

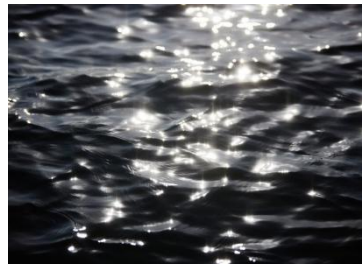
# MF141 South of Zuidpool Rock

## Therapeutant Residue Monitoring Program

### FINAL REPORT

April 2026

Report to:  
**Huon Aquaculture Company Pty Ltd**



Prepared by:  
**AQUENAL PTY LTD**



## Document Control and Distribution

Date	Company	Document Type	Version	Copies
13/4/2026	Huon Aquaculture	Electronic	1.0	1
23/4/2026	Huon Aquaculture	Electronic	2.0	1
27/4/2026	Huon Aquaculture	Electronic	2.1	1

**COPYRIGHT:** The concepts and information contained in this document are the property of Aquenal Pty Ltd. Use or copying of this document in whole or in part without the written permission of Aquenal Pty Ltd constitutes an infringement of copyright.

**DISCLAIMER:** This report has been prepared on behalf of and for the exclusive use of Aquenal Pty Ltd's client and is subject to and issued in connection with the provisions of the agreement between Aquenal Pty Ltd and its Client. Aquenal Pty Ltd accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report by any third party.

## Contents

1	Introduction .....	6
2	Design Overview, Survey Sites and Laboratory Analysis .....	7
2.1	Initial sampling design.....	7
2.2	Weekly sampling design.....	7
2.3	Laboratory analysis .....	11
3	Sediment Sampling.....	12
3.1	Survey sites and frequency .....	12
3.1.1	Initial sampling design.....	12
3.1.2	Weekly sampling design.....	12
3.2	Sample collection, processing and storage.....	16
3.3	Results.....	17
4	Microbial Sampling.....	25
4.1	Survey sites and frequency .....	25
4.2	Sample collection, processing and storage.....	25
4.3	Results.....	25
5	Infauna Sampling.....	26
5.1	Survey sites and frequency .....	26
5.2	Sample collection, processing and storage.....	26
5.3	Results.....	26
6	Water Sampling.....	27
6.1	Sample sites and frequency .....	27
6.1.1	Initial sampling design.....	27
6.1.2	Weekly sampling design.....	27
6.2	Sample collection, processing and storage.....	28
6.3	Results.....	31
6.3.1	Treatments H1-H4.....	31
6.3.2	Treatments H5-H9: Zuidpool North (Lot 1; ZN) .....	31
6.3.3	Treatments H5-H9: Zuidpool South (Lot 2; ZS) .....	32
6.3.4	Patterns of FFC and FFA across depths.....	32
7	Wild Fish Sampling .....	37
7.1	Survey sites and Frequency.....	37
7.1.1	Treatments H1 and Treatments H3 and H4. ....	37
7.1.2	Treatments H2 and treatments H5-H9. ....	37
7.2	Sample collection, processing and storage.....	40
7.3	Results.....	41

---

8	Benthic Video Surveys.....	45
8.1	Survey sites and frequency .....	45
8.2	Sample collection, processing and storage.....	45
8.3	Results.....	45
9	Summary .....	46
	Appendices.....	48

## Operational Summary

Contractor: Aquenal Pty Ltd  
ABN 74 151 011 157  
244 Summerleas Road,  
Kingston, Tasmania 7050  
Phone 03 6229 2334 Fax 03 6229 2335

Client: Huon Aquaculture Company Pty Ltd

Field work: Sediment, microbial sampling, infauna: Aquenal  
Water quality and wild fish: Marine Solutions  
Benthic video survey: Huon Aquaculture

Laboratory Analysis:  
Analytical Services Tasmania  
New Town Laboratory  
18 St Johns Avenue  
New Town, Tasmania 7008

Environmental Monitoring Permit Details (NRE):  
Aquenal Permit Number 25112 (valid until 16/10/2026)  
Marine Solutions Number 25114 (valid until 28/10/2026)

## 1 Introduction

A Therapeutant Residue Monitoring Program (TRMP) was undertaken for the MF141 South of Zuidpool Rock lease (Environmental Licence 9882/4), in the vicinity of Lot 1 (Zuidpool North) and Lot 2 (Zuidpool South) located within the D'Entrecasteaux Channel and Huon Estuary region. There were nine therapeutant treatment events under eight Medication Authorities (MA) conducted across MF141 between 12 November 2025 and 19 January 2026 using the antibiotic florfenicol (Table 1 and Table 2; see Appendix 1 for treatment details).

The TRMP was conducted in accordance with the specifications stipulated by the Tasmanian Environment Protection Authority (EPA) in *Therapeutant Residue Monitoring Schedule MF141 – Zuidpool North, issued 20 November 2025 (herein TRM Schedule MF141N)* and *Addendum - Therapeutant Residue Monitoring Schedule MF141, issued 16 December 2025 (herein TRM Schedule MF141 Addendum)* (see Table 1). Specifications for some surveys were emailed to Huon Aquaculture by the EPA on 5 December 2025 and 10 December 2025 and subsequently recorded formally in the Attachment 1 of *TRM Schedule MF141 Addendum* (see Table 1).

The monitoring schedules were developed to assess potential environmental impacts from the treatment events and was based on the information provided in the Medication Authority (MA), the environment in which the lease is located, previous treatment history, and research into the active ingredient and its potential environmental fate. The TRMP included the following components: sediment sampling, microbial sampling, infauna sampling, water sampling, wild fish sampling, and benthic video surveys. Samples were taken at monitoring sites inside the lease (internal sites) and outside the lease (external sites including compliance sites, transect sites, control sites, reference sites). The frequency of monitoring changed between the initial sampling schedule (*TRM Schedule MF141N*; i.e. baseline, mid-treatment and post-treatment on Day 1, Day 7, Day 14 and/or Day 21) and the subsequent addendum which stipulated weekly sampling (*TRM Schedule MF141 Addendum*) (Table 1). The initial sampling design was developed for a single treatment event (under MA1104.2F) on Lot 1 of the lease and the weekly sampling design was developed and issued to monitor multiple and any future treatment events across the entire lease area (i.e. Lots 1 and 2).

This report provides survey details, treatment details, methods and results of the TRMP for MF141 South of Zuidpool Rock. The report includes a summary of all monitoring results and relevant contextual information.

## 2 Design Overview, Survey Sites and Laboratory Analysis

There was a total of nine treatment events (H1, H2....H9) under eight Medication Authorities at Lot 1 Zuidpool North and/or Lot 2 Zuidpool South between 12<sup>th</sup> November 2025 and 19<sup>th</sup> January 2026 (Table 1; Table 2; Figure 1). This section provides an overview of the initial sampling design and the weekly sampling designs stipulated in the relevant Therapeutant Residue Monitoring Schedules (Table 1). A detailed explanation of sampling sites, frequency of collection, methodology and results for the six survey components are documented iteratively in Sections 3-8. Field conditions for each sampling day are provided in Appendix 3.

### 2.1 Initial sampling design

The initial Therapeutant Residue Monitoring Schedule was associated with treatment H1 and incorporated six components (i.e. sediment, microbial, infauna, water quality, wild fish and benthic video). These components were sampled at a range of internal, external, control and reference sites in the vicinity of the MF141 Zuidpool lease (Figure 2). Internal sites included treated and untreated pen-bays (Figure 2c,d). External sites included compliance sites 35 m from the lease boundary and 100 m and 500 m transect sites associated with these compliance sites (Figure 2c,d). Control sites were established internal and external to the East of Redcliffs lease (MF221; Figure 2b). Reference sites were located further afield and were associated with Broadscale Environmental Monitoring Program sites (Figure 2a). Wild fish were sampled from zones defined by buffers at increasing distance from the lease boundary (e.g. 500 m, 1 km, 3 km; Figure 3). Benthic video surveys associated with treatment H1 were conducted prior to treatment, mid-treatment and post-treatment on Day 1.

For surveys associated with treatment H1, the frequency of sampling was organised around a pre-defined subset of the following: pre-treatment survey (i.e. Baseline), mid-treatment and post-treatment surveys on Day 1, Day 7, Day 14 and Day 21 (Table 1).

### 2.2 Weekly sampling design

For weekly surveys associated with treatments H2 to H9 there were four components (i.e. sediment, water quality, wild fish and benthic video). Samples were taken from a selection of internal, external and reference sites established under the initial survey design described in Section 2.1 (Figure 2; Figure 3). The frequency of sampling for sediments, water and wild-fish was organised around weekly surveys (i.e. Week 1, Week 2.....Week 9; Table 1) which were conducted either pre-treatment, mid-treatment or post-treatment. Benthic video surveys associated with treatments H2-H9 were conducted prior to treatment and post-treatment. The weekly sampling design for treatments H2, H3 and H4 included Day 1 sampling requirements (see Section 2.1) as provided in Attachment 1 of the *TRM Schedule*

MF141 Addendum. It should be noted that the sampling design for treatments H2, H3 and H4 was first provided by EPA via email correspondence (H2 5/12/2025; H3 and H4 10/12/2025), with sample protocols for these treatments following the initial sampling schedule, until receipt of the Addendum on 16/12/2025.

Subject to prior approval from the EPA, the initial and weekly schedules allowed for the discontinuation of some scheduled sampling events for sites returning results ‘below the Limit of Reporting’ for two consecutive sampling events (see Section 2.3; Table 3).

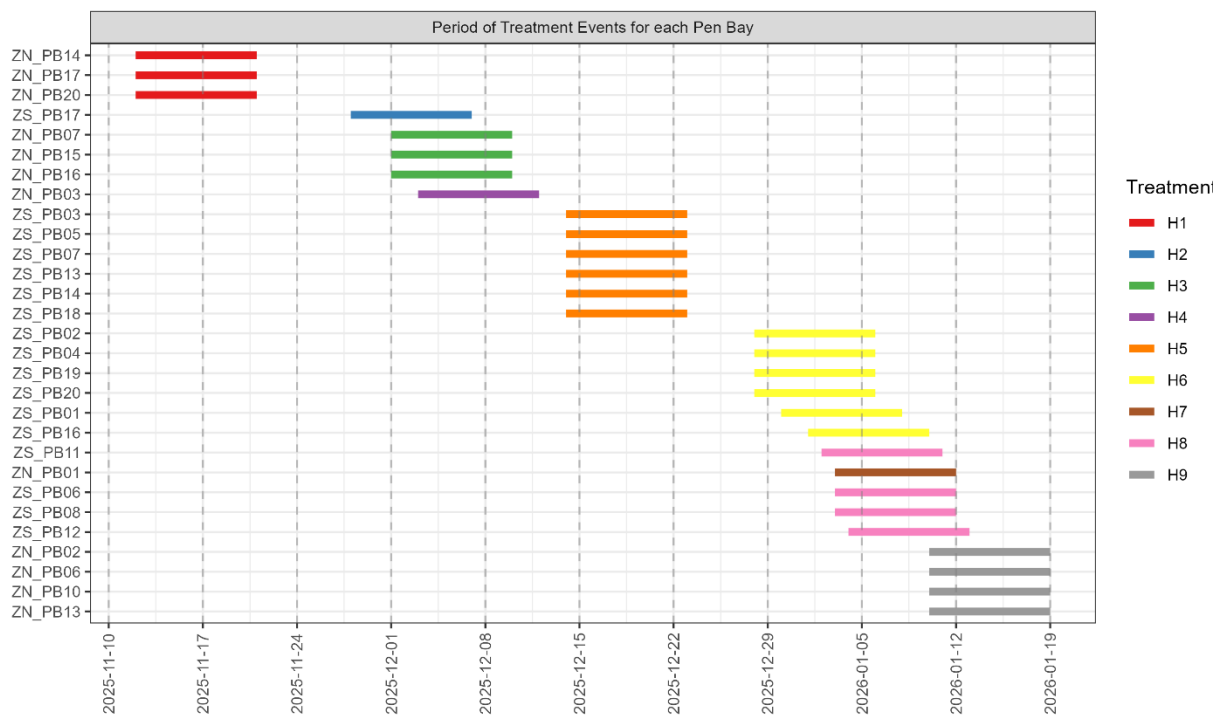


Figure 1: Date and duration of treatment events associated with pen bays sampled at Zuidpool North (Lot 1; ZN) and Zuidpool South (Lot 2; ZS) of the MF141 lease (see Table 2).

**Table 1: Therapeutant treatments and associated Medication Authorities for treatment of finfish with florfenicol across Zuidpool North (Lot 1; ZN) and Zuidpool South (Lot 2; ZS) of lease MF141. The schedule associated with each treatment event is indicated (TRM Schedule MF141N = Therapeutant Residue Monitoring Schedule MF141 – Zuidpool North; TRM Schedule MF141 Addendum = Addendum - Therapeutant Residue Monitoring Schedule MF141), along with the broad sampling design (i.e. ‘initial’ or ‘weekly’). See Appendix 1 for further details.**

Treatment	Lot	Medication Authority No.	Anticipated start date	Schedule	Sampling Design
H1	ZN	MA 1104.2F	2025-11-12	TRM Schedule MF141N	Initial sampling design: Pre-, mid- or post- treatment (i.e. Day 1,7,14,21)
H2	ZS	MA 1105.2	2025-11-28	TRM Schedule MF141 Addendum	Weekly sampling design including Day 1 requirements provided in Attachment 1
H3	ZN	MA 1106.1F	2025-12-01	TRM Schedule MF141 Addendum	Weekly sampling design including Day 1 requirements provided in Attachment 1
H4	ZN	MA 1107	2025-12-03	TRM Schedule MF141 Addendum	Weekly sampling design including Day 1 requirements provided in Attachment 1
H5	ZS	MA 1108.2F	2025-12-14	TRM Schedule MF141 Addendum	Weekly sampling design
H6	ZS	MA 1109.2F	2025-12-28	TRM Schedule MF141 Addendum	Weekly sampling design
H7	ZN	MA 1110.1F	2026-01-02	TRM Schedule MF141 Addendum	Weekly sampling design
H8	ZS	MA 1109.2F	2026-01-02	TRM Schedule MF141 Addendum	Weekly sampling design
H9	ZN	MA 1111.1F	2026-01-09	TRM Schedule MF141 Addendum	Weekly sampling design

**Table 2: Date and duration of treatment events associated with pen bays sampled at Zuidpool North (Lot 1; ZN) and Zuidpool South (Lot 2; ZS) of the MF141 lease.**

Treatment	Site	Anticipated Start Date	Actual Start Date	Finish Date
H1	ZN_PB14	2025-11-12	2025-11-12	2025-11-21
	ZN_PB17	2025-11-12	2025-11-12	2025-11-21
	ZN_PB20	2025-11-12	2025-11-12	2025-11-21
H2	ZS_PB17	2025-11-28	2025-11-28	2025-12-07
H3	ZN_PB07	2025-12-01	2025-12-01	2025-12-10
	ZN_PB15	2025-12-01	2025-12-01	2025-12-10
	ZN_PB16	2025-12-01	2025-12-01	2025-12-10
H4	ZN_PB03	2025-12-03	2025-12-03	2025-12-12
H5	ZS_PB03	2025-12-14	2025-12-14	2025-12-23
	ZS_PB05	2025-12-14	2025-12-14	2025-12-23
	ZS_PB07	2025-12-14	2025-12-14	2025-12-23
	ZS_PB13	2025-12-14	2025-12-14	2025-12-23
	ZS_PB14	2025-12-14	2025-12-14	2025-12-23
H6	ZS_PB18	2025-12-14	2025-12-14	2025-12-23
	ZS_PB01	2025-12-28	2025-12-30	2026-01-08
	ZS_PB02	2025-12-28	2025-12-28	2026-01-06
	ZS_PB04	2025-12-28	2025-12-28	2026-01-06
	ZS_PB16	2025-12-28	2026-01-01	2026-01-10
H7	ZS_PB19	2025-12-28	2025-12-28	2026-01-06
	ZS_PB20	2025-12-28	2025-12-28	2026-01-06
	ZN_PB01	2026-01-02	2026-01-03	2026-01-12
H8	ZS_PB06	2026-01-03	2026-01-03	2026-01-12
	ZS_PB08	2026-01-03	2026-01-03	2026-01-12
	ZS_PB11	2026-01-03	2026-01-02	2026-01-11
	ZS_PB12	2026-01-03	2026-01-04	2026-01-13
H9	ZN_PB02	2026-01-09	2026-01-10	2026-01-19
	ZN_PB06	2026-01-09	2026-01-10	2026-01-19
	ZN_PB10	2026-01-09	2026-01-10	2026-01-19
	ZN_PB13	2026-01-09	2026-01-10	2026-01-19

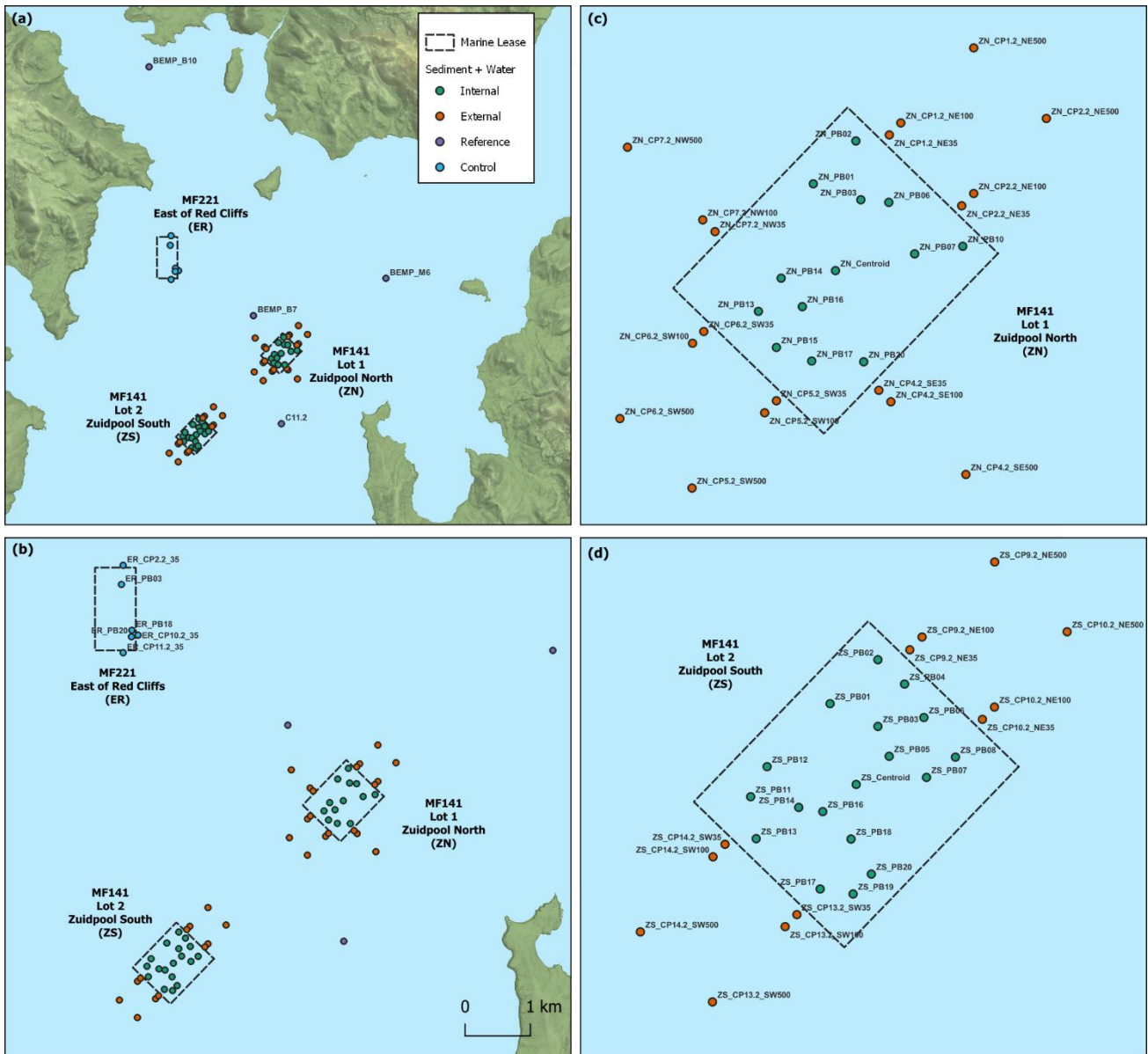
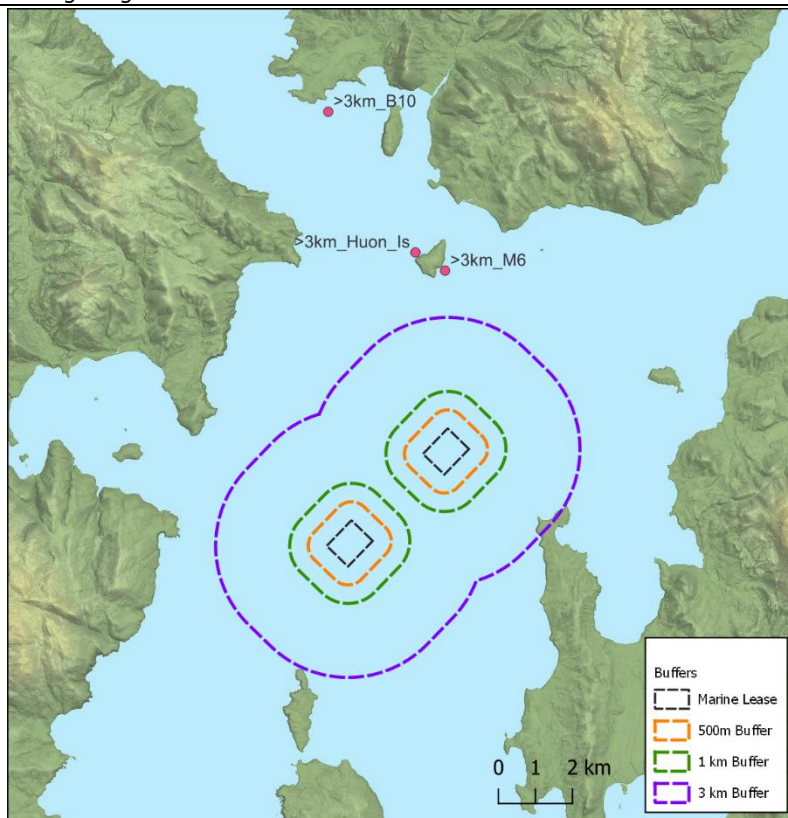


Figure 2: Sampling sites used in water quality, sediment, infauna, microbial communities and video surveys, including (a) overview of survey area in the D'Entrecasteaux Channel and Huon Estuary region, highlighting reference sites; (b) sampling sites in the vicinity of MF141 Zuidpool lease, highlighting the control sites at MF221 East of Redcliffs lease and three reference sites; (c) internal and external sites associated with MF141 Zuidpool North (Lot 1; ZN); and (d) internal and external sites associated with MF141 Zuidpool South (Lot 2; ZS). Mapped coordinates for control, external and reference sites are from the schedules and mapped coordinates for the pen bays are from the first instance of their sampling in the field (see Appendix 2).



