase. The Statement was hawkish with the RBA Board expecting "further increases in interest rates will be needed over the months ahead". Dr Lowe said "inflation [was] way too high and it needs to come down" and that the risks at the moment are "two sided" with the "risk we haven't done enough on interest rates". He added there was a risk the central bank's most rapid tightening cycle in a generation had not done enough to dampen household spending and tame inflation. "How far we have to go up – I don't know. It's going to depend upon the inflation data, the resilience of spending, the strength of the global economy and what's happening with growth and wages".

The unemployment rate unexpectedly jumped to 3.7% in January (from 3.5% in December), with the participation rate decreasing to 66.5% (66.6%).

The wage price index (WPI) rose +0.8% for the December quarter and +3.3% y/y. This was 0.2% below the consensus of +1.0% q/q and +3.5%, which was also what the RBA had pencilled in. As for headline details, private sector wages rose +0.85% q/q and +3.6% y/y, a slower pace than the +1.2% q/q rise in Q3. Public sector wages rose +0.7% q/q and +2.5% y/y.

Retail sales fell a sharp -3.9% m/m in December (consensus -0.2%), following an upwardly revised November to +1.7% m/m (from +1.4%). The key implication is that we may be starting to see the first signs that monetary tightening is starting to weigh on consumption.

The December trade surplus was \$12.2bn (consensus \$12.5bn) from an upwardly revised November balance of \$13.5bn. Exports fell 1.4% (-0.8bn) with key resource export categories all lower.

Private sector credit growth slowed to +0.3% m/m in December from +0.5% in November (consensus +0.5%). The annual rate slowed to +8.3% y/y, the second consecutive month of deceleration from its recent +9.5% peak in October.

Australian dwelling prices fell -1.0% m/m in January, the ninth consecutive month of decline. House prices nationally are now 8.9% below their peak, but remain 14.6% above pre-pandemic levels.

The Australian dollar lost -4.36%, finishing the month at US67.30 cents (from US70.37 cents the previous month).

Credit Market

The global credit indices widened over February in the 'risk-off' environment. They are now back to their levels in early 2022 (prior to the rate hike cycle from most central banks):

Index	February 2023	January 2023
CDX North American 5yr CDS	75bp	72bp
iTraxx Europe 5yr CDS	80bp	79bp
iTraxx Australia 5yr CDS	87bp	82bp

Source: Markit



Fixed Interest Review

Benchmark Index Returns

Index	February 2023	January 2023
Bloomberg AusBond Bank Bill Index (0+YR)	+0.24%	+0.27%
Bloomberg AusBond Composite Bond Index (0+YR)	-1.32%	+2.76%
Bloomberg AusBond Credit FRN Index (0+YR)	+0.43%	+0.42%
Bloomberg AusBond Credit Index (0+YR)	-0.62%	+2.19%
Bloomberg AusBond Treasury Index (0+YR)	-1.58%	+2.94%
Bloomberg AusBond Inflation Gov't Index (0+YR)	-2.20%	+4.87%

Source: Bloomberg

Other Key Rates

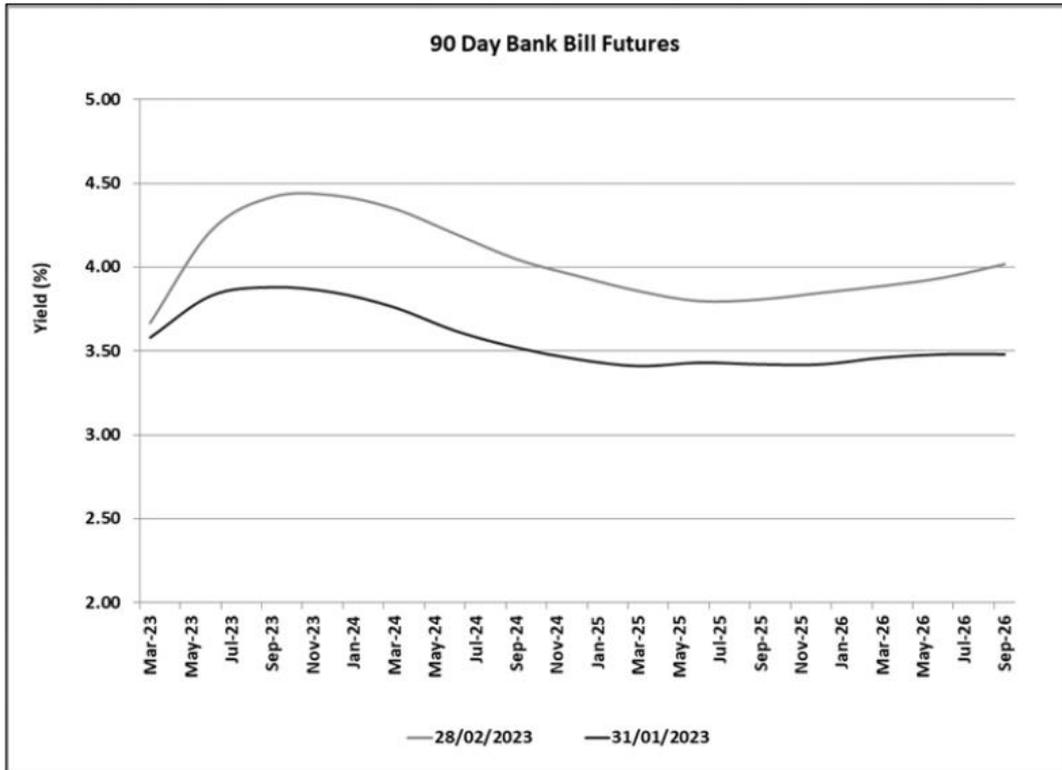
Index	February 2023	January 2023
RBA Official Cash Rate	3.35%	3.10%
90 Day (3 month) BBSW Rate	3.56%	3.37%
3yr Australian Government Bonds	3.60%	3.17%
10yr Australian Government Bonds	3.85%	3.55%
US Fed Funds Rate	4.50%-4.75%	4.25%-4.50%
3yr US Treasury Bonds	3.81%	3.90%
10yr US Treasury Bonds	3.92%	3.52%

Source: RBA, AFMA, US Department of Treasury



90 Day Bill Futures

Over February, bill futures rose significantly across the board, with the market reacting to the US Fed Reserve’s comments that they are still looking to raise rates over coming months. The markets continue to factor in the possibility of a global recession over the next few years, highlighted by the drop in the futures pricing in early 2024:



Source: ASX



Fixed Interest Outlook

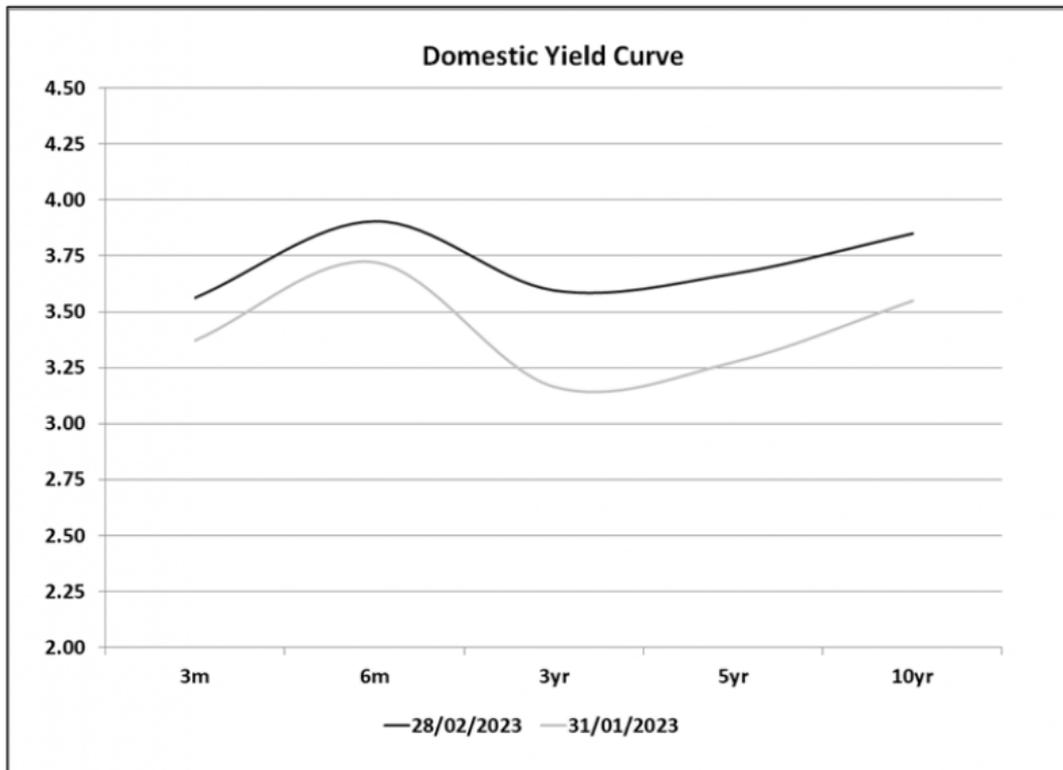
Money markets are now pricing for the US Fed to reach a mid-point of the 5.25%-5.50% target range. Futures markets nevertheless continue to factor in that rates will be coming down within 6 months of the peak being reached. US Fed Chair Powell sounded slightly less hawkish as he noted how the disinflationary process had already begun, however he still suggested that have a long way to go, particularly within the services sector. Powell also noted how the strength in the labour market underscores why the Fed thinks it could take time to bring inflation down to its 2% target.

Domestically, RBA Governor Lowe recently commented *"I don't think we're at the peak yet but how far they need to go, we're still unsure"*. He sees monetary policy as restrictive and indicated the RBA Board is still *"trying to navigate a narrow path here"* and *"want to get inflation down"*, *"but also preserve the gains"* seen in the labour market. However, that narrow path is highly uncertain with Dr Lowe noting that he doesn't *"know the answer"* to how far unemployment will need to rise.

The latest RBA Minutes revealed they considered moves for both 25bp or 50bp in February. The main arguments for moving by 25bp are that policy has already *"been adjusted substantially"* with considerable *"uncertainty around the outlook"*, that there are substantial lags in policy and that *"monthly meetings provided the Board with frequent opportunities to assess how' uncertainties were being resolved"*. For the RBA to step back to 50bp hikes, it is likely that the RBA would need to be convinced that wage and inflation expectations had shifted substantially.

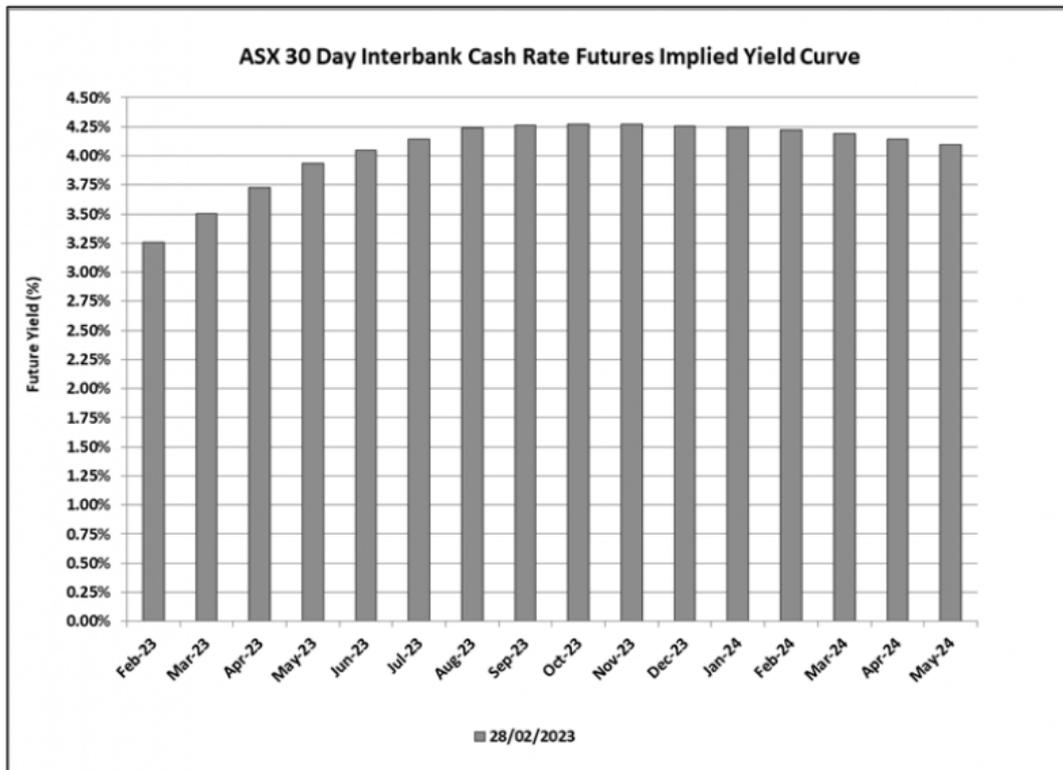
For now, the RBA continues to signal that it expects to increase interest rates, with at least two or three more 25bp hikes over the months ahead, likely locking in a March rate hike, and then possibly another in April and/or May. Thereafter, noting the lags in monetary policy, a pause around the end of Q2-Q3 is likely whilst the RBA monitors the economic data. Markets are currently pricing in up to 4 additional rate rises into mid-2023 (up to 4.25%). Fears of a looming global recession have actually seen rate cuts start to be priced in towards the start of 2024, although this seems unlikely for now.

Over the month, yields rose up to 40bp at the long-end of the curve:



Source: AFMA, ASX, RBA

RBA Governor Lowe commented that *“if inflation expectations stay well anchored, the supply-side problems get fixed up, wage growth and wage setting doesn’t move up too fast and we can come back on that narrow path. So that is a plausible scenario: that rates rise and then start coming down next year. But a few things are going to have to go right for that to happen. It’s possible, but there are other scenarios as well”*.



Source: ASX

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Investment Report

01/02/2023 to 28/02/2023



Portfolio Valuation as at 28/02/2023

Issuer	Rating	Type	Alloc	Interest	Purchase	Maturity	Rate	Capital Value	Accrued	Accrued MTD
ING Direct	A	TD	GENERAL	At Maturity	17/03/2022	17/03/2023	1.2500	4,000,000.00	47,808.22	3,835.62
ING Direct	A	TD	GENERAL	At Maturity	17/03/2022	17/03/2023	1.2500	3,000,000.00	35,856.16	2,876.71
ING Direct	A	TD	GENERAL	At Maturity	17/03/2022	17/03/2023	1.2500	5,000,000.00	59,760.27	4,794.52
ING Direct	A	TD	GENERAL	At Maturity	29/03/2022	29/03/2023	1.6000	4,000,000.00	59,090.41	4,909.59
ING Direct	A	TD	GENERAL	At Maturity	29/03/2022	29/03/2023	1.6000	4,000,000.00	59,090.41	4,909.59
ING Direct	A	TD	GENERAL	At Maturity	27/04/2022	20/04/2023	2.4500	6,000,000.00	124,043.84	11,276.71
ING Direct	A	TD	GENERAL	At Maturity	27/04/2022	27/04/2023	2.4500	6,000,000.00	124,043.84	11,276.71
ING Direct	A	TD	GENERAL	At Maturity	24/05/2022	24/05/2023	3.1500	5,000,000.00	121,253.42	12,082.19
BOQ	BBB+	TD	GENERAL	Annual	28/05/2019	29/05/2023	2.5500	4,000,000.00	76,849.32	7,824.66
BOQ	BBB+	TD	GENERAL	At Maturity	02/06/2022	02/06/2023	3.3100	5,000,000.00	123,331.51	12,695.89
BOQ	BBB+	TD	GENERAL	At Maturity	02/06/2022	02/06/2023	3.3100	5,000,000.00	123,331.51	12,695.89
Westpac	AA-	TD	GENERAL	At Maturity	15/06/2022	15/06/2023	4.0400	5,000,000.00	143,336.99	15,495.89
Westpac	AA-	TD	GENERAL	At Maturity	15/06/2022	15/06/2023	4.0400	5,000,000.00	143,336.99	15,495.89
BOQ	BBB+	TD	GENERAL	Annual	19/06/2020	19/06/2023	1.3500	2,000,000.00	18,789.04	2,071.23
ING Direct	A	TD	GENERAL	At Maturity	27/06/2022	27/06/2023	3.9500	5,000,000.00	133,650.68	15,150.68
BOQ	BBB+	TD	GENERAL	Annual	27/06/2019	27/06/2023	2.2000	5,000,000.00	74,438.36	8,438.36
AMP Bank	BBB	TD	GENERAL	Annual	28/07/2021	28/07/2023	0.7500	2,000,000.00	8,876.71	1,150.68
Westpac	AA-	TD	GENERAL	At Maturity	03/08/2022	03/08/2023	3.7400	4,000,000.00	86,071.23	11,476.16



Issuer	Rating	Type	Alloc	Interest	Purchase	Maturity	Rate	Capital Value	Accrued	Accrued MTD
Westpac	AA-	TD	GENERAL	At Maturity	09/08/2022	09/08/2023	3.9200	3,000,000.00	65,727.12	9,021.37
Westpac	AA-	TD	GENERAL	Quarterly	11/08/2021	11/08/2023	0.5600	5,000,000.00	1,227.40	1,227.40
Westpac	AA-	TD	LOCAL BRANCH	At Maturity	22/08/2022	21/08/2023	1.1000	20,000.00	115.12	16.88
MyState Bank	BBB	TD	GENERAL	Annual	14/09/2020	14/09/2023	0.9000	4,000,000.00	16,569.86	2,761.64
MyState Bank	BBB	TD	GENERAL	Annual	14/09/2020	14/09/2023	0.9000	4,000,000.00	16,569.86	2,761.64
Westpac	AA-	TD	GENERAL	Quarterly	10/10/2022	10/10/2023	4.3300	3,000,000.00	17,794.52	9,964.93
AMP Bank	BBB	TD	GENERAL	Annual	12/10/2021	12/10/2023	0.8000	3,000,000.00	9,205.48	1,841.10
Australian Unity Bank	BBB+	TD	GENERAL	Annual	22/11/2022	22/11/2023	4.3900	5,000,000.00	59,535.62	16,838.36
ICBC Sydney Branch	A	TD	GENERAL	Annual	27/11/2019	27/11/2023	1.7600	6,000,000.00	26,906.30	8,100.82
Westpac	AA-	TD	GENERAL	Quarterly	02/12/2021	04/12/2023	1.1900	3,000,000.00	8,704.93	2,738.63
ICBC Sydney Branch	A	TD	GENERAL	Annual	16/12/2019	18/12/2023	1.8100	4,000,000.00	14,876.71	5,553.97
Westpac	AA-	TD	GENERAL	Quarterly	02/02/2022	02/02/2024	1.4500	2,500,000.00	2,681.51	2,681.51
Westpac	AA-	TD	GENERAL	Annual	08/02/2022	08/02/2024	1.5500	4,000,000.00	3,567.12	3,567.12
NAB	AA-	TD	GENERAL	Annual	24/02/2023	26/02/2024	5.0000	3,000,000.00	2,054.79	2,054.79
MyState Bank	BBB	TD	GENERAL	Annual	28/02/2022	28/02/2024	1.8000	5,000,000.00	246.58	246.58
P&N Bank	BBB	TD	GENERAL	Annual	02/03/2022	04/03/2024	1.7000	4,000,000.00	67,813.70	5,216.44
Auswide Bank	BBB	TD	GENERAL	At Maturity	02/03/2020	04/03/2024	1.7500	3,000,000.00	157,356.16	4,027.40
NAB	AA-	TD	GENERAL	Annual	04/04/2022	04/04/2024	2.6000	4,000,000.00	94,312.33	7,978.08
BOQ	BBB+	TD	GENERAL	Annual	18/06/2020	18/06/2024	1.4500	3,000,000.00	30,271.23	3,336.99
ING Direct	A	TD	GENERAL	Annual	23/06/2020	24/06/2024	1.2500	3,000,000.00	25,787.67	2,876.71



Issuer	Rating	Type	Alloc	Interest	Purchase	Maturity	Rate	Capital Value	Accrued	Accrued MTD
BOQ	BBB+	TD	GENERAL	Annual	11/08/2021	12/08/2024	0.7900	2,000,000.00	8,744.11	1,212.05
Westpac	AA-	TD	GENERAL	Quarterly	11/08/2021	12/08/2024	0.7700	3,000,000.00	1,012.60	1,012.60
Australian Military Bank	BBB+	TD	GENERAL	Annual	19/08/2021	19/08/2024	0.7200	3,000,000.00	11,480.55	1,656.99
Westpac	AA-	TD	GENERAL	Quarterly	17/08/2021	19/08/2024	0.7200	2,000,000.00	473.42	473.42
Bendigo and Adelaide	BBB+	FRN	GENERAL	Quarterly	06/09/2019	06/09/2024	4.0386	3,007,381.22	28,214.88	9,294.31
P&N Bank	BBB	TD	GENERAL	Annual	13/09/2022	13/09/2024	4.4500	6,000,000.00	123,624.66	20,482.19
ICBC Sydney Branch	A	TD	GENERAL	Annual	14/09/2022	16/09/2024	4.5500	5,000,000.00	104,712.33	17,452.05
BOQ	BBB+	TD	GENERAL	Annual	27/09/2019	27/09/2024	2.0000	2,000,000.00	16,986.30	3,068.49
Westpac	AA-	TD	GENERAL	Quarterly	10/10/2022	10/10/2024	4.5800	4,000,000.00	25,095.89	14,053.70
AMP Bank	BBB	TD	GENERAL	Annual	12/10/2021	11/10/2024	1.0000	3,000,000.00	11,506.85	2,301.37
NAB	AA-	TD	GENERAL	Annual	16/10/2020	16/10/2024	0.8000	5,000,000.00	14,794.52	3,068.49
ICBC Sydney Branch	A	TD	GENERAL	Annual	03/11/2021	04/11/2024	1.6500	3,000,000.00	16,002.74	3,797.26
ICBC Sydney Branch	A	TD	GENERAL	Annual	07/11/2022	07/11/2024	4.8500	5,000,000.00	75,739.73	18,602.74
Westpac	AA-	TD	GENERAL	Quarterly	09/11/2021	11/11/2024	1.4500	1,000,000.00	794.52	794.52
Westpac	AA-	TD	GENERAL	Quarterly	16/11/2021	18/11/2024	1.6000	4,000,000.00	2,279.45	2,279.45
NAB	AA-	TD	GENERAL	Annual	18/11/2020	18/11/2024	0.7000	5,000,000.00	9,876.71	2,684.93
Westpac	AA-	TD	GENERAL	Quarterly	29/11/2021	29/11/2024	1.6000	5,000,000.00	219.18	219.18
Westpac	AA-	TD	GENERAL	Quarterly	02/12/2021	02/12/2024	1.6200	2,000,000.00	7,900.27	2,485.48
ICBC Sydney Branch	A	TD	GENERAL	Annual	09/12/2021	09/12/2024	1.9200	5,000,000.00	21,567.12	7,364.38
Northern Territory Treasury	AA-	BOND	GENERAL	Semi-Annual	07/09/2021	16/12/2024	0.9000	5,000,000.00	9,369.86	3,452.05



Issuer	Rating	Type	Alloc	Interest	Purchase	Maturity	Rate	Capital Value	Accrued	Accrued MTD
NAB	AA-	TD	GENERAL	Annual	29/01/2021	29/01/2025	0.7200	4,000,000.00	2,367.12	2,209.32
Westpac	AA-	TD	GENERAL	Quarterly	02/02/2022	03/02/2025	1.8200	2,500,000.00	3,365.75	3,365.75
Westpac	AA-	TD	GENERAL	Quarterly	10/02/2023	10/02/2025	4.8500	5,000,000.00	12,623.29	12,623.29
ING Direct	A	TD	GENERAL	Annual	17/02/2023	17/02/2025	4.9400	5,000,000.00	8,120.55	8,120.55
P&N Bank	BBB	TD	GENERAL	Annual	15/02/2022	17/02/2025	2.3700	5,000,000.00	4,545.21	4,545.21
ING Direct	A	TD	GENERAL	Annual	24/02/2023	24/02/2025	5.0900	3,000,000.00	2,091.78	2,091.78
P&N Bank	BBB	TD	GENERAL	Annual	22/02/2022	24/02/2025	2.0500	2,000,000.00	786.30	786.30
MyState Bank	BBB	TD	GENERAL	Annual	28/02/2022	28/02/2025	2.2500	5,000,000.00	308.22	308.22
ICBC Sydney Branch	A	TD	GENERAL	Annual	02/03/2022	03/03/2025	2.3000	4,000,000.00	91,747.95	7,057.53
NAB	AA-	TD	GENERAL	Annual	02/03/2021	03/03/2025	0.9500	4,000,000.00	37,895.89	2,915.07
P&N Bank	BBB	TD	GENERAL	Annual	15/03/2022	17/03/2025	2.4600	3,000,000.00	70,969.32	5,661.37
P&N Bank	BBB	TD	GENERAL	Annual	28/03/2022	28/03/2025	2.9000	5,000,000.00	134,273.97	11,123.29
ICBC Sydney Branch	A	TD	GENERAL	Annual	18/06/2020	18/06/2025	1.7500	2,000,000.00	24,356.16	2,684.93
NAB	AA-	TD	GENERAL	Annual	26/07/2021	28/07/2025	1.0000	5,000,000.00	29,863.01	3,835.62
ICBC Sydney Branch	A	TD	GENERAL	Annual	16/08/2022	18/08/2025	4.4200	4,000,000.00	95,423.56	13,562.74
ICBC Sydney Branch	A	TD	GENERAL	Annual	02/09/2021	02/09/2025	1.2000	5,000,000.00	29,589.04	4,602.74
P&N Bank	BBB	TD	GENERAL	Annual	13/09/2022	15/09/2025	4.6500	4,000,000.00	86,120.55	14,268.49
P&N Bank	BBB	TD	GENERAL	Annual	19/09/2022	19/09/2025	4.6500	5,000,000.00	103,828.77	17,835.62
ICBC Sydney Branch	A	TD	GENERAL	Annual	10/10/2022	10/10/2025	4.8400	3,000,000.00	56,488.77	11,138.63
ICBC Sydney Branch	A	TD	GENERAL	Annual	16/10/2020	16/10/2025	1.2000	5,000,000.00	22,191.78	4,602.74



Issuer	Rating	Type	Alloc	Interest	Purchase	Maturity	Rate	Capital Value	Accrued	Accrued MTD
ICBC Sydney Branch	A	TD	GENERAL	Annual	17/11/2020	17/11/2025	1.3000	6,500,000.00	24,076.71	6,482.19
NAB	AA-	TD	GENERAL	Annual	17/11/2020	17/11/2025	0.8500	3,500,000.00	8,476.71	2,282.19
ICBC Sydney Branch	A	TD	GENERAL	Annual	03/12/2020	03/12/2025	1.2000	5,000,000.00	14,136.99	4,602.74
P&N Bank	BBB	TD	GENERAL	Annual	05/12/2022	05/12/2025	4.6500	5,000,000.00	54,780.82	17,835.62
ICBC Sydney Branch	A	TD	GENERAL	Annual	07/12/2020	08/12/2025	1.2000	5,000,000.00	13,808.22	4,602.74
NAB	AA-	TD	GENERAL	Annual	07/12/2020	08/12/2025	0.9000	5,000,000.00	10,356.16	3,452.05
Northern Territory Treasury	AA-	BOND	GENERAL	Semi-Annual	14/09/2021	15/12/2025	1.1000	5,000,000.00	11,452.05	4,219.18
NAB	AA-	TD	GENERAL	Annual	29/01/2021	29/01/2026	0.9100	4,000,000.00	2,991.78	2,792.33
NAB	AA-	TD	GENERAL	Annual	02/03/2021	02/03/2026	1.2100	4,000,000.00	48,267.40	3,712.88
Westpac	AA-	TD	GENERAL	Quarterly	09/03/2021	09/03/2026	1.2500	5,000,000.00	14,041.10	4,794.52
NAB	AA-	TD	GENERAL	Annual	16/03/2021	16/03/2026	1.2500	5,000,000.00	59,931.51	4,794.52
NAB	AA-	TD	GENERAL	Annual	26/05/2021	26/05/2026	1.2500	5,000,000.00	47,773.97	4,794.52
ICBC Sydney Branch	A	TD	GENERAL	Annual	02/06/2021	02/06/2026	1.4000	2,500,000.00	26,082.19	2,684.93
NAB	AA-	TD	GENERAL	Annual	02/06/2021	02/06/2026	1.3000	2,500,000.00	24,219.18	2,493.15
Westpac	AA-	TD	GENERAL	Quarterly	23/06/2021	23/06/2026	1.3200	5,000,000.00	12,295.89	5,063.01
Westpac	AA-	TD	GENERAL	Quarterly	23/06/2021	23/06/2026	1.3200	5,000,000.00	12,295.89	5,063.01
NAB	AA-	TD	GENERAL	Annual	26/07/2021	27/07/2026	1.2000	5,000,000.00	35,835.62	4,602.74
ICBC Sydney Branch	A	TD	GENERAL	Annual	28/07/2021	28/07/2026	1.3200	2,000,000.00	15,623.01	2,025.21
NAB	AA-	TD	GENERAL	Annual	23/09/2021	23/09/2026	1.2000	5,000,000.00	26,136.99	4,602.74
Northern Territory Treasury	AA-	BOND	GENERAL	Semi-Annual	07/09/2021	15/12/2026	1.4000	5,000,000.00	14,575.34	5,369.86



Issuer	Rating	Type	Alloc	Interest	Purchase	Maturity	Rate	Capital Value	Accrued	Accrued MTD
Northern Territory Treasury	AA-	BOND	GENERAL	Semi-Annual	02/09/2021	15/12/2026	1.4000	5,000,000.00	14,575.34	5,369.86
Westpac	AA-	CASH	GENERAL	Monthly	28/02/2023	28/02/2023	3.3500	25,613,649.97	64,278.91	64,278.91
TOTALS								424,641,031.19	4,047,647.41	666,283.12

BUDGET VARIATIONS - February 2023											
Section	Project	Project Description	Capital/ Operating	Division	Full Year Original Budget	Full Year Current Budget	Actuals to February 2023	New Yearly Proposed Budget - February 2023	Movement	Funding Source	EFFECT ON FUNDING POSITION
Grants & Other Funding											
A new grant funded project for the Pothole Repair program.											
Description:		Grant funding from Transport for NSW.									
Transport & Traffic	42354	Fixing Local Roads Pothole Repair Funding	Capital	Community Infrastructure	0	0	118,958	239,658	-239,658	Grant	0
Transport & Traffic	19342	Capital Grants	Capital		-42,431,301	-47,825,697	-5,336,051	-48,065,355	239,658	Grant	0
To recognise new grant received for a fish cleaning table at Seymour Street, Laurieton.											
Description:		Grant funding received from Department of Regional NSW.									
Parks & Recreation	42366	Seymour St Fish Cleaning Table	Capital	Community Planning & Environment	0	0	0	25,500	-25,500	Grant	0
Parks & Recreation	19282	Capital Grants	Capital		-4,024,832	-6,145,594	-3,586,581	-6,171,094	25,500	Grant	0
To reverse grant budget for the fish cleaning table at Rocks Ferry Reserve Wauchope.											
Description:		Works were carried out in 2021/2022 so reversal of this budget is required in the current year.									
Parks & Recreation	19282	Capital Grants	Capital	Community Planning & Environment	-4,024,832	-6,171,094	-3,586,581	-6,145,594	-25,500	Grant	0
Parks & Recreation	42309	Fish Cleaning Table - Rocks Ferry Reserve, Wauchope	Capital		0	25,500	0	0	25,500	Grant	0
To recognise a new grant for an Electric Vehicle Charger site near Port Macquarie Library.											
Description:		Grant funding from Office of Energy and Climate Change.									
Natural Resources	42367	Install Electric Vehicle Charger Site near Port Macquarie Library	Capital	Community Planning & Environment	0	0	0	10,455	-10,455	Grant	0
Natural Resources	19232	Capital Grants	Capital		-456,825	-531,696	0	-542,151	10,455	Grant	0
New grant funding awarded to Council for the Hastings Bulk Water Supply project.											
Description:		Grant funding from Department of Planning & Environment.									
Water Supply	29561	Hastings District Bulk Water Supply	Capital	Community Utilities	0	500,000	198,543	950,000	-450,000	Grant	0
Water Supply	19222	Capital Grants	Capital		0	-292,133	-112,500	-742,133	450,000	Grant	0

BUDGET VARIATIONS - February 2023											
Section	Project	Project Description	Capital/ Operating	Division	Full Year Original Budget	Full Year Current Budget	Actuals to February 2023	New Yearly Proposed Budget - February 2023	Movement	Funding Source	EFFECT ON FUNDING POSITION
To bring to account a new Community Local Infrastructure Recovery Program grant for Footpath Repairs in the Port Macquarie Local Government Area.											
Description:		Grant funding from Department of Regional NSW.									
Transport & Traffic	42353	Footpath Repairs in the LGA	Capital	Community Infrastructure	0	0	0	1,000,000	-1,000,000	Grant	0
Transport & Traffic	19342	Capital Grants	Capital		-42,431,301	-48,065,355	-5,336,051	-49,065,355	1,000,000	Grant	0
Adjustment required to remove the grant budget on the Bicentenary project.											
Description:		Grant funds have already been spent in a previous year.									
Destination & Cultural Development	19051	Operating Grants	Operating	Community Planning & Environment	0	-20,000	0	0	-20,000	Grant	0
Destination & Cultural Development	42035	Port Macquarie Bicentenary "200 Together"	Operating		0	20,000	0	0	20,000	Grant	0
To recognise grant funding awarded to Council under the Stronger Country Communities Fund for Sporting Infrastructure Upgrades.											
Description:		Grant funding from Department of Regional NSW.									
Parks & Recreation	42357	Port Macquarie Regional Stadium Upgrades	Capital	Community Planning & Environment	0	0	0	297,582	-297,582	Grant	0
Parks & Recreation	42358	Oxley Oval Cricket Nets and Hamilton Green Carpark	Capital		0	0	0	190,000	-190,000	Grant	0
Parks & Recreation	40441	Lank Bain Sports Facility Upgrade	Capital		142,893	142,893	0	282,893	-140,000	Grant	0
Parks & Recreation	42361	North Shore Riverside	Capital		0	0	0	7,000	-7,000	Grant	0
Parks & Recreation	19282	Capital Grants	Capital		-4,024,832	-6,145,594	-3,586,581	-6,780,176	634,582	Grant	0
To bring to account a grant received for Stuart Park Lighting Upgrade under the Female Friendly Community Sport Facilities and Lighting Upgrades Program.											
Description:		Grant funding from the NSW Office of Sport.									
Parks & Recreation	42374	Stuart Park Field Lighting Upgrade	Capital	Community Planning & Environment	0	0	0	100,000	-100,000	Grant	0
Parks & Recreation	19282	Capital Grants	Capital		-4,024,832	-6,780,176	-3,586,581	-6,880,176	100,000	Grant	0

BUDGET VARIATIONS - February 2023											
Section	Project	Project Description	Capital/ Operating	Division	Full Year Original Budget	Full Year Current Budget	Actuals to February 2023	New Yearly Proposed Budget - February 2023	Movement	Funding Source	EFFECT ON FUNDING POSITION
Reduction of grant budget for the Weeds Action Program to match actual grant funds received.											
Description:		Annual grant funding from the NSW Local Land Services.									
Biosecurity	11560	Operating Grants	Operating	Community Planning & Environment	-122,400	-122,400	-118,640	-118,640	-3,760	Grant	0
Biosecurity	480	Weeds Action Plan	Operating		271,075	271,075	148,293	267,315	3,760	Grant	0
To recognise a variation received for the Illaroo Road Coastal Hazard Protection Options Review and Co-Design grant providing additional funding for this project.											
Description:		Additional funding from the Department of Planning, Industry and Environment.									
Natural Resources	41928	Development of Coastal Management Program for Lake Cathie	Operating	Community Planning & Environment	0	0	64,107	31,954	-31,954	Grant	0
Natural Resources	19231	Operating Grants	Operating		-133,333	-793,487	-555,347	-825,441	31,954	Grant	0
To bring to account new grant funding under the Fixing Local Roads Round 4 program for Pacific Drive Port Macquarie.											
Description:		Grant funding from Transport for NSW.									
Transport & Traffic	42373	Pacific Drive, Port Macquarie	Capital	Community Infrastructure	0	0	0	60,000	-60,000	Grant	0
Transport & Traffic	19342	Capital Grants	Capital		-42,431,301	-49,065,355	-5,336,051	-49,125,355	60,000	Grant	0
Grant funding awarded to Council for the Camden Haven Flood Study Update and Extension project.											
Description:		Funding from the Department of Planning and Environment.									
Natural Resources	42369	Camden Haven Flood Study Update	Operating	Community Planning & Environment	0	0	0	70,000	-70,000	Grant	0
Natural Resources	19231	Operating Grants	Operating		-133,333	-825,441	-555,347	-895,441	70,000	Grant	0
To reverse grant funding for the Hastings River Flood Study.											
Description:		The grant funding for the project was finalised in a previous year. This project is now fully funded by Council.									
Natural Resources	19231	Operating Grants	Operating	Community Planning & Environment	-133,333	-895,441	-555,347	-832,108	-63,333	Grant	0
Natural Resources	42278	Hastings River Flood Study	Operating		95,000	95,000	0	31,667	63,333	Grant	0
Total Grants & Other Funding									2,509,556		0

BUDGET VARIATIONS - February 2023											
Section	Project	Project Description	Capital/ Operating	Division	Full Year Original Budget	Full Year Current Budget	Actuals to February 2023	New Yearly Proposed Budget - February 2023	Movement	Funding Source	EFFECT ON FUNDING POSITION
Reserve Movements											
Finalisation of the Airport Terminal Sewer Rising Main project.											
Description:		Unspent funds to be returned to the Sewer Reserve									
Sewerage Services	19219	Reserve Funding	Capital	Community Utilities	-16,159,400	-21,892,917	0	-21,772,980	-119,937	Reserve	0
Sewerage Services	39626	Airport Terminal Sewer Rising Main	Capital		0	119,937	0	0	119,937	Reserve	0
Total Reserve Movements									119,937		0
Movement between Projects											
Transfer of funds between grant projects to align budgets with the funding agreement.											
Parks & Recreation	42313	Vince Inmons Accessible Grandstand	Capital	Community Planning & Environment	0	0	0	200,000	-200,000	Grant	0
Transport & Traffic	42292	Oxley Highway Shared Path	Capital		633,236	633,236	13,861	433,236	200,000	Grant	0
Transfer of funds between projects - Accounting entry only.											
Parks & Recreation	40100	Sporting Grants Programme	Operating	Community Planning & Environment	0	0	55,885	67,769	-67,769	Revenue	-67,769
Aquatic Facilities	446	Kendall Pool	Operating		313,676	248,054	123,324	214,449	33,605	Revenue	33,605
Aquatic Facilities	448	Laurieton Pool	Operating		313,676	239,500	119,070	207,055	32,445	Revenue	32,445
Aquatic Facilities	453	Port Macquarie Pool	Operating		0	239,500	119,070	237,781	1,719	Revenue	1,719
Transfer of funds between linked projects - Accounting entry only.											
Parks & Recreation	486	Area A Parks & Gardens	Operating	Community Planning & Environment	1,697,800	1,697,800	1,320,947	2,197,800	-500,000	Reserve	0
Parks & Recreation	487	Area B Parks & Gardens	Operating		1,206,183	1,206,183	1,061,674	1,706,183	-500,000	Reserve	0
Parks & Recreation	40449	Parks Maintenance	Operating		1,000,000	1,000,000	0	0	1,000,000	Reserve	0

BUDGET VARIATIONS - February 2023											
Section	Project	Project Description	Capital/ Operating	Division	Full Year Original Budget	Full Year Current Budget	Actuals to February 2023	New Yearly Proposed Budget - February 2023	Movement	Funding Source	EFFECT ON FUNDING POSITION
Transfer of funds between projects - Accounting entry only.											
Natural Resources	42367	Install Electric Vehicle Charger Site near Port Macquarie Library	Capital	Community Planning & Environment	0	10,455	0	20,455	-10,000	Grant/Revenue	-10,000
Sustainability	557	Sustainability Projects	Operating		157,384	157,384	78,401	147,384	10,000	Revenue	10,000
Transfer of funds between linked projects - Accounting entry only.											
Destination & Cultural Development	42111	Artwalk	Operating	Community Planning & Environment	0	41,001	9,764	122,201	-81,200	Revenue	-81,200
Destination & Cultural Development	42093	Artwalk Delivery	Operating		81,200	81,200	0	0	81,200	Revenue	81,200
Transfer of funds to grant funded graffiti project.											
Community Inclusion	42321	Port Macquarie Graffiti Mural Art Project	Operating	Community Planning & Environment	0	90,000	0	105,000	-15,000	Grant/Revenue	-15,000
Community Inclusion	408	Place Facilitators	Operating		15,000	15,000	1,342	5,000	10,000	Revenue	10,000
Community Inclusion	414	Volunteers	Operating		25,500	25,500	11,044	20,500	5,000	Revenue	5,000
Transfer of funds between linked projects - Accounting entry only.											
Sewerage Services	30188	Kew/Kendall SPS # 1 Upgrade & Associated Works	Capital	Community Utilities	0	3,858	2,203	1,103,858	-1,100,000	Reserve	0
Sewerage Services	30183	Developer Delivered Works - Kew/ Kendall SPS # 1 & Associated Works	Capital		1,100,000	1,100,000	0	0	1,100,000	Reserve	0
Total Movements between Projects									2,473,969		0
Budget Variation Requests - Approved by Executive											
A Budget Variance Request has been approved by Executive for the Heat Pump Replacement at The Glasshouse.											
Description:		The heat pump system that provides hot water heating and de-humidification for the entire Glasshouse building is 14 years old and need to be replaced.									
Glasshouse Back of House	41101	The Glasshouse Equipment Purchase	Capital	Business & Performance	56,000	46,000	31,093	476,500	-430,500	Reserve	0
Glasshouse Back of House	19090	Reserve Funding	Capital		-66,000	-66,000	0	-496,500	430,500	Reserve	0

BUDGET VARIATIONS - February 2023											
Section	Project	Project Description	Capital/ Operating	Division	Full Year Original Budget	Full Year Current Budget	Actuals to February 2023	New Yearly Proposed Budget - February 2023	Movement	Funding Source	EFFECT ON FUNDING POSITION
A Budget Variance Request has been approved by Executive for Hastings River Flood Study.											
Description:		Funding has been sourced from Reserves for the additional budget required to carry out the flood study.									
Natural Resources	42278	Hastings River Flood Study	Operating	Community Planning & Environment	95,000	31,667	0	130,000	-98,333	Reserve	0
Drainage	41319	Panorama Drive Stormwater Remediation	Capital		217,000	306,915	3,613	208,582	98,333	Reserve	0
A Budget Variance Request has been approved by Executive for the Camden Haven Flood Study Update project.											
Description:		Council's contribution to this grant funded project.									
Natural Resources	42369	Camden Haven Flood Study Update	Operating	Community Planning & Environment	0	70,000	0	100,000	-30,000	Reserve	0
Drainage	41319	Panorama Drive Stormwater Remediation	Capital		217,000	208,582	3,613	178,582	30,000	Reserve	0
Total Budget Variations Approved by Executive									558,833		0
ORGANISATIONAL TOTAL - THIS REVIEW									5,662,295		0
FORECAST FOR FINANCIAL YEAR ENDED 30 JUNE 2023											
Original Budget as at 1 July 2022					Balanced	0					
<u>Plus: Adjustments</u>											
July Review					Shortfall	-102,411					
August Review					Balanced	0					
September Review					Surplus	136,452					
October Review					Balanced	0					
November Review					Shortfall	-7,000					
January Review					Balanced	0					
February Review					Balanced	0					
FORECAST FOR 30 JUNE 2023					Surplus	27,041					
Notes:	1	The result shown above is the general fund result. All surpluses/deficits in the water, sewerage and waste funds are transferred to/from reserves.									
	2	Reserve are internal restrictions that hold funds for a specific purpose, e.g. The airport has its own reserve and all income and expenditure relating to the airport is credited/debited to that reserve.									
	3	Council projects are funded from a variety of funding sources. Below is a definition of the various types of funding that are used to fund projects.									
		<i>Revenue - All funds that are generated through rates, annual charges, fees and charges, interest etc. These funds are untied and can be expended on any project that Council considers appropriate.</i>									
		<i>Grants - Government grants can either be monetary or otherwise and may be tied or untied. Tied grants are required to be used for a specific purpose such as the construction of a road. Untied grants may be applied for any purpose council considers appropriate.</i>									
		<i>Contributions - Contributions are non-reciprocal transfers to Council in the sense that Council is not required to give value in exchange for the contributions directly to the contributor. Examples are contributions given by ratepayers towards capital works in their vicinity.</i>									

BUDGET VARIATIONS - February 2023											
Section	Project	Project Description	Capital/ Operating	Division	Full Year Original Budget	Full Year Current Budget	Actuals to February 2023	New Yearly Proposed Budget - February 2023	Movement	Funding Source	EFFECT ON FUNDING POSITION
		<i>Reserves - Reserves are internal restrictions held for a specific purpose, e.g. The airport has its own reserve and all income and expenditure relating to the airport is credited/debited to that reserve.</i>									
		<i>S7.11 and S64 Contributions - Section 7.11 of the NSW Environmental and Planning Act (1979) and section 64 of the Local Government Act (1993) provides NSW local government with a formal legal framework for levying developers for the provision of infrastructure, services and amenities - known as developer contributions.</i>									
	4	<i>Some projects are funded by multiple funding sources, e.g. a capital project may be funded by s7.11 funds, grants and revenue. The effect on capital column will only show the revenue funding adjustment as the other types of funding will have an income line budget adjustment shown in the report.</i>									

Lot 70 DP 1274051 Maize Parkway Thrumster

Sewer Pumping Station TH4



2 Your Community Life

What we are trying to achieve

A healthy, inclusive and vibrant community.

What the result will be

We will have:

- Community hubs that provide access to services and social connections
- A safe, caring and connected community
- A healthy and active community that is supported by recreational infrastructure
- A strong community that is able to identify and address social issues
- Community participation in events, programs, festivals and activities

How we will get there

- 2.1 Create a community that feels safe
- 2.2 Advocate for social inclusion and fairness
- 2.3 Provide quality programs, community facilities and public spaces, for example, community halls, parks and vibrant town centres
- 2.4 Empower the community through encouraging active involvement in projects, volunteering and events
- 2.5 Promote a creative and culturally rich community



MINUTES
Port Macquarie-Hastings Sporting Fund Sub-Committee Meeting
02/02/2023

RESTRICTED CIRCULATION

TO MEMBERS OF THE PORT MACQUARIE-HASTINGS SPORTING FUND SUB-COMMITTEE
THE INFORMATION CONTAINED HEREIN IS CONFIDENTIAL
AND INTENDED FOR THE PORT MACQUARIE-HASTINGS SPORTING FUND SUB-COMMITTEE ONLY

PRESENT

Members:

Deputy Mayor Adam Roberts (Acting Chair)
 Director Watkins (Community, Planning and Environment)
 Nik Lipovac (Community)
 Richard McGovern (Community)
 Ben Ismay (Community)
 Simon Thresher (Community)
 David Barnes (Community)
 Cathy Walsh (Community)
 Troy Highlands (Community)
 Sarah Thompson (Business)
 Claudia Buckby (Business)

Other Attendees:

Senior Inclusion Officer (Secretariat).

The meeting opened at 4:05pm

01 ACKNOWLEDGEMENT OF COUNTRY

The Acknowledgement of Country was delivered.

02 APOLOGIES



MINUTES
Port Macquarie-Hastings Sporting Fund Sub-Committee Meeting
02/02/2023

Apologies were received from Mayor Peta Pinson, Clayton Pickworth and Group Manager Community, Lucilla Marshall.

03 CONFIRMATION OF MINUTES

CONSENSUS:

That the Minutes of the Port Macquarie-Hastings Sporting Fund Sub-Committee Meeting held on 15 December 2022 be confirmed.

04 DISCLOSURES OF INTEREST

There were no disclosures of interest presented.

05 BUSINESS ARISING FROM PREVIOUS MINUTES

Nil

06 SPORTING FUND APPLICATION - CAMERON MCLEAN-PROSSER

The Committee considered the application from Cameron McLean-Prosser for his selection in the Mid North Coast Club Football / Soccer National Premier League (NPL).

CONSENSUS:

1. Cameron's application does not meet grant funding guidelines.
 2. That Cameron be advised of the determination and encouraged to reapply if selected for representation at a State or higher competition level.
 3. That the Secretariat refer any future applications that do not meet funding criteria to the committee as an out of session advice.
-

07 SPORTING FUND BOWLS DAY - 3 MARCH 2023

CONSENSUS:

1. The committee noted the report provided on the Bowls Day.
-



MINUTES
Port Macquarie-Hastings Sporting Fund Sub-Committee Meeting
02/02/2023

-
2. That Bowls Day expenditure be reported to Council for endorsement to enable invoices to be paid from the Fund.

08 SPORTING FUND SHIELD ENGRAVING

CONSENSUS:

That it be recommended to Council that the quote from Oxley signs for engraving of the Port Macquarie-Hastings Sporting Fund Shield be accepted to enable the invoice to be paid from the Fund.

09 SPORTING FUND FINANCIAL STATEMENTS

CONSENSUS:

A three (3) monthly Port Macquarie-Hastings Sporting Fund financial statement be provided as a standing sub-committee report.

10 PURCHASE OF A GIFT FOR PAST SERVING MEMBERS JO-ANNE BOARDER AND SUE REID

CONSENSUS:

That the committee recommend to Council the purchase of a small gift from Port Macquarie-Hastings Sporting Fund for past serving members Jo-Anne Boarder and Sue Reid.

11 PROPOSED INCREASE TO THE WAYNE RICHARDS SPORTING SCHOLARSHIP

CONSENSUS:

That the committee recommend to Council an increase to the Wayne Richards Sporting Scholarship from \$4,000 to \$5,000 per annum.



MINUTES
Port Macquarie-Hastings Sporting Fund Sub-Committee Meeting
02/02/2023

12 GENERAL BUSINESS

12.01 Future Events

Members discussed scheduling for the 2023 Port Macquarie-Hastings Sporting Fund Trivia Night and Golf Day. The Golf Day was recommended for 1 December 2023 and the Trivia Night to be considered for Winter (August) with a similar format to the successful 2022 fundraising event.

12.02 Code of Conduct and Meeting Process

Director Watkins advised that members will receive a briefing at the 2 March 2023 Sub-Committee meeting on Council's Code of Conduct requirements for committee members.

Director Watkins advised that the order of business for future meetings would bring General Business to the front of the agenda so that members can raise items for discussion or a future response.

The meeting closed at 4:33pm

.....
Peta Pinson
Mayor



PORT MACQUARIE HASTINGS SPORTS COUNCIL TERMS OF REFERENCE

Adopted:

1.0 INTRODUCTION

Port Macquarie- Hastings Council (PMHC) has resolved to appoint a Sports Council, to be known as the Port Macquarie-Hastings Sports Council (the Sports Council).

The Sports Council shall comprise of representatives of the sporting clubs and sporting community as appointed by Council.

2.0 OBJECTIVES

The objectives of the Port Macquarie Hastings Sports Council are to:

- Assist in the development, review and monitoring of the Recreation Action Plan 2023-2028 which assists PMHC in the identification for sport and sporting infrastructure.
- Consider the cumulative effects of PMHC's decisions on identification of priorities for sport and sporting infrastructure;
- Provide advice to PMHC on strategic projects and PMHC policies related to, or that may impact on the implementation of the Recreation Action Plan 2023-2028;
- Initiate increased communication between the sporting community and PMHC to ensure that all existing and future needs and requirements of sport are identified and considered;
- Work with PMHC to ensure to ensure that sporting and recreation facilities are provided and maintained to an acceptable standard;
- Raise funds and source grants which will assist in furthering the objectives of the Sports Council; and
- Provide input to the setting and review of fees and charges for sporting fields and recreation facilities.

The Port Macquarie Hastings Sports Council will not consider:

- Sport and recreation program development
- Sports club development and capacity building.
- Day-to-day operational management of facilities including sport facility allocations.

3.0 MEMBERSHIP

Port Macquarie Hastings Sports Council is to be made up of:

- Two Councillors (to be determined by PMHC)
- One representative from the NSW Office of Sport
- Up to 4 staff representatives from PMHC
- Minimum of 8 members, representative of peak bodies and major sporting clubs and associations that utilise PMHC sporting facilities and grounds

Representation to include links with the following groups/categories:

- Women in Sport
- Emerging Sports
- Access for people with Disability

Members will be appointed by Councillors via a Council resolution following a formal nomination process.

Term of appointment will be up to a period of 2 years.

Should there be a need for the Sports Council to continue beyond this time, a re-appointment process will be undertaken for all members in accordance with the selection process outlined in these Terms of Reference.

Specific representatives may be invited to nominate.

Members will be selected to ensure a range of sport codes who represent a range of regions are selected for the Sports Council.

The Chairperson will be appointed by Councillors via a Council Resolution.

Vacancies that occur on the Sports Council will be filled by public advertisement and appointed through a resolution of Council.

Other PMHC staff, Government officers, advisors or individuals may be invited to attend meetings from time to time to provide expert advice, information or presentations in relation to the Sports Council's business.

4.0 CODE OF CONDUCT

Councillors, PMHC staff and members of this Sports Council must comply with the applicable provisions of PMHC's Code of Conduct in carrying out the functions as PMHC officials. It is the personal responsibility of members to comply with the standards in the Code of Conduct and regularly review their personal circumstances with this in mind.

5.0 REPORTING

The minutes for each meeting of the Sports Council shall be prepared and distributed to members and published on PMHC's website.

6.0 STAFF

The Sports Council has no delegated authority to employ or direct staff or consultants.

7.0 FINANCES

The Sports Council has no delegated authority to expend PMHC monies.

8.0 MEETING FREQUENCY

The Sports Council will determine its own meeting frequency, however, is expected to commence meeting outside of business hours from July 2023 and meet a minimum of 4 times per year.

9.0 CONFLICT OF INTEREST

Members of this Sports Council must declare any conflict of interest at the start of each meeting or before discussion of a relevant item or topic. Details of any conflict of interest should be appropriately minuted.

Where members or invitees at meetings are deemed to have a real or perceived conflict of interest, it may be appropriate that they be excused from deliberations on the issue where the conflict of interest may exist and this is to be recorded in the minutes of the meeting.

10.0 MISUSE OF POSITION

No member can use information obtained through their position on this Sports Council for private purposes or private gain.

11.0 REVIEW

PMHC shall review the Terms of Reference at least every three years. If changes are proposed at least one-month notice in writing of the proposed changes will be forwarded to members of PMHC.



Authorised by: Council
Authorised date: DD/MM/YYYY
Effective date: DD/MM/YYYY
Next review date: DD/MM/YYYY
File Number: #####

COMMUNITY LEASING AND LICENSING POLICY

1. INTRODUCTION

The Community Leasing and Licensing Policy provides a framework to ensure Council has an equitable, consistent and thorough approach to the leasing and licensing of Council owned and Council managed Crown Land properties for community use, whilst maximising benefit to the community.

Council holds a large and varied portfolio of community and recreation properties and is committed to ensuring that tenancies are provided to community groups in a transparent manner that is appropriate to the type of property and the proposed use.

2. POLICY STATEMENT AND SCOPE

POLICY STATEMENT

Council supports the leasing and licensing of Council owned and Council managed properties for community use.

Due to the increasing demand for Council owned premises Council encourages the maximisation of the use of community facilities and encourages tenancies to be shared between groups wherever possible, rather than accommodating groups in individual premises.

Groups are encouraged to be inclusive and to provide a range of services to the community, whilst meeting their obligations under the relevant legislation. This includes many community groups comprising of volunteers who are still required to manage their facilities in an open and accountable manner to Council and the wider community.

SCOPE

This Policy applies to leasing and licensing arrangements for Council owned or Council managed properties made available to not-for-profit community organisations for physical, cultural, social and intellectual purposes.

This policy does not apply to:

- Council owned and managed commercial and residential properties.
- Short term agreements under 12 months.
- Casual agreements.
- Outdoor Dining and Trading approvals.
- Hiring of Council properties.

PRINCIPLES

During the assessment of new and existing lease or licence arrangements Council will:

- Determine the appropriate management model for the facility - exclusive, shared and / or general community use.
- Determine the appropriate rent and other fees and charges to be applied using the equity contribution model.
- Ensure the proposed arrangement will utilise the site in a manner that delivers maximum benefit to the local community.
- Ensure the proposed arrangement contributes to a wide range and diversity of activities and essential services provided to the community.
- Ensure the proposed arrangement is consistent with other similar facilities.
- Ensure the proposed arrangement allows Council to maximise cost recovery as well as providing an affordable tenure to the lessee / licensee.

- Ensure appropriate exit strategies are in place should the lessee/licensee be unable to achieve the agreed outcomes.

OBJECTIVES

The objectives of the leasing and licensing of Council property for community use are to:

- Ensure the use of all facilities is aligned to the relevant Plan of Management and Council's Community Strategic Plan.
- Ensure all use complies with town planning requirements including zoning and development consents.
- Reduce the risk to tenants, the public and Council by having comprehensive and current tenancy documents in place for Council properties that clearly outline each party's responsibilities.
- Ensure that tenanted properties are adequately insured and maintained to required standards.
- Ensure that all Council owned tenanted properties are captured in Council's Assets system.
- Maximise the occupation and use of community facilities.
- Support for a wide range of community services and activities from the facilities.
- Clarify ownership of the property and improvements.
- Ensure clarity and consistency of the process for determining the type of agreement and terms for use and by whom.
- Levy fees, rent and outgoings in balance with Council cost recovery and any commercial income being derived.
- Use the tenancy data to aid in assessment of Council financial assistance grants.

3. RESPONSIBILITIES AND AUTHORITIES

The Property Section is responsible and accountable to:

- Implementing and communicating this policy
- Monitoring compliance of this policy
- Ensuring this policy is reviewed and updated to meet external compliance.

4. REFERENCES

Crown Land Management Act 2016
Environmental Planning & Assessment Act 1979
Local Government Act 1993

5. DEFINITIONS

Nil.

6. PROCESS OWNER

Property and Leasing Coordinator is responsible for the process this policy refers to, also the policy owner. This is the role to be contacted for any information in relation to this policy.

7. AMENDMENTS

This is a new policy.

Kirsty Callander

ENGAGEMENT SUMMARY

Background

The Policy provides a framework to ensure that Council has a transparent, equitable, consistent and thorough approach to the leasing and licensing of Council owned and Council managed Crown Land properties for community use, whilst maximising the benefit to the community.

Council aims to maximise the occupation and use of our community facilities, noting the increasing demand for premises for use by community groups. Council encourages tenancies to be shared between groups wherever possible. Groups are encouraged to be inclusive and to provide a range of services to the community, whilst meeting their obligations under the relevant legislation.

Many community groups are comprised of volunteers, are not for profit and provide physical, cultural, social and intellectual services to the public. The Policy provides criteria for assessing applications for the leasing and licensing of community facilities and for determining the appropriate rent, fees, and responsibilities, whilst also providing for transparency on terms and greater equity between similar types of tenancies.

Engagement approach

The draft Policy was placed on public exhibition on Council's Have Your Say website on 13 December 2022 for a period of 77 days. The community groups occupying buildings on Council owned or Council managed Crown land that are on existing agreements with Council and those community groups that are yet to be brought onto agreements, were notified of the policy exhibition by email or letter on 14 December 2022 and a reminder email was sent on 18 January 2023.

A total of eight (8) submissions were received.

The draft Policy on Council's website had 307 webpage visits.

There were 196 document downloads.

Results/Conclusion

7 responses were supportive of the draft Policy, however 5 submissions had concerns if fees were to be applied or increased. One comment was in relation to events which are not covered under this Policy.

The Policy is designed to establish the status of each group ie not for profit or commercial. Each group will be assessed according to whether or not groups:

- are not for profit;
- what maintenance responsibilities they undertake;
- whether they have any commercial income;
- do they pay Council rates;

ENGAGEMENT SUMMARY

- do they pay outgoings;
- do they charge Council fees for hire;
- do they remit the hire fees to Council or retain them for their own use.

Council application fees and rent will be applied according to the status of each group and the facility that they occupy.

Next Steps

Council has a number of community facilities occupied by various types of community groups that do not have a current agreement with Council for the occupation of the Council owned or Council managed land. Council has commenced communication with some of these groups to guide them through the process of entering into an agreement with Council. We will continue to work with all occupants to ensure current agreements are in place for all facilities.

Visitors Summary



Highlights

TOTAL VISITS	MAX VISITORS PER DAY	
307	31	
NEW REGISTRATIONS		
9		
ENGAGED VISITORS	INFORMED VISITORS	AWARE VISITORS
8	107	219

Port Macquarie-Hastings Council Have Your Say : Summary Report for 09 July 2009 to 28 February 2023

SELECTED PROJECTS - FULL LIST

PROJECT TITLE	AWARE	INFORMED	ENGAGED
Draft Community Leasing and Licensing Policy	219	107	8

4 Your Natural and Built Environment

What we are trying to achieve

A connected, sustainable, accessible community and environment that is protected now and into the future.

What the result will be

We will have:

- Effective management and maintenance of essential water, waste and sewer infrastructure
- A community that is prepared for natural events and climate change
- Sustainable and environmentally sensitive development outcomes that consider the impact on the natural environment
- Accessible transport network for our communities
- Infrastructure provision and maintenance that meets community expectations and needs
- Well planned communities that are linked to encourage and manage growth
- Accessible and protected waterways, foreshores, beaches and bushlands
- An environment that is protected and conserved for future generations
- Renewable energy options that are understood and accessible by the community

How we will get there

- 4.1 Provide (appropriate) infrastructure and services including water cycle management, waste management, and sewer management
- 4.2 Aim to minimise the impact of natural events and climate change, for example, floods, bushfires and coastal erosion
- 4.3 Facilitate development that is compatible with the natural and built environment
- 4.4 Plan for integrated transport systems that help people get around and link our communities
- 4.5 Plan for integrated and connected communities across the Port Macquarie-Hastings area
- 4.6 Restore and protect natural areas
- 4.7 Provide leadership in the development of renewable energy opportunities
- 4.8 Increase awareness of issues affecting our environment, including the preservation of flora and fauna



Minutes of Ordinary Meeting

To be held at Yalawanyi Ganya, 2 Biripi Way, Taree South

Wednesday, 08 February 2023 at 2:00 PM

The order of the business will be as detailed below (subject to variation by Council):

1. Opening meeting
2. Acknowledgement of Traditional Custodians
3. Acknowledgement of Commitment
4. Special Activity
5. Apologies or Applications for leave of absence
6. Confirmation of Minutes
7. Disclosures of Interest
8. Mayoral Minute(s)
9. Notices of Rescission
10. Notices of Motions
11. Questions with Notice
12. Reports to Council
13. Matters of urgent business
14. Confidential matters
15. Close of meeting

A handwritten signature in cursive script, appearing to read "Panuccio".

Adrian Panuccio

General Manager

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1. MINUTES

Minutes of the Ordinary Meeting of the MidCoast Council held at the Yalawanyi Ganya Council Chambers, 2 Biripi Way, Taree South on 8 February 2023 commencing at 2:00pm.

2. COUNCILLORS PRESENT

Mayor Claire Pontin
Deputy Mayor Alan Tickle
Cr Kathryn Bell
Cr Peter Epov
Cr Troy Fowler
Cr Peter Howard
Cr Jeremy Miller
Cr Paul Sandilands
Cr Katheryn Stinson – By Zoom
Cr Dheera Smith
Cr David West

3. STAFF PRESENT

General Manager – Adrian Panuccio
Director Corporate Services – Steve Embry
Director Liveable Communities – Paul De Szell
Director Infrastructure & Engineering Services – Robert Scott
Minute Taker - Corporate Support Officer – Emma Hickson
Minute Taker – Corporate Support Officer – Kristy Burns
Staff – Coordinator Governance – Kathy Duggan
Staff – Manager Engagement Communication & Education - Marcelle Boyling
Staff – Senior Technical Delivery Officer – Peter Cottam

The following document is the Minutes of the Ordinary meeting held on 8 February 2023.

These Minutes are subject to confirmation as to their accuracy at the next available meeting and therefore subject to change.

Please refer to the Minutes of the next available Ordinary meeting.

4. WELCOME

Welcome everyone. I'm Claire Pontin, the Mayor of MidCoast Council.

Members of the public are able to attend the meeting in person or view the meeting through a weblink on Council's website.

The meeting is being recorded and a copy of this recording will be placed on Council's website as soon as practicable after the meeting.

The meeting must not be recorded, distributed or circulated by others without the prior written consent of the council in accordance with the council's code of meeting practice.

5. ACKNOWLEDGEMENT OF TRADITIONAL CUSTODIANS

The Mayor read aloud the following statement:

I acknowledge the traditional custodians of the land on which we meet today, the Gathang-speaking people and pay my respects to all Aboriginal and Torres Strait Islander people who now reside in the MidCoast Council area. I extend my respect to elders past and present, and to all future cultural-knowledge holders.

6. ACKNOWLEDGEMENT OF COMMITMENT

We, the Councillors of MidCoast Council, will undertake the duties of the office of Councillor in the best interests of the MidCoast community and will faithfully and impartially carry out the functions, powers, authorities and discretions vested in us under the Local Government Act 1993 to the best of our abilities and judgment.

ATTENDANCE VIA AUDIO LINK

In accordance with Clause 5.22 of Council's Code of Meeting Practice, one Councillor has requested approval to take part in today's meeting by audio visual link.

1/2023 RESOLUTION

(Moved Cr C Pontin /Seconded Cr P Sandilands)

That Cr Katheryn Stinson take part in today's meeting by audio visual link.

FOR VOTE - Cr J Miller, Cr C Pontin, Cr D West, Cr T Fowler, Cr A Tickle, Cr P Epov, Cr K Bell, Cr P Howard, Cr D Smith, Cr P Sandilands

AGAINST VOTE – Nil

ABSENT, DID NOT VOTE – Cr K Stinson

OPEN FORUM

Council had no speakers at this morning's Open Forum.

PUBLIC FORUM

Council had four speakers at this morning's Public Forum:

- Alfie Summers who spoke in support of the Notice of Motion by Cr Dheera Smith
- Susie Russell who spoke in support of the Notice of Motion by Cr Dheera Smith
- Nawal Maharaj who spoke in support of the Notice of Motion by Cr Dheera Smith
- Amanda Tate who spoke in support of Item 14.1 – Wellness Centre, Retail & Event Space, Small Bar & Café – 63-65 Manning St, Taree

PETITIONS

Three petitions were tabled at today's meeting and are in hand with relevant staff – those Petitions were as follows:

1. Petition with 46 signatures from residents of Moon Street Wingham about Road Conditions and Safety Concerns.
2. Petition with 88 signatures from Cassandra Dark and others relating to DA2022/1362 being the knocking down of 88 & 90 Cornwall St, Taree to build a private health facility.

3. Petition with 205 signatures from Lower Manning Resilience Group about drainage issues concerning residents and visitors of Manning Point.

CONFIRMATION OF MINUTES

2/2023 RESOLUTION

(Moved Cr C Pontin/Seconded Cr A Tickle)

That the Minutes of the Ordinary Meeting of 14th December 2022, copies of which were distributed to Councillors, be taken as read and confirmed as a true record of proceedings.

FOR VOTE - Cr J Miller, Cr C Pontin, Cr D West, Cr T Fowler, Cr A Tickle, Cr P Epov, Cr K Bell, Cr P Howard, Cr D Smith, Cr P Sandilands

AGAINST VOTE – Nil

ABSENT, DID NOT VOTE – Cr K Stinson

7. SPECIAL ACTIVITY

Nil.

8. APOLOGIES OR APPLICATIONS FOR LEAVE OF ABSENCE

Nil.

9. DISCLOSURES OF INTERESTS

Councillor/Staff Member	Item and Subject	Nature of Interest
Cr Alan Tickle	Item 14.3 – Trial Film Screening – Beryl Jane Flett Studio	Non-Pecuniary Interest (Less than Significant)/, the nature of the interest being Cr Tickle has close friends who are members of the Film Society and one who is a committee member. Cr Tickle remained in the Chambers and participated in discussions.
Cr Peter Howard	Item 14.3 - Trial Film Screening – Beryl Jane Flett Studio	Pecuniary interest, the nature of the interest being that Taree Film Society also hires Cr Howard's business premises for their screenings on occasion. Cr Howard left the meeting and took no part in discussions or voting.
Cr Claire Pontin	Item 14.3 - Trial Film Screening – Beryl Jane Flett Studio	Non-Pecuniary Interest (Less than Significant), the nature of the interest being Cr Pontin is a member of the Film Society however she is not on the Executive and has no close relationships with members on the Executive. Cr Pontin elected to remain in the Chambers and participate in discussions.

10. NOTICE OF MOTIONS**10.1. NOTICE OF MOTION 1 - CR DHEERA SMITH****REPORT INFORMATION**

Author	Cr Dheera Smith
Date of Meeting	8 February 2023

SUMMARY

Cr Dheera Smith has given notice of her intention to move the motion as detailed below.

1. That Council Advocate to the NSW Forestry Commission and National Parks to permanently cease all logging in Compartments 41 and 43 of the Bulga Forest and add the compartments to the Biriwal Bulga National Park.
2. That Council Advocate to the NSW Government to develop a plan for the just transition of the Forestry Corporation NSW native forest sector to ecologically sustainable plantations and farm forestry and that such plans ensure the protection of existing jobs in this sector and ensure a reliable supply of high value native hardwood timber products into the future by;
 - writing to the relevant State Members, The Hon. Stephen Bromhead MP, The Hon. Leslie Williams MP, Treasurer and Minister for Energy, The Hon. Matt Kean MP, Minister for Finance and Employee Relations, The Hon. Damien Tudehope MLC, and Minister for Agriculture and Western NSW, The Hon. Dugald Saunders MP.
 - writing to the Shadow Minister, Leader of the Opposition, The Hon. Chris Minns MP, the Shadow Minister for Agriculture, The Hon. Mick Veitch MLC and the Shadow Minister for Natural Resources, The Hon. Courtney Houssos MLC.
3. That Council notes the concerns from MidCoast residents for better management of State Forests to support nature-based tourism enterprises, recreational usage, threatened species habitat protection and carbon sequestration and raises these concerns with Forestry Corporation NSW.

3/2023 RESOLUTION

(Moved Cr D Smith/Seconded Cr P Howard)

1. That Council Advocate to the NSW Forestry Commission to permanently cease all logging in Compartments 41 and 43 of the Bulga Forest and transfer the compartments to the Biriwal Bulga National Park.
2. That Council Advocate to the NSW National Parks and Wildlife Service to accept Compartments 41 and 43 of the Bulga Forest as part of the Biriwal Bulga National Park.
3. That Council Advocate to the NSW Government to develop a plan for the just transition of the Forestry Corporation NSW native forest sector to ecologically sustainable plantations and farm forestry and that such plans ensure the protection of existing jobs in this sector and ensure a reliable supply of high value native hardwood timber products into the future by;
 - writing to the relevant State Members, The Hon. Stephen Bromhead MP, The Hon. Leslie Williams MP, Treasurer and Minister for Energy, The Hon. Matt Kean MP, Minister for Finance and Employee Relations, The Hon. Damien Tudehope MLC,

Minister for Agriculture and Western NSW, The Hon. Dugald Saunders MP and The Hon. Dave Layzell MP.

- writing to the Shadow Minister, Leader of the Opposition, The Hon. Chris Minns MP, the Shadow Minister for Agriculture, The Hon. Mick Veitch MLC, the Shadow Minister for Natural Resources, The Hon. Courtney Houssos MLC and the Shadow Minister for Family & Community Services and Disability Inclusion, The Hon. Kate Washington MP.
4. That Council notes the concerns from many MidCoast residents for better management of State Forests to support nature-based tourism enterprises, recreational usage, threatened species habitat protection and carbon sequestration and raises these concerns with Forestry Corporation NSW.

FOR VOTE - Cr A Tickle, Cr J Miller, Cr C Pontin, Cr P Sandilands, Cr D West, Cr D Smith, Cr K Bell, Cr P Epov, Cr P Howard, Cr T Fowler

AGAINST VOTE - Nil

ABSENT, DID NOT VOTE - Cr K Stinson

10.2. NOTICE OF MOTION 2 - CR TROY FOWLER**REPORT INFORMATION**

Author	Cr Troy Fowler
Date of Meeting	8 February 2023

Cr K Stinson joined the meeting via Zoom at 2:20pm

SUMMARY

Cr Troy Fowler has given notice of his intention to move the motion as detailed below.

Moved Cr T Fowler/Seconded Cr A Tickle

That Council writes to the Local Member and the relevant Ministers for Regional NSW, Infrastructure, Transport and Regional Transport & Roads highlighting the traffic impacts in Tuncurry/Forster during peak times seeking confirmation of the long-term strategy and a firm commitment to funding and implementing the strategy.

4/2023 RESOLUTION

(Moved Cr T Fowler/Seconded Cr A Tickle)

That Council writes to the Local Member and the relevant Ministers and Shadow Ministers for Regional NSW, Infrastructure, Transport and Regional Transport & Roads highlighting the traffic impacts in Tuncurry/Forster during peak times seeking confirmation of the long-term strategy and a firm commitment to funding and implementing the strategy.

FOR VOTE - Cr A Tickle, Cr J Miller, Cr C Pontin, Cr P Sandilands, Cr D West, Cr K Stinson, Cr D Smith, Cr K Bell, Cr P Epov, Cr P Howard, Cr T Fowler

AGAINST VOTE - Nil

ABSENT, DID NOT VOTE - Nil

11. QUESTIONS WITH NOTICE**11.1. QUESTIONS WITH NOTICE - CR PETER EPOV****REPORT INFORMATION**

Author	Cr Peter Epov
Date of Meeting	8 February 2023

Responses were provided as contained in the Business Paper.

12. CONSIDERATION OF OFFICERS' REPORTS:**13. GENERAL MANAGER****13.1. MIDCOAST COUNCIL ELECTION ADVOCACY PROJECT LIST – 2023 & STRATEGIC
ADVOCACY PLAN****REPORT INFORMATION**

Report Author	Adrian Panuccio, General Manager
Date of Meeting	8 February 2023

RECOMMENDATION

1. That Council endorse the MidCoast Council Election Advocacy Project List – 2023.
2. That the Election Advocacy Project List form the basis of a Council Advocacy Plan and a Council workshop be scheduled to further develop the Advocacy Plan.