**Figure 3: Survey zones for wild fish sampling including zones defined by 500 m, 1 km and 3 km buffers (i.e. <500 m, 500 m-1 km, 1-3 km, >3 km) from the MF141 Zuidpool lease. Reference sites >3 km from the lease are shown.**

## 2.3 Laboratory analysis

Analysis of florfenicol and florfenicol amine in environmental samples was carried out by Analytical Services Tasmania (AST). Florfenicol is the antibiotic that was used to treat *Piscirickettsia salmonis*. Florfenicol amine is the primary, non-antibiotic metabolite and the principal breakdown product of florfenicol in the surrounding environment. When measuring florfenicol in fish, the fish samples were reported as the “sum of florfenicol and its metabolites measured as florfenicol amine”, which is due to the method required to extract florfenicol from the fish tissues. The Limit of Reporting (LoR) that is referred to throughout this report is the lowest concentration of a substance that the laboratory can reliably and consistently measure (Table 3). Further information regarding the analytical methods for measuring florfenicol can be found on the AST website<sup>1</sup>.

**Table 3: AST laboratory Limits of Reporting for florfenicol.**

Analyte	Sample Type		
	Water (µg/L*)	Sediment (mg/Kg#)	Fish Tissue (mg/Kg#)
Florfenicol	0.1	0.005	-
Florfenicol amine	0.1	0.01	-
Sum of florfenicol and its metabolites measured as florfenicol amine	-	-	0.01

\* 1 µg/L is equal to 1 part per billion (ppb).

# 1 mg/kg is equal to 1 part per million (ppm).

<sup>1</sup> chrome-extension: <https://analyticalservices.tas.gov.au/Documents/Florfenicol%20testing%20at%20AST.pdf>

## 3 Sediment Sampling

### 3.1 Survey sites and frequency

Sediment sampling was undertaken by Aquenal at an array of sites including internal pen bays, external, control and reference locations (Table 4; Figure 2; Appendix 2; see Section 2.1) at a frequency defined by the initial and weekly sampling designs.

#### 3.1.1 Initial sampling design

The sampling schedule associated with treatment H1 was organised around surveys conducted pre-treatment (i.e. baseline) and post-treatment on Day 1, Day 7, Day 14 and/or Day 21 (Table 4). Subject to prior approval from the EPA, any sediment sites returning results below the LoRs (specified in Table 3) for two consecutive sampling events were discontinued. For sampling associated with the H1 treatment, surface and depth sections of sediment cores were collected at all sites. For baseline, Day 1 and Day 7 samples, both surface and depth sediment samples were analysed. For Day 14 and Day 21 samples, surface samples were analysed, while depth samples were retained (frozen) for future analysis if required.

Figure 4a illustrates the initial sampling design for H1 and the relationship with each treatment event.

#### 3.1.2 Weekly sampling design

For sediment surveys associated with treatments H2-H9, unless otherwise specified by the Director in writing, all sediment sites specified in Table 4 were sampled weekly, until two consecutive results below LoR are returned following the last treatment event on the lot or lease. Sediment samples were collected from 50% of the treated pen bays listed for each Medication Authority (MA). Where possible, the pen bays selected for sediment sampling were spread spatially and were returned to for consecutive sampling events. Each surface sample was analysed, while depth samples were retained (frozen) for future analysis if required.

If a surface sample returned a florfenicol or florfenicol amine result greater than the LoR, the associated depth sample for that site and sample date was also analysed. If a result greater than the LoR was returned for a sample collected from a 35 m compliance site, the sediment samples from the 100 m and 500 m transect sites were also collected and analysed during the next sampling round. Sediment sampling at the 100 m and 500 m transect sites was not required unless a 35 m compliance site sediment result was greater than the LoR.

Figure 4a and Figure 4b illustrate the weekly sampling design for H2-H9 and the relationship with each treatment event.

**Table 4: Sediment sampling design and frequency associated with treatment events H1-H9 at Zuidpool North (ZN) and Zuidpool South (ZS) of the MF141 lease. ER = East of Redcliffs (control). Pre = Before treatment (i.e. Baseline); Post treatment sampling includes Day 1, Day 7, Day 14 and Day 21 surveys. Sampling was not required for cells highlighted in blue.**

Location	Lot	Site	Sampling Design and Survey Frequency				
			Initial Design	Weekly Design			
			H1	H2 <sup>#</sup>	H3 <sup>#</sup>	H4 <sup>#</sup>	H5-H9
Internal (Pen Bay)	ZN	ZN_PB01					Weekly
		ZN_PB02	Pre				
		ZN_PB03	Pre		Weekly	Weekly	
		ZN_PB06					Weekly
		ZN_PB07	Pre		Weekly	Weekly	
		ZN_PB10	Pre				
		ZN_PB13	Pre				Weekly
		ZN_PB14	Pre, Day 1,7,14,21				
		ZN_PB15			Weekly	Weekly	
		ZN_PB16			Weekly	Weekly	
	ZN_PB17	Pre					
	ZN_PB20	Pre, Day 1,7,14,21					
	ZS	ZS_PB01					Weekly
		ZS_PB02	Pre				
		ZS_PB03					Weekly
		ZS_PB04	Pre				
		ZS_PB06					Weekly
		ZS_PB07					Weekly
		ZS_PB11	Pre				
		ZS_PB12					Weekly
ZS_PB14						Weekly	
ZS_PB17			Weekly				
ZS_PB20					Weekly		
External (35m)	ZN	ZN_CP1.2_NE35	Pre, Day 1,7,14,21		Weekly	Weekly	Weekly
		ZN_CP2.2_NE35	Pre, Day 1,7,14,21		Weekly	Weekly	Weekly
		ZN_CP4.2_SE35	Day 1,7,14,21				
		ZN_CP5.2_SW35	Pre, Day 1,7,14,21		Weekly	Weekly	Weekly
		ZN_CP6.2_SW35	Pre, Day 1,7,14,21		Weekly	Weekly	Weekly
		ZN_CP7.2_NW35	Day 1,7,14,21				
External (100m)	ZN	ZN_CP1.2_NE100	Day 1,7				
		ZN_CP2.2_NE100	Day 1,7				
		ZN_CP4.2_SE100	Day 1,7				
		ZN_CP5.2_SW100	Day 1,7				
		ZN_CP6.2_SW100	Day 1,7				
		ZN_CP7.2_NW100	Day 1,7				
External (500m)	ZN	ZN_CP1.2_NE500	Day 1,7				
		ZN_CP2.2_NE500	Day 1,7				
		ZN_CP4.2_SE500	Day 1,7				
		ZN_CP5.2_SW500	Day 1,7				
		ZN_CP6.2_SW500	Day 1,7				
		ZN_CP7.2_NW500	Day 1,7				
External (35m)	ZS	ZS_CP9.2_NE35					Weekly
		ZS_CP10.2_NE35		Weekly			Weekly
		ZS_CP13.2_SW35		Weekly			Weekly
		ZS_CP14.2_SW35					Weekly
External (100m)	ZS	ZS_CP9.2_NE100					
		ZS_CP10.2_NE100					
		ZS_CP13.2_SW100					
		ZS_CP14.2_SW100					
External (500m)	ZS	ZS_CP9.2_NE500					
		ZS_CP10.2_NE500					
		ZS_CP13.2_SW500					
		ZS_CP14.2_SW500					
Control (Internal)	ER	ER_PB03	Day 1, 7, 14 and 21				
		ER_PB18	Day 1, 7, 14 and 21				
		ER_PB20	Day 1, 7, 14 and 21				
Control (External)	ER	ER_CP10.2_35	Day 1, 7, 14 and 21				
		ER_CP11.2_35	Day 1, 7, 14 and 21				
		ER_CP2.2_35	Day 1, 7, 14 and 21				
Reference	BEMP	BEMP_B10	Pre, Day 1,7				Weekly
		BEMP_B7	Day 1,7,14,21		Weekly	Weekly	Weekly
		C11.2	Pre, Day 1,7,14,21		Weekly	Weekly	Weekly

<sup>#</sup>Week 1 and Week 2 samples associated with H2-H4 in this report were labelled in the field and laboratory submissions as Day 1 and Day 7, respectively. This labelling amendment was to accommodate the EPA's interpretation of sampling associated with treatments H2-H4 as a 'weekly' sampling design.

(a)

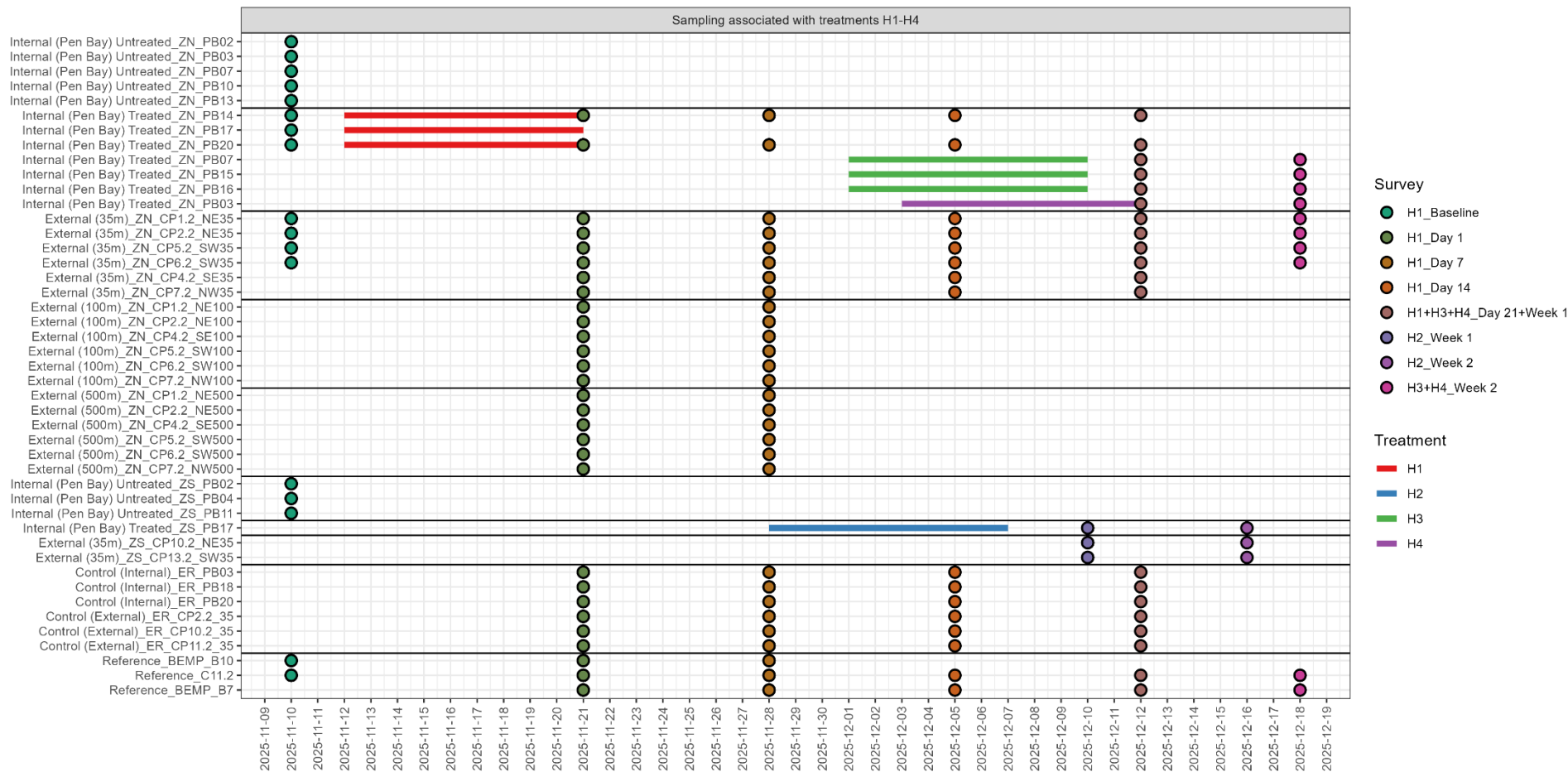


Figure 4a: Sampling events for sediment surveys associated with treatment H1 (initial design) and H2-H4 (weekly design). Sites sampled included internal (treated and untreated), external, reference and control sites. Horizontal bars illustrate the timing and duration of treatment events (see Table 2; Figure 2).

(b)

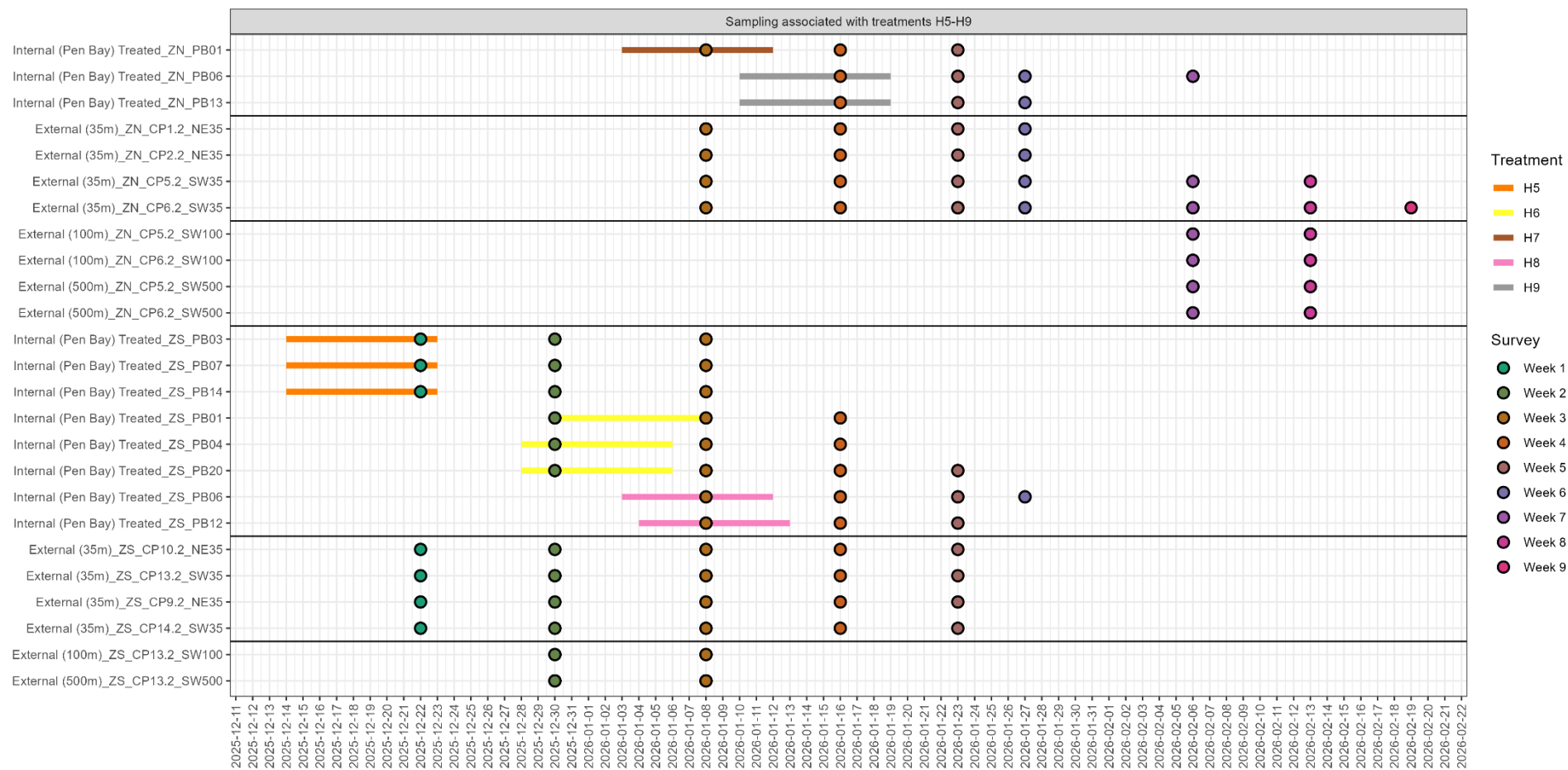


Figure 4b: Sampling events for sediment surveys associated with the H5-H9 (weekly design) at the MF141 Zuidpool lease. Sites sampled included internal (treated and untreated), external, reference and control sites. Horizontal bars illustrate the timing and duration of treatment events (see Table 2; Figure 2).

### 3.2 Sample collection, processing and storage

Depending on sediment type, a Craib corer or Quad corer was used to collect triplicate sediment cores at each site. Core samples (75 mm minimum length) were collected in clean Perspex cores (Figure 5). The corer was thoroughly cleaned and rinsed with seawater between each site, with samples taken from the sites furthest from the lease boundary first (i.e. reference sites, 500 m, 100 m, 35 m and then internal (pen bay) sites to minimise contamination risk.

Cores were processed onboard following collection at each site. Samples were split into surface (top 25 mm) and bottom (bottom 50 mm) sections and composited according to the EPA schedule. For the duplicate composited samples, the top 25 mm from two replicate cores were combined into one jar. Similarly, the bottom 50 mm from the same two cores were combined into a single jar. The third replicate core sample was separated into the 25 mm and 50 mm sections. Samples were held in an Eski on board the work vessel before being transferred to frozen storage at the end of each field day. The composite samples were delivered to Analytical Services Tasmania (AST) as soon as practicable, while samples from the third replicate core were retained as archived samples in frozen storage.

Samples were tested for both florfenicol (FFC) and florfenicol-amine (FFA) residues by Analytical Services Tasmania.