5/2023 RESOLUTION

(Moved Cr P Howard/ Seconded Cr K Stinson)

1. That Council endorse the MidCoast Council Election Advocacy Project List – 2023.
2. That the Election Advocacy Project List form the basis of a Council Advocacy Plan and a Council workshop be scheduled to further develop the Advocacy Plan.
3. The projects comments for the Gloucester Floodplain Risk Management Study & Plan be edited to read '*Continued implementation of the actions in the adopted plan*' noting that '*a feasibility study is in progress for upgrading access to the caravan park*'.

FOR VOTE - Cr A Tickle, Cr J Miller, Cr C Pontin, Cr P Sandilands, Cr D West, Cr K Stinson, Cr D Smith, Cr K Bell, Cr P Epov, Cr P Howard, Cr T Fowler

AGAINST VOTE - Nil

ABSENT, DID NOT VOTE – Nil

13.2. MATTERS OUTSTANDING**REPORT INFORMATION**

Report Author	Adrian Panuccio, General Manager
Date of Meeting	8 February 2023
Authorising Director	

RECOMMENDATION

That the information in Attachment 1 - Resolution Register Matters Outstanding be noted.

6/2023 RESOLUTION

(Moved Cr A Tickle/ Seconded Cr T Fowler)

That the information in Attachment 1 - Resolution Register Matters Outstanding be noted.

FOR VOTE - Cr A Tickle, Cr J Miller, Cr C Pontin, Cr P Sandilands, Cr D West, Cr K Stinson, Cr D Smith, Cr K Bell, Cr P Epov, Cr P Howard, Cr T Fowler

AGAINST VOTE – Nil.

ABSENT, DID NOT VOTE – Nil

14. DIRECTOR LIVEABLE COMMUNITIES**14.1. WELLNESS CENTRE, RETAIL & EVENT SPACE, SMALL BAR & CAFÉ – 63–65 MANNING STREET TAREE****REPORT INFORMATION**

Report Author	Bruce Moore - Coordinator Major Assessment
Date of Meeting	8 February 2023
Authorising Director	Paul De Szell - Director Liveable Communities

RECOMMENDATION

That development application DA 2021/2303 for alterations and additions to and re-use of the building at Lot 1, DP 1227364, 63-65 Manning Street, Taree be approved subject to the conditions provided in Attachment 1.

7/2023 RESOLUTION

(Moved Cr K Bell/ Seconded Cr A Tickle)

That development application DA 2021/2303 for alterations and additions to and re-use of the building at Lot 1, DP 1227364, 63-65 Manning Street, Taree be approved subject to the conditions provided in Attachment 1.

FOR VOTE - Cr A Tickle, Cr J Miller, Cr C Pontin, Cr P Sandilands, Cr D West, Cr K Stinson, Cr D Smith, Cr K Bell, Cr P Epov, Cr P Howard, Cr T Fowler

AGAINST VOTE - Nil

ABSENT, DID NOT VOTE – Nil

14.2. COMMUNITY CONVERSATIONS PROGRAM**REPORT INFORMATION**

Report Author	Marcelle Boyling - Manager Engagement, Communication & Education
Date of Meeting	8 February 2023
Authorising Director	Paul De Szell - Director Liveable Communities

RECOMMENDATION

That the information provided within the report be noted.

8/2023 RESOLUTION

(Moved Cr J Miller/Seconded Cr A Tickle)

That the information provided within the report be noted.

FOR VOTE - Cr A Tickle, Cr J Miller, Cr C Pontin, Cr P Sandilands, Cr D West, Cr K Stinson, Cr D Smith, Cr K Bell, Cr P Epov, Cr P Howard, Cr T Fowler

AGAINST VOTE - Nil

ABSENT, DID NOT VOTE – Nil

14.3. TRIAL FILM SCREENING – BERYL JANE FLETT STUDIO**REPORT INFORMATION**

Report Author	Paul De Szell – Director Liveable Communities
Date of Meeting	8 February 2022

Cr P Howard, having declared a pecuniary interest, left meeting at 3:04pm

RECOMMENDATION

That:

1. Council permit the Taree Film Society to undertake a one-off trial film screening at the Beryl Jane Flett studio;
2. Council waive its published fees and charges in order to incur no cost to the Taree Film Society as part of the trial screening; and
3. The trial screening be undertaken during March 2023.

9/2023 RESOLUTION

(Moved Cr K Bell/ Seconded Cr T Fowler)

That:

1. Council permit the Taree Film Society to undertake a one-off trial film screening at the Beryl Jane Flett studio;
2. Council waive its published fees and charges in order to incur no cost to the Taree Film Society as part of the trial screening; and
3. The trial screening be undertaken during March 2023.

FOR VOTE - Cr A Tickle, Cr C Pontin, Cr D West, Cr K Stinson, Cr D Smith, Cr K Bell, Cr P Epov, Cr T Fowler

AGAINST VOTE – Cr J Miller, Cr P Sandilands

ABSENT, DID NOT VOTE – Cr P Howard

Cr P Howard returned to the meeting at 3:11pm

Cr T Fowler left the meeting at 3:12pm

CONSIDERATION OF ITEMS BY EXCEPTION**10/2023 RESOLUTION**

(Moved Cr K Bell/Seconded Cr A Tickle)

That Council consider items on the agenda by exception in accordance with Section 13 of Council's Code of Meeting Practice.

FOR VOTE - Cr J Miller, Cr C Pontin, Cr D West, Cr A Tickle, Cr P Epov, Cr K Bell, Cr P Howard, Cr D Smith, Cr P Sandilands, Cr K Stinson

AGAINST VOTE – Nil

ABSENT, DID NOT VOTE – Cr T Fowler

11/2023 RESOLUTION

(Moved Cr P Sandilands/Seconded Cr K Bell)

That Council adopt the recommendation as printed in the Business Paper for items 14.4, 14.5, 15.1, 15.2, and 16.3 and amend the order of business in accordance with Section 13 of Council's Code of Meeting Practice.

FOR VOTE - Cr J Miller, Cr C Pontin, Cr D West, Cr A Tickle, Cr P Epov, Cr P Howard, Cr D Smith, Cr P Sandilands, Cr K Stinson, Cr K Bell

AGAINST VOTE – Nil

ABSENT, DID NOT VOTE – Cr T Fowler

14.4. PETTY CASH - MIDCOAST ASSIST**REPORT INFORMATION**

Report Author	Paul Martin - Manager MidCoast Assist
Date of Meeting	8 February 2023
Authorising Director	Paul De Szell - Director Liveable Communities

RECOMMENDATION

That Council resolve to write back cash balances from Council's balance sheet with respect to the following petty cash floats:

- \$500 - Petty Cash - Disability
- \$400 - Petty Cash - Tea Gardens Respite
- \$350 - Petty Cash - Stroud MCA
- \$250 - Petty Cash - GLCB (Great Lakes Centre Based Ageing)

12/2023 RESOLUTION

(Moved Cr P Sandilands/Seconded Cr K Bell)

That Council resolve to write back cash balances from Council's balance sheet with respect to the following petty cash floats:

- \$500 - Petty Cash - Disability
- \$400 - Petty Cash - Tea Gardens Respite
- \$350 - Petty Cash - Stroud MCA
- \$250 - Petty Cash - GLCB (Great Lakes Centre Based Ageing)

FOR VOTE - Cr J Miller, Cr C Pontin, Cr D West, Cr A Tickle, Cr P Epov, Cr P Howard, Cr D Smith, Cr P Sandilands, Cr K Stinson, Cr K Bell

AGAINST VOTE – Nil

ABSENT, DID NOT VOTE – Cr T Fowler

14.5. HERITAGE REFERENCE GROUP MEETING NOTES - DECEMBER 2022**REPORT INFORMATION**

Report Author	Liam Drinkwater - Graduate Land Use Planner
Date of Meeting	8 February 2023
Authorising Director	Paul De Szell – Director Liveable Communities

RECOMMENDATION

That the Heritage Reference Group meeting notes of 1 December 2022 (Attachment 1) be noted.

13/2023 RESOLUTION

(Moved Cr P Sandilands/Seconded Cr K Bell)

That the Heritage Reference Group meeting notes of 1 December 2022 (Attachment 1) be noted.

FOR VOTE - Cr J Miller, Cr C Pontin, Cr D West, Cr A Tickle, Cr P Epov, Cr P Howard, Cr D Smith, Cr P Sandilands, Cr K Stinson, Cr K Bell
 AGAINST VOTE – Nil
 ABSENT, DID NOT VOTE – Cr T Fowler

15. DIRECTOR OF INFRASTRUCTURE & ENGINEERING SERVICES**15.1. WATER USAGE, WATER RESOURCES AND OUTLOOK****REPORT INFORMATION**

Report Author	Chenxi Zeng, Manager Water Management & Treatment
Date of Meeting	8 February 2023
Authorising Director	Robert Scott, Director Infrastructure & Engineering Services

RECOMMENDATION

That the report on water usage, water resources and the outlook for January to April 2023 be received and noted.

14/2023 RESOLUTION

(Moved Cr P Sandilands/Seconded Cr K Bell)

That the report on water usage, water resources and the outlook for January to April 2023 be received and noted.

FOR VOTE - Cr J Miller, Cr C Pontin, Cr D West, Cr A Tickle, Cr P Epov, Cr P Howard, Cr D Smith, Cr P Sandilands, Cr K Stinson, Cr K Bell

AGAINST VOTE – Nil

ABSENT, DID NOT VOTE – Cr T Fowler

15.2. MINUTES OF THE LOCAL TRAFFIC COMMITTEE HELD 7 DECEMBER 2022**REPORT INFORMATION**

Report Author	Richard Wheatley, Team Leader Transport
Date of Meeting	8 February 2023
Authorising Director	Robert Scott, Director Infrastructure & Engineering Services

RECOMMENDATION

It is recommended that the Minutes of the Local Traffic Committee meeting held on 7 December 2022 be noted and that the recommendations are adopted.

15/2023 RESOLUTION

(Moved Cr P Sandilands/ Seconded Cr K Bell)

It is recommended that the Minutes of the Local Traffic Committee meeting held on 7 December 2022 be noted and that the recommendations are adopted.

FOR VOTE - Cr J Miller, Cr C Pontin, Cr D West, Cr A Tickle, Cr P Epov, Cr P Howard, Cr D Smith, Cr P Sandilands, Cr K Stinson, Cr K Bell

AGAINST VOTE – Nil

ABSENT, DID NOT VOTE – Cr T Fowler

16. DIRECTOR OF CORPORATE SERVICES**16.1. ATTENDANCE AT THE RURAL AND REGIONAL SUMMIT****REPORT INFORMATION**

Report Author	Kathy Duggan, Governance Coordinator
Date of Meeting	8 February 2023
Authorising Director	Steve Embry, Director Corporate Services

RECOMMENDATION

That the Councillors listed be approved to attend the LGNSW Rural and Regional Summit with the Mayor and the General Manager on 20 February 2023.

16/2023 RESOLUTION

(Moved Cr K Stinson/ Seconded Cr D West)

That the Mayor and General Manager be approved to attend the LGNSW Rural and Regional Summit on 20 February 2023.

FOR VOTE - Cr A Tickle, Cr J Miller, Cr C Pontin, Cr P Sandilands, Cr D West, Cr K Stinson, Cr D Smith, Cr K Bell, Cr P Epov, Cr P Howard

AGAINST VOTE - Nil

ABSENT, DID NOT VOTE – Cr T Fowler

Cr T Fowler returned to the meeting at 3:22pm

16.2. CONDUCT OF THE 2024 LOCAL GOVERNMENT ELECTIONS**REPORT INFORMATION**

Report Author	Rob Griffiths, Manager Governance
Date of Meeting	8 February 2023
Authorising Director	Steve Embry, Director Corporate Services

RECOMMENDATION

Mid-Coast Council ("the Council") resolves that:

1. Pursuant to s.296(2) and (3) of the *Local Government Act 1993 (NSW)* ("the Act") that an election arrangement be entered into by contract for the Electoral Commissioner to administer all elections of the Council.
2. Pursuant to s. 296(2) and (3) of the Act, as applied and modified by s.18, that a council poll arrangement be entered into by contract for the Electoral Commissioner to administer all council polls of the Council.
3. Pursuant to s.296(2) and (3) of the Act, as applied and modified by s.18, that a constitutional referendum arrangement be entered into by contract for the Electoral Commissioner to administer all constitutional referenda of the Council.

17/2023 RESOLUTION

(Moved Cr D Smith/Seconded Cr D West)

Mid-Coast Council ("the Council") resolves that:

1. Pursuant to s.296(2) and (3) of the *Local Government Act 1993 (NSW)* ("the Act") that an election arrangement be entered into by contract for the Electoral Commissioner to administer all elections of the Council.
2. Pursuant to s. 296(2) and (3) of the Act, as applied and modified by s.18, that a council poll arrangement be entered into by contract for the Electoral Commissioner to administer all council polls of the Council.
3. Pursuant to s.296(2) and (3) of the Act, as applied and modified by s.18, that a constitutional referendum arrangement be entered into by contract for the Electoral Commissioner to administer all constitutional referenda of the Council.

FOR VOTE - Cr A Tickle, Cr J Miller, Cr C Pontin, Cr P Sandilands, Cr D West, Cr K Stinson, Cr D Smith, Cr K Bell, Cr P Howard, Cr T Fowler

AGAINST VOTE – Cr P Epov

ABSENT, DID NOT VOTE – Nil

16.3. ELECTION CANDIDATE CAMPAIGN SIGNAGE POLICY**REPORT INFORMATION**

Report Author	Rob Griffiths, Manager Governance
Date of Meeting	8 February 2023
Authorising Director	Steve Embry, Director Corporate Services

RECOMMENDATION

That the draft Election Candidate Campaign Signage Policy provided in Attachment 1 be adopted.

18/2023 RESOLUTION

(Moved Cr P Sandilands/Seconded Cr K Bell)

That the draft Election Candidate Campaign Signage Policy provided in Attachment 1 be adopted.

FOR VOTE - Cr J Miller, Cr C Pontin, Cr D West, Cr A Tickle, Cr P Epov, Cr P Howard, Cr D Smith, Cr P Sandilands, Cr K Stinson, Cr K Bell
 AGAINST VOTE – Nil
 ABSENT, DID NOT VOTE – Cr T Fowler

16.4. CASH INVESTMENTS REPORT - DECEMBER 2022**REPORT INFORMATION**

Report Author	Phil Brennan, Manager Finance
Date of Meeting	8 February 2023
Authorising Director	Steve Embry, Director Corporate Services

RECOMMENDATION

That the report be received and noted.

19/2023 RESOLUTION

(Moved Cr J Miller/ Seconded Cr P Epov)

That the report be received and noted, noting a typographical error to the second table on page 80.

FOR VOTE - Cr A Tickle, Cr J Miller, Cr C Pontin, Cr P Sandilands, Cr D West, Cr K Stinson, Cr D Smith, Cr K Bell, Cr P Epov, Cr P Howard, Cr T Fowler

AGAINST VOTE - Nil

ABSENT, DID NOT VOTE – Nil

17. MATTERS OF URGENT BUSINESS

Nil.

18. MEETING CLOSED

This is the last page of the Minutes of the Ordinary Council meeting of MidCoast Council held on 8 February 2023

There being no further business, the meeting closed at 3:25pm.

Attachment 1: Planning Proposal PP2020-3.1 - SEPPs Compliance Table

State Environmental Planning Policies	Consistency
<p>SEPP (Biodiversity and Conservation) 2021</p> <p>Includes:</p> <ul style="list-style-type: none"> - SEPP (Vegetation in Non-Rural Areas) 2017 - SEPP (Koala Habitat Protection) 2020 - SEPP (Koala Habitat Protection) 2021 - Murray REP 2 - Riverine Land - SEPP 19 - Bushland in Urban Areas - SEPP 50 - Canal Estate Development - SEPP (Sydney Drinking Water Catchment) 2011 - SREP 20 - Hawkesbury-Nepean River (No 2 - 1997) - SREP (Sydney Harbour Catchment) 2005 - Greater Metropolitan REP Plan No 2 - Georges River Catchment - Willandra Lakes REP No 1 - World Heritage Property 	<p><u>Chapter 3 - Koala Habitat Protection 2020</u></p> <p>A Preliminary Ecological Constraints Assessment Report was prepared by JB Enviro to support the Planning Proposal. Stage 1 of the future development will have negligible impacts on habitat values. Impacts associated with Stages 2 and 3 will can be mitigated via ecosystem credits.</p> <p>Connectivity values will be retained and foraging potential for the Koala increased in the medium to long term. Advanced plantings of Koala food tree tubestock including of Swamp Mahogany and Tallowood have been undertaken.</p>
<p>SEPP (Housing) 2021</p> <p>Includes:</p> <ul style="list-style-type: none"> - SEPP (Affordable Rental Housing) 2009 - SEPP (Housing for Seniors and People with a Disability) 2004 - SEPP 70 - Affordable Housing (Revised Schemes) - SEPP 21 - Caravan Parks - SEPP 36 - Manufactured Home Estates 	<p><u>Chapter 2 - Affordable housing</u></p> <p>Additional information is required from the applicant to clarify if affordable housing will be incorporated into the proposal.</p>
<p>SEPP (Planning Systems) 2021</p> <p>Includes:</p> <ul style="list-style-type: none"> - SEPP (State and Regional Development) 2011 - SEPP (Aboriginal Land) 2019 - SEPP (Concurrence & Consents) 2018 	<p><u>Chapter 2 - State and regional development</u></p> <p>Identified development with a capital investment value of more than \$30 million is declared as regionally significant development and required to be determined by the relevant Regional Planning Panel.</p> <p>Should this be the case for any future Development Application in relation to the subject land, the proposal will be regionally significant development and will be reported to the Regional Planning Panel for determination.</p>
<p>SEPP (Resilience and Hazards) 2021</p> <p>Includes:</p> <ul style="list-style-type: none"> - SEPP (Coastal Management) 2018 - SEPP 33 - Hazardous and Offensive Development - SEPP 55 - Remediation of Land 	<p><u>Chapter 4 - Remediation</u></p> <p>A Preliminary Site Investigation (PSI) accompanies the associated Planning Proposal Report and has concluded that the site can be made suitable for mixed use development.</p>
<p>SEPP (Transport and Infrastructure) 2021</p> <p>Includes:</p> <ul style="list-style-type: none"> - SEPP (Infrastructure) 2007 - SEPP (Educational Establishments and Child Care Facilities) 2017 - SEPP (Major Infrastructure Corridors) 2020 - SEPP (Three Ports) 2013 - N/A 	<p><u>Chapter 2 - Infrastructure</u></p> <p>The Oxley Highway is a classified road and the subject development will require consultation Transport for NSW. Council is waiting for investigations to clarify the upgrade required for the Oxley Highway and Wrights Road intersection.</p>

Attachment 2: Planning Proposal PP2020-3.1 - Section 9.1 Directions Compliance Table

Section 9.1 Directions & Objectives	Consistency
Planning Systems	
<p>1.1 Implementation of Regional Plans The objective of this direction is to give legal effect to the vision, land use strategy, goals, directions and actions contained in Regional Plans.</p>	<p>The site is identified as part of the larger HEP precinct within the Port Macquarie-Hastings UGMS 2017 - 2036.</p> <p>The accompanying site specific specialist studies have not confirmed that the site is suitable for its future mixed use development.</p> <p>The proposal is inconsistent with this Direction.</p>
<p>1.3 Approval and Referral Requirements The objective of this direction is to ensure that LEP provisions encourage the efficient and appropriate assessment of development.</p>	<p>The land is not adjacent to any existing mixed use development and adequate infrastructure servicing is not currently available. However, the subject site is located within the greater HEP masterplan area.</p> <p>Concurrence of the Minister for future mixed use zone will be required.</p> <p>The proposal is inconsistent with this direction.</p>
<p>1.4 Site Specific Provisions The objective of this direction is to discourage unnecessarily restrictive site specific planning controls.</p>	<p>The land will be rezoned to a zone that does not currently apply to the adjacent land. However, the subject site is located within the greater HEP masterplan area which will enable mixed use development to support the existing educational and health uses within the area and the proposed development standards are consistent with the adjacent industrial zoned lands.</p> <p>The proposal is consistent with this Direction.</p>
Biodiversity and Conservation	
<p>3.1 Conservation Zones The objective of this direction is to protect and conserve environmentally sensitive areas. A planning proposal must include provisions that facilitate the protection and conservation of environmentally sensitive areas.</p>	<p>The biodiversity information provided with the application is insufficient.</p> <p>The proposal is inconsistent with this Direction.</p>
<p>3.2 Heritage Conservation The objective of this direction is to conserve items, areas, objects and places of environmental heritage significance and indigenous heritage significance.</p>	<p>The site is not heritage listed nor is it within a heritage conservation zone. The site is not located near any heritage items and therefore is not expected to have any adverse impacts on heritage conservation.</p> <p>The proposal is consistent with this Direction.</p>
Resilience and Hazards	
<p>4.1 Flooding The objectives of this direction are to: (a) ensure that development of flood prone land is consistent with the NSW Government's Flood Prone Land Policy and the principles of the Floodplain Development Manual 2005, and (b) ensure that the provisions of an LEP that apply to flood prone land are commensurate with flood behaviour and includes consideration of the potential flood impacts both on and off the subject land.</p>	<p>The subject site is not identified as being flood prone land and as such is not subject to compliance with the flood planning area provisions of the LEP.</p> <p>The proposal is <u>consistent</u> with this direction.</p>
<p>4.2 Coastal Management The objective of this direction is to protect and manage coastal areas of NSW.</p>	<p>The site is not identified as being in the Coastal Management Area.</p>
<p>4.3 Planning for Bushfire Protection The objectives of this direction are to: a) protect life, property and the environment from bush fire hazards, by discouraging the establishment of incompatible land uses in bush fire prone areas, and b) encourage sound management of bush fire prone areas.</p>	<p>The subject site has been identified as containing 'Category 2' and 'Vegetation Buffer' under the NSW Rural Fire Services bushfire prone land maps.</p> <p>Council will be required to consult with the Commissioner of the NSW Rural Fire Service, if supported at Gateway.</p>

Section 9.1 Directions & Objectives	Consistency
	<p>Bushfire Assessment Report has been prepared by Midcoast Building and Environment and provides a several recommendations to protect the future development from a bushfire attack event and concludes that the bushfire risk is manageable for Special Fire Protection Purpose developments in considerations of NSW Rural Fire Services, Planning for Bushfire Protection, 2019.</p> <p>The proposal is consistent with this Direction.</p>
<p>4.4 Remediation of Contaminated Land The objective of this direction is to reduce the risk of harm to human health and the environment by ensuring that contamination and remediation are considered by planning proposal authorities.</p>	<p>A Stage 1 Site Contamination Assessment, prepared by Epic Environmental, in accordance with the NSW EPA Guidelines for Consultants Reporting on Contaminated Land accompanies this proposal. This assessment concludes that ... <i>it is considered that the site is suitable for the proposed medical centre and education land use, and the current site conditions are not considered to present a risk to human health or the environment.</i></p> <p>The report recommendations can be achieved at a future Development Application stage.</p> <p>The proposal is consistent with this Direction.</p>
Transport and Infrastructure	
<p>5.1 Integrated Land Use and Transport The objective of this direction is to ensure that urban structures, building forms, land use locations, development designs, subdivision and street layouts achieve the following planning objectives:</p> <p>a) improving access to housing, jobs and services by walking, cycling and public transport, and b) increasing the choice of available transport and reducing dependence on cars, and c) reducing travel demand including the number of trips generated by development and the distances travelled, especially by car, and d) supporting the efficient and viable operation of public transport services, and e) providing for the efficient movement of freight.</p>	<p>The Planning Proposal will increase the opportunities to provide new development to support the use of public transport and improve access to jobs, education and health services by walking, cycling and public transport. The Planning Proposal is consistent with the objectives of the Ministerial Direction as it will:</p> <ul style="list-style-type: none"> • improve access between housing, jobs and services by walking, cycling and public transport by way of existing services, accessed at Port Macquarie Base Hospital by providing a new bus stop in the immediate vicinity of the proposed development. • increase employment and population on site in a precinct that will rely on sustainable transport options (cycling and walking via the pedestrian spine), and thereby reducing dependence on cars. • reduce travel demand including the number of trips generated by development and the distances travelled, especially by car, due to the increase of employment, education and accommodation on site; and • enhance the efficient and viable operation of the existing public transport services and road network by increasing rider patronage. <p>The proposal is consistent with this Direction.</p>
Housing	
<p>6.1 Residential Zones The objectives of this direction are to:</p> <p>a) encourage a variety and choice of housing types to provide for existing and future housing needs, b) make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services, and c) minimise the impact of residential development on the environment and resource lands.</p>	<p>The Proposal seeks a rezoning from R1 and R2 Zones to a B4 Mixed-Use zone consistent with the HEP Master Plan. The Proposal will facilitate the future development of health, education, accommodation and retail uses. The proposed uses are consistent with the HEP Master Plan, Council's Urban Growth Management Strategy and the NSW Governments North Coast Regional Plan. The Planning Proposal will not undermine or prevent the future use of surrounding land for appropriate and suitable uses</p>

Section 9.1 Directions & Objectives	Consistency
	<p>permissible within the B4 zone, including residential. As such, while the subject proposal will impact upon current residentially zoned land, the proposal is in accordance with the relevant Regional Strategy, prepared by the Department of Planning which gives consideration to the objective of this direction.</p> <p>The proposal is inconsistent with this Direction.</p>
Industry and Employment	
<p>7.1 Business and Industrial Zones The objectives of this direction are to: (a) encourage employment growth in suitable locations, (b) protect employment land in business and industrial zones, and (c) support the viability of identified centres.</p>	<p>The proposal will create new business land within the Port Macquarie Health and Education Precinct and is consistent with the North Coast Regional Plan and the Port Macquarie - Hastings Urban Growth Management Strategy.</p> <p>Economic advice has been prepared which gives consideration to this direction and its objectives (refer to Appendix D of the attached Planning Proposal Report). In summary, the Planning Proposal will not obstruct the achievement of the objectives as:</p> <ul style="list-style-type: none"> • The Planning Proposal will provide a boost to local demand for services within the health sector as Australian Bureau of Statistics data proves that it has been the fastest growing sector within the region, accounting for 19% of all employment across the LGA. • Maintaining the current zoning is not viable in facilitating and further protecting employment land as it would not achieve the objectives of the current zoning, despite its permissibility for some health and education uses. • The Planning Proposal will assist in improving the viability of the HEP. Currently the site is not making any meaningful contribution to the health and education sector and currently serves as a physical barrier between two major existing facilities in which the HEP Masterplan seeks to connect. • Development of the site consistent with the indicative reference design may improve the amenity and vitality of the area, with the potential for this to benefit adjacent existing health and education properties which may also capitalise and benefit from this investment. <p>The proposal is consistent with this Direction.</p>
<p>7.2 Reduction in Non-Hosted Short-term Rental Accommodation Period The objectives of this direction are to: (a) mitigate significant impacts of short-term rental accommodation where non-hosted short-term rental accommodation period are to be reduced, and (b) ensure the impacts of short-term rental accommodation and views of the community are considered.</p>	<p>The application proposes to include short-stay accommodation for students and health workers.</p> <p>The proposal is consistent with this Direction.</p>

AGENDA

DEVELOPMENT ASSESSMENT PANEL
15/02/2023

Item: 05

Subject: DA2022 - 821.1 ALTERATIONS AND ADDITIONS TO DWELLING INCLUDING CLAUSE 4.6 VARIATION TO CLAUSE 4.3 (HEIGHT OF BUILDINGS) AND CLAUSE 4.4 (FLOOR SPACE RATIO) OF THE PORT MACQUARIE-HASTINGS LOCAL ENVIRONMENTAL PLAN 2011 AT LOT 30, DP 18159, NO. 977 OCEAN DRIVE, BONNY HILLS

Report Author: Development Assessment Officer (Planner), Benjamin Roberts

Applicant: Davy and Watt Pty Ltd
Owner: A W & R S Jones
Estimated Cost: \$483,000
Parcel no: 15384

Alignment with Delivery Program

4.3.1 Undertake transparent and efficient development assessment in accordance with relevant legislation.

RECOMMENDATION

That the Development Assessment Panel recommend to Council that DA2022 - 821.1 for alterations and additions to dwelling including Clause 4.6 variation to Clause 4.3 (Height of Buildings) and Clause 4.4 (Floor Space Ratio) of the Port Macquarie-Hastings Local Environmental Plan 2011 at Lot 30, DP 18159, No. 977 Ocean Drive, Bonny Hills, be determined by granting consent subject to the recommended conditions.

Executive Summary

This report considers a development application for alterations and additions to dwelling including Clause 4.6 variation to Clause 4.3 (height of buildings) and clause 4.4 (floor space ratio) of the Port Macquarie-Hastings Local Environmental Plan 2011 at the subject site and provides an assessment of the application in accordance with the Environmental Planning and Assessment Act 1979.

Following exhibition of the application, one (1) submission was received.

The proposed floor space ratio variation is greater than 10% deviation from the development standard and is therefore required to be considered by full Council.

The site is considered suitable for the proposed development and the proposal adequately addresses relevant planning controls as justified. The development is not considered to be contrary to the public's interest and will not result a significant adverse social, environmental or economic impact.

This report recommends that the development application be approved subject to the attached conditions (Attachment 1).



Item 05

Page 14

AGENDA

**DEVELOPMENT ASSESSMENT PANEL
15/02/2023**

The reason for the application being referred to Council's Development Assessment Panel (DAP) is because the application includes a Clause 4.6 exception to development standards under the Port Macquarie-Hastings Local Environmental Plan 2011. A copy of the DAP Charter outlining the delegations and functions of the DAP is available on Council's website.

1. BACKGROUND

Existing Sites Features and Surrounding Development

The site has an area of 202.3m² and directly fronts Ocean Drive. The site contains an existing three storey dwelling. The site slopes towards Ocean Drive with approximately 3m of fall from the back to the front.

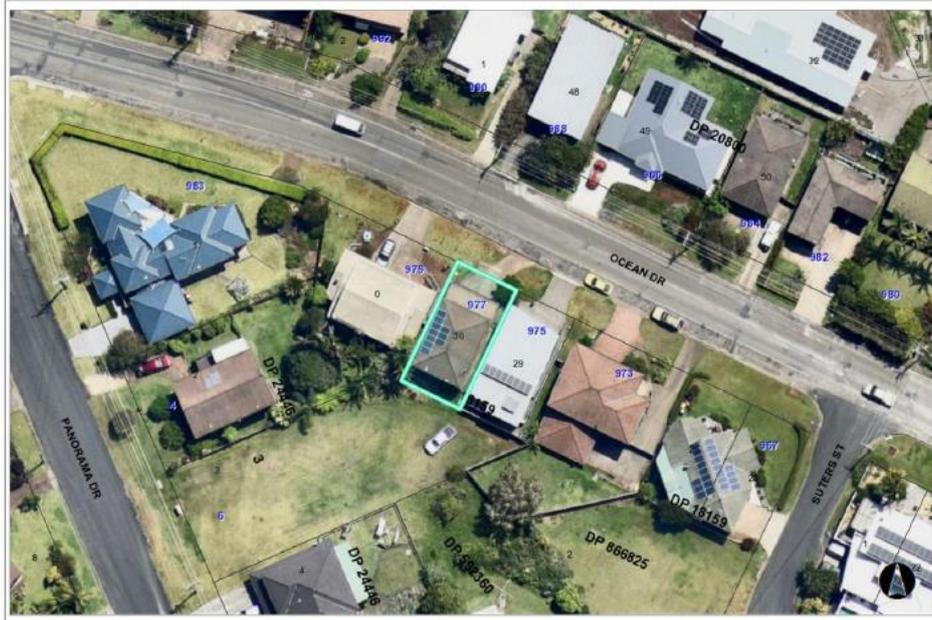
The site is zoned R1 General Residential in accordance with the Port Macquarie-Hastings Local Environmental Plan 2011, as shown in the following zoning plan:



The existing subdivision pattern and location of existing development within the locality is shown in the following aerial photograph:



AGENDA

DEVELOPMENT ASSESSMENT PANEL
15/02/2023**2. DESCRIPTION OF DEVELOPMENT**

Key aspects of the proposal include the following:

- Alterations and additions to the existing dwelling in the form of interior layout changes, addition of second floor alfresco area and external appearance improvements.

Refer to Attachment 2 at the end of this report for plans of the proposed development.

Application Chronology

- 21 September 2022 - Application lodged.
- 29 September 2022 - Referral to Essential Energy.
- 5 to 18 October 2022 - Public exhibition via neighbour notification.
- 21 October 2022 - Essential Energy comments received.
- 26 October 2022 - Additional information request to applicant.
- 31 October 2022 - Additional information provided.
- 22 November 2022 - Additional information provided.
- 4 January 2023 - Additional information request to applicant.
- 9 January 2023 - Additional information provided.
- 25 January 2023 - Additional information provided.

AGENDA**DEVELOPMENT ASSESSMENT PANEL
15/02/2023****3. STATUTORY ASSESSMENT****Section 4.15(1) Matters for Consideration**

In determining the application, Council is required to take into consideration the following matters as are relevant to the development that apply to the land to which the development application relates:

- (a) **The provisions (where applicable) of:**
(i) **Any Environmental Planning Instrument**

**State Environmental Planning Policy (Biodiversity and Conservation) 2021
Chapter 4 - Koala Habitat Protection 2021**

Clause 4.4 - This SEPP applies to all non-rural zoned land within the Port Macquarie-Hastings Local Government Area.

Clause 4.10 - Council is not prevented from granting consent in this case for the following reasons::

1. The property is not subject to a KPOM, and
2. The site is not considered to be core koala habitat.

**State Environmental Planning Policy (Resilience and Hazards) 2021
Chapter 2 Coastal Management**

Clause 2.5 - This policy prevails over the Port Macquarie-Hastings Local Environmental Plan 2011 in the event of any inconsistency.

The site is located within a coastal use and coastal environment area.

Having regard to clauses 2.10 and 2.11 of the policy the proposed development is not considered likely to result in any of the following:

- a) any adverse impact on integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment;
- b) any adverse impacts coastal environmental values and natural coastal processes;
- c) any adverse impact on marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms;
- d) any adverse impact on Aboriginal cultural heritage, practices and places;
- e) any adverse impacts on the cultural and built environment heritage;
- f) any adverse impacts the use of the surf zone;
- g) any adverse impact on the visual amenity and scenic qualities of the coast, including coastal headlands;
- h) overshadowing, wind funnelling and the loss of views from public places to foreshores; and
- i) any adverse impacts on existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability.

The bulk, scale and size of the proposed development is sufficiently compatible with the surrounding coastal and built environment. The site is cleared and located within an area zoned for residential purposes.



AGENDA**DEVELOPMENT ASSESSMENT PANEL
15/02/2023**

Clause 2.12 - The proposal is not likely to cause increased risk of coastal hazards on the land or other land.

Chapter 4 Remediation of Land

Clause 4.6 - Following an inspection of the site and a search of Council records, the subject land is not identified as being potentially contaminated and is suitable for the continued residential use.

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

A BASIX certificate has been submitted demonstrating that the proposal will comply with the requirements of the SEPP. Should approval be granted it is recommended that a condition be imposed to ensure that the commitments are incorporated into the development and certified at Occupation Certificate stage.

State Environmental Planning Policy (Transport and Infrastructure) 2021

Clause 2.48 - Development in proximity to electricity infrastructure - referral to Essential Energy has been completed having regard to the proximity of the proposal from existing overhead power lines. The following comments were provided for consideration:

“Strictly based on the documents submitted, Essential Energy makes the following comments as to potential safety risks arising from the proposed development:

1. *The existing overhead service connecting this property will need to comply with the NSW Service and Installation Rules, both in relation to the clearances and access to the point of attachment, no roofed area is to be underneath the point of attachment. This may mean that the existing service will need to be re-located, at the Applicant’s expense. A Level 2 Electrician will be able to advise on these requirements and carry out the required work to ensure compliance.*
2. *The existing overhead service connecting the adjoining property, Lot 29 DP18159 (975 Ocean Drive) will need to comply with the NSW Service and Installation Rules, in relation to the clearances to this proposal. This may mean that the existing service will need to be re-located, at the Applicant’s expense. A Level 2 Electrician will be able to advise on these requirements and carry out the required work to ensure compliance.*

Essential Energy also makes the following general comments:

1. *If the proposed development changes, there may be potential safety risks and it is recommended that Essential Energy is consulted for further comment.*
2. *Any existing encumbrances in favour of Essential Energy (or its predecessors) noted on the title of the above property should be complied with.*
3. *In addition, Essential Energy’s records indicate there is overhead electricity infrastructure located within the property and within close proximity of the property. Any activities within these locations must be undertaken in accordance with the latest industry guideline currently known as ISSC 20 Guideline for the*



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Management of Activities within Electricity Easements and Close to Infrastructure. Approval may be required from Essential Energy should activities within the property encroach on the electricity infrastructure.

4. *Prior to carrying out any works, a "Dial Before You Dig" enquiry should be undertaken in accordance with the requirements of Part 5E (Protection of Underground Electricity Power Lines) of the Electricity Supply Act 1995 (NSW).*
5. *Given there is electricity infrastructure in the area, it is the responsibility of the person/s completing any works around powerlines to understand their safety responsibilities. SafeWork NSW (www.safework.nsw.gov.au) has publications that provide guidance when working close to electricity infrastructure. These include the Code of Practice – Work near Overhead Power Lines/Underground Assets."*

The potential safety risks identified can be managed throughout the construction phase by suitably qualified professionals. This advice has been forwarded to the applicant for consideration and implementation.

Clause 2.119 refers to development with frontage to a classified road. Ocean Drive is a classified road. The development proposes to make improvements to the existing crossover to Ocean Drive and does not propose any additional crossovers. No additional residential occupancy is proposed and no increase in traffic generation is expected. Therefore, no adverse impact on the road network will occur.

In terms of noise impacts there is no change to the existing front setback. The proposal will not be adversely impacted by road traffic noise.

Clause 2.120 refers to noise and vibration impacts from a classified road on non-road development. The clause only applies to freeways, tollways and roads with an Annual Average Daily Traffic (AADT) of 20,000 vehicles. Council traffic count data suggest this section of Ocean Drive accommodates less than 10,000 vehicles AADT, the clause does not apply.

The development does not trigger any of the traffic generating development thresholds of Clause 2.122. Referral to the NSW Roads and Maritime Services (RMS) is not required.

Based on the above, the proposed development addresses relevant clauses in the SEPP and will not to create any significant adverse conflict in terms of traffic or noise.

Port Macquarie-Hastings Local Environmental Plan 2011

The proposal is consistent with the LEP having regard to the following:

- Clause 2.2 - The subject site is zoned R1 General Residential.
- Clause 2.3(1) and the R1 zone landuse table - The additions and alterations to the existing dwelling house is permissible with consent.

The objectives of the R1 zone are as follows:

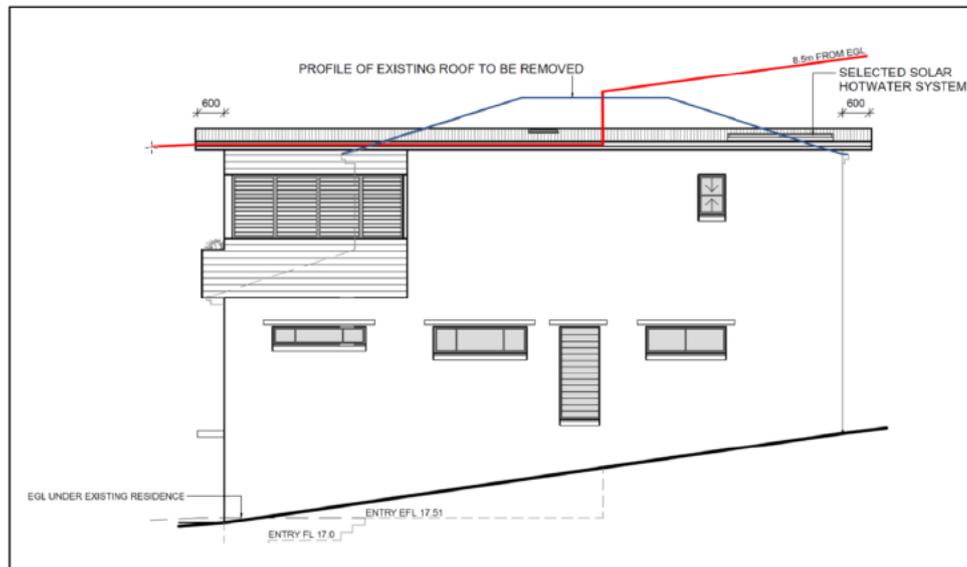
- *To provide for the housing needs of the community.*
- *To provide for a variety of housing types and densities.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*



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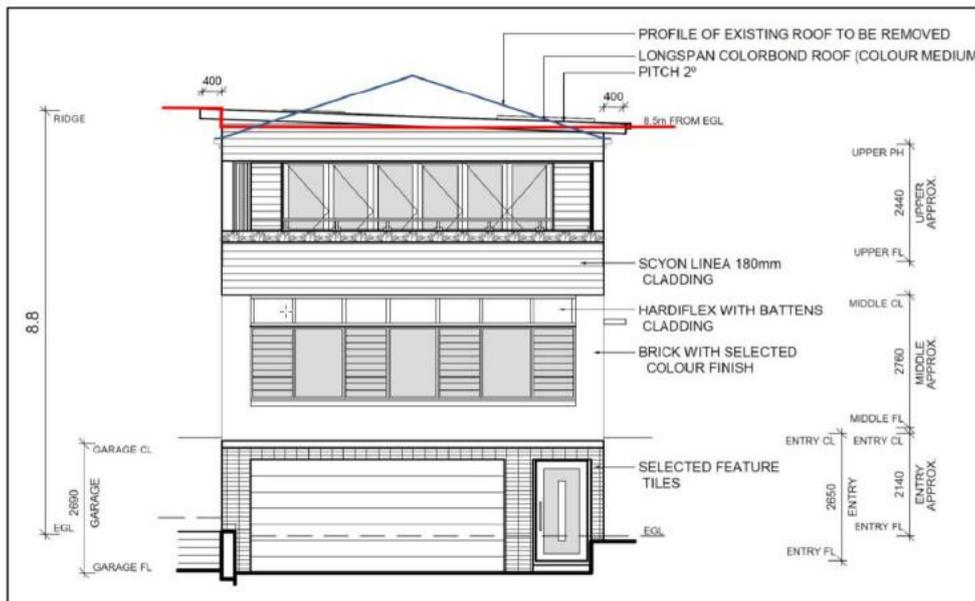
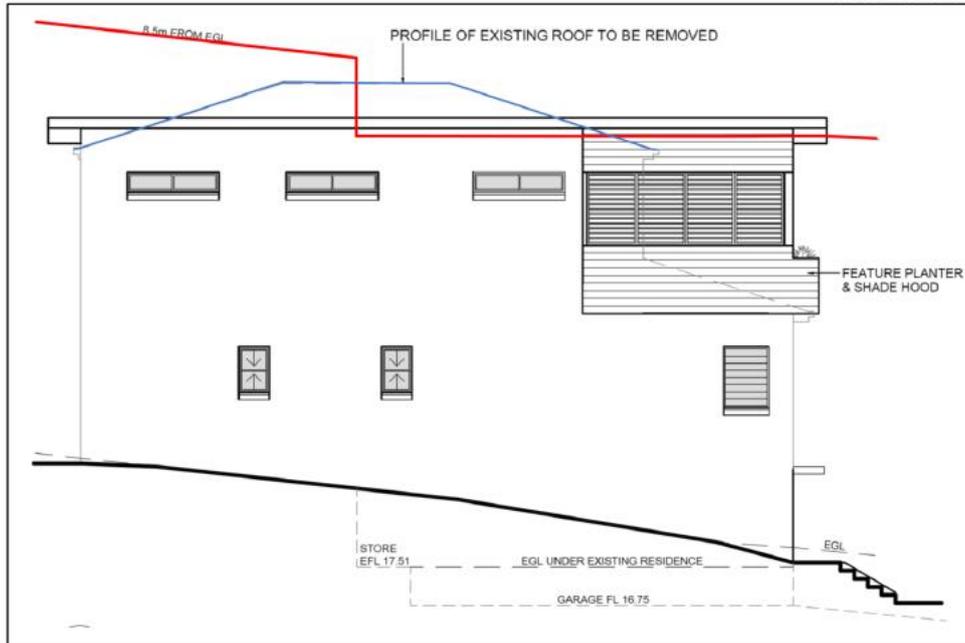
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- Clause 2.3(2) - The proposal is consistent with the zone objectives as it contributes to the range of housing type in the locality.
- Clause 2.7 - The partial demolition of the existing dwelling requires consent as it does not fit within the provisions of SEPP (Exempt and Complying Development Codes) 2008.
- Clause 4.3 - The building height limit for the site is 8.5m. The proposed building height is 8.8m. The proposal exceeds the building height limit by 300mm which represents a variation of 3.5% from the development standard. The submitted plans indicate the extent of the building that would exceed the building height limit. An extract of the plans showing the extent of the height variation is illustrated below for ease of reference. The variation to building height is addressed under the following clause 4.6 section of this report.



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- Clause 4.4 - The floor space ratio (FSR) limit for the site is 0.65:1. The proposed FSR is 0.82:1. Notably the FSR of the existing dwelling is 0.91:1. While a reduction in FSR is proposed, it still represents a variation of 26% from the development standard. The FSR calculation plans supporting the application have been reviewed and defined areas are consistent with the LEP definition. The variation to the FSR is addressed under the following clause 4.6 section of this report.
- Clause 4.6 - This clause establishes a degree of flexibility for certain development standards in certain circumstances which have demonstrated that



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a better planning outcome will occur from that flexibility. In this regard, the proposal seeks a variation to both the building height and floor space ratio standards to the extent noted under Clause 4.3 and 4.4 above. The applicant's written request for an exception to these development standards is included as an attachment to this report - Attachment 3.

Assistance on the approach to variation to these standards is also taken from NSW Land and Environment Court and NSW Court of Appeal decisions in:

- *Wehbe v Pittwater Council (2007) NSW LEC 827 (Wehbe);*
- *Four2Five Pty Ltd v Ashfield Council (2015) NSWLEC 1009; and*
- *Al Maha Pty Ltd v Huajun Investments Pty Ltd (2018) NSWCA 245*

Having regard to specific requirements of clause 4.6(3) and 4.6(4) the following assessment comments are provided:

- (3) *Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating:*
- (a) *that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and*
- (b) *that there are sufficient environmental planning grounds to justify contravening the development standard.*

The applicant has submitted a request in writing to justify the contravention of the building height and floor space ratio standards for the following primary reasons:

- The proposal will result in an overall reduction to the building height and floor space ratio of the dwelling.
- The proposal is consistent with a number of existing and new dwellings in the locality, and reflects the steep topography and very small allotments in the area.
- The proposal is consistent with the zone objectives and clause 4.3 and clause 4.4 objectives and the public benefit of the development standards is not lost or eroded by this proposal and it is therefore unnecessary to comply with the standards in the circumstances of the case.

- (4) *Development consent must not be granted for development that contravenes a development standard unless:*
- (a) *the consent authority is satisfied that:*
- (i) the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and*

- 3(a) that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case:

In *Wehbe* five methods have been developed to test whether a compliance with the standard is unreasonable or unnecessary:

1. The objectives of the development standard are achieved notwithstanding the non-compliance with the numerical standard and therefore compliance is unreasonable and unnecessary.
2. The underlying objective or purpose of the standard is not relevant to the development and therefore compliance is unnecessary.



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3. The underlying object or purpose would be defeated or thwarted if compliance was required and therefore compliance is unreasonable.
4. The development standard has been virtually abandoned or destroyed by the Council's own actions in granting consents departing from the standard and hence compliance with the standard is unnecessary and unreasonable.
5. The zoning of particular land was unreasonable or inappropriate so that a development standard appropriate for that zoning was also unreasonable or unnecessary as it applied to that land and that compliance with the standard in that case would also be unreasonable or unnecessary.

The applicant's written request has adequately demonstrated that it is unreasonable or unnecessary to comply with the development standards in the circumstances of the case based on the first test above in that the objectives of the standards are satisfied and to some extent the standards have also been abandoned by other development consents granted by Council departing from the standards within the immediate locality.

3(b) that there are sufficient environmental planning grounds to justify contravening the development standard:

The environmental planning grounds identified in the applicant's written request are supported as providing adequate justification for contravention of the development standards.

- (ii) *The proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out*

Consideration of the proposal's consistency with the objectives of height of buildings standard is provided as follows:

Clause 4.3(1)(a) to ensure that buildings are compatible with the height, bulk and scale of the existing and desired future character of the locality

Comments: The existing dwelling is 3 storey and development in the locality primarily comprises a mix of 2 and 3 storey dwelling houses. The 3 storey dwellings along Ocean Drive are of similar height, bulk and scale of the proposed development having regard to the steep topography and small allotment sizes. The proposal will be compatible with the character of the locality.

Clause 4.3(1)(b) to minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development

Comments: The portion of the proposed roof exceeding the height standard is located in the front half of the site. The proposed roof line is lower than the existing roof line. The roof will extend further north over the second floor alfresco area.

Having regard to the extent of the height variation (300mm) it is considered that a compliant building height would have similar view impact to adjoining dwellings. The adjoining dwelling to the east (975 Ocean Drive) has north



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facing decks on the first and second floors. Each deck is screened along its entire western elevation and doesn't enjoys views across the site. See photo below of first and second floor decks and screening at 975 Ocean Drive for context.



The adjoining units to the west (979 Ocean Drive) contain north facing balconies on the first floor and north facing windows on the second floor. Having regard to the level of the balconies it is considered that the second floor alfresco and roof will have no impact upon existing views from these balconies.

The north facing windows on the second floor serve bedrooms. The primary view is directly to the north across the front boundary of that property. Any partial view enjoyed across the side boundary over the existing recessed first floor roof maybe impacted from the proposed development. The impacts are considered negligible. See photo below of first floor balconies and second floor windows to units at 979 Ocean Drive for context.



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The proposal will not contribute to any adverse disruption of views. Adequate screening is existing or proposed to protect privacy between adjoining dwellings. No adverse privacy impacts will result. Shadow diagrams have been provided demonstrating no adverse solar access impacts to existing development.

Clause 4.3(1)(c) to minimise the adverse impact of development on heritage conservation areas and heritage items.

The site does not contain any known heritage items or sites of significance.

Clause 4.3(1)(d) to nominate heights that will provide a transition in built form and land use intensity within the area covered by this Plan.

Comments: Land adjoining the site shares the same R1 General Residential zoning and 0.65:1 floor space ratio. There is no change to existing transition in built form. Specifically, the existing dwelling on the site is 3 storeys in nature and 3 storey buildings adjoin the site on both sides.

The development is consistent with the zoning and height objectives of the LEP 2011 and is unlikely to have any implications on State related issues or the broader public interest.

Consideration of the proposal's consistency with the objectives of the floor space ratio standard is provided as follows:

Clause 4.4(1)(a) to regulate density of development and generation of vehicular and pedestrian traffic.

Comments: The proposal remains a single dwelling house and will not result in any additional pedestrian and traffic generation. The proposal will not result in any increased density from what currently exists on the site.

Clause 4.4(1)(b) to encourage increased building height and site amalgamation at key locations.

Comments: The site is not identified as a key location for site amalgamation. The proposed building height is a reduction from that of the existing building, and is consistent with the established character of the locality.

Clause 4.4(1)(c) to provide sufficient floor space for high quality development for the foreseeable future.

Comments: The proposal will result in a reduction to FSR on the site and accommodate a high standard of development.

Clause 4.4(1)(d) to ensure that buildings are compatible with the bulk and scale of the existing and desired future character of the locality.

Comments: The proposal is compatible with the bulk and scale of existing development in the locality.

(b) *The concurrence of the Secretary has been obtained.*



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Comments: As per the Planning Circular PS 20-002, Council can assume the Director's Concurrence for variations to the height of buildings and floor space ratio. In this instance, the extent of the floor space ratio is greater than 10% and the application needs to be considered by full Council.

Having regard to the above requirements it is recommended that the building height and floor space variations using clause 4.6 be supported.

- Clause 5.10 - The site does not contain or adjoin any known heritage items or sites of significance.
- Clause 7.13 - Satisfactory arrangements are in place for provision of essential services including water supply, electricity supply, sewer infrastructure, stormwater drainage and suitable road access to service the development.

(ii) Any draft instruments that apply to the site or are on exhibition

No draft instruments apply.

(iii) Any Development Control Plan in force

Port Macquarie-Hastings Development Control Plan 2013

DCP 2013: Part B - General Provisions - B2: Environmental Management			
DCP Objective	Development Provisions	Proposed	Complies
3	a) Development must comply with Council's Developments, Public Place & Events - Waste Minimisation and Management Policy.	Satisfactory arrangements can be put in place for storage and collection of waste. A standard condition is recommended for construction waste management.	Yes
Cut and Fill Regrading			
4	a) Development shall not exceed a maximum cut of 1.0m and fill of 1.0m measured vertically above the ground level (existing) at a distance of 1.0m outside the perimeter of the external walls of the building (This does not apply to buildings where such cut and fill is fully retained within or by the external walls of the building).	New retaining wall at rear and out front to north eastern and western parts of the site to accommodate new side stairs and entry porch. Cut to maximum of approximately 700mm in north-eastern corner.	Yes
5	a) A certified practicing structural engineer must	No retaining walls greater than 1m in height proposed.	N/A



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	certify any retaining wall greater than 1.0m.		
	<p>b) Where a combination of a fence and a wall is proposed to be greater than 1.2m high:</p> <ul style="list-style-type: none"> - be a maximum combined height of 1.8m above existing property boundary level; - be constructed up to the front boundary for a maximum length of 6.0m or 30% of the street frontage, whichever is less; - the fence component has openings which make it not less than 25% transparent; and - provide a 3m x 3m splay for corner sites, and - provide a 900mm x 900mm splay for vehicle driveway entrances. 	No front fencing and retaining wall combination proposed.	N/A

DCP 2013: Part B- General Provisions- B4: Transport, Traffic Management, Access and Car Parking			
DCP Objective	Development Provisions	Proposed	Complies
Parking Provision			
24	<p>a) Off-street Parking is provided in accordance with Table 3:</p> <ul style="list-style-type: none"> - 1 parking space per each dwelling for dwelling-house. 	Sufficient parking is proposed in the double garage on ground floor.	Yes
Parking Layout			
28	<p>c) Parking spaces shall generally be behind the building line but may be located between the building line and the street when:</p> <ul style="list-style-type: none"> - it is stacked parking in the driveway; or - it can be demonstrated that improvements to the open space provided will result; and - the spaces are screened (densely landscaped or similar) from the street by a landscaping with a 	No change to the existing garage setback.	N/A



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	minimum width of 3.0m for the entire length of the parking area.		
	d) Parking design and layout is provided in accordance with AS/NZS 2890.1 - Parking facilities - Off-street car parking.	Parking layout complies with AS2890.	Yes
34	a) All parking and manoeuvring spaces must be designed to avoid concentrations of water runoff on the surface.	Stormwater is capable of being managed onsite. Preliminary stormwater management plan provided.	Yes
	b) Council will not permit the discharge of stormwater directly into kerbing and guttering or table drains for any development other than that of a minor nature.	Preliminary stormwater arrangements provided and acceptable in principle. Details to be provided in subsequent s68 application.	Yes

DCP 2013: Part B - General Provisions - B5: Social Impact Assessment and Crime Prevention

DCP Objective	Development Provisions	Proposed	Complies
Crime Prevention			
43	a) The development addresses the generic principles of crime prevention: <ul style="list-style-type: none"> - Casual surveillance and sightlines; - Land use mix and activity generators; - Definition of use and ownership; - Basic exterior building design; - Lighting; - Way-finding; and - Predictable routes and entrapment locations; - as described in the Crime Prevention Through Environmental Design (CPTED) principles. 	No concealment or entrapment areas proposed. Adequate casual surveillance available.	Yes



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DCP 2013: Part C - Development Specific Provisions - C1: Low Density Residential Development			
DCP Objective	Development Provisions	Proposed	Complies
Front Setbacks			
44	<p>a) Dwellings may incorporate an articulation zone to a street frontage at no less than 3m from property boundary. The following building elements are permitted within the articulation zone:</p> <ul style="list-style-type: none"> - an entry feature or portico; - a balcony, deck, patio, pergola, terrace or verandah; - a window box treatment; - a bay window or similar feature; - an awning or other feature over a window; - a sun shading feature. <p>b) These building elements should not extend above the eave gutter line, other than a pitched roof to an entry feature or portico that has the same pitch as the roof on the dwelling house.</p>	No change to existing front setbacks. No further building elements proposed into the articulation zone.	N/A
	<p>c) The primary road front setback shall be: Classified road = any frontage 6.0m Primary frontage = 4.5m Secondary frontage = 3.0m Ancillary Lane = 2.0m Large lot residential and rural zones = 10.0m</p>	Ocean Drive is a classified road. No change to existing front setback which is 3.645m.	N/A
45	<p>a) A garage, carport or car parking space should:</p> <ul style="list-style-type: none"> - be at least 5.5m from a front boundary, where the dwelling has a setback of less than 4.5m. 	No change to existing garage setback.	N/A
	<p>b) The total width of the garage/carport openings should not be more than 6m and not more than 50 per cent of the width of the building.</p>	5.17m garage door opening which represents 66% of the building width.	No*



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	c) Driveway crossovers are no greater than 5.0m in width.	5m crossover proposed.	Yes
	d) Where a dual occupancy or attached dwelling is proposed on a corner lot a garage and driveway is provided on each road frontage.	Not a corner lot.	N/A
Side and Rear Setbacks			
46	a) A minimum rear boundary setback of 4m is to be provided to dwellings (including verandahs, patios and decks).	No change to the existing rear setback of 2.52m.	N/A
	b) A minimum rear boundary setback of 900mm applies to sheds and swimming pools subject to achieving minimum required private open space area.	None proposed.	N/A
	c) Council may consider varying rear setback requirements where it is demonstrated that the private open space could achieve better solar access between the building and the side setback. In that instance, one side setback should be a minimum 4m in width (for an equivalent length of rear boundary, behind building line) and the rear setback may be reduced to 900mm.	N/A	N/A
47	a) Ground floors (being <1m above existing ground level) should be setback a minimum of 900mm from side boundaries.	No change to existing ground floor side setbacks >900mm.	Yes
	b) First floors and above (including single storey with floor level >1m) should be setback a minimum of 3m from the side boundary, or reduced down to 900mm where it can be demonstrated that the adjoining property's primary living rooms and principal private open space areas are not adversely	No change to the existing first and second floor side setbacks being 1.22m east side and 0.97m west side. The orientation of the lot and shadow diagrams provided demonstrate that primary living rooms and principal private open space areas of any nearby adjacent dwellings are not	Yes



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	overshadowed for more than 3hrs between 9am - 3pm on 21 June.	adversely overshadowed for more than 3hrs between 9am - 3pm on 21 June.	
	c) First floors and above should have building walls that step in and out at least every 12m by a minimum of 500mm articulation. Where first floors and above are setback >3m, wall articulation is not required.	No changes to first floor wall lengths. Addition of the open style alfresco area will not result in any second floor unarticulated walls greater than 12m in length.	Yes
Private Open Space			
48.	a) All dwellings should have a minimum area of private open space of 35m ² , which includes a principal private open space area with: <ul style="list-style-type: none"> - a minimum dimension of 4m x 4m, and - a maximum grade of 5% for minimum 4m x 4m of the total open space requirement, and - direct accessibility from a ground floor living area and orientated to maximise use. 	The existing dwelling does not currently have 35m ² of private open or a directly accessible 4m x 4m area. The addition of the second floor alfresco area provides for more usable open space. Specifically a 3.86m x 7.7m dimensioned space, comprising 29.7m ² in area.	No*
	b) Private open space may include clothes drying areas and garbage storage.	Noted.	Yes
Public Domain and Fencing			
49	a) Front fences built forward of the building line for the primary road frontage should be detailed on the development application plans.	No front fencing proposed.	N/A
	b) Solid Front fences up to 1.2m high should be: <ul style="list-style-type: none"> - Setback 1.0m from the front boundary, and - Suitably landscaped to reduce visual impact, and - Provide a 3m x 3m splay for corner sites. 	No front fencing proposed.	N/A
	b) Front fences proposed to be more than 1.2m high should be a maximum of 1.8m in height, above	No front fencing proposed.	N/A

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	existing front property boundary level, and either: <ul style="list-style-type: none"> - Include landscaped recesses having minimum dimensions of 1.8m long x 900mm deep which occupy no less than 50% of the total length of the fence, or - be erected up to the front boundary for a maximum length of 6.0m or 50% of the street frontage, 		
	c) have openings which make it not less than 25% transparent (no individual opening more than 30mm wide);	No front fencing proposed.	N/A
	d) provide a 3m x 3m splay for corner sites, and	No front fencing proposed.	N/A
	e) provide a 900mm x 900mm splay for vehicle driveway entrances.	No front fencing proposed.	N/A
Bulk and Scale			
51	a) Direct views between indoor living rooms and principal private open space of adjacent dwellings, including proposed dwellings approved on adjoining lots, including possible dwellings on future lots, should be obscured or screened where: <ul style="list-style-type: none"> - Ground and first floor (and above) indoor living room windows are within a 9m radius. - Direct views between principal private open space areas where within a 12m radius. - Direct views between indoor living rooms of dwellings into the principal area of private open space of other dwellings within a 12m radius. 	The dwelling has been designed to take advantage of views to the north. The primary living areas and alfresco area on the second floor is orientated north. Highlight windows and screening to both side of the alfresco area have been utilised to protect privacy to adjoining dwellings.	Yes
	b) A balcony, deck, patio, pergola, terrace or verandah should have a privacy	Alfresco area on second floor provided with privacy screening to both sides.	Yes



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	<p>screen where there are direct views of:</p> <ul style="list-style-type: none"> - Indoor living room windows of adjacent dwellings, including proposed dwellings approved on adjoining lots within 9m radius; or - Principal areas of private open space of adjacent dwellings, including proposed dwellings approved on adjoining lots within a 12m radius. 		
	<p>c) Privacy protection is not required for:</p> <ul style="list-style-type: none"> - Any Indoor living room windows with a sill height of greater than 1.5m above the finished floor level of that room or where fixed non-openable translucent glass is installed to the same height. 	Windows to living and family rooms on first floor are highlight windows being at 1.7m from finished floor level.	Yes
	<p>d) Direct views described above may be reduced or obscured by one of the following measures (details to be submitted with the development application):</p> <ul style="list-style-type: none"> - 1.8m high fence or wall between ground-floor level windows or between a dwelling and principal private open space - Screening of minimum 1.7m height, that has 25% openings (max), with no individual opening more than 30mm wide, is permanently fixed and is made of durable materials. - A window, the whole of which has translucent glass and is not able to be opened. 	Highlight windows and privacy screening to alfresco area proposed.	Yes
Ancillary Development			
56	a) For ancillary development in R1 General Residential,	No ancillary development proposed.	N/A



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	<p>R2 Low Density Residential, R3 Medium Density Residential, R4 High Density Residential, R5 Large Lot Residential and RU5 Village zones:</p> <ul style="list-style-type: none"> - The height of an outbuilding or the alterations and additions to an existing outbuilding on a lot should not be more than 4.8m above ground level (existing). - The building should be single storey construction with a maximum roof pitch of 24 degrees. - The maximum area of the building should be 60m² for lots less than 900m² and maximum of 100m² for larger lots. - Ancillary development that is a garage, or an outbuilding, or a rainwater tank should not be located in front of the main building line with the exception of swimming pools. 		
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The proposal seeks to vary development provision 45 relating to the total width of the garage/carport openings should not be more than 6m and not more than 50 percent of the width of the building. The proposal incorporates a 5.17m garage door opening which represents 66% of the building width.

The relevant objectives are:

- To minimise the impact of garages and driveways on the streetscape, on street parking and amenity.
- To minimise the visual dominance of garages in the streetscape.
- To provide safe and functional vehicular access.

Having regard for the development provisions and relevant objectives, the variation is considered acceptable for the following reasons:

- The existing dwelling contains two garage doors of 2.7m in width i.e. combined 5.4m which represents 69%. The development will replace these with a single 5.17m wide panel lift garage door i.e. a reduction.
- The addition of the front door and entry porch alongside the garage improves the streetscape appearance and lessens the dominance of the garage.

The proposal seeks to vary development provision 48 requiring all dwellings have a minimum area of private open space of 35m², which includes a principal private open space area with:



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- a minimum dimension of 4m x 4m, and
- a maximum grade of 5% for minimum 4m x 4m of the total open space requirement, and
- direct accessibility from a ground floor living area and orientated to maximise use.

The proposal does not provide a total of 35m² of open space, or a minimum 4m x 4m directly accessible area from a ground floor living area.

The relevant objectives are:

- To encourage useable private open space for dwellings to meet the occupants' requirements for privacy, safety, access, outdoor activities and landscaping.

Having regard for the development provisions and relevant objectives, the variation is considered acceptable for the following reasons:

- The existing dwelling is not provided with a minimum of 35m² of open space or a directly accessible 4m x 4m area from ground floor living area.
- The proposed alfresco area will provide additional directly accessible open space area from the second floor living areas. The dimensions of the alfresco area are 3.86m x 7.7m.
- The proposal provides additional useable open space for dwellings and maintains privacy to adjoining dwellings.

(iii) Any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4

No planning agreement has been offered or entered into.

(iv) Any matters prescribed by the Regulations

Demolition of buildings AS 2601 - Clause 92

The partial demolition of the existing dwelling to accommodate the alterations and additions is capable of compliance with AS 2601. A suitable condition has been applied to ensure compliance.

(b) The likely impacts of that development, including environmental impacts on both the natural and built environments, social and economic impacts in the locality

Context and Setting

The site is located on Ocean Drive, Bonny Hills and contains an existing three storey dwelling house. The site has approximately 3m of slope from the rear towards Ocean Drive.

Existing development in the locality typically comprise a mixture of two storey and three storey dwellings. The land adjoining at the rear of the site is a vacant residential allotment.

Access, Traffic and Transport

The proposal will not have any significant adverse impacts in terms access, transport and traffic. No additional residential occupancy is proposed. The existing road



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network will satisfactorily cater for traffic generation as a result of the development. The existing driveway is to be upgraded as part of the proposed development. Specific details will be required with Section 138 application. Appropriate standard condition is recommended in this regard.

Water Supply Connection

Service available – details required with Section 68 application. Appropriate standard condition is recommended in this regard.

Sewer Connection

Service available – details required with Section 68 application. Appropriate standard condition is recommended in this regard.

Stormwater

Collection and disposal of stormwater is capable of being managed. A preliminary stormwater management plan has been provided. Specific details will be required with Section 68 application. Appropriate standard condition is recommended in this regard.

Other Utilities

Telecommunication and electricity services are available to the site.

Heritage

This site does not contain or adjoin any known heritage item or site of significance. The site is considered to be disturbed land.

Other land resources

The site is within an established urban context and will not sterilise any significant mineral or agricultural resource.

Water cycle

The proposed development will not have any significant adverse impacts on water resources and the water cycle.

Soils

The proposed development will not have any adverse impacts on soils in terms of quality, erosion, stability and/or productivity subject to a standard condition requiring erosion and sediment controls to be in place prior to and during construction if approval was granted.

Air and Microclimate

The construction and/or operations of the proposed development will not result in any significant adverse impacts on the existing air quality or result in any pollution. Should approval be granted a standard precautionary site management condition is recommended.

Flora and Fauna

Construction of the proposed development will not require any removal/clearing of any native vegetation and therefore does not trigger the biodiversity offsets scheme. Part 7 of the Biodiversity Conservation Act 2016 is considered to be satisfied.



AGENDA**DEVELOPMENT ASSESSMENT PANEL
15/02/2023****Waste**

Satisfactory arrangements are in place for proposed storage and collection of waste and recyclables. No adverse impacts anticipated. Standard precautionary site management condition recommended.

Energy

The proposal includes measures to address energy efficiency and will be required to comply with the requirements of BASIX.

Noise and Vibration

The construction of the proposed development will not result in any significant adverse impacts on the existing air quality or result in any pollution. Standard precautionary site management condition recommended.

Bushfire

The site is not identified as being bushfire prone.

Safety, security and crime prevention

The proposed development will be unlikely to create any concealment/entrapment areas or crime spots that would result in any identifiable loss of safety or reduction of security in the immediate area. Adequate casual surveillance is available.

Social impacts in the locality

Given the nature of the proposed development and its location the proposal is not considered to have any significant adverse social impacts.

Economic impact in the locality

The proposal is not considered to have any significant adverse economic impacts on the locality. A likely positive impact is that the development will maintain employment in the construction industry, which will lead to flow impacts such as expenditure in the area.

Site design and internal design

The proposed development design satisfactorily responds to the site attributes and will fit into the locality.

Construction

Construction impacts are considered capable of being managed, standard construction and site management conditions have been recommended.

Cumulative Impacts

The proposed development is not considered to have any significant adverse cumulative impacts on the natural or built environment or the social and economic attributes of the locality.

(c) The suitability of the site for the development

The proposal will fit into the locality and the site attributes are conducive to the proposed development.



AGENDA**DEVELOPMENT ASSESSMENT PANEL
15/02/2023****(d) Any submissions made in accordance with this Act or the Regulations**

One (1) written submission was received following public exhibition of the application. Copies of the written submission have been provided separately to members of the DAP.

Key issues raised in the submission received and comments are provided as follows:

Submission Issue/Summary	Planning Comment/Response
Potential stormwater impacts from new retaining wall at rear diverting water onto adjoining units at 979 Ocean Drive.	A preliminary stormwater management plan has been provided which demonstrates that drainage behind the new retaining wall at rear is to be directed to Ocean Drive. Specific details will be required with Section 68 application. Appropriate standard condition is recommended in this regard.

(e) The Public Interest

The proposed development satisfies relevant planning controls and will not adversely impact on the wider public interest.

Ecologically Sustainable Development and Precautionary Principle

Ecologically sustainable development requires the effective integration of economic and environmental considerations in decision-making processes.

The four principles of ecologically sustainable development are:

- the precautionary principle,
- intergenerational equity,
- conservation of biological diversity and ecological integrity,
- improved valuation, pricing and incentive mechanisms.

The principles of ESD require that a balance needs to be struck between the man-made development and the need to retain the natural vegetation. Based on the assessment provided in the report and with recommended conditions of consent, it is considered an appropriate balance has been struck.

Climate change

The proposal is not considered to be vulnerable to any risks associated with climate change.

4. DEVELOPMENT CONTRIBUTIONS APPLICABLE

The proposal is for alterations and additions to the existing dwelling house. No additional residential occupancy is proposed that would place any further demand on public infrastructure. Development contributions will not be required under S64/S7.11 for the following reasons:



AGENDA**DEVELOPMENT ASSESSMENT PANEL
15/02/2023****5. CONCLUSION AND STATEMENT OF REASON**

The application has been assessed in accordance with Section 4.15 of the Environmental Planning and Assessment Act 1979.

Issues raised during assessment and public exhibition of the application have been considered in the assessment of the application. Where relevant, conditions have been recommended to manage the impacts attributed to these issues.

The proposed development does not raise any significant general public interest issues beyond matters already addressed in this report. Overall, the proposed development is consistent with the provisions and objectives of the relevant planning controls and will have an acceptable impact on the surrounding natural and built environment. Approval of the application is considered to be in the public interest as it achieves the LEP objectives for development in the zone. No significant adverse environmental, social or economic impacts on the locality have been identified. Accordingly, the proposal is considered to be in the public interest.

Attachments

1.  DA2022 - 821.1 Recommended Conditions
2.  DA2022 - 821.1 Plans
3.  DA2022 - 821.1 Clause 4.6 Objection



**FOR USE BY PLANNERS/SURVEYORS TO PREPARE LIST OF
PROPOSED CONDITIONS****NOTE: THESE ARE DRAFT ONLY**

DA NO: 2022/821

DATE: 7/02/2023

PRESCRIBED CONDITIONS

The development is to be undertaken in accordance with the prescribed conditions of Part 4 - Division 2 of the *Environmental Planning & Assessment Regulations* 2021.

A – GENERAL MATTERS

- (1) (A001) The development is to be carried out in accordance with the plans and supporting documents set out in the following table, as stamped and returned with this consent, except where modified by any conditions of this consent.

Plan / Supporting Document	Reference	Prepared by	Date
Development plans	22/015 Revision F Sheets 1 to 12	Davy & Watt Building Design	9 January 2023
BASIX Certificate	A468224	Davy and Watt	31 August 2022

In the event of any inconsistency between conditions of this development consent and the plans/supporting documents referred to above, the conditions of this development consent prevail.

- (2) (A002) No work shall commence until a Construction Certificate has been issued and the applicant has notified Council of:
- the appointment of a Principal Certifying Authority and
 - the date on which work will commence.
- Such notice shall include details of the Principal Certifying Authority and must be submitted to Council at least two (2) days before work commences.
- (3) (A009) The development site is to be managed for the entirety of work in the following manner:
- Erosion and sediment controls are to be implemented to prevent sediment from leaving the site. The controls are to be maintained until the development is complete and the site stabilised with permanent vegetation;
 - Appropriate dust control measures;
 - Building equipment and materials shall be contained wholly within the site unless approval to use the road reserve has been obtained. Where work adjoins the public domain, fencing is to be in place so as to prevent public access to the site;
 - Building waste is to be managed via appropriate receptacles into separate waste streams;

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5. Toilet facilities are to be provided on the work site at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.
6. Building work being limited to the following hours, unless otherwise permitted by Council:
 - Monday to Saturday from 7.00am to 6.00pm
 - No work to be carried out on Sunday or public holidays

The builder to be responsible to instruct and control his sub-contractors regarding the hours of work.

B - PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE

- (1) (B001) Prior to release of the Construction Certificate, approval pursuant to Section 68 of the Local Government Act, 1993 to carry out water supply, stormwater and sewerage works is to be obtained from Port Macquarie-Hastings Council. The following is to be clearly illustrated on the site plan to accompany the application for Section 68 approval:
 - Position and depth of the sewer (including junction)
 - Stormwater drainage termination point
 - Easements
 - Water main
 - Proposed water meter location
- (2) (B006) An application pursuant to Section 138 of the Roads Act, 1993 to carry out works required by the Development Consent on or within public road is to be submitted to and obtained from Port Macquarie-Hastings Council prior to release of the Construction Certificate.
Such works include, but not be limited to:
 - i. Alteration of footway and gutter crossing
 - ii. Alteration of driveway access
- (3) (B039) Detailed drawings and specifications prepared by a professional engineer for all retaining walls supporting:
 - i. earthworks that are more than 600mm above or below ground level (existing) and located within 1m of the property boundaries; or
 - ii. earthworks that are more than 1m above or below ground level (existing) in any other location;
 are to be submitted to the Principal Certifying Authority with the application for Construction Certificate.
- (4) The construction certificate plans shall clearly illustrate and notate the privacy screening along the eastern and western sides of the alfresco area as having 25% openings (max), with no individual opening more than 30mm wide, is permanently fixed and is made of durable materials.

C - PRIOR TO ANY WORK COMMENCING ON SITE

Nil

D - DURING CONSTRUCTION

Nil

E - PRIOR TO OCCUPATION OR THE ISSUE OF OCCUPATION CERTIFICATE

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- (1) (E001) The premises shall not be occupied or used in whole or in part until an Occupation Certificate has been issued by the Principal Certifying Authority.
- (2) (E058) Written confirmation being provided to the Principal Certifying Authority (PCA) from any properly qualified person (eg the builder), stating that all commitments made as part of the BASIX Certificate have been completed in accordance with the certificate.
- (3) (E034) Prior to occupation or the issuing of the Occupation Certificate provision to the Principal Certifying Authority of documentation from Port Macquarie-Hastings Council being the local roads authority certifying that all matters required by the approval issued pursuant to Section 138 of the Roads Act have been satisfactorily completed.
- (4) (E051) Prior to occupation or the issuing of any Occupation Certificate a section 68 Certificate of Completion shall be obtained from Port Macquarie-Hastings Council.

F – OCCUPATION OF THE SITE

Nil

DRAFT

**PROPOSED ALTERATION
& ADDITION
AT LOT 30 D.P. 18159
No. 977 OCEAN DRIVE
BONNY HILLS. FOR
A. W. & R. S. JONES**



D+W

Davy & Watt Building Design

1 Bonny Ridge
Bonny Hills NSW 2445

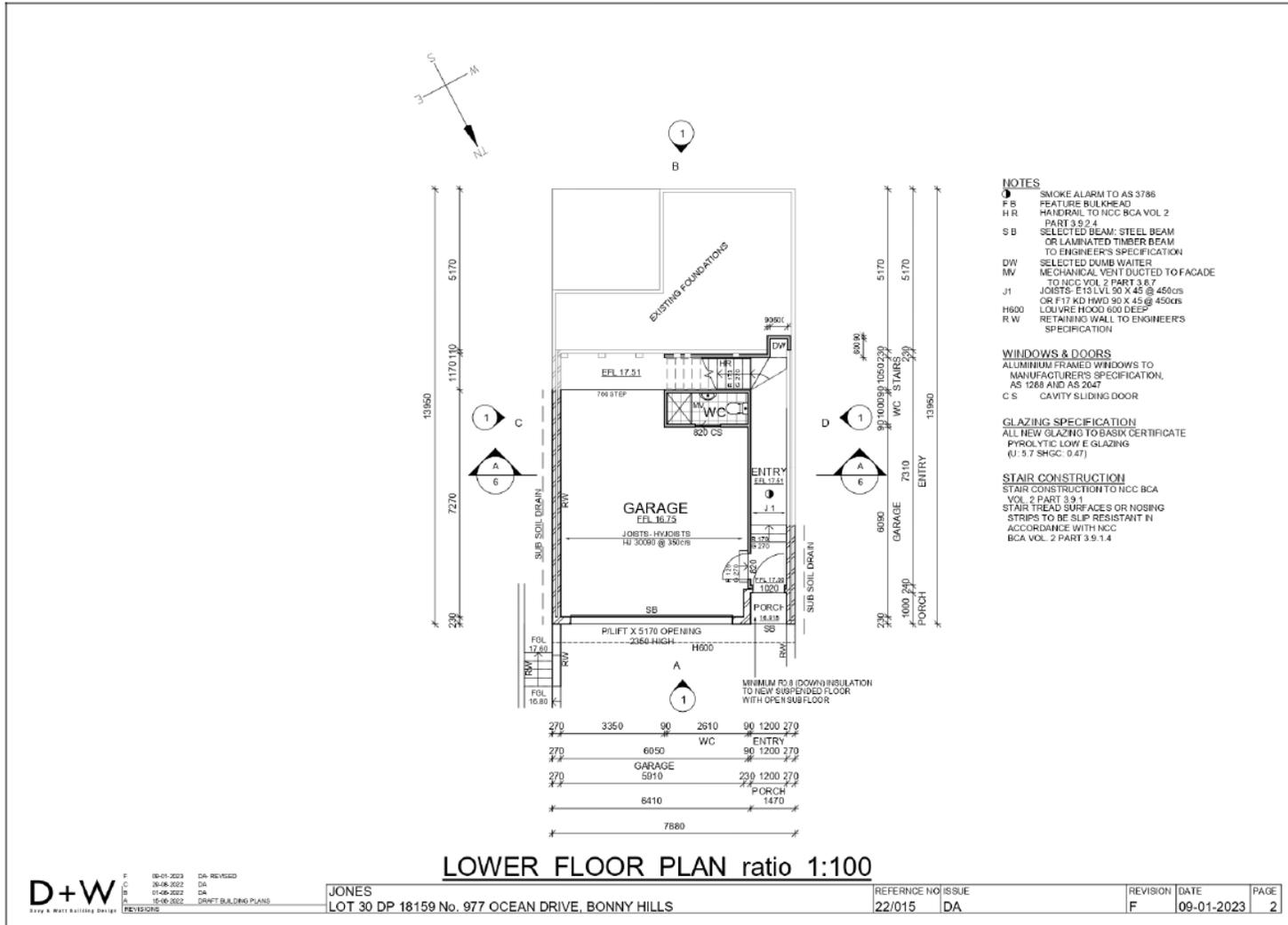
02 65 855 455
design@davywatt.com
www.davywatt.com

Building Designers Association of Australia
Membership No. 076 Accreditation No. 6113

REFERENCE NO.	22/015
DATE	09-01-2023
NUMBER OF SHEETS.	12
DRAWN BY.	GFW BWD
ISSUE.	DA
REVISION.	F

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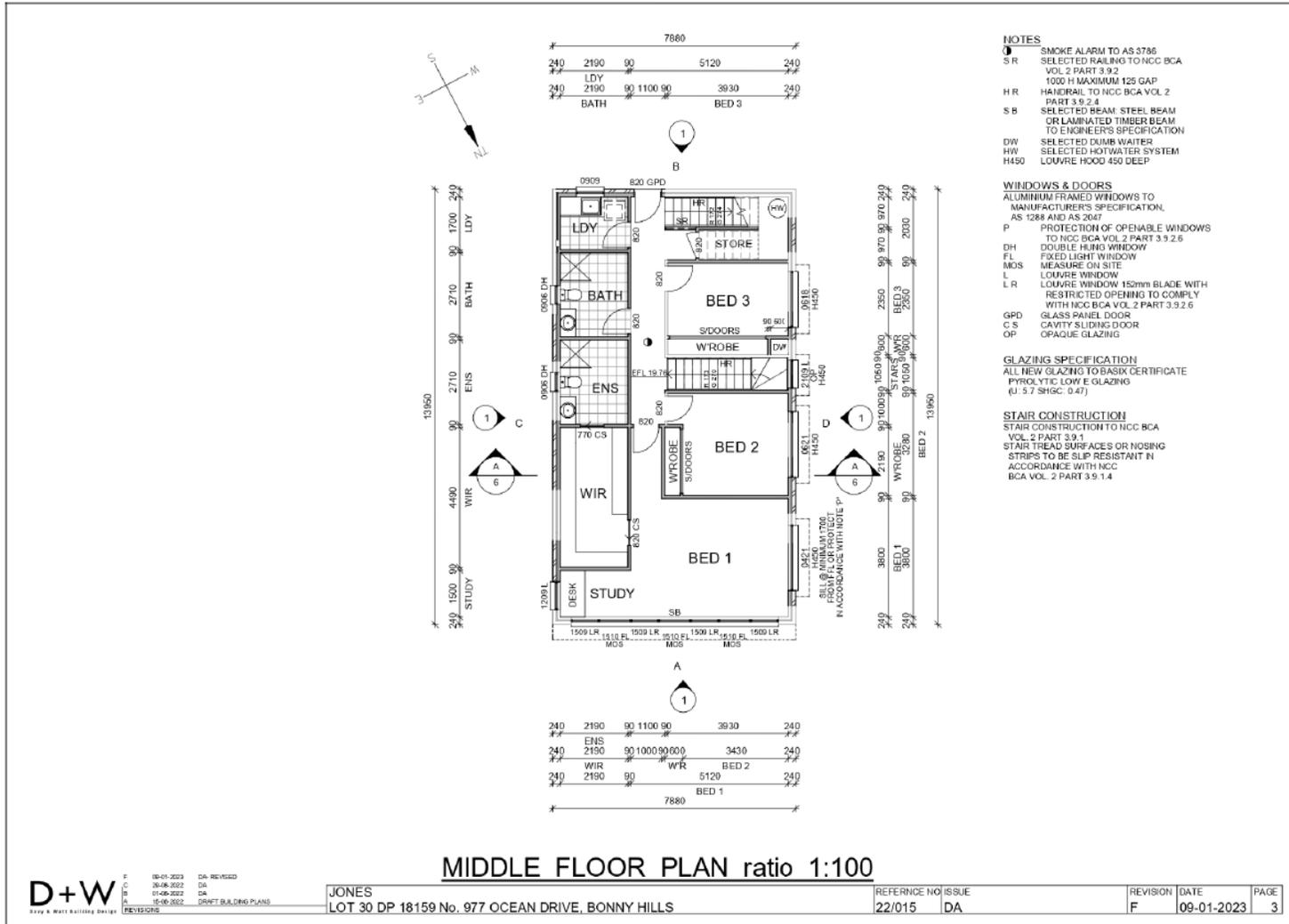


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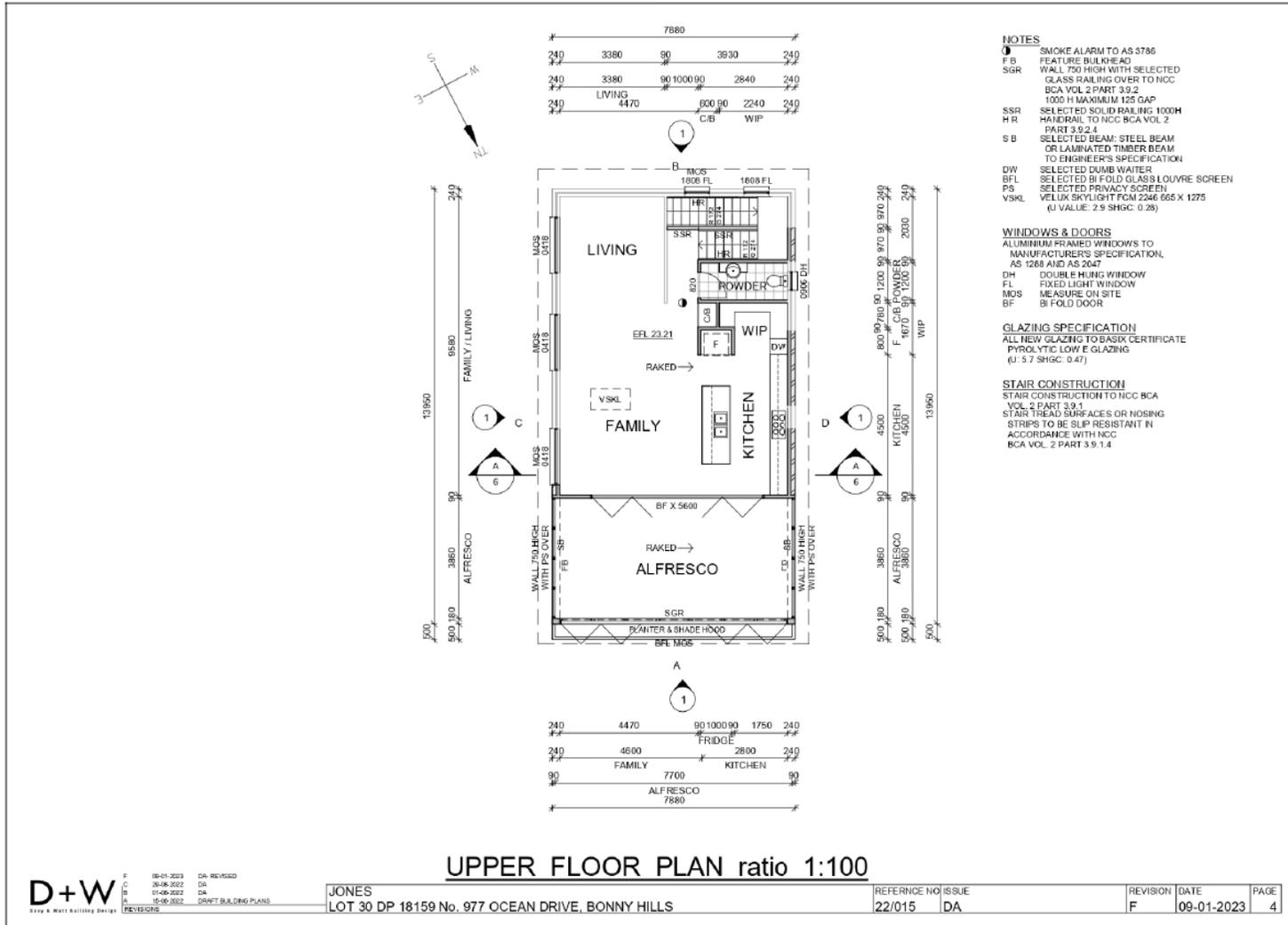
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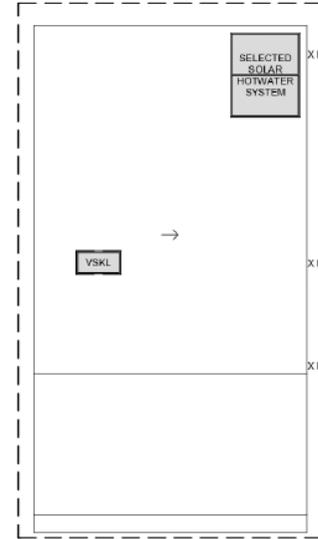
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SUMMARY OF MINIMUM BASIX COMMITMENTS
SEE BASIX CERTIFICATE FOR FULL DEFINITIONS AND DETAILS

HOT WATER	
SOLAR (ELECTRIC BOOSTED) HOT WATER SYSTEM THAT IS ELIGIBLE TO CREATE RENEWABLE ENERGY CERTIFICATES	
LIGHTING	
40% OF NEW OR ALTERED LIGHT FIXTURES ARE FITTED WITH FLUORESCENT, COMPACT FLUORESCENT OR LIGHT-EMITTING-DIODE (LED) LAMPS	
FIXTURES COMMITMENTS	
RATING OF ALL NEW OR ALTERED SHOWER HEADS	MINIMUM FLOW RATE 9L PER MINUTE OR 3 STAR WATER RATING
RATING OF ALL NEW OR ALTERED TOILET SYSTEMS	MINIMUM FLOW RATE 4L PER AVERAGE FLUSH OR 3 STAR WATER RATING
RATING OF ALL NEW OR ALTERED TAPS	MINIMUM FLOW RATE 9L PER MINUTE OR 3 STAR WATER RATING
THERMAL COMFORT COMMITMENTS	
INSULATION TO NEW CONCRETE SLAB ON GROUND	NIL
INSULATION TO NEW SUSPENDED FLOOR WITH OPEN SUBFLOOR	MINIMUM R0.8 (DOWN) (OR R1.50 INCLUDING CONSTRUCTION)
INSULATION TO NEW SUSPENDED FLOOR ABOVE GARAGE	NIL
INSULATION TO NEW FLOOR ABOVE EXISTING DWELLING OR BUILDING	NIL
INSULATION TO NEW EXTERNAL BRICK VENEER WALLS	MINIMUM R1.16 INSULATION
INSULATION TO NEW EXTERNAL FRAMED WALLS	MINIMUM R1.30 INSULATION
INSULATION TO NEW EXTERNAL CAVITY BRICK WALLS	NIL
INSULATION TO NEW FRAMED WALL SHARED WITH GARAGE	NIL
INSULATION TO NEW RAKED CEILING WITH PITCHED/ SKILLION ROOF	MINIMUM R2.24 INSULATION
ROOF	COLOUR MEDIUM
ANTICON (50mm) TO ROOF	



ROOF LAYOUT PLAN ratio 1:100

NOTES
 DP X DOWNPIPE
 VSKL VELUX SKYLIGHT FCM 2246 665 X 1276 (U VALUE: 2.9 SHGC: 0.28)



06-01-2023 DA REVISED
 28-09-2022 DA
 15-08-2022 DA

JONES
 LOT 30 DP 18159 No. 977 OCEAN DRIVE, BONNY HILLS

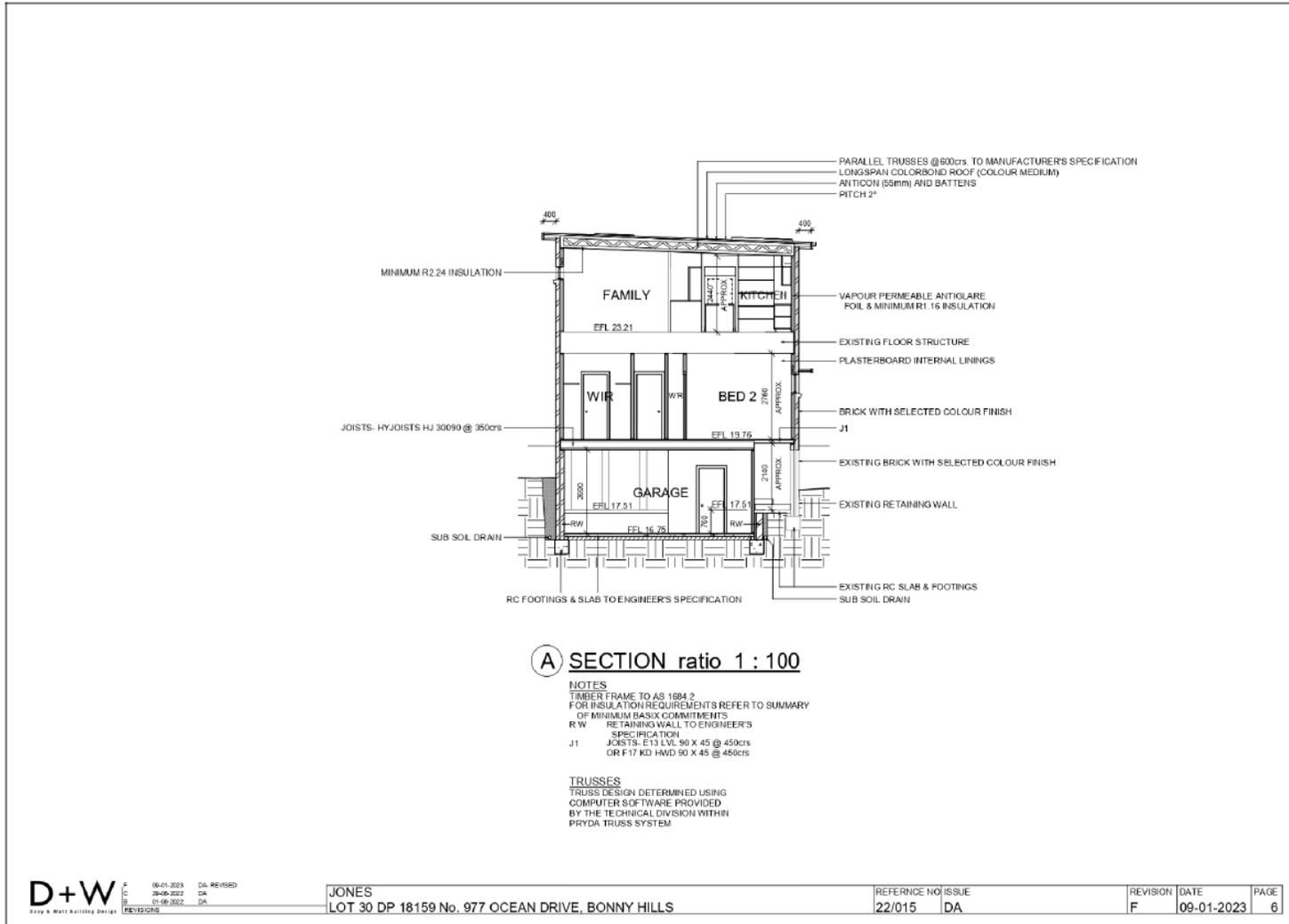
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 09-01-2023

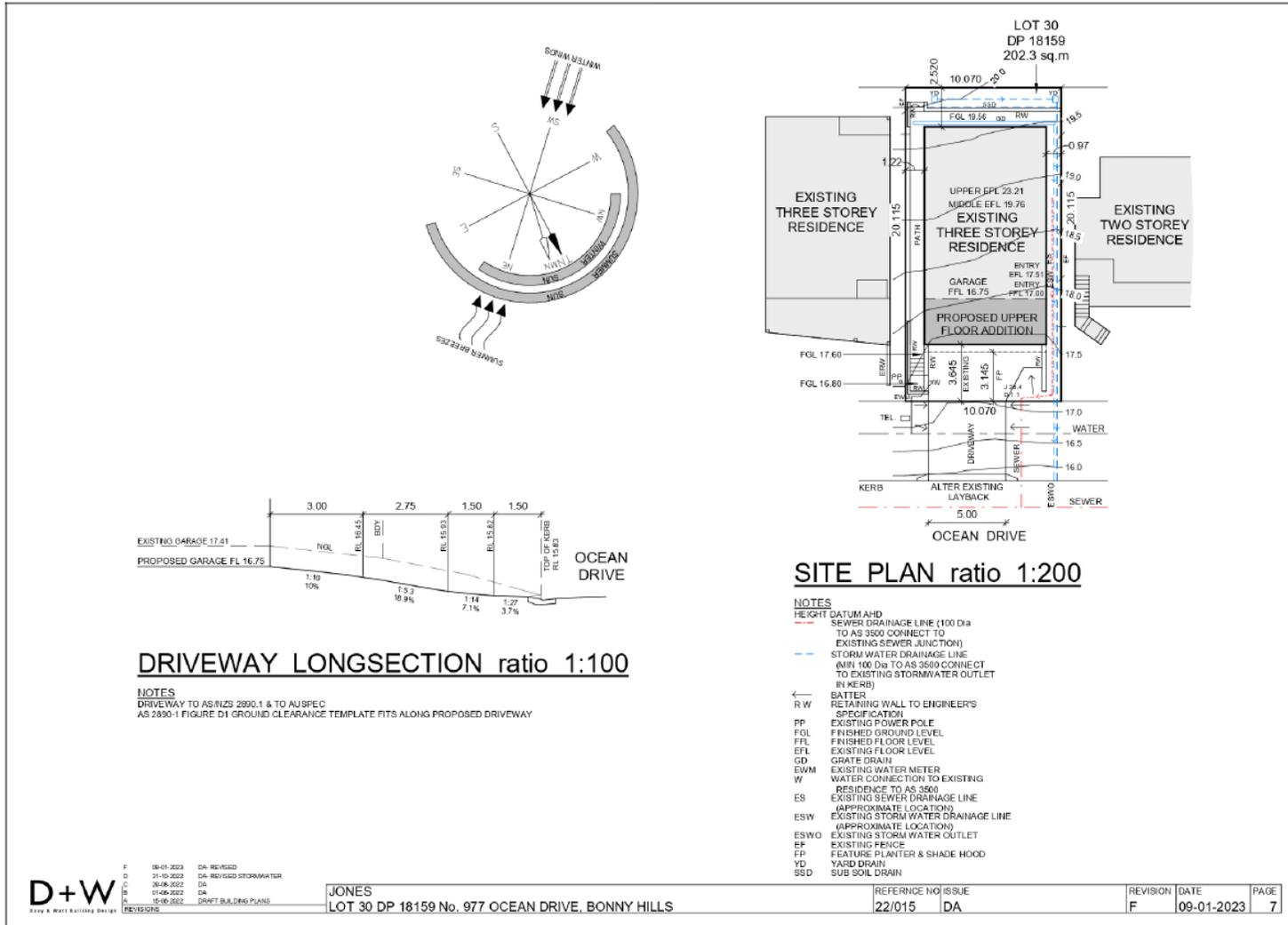
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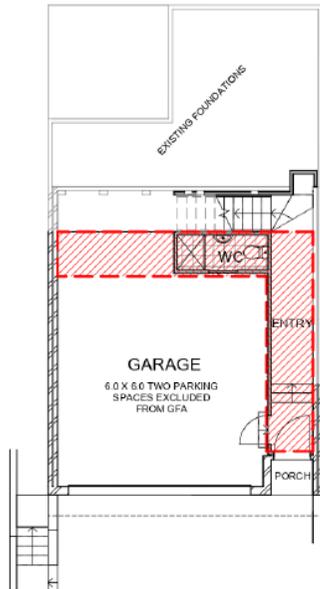
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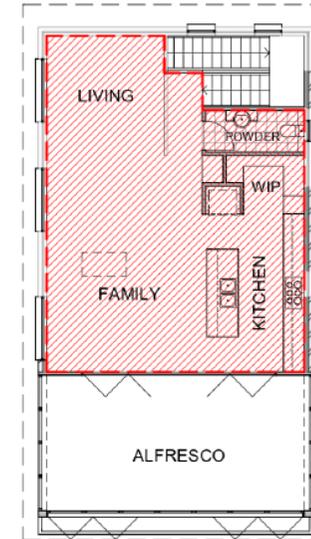
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LOWER FLOOR
GROSS FLOOR AREA
PLAN ratio 1:100



MIDDLE FLOOR
GROSS FLOOR AREA
PLAN ratio 1:100



UPPER FLOOR
GROSS FLOOR AREA
PLAN ratio 1:100

NOTES
 FLOOR AREA INCLUDED IN GROSS FLOOR AREA CALCULATION
 PROPOSED LOWER FLOOR GROSS FLOOR AREA (GFA) 16.6 sq.m
 PROPOSED MIDDLE FLOOR GROSS FLOOR AREA (GFA) 87.0 sq.m
 PROPOSED UPPER FLOOR GROSS FLOOR AREA (GFA) 63.5 sq.m
 PROPOSED TOTAL GROSS FLOOR AREA (GFA) 166.5 sq.m

GROSS FLOOR AREA (GFA)	PROPOSED FLOOR SPACE RATIO (FSR)		
	SITE AREA	FLOOR SPACE RATIO (FSR)	MAXIMUM ALLOWABLE FSR
166.5 sq.m	202.3 sq.m	0.82:1	0.65:1

D+W
DAVE & MARTI BUILDING DESIGN

F 08-01-2023 DA-REVISED
 E 08-11-2022 DA-REVISED (GFA & FSR)
 C 28-09-2022 DA
 R 17-08-2022 DA
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JONES
LOT 30 DP 18159 No. 977 OCEAN DRIVE, BONNY HILLS

REFERENCE NO
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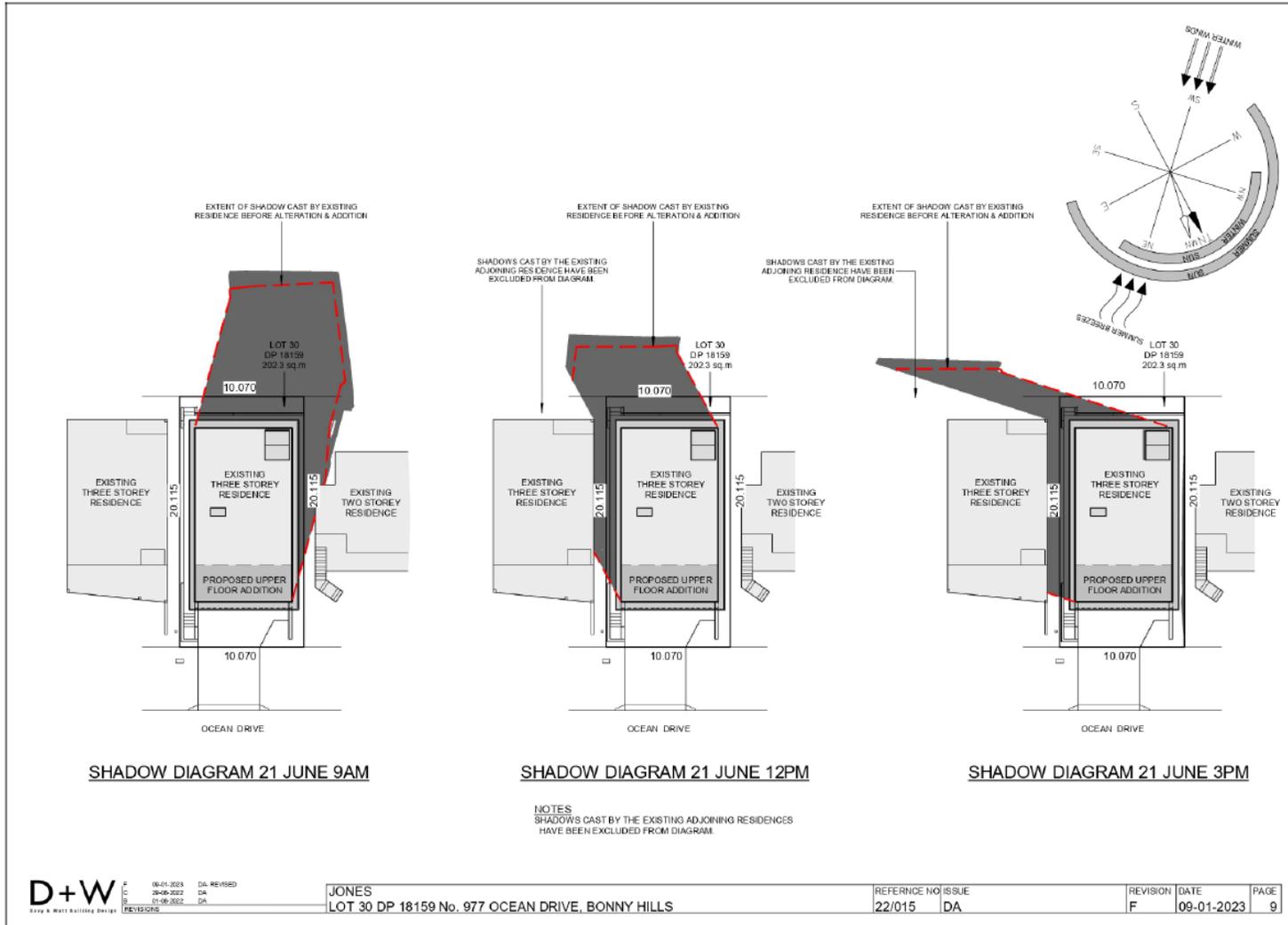
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E NORTH EAST ELEVATION ratio 1 : 100

G SOUTH EAST ELEVATION ratio 1 : 100

F SOUTH WEST ELEVATION ratio 1 : 100

H NORTH WEST ELEVATION ratio 1 : 100

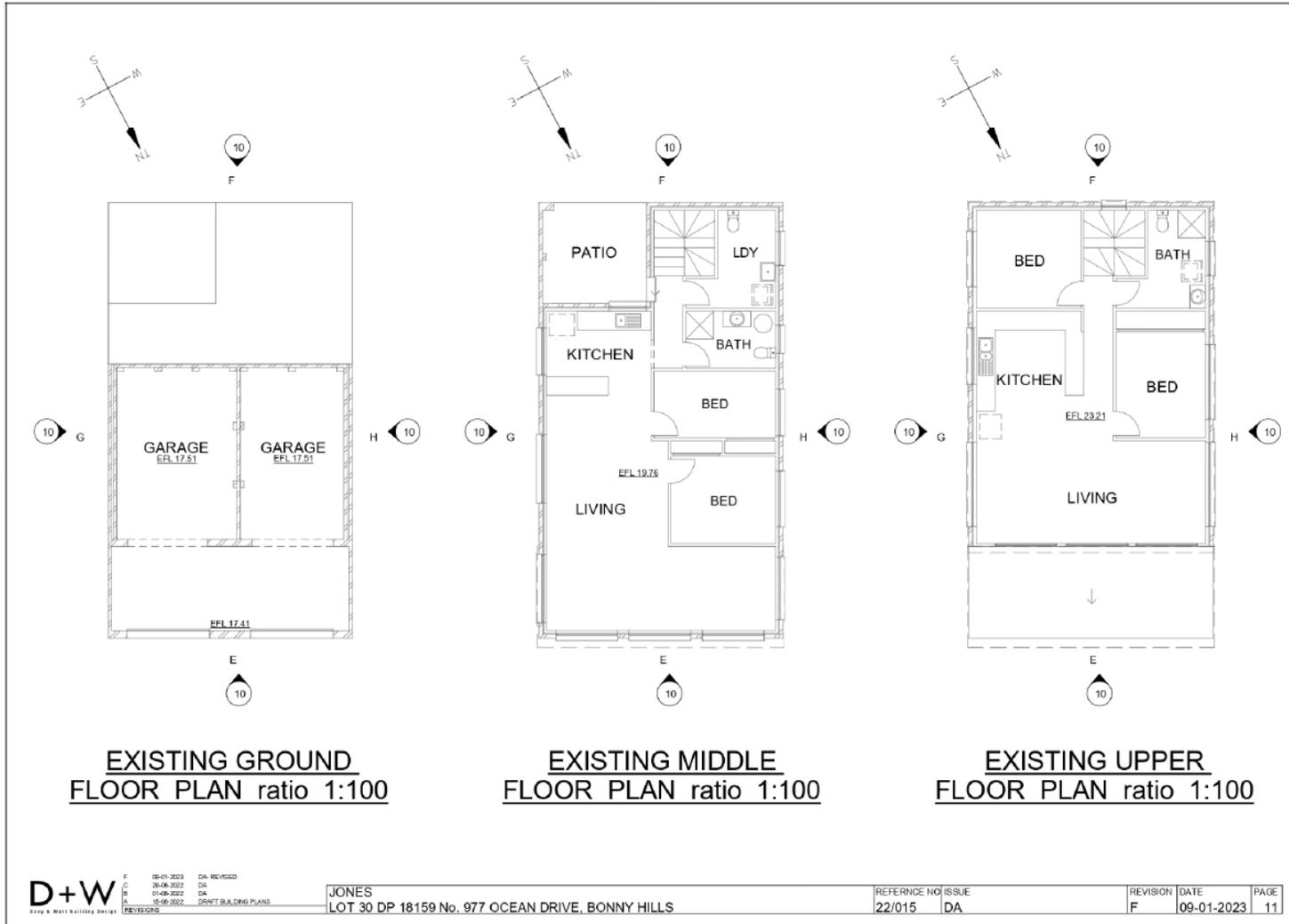
EXISTING ELEVATIONS ratio 1:100

D+W <small>DAVE & MART BUILDING DESIGN</small>	F 00-01-2023 DA-REVISED	JONES LOT 30 DP 18159 No. 977 OCEAN DRIVE, BONNY HILLS	REFERENCE NO	ISSUE	REVISION	DATE	PAGE
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	B 01-08-2022 DA						
	A 15-08-2022 DWGT BUILDING PLANS						
	REVISIONS						

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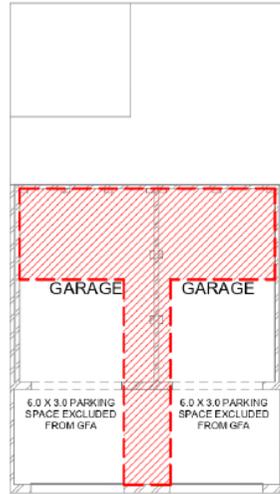
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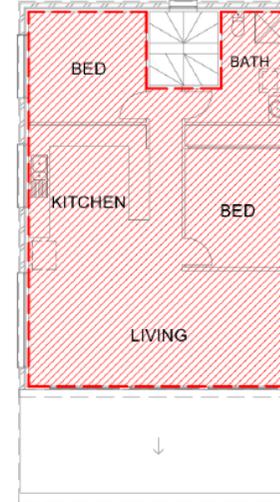
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EXISTING LOWER FLOOR
GROSS FLOOR AREA
PLAN ratio 1:100



EXISTING MIDDLE FLOOR
GROSS FLOOR AREA
PLAN ratio 1:100



EXISTING UPPER FLOOR
GROSS FLOOR AREA
PLAN ratio 1:100

NOTES

FLOOR AREA INCLUDED IN GROSS FLOOR AREA CALCULATION

EXISTING LOWER FLOOR GROSS FLOOR AREA (GFA) 27.0 sq.m
 EXISTING MIDDLE FLOOR GROSS FLOOR AREA (GFA) 84.0 sq.m
 EXISTING UPPER FLOOR GROSS FLOOR AREA (GFA) 74.3 sq.m
 EXISTING TOTAL GROSS FLOOR AREA (GFA) 185.3 sq.m

GROSS FLOOR AREA (GFA)	EXISTING FLOOR SPACE RATIO (FSR)		
	SITE AREA	FLOOR SPACE RATIO (FSR)	MAXIMUM ALLOWABLE FSR
185.3 sq.m	202.3 sq.m	0.91:1	0.65:1



F 00-01-2023 DA-REVISED
 D 06-11-2022 DA-REVISED (GFA & FSR)
 C 28-09-2022 DA
 S 17-08-2022 DA

JONES
 LOT 30 DP 18159 No. 977 OCEAN DRIVE, BONNY HILLS

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Love Project Management

PO Box 161 Wauchope NSW 2446 Phone: 0400953101
ABN: 26 108 622 745

977 Ocean Drive Bonny Hills Alterations & Additions



Michelle Love, Project No 6826
Love Project Management

August, 2022

Updated 24th January, 2023

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Document Details

Document Version Date: 29th August, 2022 – Updated 21st November, 2022 & 24th January, 2023

Authorised by: Michelle Love

Signed: 

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All parties must acknowledge that conditions of approval at time of consent, post development application and approvals, and other matters, may modify the outcomes described in this report. The information and conclusions presented in this report apply to the subject land at the time of the assessment. All parties must take into account the above information when making decisions on the basis of the findings and conclusion of this report.

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Executive Summary

The proposal relates to alterations and additions to an existing dwelling in Bonny Hills. A portion of the roof area will exceed the height limit for this allotment and the subject land is only 202.3m² in area and the proposal will exceed the floor space ratio for this area. An assessment and report under the provisions of clause 4.6 has been undertaken. The proposal is generally consistent with Council's DCP.

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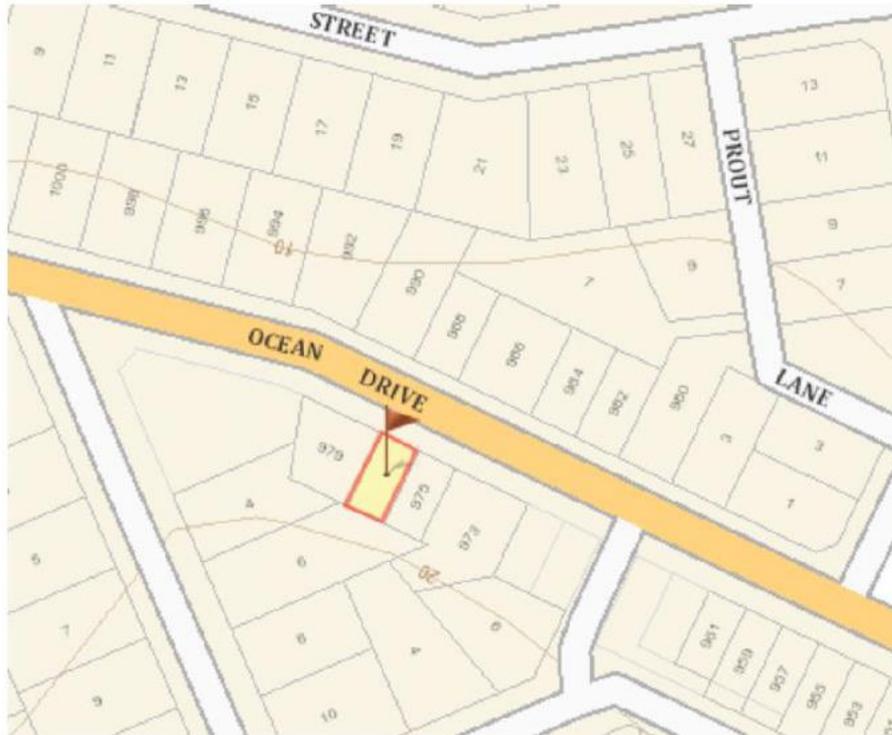
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1. Subject Land & Locality

The subject land may be identified as 977 Ocean Drive, Bonny Hills, being Lot 30 DP 18159. This is a very old subdivision of land, which was registered in the 1930s. The lots created along the Ocean Drive frontage are all of a similar size. The subject land has an area of 202.3m². The location of the land is as shown outlined in red on the following map extract.

Figure 1: Subject Land outlined in red and shaded yellow



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The land is occupied by an older style, three storey dwelling. There are dwellings on the adjoining side lots, with most dwellings along this street frontage also being constructed to three storey. The adjoining land to the rear of the property is a vacant allotment.

Vehicular access to the Subject Land is only via Ocean Drive. The deposited plan did not identify any easements on the Subject Land. The land slopes towards Ocean Drive, with the land rising sharply towards the rear of the property.

Figure 2: Existing dwelling on the Subject Land



The existing, three storey dwelling consists of:

Ground floor: double garage

Middle floor: two bedrooms, living area, kitchen, laundry, bathroom & patio

Upper floor: two bedrooms, living area, kitchen & bathroom

The existing dwelling exceeds the gross floor area for this locality.

The existing dwelling also exceeds the permitted building height for this locality.

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2. Proposal

The proposal is to undertake alterations and additions to this existing dwelling to upgrade the layout to be more consistent with a single family dwelling, and to improve the liveability of the dwelling by providing an alfresco living area.

Figure 3: Plan Set Extract - Proposed Street Elevation



The proposed floor layout is as follows:

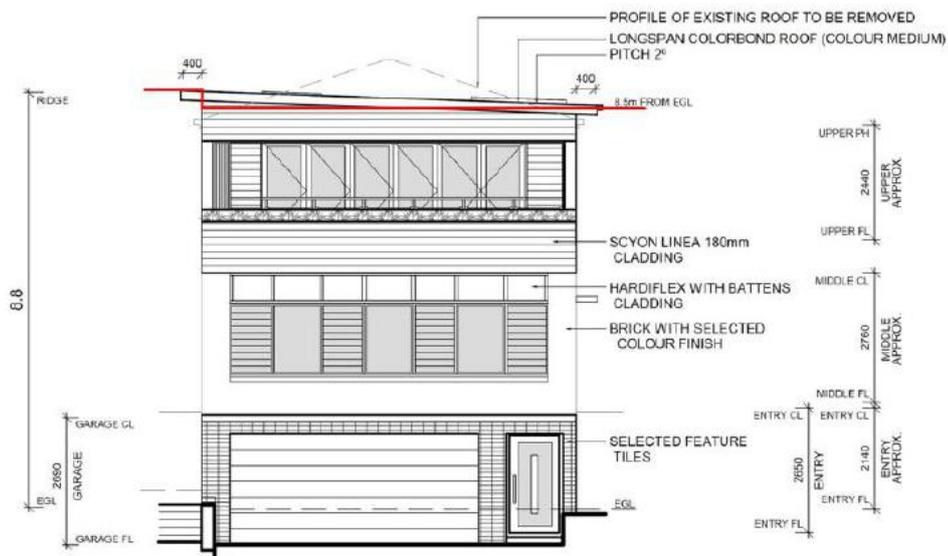
Ground floor: remains the same with a double garage being located on this level. Improved street presentation and the inclusion of a front door entrance at this level;

Middle floor: 3 bedrooms, bathroom and ensuite;

Upper floor: Living areas including living room, family room, kitchen and alfresco area.

The proposed alterations and additions to the dwelling will result in a building which remains in exceedance of the overall height limit, with parts of the roof area being above 8.5m. A portion of the roof already exceeds the height limit, and the proposed alterations will reduce the height exceedance. This is demonstrated in the following plan extract:

Figure 4: Plan Set Extract - 8.5m height from Existing Ground Level (EGL) shown by red line. Existing roof shown by upper dashed black line. Proposed roof shown by solid black line



It is noted that the floor space ratio is currently above the FSR identified for this locality, and whilst the proposal will slightly reduce the variance, the proposal will still be above the FSR, thus requiring an assessment under the provisions of clause 4.6 of LEP 2011. The height limit variation also triggers a requirement for an assessment under the provisions of clause 4.6 of LEP 2011.

3. Statutory Provisions

The Environmental Planning and Assessment Act and Regulation requires development applications to be accompanied by a number of documents and information. The following sections consider the relevant legislation as required under the relevant legislation.

a) State Environmental Planning Policies

i. SEPP (Resilience and Hazards) 2021

The subject land is NOT within areas mapped under the provisions of this SEPP as a wetland or littoral rainforest area. The subject land is NOT within areas mapped as land within proximity to a coastal wetland or littoral rainforest.

Figure 5: SEPP mapping extract – Coastal Wetland & Littoral Rainforest areas (subject land shaded red)



The coastal area, including the subject land is mapped as being within an area identified as Coastal Environment and Coastal Use Area. This triggers the provisions of Part 2.2 of this SEPP, and Divisions 3, 4 & 5.

Division 3 Coastal environment area

2.10 Development on land within the coastal environment area

(1) Development consent must not be granted to development on land that is within the coastal environment area unless the consent authority has considered whether the proposed development is likely to cause an adverse impact on the following—

- (a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment,
- (b) coastal environmental values and natural coastal processes,
- (c) the water quality of the marine estate (within the meaning of the Marine Estate Management Act 2014), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1,



- (d) *marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms,*
 - (e) *existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,*
 - (f) *Aboriginal cultural heritage, practices and places,*
 - (g) *the use of the surf zone.*
- (2) *Development consent must not be granted to development on land to which this section applies unless the consent authority is satisfied that—*
- (a) *the development is designed, sited and will be managed to avoid an adverse impact referred to in subsection (1), or*
 - (b) *if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or*
 - (c) *if that impact cannot be minimised—the development will be managed to mitigate that impact.*
- (3) *This section does not apply to land within the Foreshores and Waterways Area within the meaning of Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005.*

Division 4 Coastal use area

2.11 *Development on land within the coastal use area*

- (1) *Development consent must not be granted to development on land that is within the coastal use area unless the consent authority—*
- (a) *has considered whether the proposed development is likely to cause an adverse impact on the following—*
 - (i) *existing, safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,*
 - (ii) *overshadowing, wind funnelling and the loss of views from public places to foreshores,*
 - (iii) *the visual amenity and scenic qualities of the coast, including coastal headlands,*
 - (iv) *Aboriginal cultural heritage, practices and places,*
 - (v) *cultural and built environment heritage, and*
 - (b) *is satisfied that—*
 - (i) *the development is designed, sited and will be managed to avoid an adverse impact referred to in paragraph (a), or*
 - (ii) *if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or*
 - (iii) *if that impact cannot be minimised—the development will be managed to mitigate that impact, and*
 - (c) *has taken into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development.*
- (2) *This section does not apply to land within the Foreshores and Waterways Area within the meaning of Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005.*

Division 5 General

2.12 *Development in coastal zone generally—development not to increase risk of coastal hazards*

Development consent must not be granted to development on land within the coastal zone unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land.

2.13 Development in coastal zone generally—coastal management programs to be considered

Development consent must not be granted to development on land within the coastal zone unless the consent authority has taken into consideration the relevant provisions of any certified coastal management program that applies to the land.

2.14 Other development controls not affected

Subject to section 2.5, for the avoidance of doubt, nothing in this Part—
(a) permits the carrying out of development that is prohibited development under another environmental planning instrument, or
(b) permits the carrying out of development without development consent where another environmental planning instrument provides that the development may be carried out only with development consent.

2.15 Hierarchy of development controls if overlapping

If a single parcel of land is identified by this Chapter as being within more than one coastal management area and the development controls of those coastal management areas are inconsistent, the development controls of the highest of the following coastal management areas (set out highest to lowest) prevail to the extent of the inconsistency—

- (a) the coastal wetlands and littoral rainforests area,*
- (b) the coastal vulnerability area,*
- (c) the coastal environment area,*
- (d) the coastal use area.*

In consideration of the above matters, it is noted that the alterations and additions proposed for the existing dwelling will not alter or adversely impact on coastal processes or hazards. The subject land is not located on a coastal headland, and the proposed works will reduce the visual impact of the roofline from the existing roofline impacts.

The alterations and additions will not alter or hinder access to coastal areas and will not reduce existing views from public places to foreshore areas. The proposal will not overshadow any public coastal areas, nor will there be any adverse impact on Aboriginal heritage arising from this proposal.

It is concluded that the proposal is consistent with the provisions of the Resilience and Hazards SEPP in regards to Chapter 2, and satisfies the requirements of the relevant provisions.

ii. SEPP (Biodiversity & Conservation) 2021

The provisions of Chapter 4 of this SEPP relate to Koala Habitat Protection. It is noted that the subject land is less than one hectare in area, does not have a Koala Plan of Management applying to the land, and the land is not mapped or considered to be core koala habitat.

A search of the Biodiversity Values Mapping confirmed that the subject land does not contain any areas mapped as containing any Biodiversity Values.

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iii. SEPP (Transport & Infrastructure) 2021

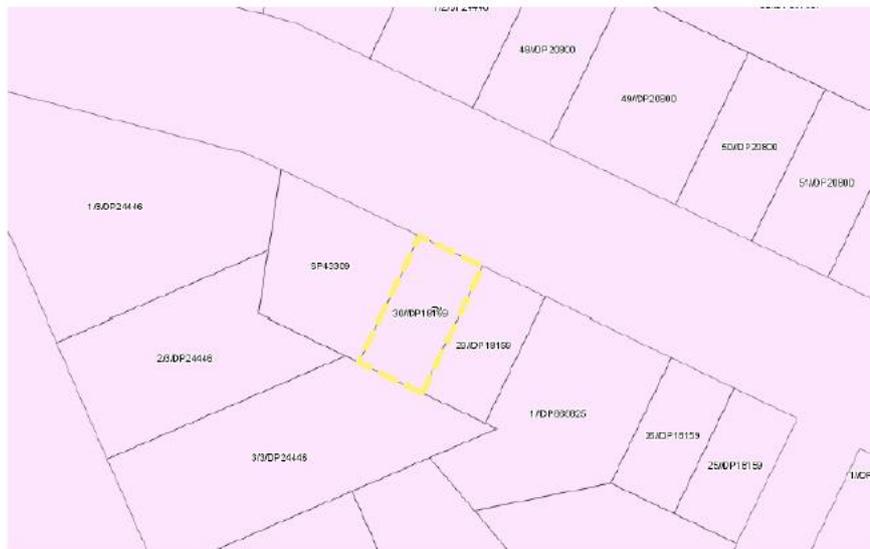
This SEPP refers to development within proximity to electricity infrastructure. There are no overhead powerlines located in proximity to the development proposal. The nearest overhead powerlines are located on the other side of Ocean Drive, with each dwelling being serviced by an individual power connection.

Chapter 2, Part 2.3, Division 17, Subdivision 2, Section 2.119 relates to development with frontage to a classified road. It is noted that the subject land has no option for an alternative vehicular access, other than Ocean Drive. The subject land will continue to be serviced by a double garage, and the proposal is consistent with the relevant provisions of this SEPP.

b) Local Environmental Plan

The subject land is zoned R1 – General Residential under the provisions of Port Macquarie – Hastings Local Environmental Plan 2011, as shown in the following planning portal extract:

Figure 6: Land Zoning - Planning Portal extract – Subject Land shown dashed yellow line



The proposal is to undertake alterations and additions to an existing dwelling. This is permissible with consent within the R1 – General Residential zone.

Clause 2.3 – Zone objectives

The objectives of the R1 zone are as follows:

Zone R1 General Residential

1 Objectives of zone

- To provide for the housing needs of the community.

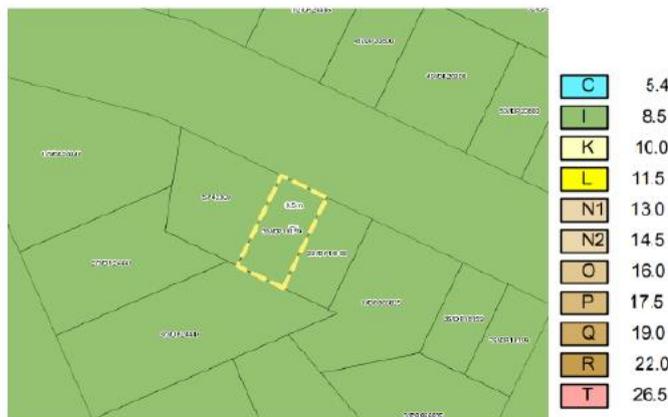
- To provide for a variety of housing types and densities.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.

The proposal will improve the housing in this locality. The proposal is consistent with the zone objectives.

Clause 4.3 – Height of Buildings

The LEP identifies a height of building for the subject land as being 8.5m above the existing ground level as shown by the following plan extract:

Figure 7: Height of Building - Planning Portal extract – Subject Land shown by dashed yellow line



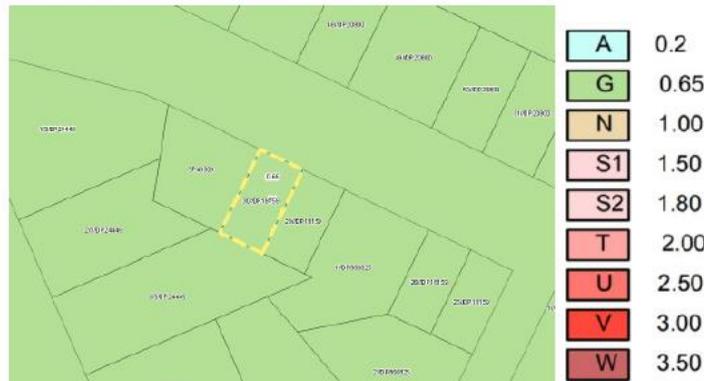
The existing dwelling already exceeds this height. The proposed works will alter the roof design to reduce the visual impact of the roofline. However, a small area of the roof will exceed the height of 8.5m above existing ground level, and this is assessed and discussed in the clause 4.5 variation assessment and report.



Clause 4.4 – Floor space ratio

The LEP identifies a maximum floor space ratio of 0.65 : 1 for the subject land. The floor space ratio of the existing dwelling already exceeds this floor space ratio, and the proposal will remain greater than this floor space ratio. Thus, this matter is assessed and discussed in the clause 4.6 variation assessment and report.

Figure 8: Floor Space Ratio - Planning Portal extract – Subject Land shown by dashed yellow line

**Clause 4.6 – Development Standards**

The existing dwelling already exceeds the floor space ratio and height of building as identified in the LEP mapping for this locality, and the provisions of clause 4.6 apply to the proposal. An assessment and report is provided as an attachment.

Clause 5.10 – Heritage conservation

The LEP mapping does not identify any items of European heritage on the subject land. A search of the Aboriginal heritage register did not identify any known areas or artefacts of Aboriginal heritage.

Clause 7.1 – Acid Sulphate Soils

The LEP mapping did not identify any area of the subject land as containing potential acid sulphate soil.

Clause 7.2 – Earthworks

The proposal does not include any significant retaining walls. Additional retaining walls are shown either side of the property frontage to improve and formalize the garage access. These are not considered to be excessive.

Clause 7.4 – Floodplain risk management

The subject land is NOT identified as floodprone.

Clause 7.6 – Coastline hazards

The subject land is NOT mapped as being impacted by Coastline Hazards.

Clause 7.9 – Development subject to acoustic controls

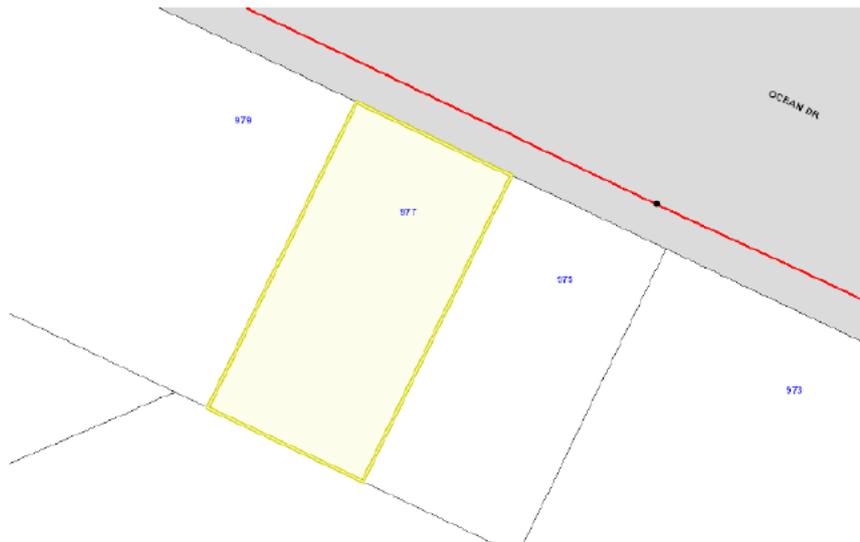
The subject land is NOT mapped as being in an area subject to acoustic controls.

Clause 7.13 – Essential services

The existing dwelling is connected to Council’s reticulated services in this locality including water and sewer. The dwelling will remain connected to these services.

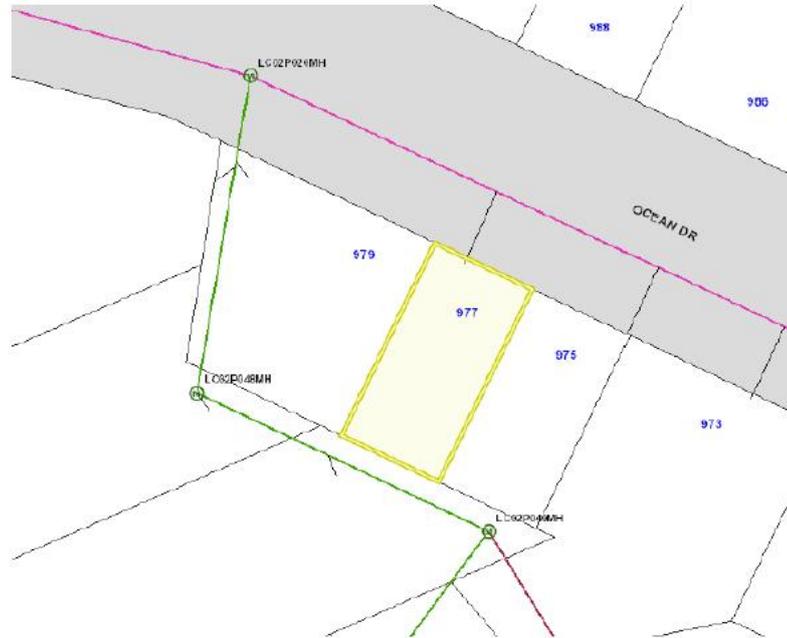
The location of Council’s water connection is shown on the plan set. A 100mm water main is located within the Ocean Drive road reserve as shown on the plan extract. No upgrade to Council’s water supply network will be required.

Figure 9: Council’s reticulated water supply network - Subject Land outlined in yellow



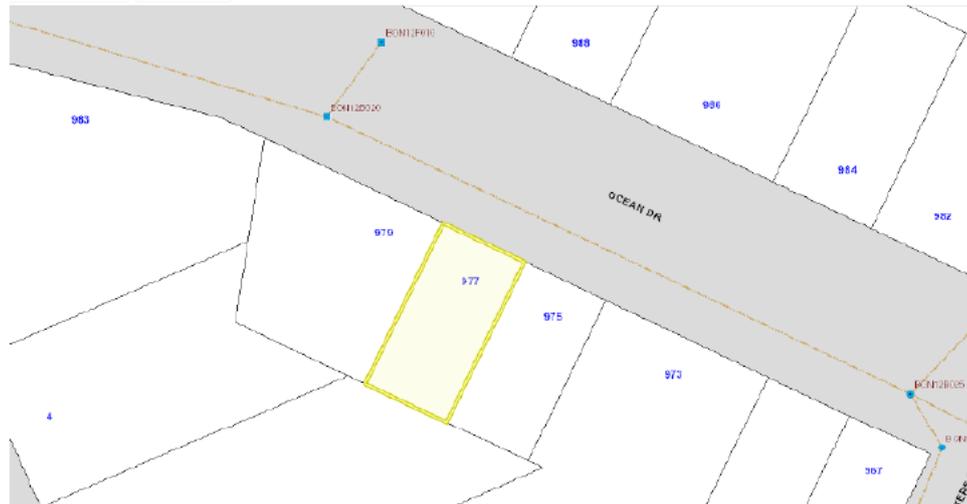
The sewer connection for the existing dwelling drains to the reticulated sewer network located within the Ocean Drive road reserve. No upgrade to the sewer network is required

Figure 10: Council's reticulated sewer network - Subject Land outlined in yellow



The existing dwelling drains to the stormwater system within the Ocean Drive road reserve, as shown on the following plan extract. The alterations and additions to the dwelling will not alter these stormwater controls, and runoff will be directed to this system to ensure the runoff from the property will not adversely impact on downstream areas.

Figure 11: Council's stormwater network - Subject Land outlined in yellow



Council's Reclaimed Water network does not yet extend to this area of Bonny Hills.

It is considered that Council's existing reticulated systems have capacity for the proposed dwellings.

Having regard to the above consideration of the relevant provisions of the Port Macquarie – Hastings Local Environmental Plan 2011, it is considered that the proposal is generally consistent with the provisions of the Local Environmental Plan. The clause 4.6 assessment of the height and floor space ratio variations is included as an appendix to this report.

c) Development Control Plan 2013

DCP 2013 contains provisions general provisions relating to vegetation removal, earthworks, etc, as well as provisions specific to low density housing. The relevant provisions are considered in the following table.

DCP 2013			
DCP Objective	Development Provisions	Proposed	Compliance
DCP GENERAL PROVISIONS			
B1: Advertising & Signage B1 (1) B1(2)	Advertising signage not to impact on adjoining residential areas	N/A	N/A
B2: Environmental Management B2(4)	Cut and fill 1.0m max 1m outside the perimeter of the external building walls	There are new retaining walls shown at the front eastern and western corners of the dwelling. There is also a new retaining wall in the rear yard to replace the existing, and new retaining walls which form the external walls of the garage and entry. This is indicated on the site plans and lower floor plan.	All retaining walls will be engineer certified where required.

DCP 2013			
DCP Objective	Development Provisions	Proposed	Compliance
B2(5)	<p>Engineer to certify walls greater than 1m height</p> <p>Where a combination of a fence and a wall is proposed to be greater than 1.2m high:</p> <ul style="list-style-type: none"> - be a maximum combined height of 1.8m above existing property boundary level; - be constructed up to the front boundary for a maximum length of 6.0m or 30% of the street frontage, whichever is less; - the fence component has openings which make it not less than 25% transparent; and - provide a 3m x 3m splay for corner sites; and - provide a 900mm x 900mm splay for vehicle driveway entrances. 	<p>Engineer to certify any retaining walls greater than 1m in height.</p> <p>No proposal for combined fence and retaining wall.</p>	<p>Yes</p> <p>N/A</p>
B2(6)	Significant earthworks of more than 10% site area or 1ha where surface level changed by more than 5m or earthworks exceed average of 10000m ³ per ha	No significant earthworks proposed	N/A
B2(7)	EEC buffers	Not applicable	N/A
B2(8)	Environmental Offsets & VMPs	Not applicable	N/A
B2(9)	Vegetated Riparian buffers according to 1 st – 4 th order streams	Not applicable	N/A
B2(13)	Hollow Bearing Trees – located by survey and HBT assessment protocol applied	Not applicable	N/A

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DCP Objective	Development Provisions	Proposed	Compliance
B2(14)	HBT removal protocol & offset via nesting boxes	Not applicable	N/A
B3: Hazards Management B3(15)	Development within proximity of flight paths not to attract birds or flying vertebrates	Not applicable	N/A
B3(16) & B3(17)	No airborne particulates or gaseous plumes within operational airspace & no hazardous or obtrusive light	Not applicable	N/A
B3(18) Bushfire B3(19) Flooding	Bushfire risk & Flooding	The land is not identified as bushfire prone. The land is not identified as floodprone.	N/A
B3(20) & (21)	Coastal Hazard	Land not identified as being impacted by Coastal Hazard	N/A
B4: Transport, Traffic Management, Access & Car Parking B4(23)	New accesses not permitted from arterial or distributor roads. Existing accesses rationalised or removed where practical. Driveway crossing/s minimal in number and width including maximising street parking	No new accesses off arterial or distributor roads. One driveway with a crossover width of 5m.	N/A Yes
B4(24) - B(41)	Off-street parking in accordance with Objective B(41)	DCP requires one space per dwelling. The proposal retains an existing double garage. Front setback to the garage is unaltered.	Yes
B5: Social Impact & Crime Prevention B5(42) Social Impact Assessment	Social Impact Assessment as per Council's Social Impact Assessment Policy	The proposal does not require a SIA	N/A

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DCP 2013			
DCP Objective	Development Provisions	Proposed	Compliance
B5(43) Principles of Crime Prevention	The development addresses the generic principles of crime prevention: -Casual surveillance and sightlines; -Land use mix and activity generators; - Definition of use and ownership; - Basic exterior building design; - Lighting; - Way-finding; and -Predictable routes and entrapment locations; as described in the Crime Prevention Through Environmental Design (CPTED) principles.	The design retains the distinction between public and private lands. Casual surveillance is provided to / from front road areas.	Yes
PART C – DEVELOPMENT SPECIFIC PROVISIONS			
C1 – Low Density Residential Development (dwelling houses, terrace housing (attached housing), Secondary dwellings, Exhibition homes, Semi-detached dwellings, Dual Occupancies, Multi-dwelling housing, Ancillary dev't assoc'd with these developments as defined by SEPP Exempt & Complying 2008)			



DCP 2013			
DCP Objective	Development Provisions	Proposed	Compliance
C1(44) Front Setback (a)& (b): Articulation Zone	<p>Dwellings may incorporate an articulation zone to a street frontage at no less than 3m from property boundary. Permitted in articulation zone but not to extend above eave gutter line, other than a pitched roof to an entry feature or portico that has the same pitch as the roof on the dwelling house</p> <ul style="list-style-type: none"> - Entry feature or portico - Balcony, deck, patio, pergola, terrace or verandah; - Window box treatment; - Bay window or similar feature; - Awning or other feature over window; - Sun shading feature. 	<p><u>Articulation Zone</u></p> <p>The dwelling is currently setback some 3.645m from the front property boundary. This setback is in line with the existing dwellings in this locality and will be unaltered.</p>	Yes
(c): Primary Road Front Setback	<p>Classified Road: 6m Primary: 4.5m Secondary: 3.0m Ancillary Lane: 2.0m Large lot Res and Rural Zones: 10m</p>	<p>As noted above, the dwelling is currently setback some 3.645m from the front property boundary. This setback is in line with the existing dwellings in this locality and will be unaltered.</p>	No, but front setback is unaltered by the proposed alterations and additions and front setback is consistent with dwellings in this locality.
C1(45) Garage / Parking setbacks and access	<p>Garages / parking spaces to be setback 5.5m from front property boundary measured from entry point to the parking space; Total width of garage opening to be not more than 6m or not more than 50% of the width of the building; Driveway crossovers not more than 5m in width;</p>	<p>The garage setback is 3.645m from the front property boundary and is consistent with the garage setbacks in this locality. The proposal does not alter the existing garage setback and retains offstreet parking in the form of a double garage.</p>	No, but garage setback is unaltered.

DCP 2013			
DCP Objective	Development Provisions	Proposed	Compliance
<p>C1 (46) Rear Setbacks</p>	<p>Minimum rear setback of 4m to dwellings (including verandahs, patios & decks).</p> <p>Minimum rear bdy setback 900mm applies to sheds, swimming pools subject to achieving min private open space.</p> <p>Rear setback may be reduced to 900mm where private open space achieves better solar access and where one side setback is a minimum of 4m for an equivalent length.</p> <p>NB: Setback requirements for low density devt – corner blocks do not have a rear boundary.</p>	<p>Existing rear setback is 2.52m which will be unaltered by this proposal.</p>	<p>No, but unaltered from existing rear setback</p>



DCP 2013			
DCP Objective	Development Provisions	Proposed	Compliance
C1 (47)			
Side Setbacks	<p>Ground floors (being <1m above existing ground level) setback min 900mm from side boundaries.</p> <p>First floors and above (including single storey with floor level >1m) should be setback min 3m from side boundary, or reduced down to 900mm where it can be demonstrated that the adjoining property's primary living rooms and principal private open space areas are not adversely overshadowed for more than 3hrs between 9am and 3pm on 21 June.</p>	<p>Side setbacks unaltered being 1.22m and 0.97m.</p> <p>The shadow diagrams demonstrate that the principal open space of the adjoining properties is not adversely overshadowed for more than 3hrs between 9am and 3pm on 21 June, and therefore the setbacks are compliant with the provisions of C1(47)</p>	<p>Yes</p> <p>Yes</p>
Wall Articulation	<p>First floors and above should have building walls that step in and out at least every 12m by a min of 500mm articulation. Where first floors and above are setback >3m, wall articulation is not required.</p>	<p>There are existing unarticulated walls of 12m or greater and the proposal does not alter this. However, having regard to the adjoining developments, which are similar in this regard, and noting the lack of visual impact of the side walls of the dwelling due to the proximity of adjoining dwellings, it is considered that the objectives of this matter are satisfied.</p>	<p>No, but the proposal does not alter this existing wall articulation.</p>

DCP 2013			
DCP Objective	Development Provisions	Proposed	Compliance
C1(48) Private Open Space	<p>All dwellings should have a min area of private open space of 35m², which includes a principal private open space area with:</p> <ul style="list-style-type: none"> -a min dimension of 4m x 4m; and -a max grade of 5% for min 4mx4m area; and -direct accessibility from a ground floor living area and orientated to maximise use. <p>Private open space may include clothes drying areas and garbage storage.</p>	<p>The existing dwelling does not achieve the 35m² of private open space, or an area with a 4m x 4m dimension.</p> <p>The proposed alterations / additions retain the existing ground level outdoor living areas. The proposal will increase outdoor living by providing an upper level alfresco living space.</p>	No, however the proposal increases the outdoor living space by providing for alfresco living area.
C1(49) Public Domain & Fencing	Front fences built forward of the building line for the primary road frontage should be detailed on the DA plans;	No front fences forward of the building line proposed.	Yes
C1(50) Tennis Court Fences	For tennis courts or other similar areas, chain wire fences should be black or dark green plastic coated mesh; Solid fences enclosing these facilities should not be permitted over 1.8m .	N/A	N/A

DCP 2013			
DCP Objective	Development Provisions	Proposed	Compliance
C1(51) Bulk & Scale	<p>Direct views between indoor living rooms and principal private open space of adjacent dwgs, including proposed dwgs approved on adjoining lots, including possible dwgs on future lots, should be obscured or screened where:</p> <ul style="list-style-type: none"> -ground & first floor (and above) indoor living room windows are within a 9m radius; -direct views between principal private open space areas within a 12m radius; -direct views between indoor living rooms of dwgs into the principal area of private open space of other dwgs within a 12m radius. <p>A balcony, deck, patio, pergola, terrace or verandah should have a privacy screen where there are direct views of:</p> <ul style="list-style-type: none"> -indoor living room windows of adjacent dwgs, including proposed dwgs approved on adjoining lots within 9m radius; or -principal areas of private open space of adjacent dwgs, including proposed dwgs approved on adjoining lots within a 12m radius. 	<p>The proposed alfresco living area located on the upper floor will be screened via fixed side shutters as shown on the plans</p>	<p>Yes</p>



<p>C1(52) Roof Terraces</p>	<p>Direct views between roof terraces and indoor living room windows or principal areas of private open space of adjacent dwellings should be screened where:</p> <ul style="list-style-type: none"> -Ground and first floor (and above) indoor living room windows are within a 9m radius of the trafficable area of the roof terrace; -Direct views between roof terraces principal areas of private open space within a 12m radius of the trafficable area of the roof terrace. <p>b) Screening should only be considered where:</p> <ul style="list-style-type: none"> -the height of the screen does not exceed the maximum building height; and -the screening contributes to the building form, and -the screening is integrated into the design of the roof; and -is constructed and designed with materials complementary to the building. <p>c) Lighting installations on roof terraces should be:</p> <ul style="list-style-type: none"> -contained within the roof terrace area and located at a low level, and -appropriately shaded and fixed in a non-adjustable manner so that light is projected downwards onto the floor surface of the terrace. - designed in compliance with Australian Standards AS4282 - Control of obtrusive effects of outdoor lighting. 	<p>N/A</p>	<p>N/A</p>
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DCP 2013			
DCP Objective	Development Provisions	Proposed	Compliance
C1(53) C1(54) C1 (55) Water Recreation Structure (Boat Launching Ramp, Jetty and Mooring)	N/A	N/A	N/A
C1(56) Ancillary Development	Ancillary developments in R1, R2, R3, R4, R5 and RU5: -height of an outbuilding or the alterations & additions to existing outbuilding on a lot should not be more than 4.8m above existing ground level; -the building should be single storey with a max roof pitch of 24 degrees; -max area should be 60m ² for lots less than 900m ² and max of 100m ² for larger lots; -ancillary development that is a garage, or an outbuilding, or a rainwater tank should not be located in front of the main building line with the exception of swimming pools.	N/A	N/A
C2 – Residential Flat Development, Tourist and Visitor Accommodation, and Mixed Use Development			
The provisions of C2 – Residential and Mixed Use Developments and associated ancillary structures, are not applicable to this proposal.			
C3: Business & Commercial Development			
The provisions of C3 – Business and Commercial Development, are not applicable to this proposal.			

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DCP 2013			
DCP Objective	Development Provisions	Proposed	Compliance
C4 – Industrial Development			
The proposal is not for an Industrial Development and therefore the provisions of C4 do not apply to this proposal.			
C5 – Subdivision			
Section C5 applies to any application to subdivide land unless exempt under the Codes SEPP. The proposal does not include any subdivision.			
Part D – Locality Specific Provisions			
The Locality Specific Provisions of Part D do not apply to the subject land.			