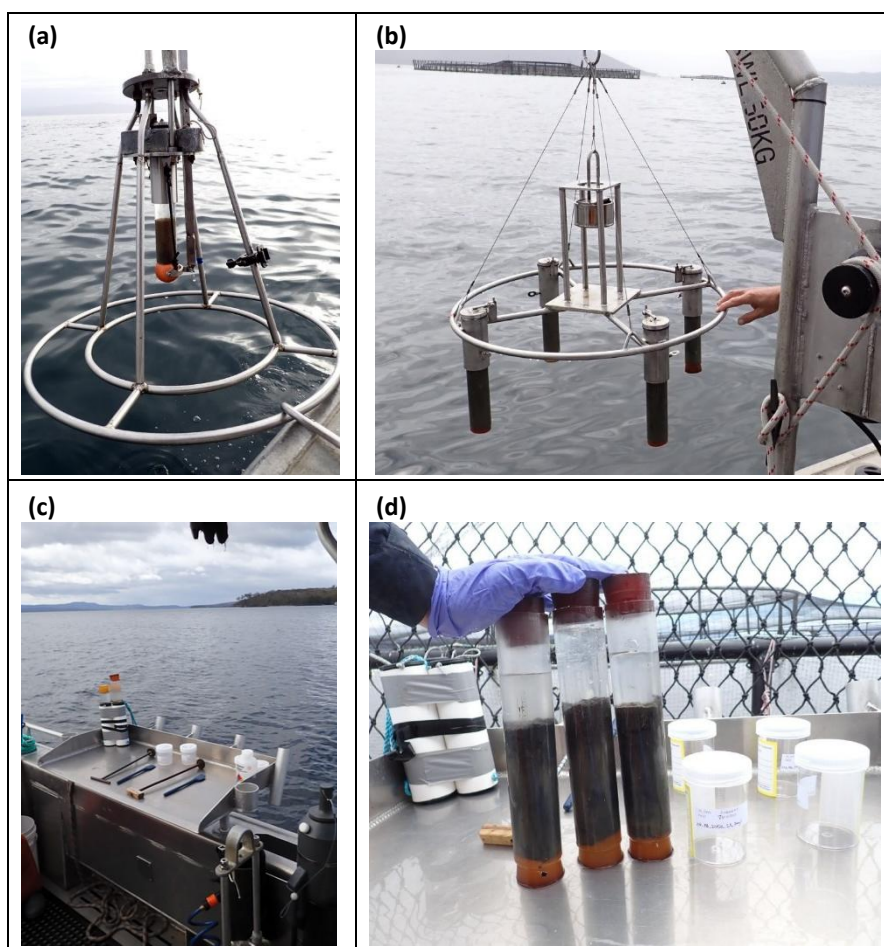


Figure 5: (a) Craib corer; (b) Quad corer in the field with sediment samples collected in Perspex cores; (c) processing equipment onboard work vessel; and (d) Perspex cores prior to processing.

### 3.3 Results

For baseline surveys and post-treatment surveys (Day 1, Day 7, Day 14, Day 21) associated with the H1 treatment at Zuidpool North (ZN), florfenicol (FFC) and florfenicol amine (FFA) concentrations for all sediment samples were below the Limit of Reporting (LoR; Table 5; Table 6). All post-treatment samples collected at the control site (MF221) and reference sites were below the LoR (Table 5; Table 6).

For weekly surveys associated with the H2 treatment event at Zuidpool South (ZS), FFC and FFA concentrations for the majority of sample collected at internal and external sites were below the LoR (17 of 18 samples; Table 5; Table 6). FFC concentrations were above the LoR for one surface sample at one external 35 m compliance site (ZS\_CP13.2\_SW35) on Day 1 following the H2 treatment at Zuidpool South (Table 5; Figure 4a). The FFC concentration in the associated bottom sample at this site was below the LoR (Table 5). FFC and FFA concentrations were below the LoR for the following Day 7 sampling event at this site (Table 5; Table 6) and during subsequent weekly sampling events at this site associated with treatments H5-H9 (Week 1 – Week 5; Table 7; Table 8).

For weekly surveys associated with the H3 and H4 treatment events at Zuidpool North (ZN), FFC and FFA concentrations for all samples collected at internal, external and reference sites were below the LoR (Table 5; Table 6).

For weekly surveys associated with the H5-H9 treatment events at Zuidpool North (ZN) and Zuidpool South (ZS), florfenicol (FFC) and/or florfenicol amine (FFA) concentrations were below the LoR for the overwhelming majority of samples collected at internal, external and reference sites (235 of 242 samples; Table 7; Table 8). Seven samples collected from four treated pen bay sites and two external 35 m compliance sites were above the LoR (Table 7; Table 8) and are described below.

The pen bay samples with FFC and/or FFA concentrations above the LoR were collected from the following sites: ZS\_PB12 during Week 3 (mid-treatment; Figure 4b, Table 7); ZS\_PB20 during Week 3 (two days post-treatment; Figure 4b, Table 8); ZS\_PB06 during Week 4 (four days post-treatment; Figure 4b; Table 8); ZN\_PB06 during Week 5 (four days post-treatment; Figure 4b; Table 8). As specified by the *TRM Schedule MF141 Addendum*, bottom samples were also analysed at these sites, with all bottom samples returning results below the LoR (Table 7; Table 8). All subsequent surface and bottom samples taken at these pen bay sites were below the LoR (Table 7; Table 8).

The external 35 m compliance samples with FFC and/or FFA concentrations above the LoR included two sites to the southwest of the Zuidpool North Lot (Table 7; Table 8; Figure 2c). ZN\_CP6.2\_SW35 recorded results above the LoR in Week 5 and Week 7, and ZN\_CP5.2\_SW35 recorded a result above the LoR in Week 6 (Table 7; Table 8). The post-hoc bottom samples taken at these sites on these dates returned results below the LoR (Table 7; Table 8). All subsequent surface and bottom samples taken at these two external 35 m compliance sites were below the LoR (Table 7; Table 8). As specified by the

*TRM Schedule MF141 Addendum*, sampling at 100 m and 500 m transect sites adjacent to these 35 m sites was also required, with all samples at these transect sites returning results below the LoR (Table 7; Table 8).

Table 5: Florfenicol (FFC) concentration (mg/kg DMB) in sediment samples collected for treatment H1 (initial design) and treatments H2-H4 (weekly design) at the surface (S) and at depth (bottom, B) at internal, external, control and reference sites. Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e. <0.005). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Blue shaded cells indicate sites where sampling and analysis was not required (refer to Table 4 for details). Unshaded cells indicate that the sample result was above the LoR for that sample. Samples with an asterisk (\*) are results from a single sample collected on the same day (2025-12-12) and allocated to both H1 (Day 21) and H3+H4 (Day 1) as per the EPA schedule.

Lot	Classification	Site	Florfenicol (mg/kg DMB)																		
			H1										H2				H3+H4				
			Baseline		Day 1		Day 7		Day 14		Day 21		Week 1		Week 2		Week 1		Week 2		
			2025-11-10	2025-11-21	2025-11-28		2025-12-05		2025-12-12		2025-12-10		2025-12-16		2025-12-12		2025-12-18				
S		B		S	B	S	B	S	B	S	B	S	B	S	B	S	B	S	B		
ZN	Internal (Pen Bay) Untreated	ZN_PB02	<0.005	<0.005																	
		ZN_PB03	<0.005	<0.005																	
		ZN_PB07	<0.005	<0.005																	
		ZN_PB10	<0.005	<0.005																	
		ZN_PB13	<0.005	<0.005																	
	Internal (Pen Bay) Treated	ZN_PB03																<0.005		<0.005	
		ZN_PB07																<0.005		<0.005	
		ZN_PB14	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005										
		ZN_PB15																<0.005		<0.005	
		ZN_PB16																<0.005		<0.005	
		ZN_PB17	<0.005	<0.005																	
	External (35 m)	ZN_PB20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005										
		ZN_CP1.2_NE35	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005*							<0.005*		<0.005	
		ZN_CP2.2_NE35	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005*							<0.005*		<0.005	
		ZN_CP4.2_SE35			<0.005	<0.005	<0.005	<0.005	<0.005		<0.005										
		ZN_CP5.2_SW35	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005*							<0.005*		<0.005	
		ZN_CP6.2_SW35	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005*							<0.005*		<0.005	
		ZN_CP7.2_NW35			<0.005	<0.005	<0.005	<0.005	<0.005		<0.005										
	External (100 m)	ZN_CP1.2_NE100			<0.005	<0.005	<0.005	<0.005													
		ZN_CP2.2_NE100			<0.005	<0.005	<0.005	<0.005													
		ZN_CP4.2_SE100			<0.005	<0.005	<0.005	<0.005													
		ZN_CP5.2_SW100			<0.005	<0.005	<0.005	<0.005													
		ZN_CP6.2_SW100			<0.005	<0.005	<0.005	<0.005													
	ZN_CP7.2_NW100			<0.005	<0.005	<0.005	<0.005														
	External (500 m)	ZN_CP1.2_NE500			<0.005	<0.005	<0.005	<0.005													
ZN_CP2.2_NE500				<0.005	<0.005	<0.005	<0.005														
ZN_CP4.2_SE500				<0.005	<0.005	<0.005	<0.005														
ZN_CP5.2_SW500				<0.005	<0.005	<0.005	<0.005														
ZN_CP6.2_SW500				<0.005	<0.005	<0.005	<0.005														
ZN_CP7.2_NW500			<0.005	<0.005	<0.005	<0.005															

Table 5 (continued): Florfenicol (FFC) concentration (mg/kg DMB) in sediment samples collected for treatment H1 (initial design) and treatments H2-H4 (weekly design) at the surface (S) and at depth (bottom, B) at internal, external, reference and control sites. Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e. <0.005). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Blue shaded cells indicate sites where sampling and analysis was not required (refer to Table 4 for details). Unshaded cells indicate that the sample result was above the LoR for that sample. Samples with an asterisk (\*) are results from a single sample collected on the same day (2025-12-12) and allocated to both H1 (Day 21) and H3+H4 (Day 1) as per the EPA schedule.

Lot	Classification	Site	Florfenicol (mg/kg DMB)																		
			H1								H2				H3+H4						
			Baseline		Day 1		Day 7		Day 14		Day 21		Week 1		Week 2		Week 1		Week 2		
			2025-11-10		2025-11-21		2025-11-28		2025-12-05		2025-12-12		2025-12-10		2025-12-16		2025-12-12		2025-12-18		
S		B		S		B		S		B		S		B		S		B			
ZS	Internal (Pen Bay) Untreated	ZS_PB02	<0.005	<0.005																	
		ZS_PB04	<0.005	<0.005																	
		ZS_PB11	<0.005	<0.005																	
	Internal (Pen Bay) Treated	ZS_PB17											<0.005	<0.005	<0.005						
		External (35 m)	ZS_CP10.2_NE35										<0.005	<0.005	<0.005						
			ZS_CP13.2_SW35											0.018	<0.005	<0.005					
ER	Control (Internal)	ER_PB03			<0.005	<0.005	<0.005	<0.005	<0.005		<0.005										
		ER_PB18			<0.005	<0.005	<0.005	<0.005	<0.005		<0.005										
		ER_PB20			<0.005	<0.005	<0.005	<0.005	<0.005		<0.005										
	Control (External)	ER_CP10.2_35			<0.005	<0.005	<0.005	<0.005	<0.005		<0.005										
		ER_CP11.2_35			<0.005	<0.005	<0.005	<0.005	<0.005		<0.005										
		ER_CP2.2_35			<0.005	<0.005	<0.005	<0.005	<0.005		<0.005										
Reference	Reference	BEMP_B10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005													
		BEMP_B7			<0.005	<0.005	<0.005	<0.005	<0.005		<0.005*							<0.005*		<0.005	
		C11.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005*							<0.005*		<0.005	

Table 6: Florfenicol amine (FFA) concentration (mg/kg DMB) in sediment samples collected for treatment H1 (initial design) and treatments H2-H4 (weekly design at the Surface (S) and at depth (bottom, B) at internal, external, reference and control sites. Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e. <0.01). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Blue shaded cells indicate sites where sampling and analysis was not required (refer to Table 4 for details). Unshaded cells indicate that the sample result was above the LoR for that sample. Samples with an asterisk (\*) are results from a single sample collected on the same day (2025-12-12) and allocated to both H1 (Day 21) and H3+H4 (Day 1) as per the EPA schedule.

Lot	Classification	Site	Florfenicol Amine (mg/kg DMB)																		
			H1										H2				H3+H4				
			Baseline		Day 1		Day 7		Day 14		Day 21		Week 1		Week 2		Week 1		Week 2		
			2025-11-10		2025-11-21		2025-11-28		2025-12-05		2025-12-12		2025-12-10		2025-12-16		2025-12-12		2025-12-18		
S		B		S		B		S		B		S		B		S		B			
ZN	Internal (Pen Bay) Untreated	ZN_PB02	<0.01	<0.01																	
		ZN_PB03	<0.01	<0.01																	
		ZN_PB07	<0.01	<0.01																	
		ZN_PB10	<0.01	<0.01																	
		ZN_PB13	<0.01	<0.01																	
	Internal (Pen Bay) Treated	ZN_PB03																<0.01	<0.01		
		ZN_PB07																<0.01	<0.01		
		ZN_PB14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01										
		ZN_PB15																<0.01	<0.01		
		ZN_PB16																<0.01	<0.01		
		ZN_PB17	<0.01	<0.01																	
	External (35 m)	ZN_PB20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01										
		ZN_CP1.2_NE35	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01*							<0.01*	<0.01		
		ZN_CP2.2_NE35	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01*							<0.01*	<0.01		
		ZN_CP4.2_SE35			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01										
		ZN_CP5.2_SW35	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01*							<0.01*	<0.01		
		ZN_CP6.2_SW35	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01*							<0.01*	<0.01		
	External (100 m)	ZN_CP7.2_NW35			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01										
		ZN_CP1.2_NE100			<0.01	<0.01	<0.01	<0.01													
		ZN_CP2.2_NE100			<0.01	<0.01	<0.01	<0.01													
		ZN_CP4.2_SE100			<0.01	<0.01	<0.01	<0.01													
		ZN_CP5.2_SW100			<0.01	<0.01	<0.01	<0.01													
		ZN_CP6.2_SW100			<0.01	<0.01	<0.01	<0.01													
	External (500 m)	ZN_CP7.2_NW100			<0.01	<0.01	<0.01	<0.01													
		ZN_CP1.2_NE500			<0.01	<0.01	<0.01	<0.01													
ZN_CP2.2_NE500				<0.01	<0.01	<0.01	<0.01														
ZN_CP4.2_SE500				<0.01	<0.01	<0.01	<0.01														
ZN_CP5.2_SW500				<0.01	<0.01	<0.01	<0.01														
ZN_CP6.2_SW500				<0.01	<0.01	<0.01	<0.01														
ZN_CP7.2_NW500			<0.01	<0.01	<0.01	<0.01															

Table 6 (continued): Florfenicol amine (FFA) concentration (mg/kg DMB) in sediment samples collected for treatment H1 (initial design) and treatments H2-H4 (weekly sampling design) at the Surface (S) and at depth (bottom, B) at internal, external, reference and control sites. Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e. <0.01). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Blue shaded cells indicate sites where sampling and analysis was not required (refer to Table 4 for details). Unshaded cells indicate that the sample result was above the LoR for that sample. Samples with an asterisk (\*) are results from a single sample collected on the same day (2025-12-12) and allocated to both H1 (Day 21) and H3+H4 (Day 1) as per the EPA schedule.

Lot	Classification	Site	Florfenicol amine (mg/kg DMB)																		
			H1								H2				H3+H4						
			Baseline		Day 1		Day 7		Day 14		Day 21		Week 1		Week 2		Week 1		Week 2		
			2025-11-10		2025-11-21		2025-11-28		2025-12-05		2025-12-12		2025-12-10		2025-12-16		2025-12-12		2025-12-18		
S		B		S		B		S		B		S		B		S		B			
ZS	Internal (Pen Bay) Untreated	ZS_PB02	<0.01	<0.01																	
		ZS_PB04	<0.01	<0.01																	
		ZS_PB11	<0.01	<0.01																	
	Internal (Pen Bay) Treated	ZS_PB17											<0.01	<0.01	<0.01						
		External (35m)	ZS_CP10.2_NE35										<0.01	<0.01	<0.01						
ZS_CP13.2_SW35												<0.01	<0.01	<0.01							
ER	Control (Internal)	ER_PB03			<0.01	<0.01	<0.01	<0.01	<0.01		<0.01										
		ER_PB18			<0.01	<0.01	<0.01	<0.01	<0.01		<0.01										
		ER_PB20			<0.01	<0.01	<0.01	<0.01	<0.01		<0.01										
	Control (External)	ER_CP10.2_35			<0.01	<0.01	<0.01	<0.01	<0.01		<0.01										
		ER_CP2.2_35			<0.01	<0.01	<0.01	<0.01	<0.01		<0.01										
Reference	Reference	BEMP_B10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01													
		BEMP_B7			<0.01	<0.01	<0.01	<0.01	<0.01		<0.01*							<0.01*		<0.01	
		C11.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01*							<0.01*		<0.01	

Table 7: Florfenicol (FFC) concentration (mg/kg DMB) in sediment samples collected for weekly sampling (treatments H5-H9) at the surface (S) and at depth (bottom, B) at internal and external sites in Week 1 to Week 9. Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e. <0.005). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Blue shaded cells indicate sites where sampling and analysis was not required (refer to Table 4 for details). Unshaded cells indicate that the sample result was above the LoR for that sample.

Lot	Location	Site	Florfenicol (mg/kg DMB)																	
			H5-H9																	
			Week 1		Week 2		Week 3		Week 4		Week 5		Week 6		Week 7		Week 8		Week 9	
			2025-12-22		2025-12-30		2026-01-08		2026-01-16		2026-01-23		2026-01-27		2026-02-06		2026-02-13		2026-02-19	
S		B		S		B		S		B		S		B		S		B		
ZN	Internal (Pen Bay) Treated	ZN_PB01					<0.005		<0.005		<0.005									
		ZN_PB06							<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005				
		ZN_PB13							<0.005		<0.005		<0.005							
	External (35m)	ZN_CP1.2_NE35					<0.005		<0.005		<0.005		<0.005							
		ZN_CP2.2_NE35					<0.005		<0.005		<0.005		<0.005							
		ZN_CP5.2_SW35					<0.005		<0.005		<0.005		0.033	<0.005	<0.005	<0.005	<0.005			
		ZN_CP6.2_SW35					<0.005		<0.005		0.01	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	
	External (100m)	ZN_CP5.2_SW100													<0.005	<0.005	<0.005	<0.005		
		ZN_CP6.2_SW100													<0.005	<0.005	<0.005	<0.005		
	External (500m)	ZN_CP5.2_SW500													<0.005	<0.005	<0.005	<0.005		
ZN_CP6.2_SW500														<0.005	<0.005	<0.005	<0.005			
ZS	Internal (Pen Bay) Treated	ZS_PB01			<0.005		<0.005		<0.005											
		ZS_PB03	<0.005		<0.005		<0.005													
		ZS_PB04			<0.005		<0.005		<0.005											
		ZS_PB06					<0.005		0.006	<0.005	<0.005	<0.005	<0.005	<0.005						
		ZS_PB07	<0.005		<0.005		<0.005													
		ZS_PB12					0.016	<0.005	<0.005	<0.005	<0.005	<0.005								
		ZS_PB14	<0.005		<0.005		<0.005													
		ZS_PB20			<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005								
	External (35 m)	ZS_CP9.2_NE35	<0.005		<0.005		<0.005		<0.005		<0.005									
		ZS_CP10.2_NE35	<0.005		<0.005		<0.005		<0.005		<0.005									
		ZS_CP13.2_SW35	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005		<0.005									
		ZS_CP14.2_SW35	<0.005		<0.005		<0.005		<0.005		<0.005									
	External (100 m)	ZS_CP13.2_SW100			<0.005	<0.005	<0.005	<0.005												
	External (500 m)	ZS_CP13.2_SW500			<0.005	<0.005	<0.005	<0.005												

Table 8: Florfenicol amine (FFA) concentration (mg/kg DMB) in sediment samples collected on a weekly basis for weekly sampling (treatments H5-H9) at the surface (S) and at depth (bottom, B) at internal and external sites in Week 1 to Week 9. Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e. <0.01). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Blue shaded cells indicate sites where sampling and analysis was not required (refer to Table 4 for details). Unshaded cells indicate that the sample result was above the LoR for that sample.

Lot	Location	Site	Florfenicol amine (mg/kg DMB)																	
			H5-H9																	
			Week 1		Week 2		Week 3		Week 4		Week 5		Week 6		Week 7		Week 8		Week 9	
			2025-12-22		2025-12-30		2026-01-08		2026-01-16		2026-01-23		2026-01-27		2026-02-06		2026-02-13		2026-02-19	
S		B		S		B		S		B		S		B		S		B		
ZN	Internal (Pen Bay) Treated	ZN_PB01					<0.01		<0.01		<0.01									
		ZN_PB06							<0.01		0.02	<0.01	<0.01	<0.01	<0.01	<0.01				
		ZN_PB13							<0.01		<0.01		<0.01							
	External (35 m)	ZN_CP1.2_NE35					<0.01		<0.01		<0.01		<0.01							
		ZN_CP2.2_NE35					<0.01		<0.01		<0.01		<0.01							
		ZN_CP5.2_SW35					<0.01		<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01			
		ZN_CP6.2_SW35					<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	External (100 m)	ZN_CP5.2_SW100													<0.01	<0.01	<0.01	<0.01		
		ZN_CP6.2_SW100													<0.01	<0.01	<0.01	<0.01		
	External (500 m)	ZN_CP5.2_SW500													<0.01	<0.01	<0.01	<0.01		
ZN_CP6.2_SW500														<0.01	<0.01	<0.01	<0.01			
ZS	Internal (Pen Bay) Treated	ZS_PB01			<0.01		<0.01		<0.01											
		ZS_PB03	<0.01		<0.01		<0.01													
		ZS_PB04			<0.01		<0.01		<0.01											
		ZS_PB06					<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01						
		ZS_PB07	<0.01		<0.01		<0.01													
		ZS_PB12					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01								
		ZS_PB14	<0.01		<0.01		<0.01													
		ZS_PB20			<0.01		0.01	<0.01	<0.01	<0.01	<0.01	<0.01								
	External (35 m)	ZS_CP9.2_NE35	<0.01		<0.01		<0.01		<0.01		<0.01									
		ZS_CP10.2_NE35	<0.01		<0.01		<0.01		<0.01		<0.01									
		ZS_CP13.2_SW35	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01									
		ZS_CP14.2_SW35	<0.01		<0.01		<0.01		<0.01		<0.01									
	External (100 m)	ZS_CP13.2_SW100			<0.01	<0.01	<0.01	<0.01												
	External (500 m)	ZS_CP13.2_SW500			<0.01	<0.01	<0.01	<0.01												

## 4 Microbial Sampling

### 4.1 Survey sites and frequency

Microbial samples were collected as part of an IMAS research project commissioned by EPA and will be addressed under a future scientific report. Samples for microbial analysis were collected as specified by the schedule associated with the initial sampling design (Table 1). These samples were collected from internal pen bays (treated and untreated), external 35 m sites, reference sites and control sites (Figure 2; Table 4). Sampling was conducted pre-treatment (i.e. baseline survey) and post-treatment on Day 1, Day 7, Day 14 and/or Day 21 (Table 4).

### 4.2 Sample collection, processing and storage

Wearing latex gloves and using a sterile disposable scraper, a small sample of surface sediments (up to approximately 1 cm deep) from the top of two of the triplicate cores was collected and the contents composited into a sterile 5 mL cryovial. Because of the small amount needed, this was taken from the same cores as the sediment samples (see Section 3) and was done as soon as practically possible after the cores were brought on board (i.e. within 30 mins). Sample vials were placed directly into a liquid nitrogen dewar. At a subset of sites (pen bay and reference sites only), microbial samples were collected from the “deep” (i.e. bottom section of core; see Section 3) ~5-6 cm strata from the same cores in the same manner as described above.

### 4.3 Results

Microbial samples were transferred to IMAS (Institute for Marine and Antarctic Studies) as soon as practicable for potential future analysis where they are stored at -80 °C until extraction.

## 5 Infauna Sampling

### 5.1 Survey sites and frequency

Infauna samples were collected as part an IMAS research project commissioned by EPA and will be addressed under a future scientific report. Infauna samples were collected as specified by the schedule associated with the initial sampling design (Table 1). Infauna samples were collected as part of the baseline survey from internal pen bays (treated and untreated), external 35 m sites, reference sites and control sites (Figure 2; Table 4).

Infauna sampling for Day 21 post-treatment was specified in the schedule, however, due to the overwhelming majority of sediment samples recording florfenicol (FFC) and florfenicol amine (FFA) below the LoR in earlier sampling rounds (Tables 5-8), the EPA approved omission of the Day 21 infauna sampling requirement.

### 5.2 Sample collection, processing and storage

Infauna samples were collected, processed and preserved in accordance with the methodology outlined under condition 3F4 of Environmental Licence 9882/4. Infauna were collected using a Van Veen grab which sampled a 0.07 m<sup>2</sup> area of seabed. Triplicate grabs were collected at each monitoring site. Grab samples were sieved in the field using 1 mm mesh sieve bags, with animal and sediment material retained in the mesh bags placed in 5-10% buffered formalin.

### 5.3 Results

As per the schedule, following fixation in formalin, infauna samples were transferred to ethanol and retained at the Aquenal laboratory for potential future analysis. Samples will be retained for four years or until such time as the Director requests that they be analysed.

## 6 Water Sampling

### 6.1 Sample sites and frequency

Water sampling was undertaken by Marine Solutions at an array of sites including internal, external and reference sites at a frequency defined by the initial and weekly sampling designs (Table 9; Figure 2; Appendix 2; see Section 2.1).

#### 6.1.1 Initial sampling design

For sampling associated with treatment H1, water samples were collected at a frequency documented in Table 9 (pre-treatment, mid-treatment, post-treatment on Day 1, Day 7 and/or Day 21) from the surface (0.1 m) at an array of sites including internal treated pen bays, the lease centroid, external 35 m compliance sites and reference sites (Figure 2; Table 9).

Figure 6a illustrates water sampling associated with treatment H1 under the initial sampling design and the relationship with each treatment event.

#### 6.1.2 Weekly sampling design

For sampling associated with treatments H2-H9, water samples were collected weekly (Table 9). For treatments H2-H4, samples were collected from the surface (0.1 m below the surface). For treatments H5-H9, samples were collected from three depth strata: (i) the surface (0.1 m below the surface); (ii) 10 m below the surface; and (iii) the bottom (2 m above the seabed). Note that the Week 2 post-treatment sampling associated with the H3 and H4 treatments was conducted as part of the Week 1 sampling event for H5-H9.

Lease centroids, external 35 m compliance sites and reference sites were sampled weekly (Table 9, Figure 6). For these sites, sampling continued until two consecutive results below the LoR were returned following the last treatment event on the lot or lease (see Table 3). Treated pen bays were sampled at least once, either post treatment (H2-H4), or mid-treatment (Table 9, Figure 6). Due to delayed provision of the updated schedule and the complex and changing sampling requirements, there was misinterpretation of EPA correspondence. Sampling of treated pen bays was not entirely consistent with the *TRM Schedule MF141 Addendum*, which specified weekly pen bay sampling until two consecutive results below LoR were returned. Instead, once treatment at a pen bay was concluded, the lease was monitored via the centroid, compliance sites and reference sites, applying the relevant EPA schedule requirements. This approach did not compromise the integrity of the sampling program. Due to the ongoing nature of medication events during weekly monitoring (i.e. new pens treated each week) and naturally high current flow in the area, the lease centroid and 35 m sites are considered to provide a reliable indication of FFC levels in the vicinity of the lease at the time of sampling.

Figure 6a and Figure 6b illustrates the water sampling regime associated with treatments H2-H9 under the weekly sampling design and the relationship with each treatment event.

## 6.2 Sample collection, processing and storage

Samples were collected in labelled 250 mL amber glass bottles provided by AST, kept cool in a dark environment and frozen as soon as possible after collection (unless they were delivered to that facility within 12 hours of collection). Water samples were taken from the sites furthest from the lease boundary first (i.e. reference sites, external 35 m compliance sites and then internal sites) to minimise contamination risk. Water samples were delivered to AST, within 24 hours where possible. When this was not possible, samples were frozen for preservation and delivered promptly thereafter.

Samples were tested for both florfenicol (FFC) and florfenicol-amine (FFA) residues.

**Table 9: Water sampling design and frequency associated with treatment events H1-H9 at Zuidpool North (ZN) and Zuidpool South (ZS) of the MF141 lease. Pre = Before treatment. Mid = Mid treatment. Post = Post treatment. Sampling was not required for cells highlighted in blue.**

Lot	Location	Site	Sampling Design and Survey Frequency			
			Initial design	Weekly design		
			H1	H2 <sup>#</sup>	H3+H4 <sup>#</sup>	H5-H9
ZN	Internal (Pen Bay)	ZN_PB01				Weekly
		ZN_PB02				Weekly
		ZN_PB03			Weekly	
		ZN_PB06				Weekly
		ZN_PB07			Weekly	
		ZN_PB10	Mid+Post Day 1,7			Weekly
		ZN_PB13				Weekly
		ZN_PB14	Mid+Post Day 1,7			
		ZN_PB15			Weekly	
		ZN_PB16			Weekly	
		ZN_PB17	Mid+Post Day 1,7			
	ZN_PB20	Mid+Post Day 1,7				
	Internal (Centroid)	ZN_Centroid	Pre+Mid+Post Day 1,7		Weekly	Weekly
	External (35m)	ZN_CP1.2_NE35	Pre+Mid+Post Day 1,7		Weekly	Weekly
		ZN_CP2.2_NE35	Pre+Mid+Post Day 1,7		Weekly	Weekly
ZN_CP5.2_SW35		Pre+Mid+Post Day 1,7		Weekly	Weekly	
ZN_CP6.2_SW35		Pre+Mid+Post Day 1,7		Weekly	Weekly	
ZS	Internal (Pen Bay)	ZS_PB01				Weekly
		ZS_PB02				Weekly
		ZS_PB03				Weekly
		ZS_PB04				Weekly
		ZS_PB05				Weekly
		ZS_PB06				Weekly
		ZS_PB07				Weekly
		ZS_PB08				Weekly
		ZS_PB11				Weekly
		ZS_PB12				Weekly
		ZS_PB13				Weekly
		ZS_PB14				Weekly
		ZS_PB16				Weekly
		ZS_PB17		Weekly		
		ZS_PB18				Weekly
	ZS_PB19				Weekly	
	ZS_PB20				Weekly	
	Internal (Centroid)	ZS_Centroid		Weekly		Weekly
	External (35m)	ZS_CP9.2_NE35				Weekly
		ZS_CP10.2_NE35		Weekly		Weekly
ZS_CP13.2_SW35			Weekly		Weekly	
ZS_CP14.2_SW35					Weekly	
Reference	Reference	BEMP_B10	Pre+Mid+Post Day 1,7			Weekly
		BEMP_B7	Pre+Mid+Post Day 1,7		Weekly	Weekly
		BEMP_M6			Weekly	
		C11.2	Pre+Mid+Post Day 1,7	Weekly	Weekly	Weekly

<sup>#</sup> Week 1 and Week 2 samples associated with H2-H4 in this report were labelled in the field and laboratory submissions as Day 1 and Day 7, respectively. This labelling amendment was to accommodate the EPA’s interpretation of sampling associated with treatments H2-H4 as a ‘weekly’ sampling design.

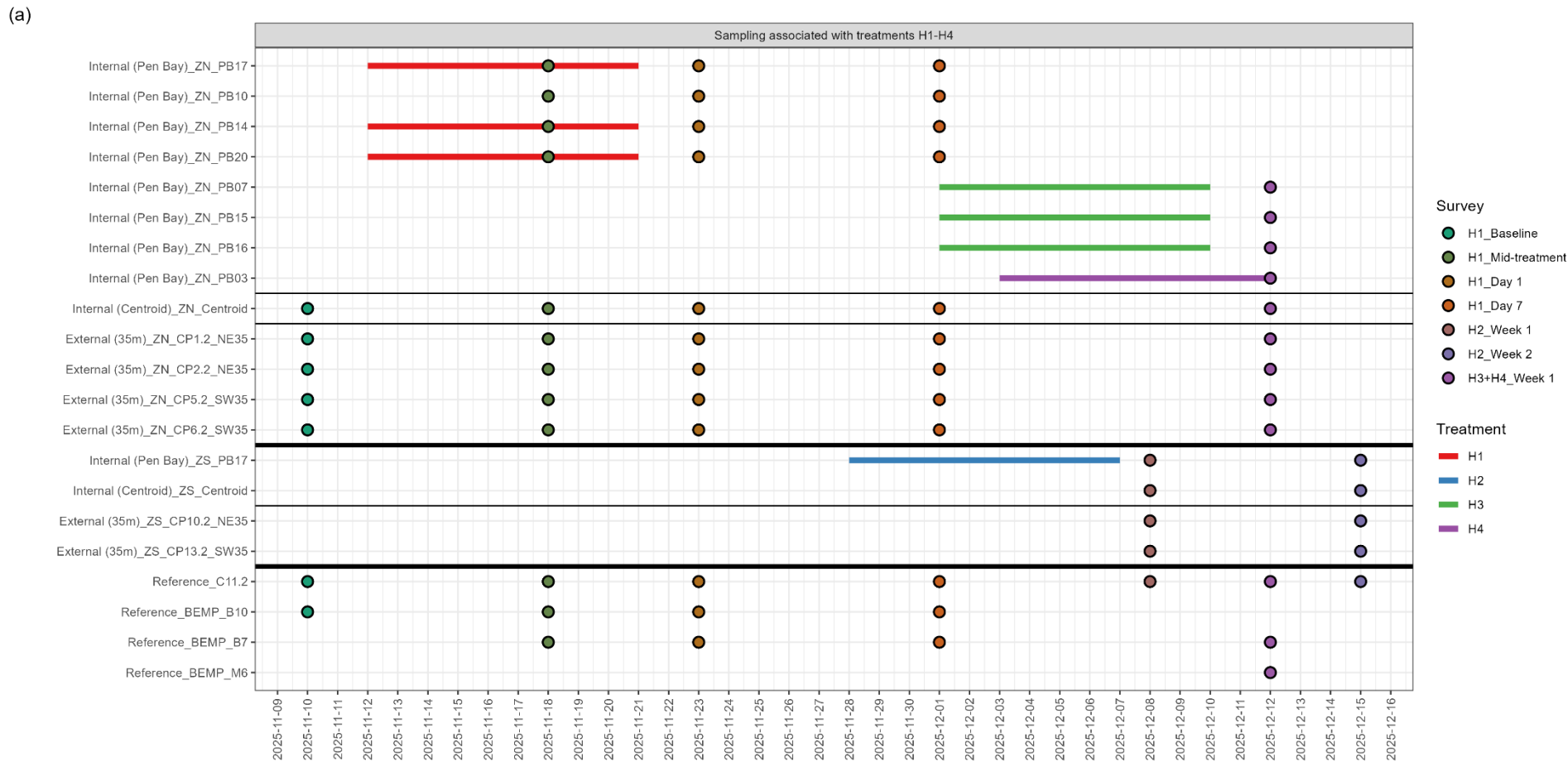


Figure 6a: Sampling events for water surveys associated with the H1 (initial design) and H2-H4 (weekly design). Sites sampled included internal pen bays, external 35 m compliance sites and reference sites. Horizontal bars illustrate the timing and duration of treatment events (see Table 1; Figure 2).

(b)

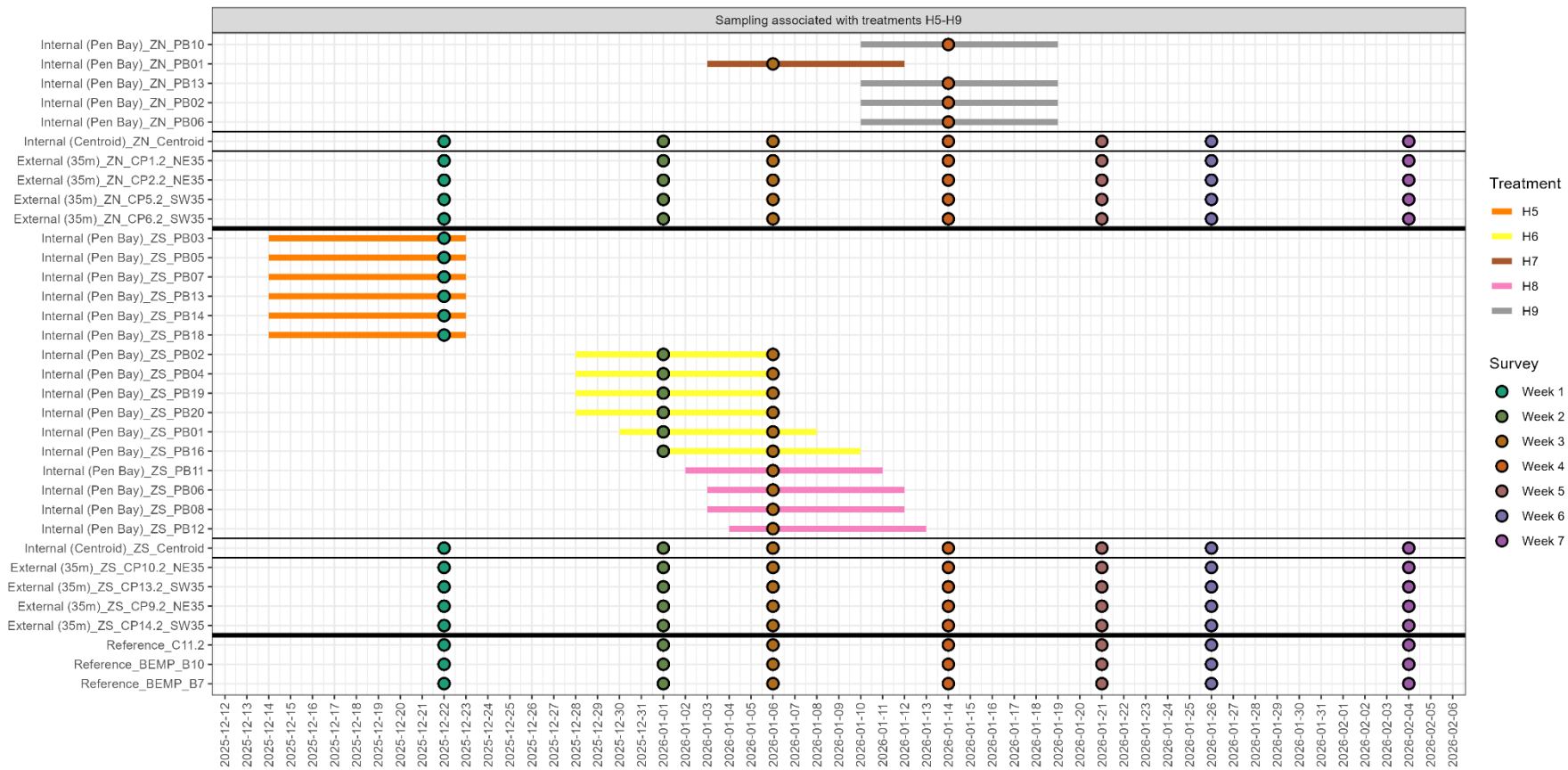


Figure 6b: Sampling events for water surveys associated with the weekly design (treatments H5-H9) at the MF141 Zuidpool lease. Sites sampled included internal pen bays, external 35 m compliance sites and reference sites. Horizontal bars illustrate the timing and duration of treatment events (see Table 1; Figure 2).

## 6.3 Results

### 6.3.1 Treatments H1-H4

For baseline surveys conducted prior to the H1 treatment at Zuidpool North (ZN), florfenicol (FFC) and florfenicol amine (FFA) concentrations for all water samples were below the Limit of Reporting (LoR; Table 10; Table 11). During the H1 treatment event (i.e. mid-treatment), FFC and/or FFA concentrations were above or equal to the LoR in more than half of the samples (63%; 15 out of 24 samples) including samples taken at all four pen bays, the lease centroid, all four compliance sites and one reference site (Table 10; Table 11). During H1 post-treatment surveys on Day 1 and Day 7, FFC and/or FFA concentrations were below the LoR for 92% of samples (44 of 48 samples; Table 10; Table 11). Samples above the LoR in the post treatment surveys included one pen bay site on Day 7, one compliance site on Day 1 and one compliance site on Day 7 (Table 10; Table 11).