The matters relating to front setback, garage setback, rear setback, wall articulation and private open space, are all matters where the existing dwelling does not meet the current DCP design provisions. This is also the case for the majority of dwellings in this locality. The very small residential allotments, being barely over 200m², were created back in the 1930s and used as small holiday cottages in the village of Bonny Hills. Large lots of land were not required, as recreation time was primarily spent on the beach or nearby coastal reserves. In order to capture the ocean views, the holiday cottages were generally constructed to three storey, as is the case for dwellings along this portion of Ocean Drive.

The property setbacks and wall articulation provisions currently contained in DCP 2013, were not part of the Council controls at the time the dwellings in this locality were constructed. For this reason, and the small lot sizes, the dwellings in this locality do not meet the DCP 2013 provisions. However, the existing dwelling on the subject land, and the proposed alterations and additions, are consistent with the streetscape of this locality.

As noted above, the dwelling is currently setback some 3.645m from the front property boundary. This setback is in line with the existing dwellings in this locality and will be unaltered. The updating of the garage access to be one double garage door and driveway access, will improve the opportunity for offstreet parking across this space.

d) Integrated Development

The subject land is not within an area identified as bushfire prone.

e) Any Planning Agreement

There are no planning agreements existing or proposed for this development.

f) Any matters prescribed by the Regulations

No relevant matters.

g) Context & Setting

The proposed residential development is consistent with the locality. This precinct is dominated by three storey dwellings, most with balconies on the Ocean Drive frontage, and all located on these narrow and small allotments. The building bulk and design of the proposed alterations and additions is consistent with these existing dwellings. The proposal is considered to be consistent with the context and setting of the area.

h) Access, Transport & Traffic

The onsite parking is compliant with Council's requirements via the provision of two garage parking spaces onsite. Whilst the garages are not setback as per the DCP provisions, this is the existing setback, and there is no opportunity to increase this setback. The proposal retains the one access driveway off Ocean Drive. The local traffic network has capacity to cater for the dwelling.

i) Natural Hazards

The land is not mapped as floodprone. The land is not within an area subject to coastal processes. The land is not mapped as being within an area classified as bushfire prone.

j) Waste

Waste disposal from the domestic occupation of the dwelling will continue to be undertaken via Council's kerbside collection system. There will continue to be adequate street frontage for the location of two bins on bin collection days.

k) Water Supply & Sewer Connection

The reticulated water and sewer connections have been discussed earlier in this report. The dwelling will continue to be connected to Council's reticulated services.

l) Stormwater / Water

The stormwater from the dwelling will continue to drain downstream to the street network.

m) Noise & Vibration

The construction works will be limited as per Council's standard conditions relating to hours of operation for building works. This is to minimize impact on existing residences for the short period of time when construction occurs.

4. Public Interest

The proposal will provide for upgraded housing in a well serviced locality. It is in the public interest to utilize available residential properties.

5. Conclusion

The clause 4.6 assessment, included as Appendix One to this report, has considered the minor variation of a part of the roof, in relation to building height and also assessed the floor space ratio variation. It is noted that both variations to the development standard are already a design component of the existing dwelling. The proposal has been assessed as acceptable and the alterations and additions should be approved.

6. Appendix 1 – Clause 4.6 Variation Assessment and Report

6.1 Description of the Proposal

This description of the proposal will provide a brief overview of the alterations and additions, and will then focus on the height and floor space ratio variation.

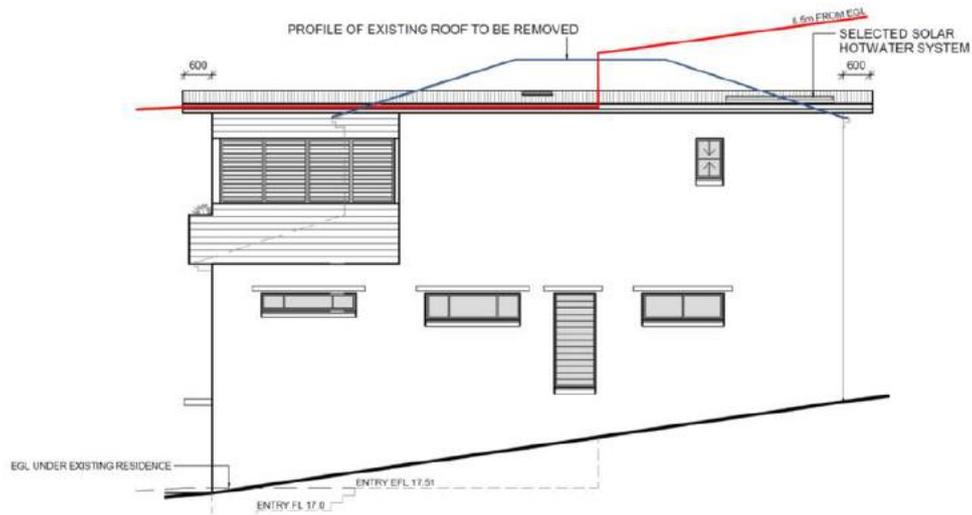
The proposal is to undertake alterations and additions to an existing dwelling. The subject land has frontage to Ocean Drive, and the land falls away sharply to the street frontage. The existing floor layout of the dwelling provides for two bedrooms and a kitchen on both the middle and upper floor levels. The lower floor contains only the double garage.

The proposal will alter the internal floor layout to be more conducive to a single family home. The total bedrooms will be reduced to three bedrooms, all contained on the middle floor level, and the upper floor will contain one kitchen, and the living areas. The limited ground level outdoor living areas will be supplemented by the addition of an alfresco 'sunroom' area on the upper level, directly adjoining the internal living areas. The lower floor level will remain as a double garage, however the separate arched roller door access will be replaced with a more modern combined roller door access.

The proposal includes variation to development standards, being both the height of building and the floor space ratio. It is noted that the existing dwelling already exceeds the height limit, as well as the floor space ratio.

A small area of the roof will exceed the 8.5m building height, as shown on the following extract from the plan set. The blue line shows the profile of the existing roof to be removed. The red line shows the height at 8.5m from existing ground level (EGL).

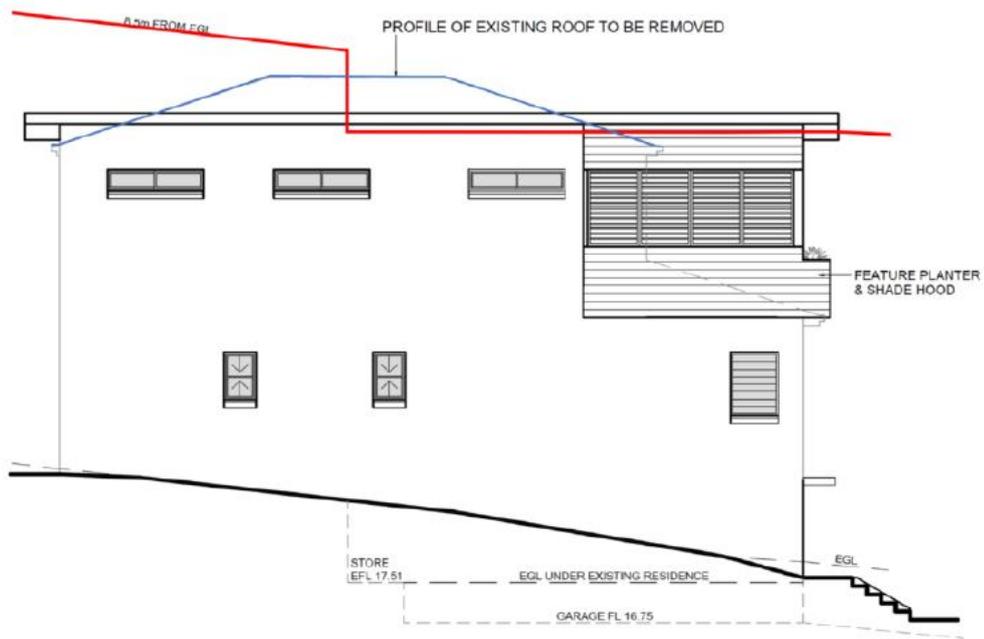
Figure 13: Extract from Plan Set showing North West Elevation



The following plan set extract shows the extent of height variation as viewed from the south east elevation.

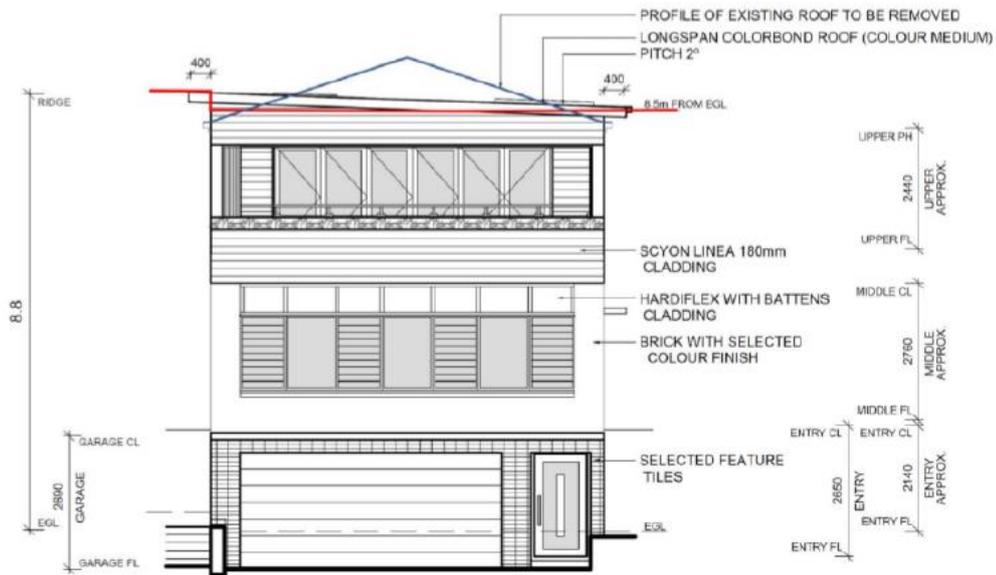
The blue line shows the profile of the existing roof to be removed. The red line shows the height at 8.5m from existing ground level (EGL).

Figure 12: Extract from Plan Set showing South East Elevation



The height variation is shown in the following plan set extract as viewed from Ocean Drive. Again, the existing roofline is shown by blue line, and the 8.5m height above the existing ground level is shown by red line.

Figure 13: Extract from Plan Set showing North East Elevation



The maximum height above the existing ground level is the top of the ridge at 8.8m. The height variation sits well below the 10% variation across all elevations (10% variation = 9.35m).

The permitted floor space ratio (FSR) for this location is 0.65:1. The existing dwelling has a FSR of 0.91:1. The existing patio area, and the proposed alfresco area are both excluded from the gross floor area (GFA) calculations as these areas are not able to be permanently enclosed and made weather proof.

In this regard, it is noted that the proposed alfresco area on the upper floor level has fixed louvres on the side boundaries. That is, the alfresco area includes permanently open louvres. As set out in *Haralambis Management Pty Ltd v Council of the City of Sydney* [2013] NSWLEC 1009 the Court agreed and accepted that the floor area inside permanently open louvres above a solid balustrade was excluded from the calculation of GFA. Critically, the Court noted that “For a balcony to be open space there should be a degree of openness and exposure to the elements. An area that can by choice be permanently enclosed and used as a habitable room would not be open space.”

The proposed alfresco area includes bi fold glass screens along the Ocean Drive frontage. Whilst these may be opened or closed, it is noted that the fixed, open nature of the louvres on each side of the alfresco area fits within the court determination that this is an area which should be excluded from the GFA calculations.



The proposed alterations and additions will result in a slight change in the overall GFA. The existing FSR is 0.91:1 as shown in the following Plan Set Extract.

Figure 14: Plan Set Extract - Existing Gross Floor Area and resultant Floor Space Ratio



EXISTING LOWER FLOOR
GROSS FLOOR AREA

EXISTING MIDDLE FLOOR
GROSS FLOOR AREA

EXISTING UPPER FLOOR
GROSS FLOOR AREA

The proposed alterations and additions will result in a slight decrease in the gross floor area. This is shown in the following plan set extract. The proposed FSR will be 0.82:1 as shown in the following plan set extract.

Figure 15: Plan Set Extract - Proposed Gross Floor Area and resultant Floor Space Ratio



LOWER FLOOR
GROSS FLOOR AREA

MIDDLE FLOOR
GROSS FLOOR AREA

UPPER FLOOR
GROSS FLOOR AREA

The gross floor area will reduce from the existing 185.3m², to a slightly smaller area of 166.5m². It is again noted that the properties along this frontage of Ocean Drive are very small lots, with the subject land having a land area of only 202.3m².

The existing FSR and the proposed FSR both exceed a 10% variation of the development standard for this locality.

6.2 Assessment of the Proposal

The overall development application is for alterations and additions to an existing dwelling. The building is already three storey, and the proposal will result in changes to the internal layout of the property, and the addition of an alfresco area off the upper floor level.

The consent authority is able to consider a variation to a development standard under the provisions of clause 4.6 of the Port Macquarie – Hastings LEP 2011.

Clause 4.6 is as follows:

4.6 Exceptions to development standards

- (1) *The objectives of this clause are as follows—*
 - (a) *to provide an appropriate degree of flexibility in applying certain development standards to particular development,*
 - (b) *to achieve better outcomes for and from development by allowing flexibility in particular circumstances.*
- (2) *Development consent may, subject to this clause, be granted for development even though the development would contravene a development standard imposed by this or any other environmental planning instrument. However, this clause does not apply to a development standard that is expressly excluded from the operation of this clause.*
- (3) *Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating—*
 - (a) *that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and*
 - (b) *that there are sufficient environmental planning grounds to justify contravening the development standard.*
- (4) *Development consent must not be granted for development that contravenes a development standard unless—*
 - (a) *the consent authority is satisfied that—*
 - (i) *the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and*
 - (ii) *the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and*
 - (b) *the concurrence of the Planning Secretary has been obtained.*
- (5) *In deciding whether to grant concurrence, the Planning Secretary must consider—*
 - (a) *whether contravention of the development standard raises any matter of significance for State or regional environmental planning, and*
 - (b) *the public benefit of maintaining the development standard, and*
 - (c) *any other matters required to be taken into consideration by the Planning Secretary before granting concurrence.*
- (6) *Development consent must not be granted under this clause for a subdivision of land*

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in Zone RU1 Primary Production, Zone RU2 Rural Landscape, Zone RU3 Forestry, Zone RU4 Primary Production Small Lots, Zone RU6 Transition, Zone R5 Large Lot Residential, Zone E2 Environmental Conservation, Zone E3 Environmental Management or Zone E4 Environmental Living if—

- (a) the subdivision will result in 2 or more lots of less than the minimum area specified for such lots by a development standard, or
- (b) the subdivision will result in at least one lot that is less than 90% of the minimum area specified for such a lot by a development standard.

Note. When this Plan was made, it did not include Zone RU4.

(7) After determining a development application made pursuant to this clause, the consent authority must keep a record of its assessment of the factors required to be addressed in the applicant's written request referred to in subclause (3).

(8) This clause does not allow development consent to be granted for development that would contravene any of the following—

- (a) a development standard for complying development,
- (b) a development standard that arises, under the regulations under the Act, in connection with a commitment set out in a BASIX certificate for a building to which State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 applies or for the land on which such a building is situated,
- (c) clause 5.4,
- (ca) clause 6.1, 6.2 or 6.3.

The provisions of sub clauses 4.6(6), 4.6(7) and 4.6(8) are not of particular relevance to this assessment and no further consideration of those matters is included in this assessment. Therefore, only the provisions of subclause 4.6(3), subclause 4.6(4) and subclause 4.6(5) remain to be considered and discussed in this assessment. As part of this assessment, the guidance provided by the NSW Land & Environment Court determinations has been considered, with particular reference to the following matters:

- *Wehbe v Pittwater Council* (2007) NSW LEC 827 (*Wehbe*);
- *Four2Five Pty Ltd v Ashfield Council* (2015) NSWLEC 1009;
- *Al Maha Pty Ltd v Huajun Investments Pty Ltd* (2018) NSWCA 245; and
- *Initial Action Pty Ltd v Woollahra Municipal Council* [2018] NSWLEC 118.

The *Wehbe* five methods have been developed to test whether compliance with a development standard is unreasonable or unnecessary, and are set out as follows:

1. The objectives of the standard are achieved notwithstanding the non-compliance with the numerical standard and therefore compliance is unnecessary.
2. The underlying objective or purpose of the standard is not relevant to the development and therefore compliance is unnecessary.
3. The underlying object or purpose of the standard would be defeated or thwarted if compliance was required and therefore compliance is unreasonable.
4. The development standard has been virtually abandoned or destroyed by the Council's own actions in granting a consent to proposals departing from the standard and hence compliance is unreasonable and unnecessary.

5. The zoning of the particular land is unreasonable or inappropriate so that a development standard appropriate for that zoning is also unreasonable and unnecessary as it applies to the land.

Compliance being unreasonable or unnecessary

The position that compliance with the development standard is unreasonable or unnecessary may be demonstrated in one or more of the following ways:

- The objectives of the development standard **are achieved notwithstanding** non-compliance with the standard
- the underlying objective or purpose is **not relevant** to the development
- The underlying objective or purpose **would be thwarted** if compliance with the standard was required
- The development standard has been **virtually abandoned or destroyed** by the Council's decisions in granting development consents that depart from the standard
- The **Zoning of the land** is unreasonable or inappropriate (though this limb is limited)
- Some other way.

In the case of this proposal, there are two development standards being varied and the relevant objectives of each clause are considered separately.

In regards to the height of buildings, the objectives of clause 4.3 are as follows:

4.3 Height of buildings

- (1) *The objectives of this clause are as follows—*
- (a) *to ensure that buildings are compatible with the height, bulk and scale of the existing and desired future character of the locality,*
 - (b) *to minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development,*
 - (c) *to minimise the adverse impact of development on heritage conservation areas and heritage items,*
 - (d) *to nominate heights that will provide a transition in built form and land use intensity within the area covered by this Plan.*

In regards to the floor space ratio, the objectives of clause 4.4 from the LEP are as follows:

4.4 Floor space ratio

(1) *The objectives of this clause are as follows—*

- (a) to regulate density of development and generation of vehicular and pedestrian traffic,*
- (b) to encourage increased building height and site amalgamation at key locations,*
- (c) to provide sufficient floor space for high quality development for the foreseeable future,*
- (d) to ensure that buildings are compatible with the bulk and scale of the existing and desired future character of the locality.*

The plans have demonstrated that a portion of the roof already exceeds the 8.5m height of buildings standard. The plans show that the proposal will also exceed the 8.5m height of buildings standard. Similarly, the existing floor space ratio is already exceeded by the dwelling and the proposal will also exceed the mapped floor space ratio.

When reviewing the character of this locality, the following clause 4.6 variations to development standards were identified from Council's application tracker:

DA 2013-620 for 935 Ocean Drive, Bonny Hills – variation to floor space ratio for dwelling;

DA 2014-2 for 951 Ocean Drive, Bonny Hills - variation to height limit for dwelling;

DA 2014-2 for 951 Ocean Drive, Bonny Hills – variation to floor space ratio for dwelling;

DA 2014-124 for 955 Ocean Drive, Bonny Hills – variation to floor space ratio for dwelling;

DA 2014-124 for 955 Ocean Drive, Bonny Hills – variation to height limit for dwelling

DA 2022-531 for 831 Ocean Drive, Bonny Hills – variation to height limit for dwelling

A review of variations to development standards in the broader village of Bonny Hills noted the following matters:

DA 2022-23 for 34 Sinclair Dr, Bonny Hills – variation to height limit for single dwelling

DA 2020-834 for 3 Elizabeth St, Bonny Hills – variation to floor space ratio for single dwelling

DA 2019-802 for 14 Ngamba Pl, Bonny Hills – variation to height limit for single dwelling;

DA 2020-162 for 12 Short St, Bonny Hills – variation to height limit for single dwelling;

DA 2017-149 for 13 Third Av, Bonny Hills – variation to floor space ratio for single dwelling.

A quick review of dwellings along this area of Ocean Drive frontage also confirmed the majority of dwellings were constructed to a three storey height, as shown on the following map.

Figure 16: Map showing Three Storey dwellings along this Ocean Dr frontage (Subject Land outlined in red)



The above examples of height exceedance and floor space ratio exceedance, in this locality of Ocean Drive, demonstrates the character of dwellings in this locality. Having regard to these examples of approved height and floor space ratio exceedance, and after reviewing the bulk and scale of the dwellings in this locality, it is considered that this proposal is consistent with objective (a) such that the dwelling is compatible with the height, bulk and scale of the existing and desired future character of the locality.

With regard to objective (b), being to *minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development*, it is noted that the portion of the roofline which exceeds the height of 8.5m is located at the front of the roof, adjacent to Ocean Drive.

When viewed from the rear of the property, the proposed roofline will be much lower than the existing roofline, and thus the proposal will provide for a significant reduction in any view impacts to the properties at the rear.

The properties on the other side of Ocean Drive sit well below the subject land, and thus do not have any opportunity for a view over the top of the existing or proposed dwelling. The proposal will therefore not adversely impact on views from the properties on the other side of Ocean Drive.

The adjoining three storey dwelling at 975 Ocean Drive was also assessed as not having a view over the top of, or across the side boundary of the subject land – either currently or post the proposed development. The front balcony areas of 975 Ocean Drive have privacy screening adjoining the side boundaries, and thus views across side boundaries are obscured. It is considered that the primary view from 975 Ocean Drive is towards the beach

and ocean areas, which is a view enjoyed by looking away from the subject land. For these reasons, it is considered that the proposal will not adversely impact on views enjoyed from 975 Ocean Drive.

Figure 17: Streetview extract showing the three storey residential properties adjoining the Subject Land



The three storey dwelling on the other side of the subject land is 979 Ocean Drive. This is a strata lot constructed as an attached dual occupancy in the form of two x three storey walkups. The garage is located on the lower floor level, with living areas located on the middle floor, and the bedrooms located on the upper floor. Only the middle floor has a balcony. The views currently enjoyed from the existing balcony areas of 979 Ocean Drive will not be altered by the proposal.

The upper floor level of the existing dual occupancy at 979 Ocean Drive is occupied by bedrooms. The upper windows are shown in the following street view image:

Figure 18: Streetview extract showing 979 Ocean Drive adjoining the Subject Land



There are limited available photographs of the view from the upper bedrooms, but based on the available information, there are glimpses of ocean views from these upper bedroom areas. Whilst views from bedroom windows, and views across side boundaries, are not considered to be highly valued in Land & Environment Court Principles, the potential impacts from these areas have been considered as follows.

The proposed alfresco addition does not appear to have the potential to impact on the view from the upper bedroom of Unit 1, 979 Ocean Drive.

The view from the bedroom of Unit 2, which is the closest upper floor window to the subject land, may potentially have a small area of view impacted. The dual occupancy at 979 Ocean Drive is setback from the existing building line of both the existing dwelling on the subject land, and the dwelling on 975 Ocean Drive. This makes it difficult to achieve a view towards the east from the upper floor bedroom window of Unit 2 / 979 Ocean Drive.

Based on the available information, it is considered that the best view from the upper bedroom of Unit 2 at 979 Ocean Drive would be towards the north. The development of the proposed alfresco area on the subject land would not impact on the view towards the north.

Thus, it is considered that the proposed alterations and additions on the subject land, will not have an adverse visual impact. It is noted that there is a very limited area of the proposed roof which will be above the development standard building height.

The height variation was also found to not have an adverse impact on disruption of views or loss of privacy. The proposed alfresco area has fixed louvres on each side of the elevated

area and these provide good privacy protection, although it is noted that the alfresco area itself does not exceed the height limit.

It is also noted that the shadow diagrams demonstrate that the variation in height will not adversely impact on solar access.

With regard to objective (c), there are no heritage items that could be impacted by the proposal.

Objective (d) refers to the heights as they have been nominated in the LEP to provide a transition in built form. Residential areas have a standard height of 8.5m. The proposal is consistent with the height of buildings in this locality.

The objectives of clause 4.4 of LEP 2011 include (a) to regulate density of development and generation of vehicular and pedestrian traffic. In this regard, it is noted that the proposal will reduce the total number of bedrooms within the dwelling from the current 4 bedrooms, to a total of 3 bedrooms. The proposal will retain the existing double garage on the lower ground floor.

Thus, it is considered that the generation of vehicular and pedestrian traffic will be reduced due to the reduction in the number of bedrooms on this property, and traffic movements are likely to be reduced for this reason. The building bulk is in keeping with existing dwellings in this locality. Thus, the proposal is consistent with the provisions of clause 4.4(a).

The objective relating to increasing building height and site amalgamation at key locations is not of particular relevance to individual domestic dwelling sites. The consolidation of lots along this Ocean Drive frontage is not likely to occur, particularly due to the recent renovations to the existing housing stock which has improved the property values. Thus, site amalgamation has not occurred in this locality and is not likely to occur in the near future.

As previously noted, this locality of Ocean Drive consists of very small allotments which were created in the 1930s, most likely for holiday homes. The demand for large properties with expansive outdoor living areas was not required, as the majority of outdoor recreation was spent on the beach and coastal areas. The development of these lots for three storey dwellings, has reflected this use of the land. Capturing ocean views, and providing sufficient bedrooms to cater for a family holiday visit, is the design of the older housing stock. The renovated properties have continued to maintain the building height and bulk.

Thus, the proposed alterations and additions reflect the building scale and bulk in this locality, as is the existing and evidently the future character of this locality.

Therefore, it is considered that the proposal has achieved the objectives of both clause 4.3 and clause 4.4 of the LEP despite the variation. In this manner, it has been demonstrated that compliance with these development standards is unreasonable and unnecessary.

Sufficient environmental planning grounds

In demonstrating that there are sufficient environmental planning grounds to justify contravening the development standard, the grounds must be:

- “environmental planning grounds” by their nature, being grounds that relate to the subject matter, scope and purpose of the *Environmental Planning and Assessment Act 1979* (NSW) (including section 1.3 of the EPA Act); and
- Be “sufficient” in that they are adequate to:
 - **Justify** contravening the development standard, not simply promote the benefits of the development. The focus should be the element of the development that contravenes the development standard, not on the development as a whole.
 - **Demonstrate** that there are sufficient environmental planning grounds to justify contravention so that the Council can be satisfied that the written request has adequately addressed the matter.

The objects of the Act (section 1.3 of the EPA Act) are as follows:

1.3 Objects of Act

The objects of this Act are as follows—

- (a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State’s natural and other resources,*
- (b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,*
- (c) to promote the orderly and economic use and development of land,*
- (d) to promote the delivery and maintenance of affordable housing,*
- (e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,*
- (f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),*
- (g) to promote good design and amenity of the built environment,*
- (h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,*
- (i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,*
- (j) to provide increased opportunity for community participation in environmental planning and assessment.*

This proposal will not impact on the environment of threatened species, including ecological communities. The proposal will not adversely impact on areas of built or cultural heritage,

including Aboriginal cultural heritage. The proposal will not impact on the responsibility of sharing planning responsibilities across all levels of government, nor will the proposal impact on the opportunity for community participation in planning matters.

The portion of roof which exceeds the 8.5m height will not adversely impact on the adjoining neighbours in regards to privacy or overshadowing, and will not have any adverse impact on view sharing. The variation relates to a minor area of the proposed roof and the design is consistent with the existing character of the locality.

The proposed alterations and additions will result in a slight reduction in the gross floor area of the dwelling, albeit the dwelling will still exceed the floor space ratio for this locality. It is noted that the gross floor area of the proposal is 166.5m². This is significantly smaller than the average size of a free standing house in Australia – which is just under 230m².

Thus, the proposed alterations and additions will not result in an oversized dwelling. The dwelling will remain significantly smaller than the average house size. The reason the dwelling is greater than the identified floor space ratio is primarily due to the very small lot sizes. The total area of the subject land itself is also well below the average size of an Australian freestanding dwelling, as the deposited plan shows the subject land is only 202.3m².

For these reasons, it is considered the proposal is consistent with the environmental planning grounds noted above and the variation is justified.

Is the proposed development in the public interest?

The Consent Authority must be satisfied that the proposed development will be in the public interest **because it is consistent** with the objectives of:

- a. the particular development standard;
- b. the zone in which the development is proposed to be carried out.

The objectives of clause 4.3 – Height of Buildings are as follows:

4.3 Height of buildings

(1) *The objectives of this clause are as follows—*

- (a) *to ensure that buildings are compatible with the height, bulk and scale of the existing and desired future character of the locality,*
- (b) *to minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development,*
- (c) *to minimise the adverse impact of development on heritage conservation areas and heritage items,*
- (d) *to nominate heights that will provide a transition in built form and land use intensity within the area covered by this Plan.*

The objectives of clause 4.4 – Floor space ratio are as follows:

4.4 Floor space ratio

(1) The objectives of this clause are as follows—

- (a) to regulate density of development and generation of vehicular and pedestrian traffic,*
- (b) to encourage increased building height and site amalgamation at key locations,*
- (c) to provide sufficient floor space for high quality development for the foreseeable future,*
- (d) to ensure that buildings are compatible with the bulk and scale of the existing and desired future character of the locality.*

The objectives of both clause 4.3 and clause 4.4 have been considered earlier in this assessment and it was determined that the proposal is consistent with the relevant objectives.

The objectives of the R1 – General Residential zone area as follows:

- To provide for the housing needs of the community.*
- To provide for a variety of housing types and densities.*
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.*

The overall proposal has been assessed in regards to these zone objectives. In regards to these objectives, it is noted that the proposal will provide for an upgrade to the existing housing stock on the subject land. The alterations and additions will improve the livability of this dwelling and improve the housing supply.

The proposal is for a purely residential development, and thus the last dot point of the objectives is not relevant to this proposal.

Thus, it is considered that the proposal is consistent with objectives of both the development standards which are being varied, and the objectives of the relevant landuse zone.

Has the concurrence of the Secretary has been obtained?

The Secretary's concurrence may be assumed for this minor variation to the development standards.

6.3 Conclusion

The provisions of clause 4.6, and the relevant court determinations, have set out a long list of matters to be considered when a consent authority assesses any proposal to vary a development standard. The above assessment has considered all of the relevant matters and assessed the proposal as required.

It is noted that the area of the roof which exceeds the 8.5m height is minor, and the extent of exceedance is minor, being less than 10%.

The variation to the floor space ratio is greater than 10% but the proposed alterations and additions will result in a slight reduction to the extent of the existing FSR variation.

The proposal is consistent with a number of existing and new dwellings in this locality, and reflects the steep topography and very small allotments in this area.

The proposal has been shown to be consistent with the zoning and clause 4.3 and clause 4.4 objectives and the public benefit of the development standards is not lost or eroded by this proposal.

For these reasons, the variation to the development standards being the height of buildings and floor space ratio, is considered acceptable in these circumstances.

FOR USE BY PLANNERS/SURVEYORS TO PREPARE LIST OF PROPOSED CONDITIONS

NOTE: THESE ARE DRAFT ONLY

DA NO: 2022/821

DATE: 7/02/2023

PRESCRIBED CONDITIONS

The development is to be undertaken in accordance with the prescribed conditions of Part 4 - Division 2 of the *Environmental Planning & Assessment Regulations 2021*.

A – GENERAL MATTERS

- (1) (A001) The development is to be carried out in accordance with the plans and supporting documents set out in the following table, as stamped and returned with this consent, except where modified by any conditions of this consent.

Plan / Supporting Document	Reference	Prepared by	Date
Development plans	22/015 Revision F Sheets 1 to 12	Davy & Watt Building Design	9 January 2023
BASIX Certificate	A468224	Davy and Watt	31 August 2022

In the event of any inconsistency between conditions of this development consent and the plans/supporting documents referred to above, the conditions of this development consent prevail.

- (2) (A002) No work shall commence until a Construction Certificate has been issued and the applicant has notified Council of:

- a) the appointment of a Principal Certifying Authority and
- b) the date on which work will commence.

Such notice shall include details of the Principal Certifying Authority and must be submitted to Council at least two (2) days before work commences.

- (3) (A009) The development site is to be managed for the entirety of work in the following manner:
1. Erosion and sediment controls are to be implemented to prevent sediment from leaving the site. The controls are to be maintained until the development is complete and the site stabilised with permanent vegetation;
 2. Appropriate dust control measures;
 3. Building equipment and materials shall be contained wholly within the site unless approval to use the road reserve has been obtained. Where work adjoins the public domain, fencing is to be in place so as to prevent public access to the site;
 4. Building waste is to be managed via appropriate receptacles into separate waste streams;

5. Toilet facilities are to be provided on the work site at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.
6. Building work being limited to the following hours, unless otherwise permitted by Council;
 - Monday to Saturday from 7.00am to 6.00pm
 - No work to be carried out on Sunday or public holidays

The builder to be responsible to instruct and control his sub-contractors regarding the hours of work.

B - PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE

- (1) (B001) Prior to release of the Construction Certificate, approval pursuant to Section 68 of the Local Government Act, 1993 to carry out water supply, stormwater and sewerage works is to be obtained from Port Macquarie-Hastings Council. The following is to be clearly illustrated on the site plan to accompany the application for Section 68 approval:
 - Position and depth of the sewer (including junction)
 - Stormwater drainage termination point
 - Easements
 - Water main
 - Proposed water meter location
- (2) (B006) An application pursuant to Section 138 of the Roads Act, 1993 to carry out works required by the Development Consent on or within public road is to be submitted to and obtained from Port Macquarie-Hastings Council prior to release of the Construction Certificate.

Such works include, but not be limited to:

 - i. Alteration of footway and gutter crossing
 - ii. Alteration of driveway access
- (3) (B039) Detailed drawings and specifications prepared by a professional engineer for all retaining walls supporting:
 - i. earthworks that are more than 600mm above or below ground level (existing) and located within 1m of the property boundaries; or
 - ii. earthworks that are more than 1m above or below ground level (existing) in any other location;are to be submitted to the Principal Certifying Authority with the application for Construction Certificate.
- (4) The construction certificate plans shall clearly illustrate and notate the privacy screening along the eastern and western sides of the alfresco area as having 25% openings (max), with no individual opening more than 30mm wide, is permanently fixed and is made of durable materials.

C – PRIOR TO ANY WORK COMMENCING ON SITE

Nil

D – DURING CONSTRUCTION

Nil

E – PRIOR TO OCCUPATION OR THE ISSUE OF OCCUPATION CERTIFICATE

- (1) (E001) The premises shall not be occupied or used in whole or in part until an Occupation Certificate has been issued by the Principal Certifying Authority.
- (2) (E058) Written confirmation being provided to the Principal Certifying Authority (PCA) from any properly qualified person (eg the builder), stating that all commitments made as part of the BASIX Certificate have been completed in accordance with the certificate.
- (3) (E034) Prior to occupation or the issuing of the Occupation Certificate provision to the Principal Certifying Authority of documentation from Port Macquarie-Hastings Council being the local roads authority certifying that all matters required by the approval issued pursuant to Section 138 of the Roads Act have been satisfactorily completed.
- (4) (E051) Prior to occupation or the issuing of any Occupation Certificate a section 68 Certificate of Completion shall be obtained from Port Macquarie-Hastings Council.

F – OCCUPATION OF THE SITE

Nil

DRAFT



Drinking Water Management System

Annual Report 2021/22

Port Macquarie-Hastings Council
Date: October 2022
Version: 1.3

Document control

Document: Drinking Water Management System Annual Report

File No: D2022/339121.....

Date: 13 October 2022

Prepared by: [REDACTED]

Reviewed by: [REDACTED]

[REDACTED] (LPHU)

Approved by: Jeffery Sharp

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1.3	07/10/22	Final Version	[REDACTED]
2	13/10/22	Final Approval	Jeffery Sharp

Executive Summary

The NSW Guidelines for Drinking Water Management Systems (NSW Ministry of Health 2013) provide guidance on the implementation of a Drinking Water Management System, in accordance with the Public Health Act 2010, Public Health Regulation 2012. The NSW Guidelines are based on the Framework for Management of Drinking Water Quality, as outlined in the Australian Drinking Water Guidelines (ADWG 2011).

Port Macquarie-Hastings council manages five (5) water supply systems, supplying drinking water to the region.

This report has been prepared to address the guideline requirements for continuous evaluation and review of Council's Drinking Water Management System (DWMS) and provides an annual review of the performance of its water supply systems, for the reporting period 1 July 2021 to 30 June 2022.

Water quality performance is monitored through operational and laboratory testing. Exceptions in water quality are measured as performance against the Australian Drinking Water Guideline (ADWG) limits and Critical Control Points for each supply system that are based on the ADWG limits. The table below summarises the water quality performance for all supplies systems council manage.

Supply System	Volume of Water Supplied (ML) and the percentage it accounts for in the entire council supply system	CCP Exceedances	ADWG Exceedances
Port Macquarie - Camden Haven	5164 (81%)	5	14
Wauchope	1115 (18%)	5	2
Comboyne	13.7 (0.22%)	0	0
Long Flat	7.9 (0.12%)	0	0
Telegraph Point	23.9 (0.38%)	0	1

A continuous improvement plan was developed as part of the DWMS and all improvement actions identified during risk assessments as well as subsequent reviews of the DWMS have been documented. Council has continued to implement these improvement actions, with a total of 58 actions completed or ongoing since the last time continuous improvement plan was reviewed in 2014. A total of 24 tasks remain to be implemented, with none of them being classified as a high priority.

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1 Report purpose

This report is designed to address the reporting (Element 10), evaluation (Element 11) and review and continual improvement (Element 12) requirements of the Port Macquarie-Hastings Council Drinking Water Management System (DWMS), as prescribed under The Public Health Act 2010 (NSW 2010). The NSW Guidelines for Drinking Water Management Systems (2013) provide guidance on the implementation of a Drinking Water Management System, in accordance with the Public Health Act 2010 and the Public Health Regulation 2012. The NSW Guidelines are based on the Framework for Management of Drinking Water Quality, as outlined in the Australian Drinking Water Guidelines (ADWG 2011) and any amendments thereafter.

The NSW Guidelines for Drinking Water Management Systems (2013) recommends review of the following areas:

- Performance of critical control points
- Water quality review (raw, treated and distribution water quality including verification monitoring in the NSW Health Drinking Water Database)
- Levels of Service (including consumer complaints)
- Incident and emergencies (including follow up)
- Drinking Water Management System implementation
- Continuous Improvement Plan implementation

Review of system performance are measured against ADWG, levels of service, NSW Water Supply and Sewerage Performance Monitoring Reports and other regulatory requirements (Element 1). Shortcomings are captured in the Improvement Plan (Element 12).

Port Macquarie-Hastings Council has developed this report to provide an annual review of the performance of its water supply systems for the reporting period 01 July 2021 to 30 June 2022. This report addresses the guideline requirements for continuous evaluation and review for Council's DWMS and the water supply systems.

2 Scheme Summary

Port Macquarie-Hastings Council (PMHC) is located on the mid north coast of NSW, covering an area of 3,686 km², the area is located adjacent to the Hastings River, the Pacific Highway, the Oxley Highway and the North Coast railway line. The areas major population centre is Port Macquarie, and includes smaller townships such as Wauchope, Camden Haven, Long Flat, Telegraph Point and Comboyne.

PMHC manages a total of five (5) water supplies that supply drinking water to the region - Port Macquarie - Camden Haven, Wauchope, Telegraph Point, Comboyne and Long Flat. There are two (2) major water storage reservoirs that supply the Port Macquarie - Camden Haven region, Port Macquarie Dam and Cowarra Dam. Raw water is pumped from the Hastings River at Koree Island to store, treat and supply residents via Port Dam and Cowarra Dam.

Table 2-1 below provides the summary for Port Macquarie - Camden Haven water supply system. Wauchope, Comboyne, Long Flat and Telegraph Point have their own water supplies which are pumped directly from Hastings River (Koree Island Pump stations), Thone River, Hastings River and Wilson River respectively, and are treated and filtered before being supplied to residents. Table 2-2, 2-3, 2-4 and 2-5 provides the summary of the Wauchope, Comboyne, Long Flat and Telegraph Point supply system respectively.

Table 2-1 Summary of Port Macquarie - Camden Haven Water Supply System

Water supply system name	Port Macquarie-Camden Haven Water Supply
Water source	Hastings River (Through Koree Island Pump Station 2 & 3), water transferred to and stored in Port Dam and Cowarra Dam where it is pumped into the Port Macquarie, Bonny Hills, Kew, Kendall and Camden Haven reticulation systems.
Treatment unit processes	Lime and CO2 dosing for increasing alkalinity & pH correction, Hypochlorite disinfection (at Wauchope Treatment Plant & Port Macquarie Dam), Fluoride Dosing.
Treatment capacity (ML/day)	100 ML/day
Towns supplied	Port Macquarie, Bonny Hills, Lake Cathie, Camden Haven
System upgrades/improvements	None (Council has commenced the concept design for the Cowarra Water Treatment Plant, that will supply filtered water to the Port Macquarie - Camden Haven Water supply system. It is due to be operational by 2027)

Table 2-2 Summary of Wauchope Water Supply System

Water supply system name	Wauchope Water Supply
Water source	Hastings River (Through Koree Island Pump Station 2 & 3)
Treatment unit processes	Lime and CO2 dosing for increasing alkalinity & pH correction, Hypochlorite disinfection, Fluoride Dosing, Ultrafiltration
Treatment capacity (ML/day)	21 ML/day
Towns supplied	Wauchope, Beechwood, Sancrox, King Creek, Thrumster
System upgrades/improvements	Upgrade from 6 to 21ML/day capacity with the construction of an additional two filtration trains. (Council is in the last stages of concept design for an upgraded chlorination system, converting from Sodium Hypochlorite to Chlorine Gas, due to be completed in 2023)

Table 2-3 Summary of Comboyne Water Supply System

Water supply system name	Comboyne Water Supply
Water source	Thone River
Treatment unit processes	Lime and CO2 dosing for increasing alkalinity & pH correction, Hypochlorite disinfection and Ultrafiltration
Treatment capacity (ML/day)	0.4 ML/day
Towns supplied	Comboyne
System upgrades/improvements	Ultrafiltration membrane are due to be replaced in 2023, as part of a three (3) year program to replace all membranes for council's water treatment plants.

Table 2-4 Summary of Long Flat Water Supply System

Water supply system name	Long Flat Water Supply
Water source	Hastings River
Treatment unit processes	Lime and CO2 dosing for increasing alkalinity & pH correction, Hypochlorite disinfection and Ultrafiltration
Treatment capacity (ML/day)	0.3 ML/day
Towns supplied	Long Flat
System upgrades/improvements	Ultrafiltration membrane are due to be replaced in 2023, as part of a 3 year program to replace all membranes for councils water treatment plants.

Table 2-5 Summary of Telegraph Point Water Supply System

Water supply system name	Telegraph Point Water Supply
Water source	Wilson River
Treatment unit processes	Lime and CO2 dosing for increasing alkalinity & pH correction, Hypochlorite disinfection and Ultrafiltration
Treatment capacity (ML/day)	1 ML/day
Towns supplied	Telegraph Point
System upgrades/improvements	The membranes at Telegraph Point were initially replaced with used membranes and will be replaced with new membranes in 2023, as part of a 3-year program to replace all membranes for our water treatment plants. The membranes became fouled due to continued extraction during high rainfall events, and needed replacement prior to approval to tender for the replacement program. Council were able to use membranes from the Wauchope WTP that were planned to be replaced as part of this program, and not currently used due to the capacity upgrade for Wauchope.

3 DWMS Document Review

Table 3-1 Summary of revisions of the Drinking Water Management System

Document	Version	Updates	Submitted to NSW Health and date submitted?
DWMS	1.0	June 2021 updated incorporating structure change	October 2021 at MOU Meeting
CCP Procedures	3.0	June 2021 - review as listed in section 4	October 2021 at MOU Meeting
Implementation Plan (continuous improvement plan)	0.5	September 2022	September 2022 in Annual Report
Risk Assessment	0.4	None	

4 Critical Control Points

A Critical Control Point (CCP) is defined as an “activity, procedure or process at which control can be applied, and which is essential to prevent a hazard or reduce it to an acceptable level” (NSW Ministry of Health 2013). These may be processes such as selective abstraction of raw water, filtration, disinfection or reservoir integrity. For each CCP, a parameter, such as chlorine residual, can be measured to verify the effectiveness of the process or identify when corrective action is required.

Target, alert, shutdown and critical limits are determined for each CCP parameter to identify normal and outside of normal operational conditions. The target limit identifies the normal operational conditions, the alert limit indicates that the parameter is outside the normal conditions and corrective action may be required, and the critical limit, if exceeded, indicates that process control has been lost and safe water quality can no longer be guaranteed. The shutdown limit was recently added to give an indication to operators in consultation with supervisors to be able to shut down certain functions of the system if deemed appropriate.

Operators sample and test the pre and post treated water for all of Councils water supplies, for monitoring CCP parameters and operational performance. Monitoring includes sample collection and analysis using laboratory and field instruments and real-time monitoring using online instrumentation. Council Clear SCADA system also enables operators to remotely monitor the treatment plants and online instrumentation. Where online probes are used for monitoring, laboratory tests, calibration and routine maintenance are undertaken to ensure the online probes are reading correctly.

Operational data is stored in Water Outlook and is accessible at all times to the operators, supervisor and manager. Water Outlook has installed dashboards for visual monitoring of CCP's through graphs and traffic light warnings. If monitoring data (from both SCADA and Water Outlook) triggers the alert or critical limits for the CCP, the operators undertake corrective actions, as indicated in their CCP procedures, and in consultation with their supervisor. Operators also report these exceptions in Water Outlook using the Incident Report System. The Incident Report provides a record of the reason for the exceptions, the corrective actions undertaken and whether any further actions are required to reduce the likelihood of this exception occurring again.

Summary tables of the CCP'S for each supply systems are shown in Appendix A. Changes to Critical Control Points are summarized in table 4-1 below.

Table 4-1 Summary of CCP Changes

Supply System	CCP Numbers	Changes
Port Macquarie - Camden Haven Supply System	CCP2, CCP3, CCP4	Include winter and summer targets for Chlorine residual levels for the operating target as well as adjustment and shutdown limits
Wauchope Supply System	CCP3	Include winter and summer targets for Chlorine residual levels for the operating target as well as adjustment and shutdown limits
Comboyne Supply System	CCP2	Include winter and summer targets for Chlorine residual levels for the operating target as well as adjustment and shutdown limits

4.1 CCP Performance

Port Macquarie Hastings Council maintains a monitoring system of critical control points (CCP) which includes online analysers as well as physical samples monitoring. Water quality data taken from physical test of samples and online analysers are captured in water outlook where operators can monitor for any CCP exceedances. Critical limit exceedances are summarised for each supply systems in the following sections. CCP trends that have exceedances are shown in Appendix B, CCP trends that contains no exceedances are omitted due to a large number of data points across the entire supply system.

4.1.1 CCP exceedances for Port Macquarie - Camden Haven Supply System

The Port Macquarie - Camden Haven water supply draws its water from the Hastings River through Koree Island pumps stations 2 and 3 via Port Dam and Cowarra Dam. During periods of heavy rains in the summer, CCP exceedances (>30NTU) at our Koree Island Pump stations are common and during this period the pumps are shut down and raw water is not drawn from the Hastings River, to make sure our water quality in the Dams are not compromised. A Graph of CCP trends for raw water turbidity at Koree Island pump station is provided in Appendix B Graph B.1. Due to a large number of exceedances they will not be included in the summary table 4-2 of exceedances for the Port Macquarie - Camden Haven supply system.

Table 4-2 below provides summary of CCP exceedances for Port Macquarie - Camden Haven supply system. There are numerous CCP exceedances for turbidity at reservoirs where the critical limit is 2 NTU and these have not been provided in this table. All individual exceedances of 2NTU in this system's reservoirs have been summarised in Appendix C, Table C.1 and the turbidity trends at these reservoirs are shown in Appendix B. All turbidity exceedances of >5NTU are provided in table 4-2 below.

The Port Macquarie - Camden Haven water supply system is an unfiltered supply system. The unfiltered water at times does exceed best practice of 2 NTU for turbidity. In the process of reviewing the Reservoir CCP exceedances, Council has discovered that the critical limit of 2 NTU for reservoirs in this particular supply system is incorrect. This critical limit should mimic the critical limit of 5 NTU for Dam extraction and the distribution networks, which is also the limit in the ADWG. Council will seek NSW Health approval to change this CCP, to ensure the Target, Adjustment, Operational and Critical Limits mimic the other CCP's for this scheme.

Graphs of turbidity versus cryptosporidium over the last 5 years' period for both the Port Macquarie Dam and Cowarra Dam have been provided in Appendix D. (graphs D.21 and D.22). These graphs demonstrate that over this 5 year period, there was only one detection of Cryptosporidium in the Port Macquarie Dam and none in the Cowarra Dam. During this period both dams experienced higher periods of turbidity when the dams were low and then filled following the 2019 drought. Outside of these fill periods, the turbidity averages around 1 to 1.5 NTU in each Dam.

Council does have a population of deer living around the Port Macquarie Dam, and Local Land Services conducts continuous deer reduction program around the Dam, to manage the risks of contamination from deer.

This data demonstrates that the risk of cryptosporidium contamination is low, despite higher levels of turbidity at times in Councils catchments and reticulation systems. Increasing the turbidity limit to 5 NTU for the reservoirs, to match the other critical limits for this system, should not increase the risk for Cryptosporidium.

The fluoride levels in the Port Macquarie reticulation system are consistently low throughout the reporting period (below the critical limit minimum threshold of 0.9mg/L). Graph B.3 in Appendix B provides a trend of one sample location in our reticulation for the past 12 months.

Water transferred to Cowarra and Port Macquarie Dams contains fluoride that is added to a concentration of 1mg per litre. Until the entire storage area reaches this concentration, the large volume of water in storage at each dam dilutes the fluoride concentration levels to below the required level of 1mg per litre.

In 2019, in consultation with NSW Health, Council paused fluoride dosing when the severe drought resulted in council not being able to draw water from the Hastings River as normal. Fluoride dosing was removed from the usual control sequence as dam levels dropped in order to maximise available extraction opportunities. The pause on fluoride dosing also coincided with a review of environmental considerations around open water storage dams and water distribution network.

Since the drought, Council have replenished our dam levels, but this pause in fluoride dosing for the bulk supply has meant the level of fluoride in the dams has been significantly diluted. Council recommenced fluoride dosing directly to the Wauchope water supply in April 2021. Fluoridation of the Hastings bulk water supply recommenced in September 2021. Fluoride is dosed into the raw water that is pumped to the inlet of the Port Macquarie and Cowarra Dam. Previously it took Council approximately 10 years to reach a fluoride level of 0.8 mg/L in Cowarra Dam, as it is a large storage, and hence, has a low turnover of water. It is anticipated that it will again take up to 10 years for the Cowarra Dam water to reach the required 1 mg/L of fluoride in the stored water.

The Port Macquarie Dam is much smaller than Cowarra Dam and hence turns over water supply at a much quicker rate than Cowarra Dam. When the Port Macquarie Dam is filled directly from the Kooree pumps (Hasting River) it is able to build up the levels of fluoride at a quicker rate. Unfortunately, there are times when we have to pump to Port Macquarie Dam from Cowarra Dam, when the river conditions do not allow extraction. Filling from Cowarra Dam then dilutes the level of fluoride in the Port Macquarie Dam. This will continue to inhibit Councils ability to achieve a level of 1 mg/l in the Port Macquarie Dam.

Table 4-2 Summary of CCP exceedances for Port Macquarie- Camden Haven Supply System

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value	Reason	Immediate Corrective Action	Preventive Action
Port Macquarie	21/06/22	CL (Critical Limit)	Port Base Hospital Distribution Network Sampling	Turbidity	>2NTU	9.6	Fire Service testing near this sample point	Flushing of water mains to reduce turbidity	Council has commenced the design of a water treatment plant to provide filtered water to the Port Macquarie - Camden Haven supply, due to commence supply in 2027. Council also conducts an ongoing mains cleaning and replacement program.
Camden Haven	9/09/2021	CL (Critical Limit)	Kendall Reservoir	Turbidity	>2NTU	5.99	Water main break at bridge across to Kendall	Flushing of reticulation networks	Council has commenced the design of a water treatment plant to provide filtered water to the Port Macquarie - Camden Haven supply, due to commence supply in 2027. Council also conducts an ongoing mains cleaning and replacement program.
Camden Haven	9/09/2021	CL (Critical Limit)	Kendall Reservoir	Turbidity	>2NTU	8.62	Water main break at bridge across to Kendall	Flushing of reticulation networks	Council has commenced the design of a water treatment plant to provide filtered water to the Port Macquarie - Camden Haven supply, due to commence supply in 2027. Council also conducts an ongoing mains cleaning and replacement program.
Camden Haven	11/09/2021	CL (Critical Limit)	Kendall Reservoir	Turbidity	>2NTU	6.89	Water main break at bridge across to Kendall	Flushing of reticulation networks	Council has commenced the design of a water treatment plant to provide filtered water to the Port Macquarie - Camden Haven supply, due to commence supply in 2027. Council also conducts an ongoing mains cleaning and replacement program.
Camden Haven	13/09/2021	CL (Critical Limit)	Kendall Reservoir	Turbidity	>2NTU	3.7	Water main break at bridge across to Kendall	Flushing of reticulation networks	Council has commenced the design of a water treatment plant to provide filtered water to the Port Macquarie - Camden Haven supply, due to commence supply in 2027. Council also conducts an ongoing mains cleaning and replacement program.

4.1.2 CCP exceedances for Wauchope Supply System

The Wauchope supply system encountered the same exceedances as the Port Macquarie - Camden Haven system with regards to high turbidity in raw water, as it has the same water source (Hastings River through Koree Island Pump Station 2 & 3). This was during periods of heavy rain over the summer of this reporting period. Refer to Appendix B Graph B.1 for the raw water turbidity level. During periods of high turbidity (above 30NTU) Koree Island Pump Stations are shut off. Due to a large number of exceedances they will not be included in the summary table 4-3 of exceedances for the Wauchope supply system. The table 4-3 below shows the CCP exceedances for the Wauchope Water supply system.

Table 4-3 Summary of CCP exceedances for Wauchope Supply System

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value	Reason	Immediate Corrective Action	Preventive Action
Wauchope	14/09/21 - 19/09/21	CL (Critical Limit)	Rosewood Reservoir 1	Fluoride levels	<0.9mg/L for 24 hours or ≥1.5	<0.9mg/L, Shown on Graph in appendix B graph B.2	In September council conducted cleaning procedures of the fluoride dosing system where we pumped raw water into the fluoride storage tank and diluting the concentration of the fluoride solution by 50%. The dosing rate is not adjusted as it is too complicated and thus the fluoride level drops in water to about 50% of the target concentration.	Reported to LPHU and commence dosing immediately following works	N/A
Wauchope	02/03/22 - 18/04/22	CL (Critical Limit)	Rosewood Reservoir 1	Fluoride levels	<0.9mg/L for 24 hours or ≥1.5	<0.9mg/L, Shown on Graph in appendix B graph B.2	From March to April 2022 there are two dips in the level of fluoride in Rosewood 1 reservoir. This is because during this time due to heavy rain events the turbidity at koree Island was extremely high (above 30NTU) for large parts of the 2 months. During this time Council was required to backfeed from Cowarra Dam where the water has low fluoride levels and this leads to a drop in concentration levels of the fluoride.	Reported to LPHU	N/A
Wauchope	24/06/22 onwards	CL (Critical Limit)	Rosewood Reservoir 1	Fluoride levels	<0.9mg/L for 24 hours or ≥1.5	<0.9mg/L, Shown on Graph in appendix B graph B.2	The Koree 2 Rising Main Flowmeter was faulty and as such we were unable to dose fluoride until the flowmeter was replaced.	Reported to LPHU	Improve preventative maintenance procedure
Wauchope	01/12/2021	CL (Critical Limit)	Beechwood Reservoir	Chlorine Residual	<0.2mg/L or >5mg/L	0.07mg/L	Beechwood Reservoir is at the end of the water main from Wauchope Treatment Plant which feeds numerous private residences before reaching the reservoir. As such it is expected that the chlorine residual level will be lower in the reservoir than in the reticulation which had a minimum CL residual level of 0.83mg/L during the year.	Sodium Hypochlorite pills are added into the reservoir	Supply scheme is being upgraded, new mains constructed to supply directly from WTP without needing Beechwood reservoir
Wauchope	09/12/2021	CL (Critical Limit)	Beechwood Reservoir	Chlorine Residual	<0.2mg/L or >5mg/L	0.17mg/L	Beechwood Reservoir is at the end of the water main from Wauchope Treatment Plant which feeds numerous private residences before reaching the reservoir. As such it is expected that the chlorine residual level will be lower in the reservoir than in the reticulation which had a minimum CL residual level of 0.83mg/L during the year.	Sodium Hypochlorite pills are added into the reservoir	

4.1.3 CCP exceedances for Comboyne Supply System

There were no CCP exceedances the for Comboyne water supply system. This water supply system is not fluoridated.

4.1.4 CCP exceedances for Long Flats Supply System

There were no CCP exceedances for the Long Flat water supply system. This water supply system is not fluoridated

4.1.5 CCP exceedances for Telegraph Point Water Supply System

There were no CCP exceedances for the Long Flat water supply system. This water supply system is not fluoridated

5 ADWG Water Quality

The Australian Drinking Water Guidelines (NHMRC 2011) provide an authoritative reference that defines what is safe and good water quality and how this can be achieved and assured, using the latest and best available scientific evidence. The ADWG provide detailed information on the measurable characteristics of drinking water, including microbiological, physical and chemical aspects, and these are grouped into two different guidelines:

- A health guideline value – which is the concentration or measure of a water quality characteristic that, based on present knowledge, does not result in any significant risk to the health of the consumer over a lifetime of consumption;
- An aesthetic guideline value – which is the concentration or measure of a water quality characteristic that is associated with acceptability of water to the consumer, such as, appearance, taste and odour.

Reticulation monitoring is undertaken on a routine basis to ensure that Councils customers receive safe and acceptable water quality, which complies with the Australian Drinking Water Guidelines (ADWG) guideline limits. Council's Water Process Operators collect samples from each water supply reticulation system and these are sent to the Port Macquarie Hastings Environmental Laboratory. Additional chemical samples are also taken by the operators and these are sent to the NSW Health Laboratory (FASS). Samples from both laboratories are entered into NSW Health Laboratory Testing Database. Chemical sample test results from NSW Health Laboratory are shown in appendix E.

Trends of water quality results are shown in Appendix D for reference, due to the large set of data from more than 50 sample points across the entire water supply system, certain trends of water quality characteristic that are within the health and aesthetic guidelines have not be shown and only those that have exceeded the guideline values have been presented.

5.1 Data Collection

Raw water, treated water and reticulated water samples are collected from numerous sites around the five (5) water supply networks. The reticulated samples are used for monitoring compliance against the ADWG. A summary of non-compliant data for each supply system is provided in section 5.2. Turbidity is monitored in accordance with Councils CCP's, so exceedances for these are not included in this section.

5.2 Non-compliant data

The sections below provide a summary of the non-compliant data for each supply system.

5.2.1 Summary of non-compliant data for the Port Macquarie - Camden Haven system

There are 24 sample sites in the reticulation network in Port Macquarie and 18 sample sites in the reticulation in the Camden Haven area. There were a total of five (5) exceedances for Total Coliforms and 9 exceedances for pH, with a total of 14 exceedances for this system. A summary of non-complaint water quality is shown in the table 5-1 below.

Council also collects 12 samples per year that are sent to the NSW Health Laboratory for detailed chemical analysis. There were no exceedances of the ADWG for any of the chemical parameters tested, with 100% compliance with the ADWG requirements.

Table 5-1 Summary of Non-Complaint Water Quality for Port Macquarie - Camden Haven System

Date	Location	Parameter	ADWG Limit	Unit	WQ Value
26/07/2021	Lakewood SPS 13	Total Coliforms	0	MPN/100ml	1
5/01/2022	Chestnut Road (SPS18)	Total Coliforms	0	MPN/100ml	1
8/03/2022	Green Meadows (SPS 72)	Total Coliforms	0	MPN/100ml	2
4/04/2022	Seawind Chase (SPS 13)	Total Coliforms	0	MPN/100ml	201
7/12/2021	Ascot Park	Total Coliforms	0	MPN/100ml	1
18/10/2021	Herons Creek	pH	6.5 - 8.5		8.56
17/01/2022	Kew - Visitor Info Centre	pH	6.5 - 8.5		8.79
7/02/2022	Herons Creek	pH	6.5 - 8.5		8.79
7/02/2022	Seawind Chase (SPS 13)	pH	6.5 - 8.5		8.6
14/02/2022	Kew - Visitor Info Centre	pH	6.5 - 8.5		8.57
17/05/2022	Lady Nelson Drive (SPS 29)	pH	6.5 - 8.5		8.51
6/06/2022	Kew - Visitor Info Centre	pH	6.5 - 8.5		8.51
7/06/2022	St Columba School	pH	6.5 - 8.5		8.75
27/06/2022	Lakewood SPS 13	pH	6.5 - 8.5		8.67

5.2.2 Summary of non-compliant data for the Wauchope system

There are 11 sample sites in the reticulation network for the Wauchope Water supply. There were two (2) non-compliant results for the Wauchope Water Supply. A summary of non-complaint water quality is shown in the table 5-2 below.

Council also collects 12 samples per year that are sent to the NSW Health Laboratory for detailed chemical analysis. There were no exceedances of the ADWG for any of the chemical parameters tested, with 100% compliance with the ADWG requirements.

Table 5-2 Summary of Non-Complaint Water Quality for Wauchope Supply System

Date	Location	Parameter	ADWG Limit	Unit	WQ Value
21/07/21	Sarah's Creek	Total Coliforms	-	MPN/100ml	15
14/12/2021	River Breeze Estate	Free Chlorine	0.2 - 5	mg/L	0.19

5.2.3 Summary of non-compliant data for the Long Flats system

There is a single (1) sample site in the reticulation network for the Long Flat Water supply. Samples from this site are collected fortnightly. There were no non-compliant results from this water supply system.

Council also collects two (2) samples per year that are sent to the NSW Health Laboratory for chemical analysis. There were no exceedances of the ADWG for any of the chemical parameters tested, with 100% compliance with the ADWG requirements.

5.2.4 Summary of non-compliant data for the Comboyne system

There is a single (1) sample site in the reticulation network for the Comboyne Water supply. Samples from this site are collected fortnightly. There were no non-compliant samples from this water supply system.

Council also collects two (2) samples per year that are sent to the NSW Health Laboratory for chemical analysis. There were no exceedances of the ADWG for any of the chemical parameters, with 100% compliance with the ADWG requirements.

5.2.5 Summary of non-compliant data for the Telegraph Point system

There is a single (1) sample site in the reticulation network for the Telegraph Point Water supply. Samples from this site are collected weekly. There was one (1) non-compliant samples from this water supply system. Summary of non-complaint water quality is shown in the table 5-3 below.

Council also collects two (2) samples per year that are sent to the NSW Health Laboratory for chemical analysis. There were no exceedances of the ADWG for any of the chemical parameters tested, with 100% compliance with the ADWG requirements.

Table 5-3 Summary of Non-Complaint Water Quality for Telegraph Point Supply System

Date	Location	Parameter	ADWG Limit	Unit	WQ Value
30/03/2022	Telegraph Point School Tap	Total Coliforms	-	MPN/100ml	27

5.3 Water Quality Discussion

The Port Macquarie-Camden Haven water supply is an unfiltered water supply. The unfiltered water at times will exceed best practice of 2 NTU for turbidity and the ADWG guidelines of 5 NTU. Sediment can accumulate over time in the reticulation system and this is managed by regular flushing and cleaning of the mains. Increased turbidity can also impact the effectiveness of chlorine, turbidity levels above 1 NTU and at times if chlorine residual is low in the reticulation, we may detect total coliforms. Total Coliforms do not have a health limit in the ADWG, however normal practice is for Council to re-sample and implement flushing if there are two samples that detect the presence of Total Coliforms.

The majority of the samples that have detected Total coliforms are collected in the Port Macquarie-Camden Haven scheme are at Sewer Pump Stations. There is an increased risk of contamination of the sample at these locations due to the environment. It is recommended that staff review the procedures for sampling to

ensure extra care is taken when sampling in these locations. Council will also consider setting up a separate sample point in these locations that can be covered, to prevent contamination or alternatively finding an alternative sample location. In addition, if well washers are not installed at these SPS, then water use can be very low and this could cause increased pH, low chlorine and bacterial growth in the pipework as the water ages. On 4 April 2022 Council had a high total coliform count of 201. There was no detection of *E. coli* and re-sampling detected no Total Coliforms.

In Wauchope and Telegraph point, there was one (1) total coliform detection of 15MPN/100ml and 27 MPN/100ml respectively. There was no detection of *E. coli* and re-sampling detected no Total Coliforms. Both sample sites are in a location where there is a long detention time in the reticulation, potentially impacting the chlorine levels and increasing the risk of detecting Total Coliforms.

The high pH in the reticulation are generally in areas that are at the end points of the reticulation network and low use sites. The high pH incidences in the Camden Haven areas are due to the long retention times of the water as it travels down to the Camden Haven area. The pH of the water will increase as it ages and can also increase due to the extraction of calcium from cement lined pipework and reservoirs. High pH is managed through flushing to increase turnover of the water supply at that point. The council has also planned a construction of the Southern Arm Truck trunk main which is expected to be completed in 2024 and this will reduce the travel time for drinking water to the Camden Haven area and hopefully reduce the water age and hence higher pH experienced in the reticulation.

Further investigations were undertaken to see determine the efficiency of chlorine disinfection process in these high pH sample sites. An analysis of free chlorine versus total chlorine data is provided in Graphs in Appendix D. The graphs show that free chlorine levels are only slightly lower than total chlorine, averaging around 6.5% lower, and that the concentration of free chlorine residual is always higher than 0.05mg/l (councils minimum critical limit for free chlorine residual in reticulation) which suggests that the effectiveness of chlorine to disinfect is not compromised.

The single detect of low chlorine in the Wauchope supply was just below the ADWG, and there was no continued trend for low chlorine. For this reason, no action was required.

5.4 Algae Monitoring in Dams

Cyanobacteria, Methylisoborneol (MIB) and Geosmin (MIB and Geosmin are naturally occurring compounds that have an earthy taste and odour) samples are collected by Council on a weekly basis, in both the Port Macquarie and Cowarra Dams. Council utilises an alert level framework as documented in *WQRA Research Report 74: Management Strategies for Cyanobacteria (blue-green algae) - A Guide for Water Utilities for the management of cyanobacteria in the Dams*. Samples are sent to the Port Macquarie Hastings Environmental Laboratory, for analysis.

The identification of the cyanobacteria species is important as it enables a targeted response and a more accurate assessment of the potential toxicity. If toxin tests are deemed necessary the sample will be sent by PMHC Environmental Laboratory to another laboratory, for analysis. Toxin testing may be done on both raw and treated water samples.

Operationally it is difficult for Council to respond to the cyanobacteria blooms as there is no means to bypass the Dams, given the system is an unfiltered supply. Toxin monitoring and taste and odour monitoring are key to the management of algae blooms, with the ability to notify our customers of the issues when required.

Biovolume results indicates that cyanobacteria levels were mostly within the Below alert level and Detection Level (Low Alert) levels for both the Port Macquarie and Cowarra Dam. There were a number of short periods during the past 12 months where levels spiked into the Alert Level 1, however these were short and at low levels below 0.4mm³/L for both Dams. There were only a few complaints for Taste and odour and no concerns with Geosmin or MIB levels were noted through the testing.

A number of graphs showing cyanobacterial cell numbers and Bio Volume in the Port Macquarie and Cowarra Dam are included in Appendix D.

6 Customer Complaints

Customer Complaints are received by Council's Customer Service section. Customer complaints are recorded and saved on the Customer Request Management system which automatically notifies the water operator/technical officer who delegates responsibilities as appropriate. Where appropriate, a Water Operator will contact the customer, attend the location, undertake sampling and testing and provide feedback to the customer on the results. The operator will then coordinate a response to these results as appropriate to ensure that the drinking water continues to meet the ADWG guidelines.

The table below 6-1 shows the summary of the complaints for the reporting period

Table 6-1 Summary of Complaints for the Reporting Period

Supply System	Dirty	Air or Cloudy	Taste & Odour	Illness	Leaks	Loss of supply	other	Annual Total
Port Macquarie/Camden Haven	137	2	5	2	11	29	52	238
Wauchope	4	0	0	0	3	1	7	15
Comboyne	1	0	0	0	0	0	0	1
Telegraph Point	0	0	0	0	0	0	0	0
Long Flats	0	0	0	0	0	0	0	0

Council experienced a total of 142 complaints for dirty water during the reporting period which accounts for majority of the complaints. Investigations were carried out for every complaint. Out of all the complaints for dirty water, around 75% were due to reasons unknown and the issue seems to resolve itself after a period of flushing of the mains. Around 8% and 15% were due to internal plumbing, scheduled maintenance issues and following the mains cleaning program

Most of the dirty water and taste and odour complaints were from the Port Macquarie - Camden Haven supply system which is an unfiltered supply. The unfiltered water at times will exceed best practice of 2 NTU for turbidity and the ADWG guidelines of 5 NTU. Sediment can accumulate over time in the reticulation system and this is managed by regular flushing and cleaning of the mains

There were a number of other isolated water enquiries that were recorded that did not indicate any wider issues in the reticulation system. These included enquiries about loss of supply, low pressure, issues with water meter readings, faulty mains and sink holes and other water quality issues. On all occasions, testing indicated that the water complied with the ADWG. On a couple of occasions, the causes were determined to be internal plumbing issues. Council also received two (2) complaints regarding the Port Macquarie Water Supply system not being fluoridated.

7 Water Quality Incidents or Emergency

A water quality incident or emergency, is an event where a controlled response is required to ensure that Council continues to protect public health. Although preventative strategies, such as CCP procedures, have been developed by Council, some events cannot be anticipated or controlled. These events need a managed response to ensure the incident is responded to adequately, investigated following the event, and preventative actions are implemented to reduce the risk of the event re-occurring.

Water quality incidents are recorded in water outlook which automatically notifies supervisors to allow the investigation to commence. Table 7-1 below provides a summary of water incidents in the reporting period

Table 7-1 Summary of Incidents Recorded in the Reporting Period

Details of incident/emergency	Investigation recommendations	Preventive action undertaken
High Turbidity for samples from Port Base Hospital in Port Macquarie	Hospital maintenance team was contacted, reasons for high turbidity are due to annual fire system tests that were performed on the day as well as the day before. Reservoir and dosing system is checked and everything is fine	Immediate flushing of the mains

8 Staff Development and Training

The council’s water infrastructure department includes the operations as well as the planning team. The operations team is comprised of well-trained water operators in the process, maintenance and construction team and the planning team includes qualified engineers in the process and hydraulics team. Out of all the staff that are currently involved in the water team, which adds up to more than 30 people, around 70% have Cert II or Cert III in water operations, which they obtained in 2021.

Council employs seven (7) water treatment operators and two (2) supporting trades staff whom are qualified for fluoride dosing. Table 8-1 below shows the list of council staff whom have fluoride dosing qualifications. Council has four (4) further supporting trades staff in the process of completing the qualification

Table 8-1 Present Qualified Fluoride Operators

Water Treatment Operators	Mechanical Fitters	Electrical / Telemetry
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]		

9 Continuous Improvement Plan

Council's Improvement Plan (IP) was developed as part of the DWMS to document the improvement actions identified during the detailed risk assessment of the drinking water supplies. The Improvement Plan encompasses Element 12 of the DWMS and demonstrates Council's commitment to continual improvement of its water supply services from a quality and safety perspective.

The IP has been reviewed as part of the development of this Annual report, however prior to this it was last reviewed in 2017. From the 2022 review there were in total there were 82 action items, of these 58 have been completed or removed (closed), and a total of 24 remain either incomplete or ongoing since 2012, with none of them being classified as high priority. The review in 2022 identified a total of 11 actions that were completed and 1 action that was no longer required to be undertaken. A number of the actions in the IP date back to 2012 and appear to be out of date. Council will complete an external review of the DWMS Risk Assessment and it is recommended that some of the actions in the IP are to be reviewed as part of the Risk Assessment Review. As a result of this report investigation Council have also added four more action items (items ID are 087,088,089 and 090) into the IP in Appendix F.

A summary of the ongoing actions in the DWMS Implementation Plan has been included in Appendix F. The updated plan indicates the status of tasks and comments on the progress. It also indicates the dates where tasks have been added and references the reason for the tasks addition to or removal from the plan.

10 Review of DWMS Implementation

An internal review of the DWMS was undertaken in June 2021. This included a review of the DWMS, CCP, and the regulatory and stakeholder registers. No external review of the DWMS of the Risk Register has been undertaken since 2016. This will be undertaken in 2023, as part of Council regulatory requirements. The Improvement Plan has been reviewed internally in June 2022. A number of actions that have not been completed are to be reviewed during the risk register review to determine whether they are still appropriate.

11 Reservoir Inspections

Reservoir integrity is included as a critical control point for each of Council's water supplies, as this is the last point of contact with the water, prior to distribution. Maintaining reservoir integrity is critical to a water supply system, to ensure that no contaminants, such as vermin, stormwater and bird faeces, can freely access the stored water. Cleaning and inspection of the reservoirs are crucial to ensuring the water quality is not contaminated or sediments are not disturbed.

Monthly inspections of each reservoir are undertaken by operational staff and results are recorded in water outlook, which automatically notifies Headwork's Technical Officer whom delegates tasks to appropriate people. Due to the large amount of data captured from the inspections only issues are captured in appendix G, inspections that pass will be omitted. The council also source the service of external contractors to inspect integrity of reservoirs however the latest round of external contractor's inspection was conducted prior to this reporting period and as such will not be captured in this report.

Table G-1 in Appendix G shows the issues that was raised from reservoir inspection and the corrective actions taken.

In the process of reviewing the reservoir inspections for this report, council has identified some problems with keeping track of issues that have been rectified or still needs to be attended to. Therefore, the reporting structure on water outlook will be modified to allow for a "repairs undertaken" section, this will enable better tracking of outstanding repair works and those that are closed off.

The summary of the reservoir inspections for this reporting period is provided in Appendix G. The main integrity issues that have been identified and fixed include security issues with fencing and gates, holes in bird proofing, vegetation clearing and roof replacement required. Where required the issues have been identified for capital works forward programming for example Widderson Reservoir roof is part of the upcoming capital works program.

12 References

NHMRC (2011) *Australian Drinking Water Guidelines*, National Water Quality Management Strategy, National Health and Medical Research Council, National Resource Management Ministerial Council, Commonwealth of Australia, Canberra.