For Week 1 and Week 2 post-treatment sampling associated with the H2 treatment at Zuidpool South, FFC and/or FFA concentrations were below the LoR for 90% of samples (18 of 20 samples; Table 10; Table 11). FFA was above the LoR for samples taken at one external 35 m compliance site on Week 1 (1 day post treatment) and the lease centroid on Week 2 (8 days post treatment) (Table 10; Table 11).

For Week 1 post-treatment sampling associated with the H3 and H4 treatments at Zuidpool North, FFC and/or FFA concentrations were below the LoR for 83% of samples (20 of 24 samples; Table 10; Table 11). FFC was above the LoR at one external 35 m compliance site during Week 1 and FFA was above the LoR at one pen bay site, the lease centroid and one external 35 m compliance site during Week 1 (Table 10; Table 11). Week 2 post-treatment sampling associated with the H3 and H4 treatments were conducted as part of the Week 1 sampling event for H5-H9 and all samples returned FFC and/or FFA concentrations below the LoR (Table 12; Table 13).

### 6.3.2 Treatments H5-H9: Zuidpool North (Lot 1; ZN)

During weekly sampling associated with treatments H5-H9 at Zuidpool North (Lot 1; ZN), florfenicol (FFC) and/or florfenicol amine (FFA) concentrations were below the LoR for 91% of samples across surface, middle and bottom depths (333 of 366 samples; Table 12; Table 13). The majority of the samples above the LoR for FFC and/or FFA were sampled during the period when treatments were being applied to Zuidpool North (i.e. Week 3 and Week 4; Figure 6b) and included (Table 12; Table 13):

- all internal pen bays during the period of their treatment events (Figure 6b), which were in either Week 3 (FFC=1 site; FFA=1 site) or Week 4 (FFC=3; FFA=4);
- the lease centroid during Week 4 (FFC=0; FFA=1);
- a subset of external 35 m compliance sites in Week 4 (FFC=1; FFA=4) or Week 5 (FFC=0; FFA=2);

- a subset of reference sites in Week 4 (FFC=2; FFA=2).

For weekly samples taken at Zuidpool North before treatments (Week 1 and Week 2) and after treatments (Week 6 and Week 7), FFC and FFA concentrations were below the LoR in surface, middle and bottom samples collected at the centroid, external 35 m compliance sites and reference sites (Table 12; Table 13; Figure 6b).

### 6.3.3 *Treatments H5-H9: Zuidpool South (Lot 2; ZS)*

During weekly sampling associated with treatments H5-H9 at Zuidpool South (Lot 2; ZS), florfenicol (FFC) and/or florfenicol amine (FFA) concentrations were below the LoR in either surface, middle or bottom samples for 74% of samples (348 of 468 samples; Table 12; Table 13). The majority of the samples above the LoR for FFC and/or FFA were sampled during the period when treatments were being applied (i.e. Weeks 1-3; Figure 6b) and included (Table 12; Table 13):

- all internal pen bays during the period of their treatment events (Figure 6b), which were in either Week 1 (FFC=5 sites; FFA=6 sites), Week 2 (FFC=6; FFA=6) or Week 3 (FFC=10; FFA=10);
- the lease centroid during Week 1 (FFC=1; FFA=1), Week 3 (FFC=1; FFA=1) or Week 4 (FFC=0; FFA=1);
- a subset of external 35m compliance sites in Week 1 (FFC=2; FFA=4), Week 2 (FFC=1; FFA=2), Week 3 (FFC=3; FFA=3) and Week 4 (FFC=2; FFA=4);
- A subset of reference sites in Week 4 (FFC=2; FFA=2).

For weekly samples taken after treatments (Week 5, Week 6 and Week 7), (FFC and FFA concentrations were below the LoR in surface, middle or bottom samples for all samples collected at the centroid, external 35 m compliance sites and reference sites (Table 12; Table 13; Figure 6b).

### 6.3.4 *Patterns of FFC and FFA across depths*

For water sampling associated with treatment H5-H9, the vast majority of records of florfenicol (FFC) and/or florfenicol amine (FFA) above the LoR were collected from surface (47%) and middle (51%) depths (Table 12; Table 13). Only 2% of the FFC and/or FFA samples that recorded a result above the LoR were from the bottom water sample (Table 12; Table 13).

Table 10: Florfenicol (FFC) concentration ( $\mu\text{g/L}$ ) in surface water samples collected for treatment H1 (initial design) and treatments H2-H4 (weekly design) at internal, external and reference sites at Zuidpool North (ZN) and Zuidpool South (ZS). Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e.  $<0.1 \mu\text{g/L}$ ). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Blue shaded cells indicate sites where sampling and analysis was not required (refer to Table 9 for details). Unshaded cells indicate that the sample result was above the LoR for that sample.

Lot	Location	Site	Florfenicol ( $\mu\text{g/L}$ )						
			H1				H2 <sup>#</sup>		H3+H4 <sup>#</sup>
			Baseline	Mid-treatment	Day 1	Day 7	Week 1	Week 2	Week 1
			2025-11-10	2025-11-18	2025-11-23	2025-12-01	2025-12-08	2025-12-15	2025-12-12
	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
ZN	Internal (Pen Bay)	ZN_PB03							<0.1
		ZN_PB07							<0.1
		ZN_PB10		<0.1	<0.1	<0.1			
		ZN_PB14		5.2	<0.1	0.2			
		ZN_PB15							<0.1
		ZN_PB16							<0.1
		ZN_PB17		2.2	<0.1	<0.1			
	ZN_PB20		1.2	<0.1	<0.1				
	Internal (Centroid)	ZN_Centroid	<0.1	<0.1	<0.1	<0.1			<0.1
	External (35m)	ZN_CP1.2_NE35	<0.1	<0.1	<0.1	0.1			0.2
ZN_CP2.2_NE35		<0.1	0.2	<0.1	<0.1			<0.1	
ZN_CP5.2_SW35		<0.1	<0.1	<0.1	<0.1			<0.1	
ZN_CP6.2_SW35		<0.1	<0.1	<0.1	<0.1			<0.1	
ZS	Internal (Pen Bay)	ZS_PB17					<0.1	<0.1	
	Internal (Centroid)	ZS_Centroid					<0.1	<0.1	
	External (35m)	ZS_CP10.2_NE35					<0.1	<0.1	
ZS_CP13.2_SW35						<0.1	<0.1		
Reference	Reference	BEMP_B10	<0.1	<0.1	<0.1	<0.1			
		BEMP_B7		<0.1	<0.1	<0.1			<0.1
		BEMP_M6							<0.1
		C11.2	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

**Table 11: Florfenicol amine (FFA) concentration ( $\mu\text{g/L}$ ) in surface water samples collected for treatment H1 (initial design) and treatments H2-H4 (weekly design) at internal, external and reference sites at Zuidpool North (ZN) and Zuidpool South (ZS). Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e.  $<0.1 \mu\text{g/L}$ ). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Blue shaded cells indicate sites where sampling and analysis was not required (refer to Table 9 for details). Unshaded cells indicate that the sample result was above the LoR for that sample.**

Lot	Location	Site	Florfenicol amine ( $\mu\text{g/L}$ )						
			H1				H2 <sup>#</sup>		H3+H4 <sup>#</sup>
			Baseline	Mid-treatment	Day 1	Day 7	Week 1	Week 2	Week 1
			2025-11-10	2025-11-18	2025-11-23	2025-12-01	2025-12-08	2025-12-15	2025-12-12
	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
ZN	Internal (Pen Bay)	ZN_PB03							<0.1
		ZN_PB07							<0.1
		ZN_PB10		0.1	<0.1	<0.1			
		ZN_PB14		2.8	<0.1	0.1			
		ZN_PB15							<0.1
		ZN_PB16							1.4
		ZN_PB17		2.9	<0.1	<0.1			
	ZN_PB20		2.3	<0.1	<0.1				
	Internal (Centroid)	ZN_Centroid	<0.1	0.2	<0.1	<0.1			0.3
	External (35m)	ZN_CP1.2_NE35	<0.1	0.2	<0.1	<0.1			0.4
		ZN_CP2.2_NE35	<0.1	0.2	<0.1	<0.1			<0.1
ZN_CP5.2_SW35		<0.1	0.1	<0.1	<0.1			<0.1	
ZN_CP6.2_SW35		<0.1	0.1	0.2	<0.1			<0.1	
ZS	Internal (Pen Bay)	ZS_PB17					<0.1	<0.1	
	Internal (Centroid)	ZS_Centroid					<0.1	0.1	
	External (35m)	ZS_CP10.2_NE35					<0.1	<0.1	
		ZS_CP13.2_SW35					0.1	<0.1	
Reference	Reference	BEMP_B10	<0.1	<0.1	<0.1	<0.1			
		BEMP_B7		<0.1	<0.1	<0.1			<0.1
		BEMP_M6							<0.1
		C11.2	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1

Table 12: Florfenicol (FFC) concentration (µg/L) in surface (S), middle (M) and bottom (B) water samples collected for treatments H5-H9 (weekly sampling) at internal, external and reference sites at Zuidpool North (ZN) and Zuidpool South (ZS). Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e. <0.1 µg/L). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Blue shaded cells indicate sites where sampling and analysis was not required (refer to Table 9 for details). Unshaded cells indicate that the sample result was above the LoR for that sample.

Lot	Location	Site	Florfenicol (µg/L)																						
			Week 1			Week 2			Week 3			Week 4			Week 5			Week 6			Week 7				
			2025-12-22			2026-01-01			2026-01-06			2026-01-14			2026-01-21			2026-01-26			2026-02-04				
			S	M	B	S	M	B	S	M	B	S	M	B	S	M	B	S	M	B	S	M	B		
ZN	Internal (Pen Bay)	ZN_PB01							<0.1	0.3	<0.1														
		ZN_PB02										0.4	<0.1	<0.1											
		ZN_PB06										<0.1	<0.1	<0.1											
		ZN_PB10										0.1	0.7	<0.1											
		ZN_PB13										0.1	0.3	<0.1											
	Internal (Centroid)	ZN_Centroid	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	External (35 m)	ZN_CP1.2_NE35	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
		ZN_CP2.2_NE35	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
		ZN_CP5.2_SW35	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
ZN_CP6.2_SW35		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
ZS	Internal (Pen Bay)	ZS_PB01				1.6	<0.1	<0.1	0.9	0.2	<0.1														
		ZS_PB02				1	0.3	<0.1	0.6	<0.1	<0.1														
		ZS_PB03	<0.1	<0.1	<0.1																				
		ZS_PB04				4.1	0.3	<0.1	0.4	0.1	<0.1														
		ZS_PB05	<0.1	0.1	<0.1																				
		ZS_PB06							0.6	0.2	<0.1														
		ZS_PB07	<0.1	0.1	<0.1																				
		ZS_PB08							0.9	0.1	<0.1														
		ZS_PB11							0.2	0.4	<0.1														
		ZS_PB12							0.6	0.5	<0.1														
		ZS_PB13	<0.1	<0.1	0.2																				
		ZS_PB14	0.8	0.9	<0.1																				
		ZS_PB16				3.6	0.7	0.8	0.2	0.3	<0.1														
		ZS_PB18	1.4	0.5	<0.1																				
		ZS_PB19				0.3	0.2	<0.1	0.6	0.2	<0.1														
	ZS_PB20				1.7	<0.1	<0.1	0.4	0.2	<0.1															
	Internal (Centroid)	ZS_Centroid	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	External (35m)	ZS_CP10.2_NE35	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
		ZS_CP13.2_SW35	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.6	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
		ZS_CP14.2_SW35	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
ZS_CP9.2_NE35		<0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Reference	Reference	BEMP_B10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
		BEMP_B7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
		C11.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	

**Table 13: Florfenicol amine (FFA) concentration ( $\mu\text{g/L}$ ) in surface (S), middle (M) and bottom (B) water samples collected for treatments H5-H9 (weekly sampling) at internal, external and reference sites at Zuidpool North (ZN) and Zuidpool South (ZS). Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e.  $<0.1 \mu\text{g/L}$ ). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Blue shaded cells indicate sites where sampling and analysis was not required (refer to Table 9 for details). Unshaded cells indicate that the sample result was above the LoR for that sample.**

Lot	Location	Site	Florfenicol amine ( $\mu\text{g/L}$ )																					
			Week 1			Week 2			Week 3			Week 4			Week 5			Week 6			Week 7			
			2025-12-22			2026-01-01			2026-01-06			2026-01-14			2026-01-21			2026-01-26			2026-02-04			
			S	M	B	S	M	B	S	M	B	S	M	B	S	M	B	S	M	B	S	M	B	
ZN	Internal (Pen Bay)	ZN_PB01							<0.1	1.1	<0.1													
		ZN_PB02											1.9	0.2	<0.1									
		ZN_PB06											0.2	0.2	<0.1									
		ZN_PB10											0.3	1.7	<0.1									
		ZN_PB13											0.3	1	<0.1									
	Internal (Centroid)	ZN_Centroid	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	External (35 m)	ZN_CP1.2_NE35	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
ZN_CP2.2_NE35		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
ZN_CP5.2_SW35		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
ZN_CP6.2_SW35		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.2	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
ZS	Internal (Pen Bay)	ZS_PB01				1.8	<0.1	<0.1	1.5	0.4	<0.1													
		ZS_PB02				3	1	<0.1	1.6	<0.1	<0.1													
		ZS_PB03	<0.1	0.2	<0.1																			
		ZS_PB04				2.5	0.8	<0.1	1.3	0.2	<0.1													
		ZS_PB05	<0.1	0.2	<0.1																			
		ZS_PB06							2	0.3	<0.1													
		ZS_PB07	0.2	0.3	<0.1																			
		ZS_PB08										2.7	0.2	<0.1										
		ZS_PB11										0.6	0.9	<0.1										
		ZS_PB12										1.5	1.2	<0.1										
		ZS_PB13	<0.1	0.1	<0.1																			
		ZS_PB14	1.7	2	<0.1																			
		ZS_PB16				0.2	<0.1	<0.1	1	0.8	<0.1													
		ZS_PB18	3.5	1.3	0.1																			
	ZS_PB19				1.7	0.6	<0.1	1.4	0.3	<0.1														
	ZS_PB20				1.5	0.1	<0.1	1.4	0.4	<0.1														
	Internal (Centroid)	ZS_Centroid	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	1.3	<0.1	0.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	External (35 m)	ZS_CP10.2_NE35	0.2	0.6	<0.1	0.2	<0.1	<0.1	2.1	<0.1	<0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
		ZS_CP13.2_SW35	0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.2	1.5	<0.1	0.4	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
		ZS_CP14.2_SW35	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	0.2	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
ZS_CP9.2_NE35		0.1	0.2	<0.1	1.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Reference	Reference	BEMP_B10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
		BEMP_B7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
		C11.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	

## 7 Wild Fish Sampling

### 7.1 Survey sites and Frequency

All wild fish sampling was undertaken by Marine Solutions at an array of sites within zones defined by buffers at increasing distance from the lease boundary (Figure 7; Table 14, Appendix 7) at a frequency defined by the initial and weekly sampling design. Approval was granted by the EPA to change the reference site to encompass both the original M6 reference site in the schedule and Huon Island, a recreational fishing site.

#### 7.1.1 Treatments H1 and Treatments H3 and H4.

Wild fish samples associated with treatments H1 and treatments H3 and H4 were collected from internal, external and reference zones (<500 m, 500 m-1 km, 1-3 km, >3 km; Figure 7; Table 14). For surveys associated with treatment H1 at Zuidpool North, wild fish were caught mid-treatment and post-treatment on Day 1, Day 7 and Day 21<sup>2</sup> (Table 14). For surveys associated with treatment H3 and H4 at Zuidpool North, wild fish were caught weekly, with Week 1 coinciding with the Day 21 survey associated with the H1 treatment and Week 2 coinciding with the Week 1 sampling event associated with treatments H5-H9 (see below). For these surveys, 'pooled' samples for each species consisting of 3 individuals were compiled in the laboratory. If more than 3 species of fish were caught at a site, a minimum of one pooled sample per species was compiled. There were some instances where the required number of fish species (n=3) could not be collected. The correct number of fish were captured on each sampling occasions; however, some pools consisted of one or two fish species. This resulted in five pooled samples for some sampling occasions (rather than four).

#### 7.1.2 Treatments H2 and treatments H5-H9.

Wild fish samples associated with treatment H2 and Zuidpool South and treatments H5-H9 at Zuidpool North were collected weekly from two sites located within three zones (<1 km, 1-3 km, >3 km) listed in Table 14 (See Figure 7; Appendix 2, Table A2.2). The <1 km sites were either inside the lease boundary or less than 100 m outside the lease boundary (Figure 7; Appendix 2, Table A2.2). Samples from the weekly sampling design were submitted as individual fish, i.e. not pooled, and were composed of a mix of benthic and pelagic species. Each fish sample was tested for florfenicol and all of its metabolites expressed as florfenicol-amine. Subject to prior approval from the Director, all wild fish samples from an individual site or zone were sampled weekly until the treatment on the lease has ended and until two consecutive results below LoR were returned for that site or zone.

---

<sup>2</sup> Day 21 sampling also coincided with the 300 degree day sampling as required for the EPA schedule associated with the initial sampling design.

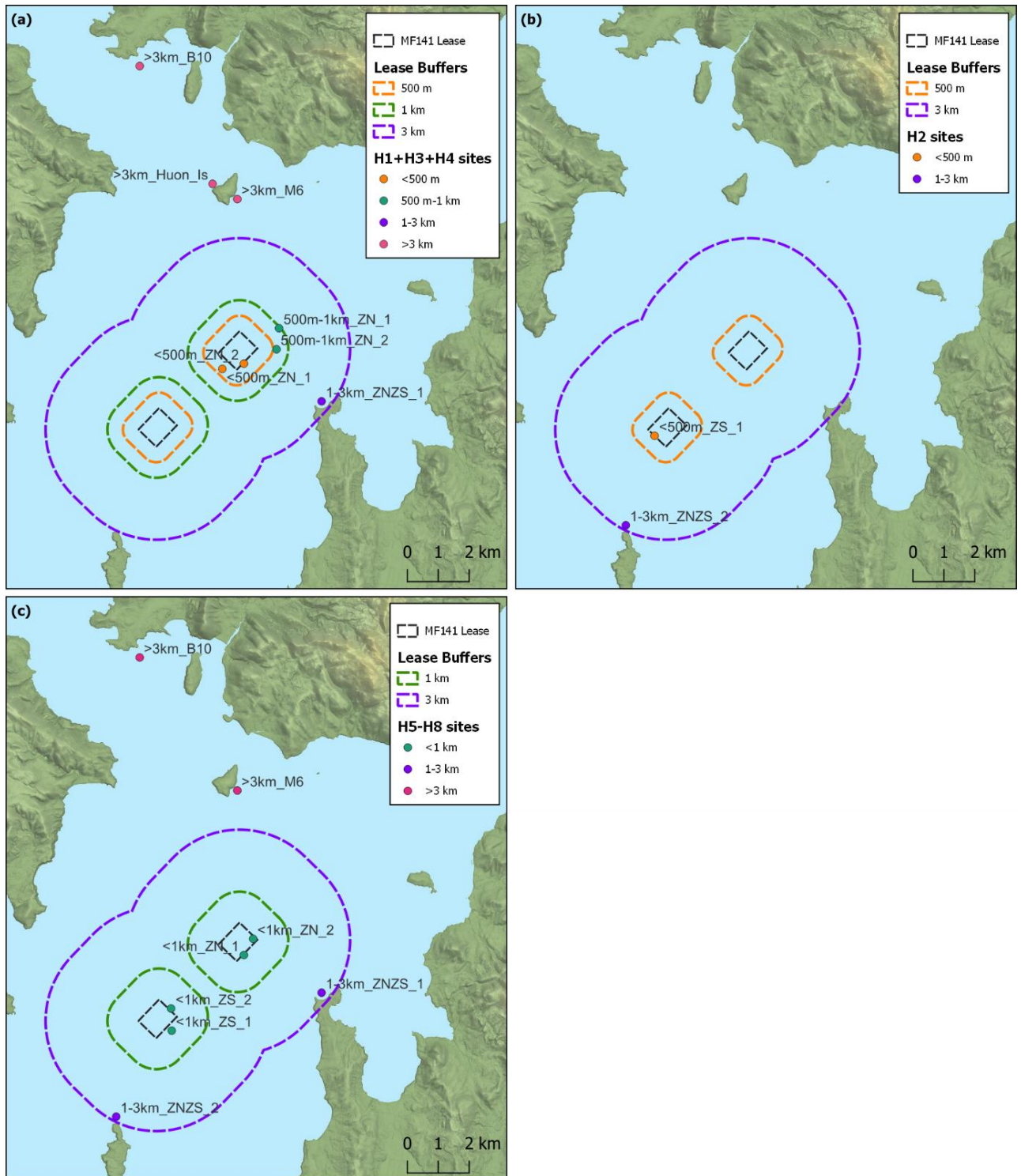


Figure 7: Location of wild fish collection sites for sampling associated with (a) H1+H3+H4 treatments; (b) H2 treatment; (c) H5-H9 treatments at the MF141 Zuidpool lease. Refer to Table 14 for a list of the sites that were used for wild fish collection during each respective survey event. Coordinates are provided in Appendix 2.