NSW Ministry of Health (2013), *NSW Guidelines for Drinking Water Management Systems*, NSW Ministry of Health, 2013

NSW Government (2010), *Public Health Act 2010*, NSW Government Parliamentary Counsel's Office.

NSW Government (2012), *Public Health Regulation 2012*, NSW Government Parliamentary Counsel's Office

Water Directorate (2014), *Blue-Green Algae Management Protocols 2014*, Water Directorate, 2014

WQRA Research Report 74: *Management Strategies for Cyanobacteria (blue-green algae): a Guide for Water Utilities*

Appendix A Summary of CCP's for each supply systems

A.1 Port Macquarie - Camden Haven Water Supply System

System	CCP ID	Critical Control Point	Hazard	Control Parameter	Operating Target	Adjustment Limit	Shutdown Limit	Critical Limit
Port Macquarie - Camden Haven Water Supply	CCP1	Koree Island Water Extraction	All Pthogens	Turbidity	<5 NTU	>5 - <10 NTU	>10 NTU	≥20 NTU
	CCP1	Koree Island Water Extraction	Nitrogen Levels	TN	<0.3 mg/L TN	>0.3 mg/L TN		≥0.3 mg/L TN
	CCP1	Koree Island Water Extraction	Phosphorous Levels	TP	<30 µg/L TP		≥30 µg/L TP	≥30 µg/L TP
	CCP1	Koree Island Water Extraction	Algal Growth, taste and odour organisms, toxins	Cyanobacteria	No filamentous cyanobacteria detected	No filamentous cyanobacteria detected	Filamentous cyanobacteria detected	Filamentous cyanobacteria detected
	CCP1	Port Macquarie Dam Water Extraction	All Pathogens	Turbidity	<2 NTU	>2 - <4 NTU	≥4 NTU	≥5 NTU
	CCP1	Port Macquarie Dam Water Extraction	Faecal Contamination	Total Coliforms + E. coli	E. coli < 1/100mL Total coliforms < 100MPN/100mL	E. coli < 5/100mL Total Coliforms < 500MPN/100mL	E. coli > 5/100mL Total Coliforms > 500MPN/100mL	E. coli ≥ 5/100mL Total Coliforms ≥ 1000MPN/100mL
	CCP1	Port Macquarie Dam, Cowarra Dam Water Extraction	Algal Growth, taste and odour organisms, toxins	Cyanobacteria	<2000 cells/mL <i>Microcystis aeruginosa</i> Cyanobacteria biovolume <0.2mm ³ /L	≥2,000 and <6,500 cells/mL <i>Microcystis aeruginosa</i> Cyanobacteria biovolume ≥	≥6,500 and <65,000 cells/mL <i>Microcystis aeruginosa</i>	>65,000 cells/mL <i>Microcystis aeruginosa</i>

						0.2mm ³ /L and <0.6 mm ³ /L	Cyanobacteria biovolume ≥0.6mm ³ /L and <6mm ³ /L	Cyanobacteria biovolume ≥6 mm ³ /L
	CCP2	Disinfection dosing station at water reservoirs	Chlorine Sensitive Pathogens	Free Chlorine residual	1.5mg/L (Winter), 2.0mg/L(Summer)	<1.35mg/L or >1.65mg/L (Winter), <1.5mg/L or >2.5mg/L (Summer)	<1.2mg/L or >3.0mg/L	<0.6mg/L or > 5.0mg/L
	CCP3	Water Reservoirs	Pathogens	Reservoir Integrity	No breach of integrity	Signs of Integrity Breach, Items not properly maintained	Signs of Integrity Breach, items not properly maintained	Evidence of Contamination
	CCP3	Water Reservoirs	Chlorine Sensitive Pathogens	Free Chlorine residual	>0.6mg/L -1.8 mg/L (Winter), >0.6mg/L -2.5 mg/L (Summer)	<0.6mg/L or >1.8 mg/L (Winter), <0.6mg/L or >2.5 mg/L (Summer)	<0.3mg/L or >2.5mg/L	<0.2mg/L or >5.0 mg/L
	CCP3	Water Reservoirs	All Pathogens	Turbidity	<0.5 NTU	>0.5 NTU	≥1 NTU	≥2 NTU
	CCP3	Water Reservoirs		Fluoridation	1mg/L	<0.95 mg/L for 12 hours or >1.05 mg/L	<0.90 mg/L for 24 hours or >1.10 mg/L	<0.9 mg/L for 72 hours or ≥1.5 mg/L
	CCP4	Distribution Networks	Chlorine Sensitive Pathogens	Free Chlorine residual	>0.4mg/L <1.8 mg/L (Winter), >0.4mg/L -2.5 mg/L (Summer)	<0.4mg/L or >1.8 mg/L (Winter), <0.4mg/L or >2.5 mg/L (Summer)	<0.3mg/L or >2.5mg/L	<0.05mg/L or >5.0 mg/L
	CCP4	Distribution Networks	All Pathogens	Turbidity	<2 NTU	>2 - <4 NTU	>4 NTU	≥5 NTU

A.2 Wauchope Water Supply System

System	CCP ID	Critical Control Point	Hazard	Control Parameter	Operating Target	Adjustment Limit	Shutdown Limit	Critical Limit
Wauchope Water Supply	CCP1	Koree Island Water Extraction	All Pathogens	Turbidity	<5 NTU	>5 and <10 NTU	>10 NTU (river supply mode auto4), >30 NTU (dirty river mode auto9)	>30 and <50 NTU
	CCP2	Fluoridation	-	Fluoride Concentration	1mg/L	<0.95 mg/L for 12 hours or >1.05 mg/L	<0.90 mg/L for 24 hours or >1.10 mg/L	<0.9 mg/L for 72 hours or ≥1.5 mg/L
	CCP3	Disinfection dosing station at Rosewood 1 water reservoir	Chlorine Sensitive Pathogens	Free Chlorine residual	1.8mg/L (winter), 2.5mg/L (summer)	<1.35mg/L or >2.2 mg/L (Winter), <1.85mg/L or >3.1 mg/L (Summer)	<0.5mg/L instant shutdown after initial start-up inhibit, <1.2 mg/L or >2.6mg/L delayed shutdown	<0.2mg/L or >5.0 mg/L
	CCP3	Disinfection dosing station at Rosewood 1 water reservoir	Effectiveness of Chlorine disinfection	pH	7.8 - 8.0	<7.8 or >8.0	≤7.0 or ≥8.5	≤5.5 or ≥9.0
	CCP4	Membrane Filtration	All Pathogens	Turbidity	<0.15NTU	>0.15NTU for 5 minutes	>0.2 NTU for 2 minutes	>0.5NTU
	CCP4	Membrane Filtration	Membrane Failure	Transmembrane Pressure	<70kPa	>70kPa and <80kPa	>80kPa and <120kPa	>120kPa
	CCP5	Water Reservoirs	Pathogens	Reservoir Integrity	No breach of integrity	Signs of Integrity Breach, Items not properly maintained	Signs of Integrity Breach, items not properly maintained	Evidence of Contamination
	CCP5	Water Reservoirs	Chlorine Sensitive Pathogens	Free Chlorine residual	0.6mg/L- 1.8mg/L (winter), 0.6mg/L- 2.5mg/L (winter)	<0.6mg/L or >1.8mg/L (winter), <0.6mg/L or >2.5mg/L (summer)	<0.3mg/L or >2.5mg/L	<0.2mg/L or >5.0mg/L
	CCP5	Water Reservoirs	All Pathogens	Turbidity	<0.5NTU	>0.5NTU and <1.0NTU	>1.0NTU and <2.0NTU	>2.0NTU
	CCP 6	Distribution Network	Chlorine Sensitive Pathogens	Free Chlorine residual	0.4mg/L- 1.8mg/L (winter), 0.4mg/L- 2.5mg/L (winter)	<0.4mg/L or >1.8mg/L (winter), <0.4mg/L or >2.5mg/L (summer)	<0.3mg/L or >2.5mg/L	<0.05mg/L or >5.0mg/L
CCP 6	Distribution Network	All Pathogens	Turbidity	<0.5NTU	>0.5NTU and <1.0NTU	>1.0NTU and <2.0NTU	>2.0NTU	

A.3 Comboyne Water Supply System

System	CCP ID	Critical Control Point	Hazard	Control Parameter	Operating Target	Adjustment Limit	Shutdown Limit	Critical Limit
Comboyne Water Supply	CCP1	River Water Extraction	All Pathogens	Turbidity	<10 NTU	>10 and <15 NTU	>15 NTU (river supply mode), >30NTU (dirty river mode)	>30 and <50 NTU
	CCP2	Disinfection Dosing System	Chlorine Sensitive Pathogens	Free Chlorine residual	1.8mg/L (winter), 2.5mg/L (summer)	<1.35mg/L or >2.2 mg/L (Winter), <1.85mg/L or >3.1 mg/L (Summer)	<0.5mg/L instant shutdown after initial start-up inhibit, <1.2 mg/L or >2.6mg/L delayed shutdown (winter), <1.2 mg/L or >3.6mg/L delayed shutdown (summer)	<0.2mg/L or >5.0mg/L
	CCP2	Disinfection Dosing System	Effectiveness of Chlorine disinfection	pH	6.5 - 7.5	<6.5 or >7.5	≤6.0 or ≥8.5	≤5.5 or ≥9.0
	CCP3	Membrane Filtration	All Pathogens	Turbidity	<0.15NTU	>0.15NTU for 5 minutes	>0.2 NTU for 2 minutes	>0.5NTU
	CCP3	Membrane Filtration	Membrane Failure	Transmembrane Pressure	<70kPa	>70kPa and <80kPa	>80kPa and <120kPa	>120kPa
	CCP4	Water Reservoirs	Pathogens	Reservoir Integrity	No breach of integrity	Signs of Integrity Breach, Items not properly maintained	Signs of Integrity Breach, items not properly maintained	Evidence of Contamination
	CCP4	Water Reservoirs	Chlorine Sensitive Pathogens	Free Chlorine residual	0.6mg/L- 1.8mg/L (winter), 0.6mg/L- 2.5mg/L (winter)	<0.6mg/L or >1.8mg/L (winter), <0.6mg/L or >2.5mg/L (summer)	<0.3mg/L or >2.5mg/L	<0.2mg/L or >5.0mg/L
	CCP4	Water Reservoirs	All Pathogens	Turbidity	<0.5NTU	>0.5NTU and <1.0NTU	>1.0NTU and <2.0NTU	>2.0NTU
	CCP5	Distribution Networks	Chlorine Sensitive Pathogens	Free Chlorine residual	0.4mg/L- 1.8mg/L (winter), 0.4mg/L- 2.5mg/L (winter)	<0.4mg/L or >1.8mg/L (winter), <0.4mg/L or >2.5mg/L (summer)	<0.3mg/L or >2.5mg/L	<0.05mg/L or >5.0mg/L
	CCP5	Distribution Networks	All Pathogens	Turbidity	<0.5NTU	>0.5NTU and <1.0NTU	>1.0NTU and <2.0NTU	>2.0NTU

A.4 Long Flat Water Supply System

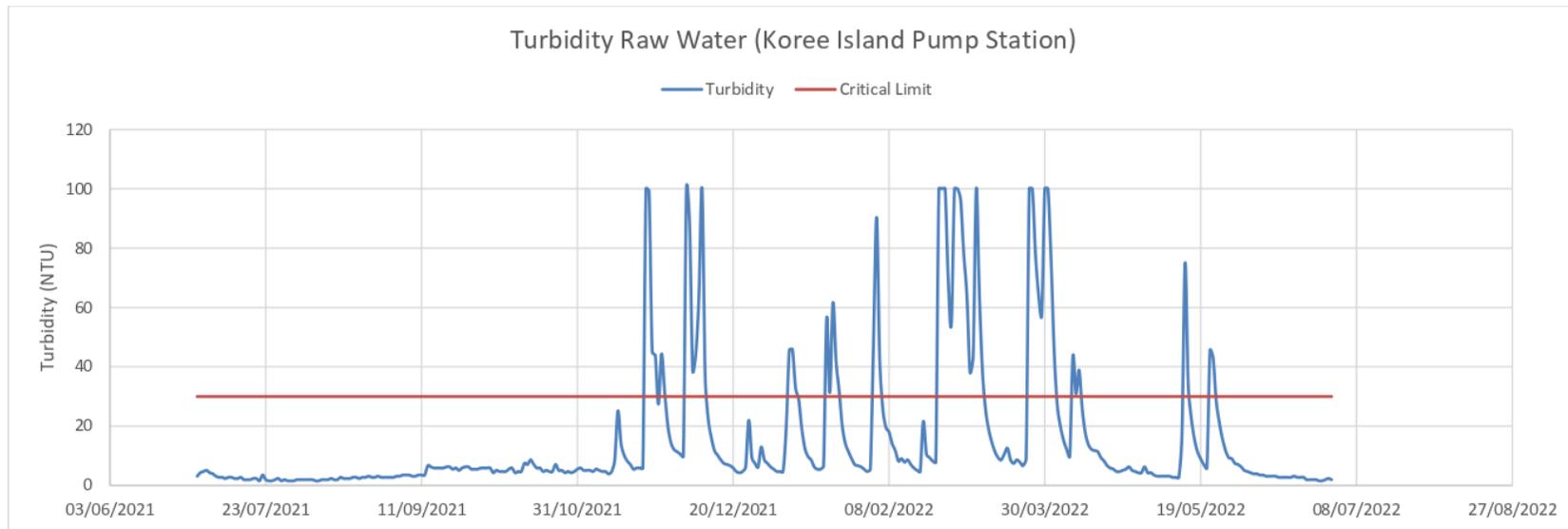
System	CCP ID	Critical Control Point	Hazard	Control Parameter	Operating Target	Adjustment Limit	Shutdown Limit	Critical Limit
Long Flat Water Supply	CCP1	River Water Extraction	All Pathogens	Turbidity	<10 NTU	>10 and <15 NTU	>15 NTU (river supply mode), >30NTU (dirty river mode)	>30 and <50 NTU
	CCP2	Disinfection Dosing System	Chlorine Sensitive Pathogens	Free Chlorine residual	3.5mg/L	<3.1mg/L or >3.9 mg/L	<0.5mg/L instant shutdown after initial start-up inhibit, <2.5 mg/L or >4.2mg/L delayed shutdown	<0.2mg/L or >5.0mg/L
	CCP2	Disinfection Dosing System	Effectiveness of Chlorine disinfection	pH	7.5 - 8.5	<7.5 or >8.5	≤6.5 or ≥8.5	≤6 or ≥9.0
	CCP3	Membrane Filtration	All Pathogens	Turbidity	<0.15NTU	>0.15NTU for 5 minutes	>0.2 NTU for 2 minutes	>0.5NTU
	CCP3	Membrane Filtration	Membrane Failure	Transmembrane Pressure	<70kPa	>70kPa and <80kPa	>80kPa and <120kPa	>120kPa
	CCP4	Water Reservoirs	Pathogens	Reservoir Integrity	No breach of integrity	Signs of Integrity Breach, items not properly maintained	Signs of Integrity Breach, items not properly maintained	Evidence of Contamination
	CCP4	Water Reservoirs	Chlorine Sensitive Pathogens	Free Chlorine residual	0.6mg/L-1.8mg/L	<0.6mg/L or >1.8mg/L	<0.3mg/L or >2.5mg/L	<0.2mg/L or >5.0mg/L
	CCP4	Water Reservoirs	All Pathogens	Turbidity	<0.5NTU	>0.5NTU and <1.0NTU	>1.0NTU and <2.0NTU	>2.0NTU
	CCP5	Distribution Networks	Chlorine Sensitive Pathogens	Free Chlorine residual	0.4mg/L-1.8mg/L	<0.4mg/L or >1.8mg/L	<0.3mg/L or >2.5mg/L	<0.05mg/L or >5.0mg/L
	CCP5	Distribution Networks	All Pathogens	Turbidity	<0.5NTU	>0.5NTU and <1.0NTU	>1.0NTU and <2.0NTU	>2.0NTU

A.5 Telegraph Point Water Supply System

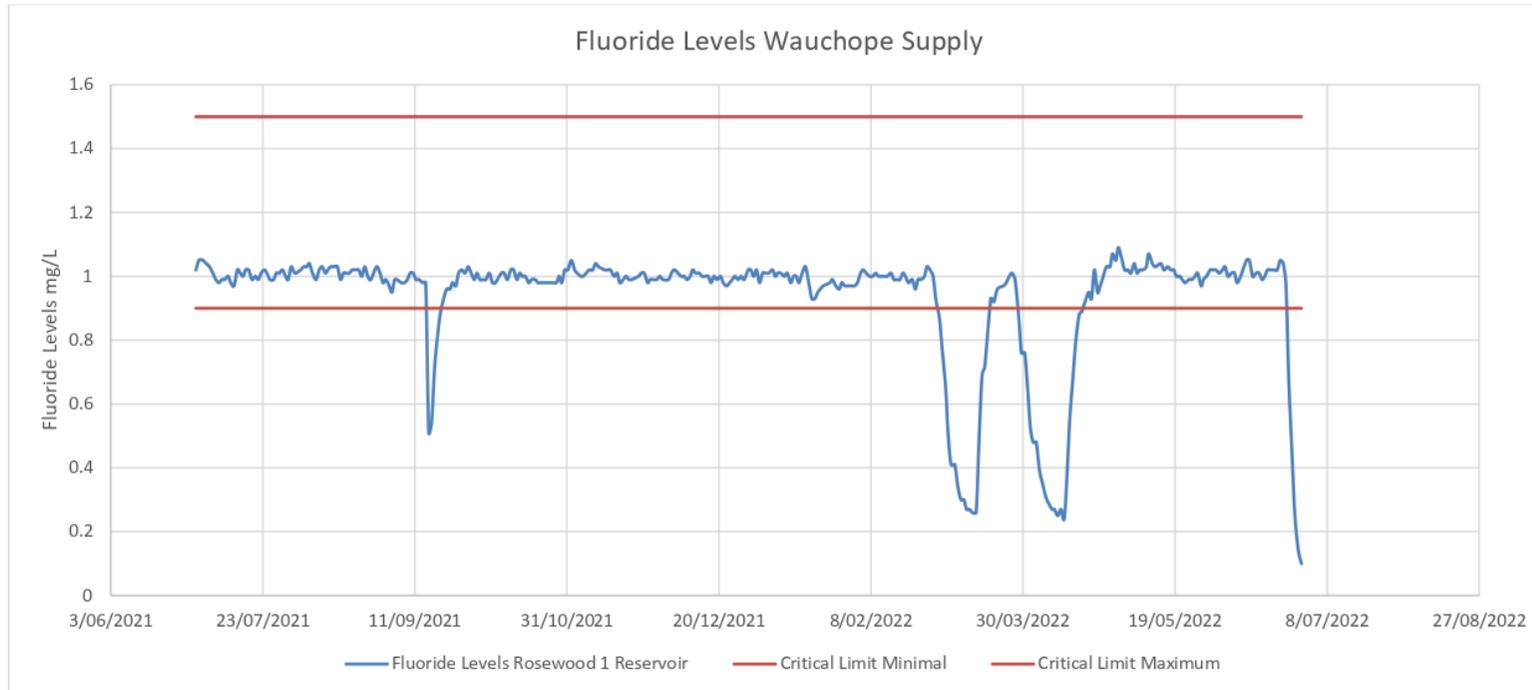
System	CCP ID	Critical Control Point	Hazard	Control Parameter	Operating Target	Adjustment Limit	Shutdown Limit	Critical Limit
Telegraph Point Water Supply	CCP1	River Water Extraction	All Pathogens	Turbidity	<5 NTU	>5 and <10 NTU	>10 NTU (river supply mode), >30NTU (dirty river mode)	>30 and <50 NTU
	CCP2	Disinfection Dosing System	Chlorine Sensitive Pathogens	Free Chlorine residual	3.0mg/L	<2.7mg/L or >3.3 mg/L	<0.5mg/L instant shutdown after initial start-up inhibit, <2.0 mg/L or >3.6mg/L delayed shutdown	<0.2mg/L or >5.0mg/L
	CCP2	Disinfection Dosing System	Effectiveness of Chlorine disinfection	pH	6.8 - 7.8	<6.8 or >7.8	≤6.5 or ≥8.5	≤6 or ≥9.0
	CCP3	Membrane Filtration	All Pathogens	Turbidity	<0.15NTU	>0.15NTU for 5 minutes	>0.2 NTU for 2 minutes	>0.5NTU
	CCP3	Membrane Filtration	Membrane Failure	Transmembrane Pressure	<70kPa	>70kPa and <80kPa	>80kPa and <120kPa	>120kPa
	CCP4	Water Reservoirs	Pathogens	Reservoir Integrity	No breach of integrity	Signs of Integrity Breach, Items not properly maintained	Signs of Integrity Breach, items not properly maintained	Evidence of Contamination
	CCP4	Water Reservoirs	Chlorine Sensitive Pathogens	Free Chlorine residual	0.6mg/L-1.8mg/L	<0.6mg/L or >1.8mg/L	<0.3mg/L or >2.5mg/L	<0.2mg/L or >5.0mg/L
	CCP4	Water Reservoirs	All Pathogens	Turbidity	<0.5NTU	>0.5NTU and <1.0NTU	>1.0NTU and <2.0NTU	>2.0NTU
	CCP5	Distribution Networks	Chlorine Sensitive Pathogens	Free Chlorine residual	0.4mg/L-1.8mg/L	<0.4mg/L or >1.8mg/L	<0.3mg/L or >2.5mg/L	<0.05mg/L or >5.0mg/L
CCP5	Distribution Networks	All Pathogens	Turbidity	<0.5NTU	>0.5NTU and <1.0NTU	>1.0NTU and <2.0NTU	>2.0NTU	

Appendix B CCP Trends

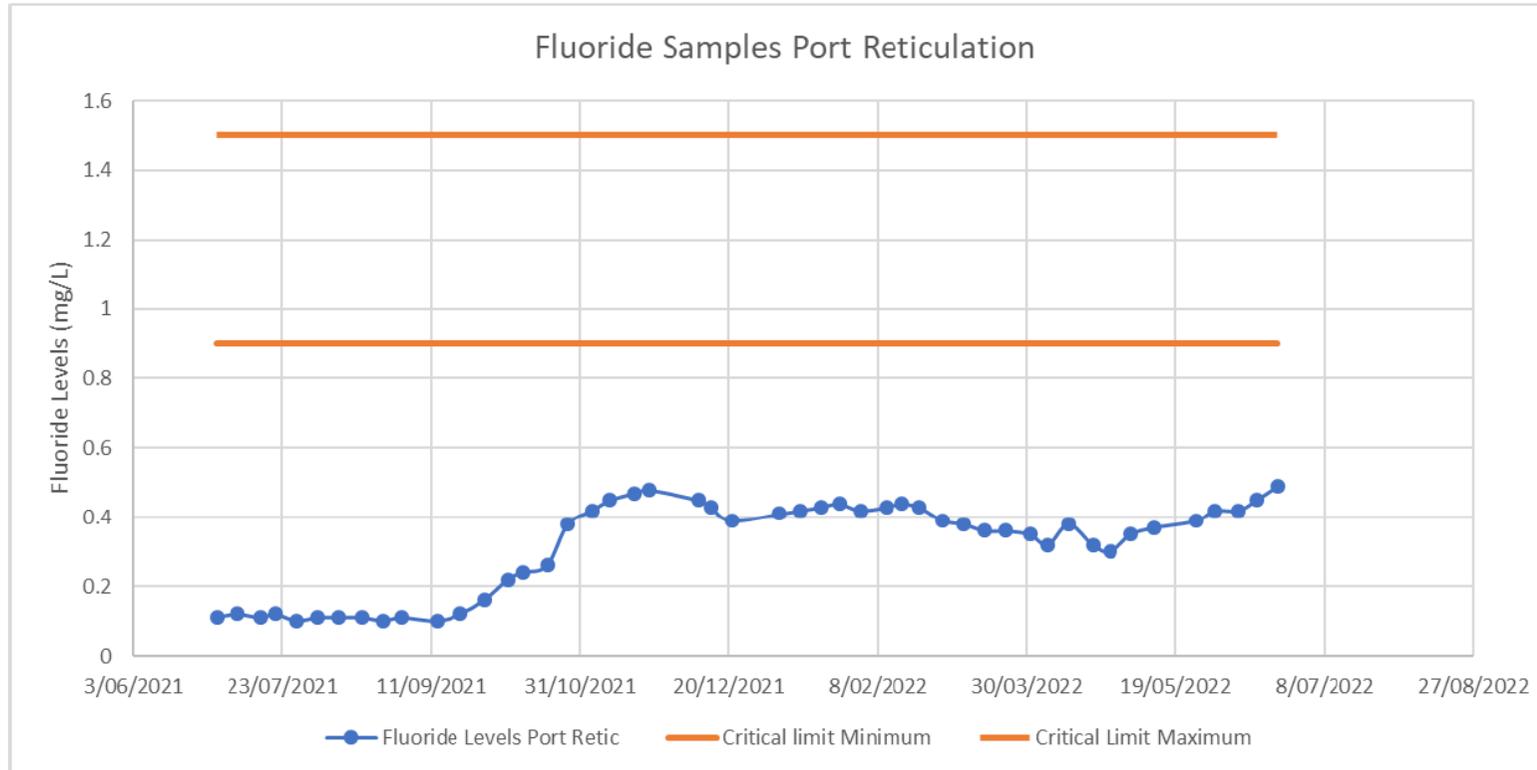
B.1 Turbidity Trends Raw Water at Korea Island Pump Station



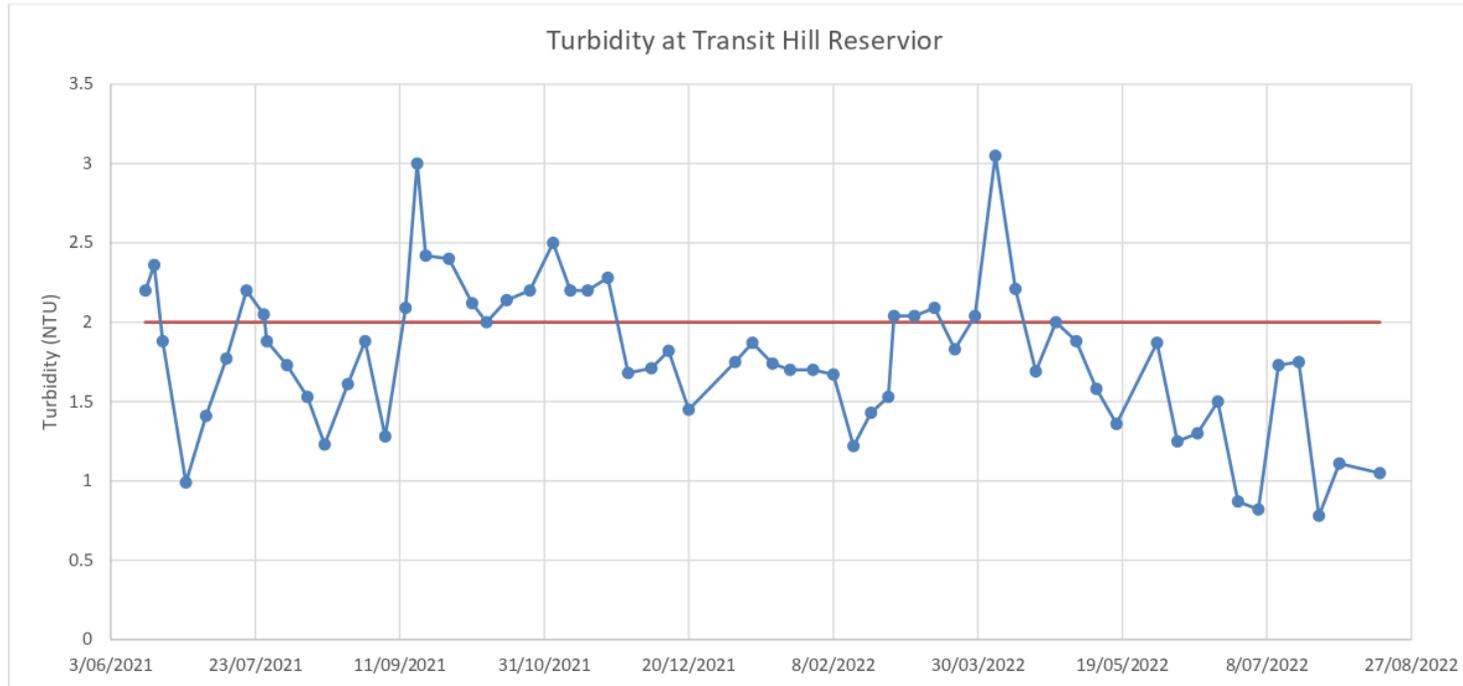
B.2 Fluoride Levels of Wauchope Supply System



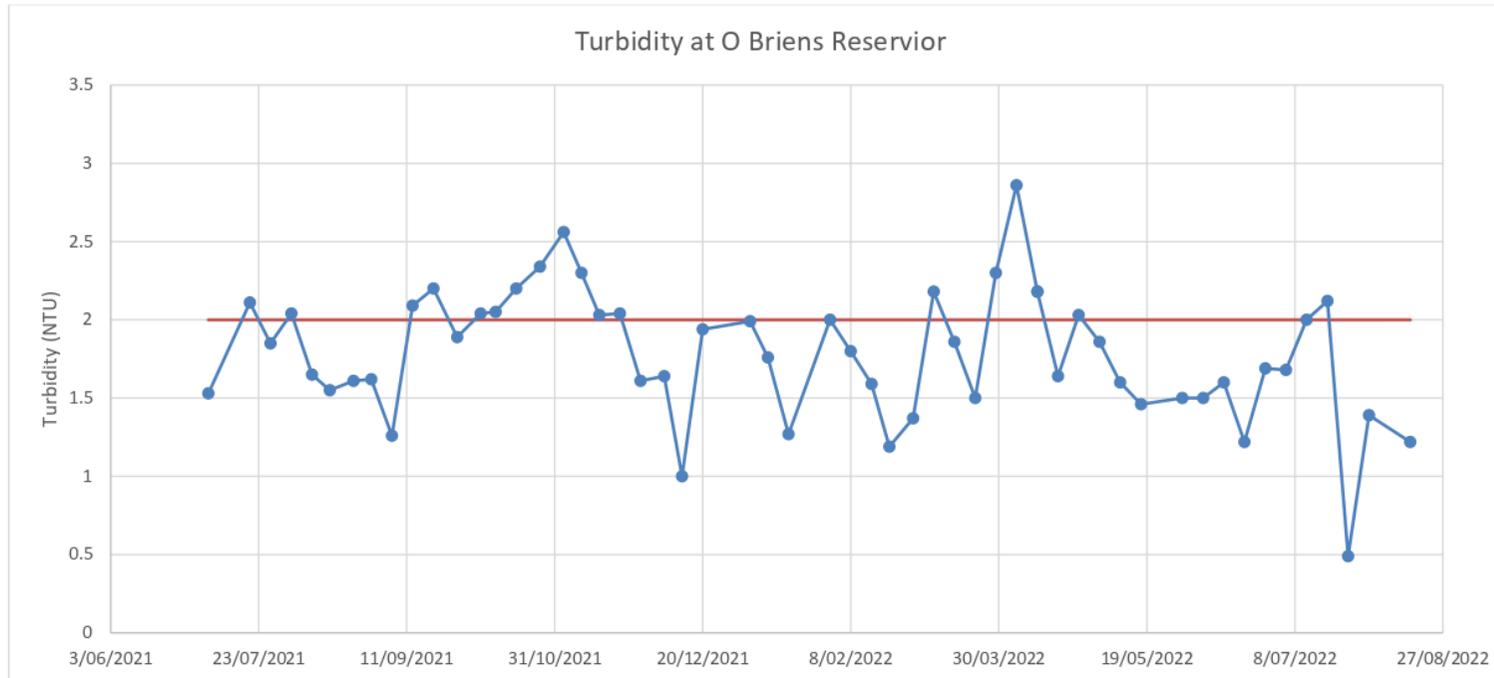
B.3 Fluoride Samples at Port Reticulation



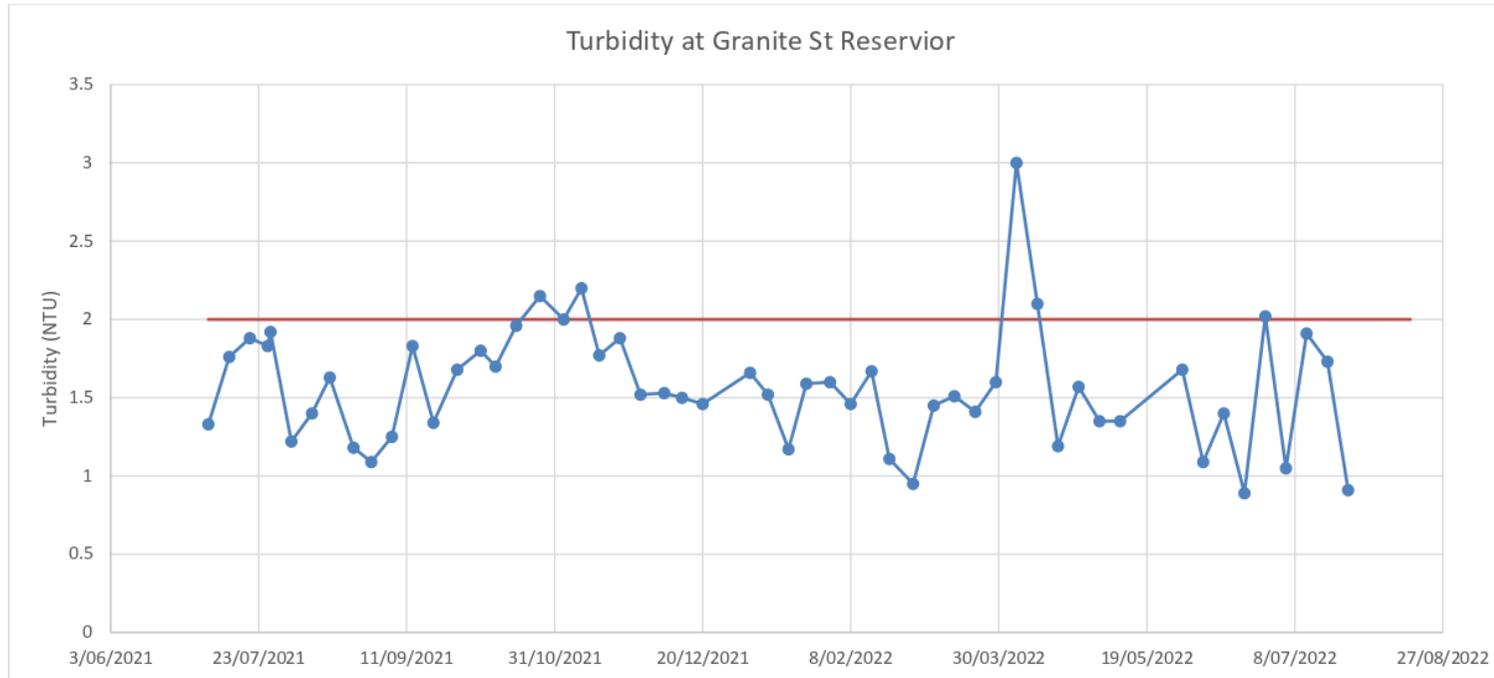
B.4 Turbidity Trends at Transit Hill Reservoir, Port Macquarie - Camden Haven Supply System



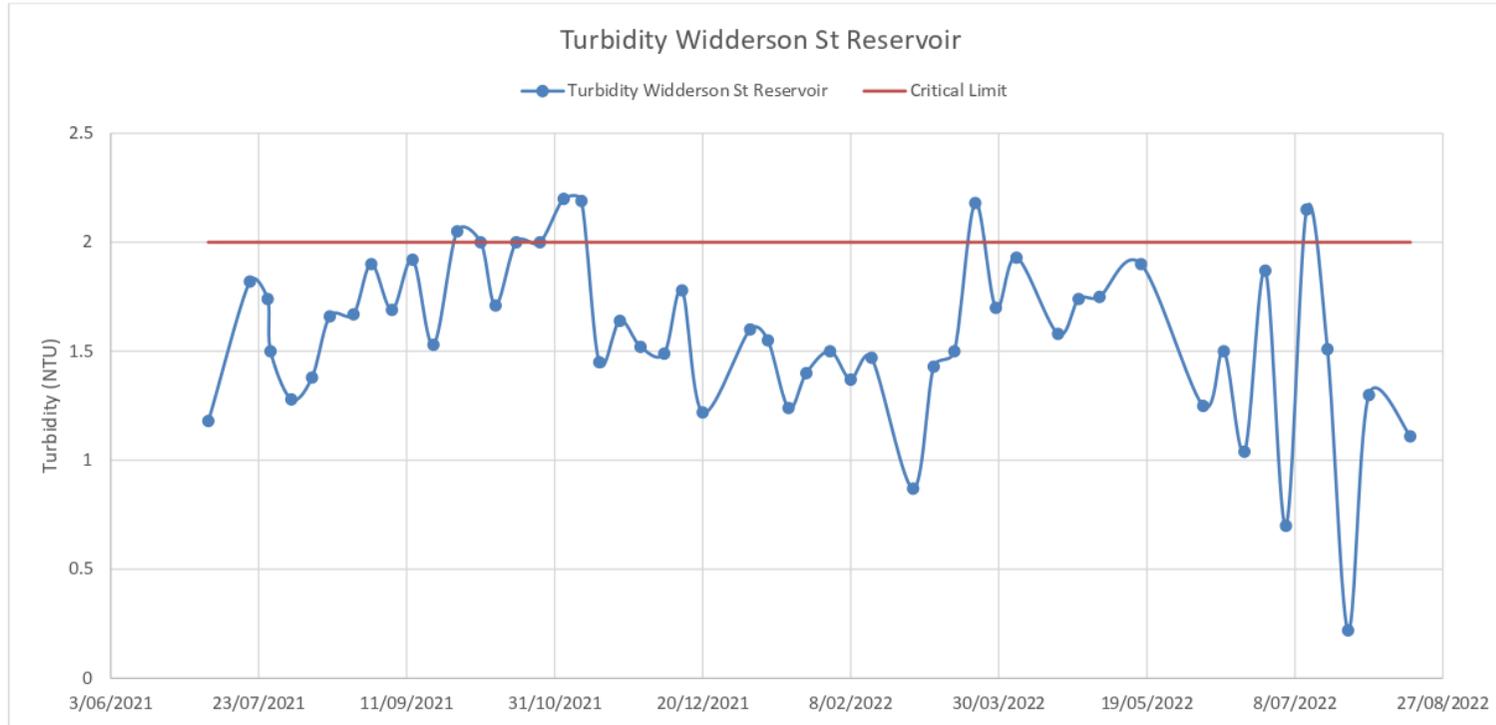
B.5 Turbidity Trends at O'Briens Reservoir, Port Macquarie - Camden Haven Supply System



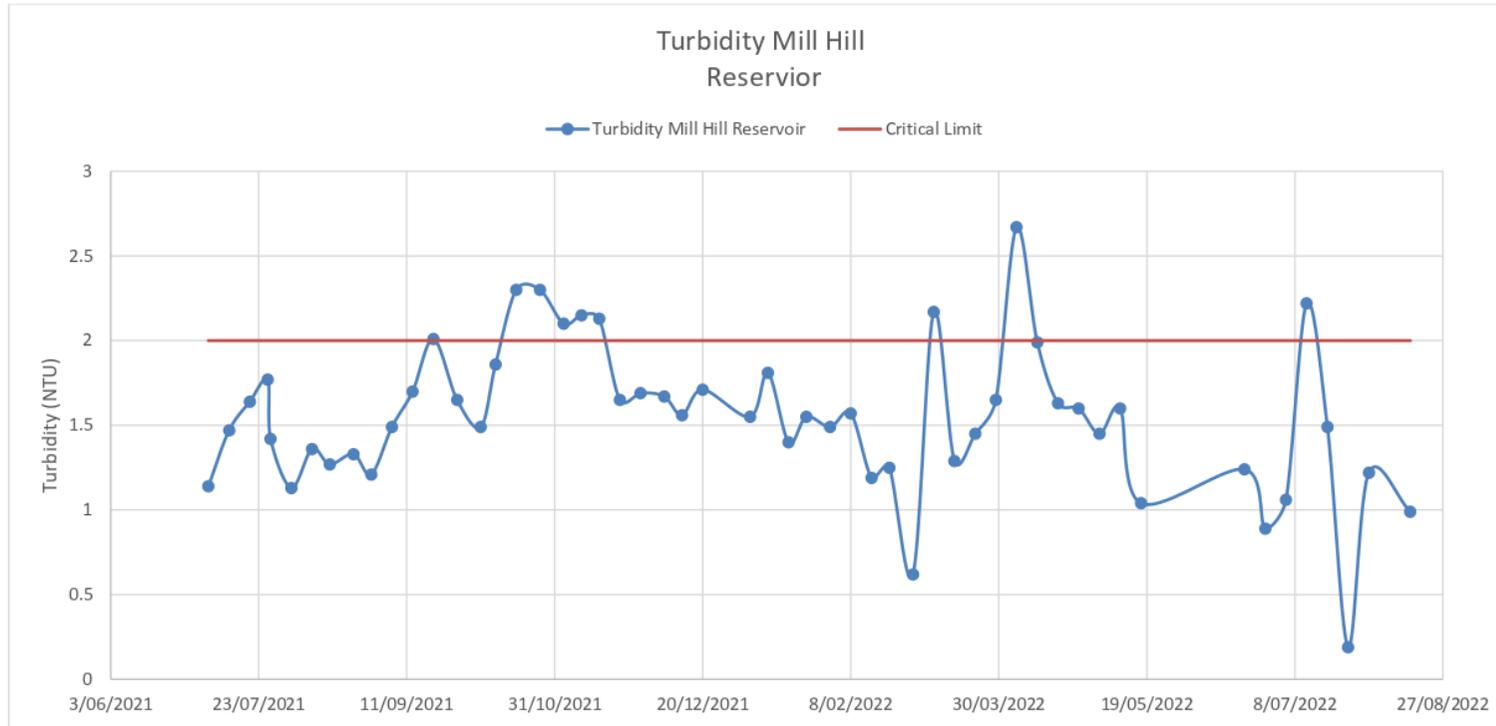
B.6 Turbidity Trends at Granite St Reservoir, Port Macquarie - Camden Haven Supply System



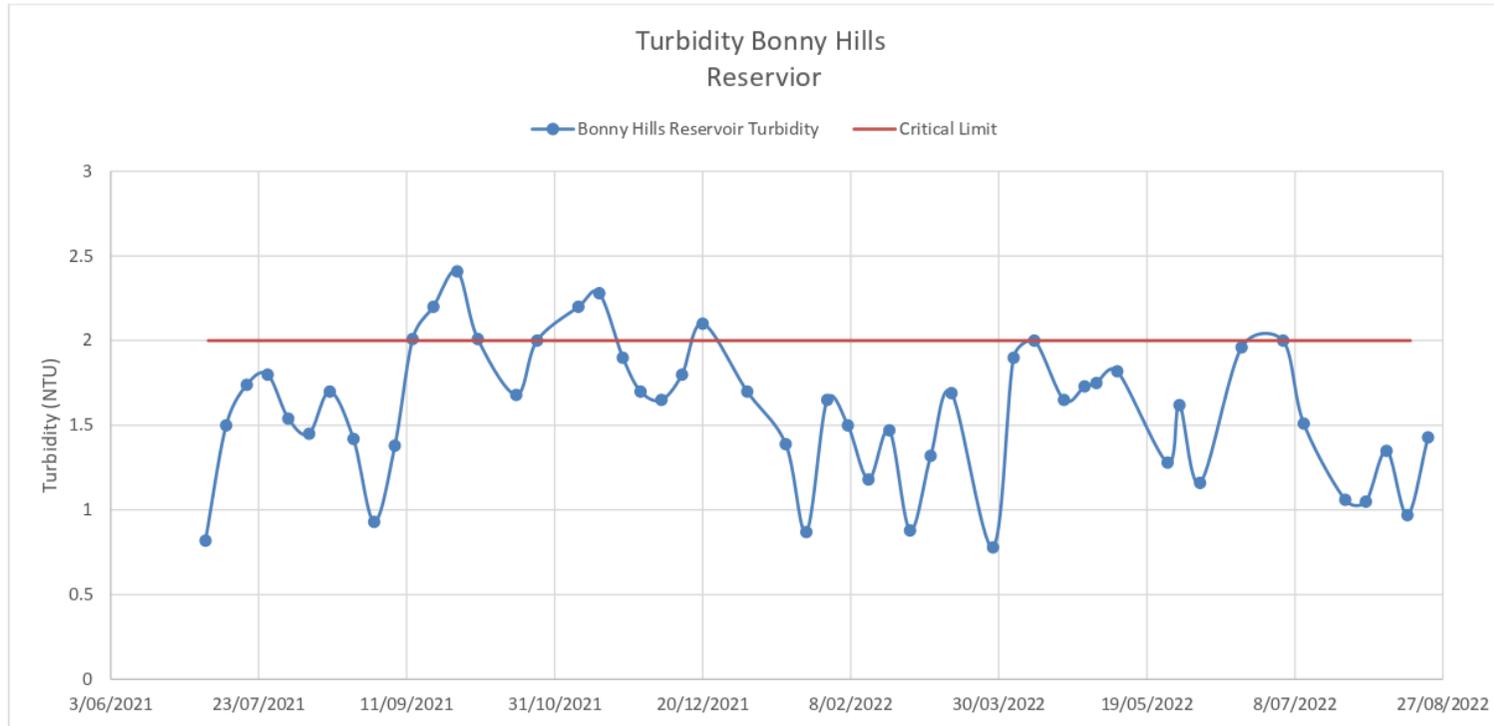
B.7 Turbidity Trends at Widderson St Reservoir, Port Macquarie - Camden Haven Supply System



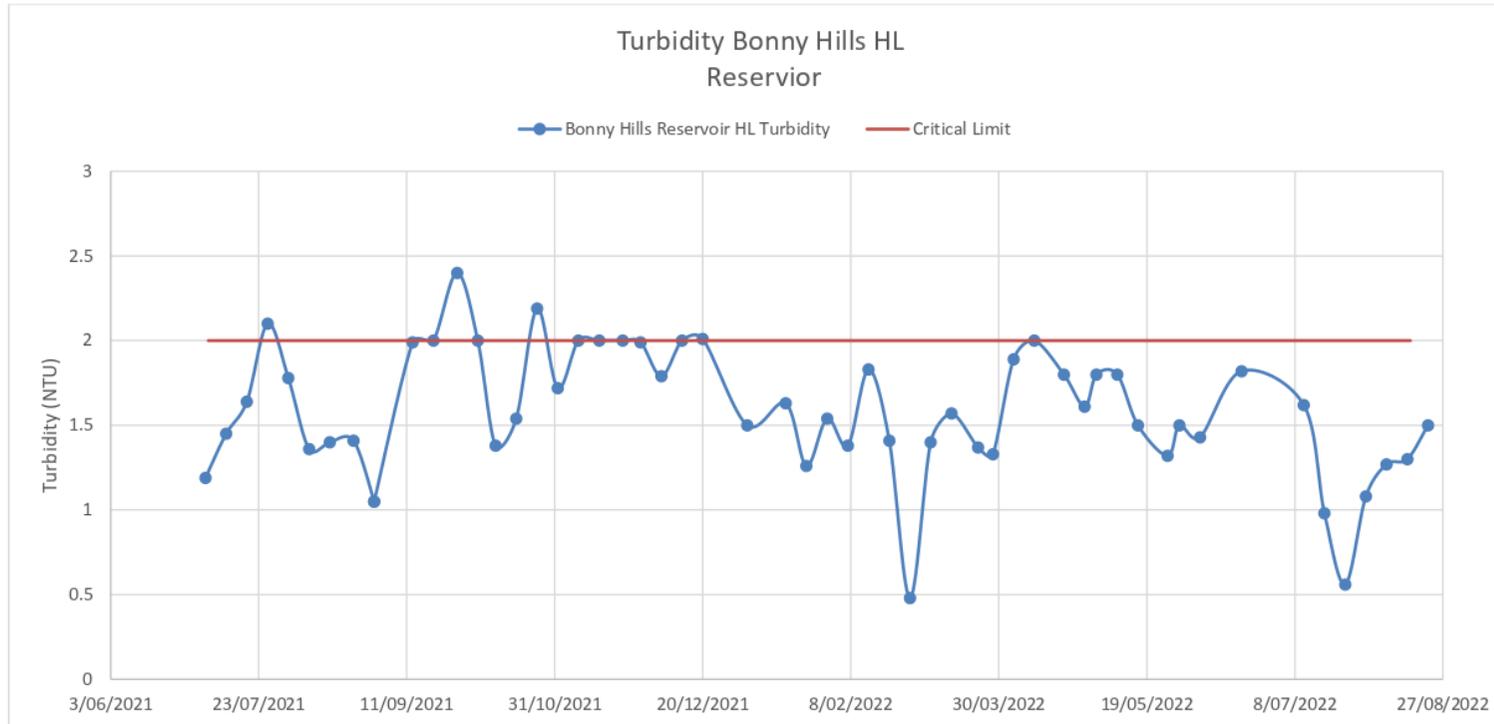
B.8 Turbidity Trends at Mill Hill Reservoir, Port Macquarie - Camden Haven Supply System



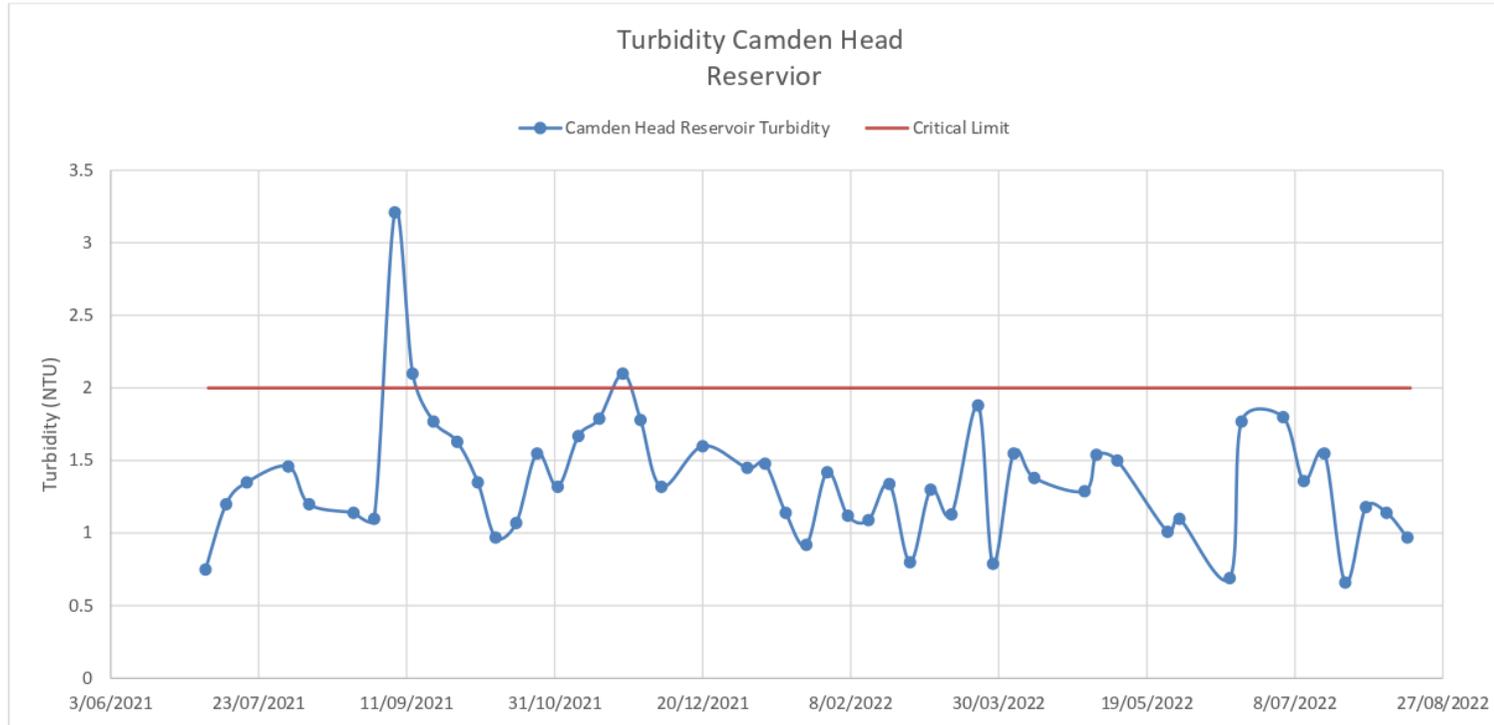
B.9 Turbidity Trends at Bonny Hills Reservoir, Port Macquarie - Camden Haven Supply System



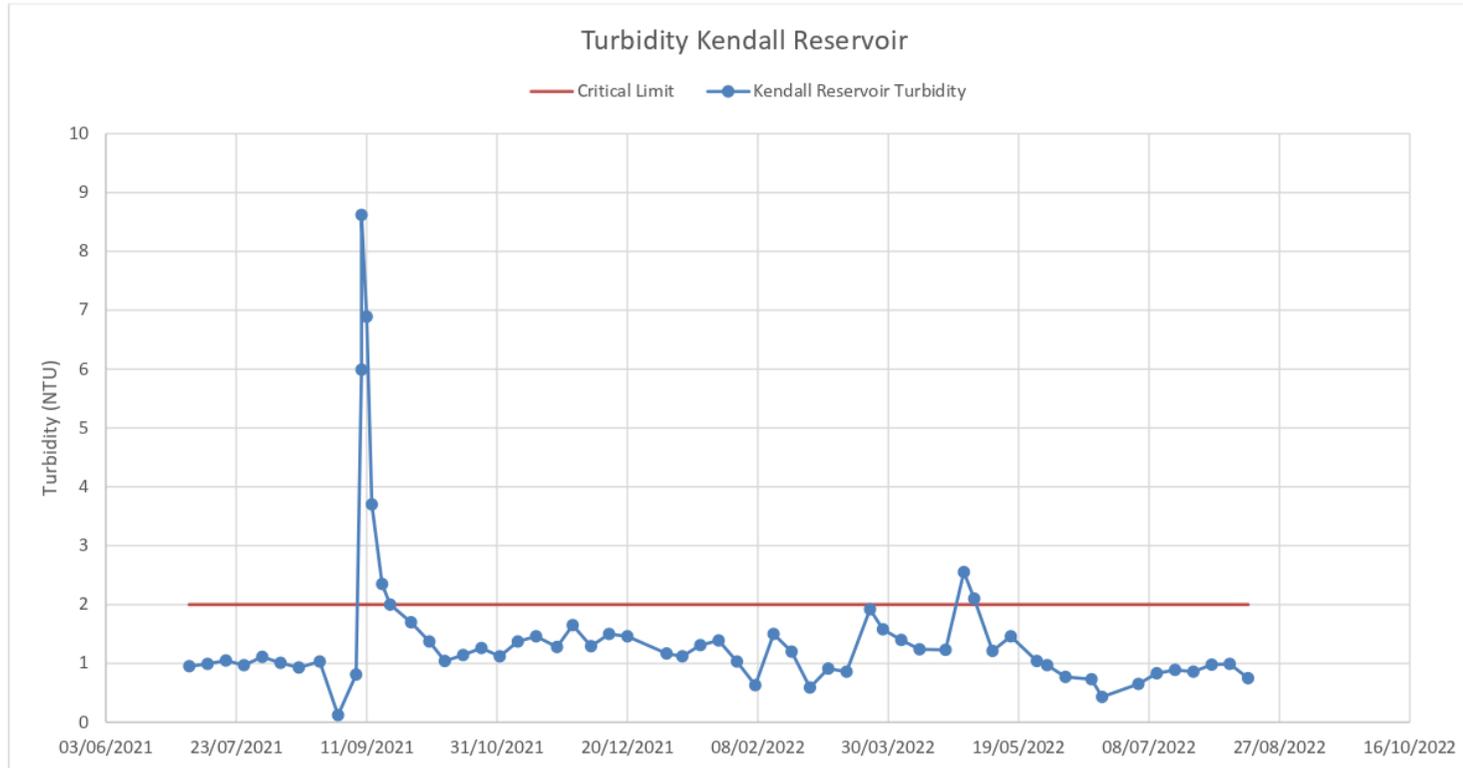
B.10 Turbidity Trends at Bonny Hills HL Reservoir, Port Macquarie - Camden Haven Supply System



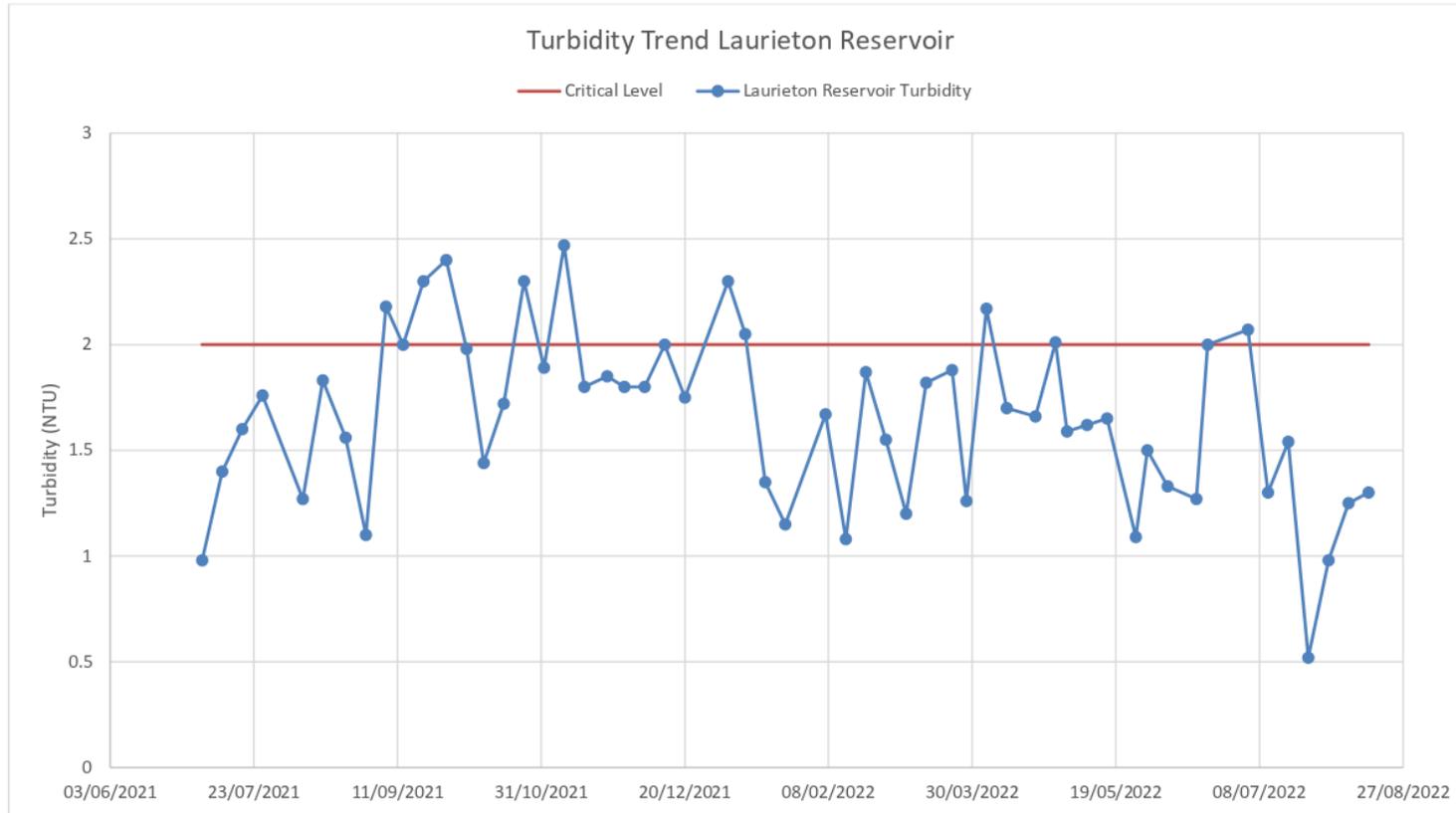
B.11 Turbidity Trends at Camden Head Reservoir, Port Macquarie - Camden Haven Supply System



B.12 Turbidity Trends at Kendall Reservoir, Port Macquarie - Camden Haven Supply System



B.13 Turbidity Trends at Laurieton Reservoir, Port Macquarie - Camden Haven Supply System



Appendix C CCP Exceedances in Reservoir for Port Macquarie - Camden Haven Supply

C.1 CCP Exceedances for Turbidity >2NTU of Reservoirs in Port Macquarie - Camden Haven System

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Port Macquarie	20/07/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.2
Port Macquarie	26/07/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.05
Port Macquarie	13/09/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.09
Port Macquarie	13/09/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.09
Port Macquarie	17/09/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	3

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Port Macquarie	20/09/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.42
Port Macquarie	28/09/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.4
Port Macquarie	06/10/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.12
Port Macquarie	18/10/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.14
Port Macquarie	26/10/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.2
Port Macquarie	03/11/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.5
Port Macquarie	09/11/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.2

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Port Macquarie	15/11/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.2
Port Macquarie	22/11/2021	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.28
Port Macquarie	01/03/2022	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.04
Port Macquarie	08/03/2022	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.04
Port Macquarie	15/03/2022	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.09
Port Macquarie	29/03/2022	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.04
Port Macquarie	05/04/2022	CL	Transit Hill Reservoir	Turbidity	>2NTU	3.05

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Port Macquarie	12/04/2022	CL	Transit Hill Reservoir	Turbidity	>2NTU	2.21
Port Macquarie	20/07/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.11
Port Macquarie	3/08/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.04
Port Macquarie	13/09/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.09
Port Macquarie	20/09/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.2
Port Macquarie	6/10/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.04
Port Macquarie	11/10/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.05

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Port Macquarie	18/10/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.2
Port Macquarie	26/10/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.34
Port Macquarie	3/11/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.56
Port Macquarie	9/11/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.3
Port Macquarie	15/11/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.03
Port Macquarie	22/11/2021	CL	O Brien's Reservoir	Turbidity	>2NTU	2.04
Port Macquarie	8/03/2022	CL	O Brien's Reservoir	Turbidity	>2NTU	2.18

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Port Macquarie	29/03/2022	CL	O Brien's Reservoir	Turbidity	>2NTU	2.3
Port Macquarie	5/04/2022	CL	O Brien's Reservoir	Turbidity	>2NTU	2.86
Port Macquarie	12/04/2022	CL	O Brien's Reservoir	Turbidity	>2NTU	2.18
Port Macquarie	12/04/2022	CL	O Brien's Reservoir	Turbidity	>2NTU	2.18
Port Macquarie	26/04/2022	CL	O Brien's Reservoir	Turbidity	>2NTU	2.03
Port Macquarie	19/07/2022	CL	O Brien's Reservoir	Turbidity	>2NTU	2.12
Port Macquarie	26/10/2021	CL	Granite St Reservoir	Turbidity	>2NTU	2.15

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Port Macquarie	9/11/2021	CL	Granite St Reservoir	Turbidity	>2NTU	2.2
Port Macquarie	5/04/2022	CL	Granite St Reservoir	Turbidity	>2NTU	3
Port Macquarie	12/04/2022	CL	Granite St Reservoir	Turbidity	>2NTU	2.1
Port Macquarie	28/06/2022	CL	Granite St Reservoir	Turbidity	>2NTU	2.02
Port Macquarie	28/09/2021	CL	Widderson St Reservoir	Turbidity	>2NTU	2.05
Port Macquarie	3/11/2021	CL	Widderson St Reservoir	Turbidity	>2NTU	2.2
Port Macquarie	9/11/2021	CL	Widderson St Reservoir	Turbidity	>2NTU	2.19

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Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Port Macquarie	22/03/2022	CL	Widderson St Reservoir	Turbidity	>2NTU	2.18
Port Macquarie	12/07/2022	CL	Widderson St Reservoir	Turbidity	>2NTU	2.15
Port Macquarie	20/09/2021	CL	Mill Hill Reservoir	Turbidity	>2NTU	2.01
Port Macquarie	18/10/2021	CL	Mill Hill Reservoir	Turbidity	>2NTU	2.3
Port Macquarie	26/10/2021	CL	Mill Hill Reservoir	Turbidity	>2NTU	2.3
Port Macquarie	3/11/2021	CL	Mill Hill Reservoir	Turbidity	>2NTU	2.1
Port Macquarie	9/11/2021	CL	Mill Hill Reservoir	Turbidity	>2NTU	2.15

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Port Macquarie	15/11/2021	CL	Mill Hill Reservoir	Turbidity	>2NTU	2.13
Port Macquarie	8/03/2022	CL	Mill Hill Reservoir	Turbidity	>2NTU	2.17
Port Macquarie	5/04/2022	CL	Mill Hill Reservoir	Turbidity	>2NTU	2.67
Camden Haven	13/09/2021	CL	Bonny Hills Reservoir	Turbidity	>2NTU	2.01
Camden Haven	20/09/2021	CL	Bonny Hills Reservoir	Turbidity	>2NTU	2.2
Camden Haven	28/09/2021	CL	Bonny Hills Reservoir	Turbidity	>2NTU	2.41
Camden Haven	5/10/2021	CL	Bonny Hills Reservoir	Turbidity	>2NTU	2.01

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Camden Haven	8/11/2021	CL	Bonny Hills Reservoir	Turbidity	>2NTU	2.2
Camden Haven	15/11/2021	CL	Bonny Hills Reservoir	Turbidity	>2NTU	2.28
Camden Haven	20/12/2021	CL	Bonny Hills Reservoir	Turbidity	>2NTU	2.1
Camden Haven	26/07/2021	CL	Bonny Hills Reservoir HL	Turbidity	>2NTU	2.1
Camden Haven	28/09/2021	CL	Bonny Hills Reservoir HL	Turbidity	>2NTU	2.4
Camden Haven	25/10/2021	CL	Bonny Hills Reservoir HL	Turbidity	>2NTU	2.19
Camden Haven	20/12/2021	CL	Bonny Hills Reservoir HL	Turbidity	>2NTU	2.01

Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Camden Haven	7/09/2021	CL	Camden Head Reservoir	Turbidity	>2NTU	3.21
Camden Haven	13/09/2021	CL	Camden Head Reservoir	Turbidity	>2NTU	2.1
Camden Haven	23/11/2021	CL	Camden Head Reservoir	Turbidity	>2NTU	2.1
Camden Haven	17/09/2021	CL	Kendall Reservoir	Turbidity	>2NTU	2.35
Camden Haven	28/04/2022	CL	Kendall Reservoir	Turbidity	>2NTU	2.55
Camden Haven	2/05/2022	CL	Kendall Reservoir	Turbidity	>2NTU	2.1
Camden Haven	7/09/2021	CL	Laurieton Reservoir	Turbidity	>2NTU	2.18

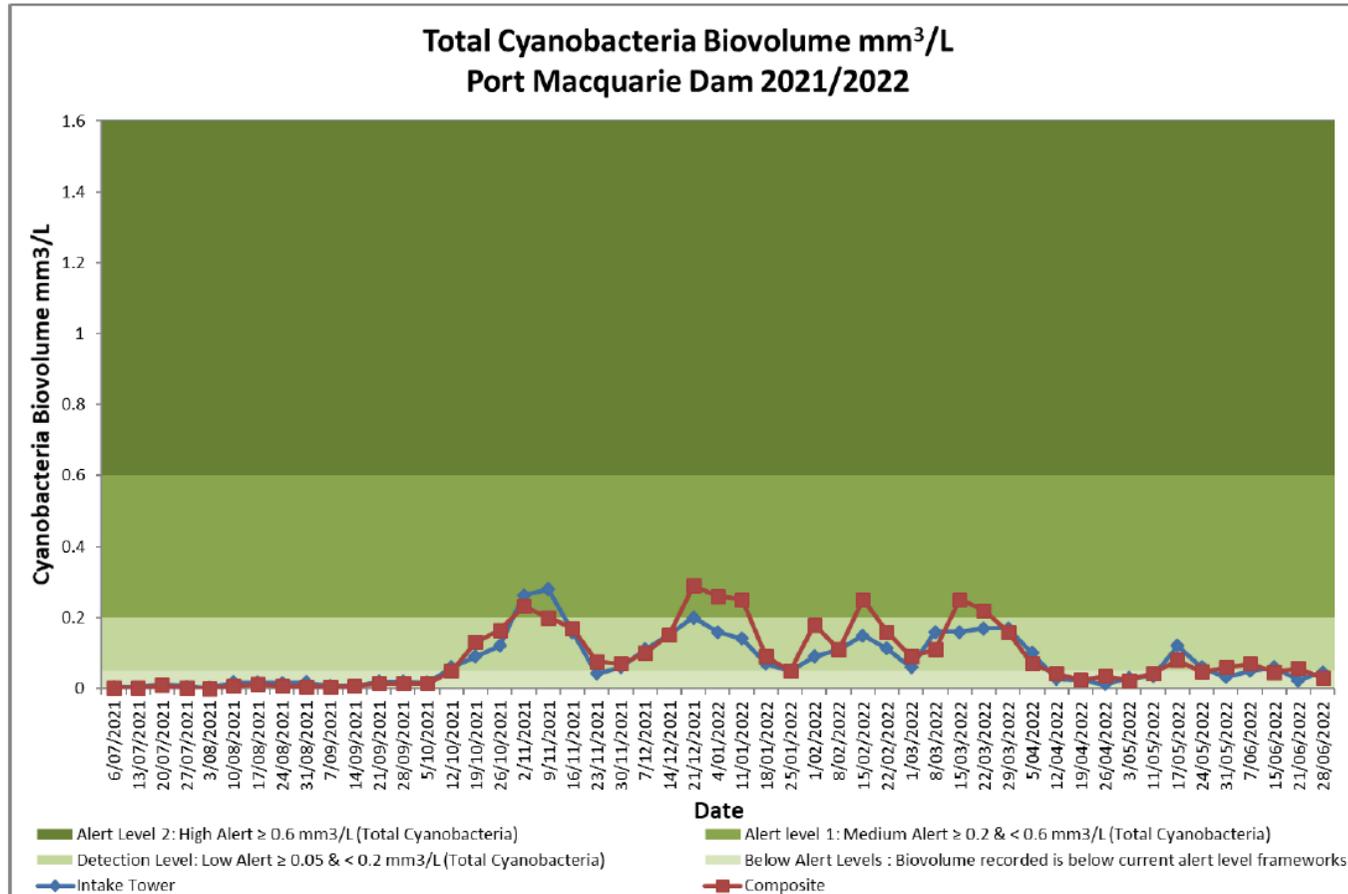
Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Camden Haven	20/09/2021	CL	Laurieton Reservoir	Turbidity	>2NTU	2.3
Camden Haven	28/09/2021	CL	Laurieton Reservoir	Turbidity	>2NTU	2.4
Camden Haven	25/10/2021	CL	Laurieton Reservoir	Turbidity	>2NTU	2.3
Camden Haven	8/11/2021	CL	Laurieton Reservoir	Turbidity	>2NTU	2.47
Camden Haven	4/01/2022	CL	Laurieton Reservoir	Turbidity	>2NTU	2.3
Camden Haven	10/01/2022	CL	Laurieton Reservoir	Turbidity	>2NTU	2.05
Camden Haven	4/04/2022	CL	Laurieton Reservoir	Turbidity	>2NTU	2.17

55

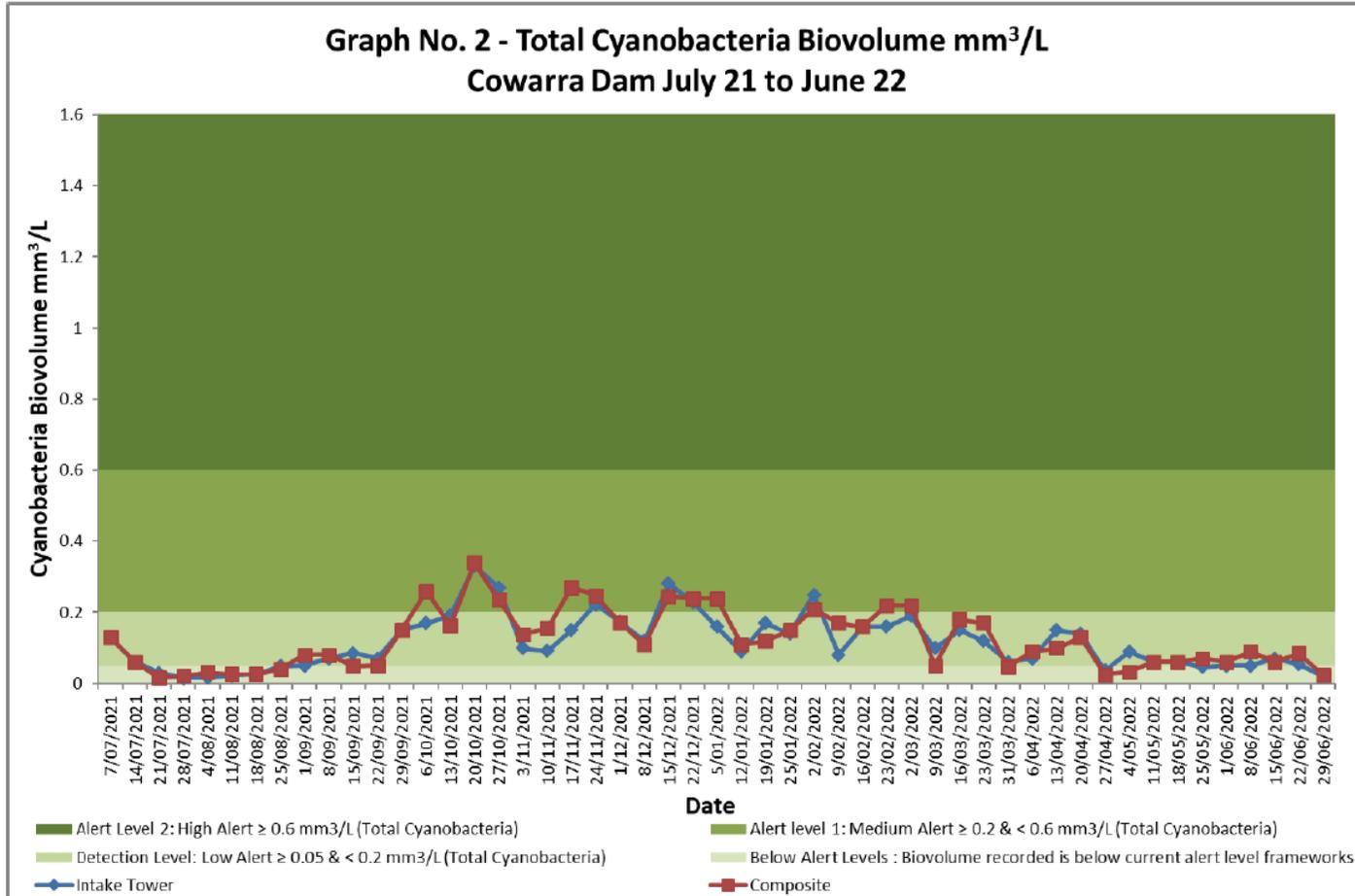
Supply System	Date or Period	Type	Location	Parameter	CCP Limit	Water quality Value
Camden Haven	28/04/2022	CL	Laurieton Reservoir	Turbidity	>2NTU	2.01