**Table 14: Wild fish sampling sites and frequency associated with treatment events H1-H9 at Zuidpool North (ZN) and Zuidpool South (ZS) of the MF141 lease. Location of sites in their respective zones is illustrated in Figure 7. Coordinates and distance from lease are provided in Appendix 2. Mid = mid-treatment. Post-treatment = Day 1, Day 7, Day 21.**

Treatment	Lot	Category	Zone	Site	Fish Count	Frequency	Analysis
H1+ H3+H4 <sup>#</sup>	ZN	Internal/External	<500 m	<500 m_ZN_1 or <500 m_ZN_2	12	Mid, Day 1, Day 7, Day 21 (H1) Weekly (H3+H4)	4 pooled samples
		External	500 m-1 km	500 m-1 km_ZN_1 or 500 m-1 km_ZN_2	12	Mid, Day 1, Day 7, Day 21 (H1) Weekly (H3+H4)	4 pooled samples
			1-3 km	1-3 km_ZN_ZS_1 (Ventenat Point)	12	Mid, Day 1, Day 7, Day 21 (H1) Weekly (H3+H4)	4 pooled samples
		Reference	>3 km	>3km_M6 or >3km_Huon_Is	12	Mid, Day 1, Day 7, Day 21 (H1) Weekly (H3+H4)	4 pooled samples
			>3 km	>3km_B10	12	Mid, Day 1, Day 7, Day 21 (H1) Weekly (H3+H4)	4 pooled samples
H2 <sup>#</sup>	ZS	Internal/External	<500 m	<500m_ZS_1	6	Weekly	6 Individuals
		External	1-3 km	1-3km_ZN_ZS_2 (Laughtons Point)	6	Weekly	6 Individuals
H5-H9	ZN+ZS	Internal/External	<1 km	<1km_ZN_1 or <1km_ZN_2	6	Weekly	6 Individuals
		Internal/External	<1 km	<1km_ZS_1 or <1km_ZS_2	6	Weekly	6 Individuals
		External	1-3 km	1-3km_ZN_ZS_1 or 1-3km_ZN_ZS_2	12	Weekly	12 Individuals
		Reference	>3 km	>3km_M6	12	Weekly	12 Individuals
			>3 km	>3km_B10	12	Weekly	12 Individuals

<sup>#</sup> Week 1 and Week 2 samples associated with H2-H4 in this report were labelled in the field and laboratory submissions as Day 1 and Day 7, respectively. This labelling amendment was to accommodate the EPA’s interpretation of sampling associated with treatments H2-H4 as a ‘weekly’ sampling design.



**Figure 8: Representative photos taken during the processing of fish, showing (a) weight, (b) measurement, (c) tail sample for laboratory analysis, (d) gut processing and (e) gut content analysis.**

## 7.2 Sample collection, processing and storage

Wild fish samples were collected first from the reference sites before moving progressively to the zones closer to the leases. This method was used to manage contamination risk between samples closest to the pens treated with florfenicol. Ideally, the fish collected within each zone were to consist of 50% pelagic and 50% benthic species, but due to practical constraints there were instances where only one category of fish could be captured in a zone.

GPS points were recorded for each sampling location, with fish caught within approximately 300 metres of the specified points (Appendix 2; Table A2.2). Line fishing was the methodology used throughout, and in more challenging locations burley was used to improve catch rates. The target was to collect an even distribution of species, with fifty percent pelagic and fifty percent benthic. Once all fish for a site had been collected and the zones were complete, the full set of samples were processed.

Processing the samples involved collecting information on fish length, weight, and gut contents (Figure 8). Length was recorded using the longest measurable point, and weight was recorded using scales. A designated knife was then used to remove the tail posterior to the anus, which was retained for laboratory flesh analysis. A separate knife was used to dissect the fish to examine gut contents, and all observations were recorded. Between each dissection, all equipment used was thoroughly cleaned, and gloves were worn throughout the process. Flesh samples were bagged, labelled, and frozen for laboratory analysis. The lab analysis tested the sum of florfenicol, and its metabolites measured as florfenicol amine in the flesh tissue of individual or pooled fish samples.

Note that results for fish flesh analysis were reported by AST as combined 'florfenicol & metabolites as florfenicol amine'. This differed from the water and sediment samples which reported florfenicol and florfenicol amine components separately<sup>3</sup>.

---

<sup>3</sup> chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/https://analyticalservices.tas.gov.au/Documents/Florfenicol%20testing%20at%20AST.pdf

### 7.3 Results

Wild fish collected as part of the initial sampling design and weekly sampling design included twenty-three benthic and pelagic species of which sand flathead, blue-throat wrasse and Australian salmon were the species most commonly captured (Appendix 4). Details of fish caught and their gut contents are provided in Appendix 5.

For wild fish surveys at Zuidpool North (ZN) and Zuidpool South (ZS) associated with the H1-H4 treatments, florfenicol & metabolites as florfenicol amine for individual and pooled wild fish samples were below the LoR for all samples collected at internal, external and reference sites (<500 m, 500 m-1 km, 1-3 km, >3 km) during all surveys (mid-treatment, Day 1, Day 7, Day 21) (Table 15; Table 16).

For weekly wild fish surveys at Zuidpool North (ZN) and Zuidpool South (ZS) associated with the H5-H9 treatments, florfenicol & metabolites as florfenicol amine for individual wild fish samples were below the LoR at all external and reference sites greater than 1 km from the MF141 lease (i.e. 1-3 km, >3 km) during all eight weekly surveys (Table 17). Florfenicol & metabolites as florfenicol amine for wild fish samples were above the LoR for eight individual fish collected at sites in the <1 km zone (Table 17). These fish were captured either inside the lease or less than 100 m from the Zuidpool North and Zuidpool South lease boundary (Table 18). Samples above the LoR included four fish in Week 2 (Australian sardine and sand flathead; sites 1km\_ZN\_2 and 1km\_ZS\_2), three fish in Week 5 (sand flathead; sites 1km\_ZN\_2 and 1km\_ZS\_2) and one fish in Week 7 (sand flathead; site; 1km\_ZN\_2).

Table 15: Florfenicol & metabolites as florfenicol amine (mg/kg WMB) in wild fish tissue for wild fish caught from four zones (<500m, 500m-1km, 1-3km, >3km) for surveys associated with treatment H1 and treatments H3+H4 at Zuidpool North (ZN). Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e. <0.01 µg/L). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Unshaded cells indicate that the sample result was above the LoR for that sample

Zone	Sample ID	Florfenicol & metabolites as Florfenicol Amine (mg/kg WMB)			
		H1-Mid Treatment	H1-Day 1	H1-Day 7	H1-Day 21 H3+H4-Week 1
		2025-11-18 2025-11-19 2025-11-20	2025-11-23	2025-12-01	2025-12-15 2025-12-16
<500m	Pool 1	<0.01	<0.01	<0.01	<0.01
	Pool 2	<0.01	<0.01	<0.01	<0.01
	Pool 3	<0.01	<0.01	<0.01	<0.01
	Pool 4	<0.01	<0.01	<0.01	<0.01
	Pool 5	<0.01	<0.01	No sample	No sample
500m-1km	Pool 1	<0.01	<0.01	<0.01	<0.01
	Pool 2	<0.01	<0.01	<0.01	<0.01
	Pool 3	<0.01	<0.01	<0.01	<0.01
	Pool 4	<0.01	<0.01	<0.01	<0.01
	Pool 5	No sample	No sample	<0.01	No sample
1-3km	Pool 1	<0.01	<0.01	<0.01	<0.01
	Pool 2	<0.01	<0.01	<0.01	<0.01
	Pool 3	<0.01	<0.01	<0.01	<0.01
	Pool 4	<0.01	<0.01	<0.01	<0.01
>3km_M6	Pool 1	<0.01	<0.01	<0.01	<0.01
	Pool 2	<0.01	<0.01	<0.01	<0.01
	Pool 3	<0.01	<0.01	<0.01	<0.01
	Pool 4	<0.01	<0.01	<0.01	<0.01
>3km_B10	Pool 1	<0.01	<0.01	<0.01	<0.01
	Pool 2	<0.01	<0.01	<0.01	<0.01
	Pool 3	<0.01	<0.01	<0.01	<0.01
	Pool 4	<0.01	<0.01	<0.01	<0.01

Table 16: Florfenicol & metabolites as florfenicol amine (mg/kg WMB) in wild fish tissue for wild fish caught from two zones (<500m, 1-3km) for surveys associated with treatment H2 at Zuidpool South (ZS). Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e. <0.01 mg/kg WMB). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Unshaded cells indicate that the sample result was above the LoR for that sample

Zone	Sample ID	Florfenicol & metabolites as Florfenicol Amine (mg/kg WMB)	
		Week 1	Week 2
		2025-12-08	2025-12-15 2025-12-16
<500m	Fish 1	<0.01	<0.01
	Fish 2	<0.01	<0.01
	Fish 3	<0.01	<0.01
	Fish 4	<0.01	<0.01
	Fish 5	<0.01	<0.01
	Fish 6	<0.01	<0.01
1-3km	Fish 1	<0.01	<0.01
	Fish 2	<0.01	<0.01
	Fish 3	<0.01	<0.01
	Fish 4	<0.01	<0.01
	Fish 5	<0.01	<0.01
	Fish 6	<0.01	<0.01

**Table 17: Florfenicol & metabolites as florfenicol amine (mg/kg WMB) in wild fish tissue for wild fish caught from three zones (<1 km, 1-3 km, >3 km) as part of surveys associated with treatments H5-H9 at MF141 Zuidpool North (ZN) and Zuidpool South (ZS). Green shaded cells indicate sites where the sample was below the limit of reporting (LoR, i.e. <0.01 mg/kg WMB). The LoR is the lowest concentration of a substance that the laboratory can reliably and consistently measure. Blue shaded cells indicate sites where sampling and analysis was not required. Unshaded cells indicate that the sample result was above the LoR for that sample.**

Zone	Lease	Sample ID	Florfenicol & metabolites as Florfenicol Amine (mg/kg WMB)									
			Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	
			2025-12-22	2026-01-02	2026-01-06 2026-01-07	2026-01-14 2026-01-15	2026-01-21 2026-01-22	2026-01-26 2026-01-27	2026-02-03 2026-02-04	2026-02-11	2026-02-18 2026-02-19 2026-02-20	
<1 km	ZN	Fish 1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		Fish 2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		Fish 3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		Fish 4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	<0.01	<0.01	<0.01
		Fish 5	<0.01	0.09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		Fish 6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	ZS	Fish 1	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 2	<0.01	<0.01	<0.01	<0.01	0.13	<0.01	<0.01			
		Fish 3	<0.01	0.42	<0.01	<0.01	0.01	<0.01	<0.01			
		Fish 4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
		Fish 5	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01			
		Fish 6	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01			
1-3 km	ZN+ZS	Fish 1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
>3 km	M6	Fish 1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
	B10	Fish 1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
		Fish 12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		

**Table 18: Description of fish species and location of sites (see Figure 7) for samples where florfenicol & metabolites as florfenicol amine (mg/kg WMB) in wild fish tissue for wild fish caught were above the LoR (see Table 17).**

Treatment	Survey	Date	Sample ID	Site	Distance from lease	Fish Species
H5-H9	Week 2	2026-01-02	Fish 5	<1km_ZN_1	30 m outside	Australian sardine
			Fish 1	<1km_ZS_1	90 m outside	Sand flathead
			Fish 3	<1km_ZS_1	90 m outside	Sand flathead
			Fish 6	<1km_ZS_1	90 m outside	Sand flathead
	Week 5	2026-01-21	Fish 2	<1km_ZS_2	60 m outside	Sand flathead
			Fish 3	<1km_ZS_2	60 m outside	Sand flathead
			Fish 5	<1km_ZS_2	60 m outside	Sand flathead
	Week 7	2026-02-03	Fish 4	<1km_ZN_2	75 m inside	Sand flathead

## 8 Benthic Video Surveys

### 8.1 Survey sites and frequency

Benthic video surveys and interpretation of footage was undertaken by Huon Aquaculture's internal Environment Team as follows:

- For surveys associated with H1, surveys were conducted at all treated pens (Table 2; Figure 2) prior to treatment, mid-treatment and on Day 1 post-treatment.
- For surveys associated with treatment H2-H9, , surveys were conducted at all treated pens (Table 2; Figure 2) prior to treatment and on Day 1 post-treatment.

### 8.2 Sample collection, processing and storage

Video work was carried out using predominantly a Blue-ROV-02 Remotely Operated Inspection System accompanied by two optimised LED array adjustable lights. The ROV video footage was recorded using oCam® screen capture software. A GoPro hero 11 was mounted onto the ROV to capture additional footage. The GoPro footage was the predominate footage used for observations at all sites. Due to other video survey requirements in Macquarie Harbour at the same time, an APAMA ROV system was used for some video surveys and as a result, overlay operating depths were not recorded. In these cases, pen bay depths have been retrieved from previous internal benthic survey data.

All video footage was reviewed and assessed by Huon's internal Environment Team, using the same methodology as specified in the relevant Environmental Licence. Survey coordinates for the benthic video survey are provided in Appendix 2; Table A2.3.

### 8.3 Results

A description of seabed conditions for the pre-, mid- and post-treatment surveys for each pen bay is provided in Appendix 6. The benthic habitats of pen bay sites at both Zuidpool North and Zuidpool South were typically characterised by dark coloured silty sediments with some *Beggiatoa* mats evident. These characteristics were observed across the pre-, mid- and post-treatment surveys. Fauna observed included Northern Pacific seastars, sand flathead, seven-gilled sharks, side gilled slugs and various crab species. Occasional pellets were observed in post-treatment surveys at ZS\_PB01, ZS\_PB02, ZS\_PB07 and ZS\_PB18. Faeces were observed at all surveyed pen bays. Overall, seabed type and faunal patterns appeared stable across the pre-, mid- and post-treatment surveys at both Zuidpool North and Zuidpool South.

## 9 Summary

A Therapeutant Residue Monitoring Program (TRMP) was undertaken in the vicinity of MF141 South of Zuidpool Rock marine farming lease, located in the D'Entrecasteaux Channel and Huon River Marine Farming Development Plan area. The TRMP was conducted in accordance with the specifications stipulated by the Tasmanian EPA in the *Therapeutant Residue Monitoring Schedule MF141 – Zuidpool North (TRM Schedule MF141N)*, issued 20 November 2025 and an associated addendum, *Addendum - Therapeutant Residue Monitoring Schedule MF141 (TRM Schedule MF141 Addendum)*, issued 16 December 2025.

The TRMP included a suite of monitoring components (sediment, microbial, infauna, water, wild fish and video surveys). Water, sediment and video surveys sampled an array of monitoring sites including internal sites (i.e. pen bays and lease centroid), external sites (i.e. compliance sites and transects), reference sites and control sites. Wild fish were sampled from zones defined by buffers at increasing distance from the lease boundary (e.g. 500 m, 1 km, 3 km). The frequency of monitoring changed between the initial sampling schedule (*TRM Schedule MF141N*; i.e. baseline, mid-treatment and post-treatment on Day 1, Day 7, Day 14 and/or Day 21) and the subsequent addendum which required weekly sampling (*TRM Schedule MF141 Addendum*).

For sediment samples, florfenicol and/or florfenicol amine concentrations were below the LoR for the overwhelming majority of samples. Samples associated treatments H5-H9 that returned a florfenicol and/or florfenicol amine concentration above the LoR were collected from pen bays and 35 m compliance sites between Week 3 and Week 7. Florfenicol and/or florfenicol amine concentrations above the LoR were short-lived, with all sites recording concentrations below the LoR in the subsequent Week 8 and Week 9 sediment surveys.

For water samples, florfenicol and/or florfenicol amine concentrations were below the LoR for the majority of samples collected. Samples with florfenicol and/or florfenicol amine concentrations above the LoR were limited to samples collected during the treatment period (i.e. mid-treatment) or within one week of treatment cessation. The vast majority of water samples collected before and after treatment events recorded florfenicol and/or florfenicol amine concentrations below the LoR. Samples with florfenicol and/or florfenicol amine concentrations above the LoR were largely collected from surface and middle depths, with only 2% collected from bottom waters.

For wild-fish samples, the concentrations of florfenicol & metabolites as florfenicol amine were below the LoR for all samples associated with treatments H1-H4. For surveys associated with treatments H5-H9, the few instances of florfenicol & metabolites as florfenicol amine concentrations above the LoR were limited to sites located inside the lease or < 100 m from the lease boundary. All samples collected

from external (1-3 km) and reference (>3 km) zones recorded concentrations of florfenicol & metabolites as florfenicol amine concentrations below the LoR.

Baseline surveys of microbial and infauna communities were collected and archived as part of an IMAS research project commissioned by the EPA that will be addressed under a future scientific report. These samples provide a reference of baseline conditions before application of the florfenicol treatment.

## Appendices

**Appendix 1: Antibiotic florfenicol treatment details. Treatment was administered by top coated feed, as prescribed by the Veterinary Authority (VA). Information below supplied by Huon Aquaculture.**

Type	Medication Authority No.	Anticipated Start Date	Treatment No.	Lease	Pen Bays with Actual Start Dates	Days	Active Ingredient Used (kg)
Florfenicol	MA 1104.2F	12/11/2025	H1	MF 141 - South of Zuidpool Rock- North	ZN 17, 12/11/2025 ZN 14, 12/11/2025 ZN 20, 12/11/2025	10	262.3
Florfenicol	MA 1105.2	28/11/2025	H2	MF 141 - South of Zuidpool Rock -South	ZS 17, 28/11/2025	10	89.1
Florfenicol	MA 1106.1F	1/12/2025	H3	MF 141 - South of Zuidpool Rock- North	ZN 07, 1/12/2025 ZN 15, 1/12/2025 ZN 16, 1/12/2025	10	320.8
Florfenicol	MA 1107	3/12/2025	H4	MF 141 - South of Zuidpool Rock- North	ZN 03, 3/12/2025	10	118.1
Florfenicol	MA 1108.2F	14/12/2025	H5	MF 141 - South of Zuidpool Rock -South	ZS 07, 14/12/2025 ZS 05, 14/12/2025 ZS 18, 14/12/2025 ZS 14, 14/12/2025 ZS 13, 14/12/2025 ZS 03, 14/12/2025	10	428.8
Florfenicol	MA 1109.2F	28/12/2025	H6	MF 141 - South of Zuidpool Rock -South	ZS 02, 28/12/2025 ZS 20, 28/12/2025 ZS 19, 28/12/2025 ZS 04, 28/12/2025 ZS 01, 30/12/2025 ZS 16, 1/01/2026	10	524.5
Florfenicol	MA 1110.1F	2/01/2026	H7	MF 141 - South of Zuidpool Rock- North	ZN 01, 3/01/2026	10	92
Florfenicol	MA 1109.2F	2/01/2026	H8	MF 141 - South of Zuidpool Rock -South	ZS 11, 2/01/2026 ZS 08, 3/01/2026 ZS 06, 3/01/2026 ZS 12, 4/01/2026	10	461.3
Florfenicol	MA 1111.1F	9/01/2026	H9	MF 141 - South of Zuidpool Rock- North	ZN 13, 10/01/2026 ZN 06, 10/01/2026 ZN 10, 10/01/2026 ZN 02, 10/01/2026	10	413.6

In accordance with section 28(2(d)) of the *Environmental Standards for Tasmanian Marine Finfish Farming 2023*, the Therapeutant Residue Monitoring Program report must include an evaluation of the factors contributing to the need for medication, including (i) potential seasonal/environmental factors; (ii) history of therapeutant use and its cause on the lease area in the previous 10 year period; and (iii) Any known issues with batches of fish involved in the medication event, including vaccination status with reference to the disease required. A summary of these factors is provided below:

- (i) A sudden water temperature spike in 48 hrs likely precipitated clinical expression of *Piscirickettsia salmonis*. Infections were verified by submissions to an independent laboratory.
- (ii) A single treatment of Oxytetracycline Hydrochloride (OTC) was undertaken at MF141 in February 2025. Residual OTC was detectable in the sediment at a single pen bay in February 2026.
- (iii) Fish housed at this lease have been tracked across their entire production cycle. There were no known issues with batches of fish in the medication event. Waning immunity from vaccination likely coincided with the observed temperature rise.