Appendix D Water Quality Trends

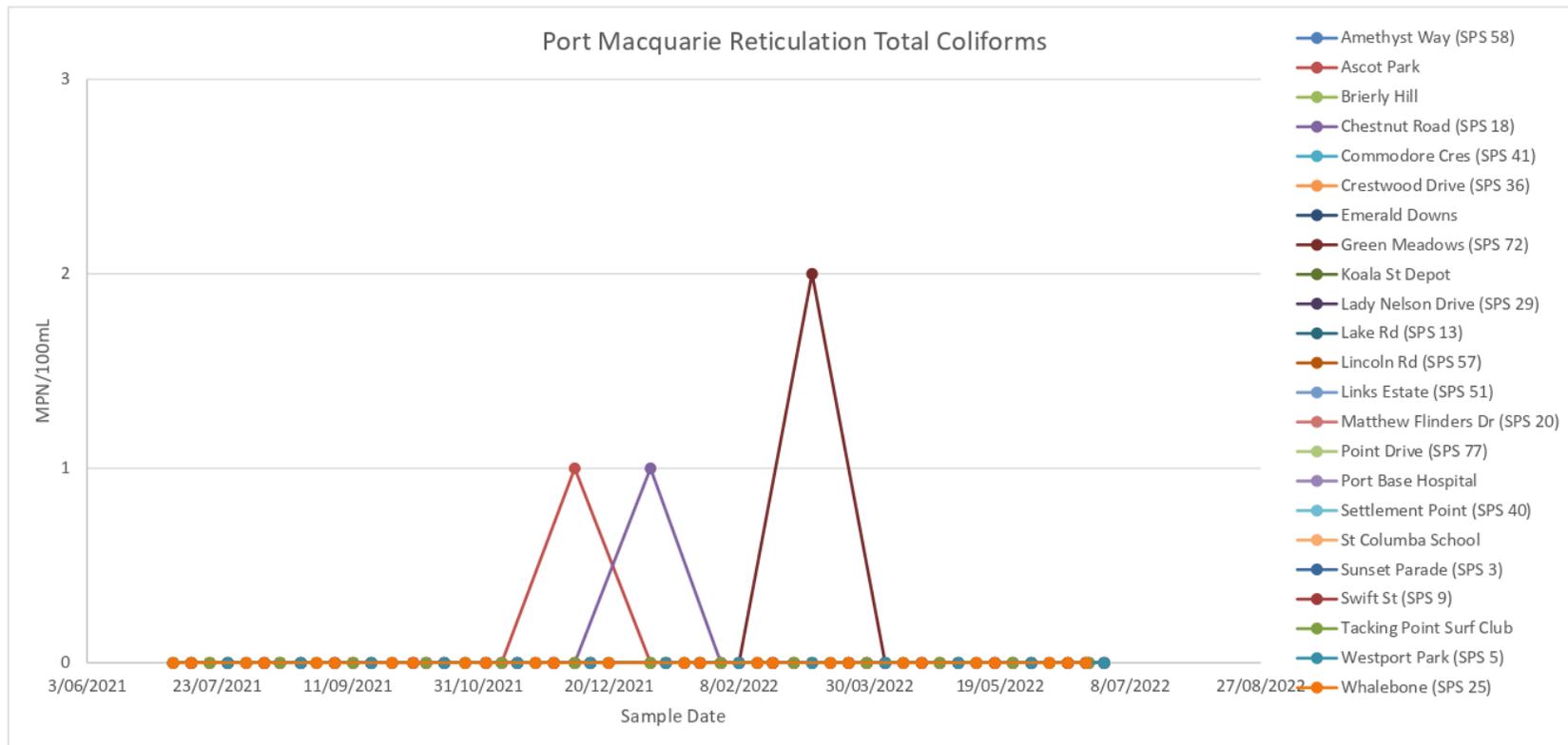
D.1 Cyanobacteria in Port Macquarie Dam



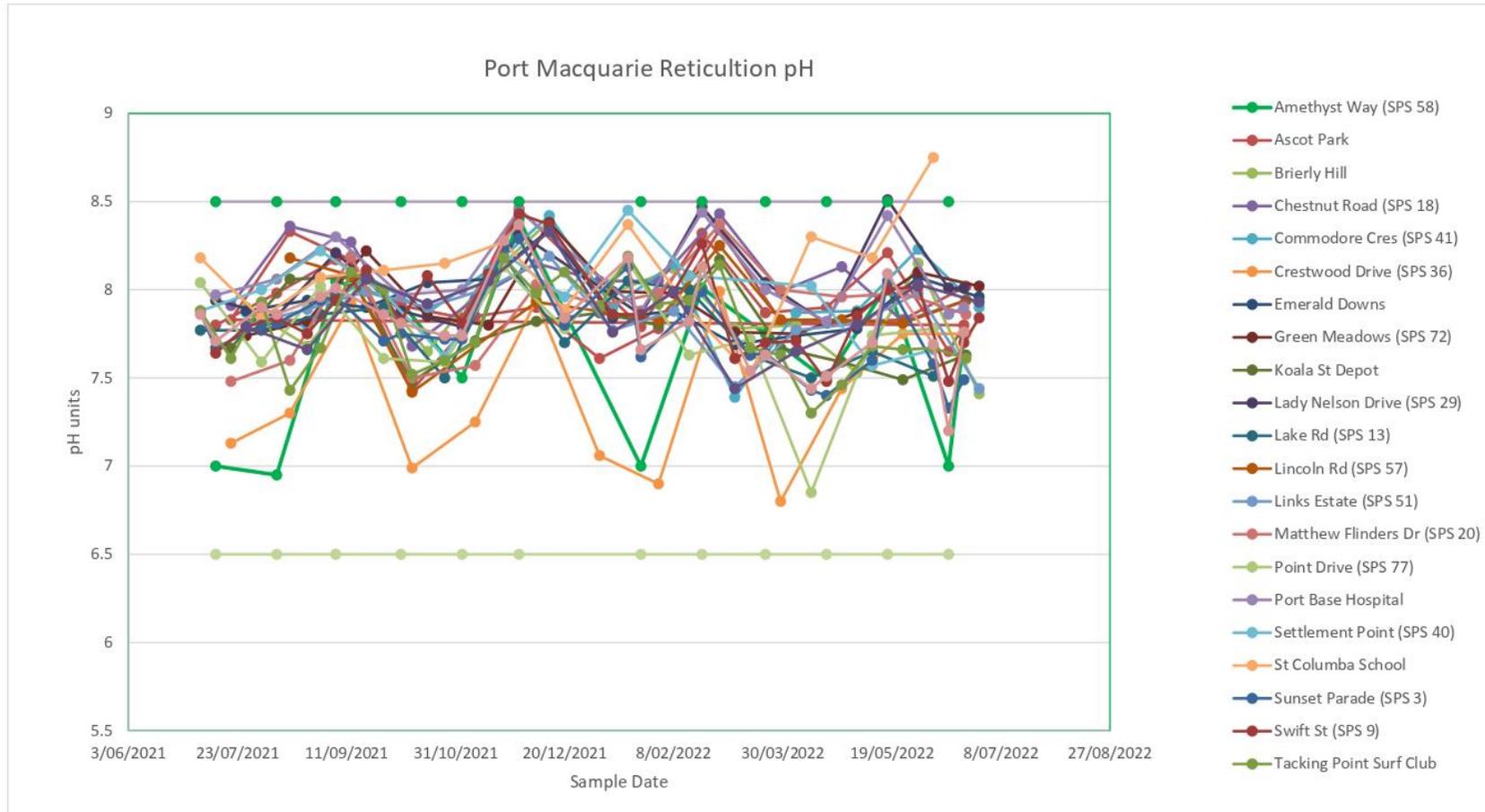
D.2 Cyanobacteria in Cowarra Dam



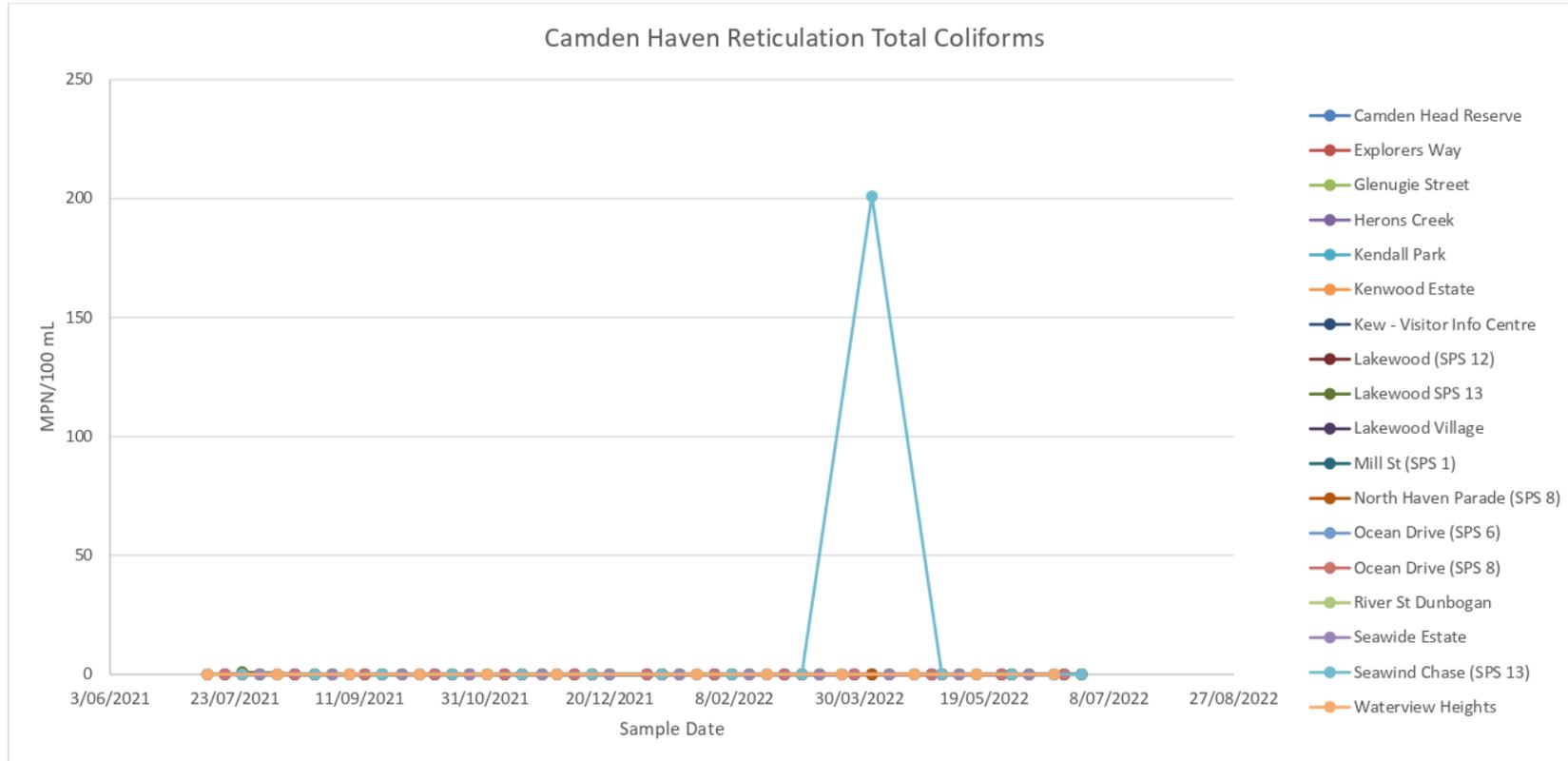
D.3 Port Macquarie Reticulation Total Coliforms Level



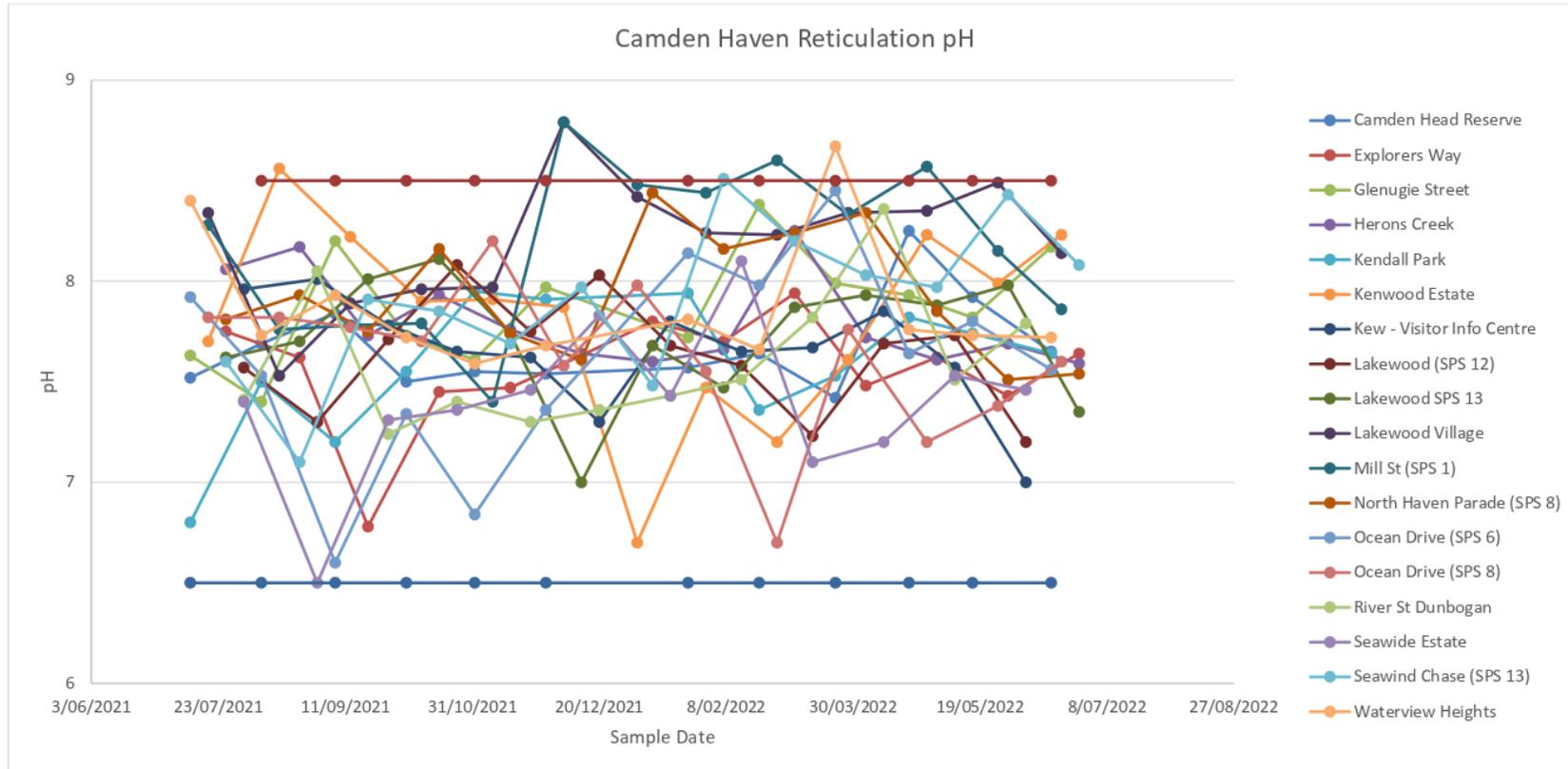
D.4 Port Macquarie Reticulation pH Level



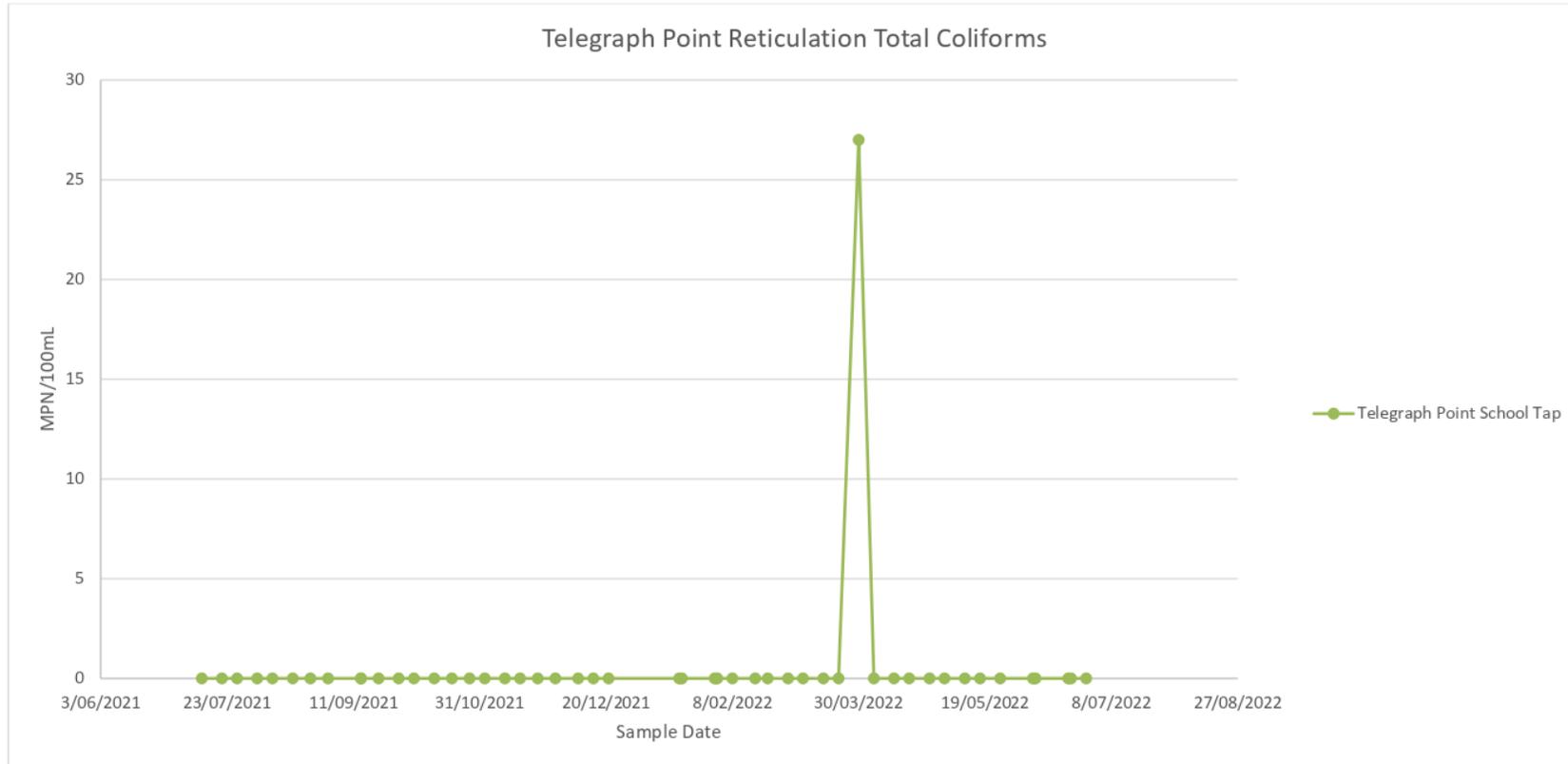
D.5 Camden Haven Reticulation Total Coliforms Level



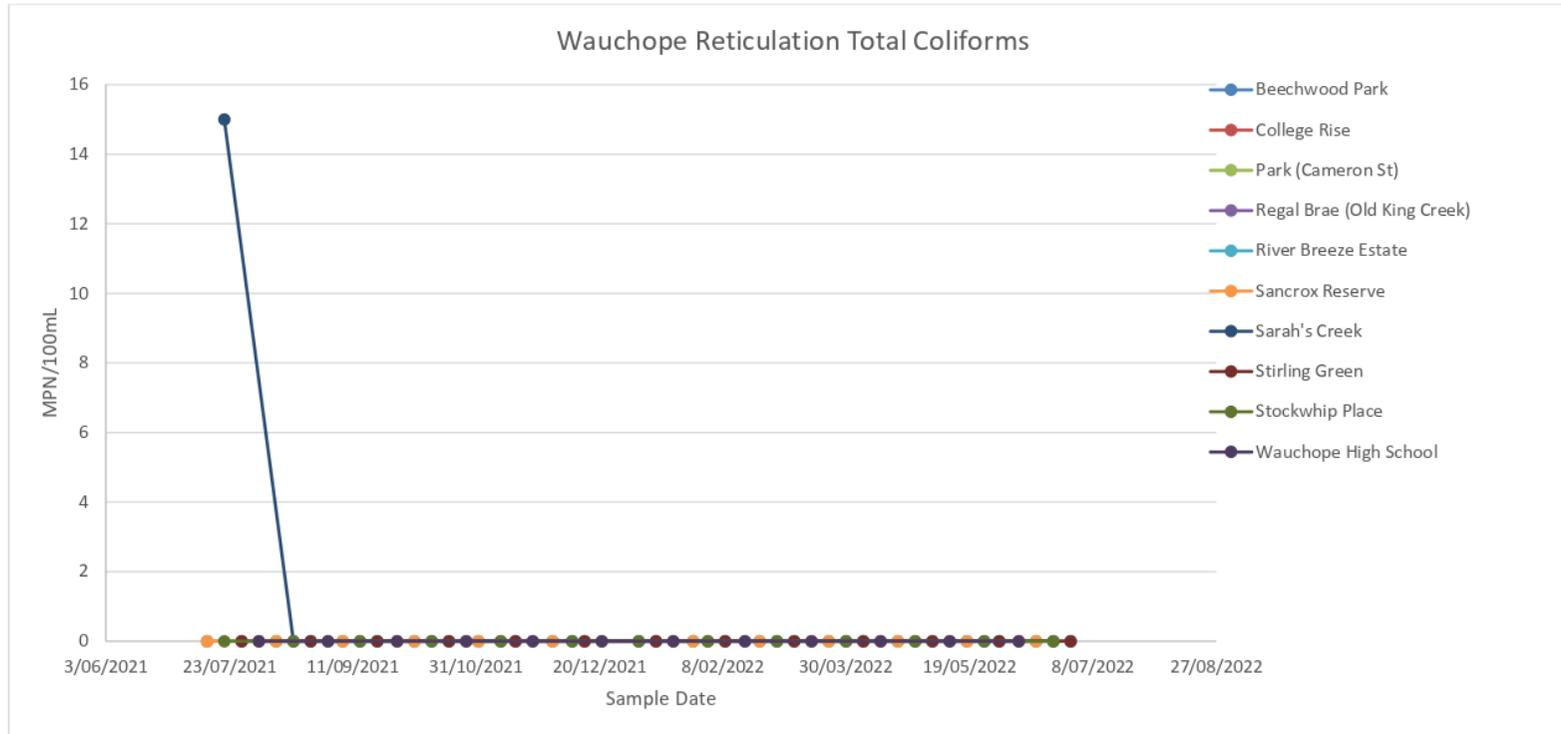
D.6 Camden Haven Reticulation pH Level



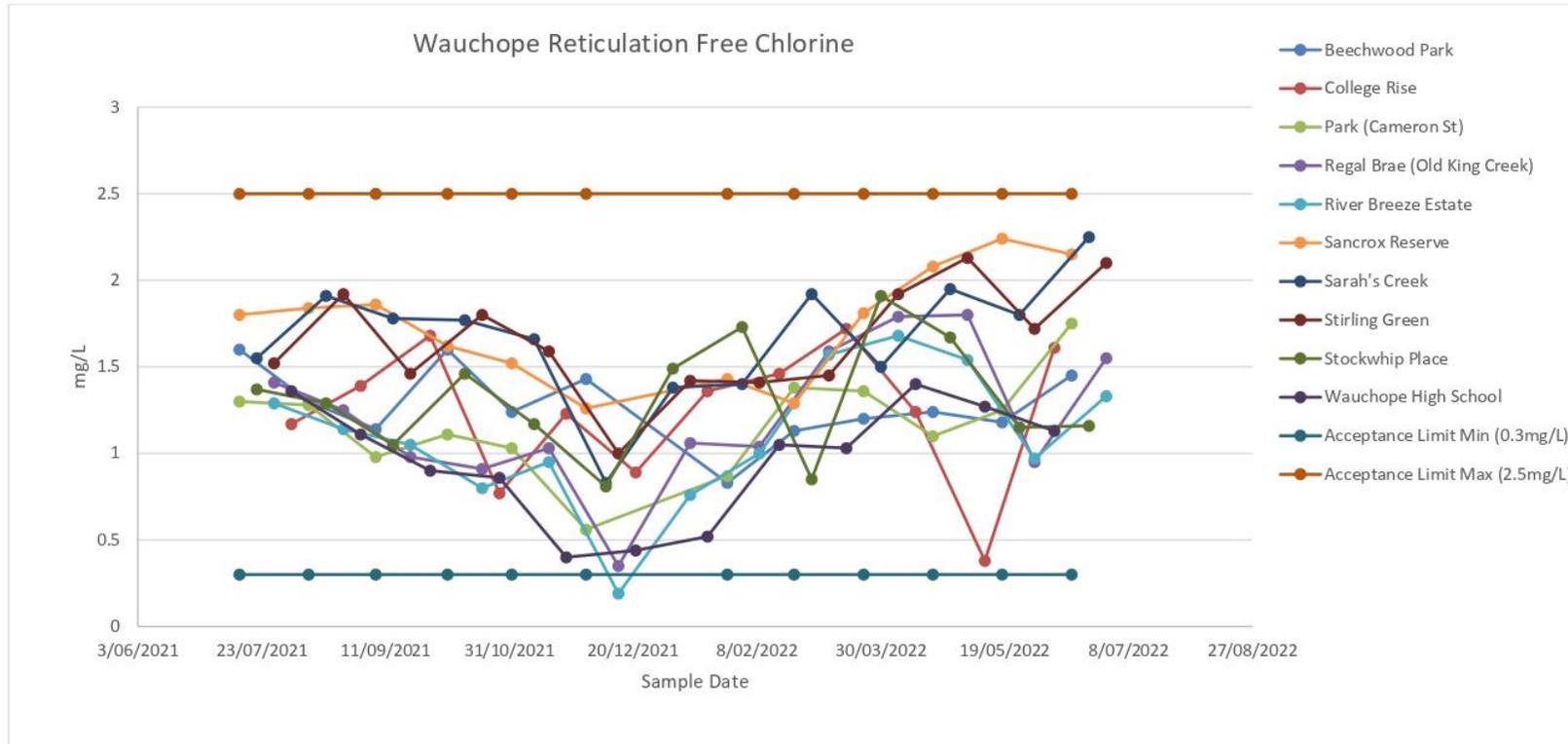
D.7 Telegraph Point Reticulation Total Coliforms Level



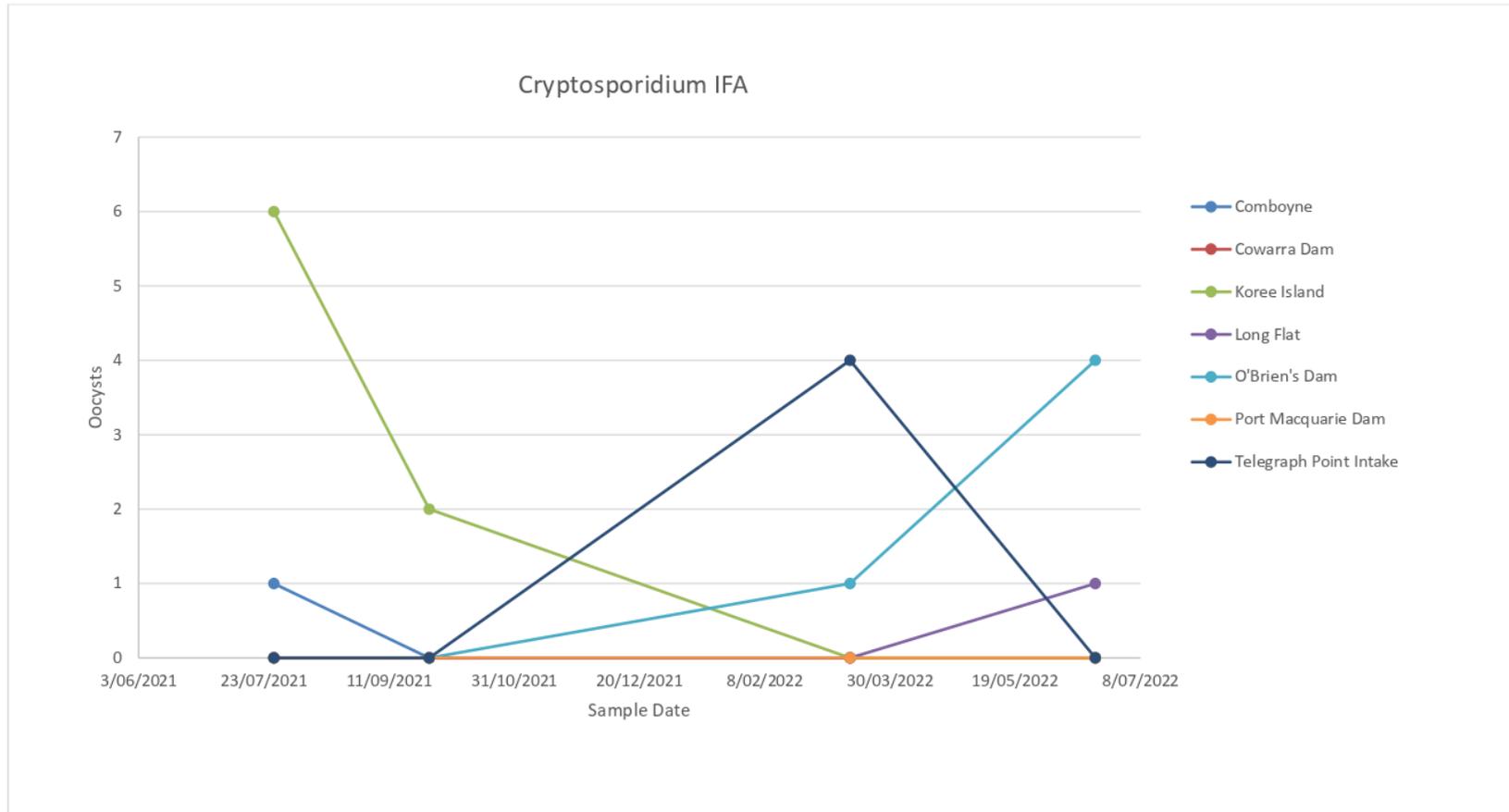
D.8 Wauchope Reticulation Total Coliforms Level



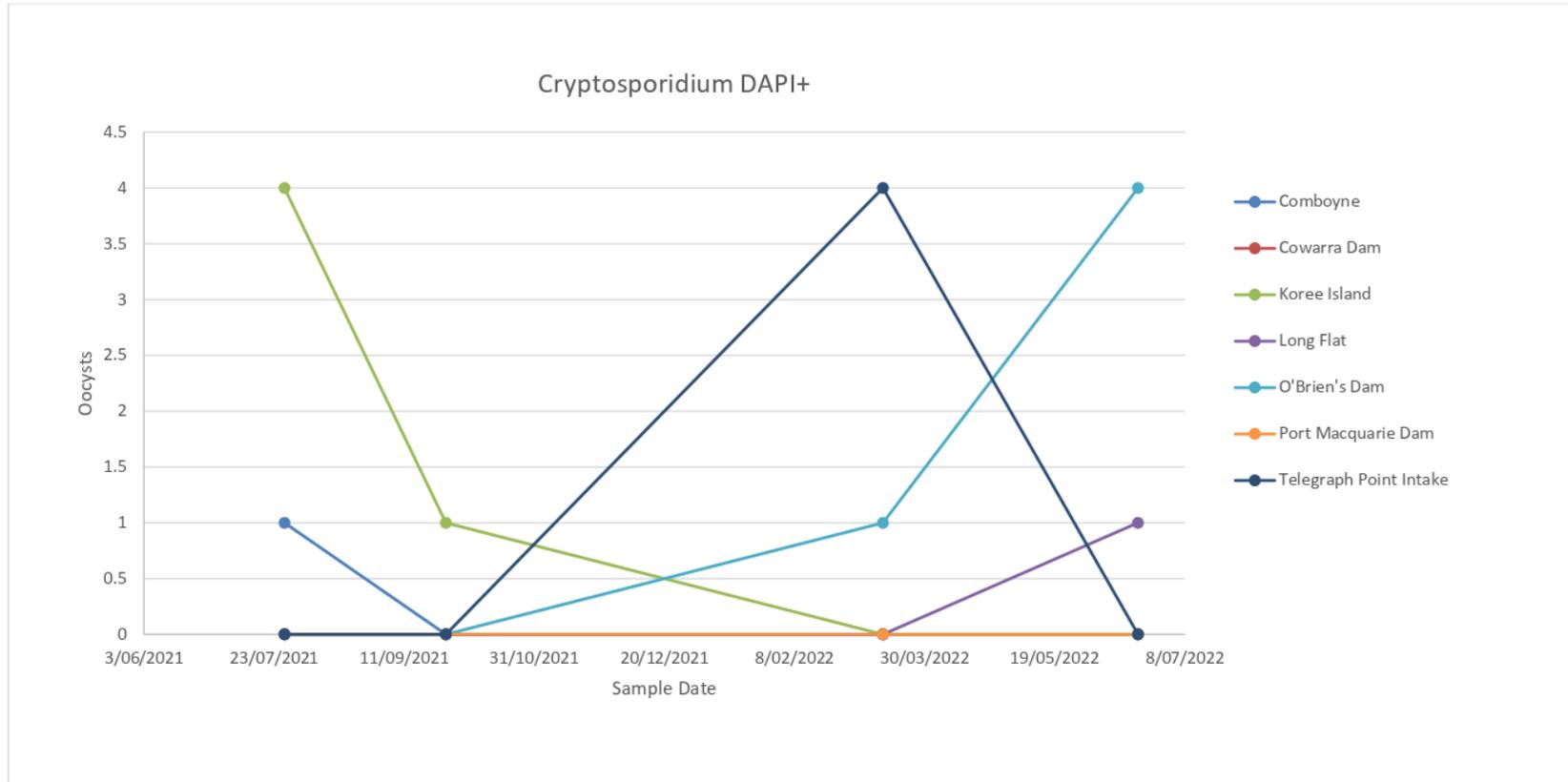
D.9 Wauchope Reticulation Free Chlorine Level



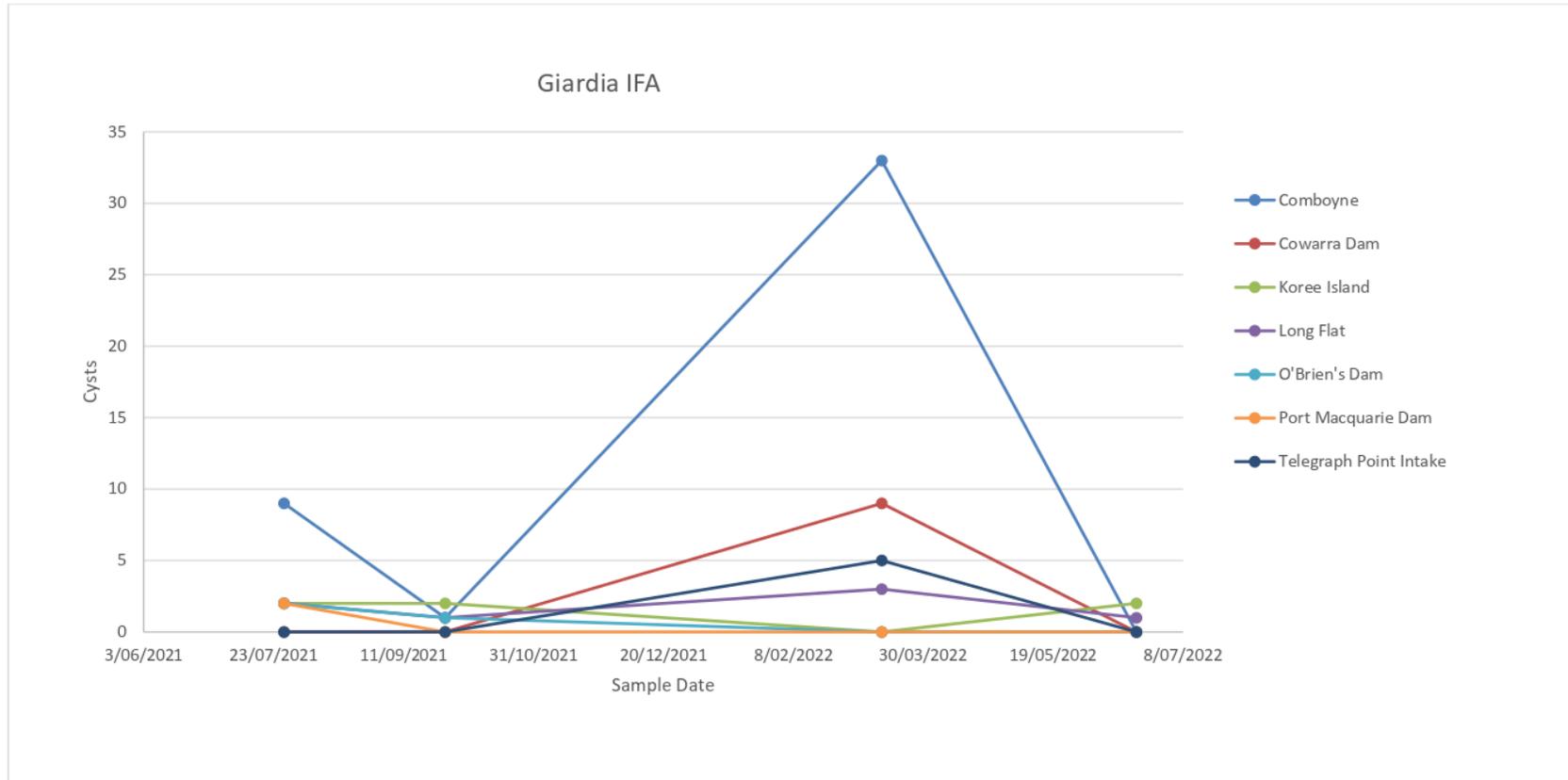
D.10 *Cryptosporidium* IFA Test Results



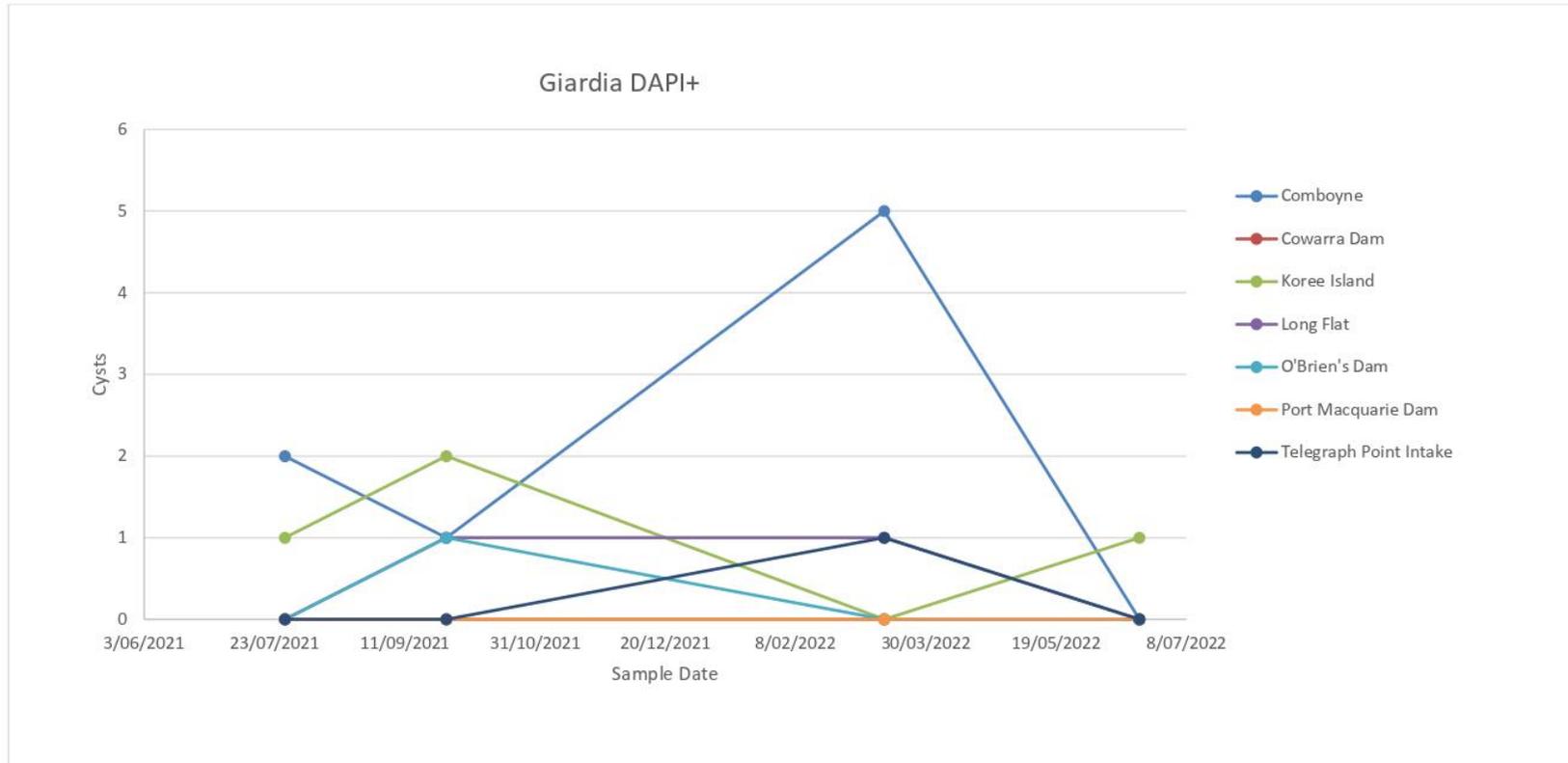
D.11 *Cryptosporidium* DAPI+ Test Results



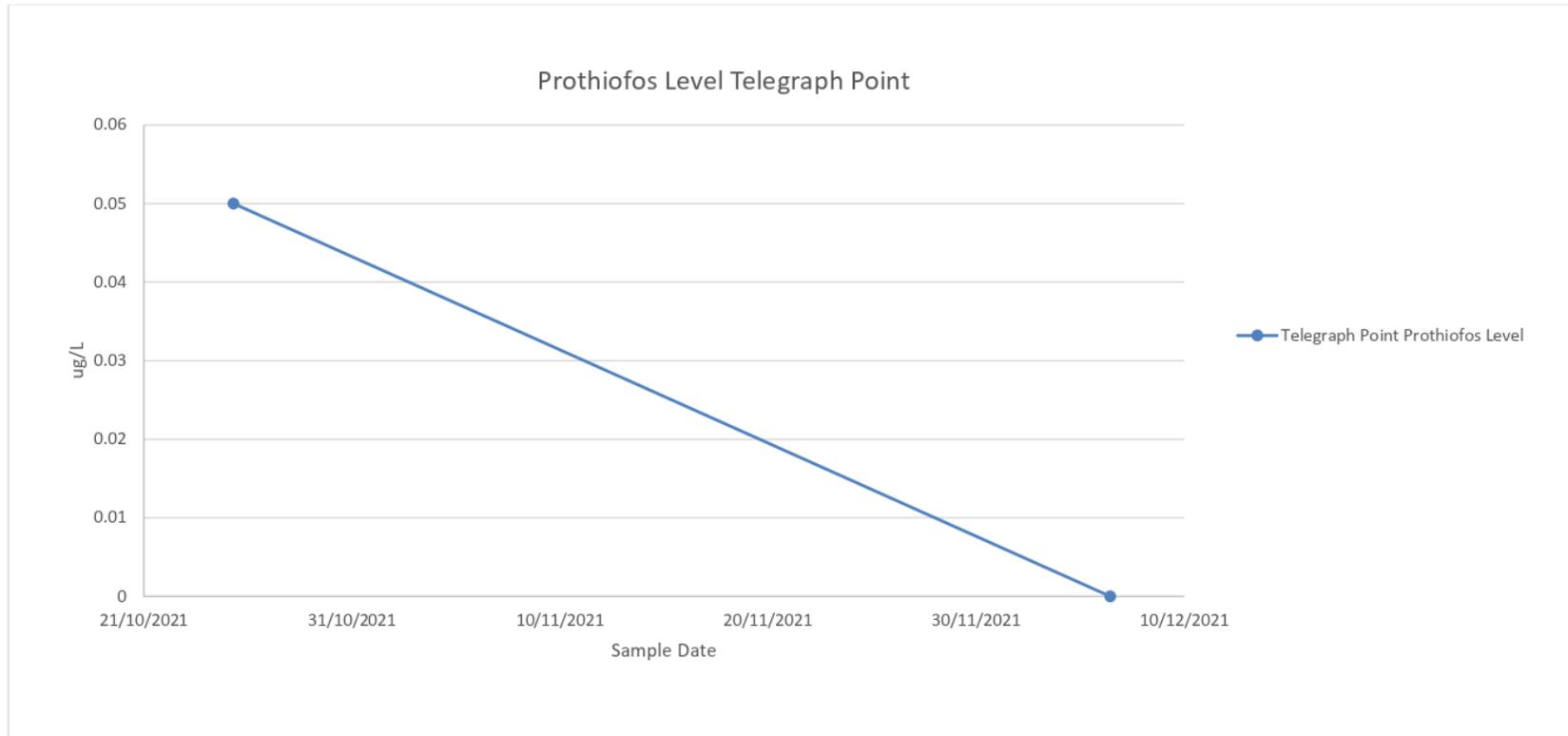
D.12 Giardia IFA Test Results



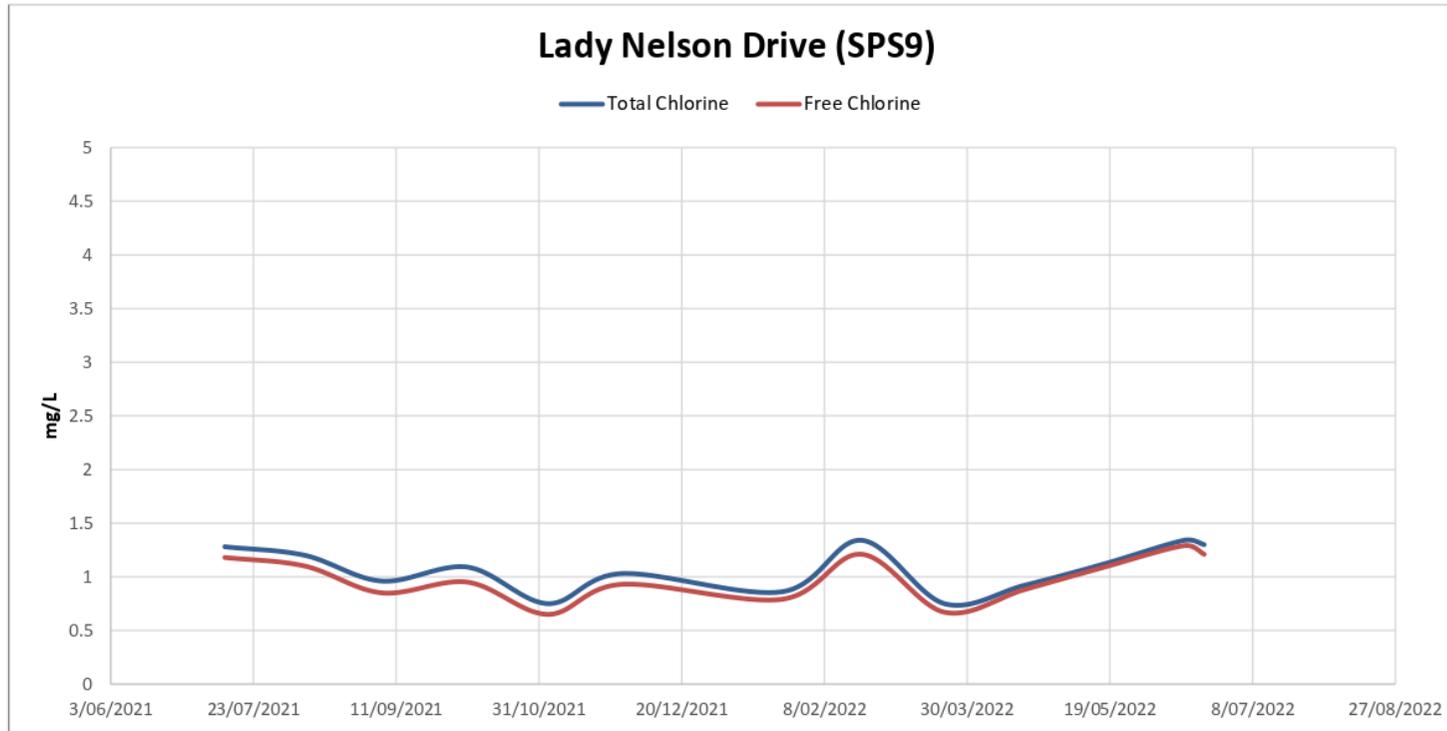
D.13 Giardia DAPI+ Test Results



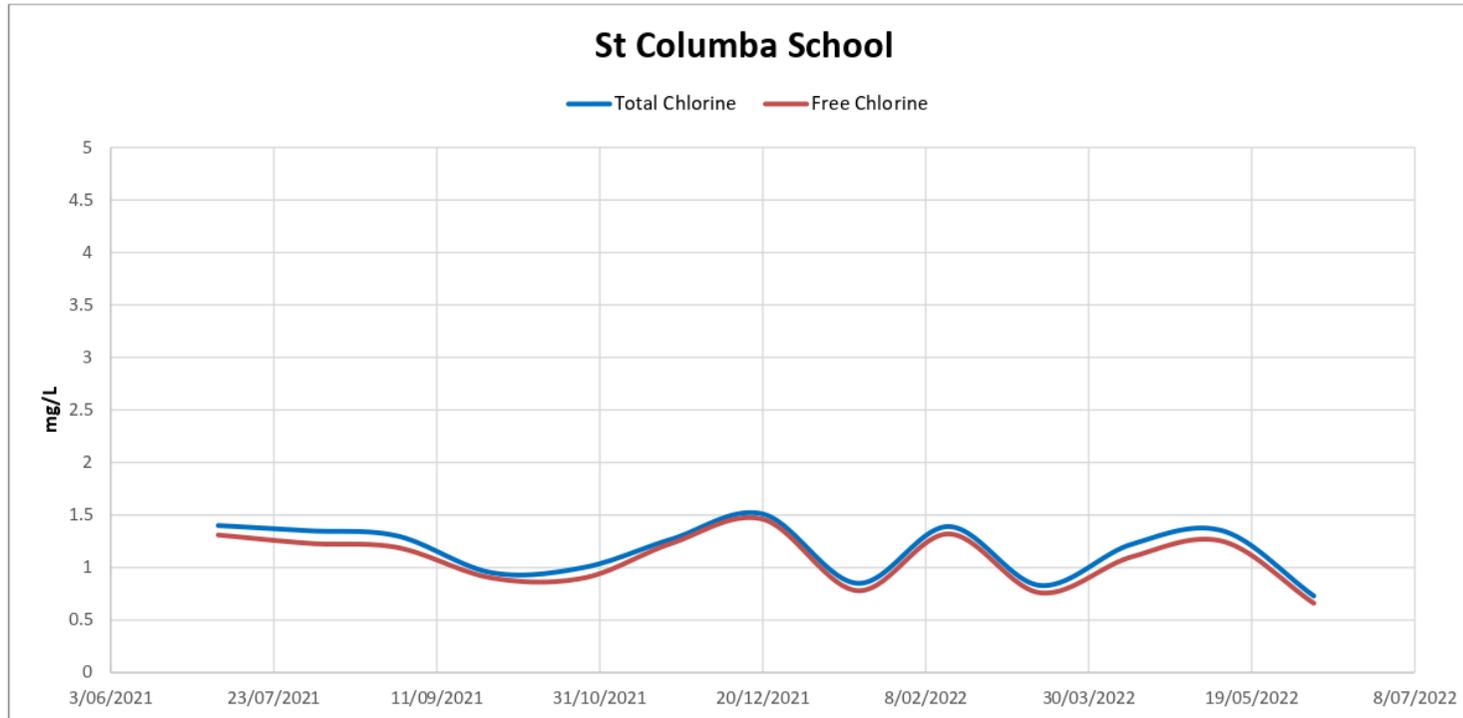
D.14 Prothiofos Level Telegraph Point



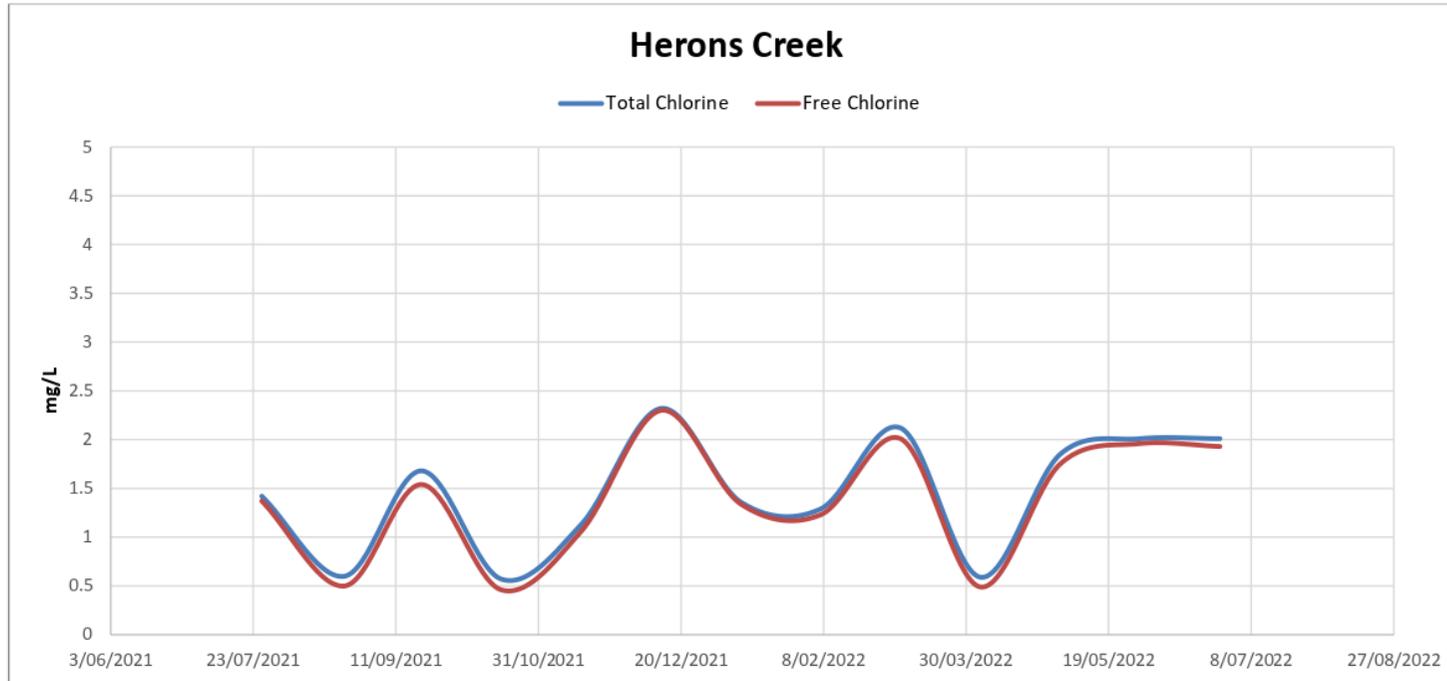
D.15 Graphs of Total Chlorine vs Free Chlorine at Lady Nelson Drive Sample Point



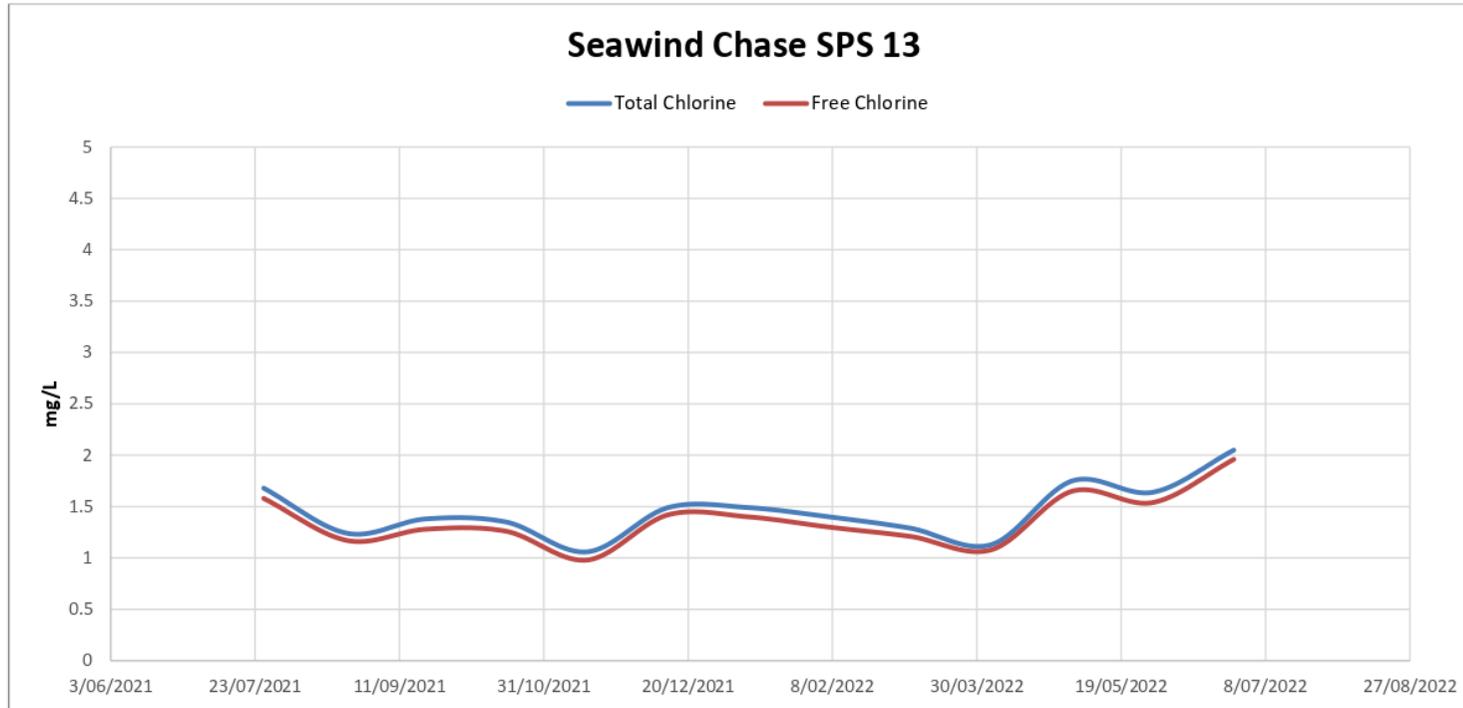
D.16 Graphs of Total Chlorine vs Free Chlorine at St Columba School Sample Point



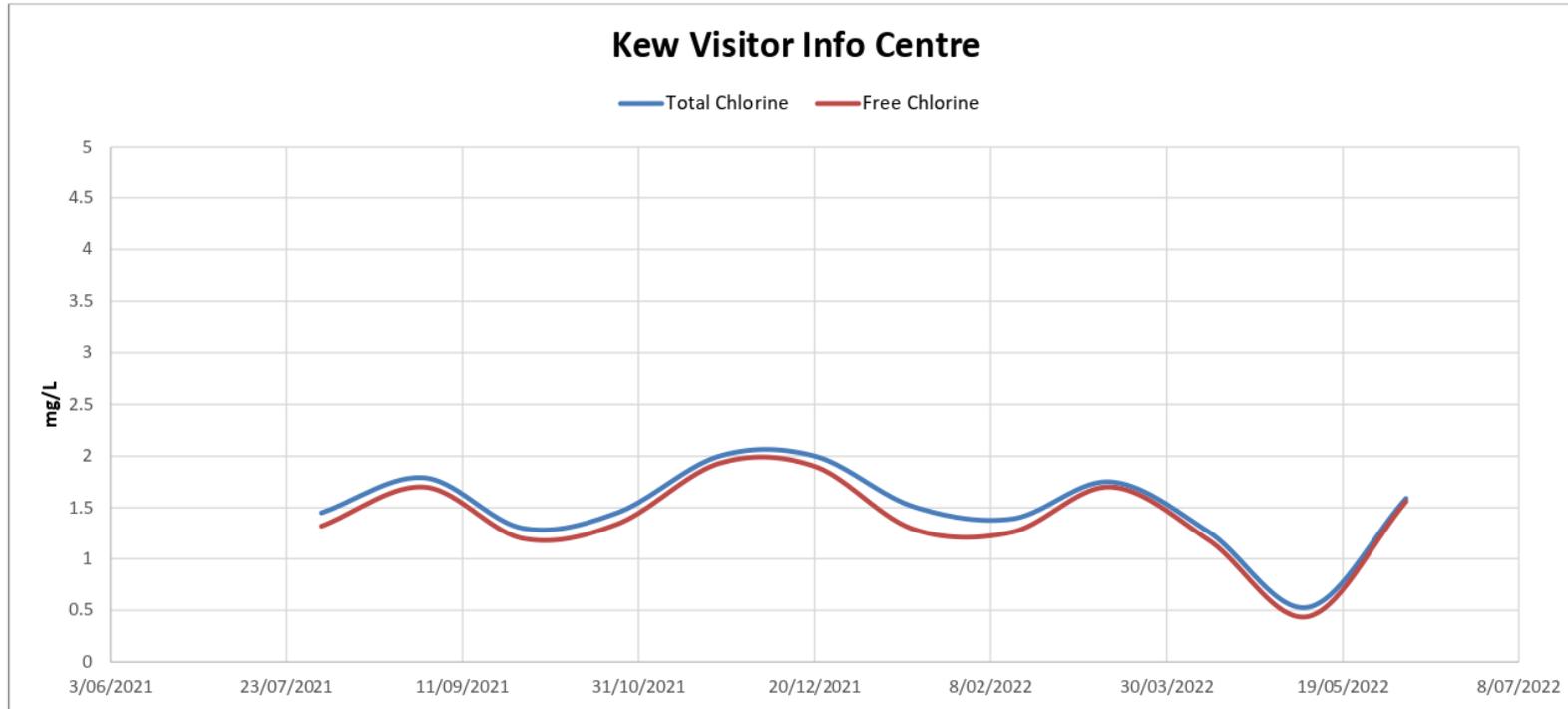
D.17 Graphs of Total Chlorine vs Free Chlorine at Herons Creek Sample Point



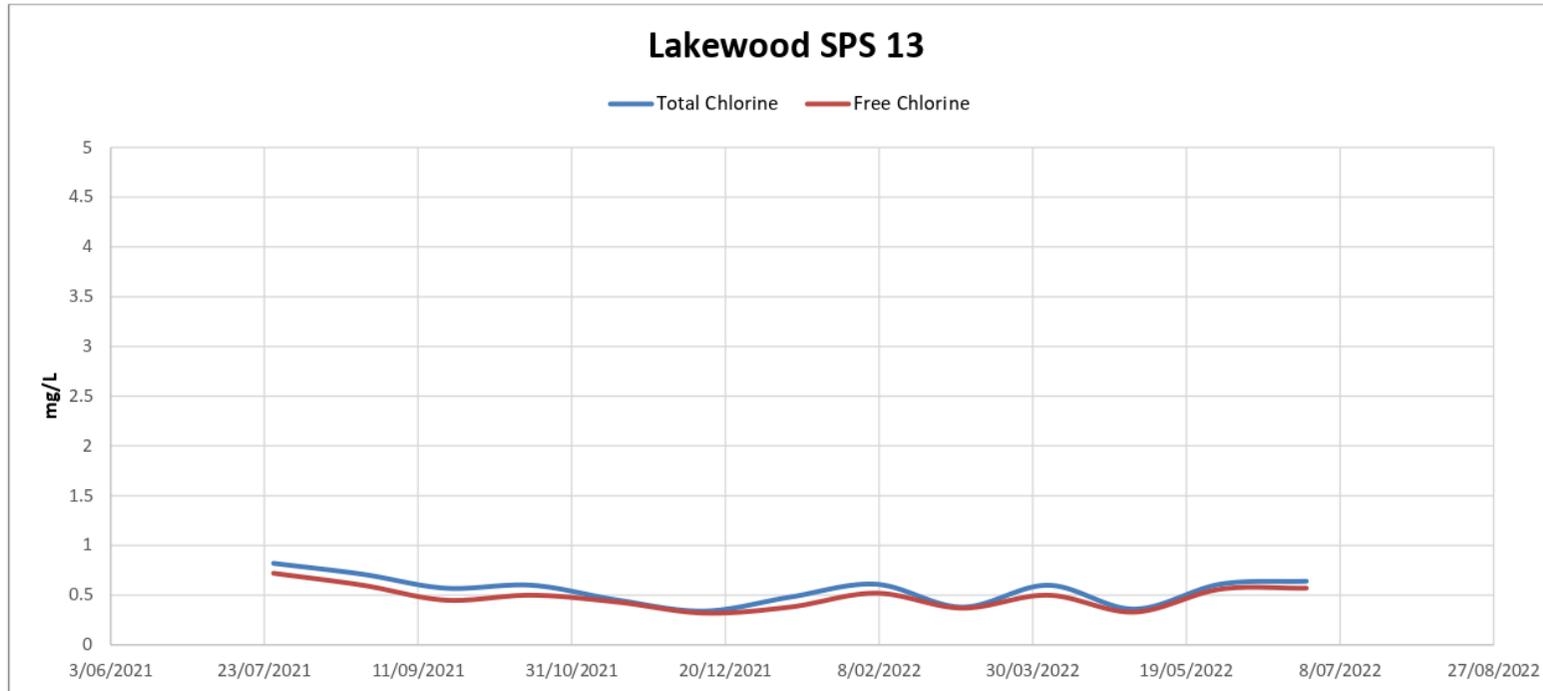
D.18 Graphs of Total Chlorine vs Free Chlorine at Seawind Chase SPS13 Sample Point



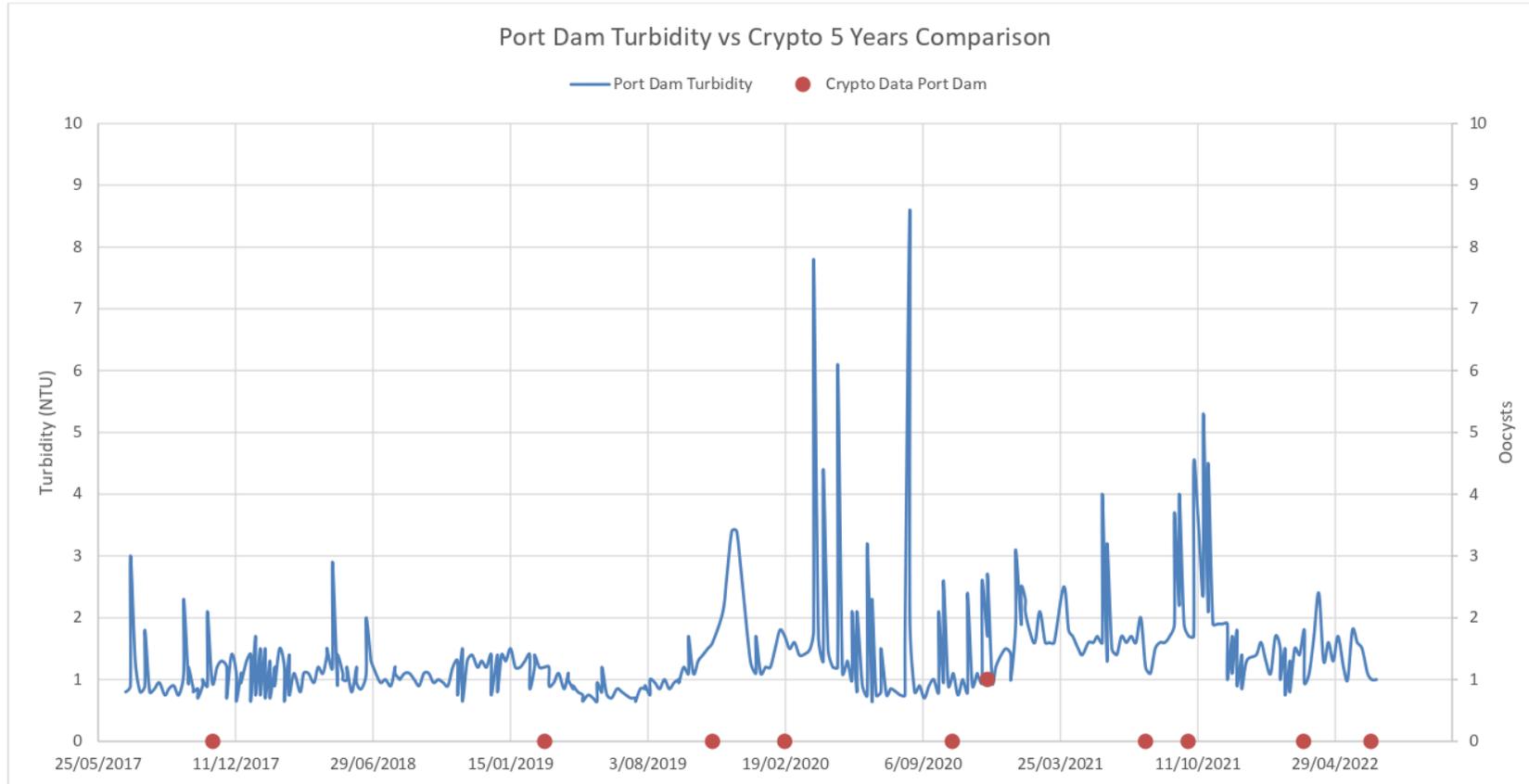
D.19 Graphs of Total Chlorine vs Free Chlorine at Kew Visitor Info Centre Sample Point



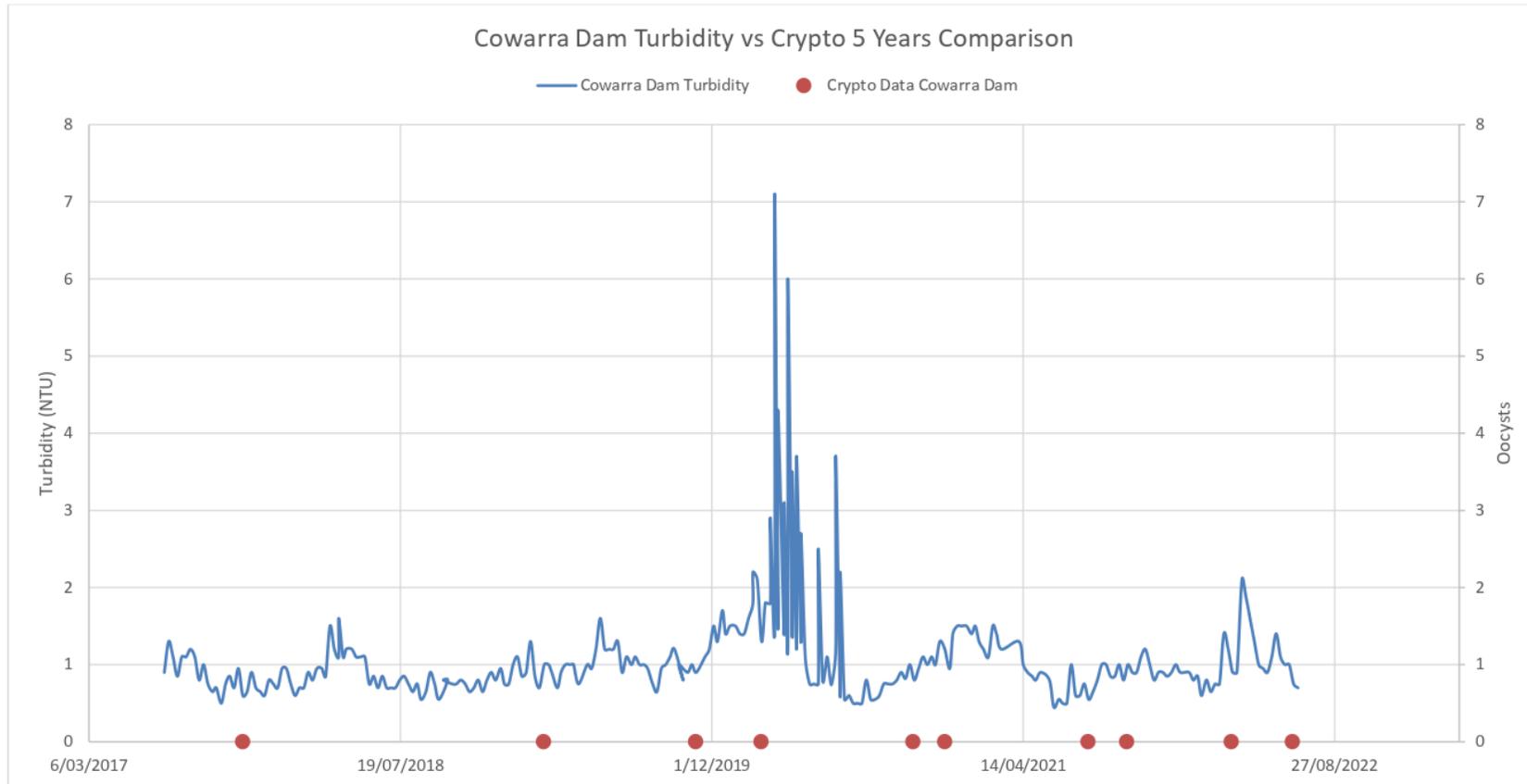
D.20 Graphs of Total Chlorine vs Free Chlorine at Lakewood SPS13 Sample Point



D.21 Graphs of Cryptosporidium VS Turbidity for Port Dam



D.22 Graphs of Cryptosporidium VS Turbidity for Cowarra Dam



Appendix E NSW Health Laboratory Sample Results

E.1 Port Macquarie NSW Health Laboratory Sample Results

Characteristic	Guideline Value	Units	Mean	Min	Max	Sample Count	Exception Count
Aluminium	0.2000	mg/L	0.0275	0.02	0.05	12	0
Antimony	0.0030	mg/L	0.0001	0.00005	0.0001	12	0
Arsenic	0.0100	mg/L	0.0008	0.0005	0.001	12	0
Barium	2.0000	mg/L	0.0117	0.0104	0.0134	12	0
Boron	4.0000	mg/L	0.0143	0.0121	0.0162	12	0
Cadmium	0.0020	mg/L	0.0001	0.00005	0.00005	12	0
Calcium	10000.0000	mg/L	15.2250	11	18.8	12	0
Chloride	250.0000	mg/L	25.1667	23	28	12	0
Chromium	0.0500	mg/L	0.0005	0.0005	0.0005	12	0
Copper	2.0000	mg/L	0.0383	0.002	0.287	12	0
Fluoride	1.5000	mg/L	0.2933	0.11	0.45	12	0
Fluoride (WU result)	1.5000	mg/L	0.3025	0.11	0.48	12	0
Fluoride Ratio	0.8 - 1.2	mg/L	1.0375	0.92	1.18	12	0
Iodine	0.5000	mg/L	0.0242	0.02	0.04	12	0
Iron	0.3000	mg/L	0.0638	0.005	0.12	12	0
Lead	0.0100	mg/L	0.0005	0.0001	0.0025	12	0
Magnesium	10000.0000	mg/L	4.2217	3.91	4.52	12	0
Manganese	0.5000	mg/L	0.0103	0.0027	0.0208	12	0
Mercury	0.0010	mg/L	0.0004	0.0004	0.0004	12	0
Molybdenum	0.0500	mg/L	0.0002	0.0001	0.0003	12	0
Nickel	0.0200	mg/L	0.0002	0.0002	0.0005	12	0
Nitrate	50.0000	mg/L	0.5000	0.5	0.5	12	0
Nitrite	3.0000	mg/L	0.0500	0.05	0.05	12	0
pH	6.5 - 8.5	mg/L	7.9500	7.6	8.5	12	0
Selenium	0.0100	mg/L	0.0035	0.0035	0.0035	12	0
Silver	0.1000	mg/L	0.0001	0.0001	0.0001	12	0
Sodium	180.0000	mg/L	16.2500	15	18	12	0
Sulfate	500.0000	mg/L	4.3333	4	5	12	0
Total Dissolved Solids (TDS)	10000.0000	mg/L	93.8333	83	100	12	0
Total Hardness as CaCO ₃	10000.0000	mg/L	55.4083	43.6	63.6	12	0
True Colour	15.0000	Hazen Units (HU)	1.5000	1	2	12	0
Turbidity	5.0000	NTU	0.4875	0.05	1.3	12	0
Uranium	0.0170	mg/L	0.0001	0.00005	0.00005	12	0
Zinc	3.0000	mg/L	0.0246	0.005	0.1	12	0

E.2 Wauchope NSW Health Laboratory Sample Results

Characteristic	Guideline Value	Units	Mean	Min	Max	Sample Count	Exception Count
Aluminium	0.2000	mg/L	0.0167	0.005	0.03	12	0
Antimony	0.0030	mg/L	0.0001	0.00005	0.0002	12	0
Arsenic	0.0100	mg/L	0.0007	0.0005	0.001	12	0
Barium	2.0000	mg/L	0.0108	0.0089	0.0138	12	0
Boron	4.0000	mg/L	0.0121	0.0092	0.0149	12	0
Cadmium	0.0020	mg/L	0.0001	0.00005	0.00005	12	0
Calcium	10000.0000	mg/L	18.8250	17.2	20.6	12	0
Chloride	250.0000	mg/L	20.0000	16	24	12	0
Chromium	0.0500	mg/L	0.0005	0.0005	0.0005	12	0
Copper	2.0000	mg/L	0.1548	0.002	0.814	12	0
Fluoride	1.5000	mg/L	0.9800	0.76	1.04	12	0
Fluoride (WU result)	1.5000	mg/L	0.9867	0.8	1.03	12	0
Fluoride Ratio	0.8 - 1.2	mg/L	1.0075	0.95	1.07	12	0
Iodine	0.5000	mg/L	0.0108	0.01	0.02	12	0
Iron	0.3000	mg/L	0.0096	0.005	0.02	12	0
Lead	0.0100	mg/L	0.0012	0.0001	0.0057	12	0
Magnesium	10000.0000	mg/L	4.0442	3.06	5.53	12	0
Manganese	0.5000	mg/L	0.0008	0.0003	0.0015	12	0
Mercury	0.0010	mg/L	0.0004	0.0004	0.0004	12	0
Molybdenum	0.0500	mg/L	0.0002	0.0001	0.0002	12	0
Nickel	0.0200	mg/L	0.0006	0.0002	0.0016	12	0
Nitrate	50.0000	mg/L	0.7917	0.5	1	12	0
Nitrite	3.0000	mg/L	0.0500	0.05	0.05	12	0
pH	6.5 - 8.5	mg/L	7.9583	7.8	8.1	12	0
Selenium	0.0100	mg/L	0.0035	0.0035	0.0035	12	0
Silver	0.1000	mg/L	0.0001	0.0001	0.0001	12	0
Sodium	180.0000	mg/L	13.5833	13	15	12	0
Sulfate	500.0000	mg/L	3.9167	3	5	12	0
Total Dissolved Solids (TDS)	10000.0000	mg/L	94.1667	76	108	12	0
Total Hardness as CaCO ₃	10000.0000	mg/L	63.6667	56.5	71.7	12	0
True Colour	15.0000	Hazen Units (HU)	1.8333	1	4	12	0
Turbidity	5.0000	NTU	0.4375	0.05	2.3	12	0
Uranium	0.0170	mg/L	0.0001	0.00005	0.00005	12	0
Zinc	3.0000	mg/L	0.0604	0.005	0.26	12	0

E.3 Comboyne NSW Health Laboratory Sample Results

Characteristic	Guideline Value	Units	Mean	Min	Max	Sample Count	Exception Count
Aluminium	0.2000	mg/L	0.0075	0.005	0.01	2	0
Antimony	0.0030	mg/L	0.0001	0.00005	0.00005	2	0
Arsenic	0.0100	mg/L	0.0005	0.0005	0.0005	2	0
Barium	2.0000	mg/L	0.0061	0.0048	0.0073	2	0
Boron	4.0000	mg/L	0.0089	0.007	0.0107	2	0
Cadmium	0.0020	mg/L	0.0001	0.00005	0.00005	2	0
Calcium	10000.0000	mg/L	3.4500	3.3	3.6	2	0
Chloride	250.0000	mg/L	15.0000	15	15	2	0
Chromium	0.0500	mg/L	0.0005	0.0005	0.0005	2	0
Copper	2.0000	mg/L	0.1960	0.058	0.334	2	0
Fluoride	1.5000	mg/L	0.0500	0.05	0.05	2	0
Fluoride (WU result)	1.5000	mg/L	0.0250	0.02	0.03	2	0
Fluoride Ratio	0.8 - 1.2	mg/L	0.2500	0.2	0.3	2	2
Iodine	0.5000	mg/L	0.0100	0.01	0.01	2	0
Iron	0.3000	mg/L	0.0350	0.03	0.04	2	0
Lead	0.0100	mg/L	0.0004	0.0001	0.0007	2	0
Magnesium	10000.0000	mg/L	0.3950	0.29	0.5	2	0
Manganese	0.5000	mg/L	0.0048	0.0024	0.0072	2	0
Mercury	0.0010	mg/L	0.0004	0.0004	0.0004	2	0
Molybdenum	0.0500	mg/L	0.0001	0.00005	0.00005	2	0
Nickel	0.0200	mg/L	0.0002	0.0002	0.0002	2	0
Nitrate	50.0000	mg/L	1.0000	1	1	2	0
Nitrite	3.0000	mg/L	0.0500	0.05	0.05	2	0
pH	6.5 - 8.5	mg/L	7.3000	7.2	7.4	2	0
Selenium	0.0100	mg/L	0.0035	0.0035	0.0035	2	0
Silver	0.1000	mg/L	0.0001	0.0001	0.0001	2	0
Sodium	180.0000	mg/L	10.0000	9	11	2	0
Sulfate	500.0000	mg/L	2.0000	2	2	2	0
Total Dissolved Solids (TDS)	10000.0000	mg/L	40.0000	39	41	2	0
Total Hardness as CaCO ₃	10000.0000	mg/L	10.2500	10.2	10.3	2	0
True Colour	15.0000	Hazen Units (HU)	1.5000	1	2	2	0
Turbidity	5.0000	NTU	0.0750	0.05	0.1	2	0
Uranium	0.0170	mg/L	0.0001	0.00005	0.00005	2	0
Zinc	3.0000	mg/L	0.0075	0.005	0.01	2	0

E.4 Long Flat NSW Health Laboratory Sample Results

Characteristic	Guideline Value	Units	Mean	Min	Max	Sample Count	Exception Count
Aluminium	0.2000	mg/L	0.0100	0.01	0.01	2	0
Antimony	0.0030	mg/L	0.0001	0.00005	0.00005	2	0
Arsenic	0.0100	mg/L	0.0005	0.0005	0.0005	2	0
Barium	2.0000	mg/L	0.0076	0.0062	0.009	2	0
Boron	4.0000	mg/L	0.0110	0.0095	0.0124	2	0
Cadmium	0.0020	mg/L	0.0001	0.00005	0.00005	2	0
Calcium	10000.0000	mg/L	8.8500	7.5	10.2	2	0
Chloride	250.0000	mg/L	27.5000	26	29	2	0
Chromium	0.0500	mg/L	0.0005	0.0005	0.0005	2	0
Copper	2.0000	mg/L	0.0360	0.03	0.042	2	0
Fluoride	1.5000	mg/L	0.0500	0.05	0.05	2	0
Fluoride (WU result)	1.5000	mg/L	0.0550	0.05	0.06	2	0
Fluoride Ratio	0.8 - 1.2	mg/L	0.5500	0.5	0.6	2	2
Iodine	0.5000	mg/L	0.0100	0.01	0.01	2	0
Iron	0.3000	mg/L	0.0125	0.005	0.02	2	0
Lead	0.0100	mg/L	0.0003	0.0002	0.0004	2	0
Magnesium	10000.0000	mg/L	4.0200	2.9	5.14	2	0
Manganese	0.5000	mg/L	0.0026	0.0024	0.0027	2	0
Mercury	0.0010	mg/L	0.0004	0.0004	0.0004	2	0
Molybdenum	0.0500	mg/L	0.0001	0.0001	0.0001	2	0
Nickel	0.0200	mg/L	0.0003	0.0002	0.0004	2	0
Nitrate	50.0000	mg/L	0.7500	0.5	1	2	0
Nitrite	3.0000	mg/L	0.0500	0.05	0.05	2	0
pH	6.5 - 8.5	mg/L	7.7500	7.7	7.8	2	0
Selenium	0.0100	mg/L	0.0035	0.0035	0.0035	2	0
Silver	0.1000	mg/L	0.0001	0.0001	0.0001	2	0
Sodium	180.0000	mg/L	19.0000	18	20	2	0
Sulfate	500.0000	mg/L	3.5000	3	4	2	0
Total Dissolved Solids (TDS)	10000.0000	mg/L	85.5000	76	95	2	0
Total Hardness as CaCO ₃	10000.0000	mg/L	38.6500	30.7	46.6	2	0
True Colour	15.0000	Hazen Units (HU)	0.7500	0.5	1	2	0
Turbidity	5.0000	NTU	0.1250	0.05	0.2	2	0
Uranium	0.0170	mg/L	0.0001	0.00005	0.00005	2	0
Zinc	3.0000	mg/L	0.0075	0.005	0.01	2	0

E.5 Telegraph Point NSW Health Laboratory Sample Results

Characteristic	Guideline Value	Units	Mean	Min	Max	Sample Count	Exception Count
Aluminium	0.2000	mg/L	0.0100	0.01	0.01	2	0
Antimony	0.0030	mg/L	0.0001	0.00005	0.00005	2	0
Arsenic	0.0100	mg/L	0.0008	0.0005	0.001	2	0
Barium	2.0000	mg/L	0.0063	0.0061	0.0065	2	0
Boron	4.0000	mg/L	0.0095	0.0075	0.0114	2	0
Cadmium	0.0020	mg/L	0.0001	0.00005	0.00005	2	0
Calcium	10000.0000	mg/L	6.8500	6.3	7.4	2	0
Chloride	250.0000	mg/L	23.0000	22	24	2	0
Chromium	0.0500	mg/L	0.0005	0.0005	0.0005	2	0
Copper	2.0000	mg/L	0.0055	0.004	0.007	2	0
Fluoride	1.5000	mg/L	0.0500	0.05	0.05	2	0
Fluoride (WU result)	1.5000	mg/L	0.0700	0.07	0.07	2	0
Fluoride Ratio	0.8 - 1.2	mg/L	0.7000	0.7	0.7	2	2
Iodine	0.5000	mg/L	0.0100	0.01	0.01	2	0
Iron	0.3000	mg/L	0.0200	0.02	0.02	2	0
Lead	0.0100	mg/L	0.0005	0.0001	0.0009	2	0
Magnesium	10000.0000	mg/L	0.9450	0.71	1.18	2	0
Manganese	0.5000	mg/L	0.0018	0.0017	0.0018	2	0
Mercury	0.0010	mg/L	0.0004	0.0004	0.0004	2	0
Molybdenum	0.0500	mg/L	0.0002	0.0001	0.0002	2	0
Nickel	0.0200	mg/L	0.0002	0.0002	0.0002	2	0
Nitrate	50.0000	mg/L	0.7500	0.5	1	2	0
Nitrite	3.0000	mg/L	0.0500	0.05	0.05	2	0
pH	6.5 - 8.5	mg/L	7.8500	7.7	8	2	0
Selenium	0.0100	mg/L	0.0035	0.0035	0.0035	2	0
Silver	0.1000	mg/L	0.0001	0.0001	0.0001	2	0
Sodium	180.0000	mg/L	14.5000	14	15	2	0
Sulfate	500.0000	mg/L	3.0000	2	4	2	0
Total Dissolved Solids (TDS)	10000.0000	mg/L	64.5000	63	66	2	0
Total Hardness as CaCO ₃	10000.0000	mg/L	21.0000	18.7	23.3	2	0
True Colour	15.0000	Hazen Units (HU)	1.0000	1	1	2	0
Turbidity	5.0000	NTU	0.1000	0.1	0.1	2	0
Uranium	0.0170	mg/L	0.0001	0.00005	0.00005	2	0
Zinc	3.0000	mg/L	0.0075	0.005	0.01	2	0

Appendix F Continuous Improvement Program

F.1 Continuous Improvement Program Record

ID	ADWG Ref	ADWG Framework Component	Date Entered	Description	Priority	Responsibility	Status	Date Updated	Reviewing by Whom	Comments
008	1.3	Engaging stakeholders	2/05/2014	Once implemented, ensure that the Stakeholder Register is regularly updated (at the time of DWMS review or more often if appropriate).		Water & Sewer Process Planning Engineer	Ongoing	30-Jun-22		last updated June 2021 and to be further updated following restructure and with development of RWMS

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009	2.1	Water supply system analysis	5/12/2012	Review structure of group in line with DWMS requirements. See Risk Register WS15.	Medium	Group Manager, Water & Sewer	Ongoing	30-Jun-22		Responsibilities of Process and Operations section are clearly defined. Water Supply Duty Officers are required to communicate issues. Fortnightly meetings between the Operations/Process and ETS sections are held to discuss any current issues / operational changes that are coming up or have occurred. Changes to structure as of February 2016 include the positions of Process Engineer (formerly Process Coordinator), Headworks Engineer (formerly Headworks Coordinator). The vacant Operations Engineer position is proposed to be recruited by the end of 2015/16. Currency of action to be reviewed in 2023 Risk Register Review
016	2.3	Hazard identification and risk assessment	2/05/2014	Maintain currency of the DWMS Risk Register.	Medium	Water & Sewer Process Manager	Ongoing	30-Jun-22		Risk Register last updated in 2016 and due for an external review in 2023 FY. This has been delayed due to the work required to implement recycled water.
018	3.1	Preventive measures and multiple barriers	5/12/2012	Where applicable, consider signage on valves to prevent accidental connection of	Low	Water & Sewer Manager Headworks	Incomplete			

				raw to treated water. See Risk Register T11.						
022	3.1	Preventive measures and multiple barriers	28/01/2014	Provide sewerage services to Comboyne	Medium		Completed	30-Jun-22	██████	Completion in 2021
023	3.1	Preventive measures and multiple barriers	28/01/2014	Provide sewerage services to Long Flat	Medium		Completed	30-Jun-22	██████	Completion in 2021
024	3.1	Preventive measures and multiple barriers	28/01/2014	Provide sewerage services to Telegraph Point	Medium		Completed	30-Jun-22	██████	Completed in 2020
026	4.1	Operational procedures	5/12/2012	Formalise roles, responsibilities, communication protocols and procedures. See Risk Register WS15.	Low	Water & Sewer Process Planning Engineer	Ongoing	30-Jun-22	██████	Roles and responsibilities register maintained as a separate document in Councils document management system. Will be update in 2022 as per RWMS development
028	4.1	Operational procedures	5/12/2012	Review SWMSs and SOPs for water quality coverage. See Risk Register S6.	Medium	Water & Sewer Process Manager	Ongoing			Several SOP's have been established for water treatment operations. SWMS's were updated and completed in early 2017.
029	4.1	Operational procedures	5/12/2012	Consider doing process map to identify gaps for formalisation of	Low	Water & Sewer Process Manager	Incomplete	30-Jun-22	██████	Currency of this action to be reviewed at 2023 risk workshop update

				procedures. See Risk Register T8 and T9.						
030	4.1	Operational procedures	5/12/2012	Formalise procedures operation of distribution system with regard to low turnover in reservoirs and ensure training. See Risk Register DR3.	Low		Incomplete	30-Jun-22	█	Currency of this action to be reviewed at 2023 risk workshop update
031	4.1	Operational procedures	5/12/2012	Document procedure for carting water to the villages (by Council or contractors in emergency) including investigating currency of information during the one year period. See Risk Register DR5 and D1.	Low		Incomplete	30-Jun-22	█	Currency of this action to be reviewed at 2023 risk workshop update

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033	4.2	Operational monitoring	5/12/2012	For Port Macquarie and Cowarra Dams, consider validating turbidity levels in normal operating window. See Risk Register C10.	Low		Completed	30-Jun-22	██████	Online monitoring of turbidity in both dams to provide 24 hr water quality data. Design of filtration plant for Cowarra dam in progress for completion of construction in 2027.
034	4.2	Operational monitoring	5/12/2012	Review water quality monitoring program and consider more proactive benthic monitoring. See Risk Register S8.	Medium	Laboratory Manager & Manager Water Process	Incomplete	30-Jun-22	██████	A Cyanobacteria management plan has been drafted. Responses to algal levels are in line with CCP monitoring requirements. Council currently follows Report 74, through Laboratory monitoring, with the lab flagging incidents as required. Council needs to review the draft Protocol and document this process in line with newer guidelines, such as NHRMC and formalise protocols with up to date practices in Australia.
037	4.2	Operational monitoring	28/01/2014	Install online fluoride monitoring at Rosewood Road Reservoir Outlet	Medium		Completed	30-Jun-22	██████	Installed at Rosewood Reservoir 1

038	4.2	Operational monitoring	28/01/2014	Install online fluoride monitoring at Port Dam	Medium		Closed	30-Jun-22	██████	No longer required. Fluoride is raw dosed and still at low levels in Port Macquarie. In 2027 council will complete construction of a Filtration Plant at Cowarra dam which will include treated water fluoridation and online monitoring of fluoride levels
039	4.2	Operational monitoring	28/01/2014	Install online chlorine analysers at Council reservoirs	Low		Incomplete	30-Jun-22	██████	90% complete - still to do upgrades at Long Flat, Comboyne & Laurieton - switchboard upgrade, fencing etc required and then chlorine analyser can be installed. Beachwood reservoir to be decommissioned.
045	4.4	Equipment capability and maintenance	5/12/2012	Review and maintain mains renewal priorities. See Risk Register D4.	Low		Completed	30-Jun-22	██████	This is a recurring capital works item that is managed by the Water & Sewer Operations group.
046	4.4	Equipment capability and maintenance	5/12/2012	Review meter renewal program. See Risk Register D11.	Low		Completed	30-Jun-22	██████	This is a recurring capital works item that is managed by the Water & Sewer Operations group.
047	4.4	Equipment capability and maintenance	5/12/2012	Review third party calibration of key equipment. See Risk Register WS8.	Low		Completed	30-Jun-22	██████	Calibration of equipment undertaken by council ETS group. This is well documented through the MEX asset management system.

053	6.2	Incident and emergency response protocols	5/12/2012	Prepare SOP for alternative water delivery, such as during rain events following bushfires. See Risk Register C13.	Medium		Incomplete	30-Jun-22		Secure yield study and IWCM Planning currently underway and to be completed in 15/16. Currency of this action to be reviewed at 2023 risk workshop update
054	6.2	Incident and emergency response protocols	5/12/2012	Review operational monitoring for rain events following extensive bushfires. See Risk Register C13.	Low		Incomplete	30-Jun-22		Currency of this action to be reviewed at 2023 risk workshop update
058	7.1	Employee awareness and involvement	5/12/2012	Consider team meetings to share knowledge from NOW update courses etc. See Risk Register WS10.	Low		Completed	30-Jun-22		Weekly Water Operator team meetings are coordinated by the Technical Officer. Information sharing is undertaken at these meetings.

060	7.1	Employee awareness and involvement	5/12/2012	Formalise water quality awareness for contractors and field staff (e.g. induction from an experienced operator). See Risk Register S6 and WS11.	Low	Group Manager, Water & Sewer Operations	Incomplete	30-Jun-22		Water quality awareness training provided to all Water staff via WIOA training course in August 2017. Regular training to be implemented on a 2 yearly basis. All staff undertook key Cert 111 training in Water operations in 2021. Improved Contractor induction to be considered - using WIOA developed water and Sewer work induction tools
061	7.2	Employee training	5/12/2012	Consider reviewing sample collection competency of field staff using the lab competency procedures. See Risk Register C1.	Low	Laboratory Manager & Manager Water Process	Incomplete	30-Jun-22		Council to implement an annual laboratory refresher training program covering sampling, completing of COC, correct handling + storage of samples with Council Laboratory
064	7.2	Employee training	5/12/2012	Consider training for administration staff regarding metering. See Risk Register D11.	Low	Group Manager, Water & Sewer Operations	Incomplete			
068	8.2	Communication	5/12/2012	Review local resident awareness program in relation to reporting of suspicious	Low	Group Manager, Water & Sewer Operations	Incomplete	30-Jun-22		Councils education team undertake regular tours of the Dam to build community awareness.

				activities. See Risk Register S3.						
069	9.1	Investigative studies and research monitoring	5/12/2012	Review outcomes from secure yield and water quality analysis. See Risk Register C9.	Medium	Group manager Water & Sewer Planning	Completed	30-Jun-22		Secure yield report (Jacobs) due Q2 2016. IWCM plan to determine future water treatment requirements and water infrastructure for secure supply. Design of filtration plant for Cowarra dam in progress for completion of construction in 2027. investigations ongoing for secure supply including considerations for Recycled water and desalination
071	9.1	Investigative studies and research monitoring	5/12/2012	Keep watch on what is happening nationally with respect to increased levels of organisms in dam and benthic samples causing taste and odour issues. See Risk Register S8.	Medium	Laboratory Manager & Manager Water Process	Ongoing	30-Jun-22		NATA accredited lab continuously monitors the algae and cyanobacteria in Councils water supply. Lab Manager is expert in this field and maintains current information through research and attendance at relevant conferences. Review of Cyanobacteria Management protocol will also incorporate this.

072	9.1	Investigative studies and research monitoring	5/12/2012	Keep watching brief on potentially toxic cyanobacteria in storages. See Risk Register S8.	Medium	Laboratory Manager & Manager Water Process	Ongoing	30-Jun-22		NATA accredited lab continuously monitors cyanobacteria in Councils water supply. Lab Manager is expert in this field and maintains current information through research and attendance at relevant conferences. Review of Cyanobacteria Management protocol will also incorporate this.
073	9.1	Investigative studies and research monitoring	5/12/2012	Look at Bago Reservoir (and others) inlet pipework to increase mixing. See Risk Register DR2.	Low	Water & Sewer Manager Headworks	Incomplete	30-Jun-22		Jet nozzles installed on the inlets to new reservoirs. Jet nozzles to be retrofitted to old reservoirs on an as needs basis but at low priority. Chlorine levels monitored and adjusted to ensure that residual levels are maintained throughout the reticulation system. Currency of this action to be reviewed at 2023 risk workshop update
075	9.2	Validation of processes	5/12/2012	Review operation of distribution system with regard to low turnover in reservoirs. See Risk Register DR3.	Low	Water & Sewer Manager Headworks	Ongoing	30-Jun-22		Currency of this action to be reviewed at 2023 risk workshop update

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076	9.2	Validation of processes	5/12/2012	Review noxious weeds program in relation to the risk of illegal dumping and accidents leading to breach of guideline values for chemicals. See Risk Register C12.	Low	Group Manager, Water & Sewer Operations	Incomplete	30-Jun-22		Currency of this action to be reviewed at 2023 risk workshop update
080	9.2	Validation of processes	2/05/2014	Confirm adequate disinfection Ct in all systems.	High	Water & Sewer Manager Headworks	Ongoing			Ct calculations completed for several storage reservoirs.
082	9.2	Validation of processes	5/12/2012	Review operation of McManus valve with view to using manual valves to isolate and follow up training. See Risk Register T11.	Low	Water & Sewer Manager Headworks	Completed	30-Jun-22		Double isolation installed for this valve
087	3.1	Preventative measures and multiple barriers	27/09/22	Apply to NSW Health for an intensive pesticides monitoring program for Spring Summer 2023 if approved by NSW Health	Medium	W&S Process Planning Engineer	Incomplete			

088	3.1	Preventive measures and multiple barriers	27/09/22	Update the Risk Matrix, Review CCP and DWMS in 2023, using external consultants. Apply to NSW Health for support	Medium	W&S Process Planning Engineer	Incomplete			
089	4.4	Equipment capability and maintenance	07/10/22	Improve maintenance frequency of online turbidity analysers in 2023	Low	Headworks Coordinator & Water Process Coordinator	Incomplete			

Appendix G Reservoir Inspection Report

G.1 Reservoir Inspection Report

Date	Reservoirs	Issue	Findings	Corrective Actions
29/07/21	Bonny Hills Reservoir	OH&S Security Structures	First Aid Kit not available on-site Fences Damaged Reservoir Roofs are loose, water ingress into valve pits	First Aid kit not available Fences Repaired Roofs Re-screwed, Drained Water out of Pits
29/07/21	Bonnyview Reservoir	Structures	Tears in Roof Sheets	Reservoir not in operation
02/08/21	Camden Head Reservoir	OH&S Security	Missing Confined Space Sign Western Gate rusted	Confined space sign are due to be put in Gate Fixed
02/08/21	Lakewood Res	OH&S	Missing 2 confined space signs	Confined space signs are due to be put in
16/08/21	O'Briens Rd Reservoir	OH&S	Confined Space Sign missing on top hatch	Confined space signs are due to be put in
16/08/21	Widderson St Reservoir	Security OH&S	Damaged Fences Western Side Hand Railing not on top of Reservoir Roof Screws Missing Vegetation in Gutters	Fences Replaced Reservoir roof to be replaced next year Roof Screws replaced Vegetation Cleared
16/08/21	Granite St Res	Security OH&S Structures	Locks was cut off Fencing around switchboard and ladder damaged Confined space signs have been	Locks Replaced. Fence repaired. Confined space signs are due to be put in

			spray painted over valve pits	No work done on bird proofing
			Bird Proofing Missing	
26/08/21	Comboyne Res 1	OH&S	No confined space signage on top or reservoir	Confined space signs are due to be put in
26/08/21	Beechwood Reservoir	Security	Confined Space on Hatch missing	Confined space signs are due to be put in
			Slight leak at base on Northern Side	Contractor engaged to repair
26/08/21	Rosewood 3 Reservoir	OH&S	Confined Space Signs need replacing	Confined space signs are due to be put in
26/08/21	Bago Reservoir	Security	Barbed wire on back fence came down	Barbed wire not repaired
28/10/21	Lakewood Reservoir	Security	Fence in NorthWest Corner needs repair	Fence repaired
28/10/21	Laurieton Reservoir	Security	Fenced was cut to access reservoir to paint graffiti	Repaired. Also whole site fence being replaced next year with high security fencing
29/10/21	O'Briens Road Reservoir	Security	Lock missing from one of the lids	Lock Replaced
29/10/21	Granite St Reservoir	Security	Barbed Wire damaged	Barbed wire repaired
			Door Latch damaged	Door Latch welded
			Flashing and Screws deteriorate	Flashing and Screws Replaced
02/11/21	Widderson St Reservoir	Security OH&S Structures	Perimeter fence damaged	Fence Repaired
			No Hand railing on top of reservoir and no anchor point for harness	Reservoir roof to be replaced next year
			Bird Proofing around hatches damaged and	Bird Proofing not fixed waiting for contractors

			screws missing in roof	
16/11/21	Bonny Hills Reservoir	General	Valve pits had water in them	Pits pumped out
18/11/21	Grants Head Reservoir	Structures	Bird Proofing needs repair	Not done - currently being quoted
19/11/21	Laurieton Reservoir	Safety	Holes was cut on fence Line	Fence repaired
22/11/21	Bago Reservoir	Structure	Flashing Damaged	Flashing Fixed
26/11/21	Sancrox Reservoir	Structure	Bird Proofing on roof ventilation needs repair	Bird Proofing Repaired
26/11/21	Rosewood Reservoir 3	Structure	Roof Screws Missing around walkway and in roof joins	Repaired
26/11/21	Rosewood Reservoir 2	Structure	Bird Proofing needs attention	Bird Proofing still needs fixing
03/12/21	Lakewood Reservoir	Structure	Roof Ventilation on reservoirs not moving	Roof Ventilation on reservoirs still needs fixing
06/12/21	Granite St	Structure Safety	Roof Flashing needs Fixing Safety Rail missing	Roof flashing repaired Safety rail still missing
08/12/21	Cowarra Balance Tank	Structure Safety	Hole in Fence Loose flashing around platform	Hole repaired Flashing Screwed
16/12/21	Bonnyview Reservoir	Structure	Sections of Roof Sheetings have crease	Reservoir not in operation
16/12/21	Bonny Hills Reservoir	Structure Security	Piece of Roofing damaged Fencing (south western side) needs attention	Roofing repaired Fence Repaired
17/12/21	Laurieton Reservoir	Structure Security	Roofs screws missing in Flashing Holes in Fencing	Roofs screws missing have been replaced Holes patched, fencing repaired

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17/12/21	Grants Head Reservoir	Structure	Bird Proofing needs fixing Concrete Patching on side on reservoir	Currently being quoted Not done
20/12/21	Telegraph Point Balance Tank	Structure	Roof Ventilation does not spin	Not done
20/12/21	Bago Reservoir	Structure	1 Piece of Flashing requires fixing	Flashing Repaired
06/01/22	Mill Hill Reservoir	Security Grounds Maintenance	Hinge on valve pit needs repair Tree work needed Whirlwind needs repair	Not done Tree work completed Whirlwind not fixed
10/01/22	Comboyne Reservoir	Structure	Hole in roof sheetings	Roof Repaired
14/01/22	Grants Head Reservoir	Structure	Tap at southern valve pit was run into and bent	Repaired. Bollards installed
20/01/22	Sancrox Reservoir	Structure	Flashing needs repair	Not done
21/01/22	Rosewood Reservoir 3	Structure Grounds Maintenance	Tree on northern side of reservoir needs pruning Flashing on northern sides needs refixing	Complete Flashing Repaired
31/01/22	Granite St Reservoir	Safety	Latch on telemetry cabinet is broken Barbed wire damaged by vandals	Latch Fixed Barbed wire Repaired
04/02/22	Transit Hill Reservoir	Structure	Centre flashing needs replacing	Not done
10/02/22	Bonny Hills HL Reservoir	Other	One of the valve pits were full of water	Pit pumped out
17/02/22	Sutherland St Reservoir	OH&S	Hand Railing needs repair	Not done
07/03/22	Comboyne Reservoir 1	Structure	Roofs needs some repair works	Roofs Repaired
11/03/22	Grants Head Reservoir	Safety	Fence needs repairing	Fence repaired

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11/03/22	Laurieton Reservoir	Safety	Fence needs repairing	Fence repaired
18/03/22	Widderson St Reservoir	Structure Safety	Lock to switchboard broken Gutters need cleaning	Lock Replaced Gutters not cleaned
0/06/22	Telegraph Point Balance Tank Reservoir	Safety	South Western Corner of Fencing needs repair	Fencing Repaired





Recycled Water Management System

Annual Report 2021/22

Port Macquarie-Hastings Council
Date: January 2023
Version: 2

Document control

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1 Report purpose

This report is designed to address the reporting (Element 10), evaluation (Element 11) and review and continual improvement (Element 12) requirements of the Port Macquarie-Hastings Council Recycled Water Management System (RWMS). The Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006 and the Department of Primary Industries and Environment Recycled Water Guidance document (2015) provide guidance on the implementation of the Recycled Water Management System.

- The Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) recommends review of the following areas:
- Performance of critical control points
- Recycled water quality review (raw, treated and distribution water quality including verification monitoring)
- Levels of Service (including consumer complaints)
- Incident and emergencies (including follow up)
- Recycled Water Management System implementation
- Continuous improvement plan implementation

Review of system performance are measured against AGWR, PMHC levels of service, NSW Water Supply and Sewerage Performance Monitoring Reports and other regulatory requirements (Element 1). Shortcomings are captured in the Improvement Plan (Element 12).

2 Scheme Summary

Port Macquarie-Hastings Council (PMHC) is located on the mid north coast of NSW, covering an area of 3,686 km², the area is located adjacent to the Hastings River, the Pacific Highway, the Oxley Highway and the North Coast railway line. The areas major population centre is Port Macquarie, and includes the smaller townships of Wauchope, Camden Haven, Long Flat, Telegraph Point and Comboyne.

Port Macquarie-Hastings Council (PMHC) provides water, wastewater and stormwater services to the people of the Port Macquarie Hastings area. Due to high growth in the region, PMHC has been actively pursuing alternative sources of non-potable water to reduce the demand on the potable supply system.

The Port Macquarie Recycled Water Scheme has been operating since 2007 and can provide up to 2 ML/d of recycled water. The Port Macquarie recycled water is currently supplied to Council and commercial premises and for tankers for non-potable reuse.

In 2023 the Port Macquarie Recycled Water Scheme will be expanded to serve the residential and commercial areas at Thrumster (Area 13). Council is also in the process of commissioning the Bonny Hills Recycled Water Scheme (Area 14), which is anticipated to commence distribution of recycled water by May 2023. Both schemes will require Council to successfully complete and independent IPART Audit of the systems and obtain section 60 approval.

Area 13 and Area 14 have been developed as dual reticulation schemes to utilise both water sources (recycled and potable) in residential houses. The recycled water will be used for irrigation, laundry (washing machines cold water only), car washing and toilets flushing. All houses are dual plumbed with two separate meters.

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This annual report provides an update of the Port Macquarie Recycled Water Scheme, for current uses only, and does not include any further details on the Area 13 and 14 Schemes, which have not been commissioned.

The Port Macquarie Recycled Water Supply System receives treated effluent from the Port Macquarie Wastewater Treatment Plant (PM WwTP). The effluent is treated at the Recycled Water Treatment Plant by ultrafiltration, reverse osmosis, UV disinfection, chlorination and re-mineralisation before being distributed out to consumers.

After treatment, recycled water is delivered to the storage reservoir in Morton Street and then distributed via a reticulation network to the users.

The table 2 - 1 below provides a summary of the Port Macquarie Recycled Water Supply System and figure 2-1 below provides a process flow diagram for Port Macquarie Hastings Councils Recycled Water Plant.

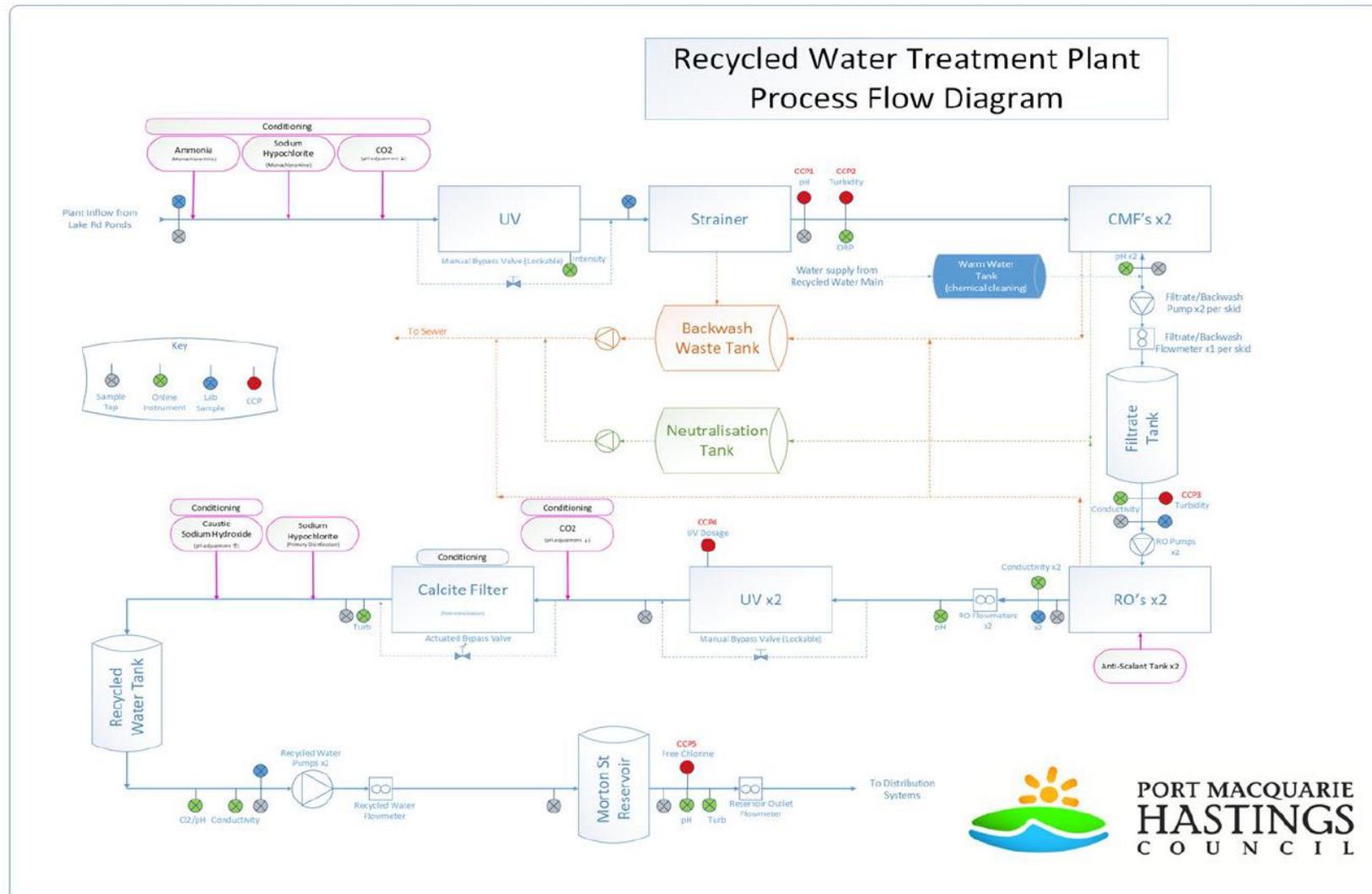
Table 2-1 Summary of Port Macquarie Recycled Water System

Recycled Water supply system name	Port Macquarie Recycled Water Supply
Recycled water source	Lake Road/Ocean Drive Effluent Ponds
Treatment unit processes	Straining, Ultrafiltration, Reverse Osmosis, UV Disinfection, Re-mineralisation using Calcite Filter, Sodium Hypochlorite Disinfection, Caustic Sodium Hydroxide and CO ₂ for pH adjustment
Treatment capacity (ML/day)	2ML/day
Current Users	<p>Sports Fields: Stuart Park, Wayne Richards Park, Town Green, Findlay Oval, Dixie Park</p> <p>Council Building: Glasshouse, Port Macquarie Wastewater Treatment Plant (PM WwTP), Council Building, Sewer Pump Stations (SPS's)</p> <p>Carwashes: Bellbowrie & Gordon Street</p> <p>Businesses: Caltex Petrol Station, St Joseph Primary School, Port Macquarie Racecourse, Douglas Vale Winery, John Patrick cars, Port Home Zone, Port City Bowling Club, Croquet Club, Community Garden</p>
Towns supplied	Port Macquarie
System upgrades/improvements	An alternative supplier has been sourced for the remineralisation media, due to problem with the existing supply. The performance of the media used in the remineralisation system has improved significantly since it was installed.

Council also provides recycled water for irrigation purposes, as summarised below. Due to the recent wet weather events, these schemes have not been supplied with recycled water during the current reporting period, and as such have not been included in the Annual report.

- Wauchope Effluent to adjacent Property and Wauchope Golf Course
- Kew Kendall Effluent to Kew Golf Course
- Camden Haven Effluent to Timbarra Estate - currently not operating

Figure 2-1 Process Flow Diagram for Port Macquarie Recycled Water Plant



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3 Recycled Water Management System (RWMS) Document Review

There have been no changes to the RWMS or the Critical Control Points (CCP) in the current reporting year. The development of the revised RWMS is currently being undertaken by Council, as required for Section 60 approval for the Dual Reticulation schemes. A Recycled Water Risk workshop is planned for February 2023 to review both schemes which will lead into the review and finalisation of the Risk Register, CCPs and RWMS, for both Port Macquarie and Bonny Hills.

4 Critical Control Points

A Critical Control Point is defined as an “activity, procedure or process at which control can be applied, and which is essential to prevent a hazard or reduce it to an acceptable level” (NSW Ministry of Health 2013). These may be processes such as selective abstraction of raw water, filtration, disinfection or reservoir integrity. For each CCP, a parameter, such as chlorine residual, can be measured to verify the effectiveness of the process or identify when corrective action is required.

Target, alert, shutdown and critical limits are determined for each CCP parameter to identify normal and outside of normal operational conditions. The target limit identifies the normal operational conditions, the alert limit indicates that the parameter is outside the normal conditions and corrective action may be required. The critical limit, if exceeded, indicates that process control has been lost and safe recycled water quality can no longer be guaranteed.

Water Supply Operators (Operators) sample, test and monitor CCP parameters and operational performance for the pre and post treated recycled water supply. Monitoring includes sample collection and analysis using laboratory and field instruments and real-time monitoring using online instrumentation. Councils SCADA system also enables operators to remotely monitor the recycled water treatment plant and online instrumentation. Where online probes are used for monitoring, laboratory tests, calibration and routine maintenance are undertaken to ensure the online probes are reading correctly.

Operational data is stored in Water Outlook and is always accessible to the operators, supervisor and manager. Water Outlook uses dashboards for visual monitoring of CCP's through graphs and traffic light warnings. If monitoring data (from both SCADA and Water Outlook) triggers the alert or critical limits for the CCP, the operators undertake corrective actions, as indicated in their CCP procedures, and in consultation with their supervisor. Operators also report these exceptions in Water Outlook using the Incident Report System. The Incident Report provides a record of the reason for the exceptions, the corrective actions undertaken and whether any further actions are required to reduce the likelihood of this exception occurring again.

A Summary table of the Port Macquarie recycled water scheme CCP'S is provided in Appendix A.

4.1 CCP Performance

Port Macquarie Hastings Council maintains a monitoring system of CCPs which includes online analysers as well as analysis of water samples. Water quality data obtained from both sources are captured in water outlook where operators can monitor for any CCP exceedances.

There was one (1) CCP exceedance detected where the electrical conductivity measured from a permeate sample taken on the 11th of April 2022 from reverse osmosis train 2. The data indicated a one-off reading of 625.7 uS/cm from the online instrumentation. Further investigation indicates this was a potential error in the instrument, as it was an isolated error, with normal results averaging 15 uS/cm. There were no other CCP exceedances for the reporting period. CCP trends are provided in Appendix B for reference.

The CCP procedures will be reviewed for the Port Macquarie Recycled water scheme, with the implementation of dual reticulation to Thrumster. There are several changes required, to reflect the operational capabilities of the treatment plant, as well as ensure the water quality meets the Dual recycled water guidelines.

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The following criteria will also be implemented as part of the review.

- A lower limit for CCP 1 pH control at council's inlet to filtration membrane will be added to reflect the acceptable condition of water that can be treated.
- CCP 5 for UV Dosage control will need to be reviewed and improved upon to include an operating target and adjustment limit, through the review for the Dual Reticulation scheme. The shutdown limit and critical limit for CCP 5 will also be reviewed. Further consideration regarding the validation for virus removal is required to determine accurate critical limits for these systems.

5 Recycled Water Quality

Water quality monitoring is undertaken on a routine basis to ensure that Council's customers receive safe and acceptable recycled water quality. There are no specific guidelines which specifies the recycled water quality in the reticulation network. However, Council has implemented the following targets (see table 5- 1). Council's Operators collect samples from the recycled water plant, reservoir and reticulation system which are delivered to the Port Macquarie Hastings Environmental Laboratory for analysis.

The calcite filter at the Treatment plant was not operational from July 2021 to February 2022. This was due to problems with the performance of the calcite filter media. Break through of the calcite occurred which impacted the turbidity of the water. Replacement of the media occurred in February 2022, once an alternative supplier was sourced. Since installation of the new media, the system had been performing well, improving the pH control in the reticulation water.

Table 5-1 Summary of Recycled Water Quality Targets for reticulation

Parameter	Specifically	Targets
Bacteria	E. coli	<1 per 100 mL
	Total Coliforms	<1 per 100 mL
Indicator for Cryptosporidium	Clostridial Spores	<1 per 100 mL
Turbidity	NTU	<2 NTU
Acidity/Alkalinity	pH	6.5 – 8.5
Disinfection	Free Chlorine	Between 0.2 – 0.5 mg/L at point of use (in reticulation)

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5.1 Non-compliant data

Laboratory results that are non-compliant are shown in the table 5-2 below.

Table 5-2 Non-Complaint Water Quality Results

Date	Location	Parameter	Target Limit	Unit	WQ Value
18/10/2021	Moreton St Reservoir	<i>Clostridium perfringens</i>	0	cfu/100m L	2
19/07/2021	Moreton St Reservoir	Turbidity	< 2	NTU	2.4
20/09/2021	Moreton St Reservoir	Turbidity	< 2	NTU	2.6
09/11/2021	Moreton St Reservoir	Turbidity	< 2	NTU	5.8
07/02/2022	Moreton St Reservoir	Turbidity	< 2	NTU	2.1
21/03/2022	Moreton St Reservoir	Turbidity	< 2	NTU	2.3
26/04/2022	Moreton St Reservoir	Turbidity	< 2	NTU	2.5
02/08/2021	Port Macquarie Racecourse	Free Chlorine	0.2 - 5.0	mg/L	0
04/01/2022	Port Macquarie Racecourse	Free Chlorine	0.2 - 5.0	mg/L	0.05
31/01/2022	Port Macquarie Racecourse	Free Chlorine	0.2 - 5.0	mg/L	0.09
07/02/2022	Port Macquarie Racecourse	Free Chlorine	0.2 - 5.0	mg/L	0.03
28/02/2022	Port Macquarie Racecourse	Free Chlorine	0.2 - 5.0	mg/L	0.03

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5.1.1 Summary of Non-compliances

There were numerous pH exceedances of the recycled water produced from Port Macquarie Recycled Water Plant. There were 349 samples taken for pH analysis from the reservoir and reticulation network. Out of the 349 samples taken there were 165 exceedances, with 120 (70%) of these having a pH result greater than 8.5 and 45 (30%) of these having a pH result less than 6.5. This equates to almost 50% of all samples exceeding the acceptable limits.

The majority of the exceedances occurred prior to the calcite filter becoming operational (1st of February 2022). The graphs of pH exceedances by sample points are provided in Appendix C.

The Bellbowrie (Riverside) Car Wash sample point had a total of seven (7) pH exceedances, with all results being lower than 6.5. The Lord St Service Station sample point had 26 pH exceedances, with all results above 8.5. Morton St Reservoir had 17 pH exceedances with all results below 6.5. Port Macquarie Racecourse had 18 exceedances of pH below 6.5 and three (3) exceedances of pH above 8.5. The low exceedances occurred between September 2021 and February 2022, while the high exceedances occurred towards the end of the reporting period in June 2022.

Sunset Parade SPS 3 had 37 pH exceedances above 8.5, which occurred predominately at the start of the reporting period. Wayne Richards Park had 36 pH exceedances above 8.5, which occurred throughout the full reporting period. Wood St Sports Fields had 22 pH exceedances with four (4) below 6.5 and 18 above 8.5. The pH results below 6.5 occurred during the earlier part of the reporting period before the calcite filter was installed, while most of the high pH exceedances occur during later part of the reporting period.

The Port Macquarie Racecourse had a total of five (5) exceedances of low free chlorine levels and one (1) detection of 2 cfu/100mL of *Clostridium perfringens*, which is used as a surrogate for Cryptosporidium. There was no *E. coli* detected.

There were six (6) exceedances for Turbidity in the Morton St reservoir.

5.1 Water Quality Discussion

The purpose of the calcite filter at the Port Macquarie Recycled Treatment Plant is to add alkalinity and increase the pH of the RO permeate water. The intention is to stabilise the water as it travels through the reticulation system. The calcite filter was installed as part of the 2017 upgrade. Numerous operational issues have been experienced since the installation mainly due to poor quality product. In 2019, the calcite filter was taken offline to ensure council could supply a consistent quantity of recycled water to the peat fires that were encountered near Port Macquarie Airport. The water has remained unstable while the filter has been offline.

In 2021/2022 the calcite filter was drained and Hunter H2O were engaged to investigate options for better operations. They recommended that Council source an alternative and more suitable product. Procurement issues and the pandemic delayed the acquisition of the new product and filter gravel. In January 2022, Council installed the new calcite and filter gravel and the system was brought on line on 1 February 2022. Improvements in pH and water stability have been noted since this installation occurred.

Prior to bringing the calcite filter back on line, the pH results were very unstable resulting in numerous exceedances. Sample points closer to the reservoir and recycled water plant typically showed lower pH values while sample points further away experienced higher pH values. The majority of these issues have ceased, since the calcite filter has been re-commissioned.

The Port Macquarie Racecourse, Wood St Sports Fields, Sunset Parade SPS 3 and Wayne Richards Park have continued to experience high pH exceedances, since the calcite filter was re-commissioned. This is likely to be due to high-water age associated with these locations, allowing ample time for the water to react with pipe and reservoir cement linings and thus increasing the pH. Most of these sites are irrigation sites, and there has been little irrigation during this reporting year, due to rainfall, and this has resulted in minimal turnover of the recycled water.

The Port Macquarie Racecourse had a total of five (5) exceedances of low free chlorine levels; which is also due to the water age. There was one (1) detection of 2 cfu/100mL of *Clostridium perfringens*, however a follow up sample for *Clostridium perfringens* analysis provided a result of <1 cfu/100mL, suggesting there

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may have been some contamination that occurred during the sampling procedure. There were also a number of larger detections of HPC at the Port Macquarie Racecourse and some very low ones at Wood St Sports field. The presence of HPC indicates that low chlorine and water age are an issue for these irrigation sites, when the recycled water is not being used.

There were six (6) exceedances for Turbidity in the Morton St reservoir. It is not clear why this may have occurred, as all results from the treatment plant were below 0.15 NTU. Council had planned to undertake an inspection and clean of the reservoir in 2021, however, due to crane access issues on site, this clean was not undertaken. It is possible that there is some sediment build up in the base of the reservoir (due to the previous problems with the calcite filter), and on occasions this sediment has been stirred up in the reservoir resulting in elevated results. Although potable water top-up demand has been minimal in the past year, there were still times where this occurred. This process may have also contributed to an increase in Turbidity.

Per- and Polyfluoroalkyl Substances (PFAS) have been identified as an emerging contaminant of concern. In October 2022, Council commenced analysing the Recycled Water Intake and Recycled Plant - recycled water sample sites for PFAS on a monthly basis. The results from this program will be reported in the 2022/2023 annual report.

6 Customer Complaints

There were no customer complaints recorded during the reporting period. High quality recycled water was produced for its intended use (irrigation and car washing). This, along with the small number of customers supplied with recycled water (currently only commercial customers) has most likely contributed to nil complaints being made. Council's Customer Resource Management (CRM) system (program used to manage complaints) does not currently include a recycled water folder/section. This will be address in the near future, ensuring robust management of any customer complaints moving forward.

7 Recycled Water Quality Incidents or Emergency

There were no recycled water quality incidents or emergencies during the reporting period

8 Staff Development and Training

Council's Community Utilities department includes the operations as well as the planning team for water and sewer. The operations team is comprised of well-trained water operators covering process, maintenance and construction. Approximately 70% of the water team (approx. 30 staff), have Cert II or Cert III in water operations, which was obtained in 2021.

9 Continuous Improvement Plan

The Improvement Plan (IP) was updated in March 2020, following a Risk workshop in 2019. As part of the review, the IP was altered to be a generic document for all recycled water systems, rather than a focus on the Port Macquarie Scheme. Many of the actions in the IP relate to the commissioning of the dual reticulation schemes, and hence are not relevant to this Annual Report.

Council intends to undertake a detailed risk review workshop of the Bonny Hills and the Port Macquarie Recycled Water schemes, prior to commencing dual recycled water supply. Following this, the CCP, RWMS and the IP will be updated to ensure currency, with a proposed completion date of March 2023.

There is one (1) high risk item in the current IP that is outstanding. The item relates to the implementation of additional resources and improved IT systems for managing Trade Waste. Council has undergone a recent restructure, which resulted in the addition of staff to manage regulatory requirements, including trade waste, recycled water and Backflow prevention. Recruitment is expected to occur in early 2023. Council is also reviewing existing and alternative software options for managing regulatory inspections.

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10 Review of DWMS Implementation

Council intends to undertake a detailed risk review workshop of the Bonny Hills and the Port Macquarie Recycled Water schemes, prior to commencing supply. Following this the CCP, RWMS and the IP will also be updated to ensure currency, with a proposed completion date of March 2023. Council will then undertake an IPART operational Audit, and once successfully completed, will apply for Section 60 approval for the Bonny Hills Recycled Water scheme. Following this, Council will progress with the implementation of the Port Macquarie dual reticulation scheme to Thrumster.

11 Reservoir Inspections

Reservoir integrity is included as a critical control point for Council's recycled water supply, as it is the last point of contact with the recycled water, prior to distribution. Maintaining reservoir integrity is critical to ensure that no contaminants, such as vermin, stormwater and bird faeces, can freely access the stored water. Cleaning and inspection of the reservoirs is crucial to ensuring the water quality is not contaminated or sediments are not disturbed.

Morton Street Reservoir is the only operational reservoir in the current recycled water distribution system. Monthly inspections of the reservoir are undertaken by operational staff and issues notified to the Headwork's Technical Officer who then delegates tasks to the appropriate staff. During the current reporting period there were no issues reported. Council has identified some potential issues with regards to records keeping of reservoir inspection results. There were no options in water outlook to allow operators to record their findings from the inspections. As a result of this finding, an extra data entry page in Water Outlook to allow for inspection results to be entered and recorded moving forward.

Council also procure the services of external contractors to inspect integrity of reservoirs. The latest round of external contractor's inspection was conducted prior to this reporting period and as such, has not been captured in this report.

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12 References

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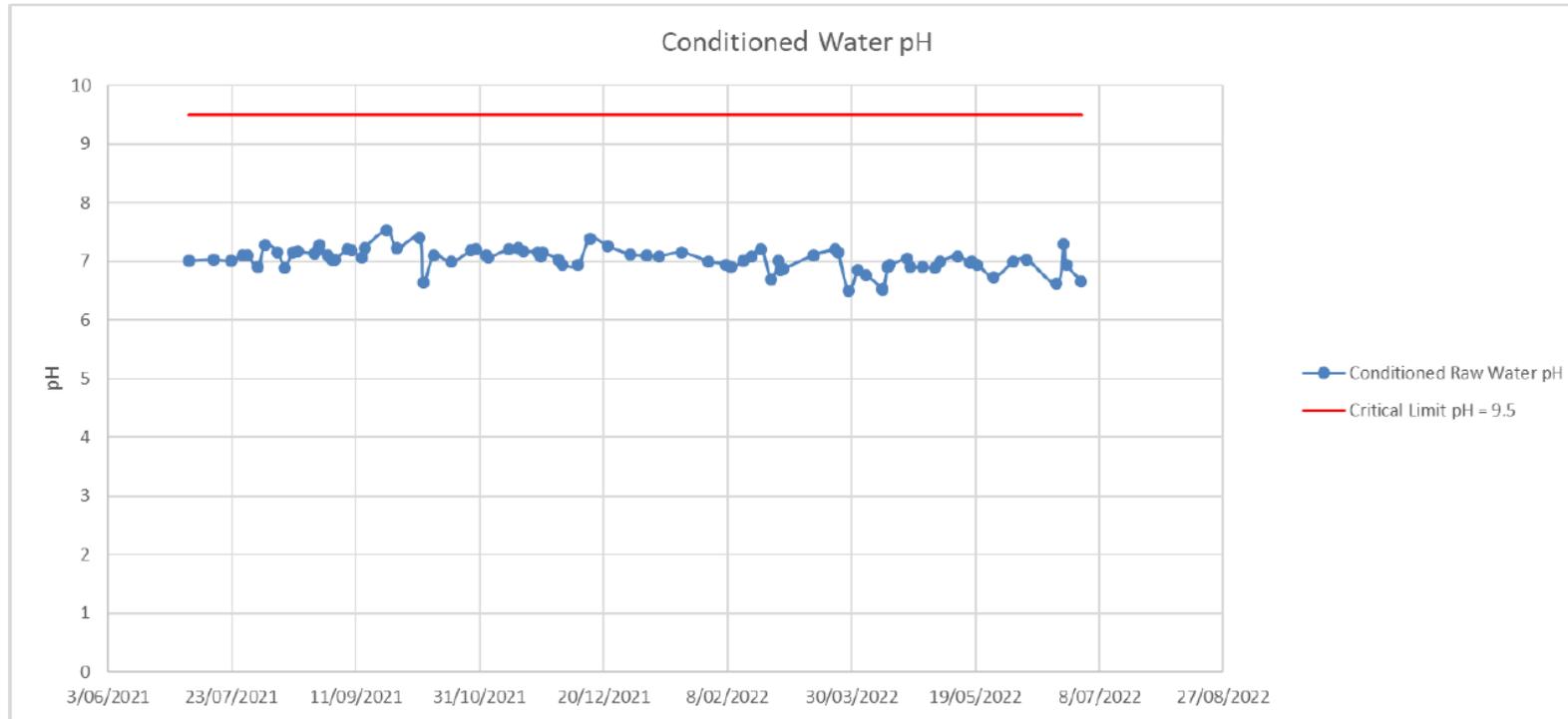
Appendix A Summary of CCP's for Port Macquarie Recycled Water Scheme

System	CCP ID	Critical Control Point	Hazard	Control Parameter	Operating Target	Adjustment Limit	Shutdown Limit	Critical Limit
Port Macquarie Recycled Water Supply System	CCP1	Inlet to Ultrafiltration Membranes	RO Membrane and Equipment Fatigue	pH	7 pH	6.5 - 8.5 pH	<6.5 pH or >8.5 pH for 5 minutes	>9.5 pH immediately
	CCP2	Inlet to Ultrafiltration Membranes	Particulates, Pathogens, Algae	Turbidity	<10 NTU	>10 NTU and <30 NTU	>30 NTU and <150 NTU for 2 minutes	>150 NTU immediately
	CCP3	Ultrafiltration membranes	Particulates, Pathogens, Algal Toxins, Membrane Integrity	Turbidity	<0.15 NTU	>0.15 NTU for 5 minutes	>0.20 NTU for 5 minutes	>0.3 NTU for 5 minutes
	CCP3	Ultrafiltration Membranes	Membrane Integrity	Transmembrane Pressure (TMP)	<70 kPa	>70 kPa and <80 kPa	>80 kPa and <120 kPa	>120kPa
	CCP3	Ultrafiltration Membranes	Membrane Integrity	Pressure Decay Test (PDT)	<2 kPa/min	>2kPa/min	>10kPa/min	>20kPa/min
	CCP4	Reverse Osmosis Membrane	Particulates, Pathogens	Electrical Conductivity	< 15 µS/cm	>15 and <40 µS/cm for 5 minutes	>40 and <50 µS/cm	>50 µS/cm
	CCP5	UV Dosing System	UV Sensitive Pathogens	UV Dosage	< ?? mJ/cm2	>?? mJ/cm2 for 5 minutes	<100mJ/cm2	<90 mJ/cm2
	CCP6	Distribution Reservoir	Pathogens	Reservoir Integrity	No breach of integrity	Signs of Integrity Breach, Items not properly maintained	Signs of Integrity Breach, items not properly maintained	Evidence of Contamination
	CCP6	Distribution Reservoir	Pathogens	Turbidity	<0.5 NTU	>0.5 and <1.0 NTU	>1.0 and <2.0 NTU	>2.0 NTU
	CCP6	Distribution Reservoir	Pathogens	Free Chlorine Residual	1.5mg/L - 2.0mg/L	<1.5mg/L or >2.0mg/L	<0.3mg/L or >2.5mg/L	<0.2mg/L or >5.0mg/L

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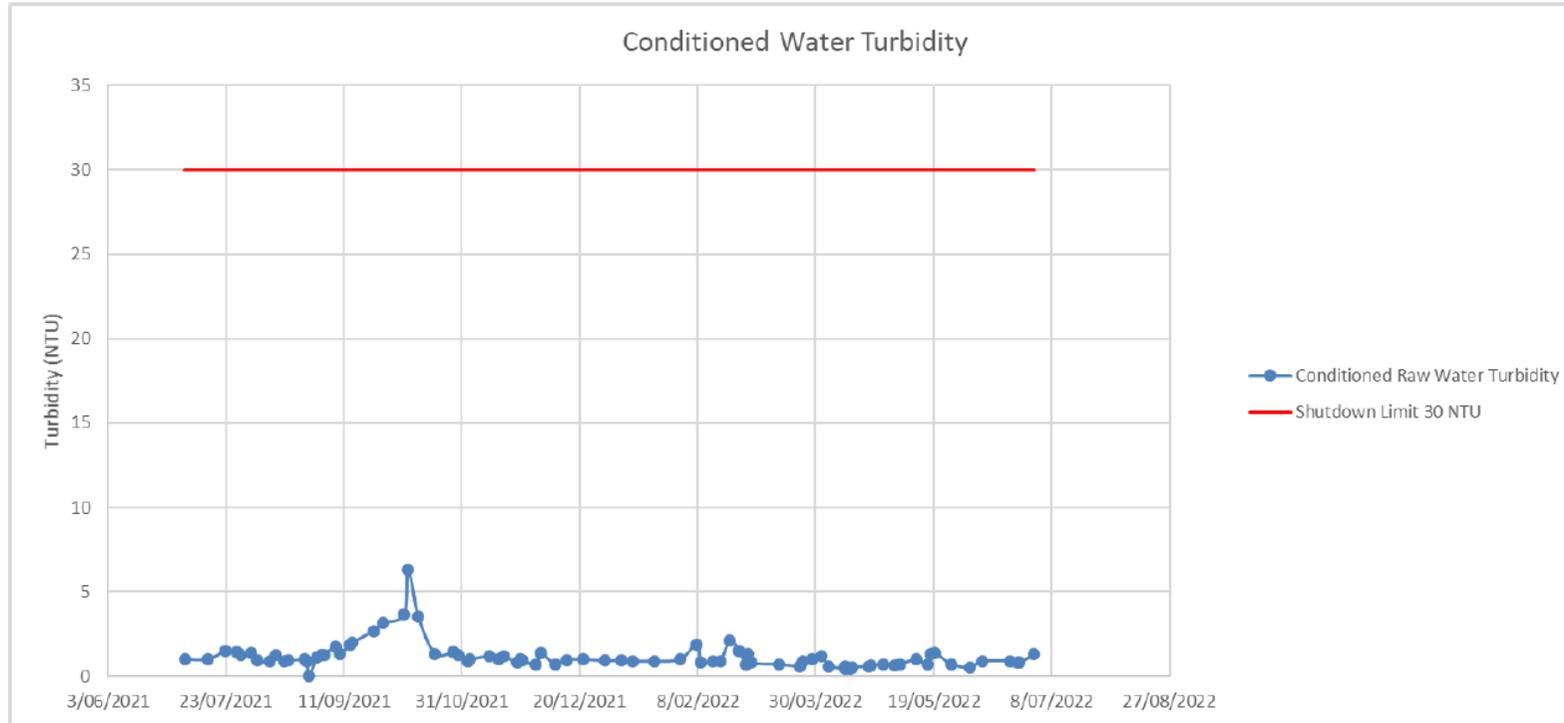
Appendix B CCP Trends

B.1 CCP 1 - Conditions Raw Water pH (Feed to CMF)



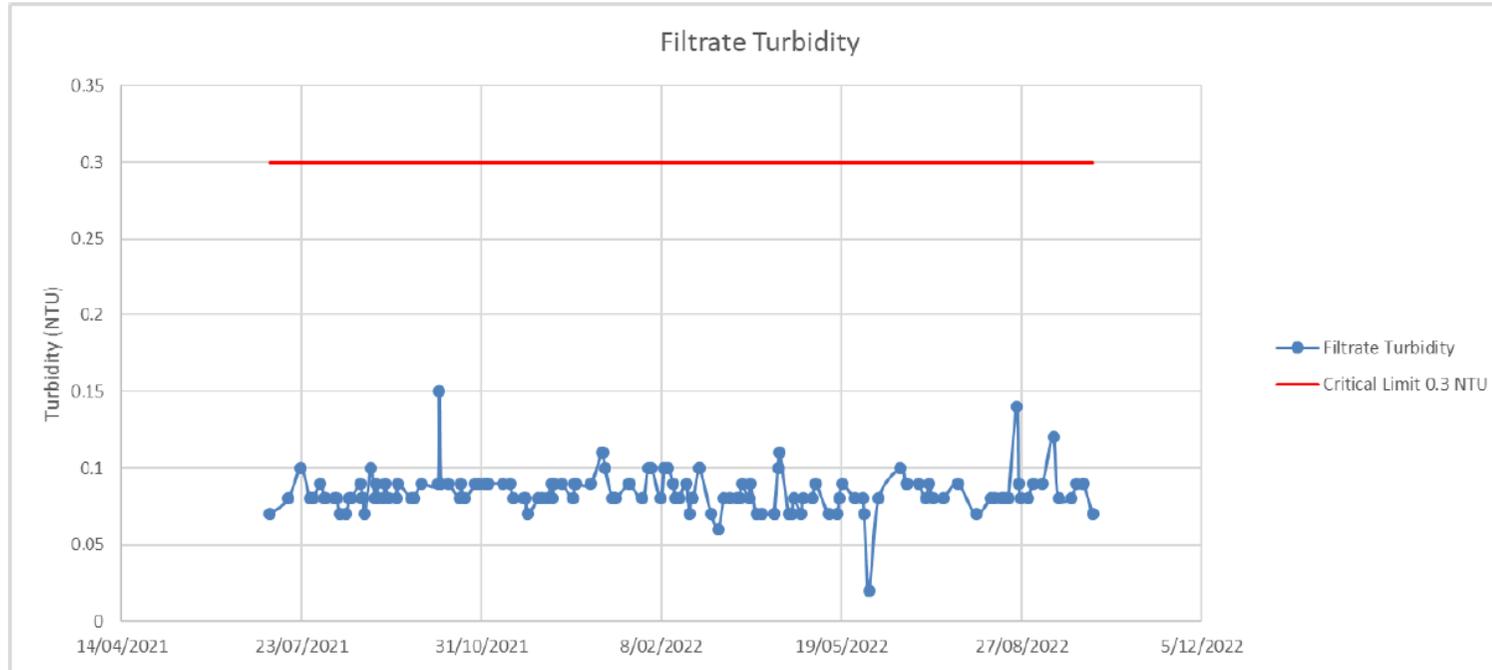
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B.2 CCP2 - Conditioned Raw Water Turbidity (After CO2 Dosing)



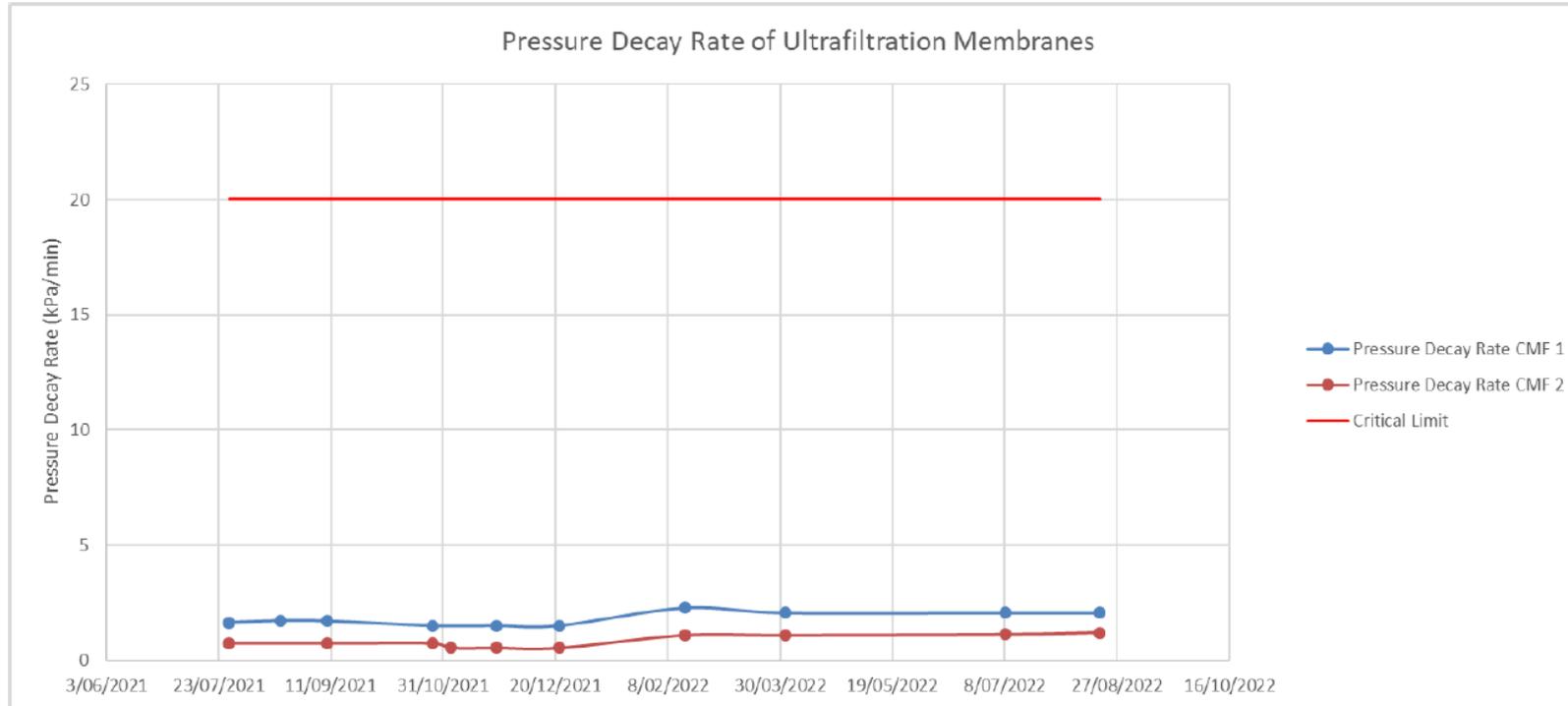
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B.3 CCP 3 - Membrane Filtration Turbidity