**Appendix 2: Survey coordinates for the residue monitoring survey, based on the Mapping Grid of Australia Zone 55 (Datum GDA94). Coordinates from all surveys have been supplied to EPA in electronic format.**

**Table A2.1: Coordinates for sampling sites for water and sediment surveys. Coordinates are from the schedule (EPA) or from the first instance a site (see Source) was visited in the field by Aquenal (AQ) or Marine Solutions (MS).**

Lot	Location	Site	Easting	Northing	Source	Sampler
ZN	Internal (Pen Bay)	ZN_PB01	511952	5202129	Week 3	AQ
		ZN_PB02	512115	5202293	Baseline	AQ
		ZN_PB03	512134	5202068	Baseline	AQ
		ZN_PB06	512241	5202058	Week 4	AQ
		ZN_PB07	512340	5201861	Baseline	AQ
		ZN_PB10	512524	5201890	Baseline	AQ
		ZN_PB13	511742	5201641	Baseline	AQ
		ZN_PB14	511829	5201768	Baseline	AQ
		ZN_PB15	511811	5201503	H3_Day 7	AQ
		ZN_PB16	511910	5201659	H3_Day 7	AQ
		ZN_PB17	511946	5201451	Baseline	AQ
		ZN_PB20	512145	5201448	Baseline	AQ
	Internal (Centroid)	ZN_Centroid	512037	5201797	Schedule	EPA
ZS	Internal (Pen Bay)	ZS_PB01	509336	5199620	Week 2	AQ
		ZS_PB02	509519	5199788	Baseline	AQ
		ZS_PB03	509519	5199533	Week 1	AQ
		ZS_PB04	509621	5199695	Baseline	AQ
		ZS_PB05	509562	5199418	Week 1	MS
		ZS_PB06	509695	5199567	Week 4	AQ
		ZS_PB07	509705	5199338	Week 1	AQ
		ZS_PB08	509815	5199415	Week 3	MS
		ZS_PB11	509032	5199264	Baseline	AQ
		ZS_PB12	509095	5199379	Week 4	AQ
		ZS_PB13	509053	5199103	Week 1	MS
		ZS_PB14	509216	5199223	Week 1	AQ
		ZS_PB16	509308	5199207	Week 2	MS
		ZS_PB17	509298	5198911	H2_Day 1	AQ
ZS_PB18	509416	5199102	Week 1	MS		
ZS_PB19	509424	5198892	Week 2	MS		
ZS_PB20	509494	5198968	Week 2	AQ		
	Internal (Centroid)	ZS_Centroid	509436	5199311	Schedule	EPA
ZN	External (35m)	ZN_CP1.2_NE35	512243	5202316	Schedule	EPA
		ZN_CP2.2_NE35	512520	5202045	Schedule	EPA
		ZN_CP4.2_SE35	512203	5201339	Schedule	EPA
		ZN_CP5.2_SW35	511811	5201299	Schedule	EPA
		ZN_CP6.2_SW35	511533	5201564	Schedule	EPA
		ZN_CP7.2_NW35	511576	5201946	Schedule	EPA
ZS	External (35m)	ZS_CP10.2_NE35	509919	5199560	Schedule	EPA
		ZS_CP13.2_SW35	509209	5198813	Schedule	EPA
		ZS_CP14.2_SW35	508934	5199082	Schedule	EPA
		ZS_CP9.2_NE35	509641	5199826	Schedule	EPA
ZN	External (100m)	ZN_CP1.2_NE100	512287	5202362	Schedule	EPA
		ZN_CP2.2_NE100	512566	5202092	Schedule	EPA
		ZN_CP4.2_SE100	512249	5201295	Schedule	EPA
		ZN_CP5.2_SW100	511766	5201253	Schedule	EPA
		ZN_CP6.2_SW100	511490	5201519	Schedule	EPA
		ZN_CP7.2_NW100	511529	5201991	Schedule	EPA
ZS	External (100m)	ZS_CP9.2_NE100	509688	5199875	Schedule	EPA
		ZS_CP10.2_NE100	509965	5199607	Schedule	EPA
		ZS_CP13.2_SW100	509164	5198767	Schedule	EPA
		ZS_CP14.2_SW100	508888	5199034	Schedule	EPA
ZN	External (500m)	ZN_CP1.2_NE500	512566	5202649	Schedule	EPA
		ZN_CP2.2_NE500	512844	5202379	Schedule	EPA
		ZN_CP4.2_SE500	512536	5201017	Schedule	EPA
		ZN_CP5.2_SW500	511488	5200965	Schedule	EPA
		ZN_CP6.2_SW500	511212	5201231	Schedule	EPA
		ZN_CP7.2_NW500	511241	5202269	Schedule	EPA
ZS	External (500m)	ZS_CP9.2_NE500	509966	5200162	Schedule	EPA
		ZS_CP10.2_NE500	510243	5199895	Schedule	EPA
		ZS_CP13.2_SW500	508886	5198479	Schedule	EPA
		ZS_CP14.2_SW500	508610	5198747	Schedule	EPA

**Table A2.1 (continued): Coordinates for sampling sites for water and sediment surveys. Coordinates are from the schedule (EPA) or from the first instance a site (see Source) was visited in the field by Aquenal (AQ) or Marine Solutions (MS).**

Lot	Location	Site	Easting	Northing	Source	Sampler
ER	Control (External)	ER_CP10.2_35	508895	5204331	Schedule	EPA
		ER_CP11.2_35	508667	5204062	Schedule	EPA
		ER_CP2.2_35	508667	5205400	Schedule	EPA
	Control (Internal)	ER_PB03	508641	5205107	H1_Day 1	AQ
		ER_PB18	508801	5204406	H1_Day 1	AQ
		ER_PB20	508795	5204307	H1_Day 1	AQ
Reference	Reference	BEMP_B10	507993	5210571	Schedule	EPA
		BEMP_B7	511188	5202954	Schedule	EPA
		BEMP_M6	515245	5204098	Schedule	EPA
		C11.2	512045	5199647	Schedule	EPA

**Table A2.2: Coordinates for sites sampled during the wild fish survey (Marine Solutions) and the distance to the lease boundary.**

Treatments	Lot	Category	Zone	Site	GPS Point	Easting	Northing	Distance to lease boundary
H1+H3+H4	ZN	Internal/External	<500 m	<500m_ZN_1	200	511528	5201203	300 m outside
H1+H3+H4	ZN	Internal/External	<500 m	<500m_ZN_2	178	512226	5201372	30 m outside
H1+H3+H4	ZN	External	500 m-1 km	500m-1km_ZN_1	173	513361	5202515	960 m outside
H1+H3+H4	ZN	External	500 m-1 km	500m-1km_ZN_2	177	513279	5201836	610 m outside
H1+H3+H4	ZN	External	1-3 km	1-3km_ZNZS_1	174	514737	5200156	2650 m outside
H1+H3+H4	ZN	Reference	>3 km	>3km_M6	175	512014	5206684	4360 m outside
H1+H3+H4	ZN	Reference	>3 km	>3km_B10	176	508857	5210981	9170 m outside
H1+H3+H4	ZN	Reference	>3 km	>3km_Huon_Is	172	511212	5207177	4890 m outside
H2	ZS	Internal/External	<500 m	<500m_ZS_1	ZS13	509026	5199043	2 m inside
H2	ZS	External	1-3 km	1-3km_ZNZS_2	188	508097	5196155	2840 m outside
H5-H9	ZN+ZS	External	<1 km	<1km_ZN_1	184	512225	5201372	30 m outside
H5-H9	ZN+ZS	External	<1 km	<1km_ZN_2	183	512524	5201896	75 m inside
H5-H9	ZN+ZS	External	<1 km	<1km_ZS_1	189	509893	5198931	90 m outside
H5-H9	ZN+ZS	External	<1 km	<1km_ZS_2	190	509870	5199646	60 m outside
H5-H9	ZN+ZS	External	1-3 km	1-3km_ZNZS_1	174	514737	5200156	2650 m outside
H5-H9	ZN+ZS	External	1-3 km	1-3km_ZNZS_2	188	508097	5196155	2840 m outside
H5-H9	ZN+ZS	Reference	>3 km	>3km_M6	175	512014	5206684	4360 m outside
H5-H9	ZN+ZS	Reference	>3 km	>3km_B10	176	508857	5210981	9170 m outside

**Table A2.3: GPS coordinates and depth for pre-treatment, mid-treatment and post-treatment benthic video surveys conducted by Huon Aquaculture. Depths denoted with an asterisk (\*) were taken from historic pen bay surveys.**

Pre-treatment surveys			
Site	Easting	Northing	Depth (m)
ZN_PB01	512028	5202130	39
ZN_PB02	512042	5202250	40.2*
ZN_PB06	512264	5202037	41.8*
ZN_PB07	512327	5201861	39.6
ZN_PB10	512522	5201894	41.6*
ZN_PB13	511649	5201609	40.6*
ZN_PB14	511946	5201438	40.2
ZN_PB15	511835	5201526	40
ZN_PB16	511908	5201662	39.6
ZN_PB17	511841	5201742	40.2*
ZN_PB20	512139	5201460	39.3
ZS_PB01	509410	5199627	44
ZS_PB02	509532	5199747	43.4
ZS_PB03	509514	5199546	42.6
ZS_PB04	509634	5199639	42.6
ZS_PB05	509626	5199461	41.6
ZS_PB06	509716	5199516	42.7
ZS_PB07	509714	5199368	41
ZS_PB08	509815	5199456	40.6
ZS_PB11	509013	5199222	44.6
ZS_PB12	509123	5199340	44.7
ZS_PB13	509139	5199153	43.2
ZS_PB14	509218	5199272	43.3
ZS_PB16	509331	5199146	42.6
ZS_PB17	509334	5198949	42.6
ZS_PB18	509428	5199066	41.5
ZS_PB19	509426	5198854	42.6
ZS_PB20	509532	5198976	41.8

Mid-treatment surveys			
Site	Easting	Northing	Depth (m)
ZN_PB03	512130	5202032	40.2*
ZN_PB07	512311	5201813	39.5*
ZN_PB14	511839	5201750	40
ZN_PB15	511835	5201513	41.1*
ZN_PB16	511905	5201498	40.8*
ZN_PB17	511943	5201435	40
ZN_PB20	512138	5201456	39.4
ZS_PB17	509311	5198954	35.1*

Post-treatment surveys			
Site	Easting	Northing	Depth (m)
ZN_PB01	511972	5202207	38.9
ZN_PB02	512095	5202181	39.3
ZN_PB03	512139	5202057	39.3
ZN_PB06	512306	5202024	39.3
ZN_PB07		Missing	38.9
ZN_PB10	512505	5201836	38.1
ZN_PB13	511706	5201599	40
ZN_PB14	512131	5201458	39.8
ZN_PB15	511835	5201534	40.1
ZN_PB16	512037	5201532	39.6
ZN_PB17	511826	5201751	39.9
ZN_PB20	511932	5201429	39.2
ZS_PB01	509347	5199620	44.0*
ZS_PB02	512042	5202250	43.4*
ZS_PB03	509492	5199589	43
ZS_PB04	509628	5199660	42.6*
ZS_PB05	509616	5199455	42.1
ZS_PB06	509690	5199591	41.5
ZS_PB07	509715	5199364	41.6
ZS_PB08	509795	5199511	41.1
ZS_PB11	509019	5199276	44.5
ZS_PB12	509095	5199377	44.4
ZS_PB13	509133	5199155	44
ZS_PB14	509218	5199253	43.9
ZS_PB16	Missing	Missing	42.3
ZS_PB17	509339	5198953	35.1*
ZS_PB18	509419	5199083	42.3
ZS_PB19	509358	5198827	42.6*
ZS_PB20	509517	5198966	39.3*

## Appendix 3: Weather conditions during field surveys.

Sampling design	Sampling Event	Sampler	Field Dates	Wind (knots, direction)	Sky
Initial	Baseline	Aquenal	10/11/2025	SW 10-20	Cloudy, showers
	Baseline	Aquenal	11/11/2025	SW 10-20	Cloudy, showers
	Mid-treatment (H1)	Marine Solutions	18/11/2025	30-40 W	Cloudy, showers
	Mid-treatment (H1)	Marine Solutions	19/11/2025	15-25 W	Cloudy, showers
	Mid-treatment (H1)	Marine Solutions	20/11/2025	5-15 W	Cloudy, showers
	Day 1 (H1)	Aquenal	21/11/2025	10 W	Clear
	Day 1 (H1)	Marine Solutions	23/11/2025	Light & Variable	Cloudy, showers
	Day 1 (H1)	Marine Solutions	25/11/2025	5-25 NE	Cloudy
	Day 7 (H1)	Aquenal	28/11/2025	15-25 W	Cloudy
	Day 7 (H1)	Marine Solutions	1/12/2025	5-15 W	Partly Cloudy
	Day 7 (H1)	Marine Solutions	2/12/2025	10 W	Cloudy
	Day 14 (H1)	Aquenal	5/12/2025	10 W	Partly cloudy
	Day 21 (H1)	Aquenal	12/12/2025	10 NE	Clear
	Day 21 (H1)	Marine Solutions	15/12/2025	20-30 W	Cloudy, showers
	Day 21 (H1)	Marine Solutions	16/12/2025	15-25 W	Cloudy, showers
Weekly	Week 1 (H2)	Marine Solutions	8/12/2025	10-20 W	Cloudy
	Week 1 (H2)	Aquenal	10/12/2025	W 15	Partly cloudy
	Week 1 (H3/H4)	Aquenal	12/12/2025	10 NE	Clear
	Week 2 (H2)	Marine Solutions	15/12/2025	20-30 W	Cloudy
	Week 2 (H2)	Aquenal	16/12/2025	20-25 SW	Cloudy, showers
	Week 2 (H2)	Marine Solutions	16/12/2025	15-25 SW	Partly cloudy
	Week 2 (H3/H4)	Aquenal	18/12/2025	Light & Variable	Cloudy
	Week 1	Aquenal	22/12/2025	10-15 W	Partly cloudy
	Week 1	Marine Solutions	22/12/2025	5-10 W	Partly cloudy
	Week 2	Aquenal	30/12/2025	Light & Variable	Cloudy
	Week 2	Marine Solutions	1/01/2026	20 SW	Coudy
	Week 2	Marine Solutions	2/01/2026	10-15 SE	Clear
	Week 3	Marine Solutions	6/01/2026	10-15 W	Cloudy
	Week 3	Marine Solutions	7/01/2026	10 SW	Mostly clear
	Week 3	Aquenal	8/01/2026	Light & Variable	Cloudy
	Week 4	Marine Solutions	14/01/2026	10 NE	Cloudy
	Week 4	Marine Solutions	15/01/2026	10 NE	Partly cloudy
	Week 4	Aquenal	16/01/2026	5-15 E	Cloudy
	Week 5	Marine Solutions	21/01/2026	Light & Variable	Cloudy
	Week 5	Marine Solutions	22/01/2026	10-30 W	Cloudy
	Week 5	Aquenal	23/01/2026	Light & Variable	Clear
	Week 6	Marine Solutions	26/01/2026	10 W	Clear
	Week 6	Aquenal	27/01/2026	20-25 NW	Clear
	Week 6	Marine Solutions	27/01/2026	25 NW	Clear
	Week 7	Marine Solutions	3/02/2026	10 SW	Mostly clear
	Week 7	Marine Solutions	4/02/2026	5 NE	Mostly clear
	Week 7	Aquenal	6/02/2026	15-25 WNW	Cloudy
	Week 8	Marine Solutions	11/02/2026	10 N	Cloudy
	Week 8	Aquenal	13/02/2026	Light & Variable	Cloudy
	Week 9	Marine Solutions	18/02/2026	10 W	Partly cloudy
Week 9	Aquenal	19/02/2026	15-20 SW	Cloudy	
Week 9	Marine Solutions	19/02/2026	15-20 W	Cloudy	
Week 9	Marine Solutions	20/02/2026	Light & Variable	Mostly clear	

Appendix 4: Wild fish sampling – species collected during surveys.

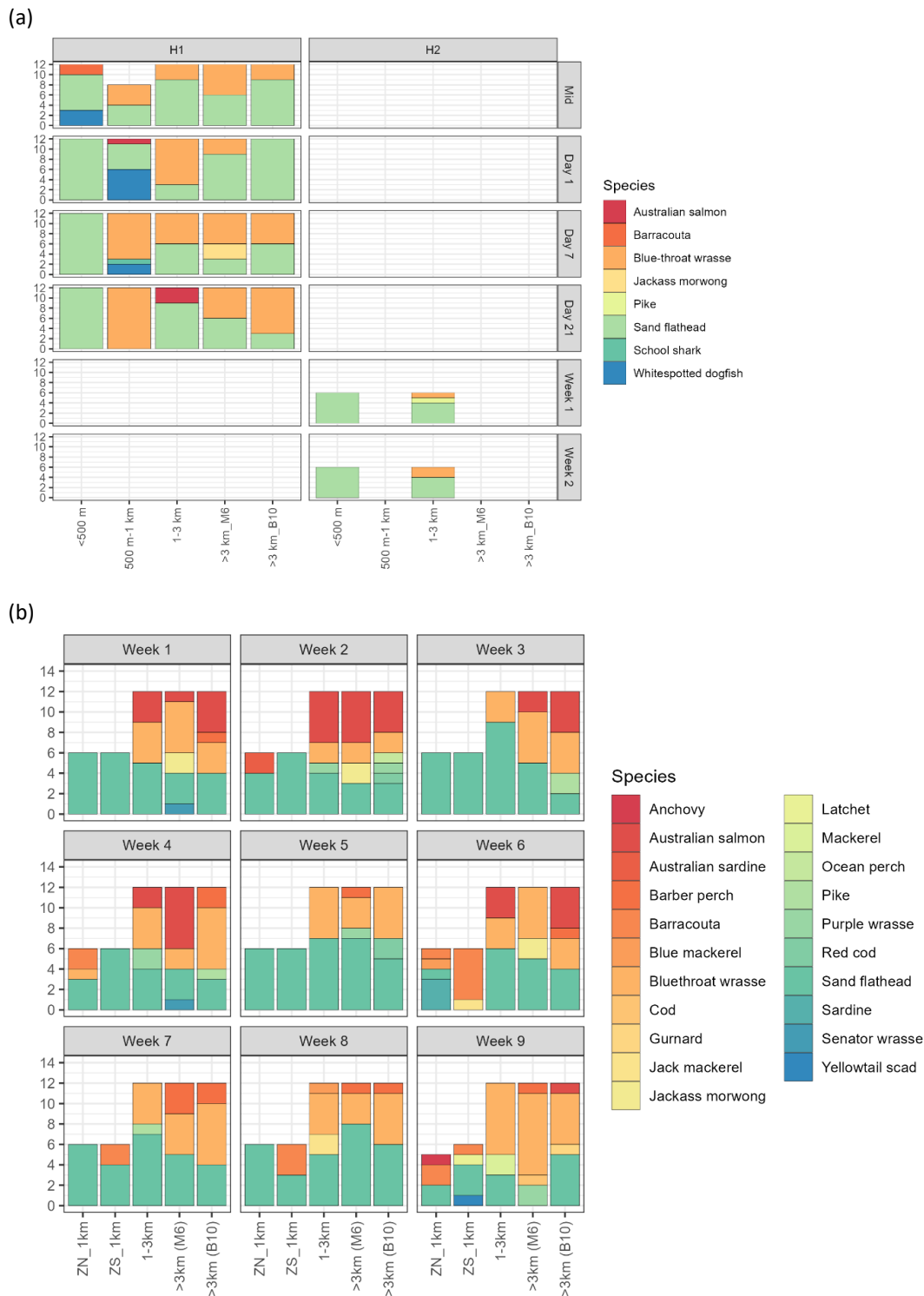


Figure A4.1: Number of fish collected for each species caught during surveys conducted for (a) treatments H1 and H2; and (b) treatments H5-H9. Note that H3+H4 samples for Week 1 and Week 2 coincide with Day 21 associated with treatment H1 and Week 1 associated with treatments H5-H9, respectively. Under-sampling during mid-treatment in the 500 m-1 km zone was due to time constraints imposed by weather conditions.