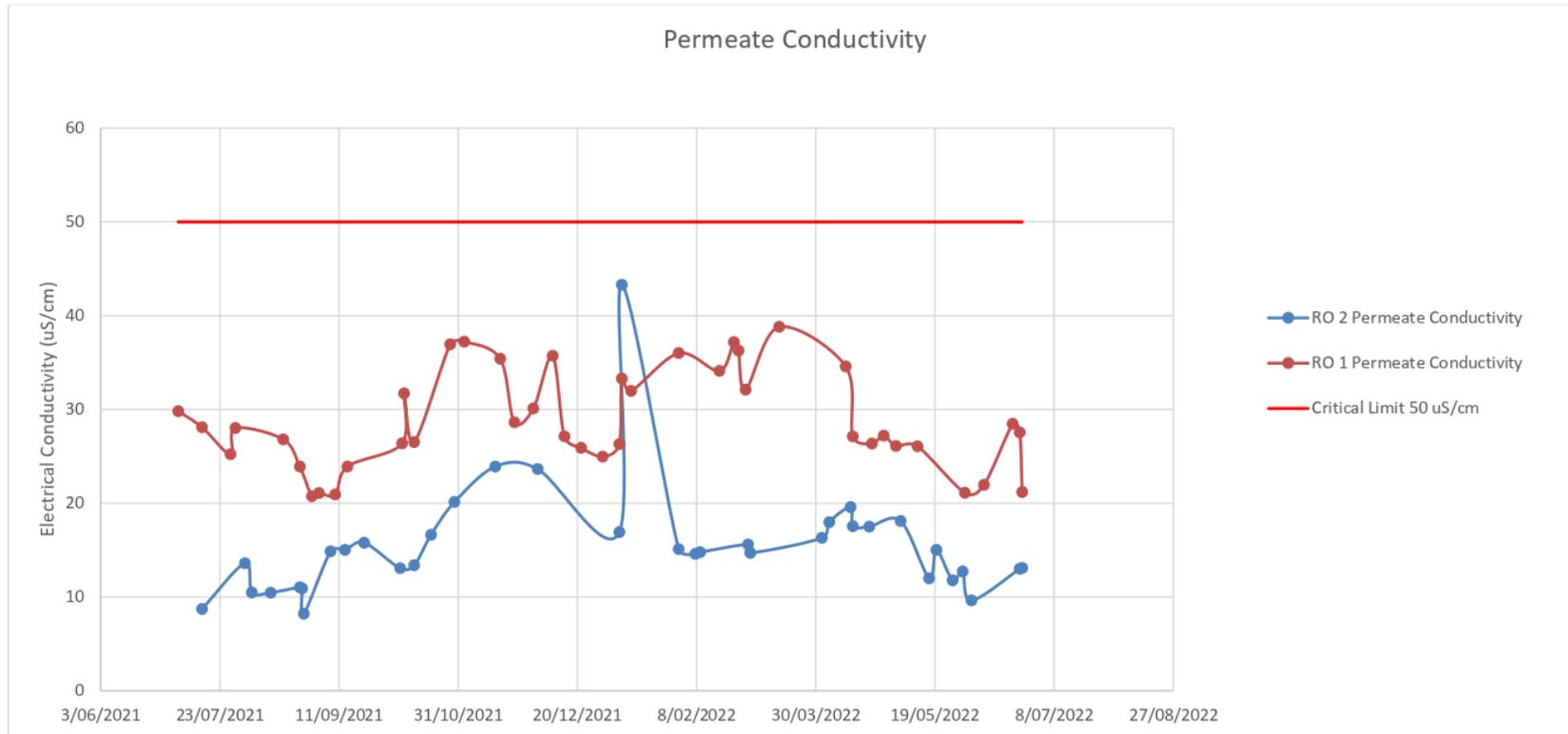
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B.4 CCP 3 - Membrane Filtration Pressure Decay Test (PDT)



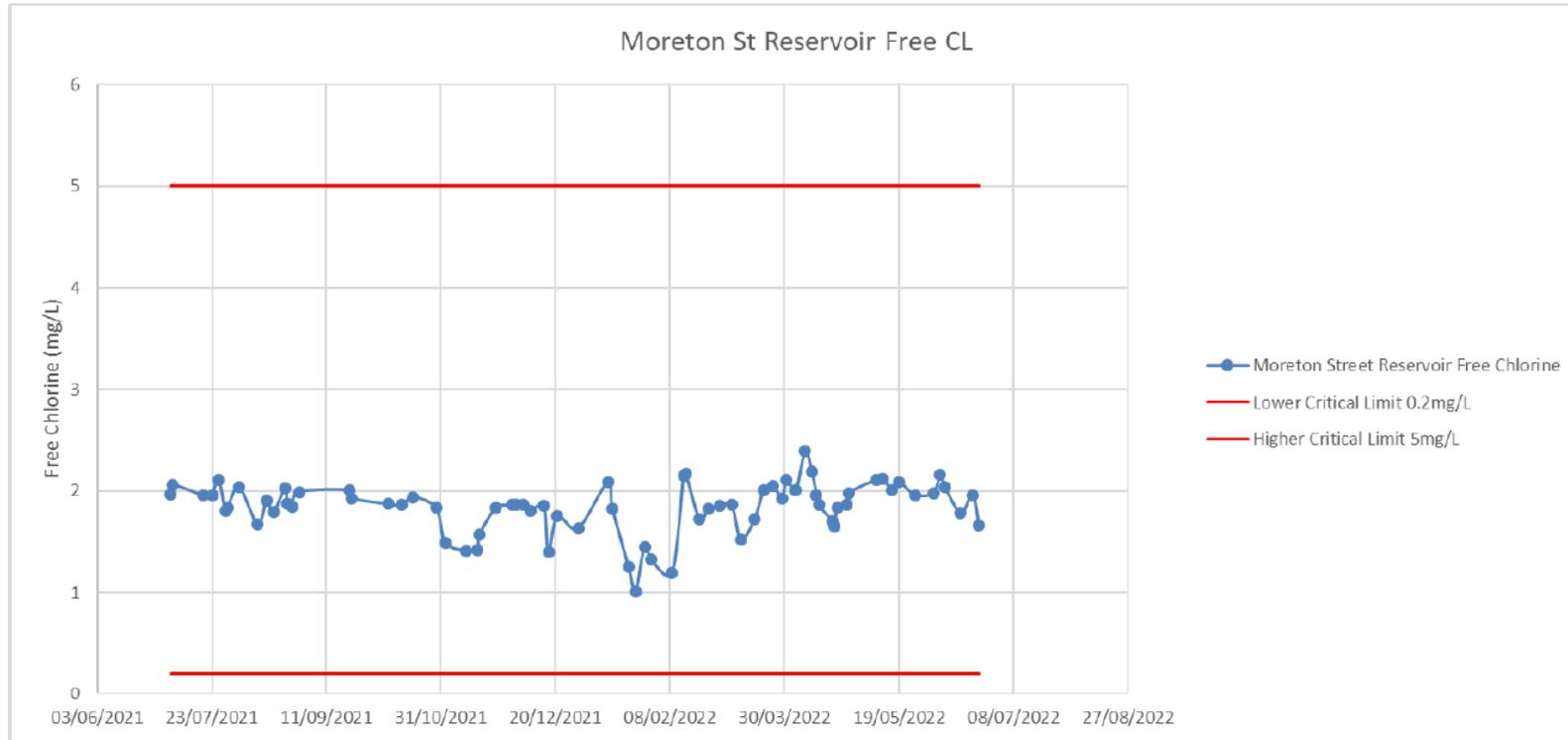
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B.5 CCP 4 - Reverse Osmosis (Permeate) Conductivity



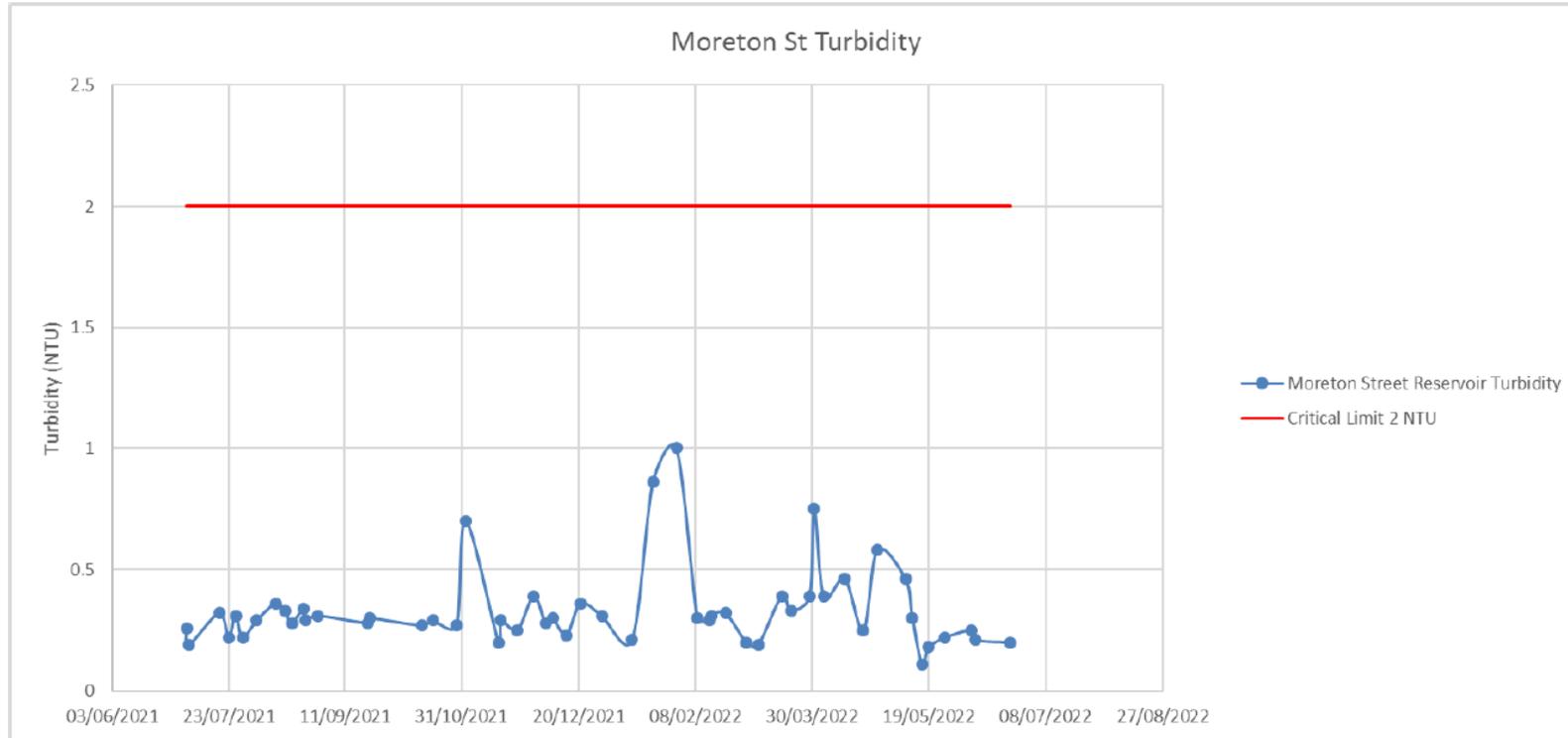
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B.6 CCP 6 - Distribution Reservoir (Morton Street) Free Chlorine



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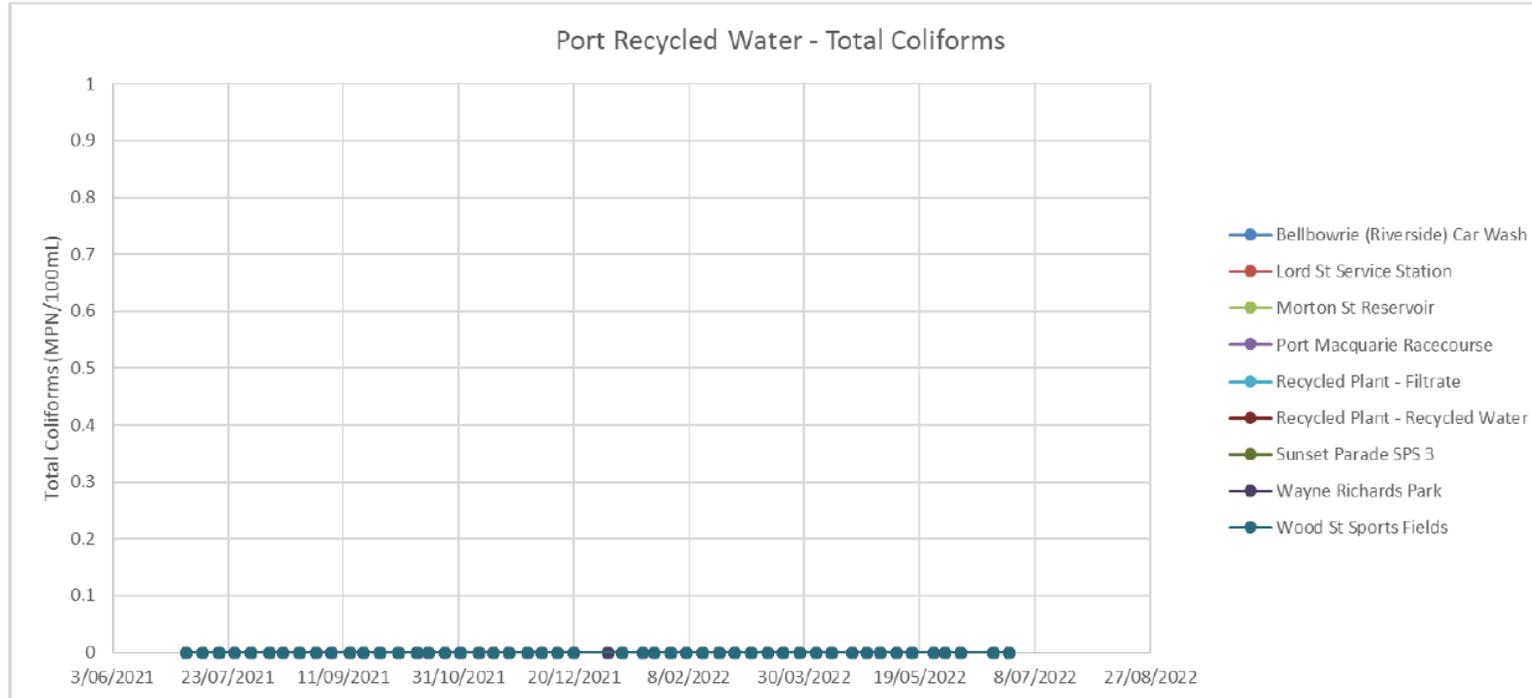
B.7 CCP 6 - Distribution Reservoir (Morton Street) Turbidity



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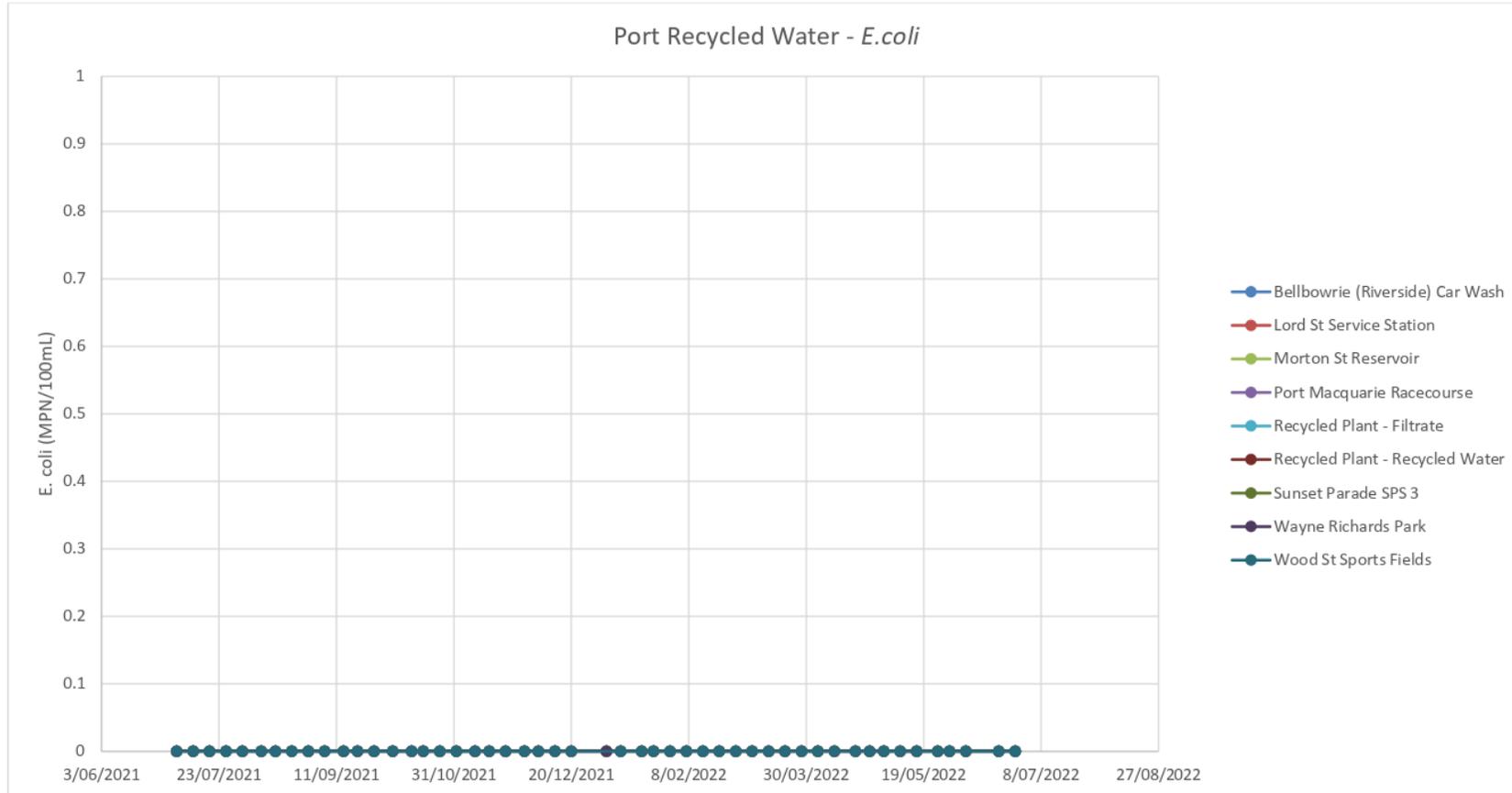
Appendix C Water Quality Trends

C.1 Port Macquarie Recycled Water Total Coliforms



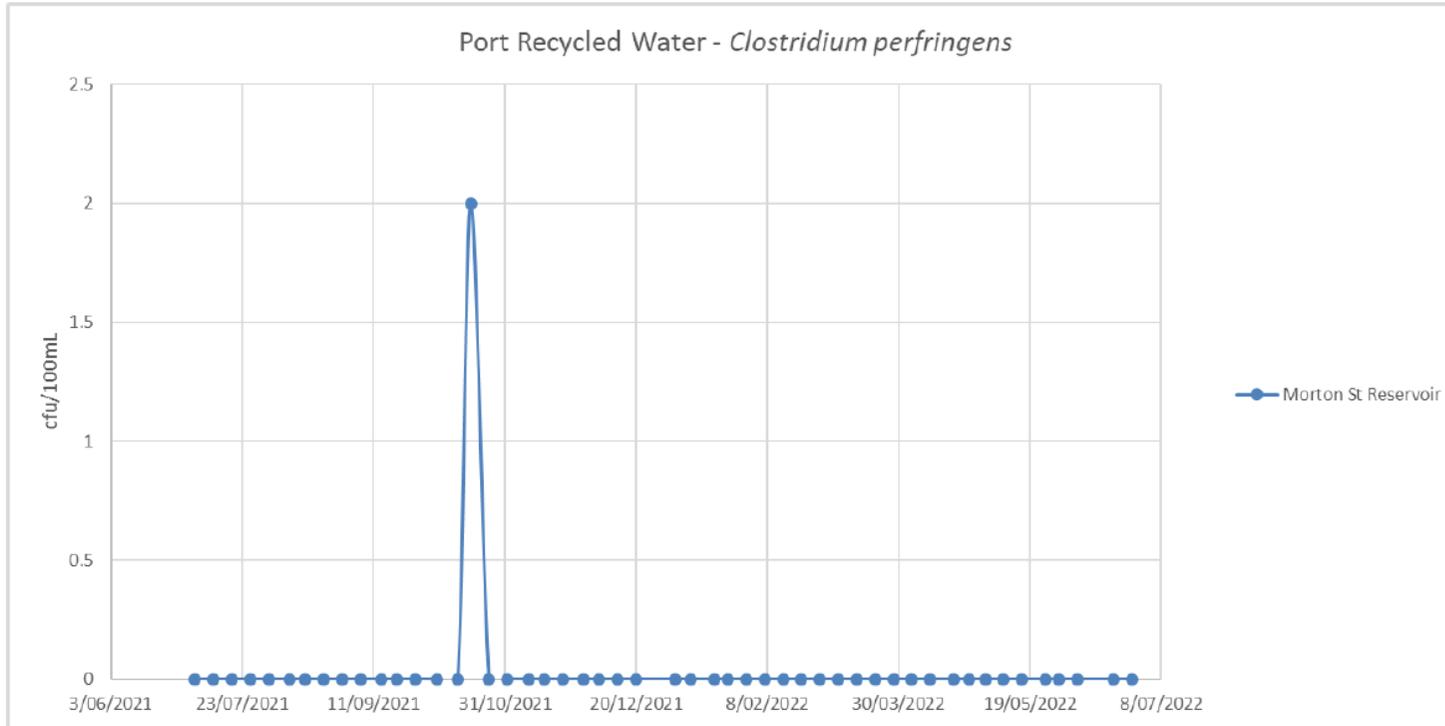
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C.2 Port Macquarie Recycled Water E. Coli



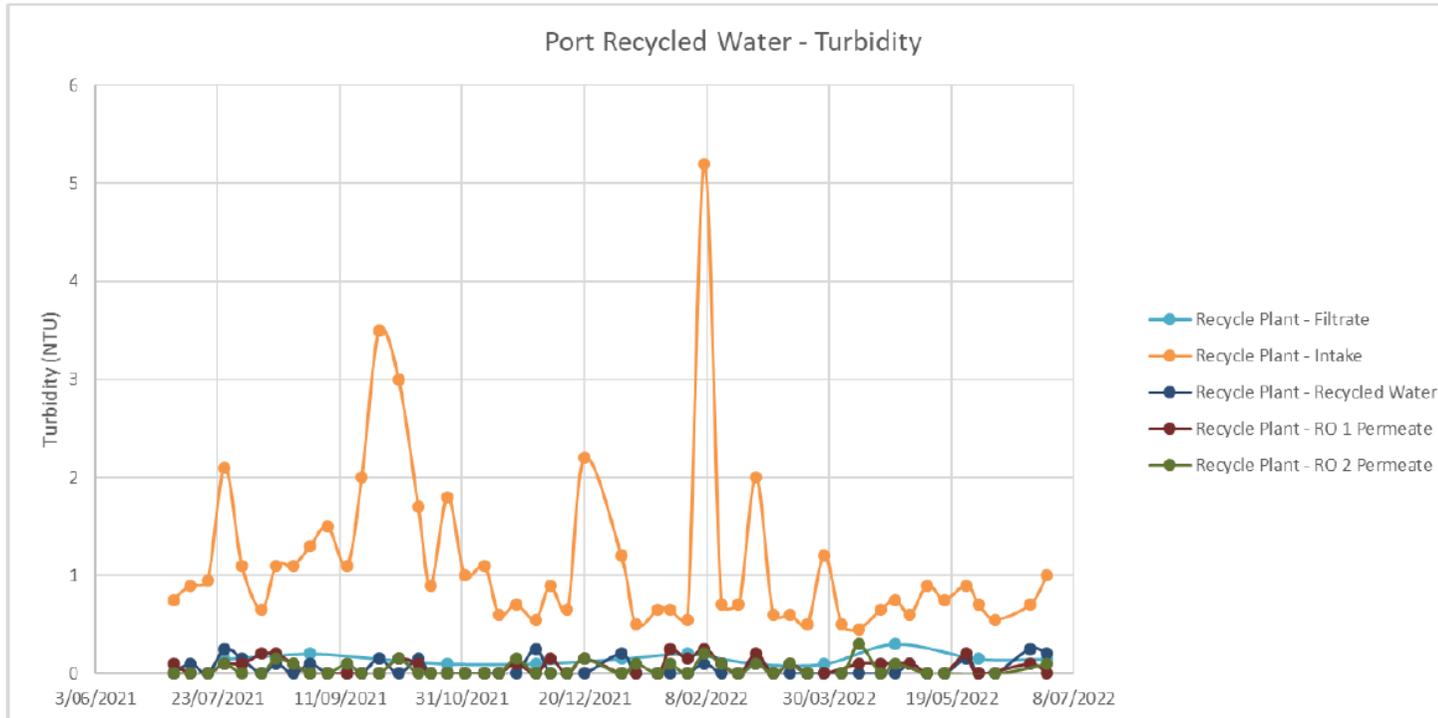
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C.3 Port Macquarie Recycled Water Clostridium Perfringens



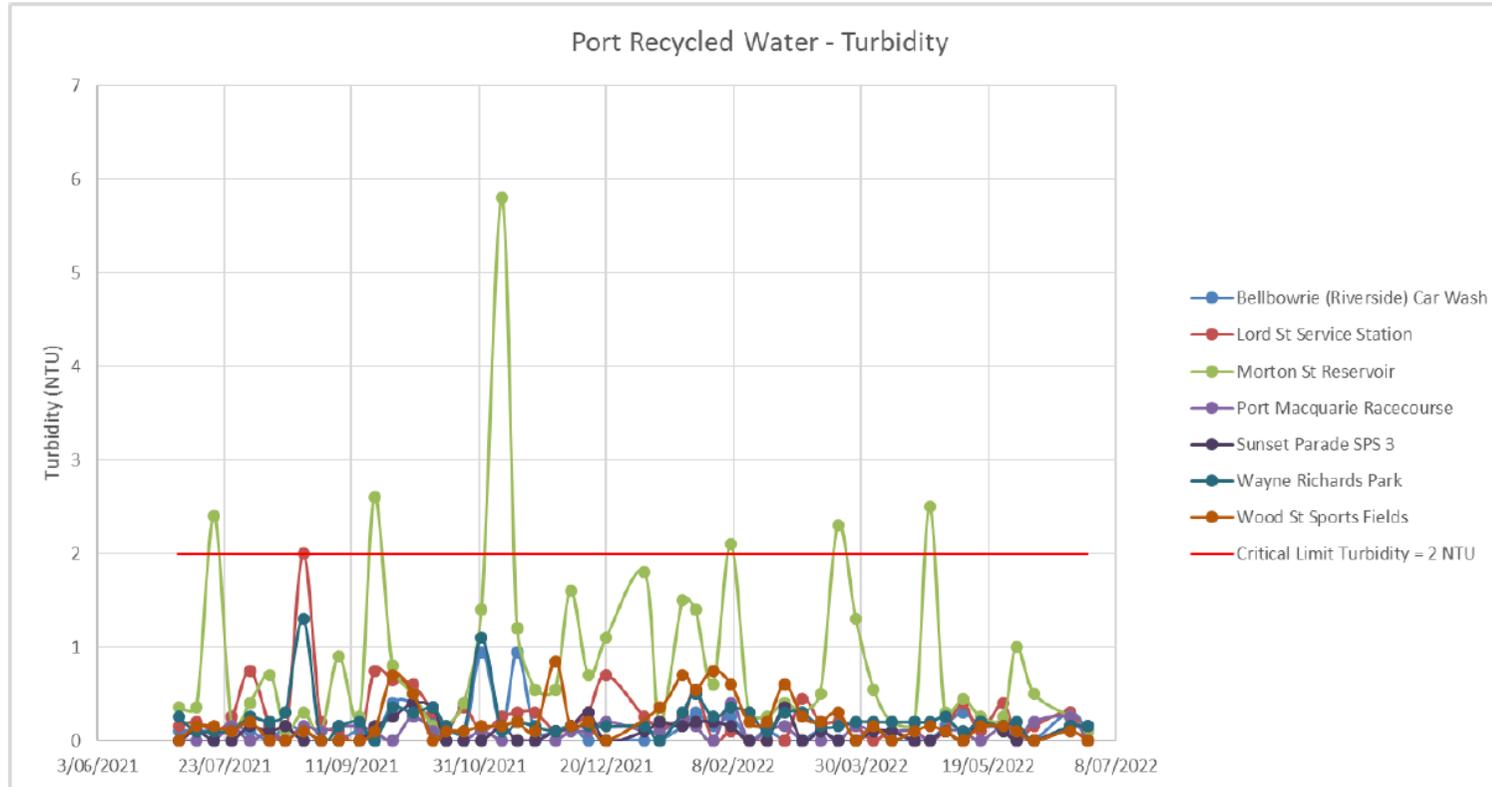
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C.4 Port Macquarie Recycled Water Turbidity



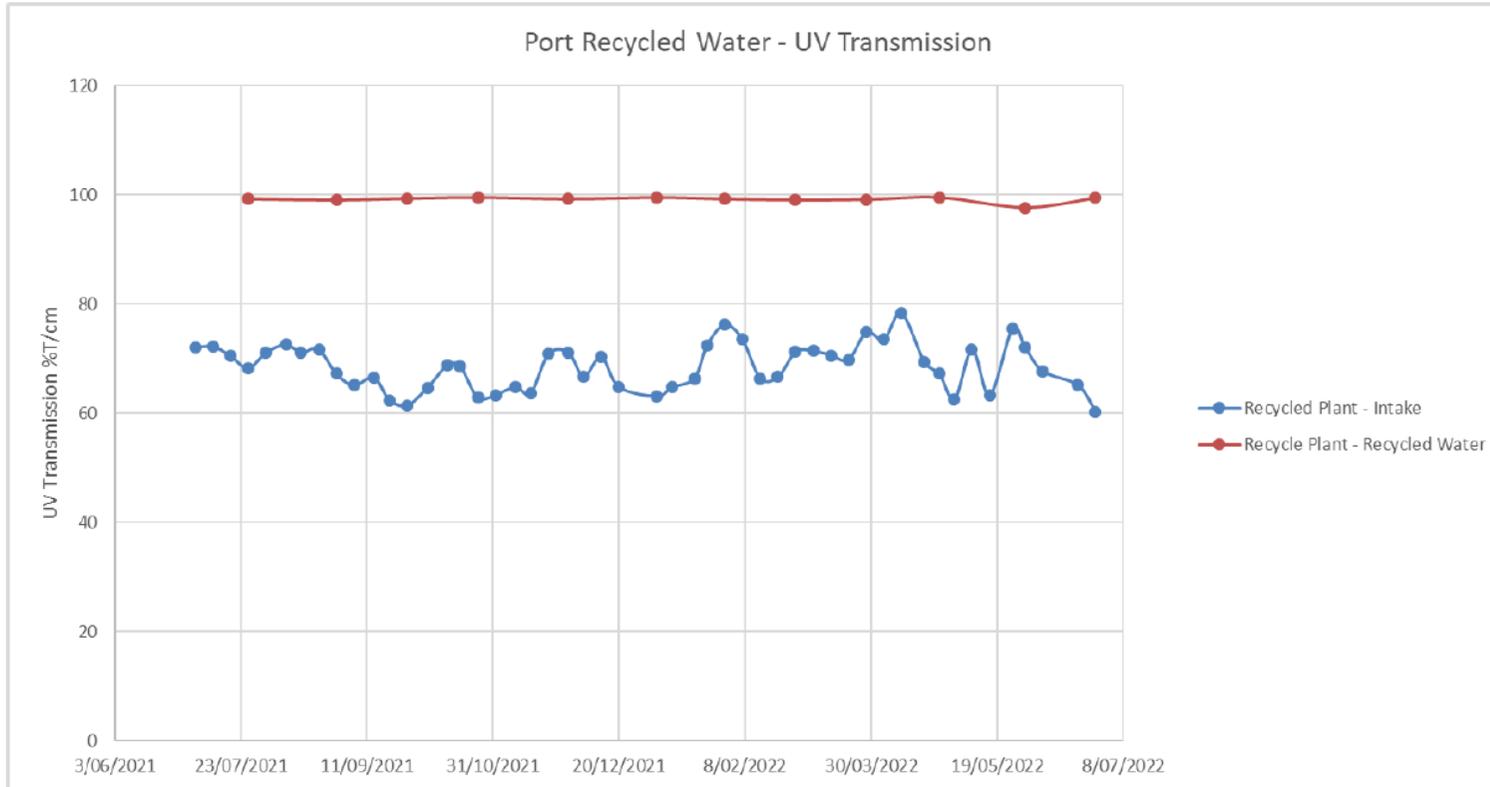
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C.5 Port Macquarie Recycled Water Turbidity Reservoir and Reticulation



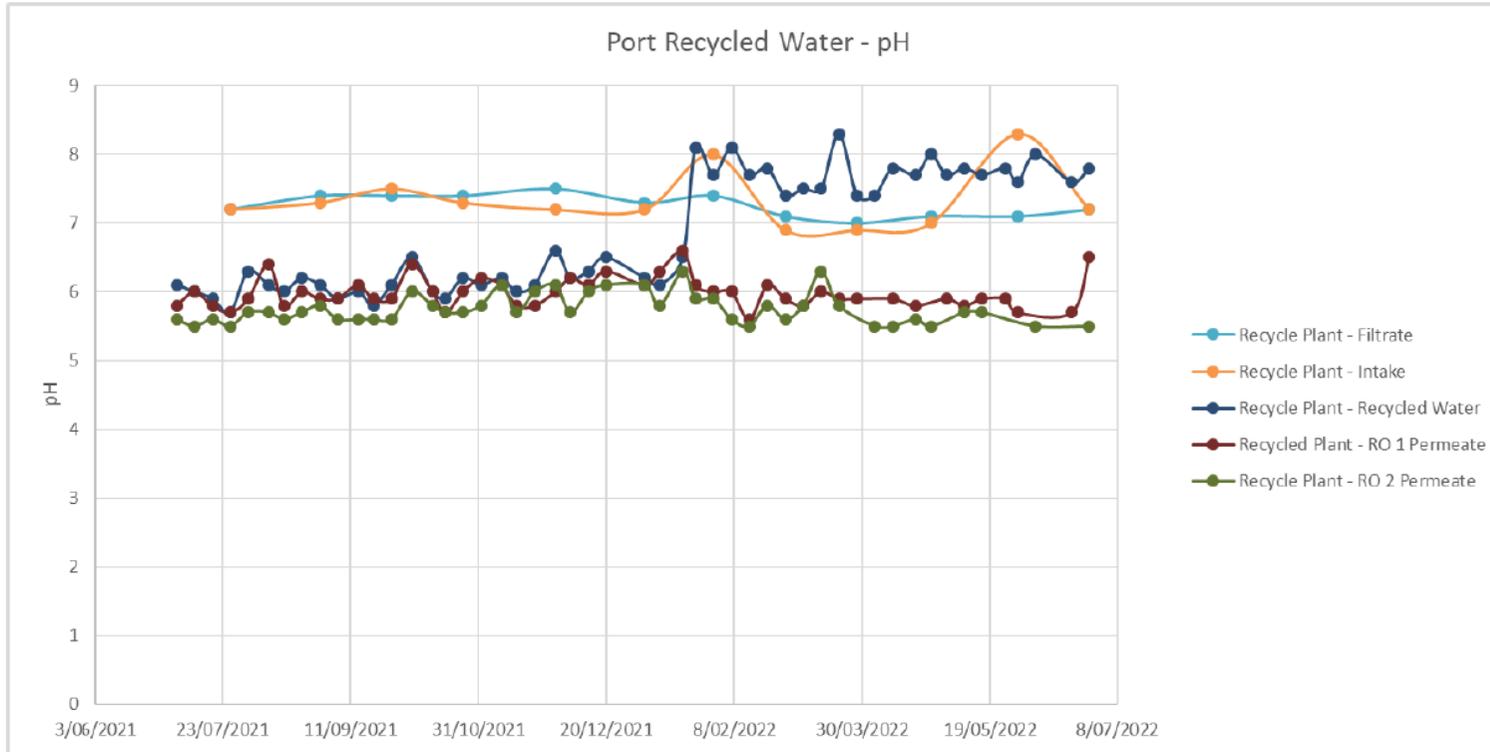
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C.6 Port Macquarie Recycled Water UV Transmission



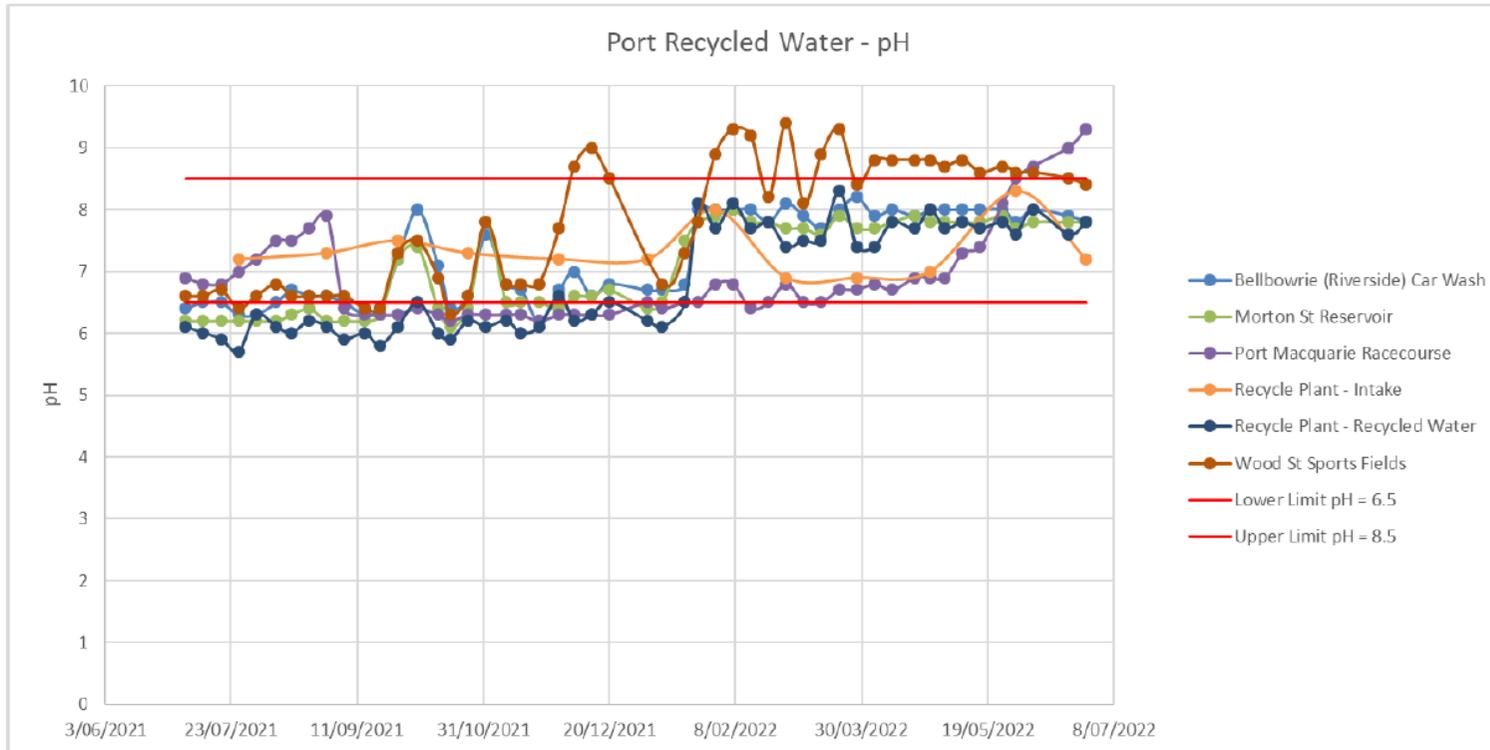
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C.7 Port Macquarie Recycled Water pH at Recycled Water Plant



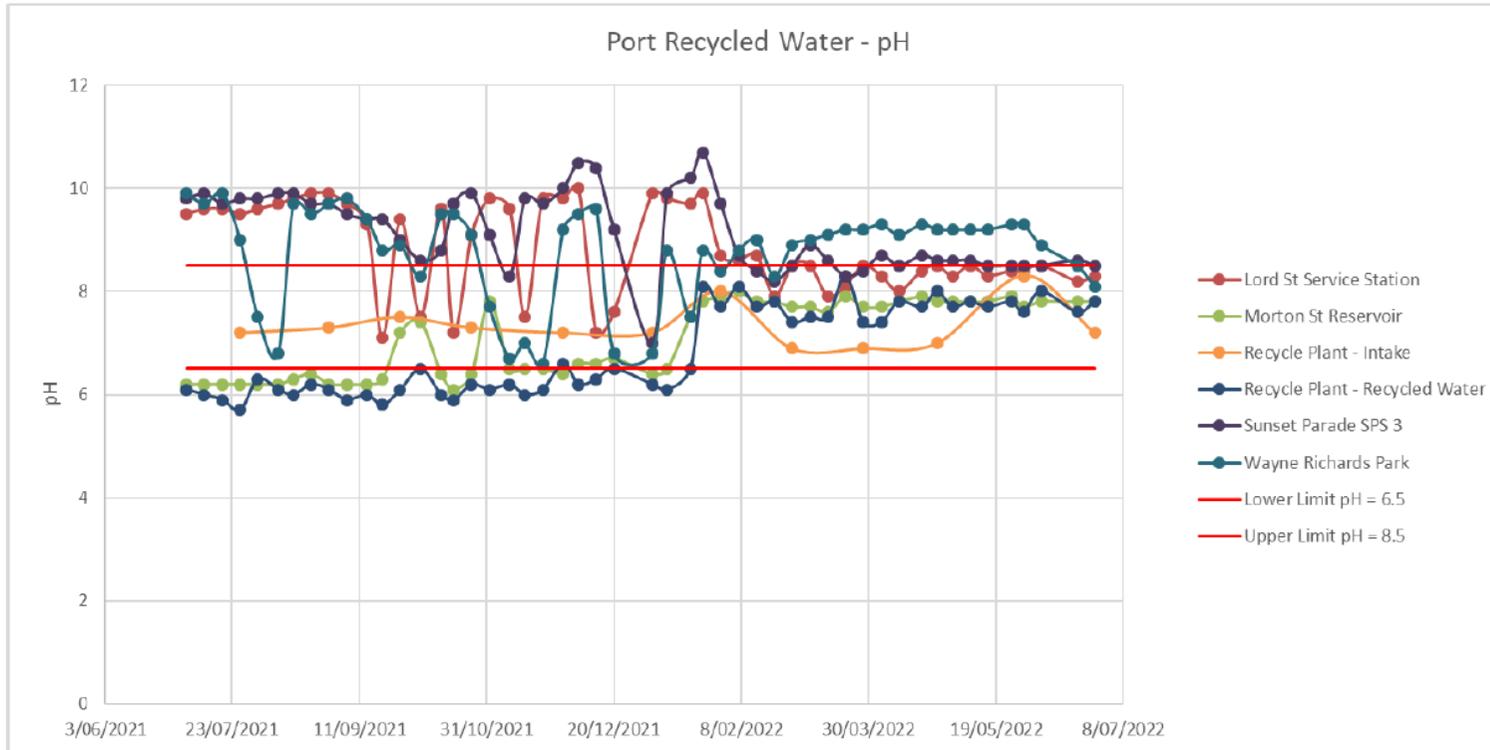
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C.8 Port Macquarie Recycled Water pH in Reticulation 1



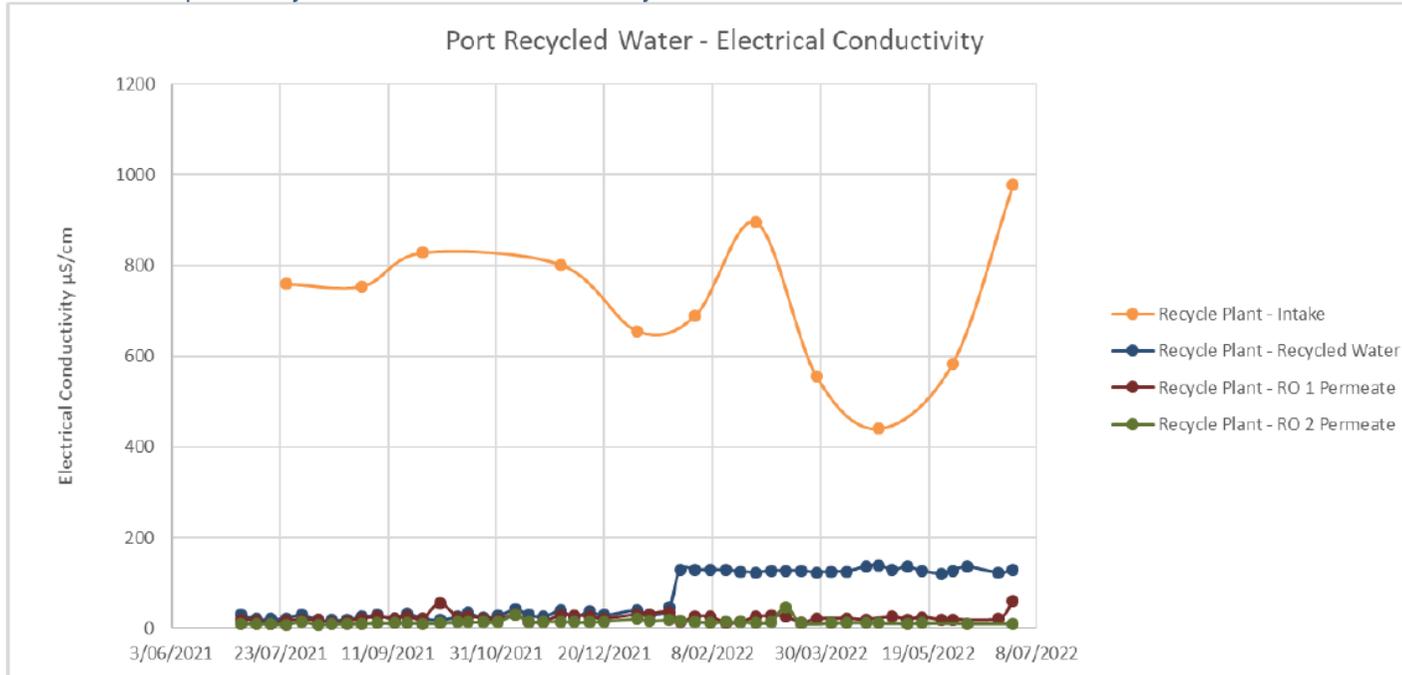
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C.9 Port Macquarie Recycled Water pH in Reticulation 2



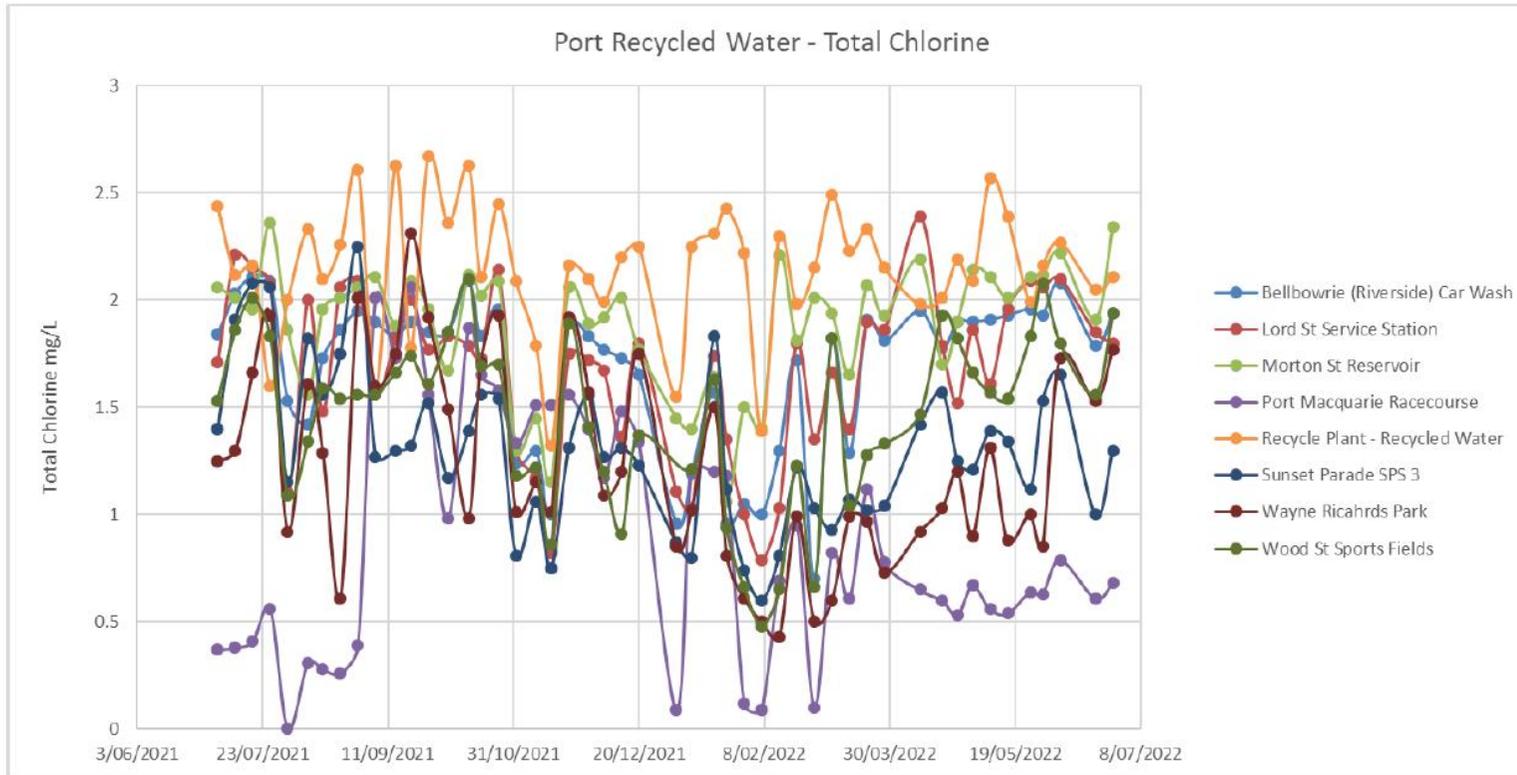
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C.10 Port Macquarie Recycled Water Electrical Conductivity



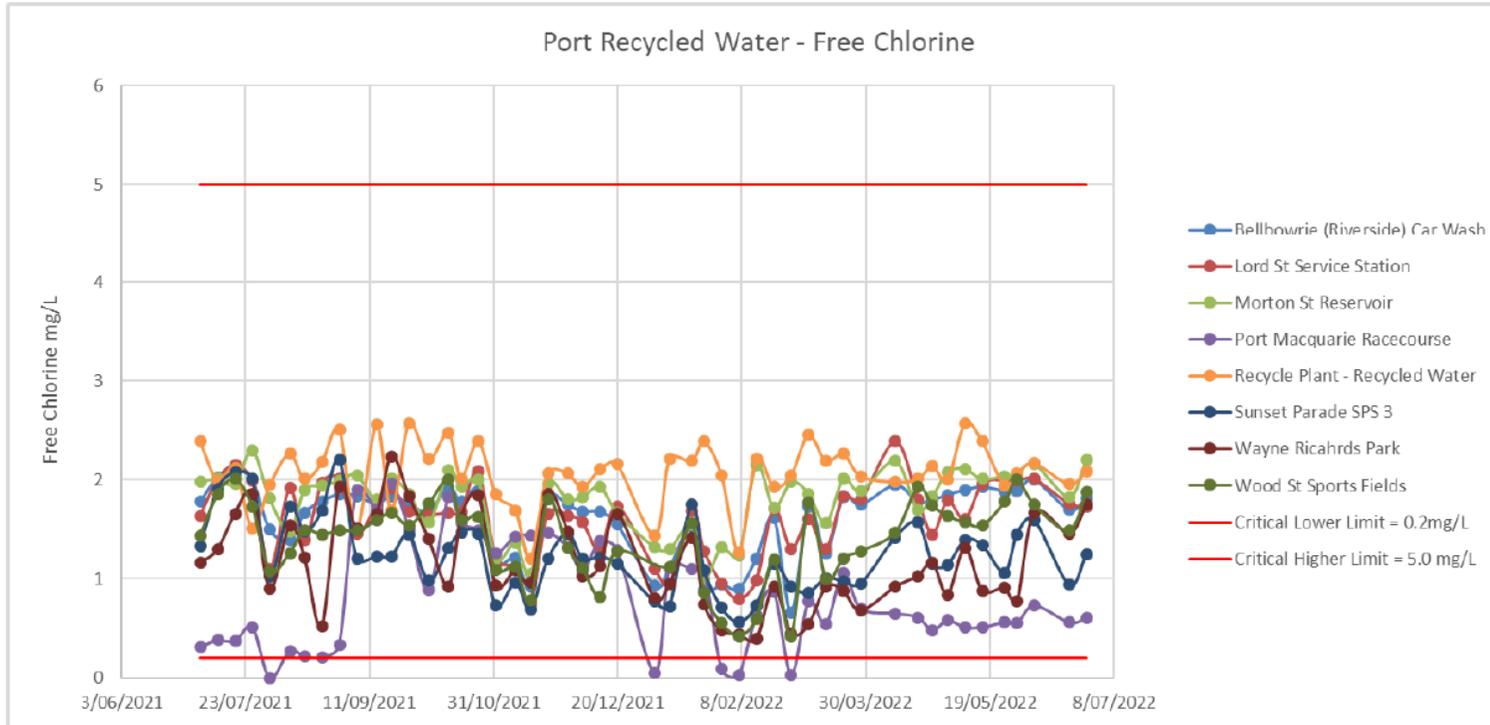
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C.11 Port Macquarie Recycled Water Total Chlorine



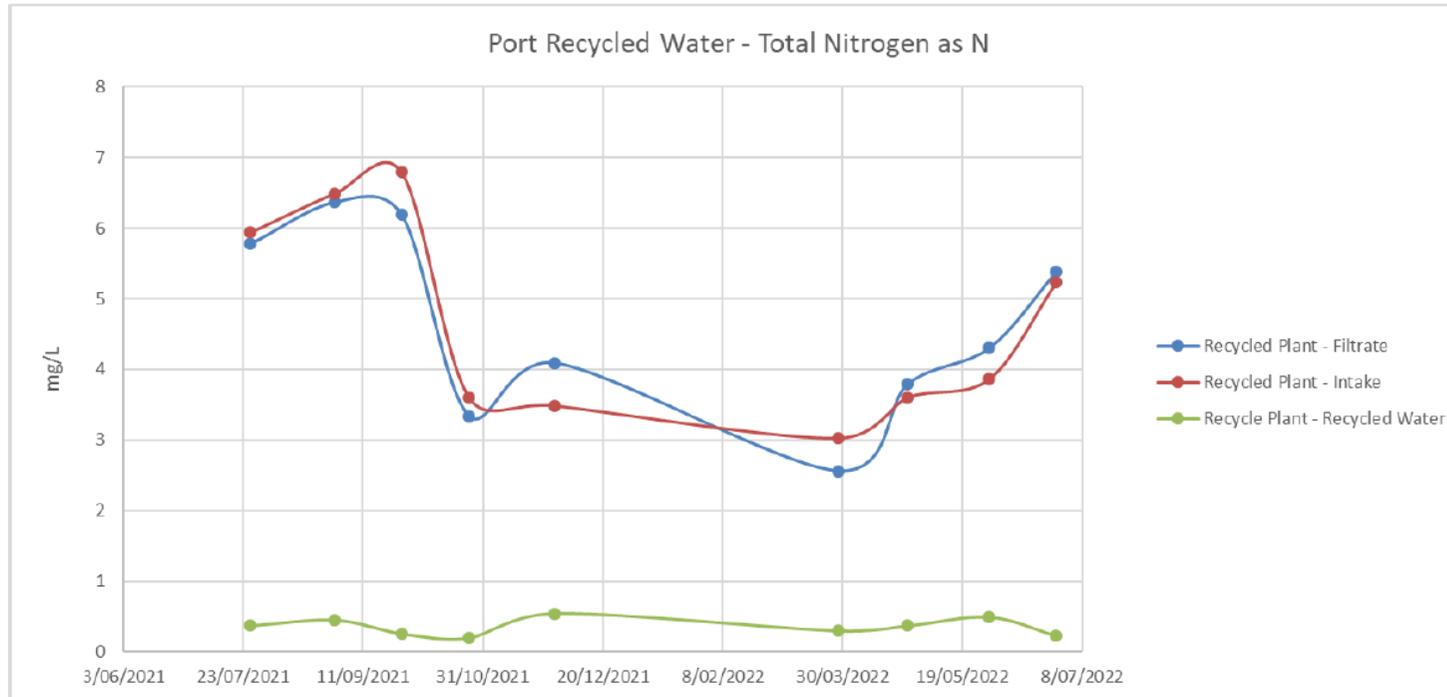
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C.12 Port Macquarie Recycled Water Free Chlorine



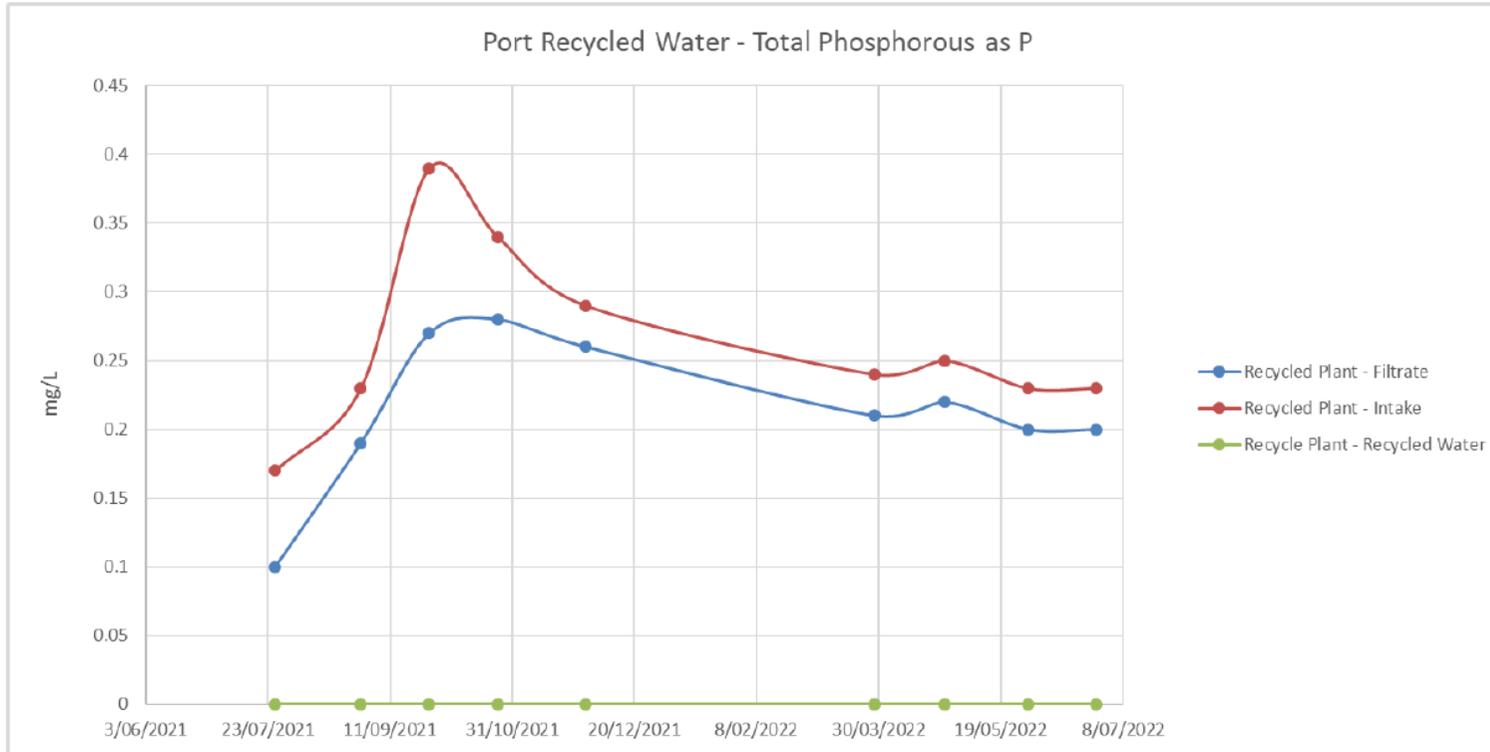
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C.14 Port Macquarie Recycled Water Total Nitrogen



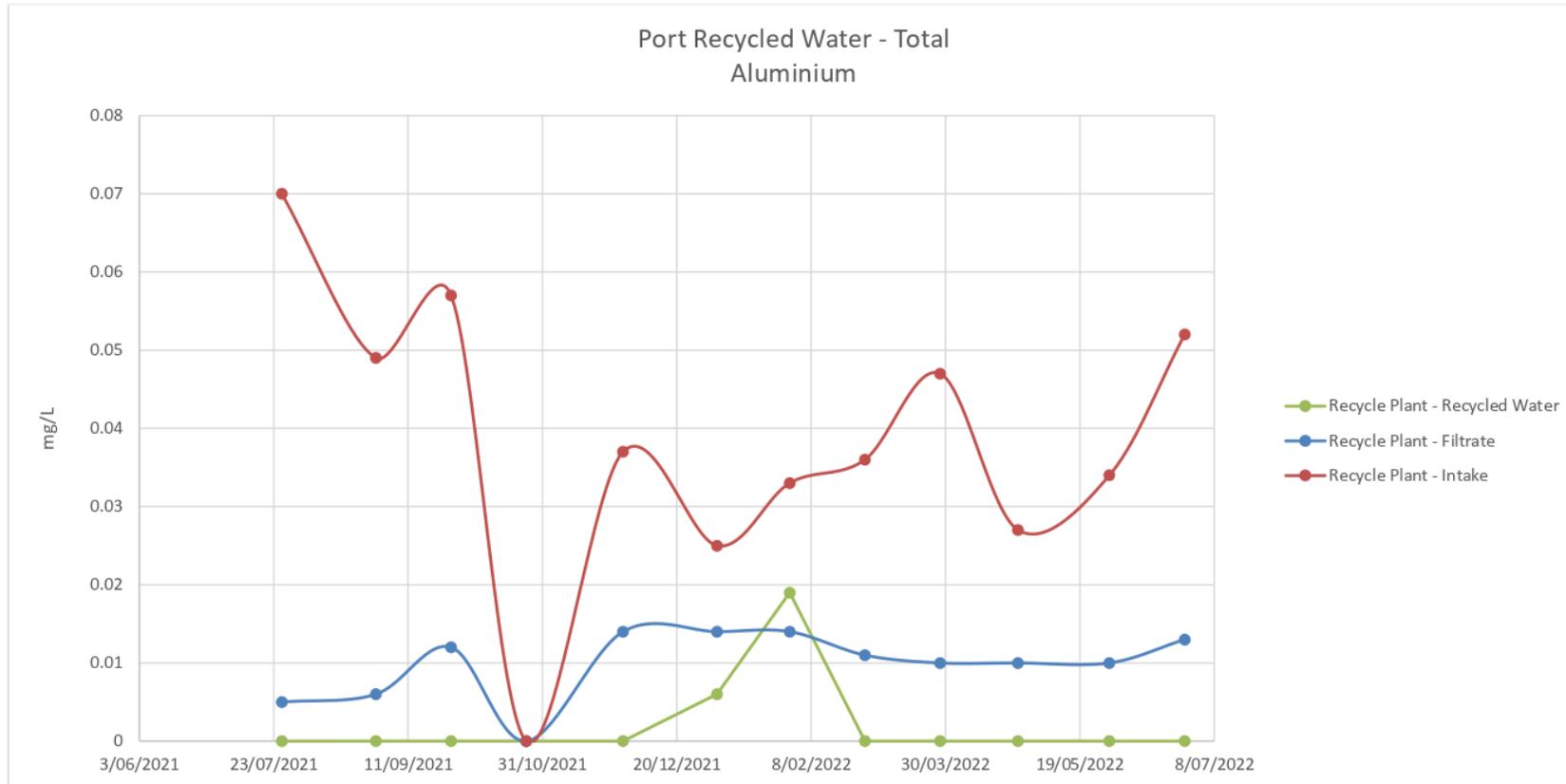
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C.15 Port Macquarie Recycled Water Total Phosphorous



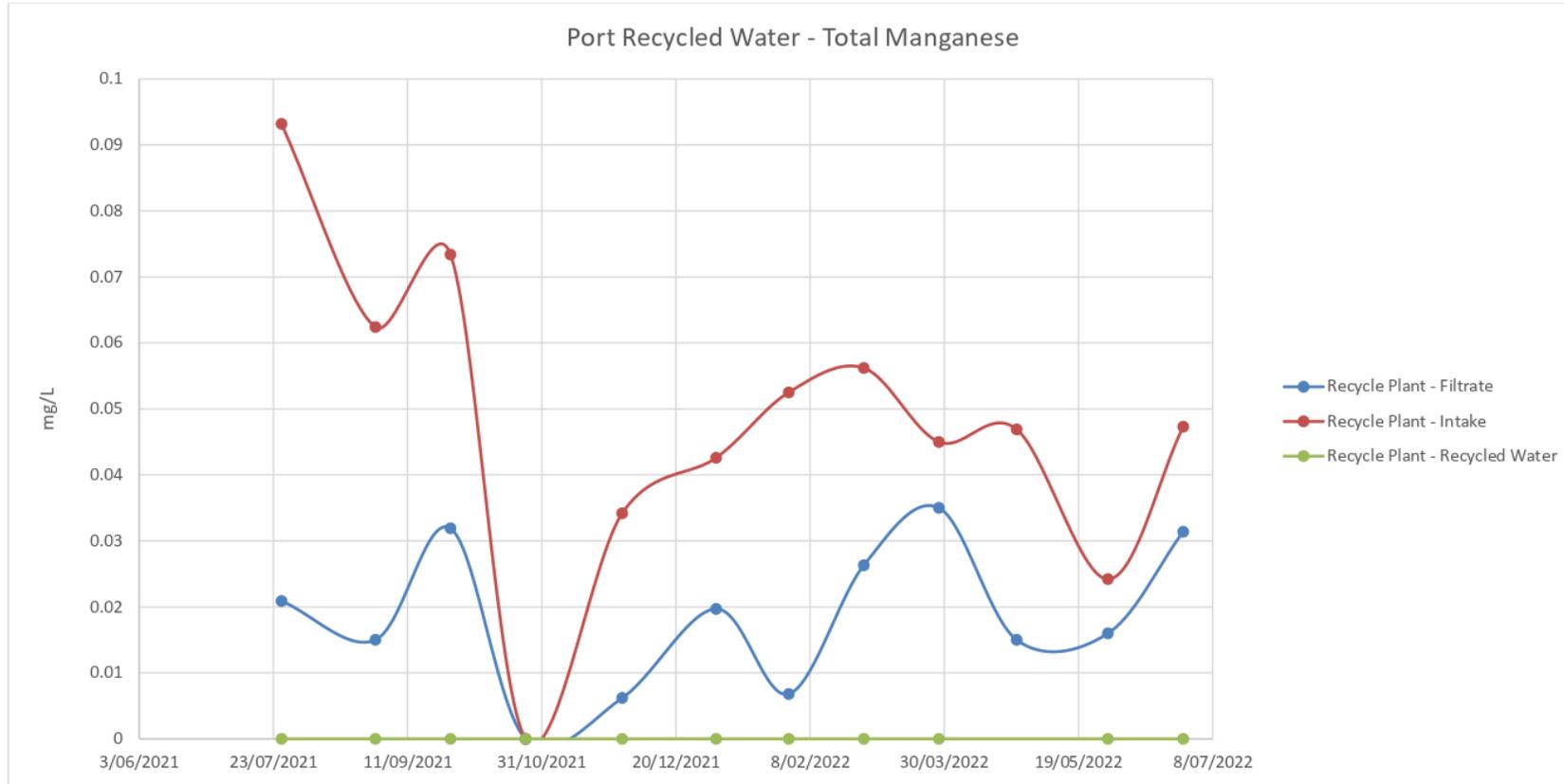
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C.16 Port Macquarie Recycled Water Total Aluminium



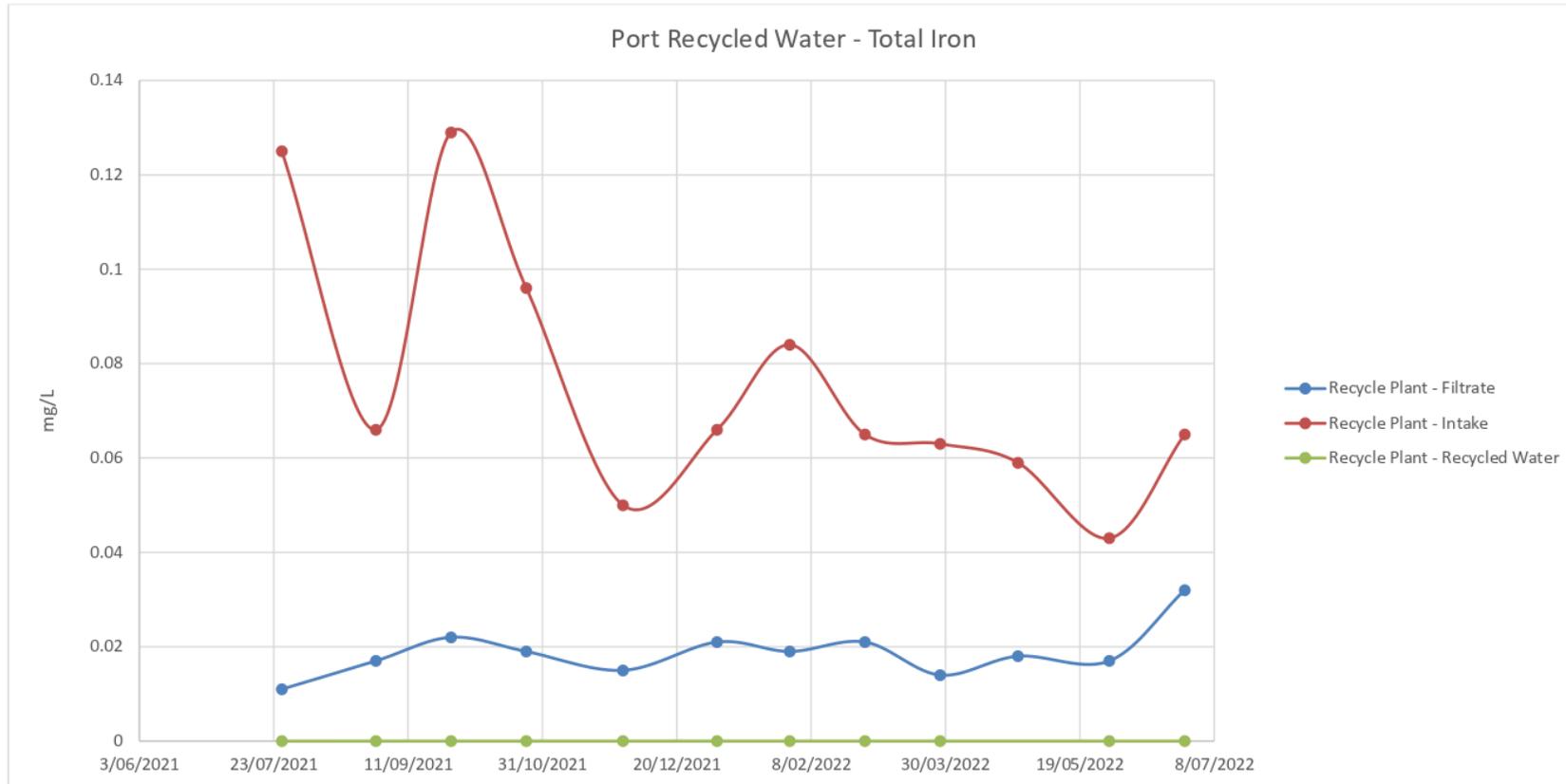
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C.17 Port Macquarie Recycled Water Total Manganese



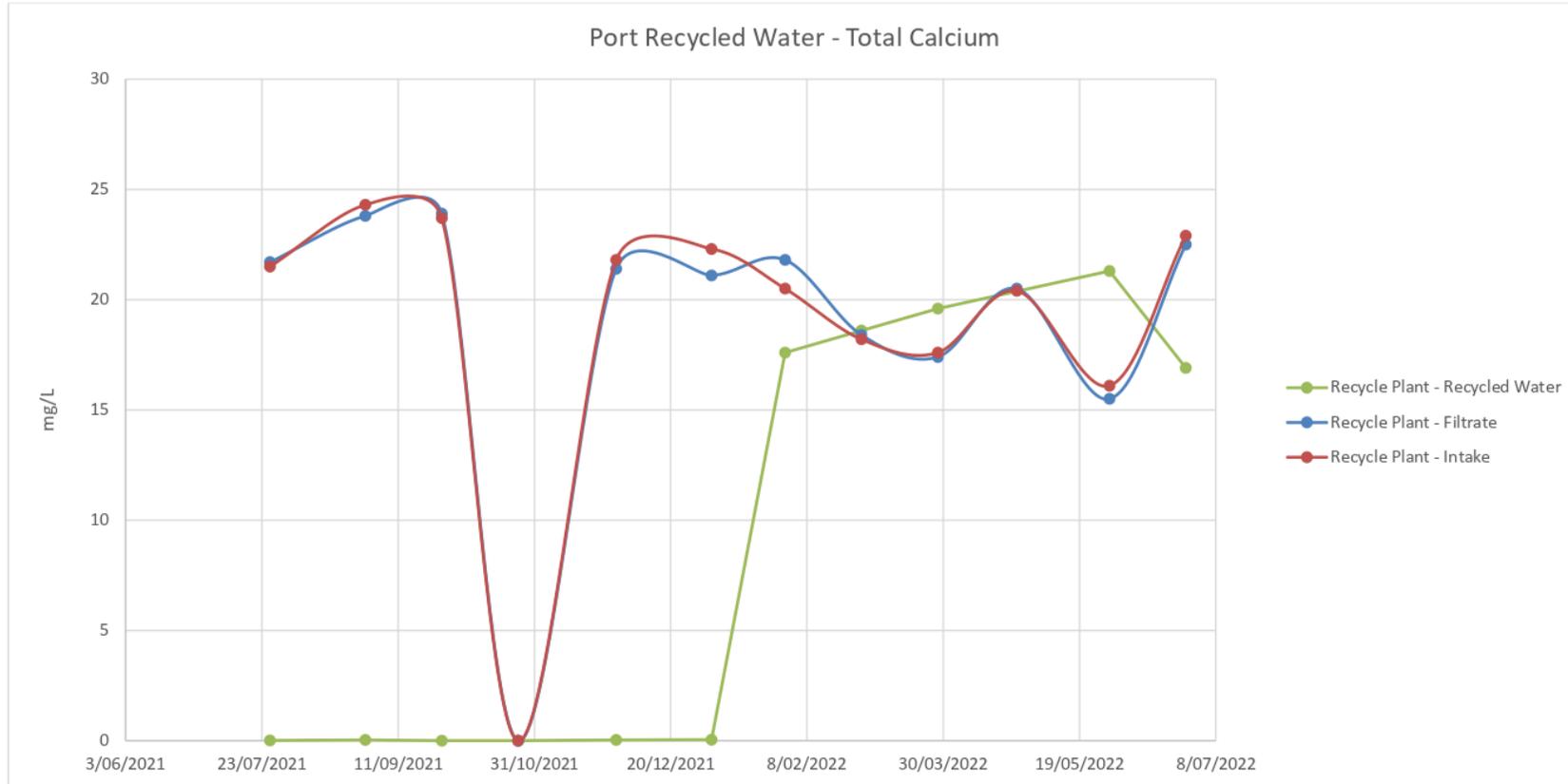
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C.18 Port Macquarie Recycled Water Total Iron



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C.19 Port Macquarie Recycled Water Total Calcium



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C.20 Recycled Water Reticulation HPC