**Appendix 5: Wild fish sampling field data.****Table A5.1: Wild fish sample data associated with treatment H1 (initial sampling design): mid treatment survey.**

Zone	Pool	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<500m	1	1	20/11/2025	0832	177	Barracouta	290	105	Crustaceans (shrimp)
<500m	1	2	20/11/2025	0931	177	Barracouta	315	105	Crustaceans (shrimp/krill)
<500m	2	3	20/11/2025	0842	177	White spotted Dogfish	795	1190	Fish
<500m	2	4	20/11/2025	0914	177	White spotted Dogfish	665	1265	fish (pilchard)
<500m	2	5	20/11/2025	0920	177	White spotted Dogfish	605	1015	fish
<500m	3	6	20/11/2025	0846	177	Sand flathead	265	155	Fish
<500m	3	7	20/11/2025	0846	177	Sand flathead	250	100	fish
<500m	3	8	20/11/2025	0846	177	Sand flathead	275	120	Empty
<500m	4	9	20/11/2025	0850	177	Sand flathead	260	100	Empty
<500m	4	10	20/11/2025	0850	177	Sand flathead	285	155	Empty
<500m	4	11	20/11/2025	0917	177	Sand flathead	265	120	Crustaceans
<500m	5	12	20/11/2025	0931	177	Sand flathead	250	190	Empty
500m-1km	1	1	20/11/2025	1031	173	Sand flathead	200	140	Crustaceans
500m-1km	1	2	20/11/2025	1050	173	Sand flathead	320	215	Crustaceans (Crab)
500m-1km	1	3	20/11/2025	1050	173	Sand flathead	280	165	Empty
500m-1km	2	4	20/11/2025	1240	173	Sand flathead	275	125	Empty
500m-1km	3	5	20/11/2025	1250	173	Blue-throat wrasse	265	340	algae, Bivalve, Crustaceans
500m-1km	3	6	20/11/2025	1255	173	Blue-throat wrasse	200	140	Algae, Bivalves
500m-1km	3	7	20/11/2025	1258	173	Blue-throat wrasse	310	570	Bivalves
500m-1km	4	8	20/11/2025	1300	173	Blue-throat wrasse	420	420	Bivalves
1-3 km	1	1	19/11/2025	0803	174	Sand flathead	320	220	worm, crustacean
1-3 km	1	2	19/11/2025	1031	174	Sand flathead	250	110	Empty
1-3 km	1	3	19/11/2025	1107	174	Sand flathead	240	180	Empty
1-3 km	2	4	19/11/2025	0808	174	Blue-throat wrasse	290	375	Bivalves
1-3 km	2	5	19/11/2025	0846	174	Blue-throat wrasse	400	1030	Bivalves, Crustaceans, weed
1-3 km	2	6	19/11/2025	1210	174	Blue-throat wrasse	200	140	Empty
1-3 km	3	7	19/11/2025	0830	174	Sand flathead	255	125	Empty
1-3 km	3	8	19/11/2025	0848	174	Sand flathead	250	125	Empty
1-3 km	3	9	19/11/2025	0950	174	Sand flathead	240	180	Empty
1-3 km	4	10	19/11/2025	1020	174	Sand flathead	340	300	crustaceans (crab)
1-3 km	4	11	19/11/2025	1025	174	Sand flathead	295	160	crustaceans (shrimp)
1-3 km	4	12	19/11/2025	1030	174	Sand flathead	290	160	Bivalve (pipi)
>3km_M6_HI	1	1	19/11/2025	1305	175	Blue-throat wrasse	425	1455	Bivalve, Urchin
>3km_M6_HI	1	2	19/11/2025	1310	175	Blue-throat wrasse	330	550	Urchin
>3km_M6_HI	1	3	19/11/2025	1315	175	Blue-throat wrasse	410	1185	Algae, abalone
>3km_M6_HI	2	4	19/11/2025	1236	175	Sand flathead	305	190	Empty
>3km_M6_HI	2	5	19/11/2025	1300	175	Sand flathead	330	190	Worm
>3km_M6_HI	2	6	19/11/2025	1315	175	Sand flathead	285	130	Empty
>3km_M6_HI	3	7	19/11/2025	1406	175	Blue-throat wrasse	263	330	Bivalves
>3km_M6_HI	3	8	19/11/2025	1430	175	Blue-throat wrasse	353	710	Algae, Bivalves
>3km_M6_HI	3	9	19/11/2025	1430	175	Blue-throat wrasse	255	275	Urchin, Algae
>3km_M6_HI	4	10	19/11/2025	1440	175	Sand flathead	350	325	Empty
>3km_M6_HI	4	11	19/11/2025	1450	175	Sand flathead	285	150	Empty
>3km_M6_HI	4	12	19/11/2025	1500	175	Sand flathead	270	115	Algae
>3km_B10	1	1	18/11/2025	1020	176	Sand flathead	310	182	Empty
>3km_B10	1	2	18/11/2025	1040	176	Sand flathead	260	103	Empty
>3km_B10	1	3	18/11/2025	1043	176	Sand flathead	320	195	fish
>3km_B10	2	4	18/11/2025	1047	176	Sand flathead	300	170	Empty
>3km_B10	2	5	18/11/2025	1130	176	Sand flathead	360	260	Empty
>3km_B10	2	6	18/11/2025	1230	176	Sand flathead	320	195	Crustaceans
>3km_B10	3	7	18/11/2025	1445	176	Sand flathead	290	150	Empty
>3km_B10	3	8	18/11/2025	1600	176	Sand flathead	260	103	Crustacean (crab)
>3km_B10	3	9	18/11/2025	1630	176	Sand flathead	280	135	Empty
>3km_B10	4	10	18/11/2025	1410	176	Blue-throat wrasse	210	160	Algae
>3km_B10	4	11	18/11/2025	1420	176	Blue-throat wrasse	240	215	Molluscs
>3km_B10	4	12	18/11/2025	1430	176	Blue-throat wrasse	320	470	Algae

Table A5.2: Wild fish sample data associated with treatment H1 (initial sampling design) Day 1 survey.

Zone	Pool	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<500m	1	1	25/11/2025	1030	200	Sand flathead	231	180	Empty
<500m	1	2	25/11/2025	1035	200	Sand flathead	215	130	Unidentified digested material
<500m	1	3	25/11/2025	1040	200	Sand flathead	254	100	Unidentified digested material
<500m	2	4	25/11/2025	1050	200	Sand flathead	260	115	Unidentified digested material
<500m	2	5	25/11/2025	1055	200	Sand flathead	235	185	Unidentified digested material, Shrimp
<500m	2	6	25/11/2025	1100	200	Sand flathead	246	130	Unidentified digested material, polychaete
<500m	3	7	25/11/2025	1200	200	Sand flathead	230	100	Empty
<500m	3	8	25/11/2025	1215	200	Sand flathead	270	145	Unidentified digested material
<500m	3	9	25/11/2025	1220	200	Sand flathead	240	180	Unidentified digested material
<500m	4	10	25/11/2025	1240	200	Sand flathead	240	175	Empty
<500m	4	11	25/11/2025	1245	200	Sand flathead	325	245	Unidentified digested material
<500m	4	12	25/11/2025	1250	200	Sand flathead	220	180	Empty
500m-1km	1	1	23/11/2025	1320	177	White spotted Dogfish	670	1225	Unidentified digested material
500m-1km	1	2	23/11/2025	1417	177	White spotted Dogfish	620	1005	Squid/octopus
500m-1km	1	3	23/11/2025	1445	177	White spotted Dogfish	510	415	Empty
500m-1km	2	4	23/11/2025	1520	177	White spotted Dogfish	630	1115	Empty
500m-1km	2	5	23/11/2025	1601	177	White spotted Dogfish	610	990	Fish
500m-1km	2	6	23/11/2025	1637	177	White spotted Dogfish	640	1120	Octopus
500m-1km	3	7	23/11/2025	1420	177	Sand flathead	200	160	Crab
500m-1km	3	8	23/11/2025	1511	177	Sand flathead	260	195	Mollusc
500m-1km	3	9	23/11/2025	1547	177	Sand flathead	240	195	Empty
500m-1km	4	10	23/11/2025	1610	177	Sand flathead	220	170	Empty
500m-1km	4	11	23/11/2025	1643	177	Sand flathead	230	190	Empty
500m-1km	5	12	23/11/2025	1527	177	Australian Salmon	350	410	Empty
1-3 km	1	1	23/11/2025	1113	174	Blue-throat wrasse	220	155	Empty
1-3 km	1	2	23/11/2025	1121	174	Blue-throat wrasse	245	230	Algae
1-3 km	1	3	23/11/2025	1138	174	Blue-throat wrasse	230	180	Empty
1-3 km	2	4	23/11/2025	1117	174	Sand flathead	230	65	Crustaceans
1-3 km	2	5	23/11/2025	1143	174	Sand flathead	225	70	Fish
1-3 km	2	6	23/11/2025	1159	174	Sand flathead	310	220	Empty
1-3 km	3	7	23/11/2025	1247	174	Blue-throat wrasse	400	1030	Isopods
1-3 km	3	8	23/11/2025	1153	174	Blue-throat wrasse	240	620	Empty
1-3 km	3	9	23/11/2025	1157	174	Blue-throat wrasse	310	825	Isopods
1-3 km	4	10	23/11/2025	1203	174	Blue-throat wrasse	320	825	Algae
1-3 km	4	11	23/11/2025	1203	174	Blue-throat wrasse	290	400	Empty
1-3 km	4	12	23/11/2025	1218	174	Blue-throat wrasse	240	240	Empty
>3km_M6_HI	1	1	23/11/2025	0926	175	Blue-throat wrasse	330	895	Algae
>3km_M6_HI	1	2	23/11/2025	0951	175	Blue-throat wrasse	300	510	Empty
>3km_M6_HI	1	3	23/11/2025	1012	175	Blue-throat wrasse	310	490	Empty
>3km_M6_HI	2	4	23/11/2025	0900	175	Sand flathead	320	220	Crabs
>3km_M6_HI	2	5	23/11/2025	0903	175	Sand flathead	340	270	Empty
>3km_M6_HI	2	6	23/11/2025	0917	175	Sand flathead	280	140	Crab
>3km_M6_HI	3	7	23/11/2025	0925	175	Sand flathead	280	150	Empty
>3km_M6_HI	3	8	23/11/2025	0931	175	Sand flathead	280	145	Squat lobster
>3km_M6_HI	3	9	23/11/2025	0945	175	Sand flathead	350	290	Fish
>3km_M6_HI	4	10	23/11/2025	1000	175	Sand flathead	270	135	Crab
>3km_M6_HI	4	11	23/11/2025	1020	175	Sand flathead	310	220	Empty
>3km_M6_HI	4	12	23/11/2025	1029	175	Sand flathead	280	150	Empty
>3km_B10	1	1	23/11/2025	0615	176	Sand flathead	310	185	Unidentified digested material
>3km_B10	1	2	23/11/2025	0627	176	Sand flathead	320	195	Empty
>3km_B10	1	3	23/11/2025	0633	176	Sand flathead	265	145	Amphipods
>3km_B10	2	4	23/11/2025	0639	176	Sand flathead	330	235	Crabs
>3km_B10	2	5	23/11/2025	0710	176	Sand flathead	226	120	Empty
>3km_B10	2	6	23/11/2025	0717	176	Sand flathead	340	280	Crab
>3km_B10	3	7	23/11/2025	0742	176	Sand flathead	280	130	Empty
>3km_B10	3	8	23/11/2025	0801	176	Sand flathead	352	310	Octopus
>3km_B10	3	9	23/11/2025	0810	176	Sand flathead	320	260	Octopus
>3km_B10	4	10	23/11/2025	0824	176	Sand flathead	190	35	Empty
>3km_B10	4	11	23/11/2025	0829	176	Sand flathead	260	130	Empty
>3km_B10	4	12	23/11/2025	0847	176	Sand flathead	260	135	Empty

Table A5.3: Wild fish sample data associated with treatment H1 (initial sampling design): Day 7 survey.

Zone	Pool	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<500m	1	1	2/12/2025	1030	178	Sand flathead	260	115	Crab, shell grit
<500m	1	2	2/12/2025	0830	178	Sand flathead	230	100	Grit
<500m	1	3	2/12/2025	1030	178	Sand flathead	220	75	Grit
<500m	2	4	2/12/2025	1046	178	Sand flathead	190	40	Empty
<500m	2	5	2/12/2025	1058	178	Sand flathead	250	115	Empty
<500m	2	6	2/12/2025	1105	178	Sand flathead	200	55	shrimps
<500m	3	7	2/12/2025	1115	178	Sand flathead	180	40	Empty
<500m	3	8	2/12/2025	1127	178	Sand flathead	210	60	Empty
<500m	3	9	2/12/2025	1133	178	Sand flathead	200	40	Shrimps
<500m	4	10	2/12/2025	1142	178	Sand flathead	200	65	Empty
<500m	4	11	2/12/2025	1150	178	Sand flathead	260	110	Empty
<500m	4	12	2/12/2025	1158	178	Sand flathead	260	115	Empty
500m-1km	1	1	2/12/2025	0630	177	Blue-throat wrasse	240	230	Crab legs, bones, scales
500m-1km	1	2	2/12/2025	0643	177	Blue-throat wrasse	250	255	Empty
500m-1km	1	3	2/12/2025	0652	177	Blue-throat wrasse	250	260	Empty
500m-1km	2	4	2/12/2025	0700	177	Blue-throat wrasse	290	490	Empty
500m-1km	2	5	2/12/2025	0723	177	Blue-throat wrasse	250	245	Empty
500m-1km	2	6	2/12/2025	0741	177	Blue-throat wrasse	300	445	Empty
500m-1km	3	7	2/12/2025	0911	177	Blue-throat wrasse	250	270	Shell grit, tiny arthropods
500m-1km	3	8	2/12/2025	0923	177	Blue-throat wrasse	310	510	Large shell fragments
500m-1km	3	9	2/12/2025	0940	177	Blue-throat wrasse	260	290	Crab legs, seaweed, shell grit
500m-1km	4	10	2/12/2025	0717	177	White spotted Dogfish	650	1100	Fish bones
500m-1km	4	11	2/12/2025	0826	177	Whites potted Dogfish	600	820	Crab legs and shells
500m-1km	5	12	2/12/2025	0920	177	School Shark	650	1160	Crab, fish flesh, isopod
1-3 km	1	1	1/12/2025	1402	174	Sand flathead	330	230	Crab, shrimps, scales, isopod
1-3 km	1	2	1/12/2025	1405	174	Sand flathead	345	275	Crab, scales
1-3 km	1	3	1/12/2025	1410	174	Sand flathead	290	145	Scales
1-3 km	2	4	1/12/2025	1420	174	Sand flathead	320	210	Empty
1-3 km	2	5	1/12/2025	1425	174	Sand flathead	320	235	Empty
1-3 km	2	6	1/12/2025	1430	174	Sand flathead	310	225	Small fish
1-3 km	3	7	1/12/2025	1440	174	Blue-throat wrasse	280	305	Worm
1-3 km	3	8	1/12/2025	1442	174	Blue-throat wrasse	290	450	Gastropod, crab
1-3 km	3	9	1/12/2025	1450	174	Blue-throat wrasse	280	390	Gastropod
1-3 km	4	10	1/12/2025	1505	174	Blue-throat wrasse	220	190	Crab
1-3 km	4	11	1/12/2025	1508	174	Blue-throat wrasse	270	315	Seastar arm
1-3 km	4	12	1/12/2025	1512	174	Blue-throat wrasse	280	365	Shell grit, crab legs
>3km_M6_HI	1	1	1/12/2025	1200	172	Blue-throat wrasse	290	295	Bones, shells, gastropod
>3km_M6_HI	1	2	1/12/2025	1205	172	Blue-throat wrasse	280	385	Empty
>3km_M6_HI	1	3	1/12/2025	1217	172	Blue-throat wrasse	220	220	Urchins, sand, shell
>3km_M6_HI	2	4	1/12/2025	1300	172	Jackass morwong	220	160	Shells
>3km_M6_HI	2	5	1/12/2025	1304	172	Jackass morwong	220	130	Empty
>3km_M6_HI	2	6	1/12/2025	1306	172	Jackass morwong	250	195	Empty
>3km_M6_HI	3	7	1/12/2025	1235	172	Blue-throat wrasse	260	320	Gastropod, seaweed
>3km_M6_HI	3	8	1/12/2025	1243	172	Blue-throat wrasse	300	470	Crabs, shells
>3km_M6_HI	3	9	1/12/2025	1300	172	Blue-throat wrasse	400	1080	Empty
>3km_M6_HI	4	10	1/12/2025	1305	172	Sand flathead	330	225	Empty
>3km_M6_HI	4	11	1/12/2025	1308	172	Sand flathead	250	140	Empty
>3km_M6_HI	4	12	1/12/2025	1312	172	Sand flathead	270	100	Shell grit
>3km_B10	1	1	1/12/2025	0847	176	Sand flathead	370	340	Empty
>3km_B10	1	2	1/12/2025	0852	176	Sand flathead	310	170	Empty
>3km_B10	1	3	1/12/2025	0905	176	Sand flathead	310	190	Empty
>3km_B10	2	4	1/12/2025	1100	176	Sand flathead	260	120	Empty
>3km_B10	2	5	1/12/2025	1122	176	Sand flathead	270	125	Empty
>3km_B10	2	6	1/12/2025	1125	176	Sand flathead	200	45	Empty
>3km_B10	3	7	1/12/2025	1105	176	Blue-throat wrasse	255	270	Shells, gastropods,
>3km_B10	3	8	1/12/2025	1107	176	Blue-throat wrasse	390	935	Crabs, shells
>3km_B10	3	9	1/12/2025	1110	176	Blue-throat wrasse	280	350	Worms
>3km_B10	4	10	1/12/2025	1112	176	Blue-throat wrasse	250	250	Empty
>3km_B10	4	11	1/12/2025	1118	176	Blue-throat wrasse	230	200	Empty
>3km_B10	4	12	1/12/2025	1128	176	Blue-throat wrasse	225	165	Bones, shells, gastropod

Table A5.4: Wild fish sample data associated with treatment H1 (initial sampling design): Day 21 survey.

Zone	Pool	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<500m	1	1	16/12/2025	0930	184	Sand flathead	285	165	Crustaceans
<500m	1	2	16/12/2025	0935	184	Sand flathead	268	150	Empty
<500m	1	3	16/12/2025	0940	184	Sand flathead	274	130	White crustaceans
<500m	2	1	16/12/2025	0940	184	Sand flathead	234	100	White crustaceans
<500m	2	2	16/12/2025	0945	184	Sand flathead	205	60	Black/white crustaceans
<500m	2	3	16/12/2025	0950	184	Sand flathead	230	100	Unidentified
<500m	3	1	16/12/2025	0950	184	Sand flathead	220	60	White crustaceans
<500m	3	2	16/12/2025	0955	184	Sand flathead	232	90	White fish
<500m	3	3	16/12/2025	1000	184	Sand flathead	237	90	Empty
<500m	4	1	16/12/2025	1010	184	Sand flathead	249	105	White small fish
<500m	4	2	16/12/2025	1025	184	Sand flathead	265	120	Empty
<500m	4	3	16/12/2025	1036	184	Sand flathead	200	50	Empty
500m-1km	1	1	16/12/2025	1130	177	Blue-throat wrasse	356	755	Purple urchin + crab claws
500m-1km	1	2	16/12/2025	1400	177	Blue-throat wrasse	270	290	Digested urchin
500m-1km	1	3	16/12/2025	1415	177	Blue-throat wrasse	225	175	Oysters
500m-1km	2	1	16/12/2025	1417	177	Blue-throat wrasse	305	495	Mixed molluscs
500m-1km	2	2	16/12/2025	1420	177	Blue-throat wrasse	310	510	Seastar arms (yellow)
500m-1km	2	3	16/12/2025	1430	177	Blue-throat wrasse	72	80	Unidentified
500m-1km	3	1	16/12/2025	1435	177	Blue-throat wrasse	270	310	Mixed molluscs
500m-1km	3	2	16/12/2025	1430	177	Blue-throat wrasse	262	275	Mixed molluscs
500m-1km	3	3	16/12/2025	1510	177	Blue-throat wrasse	294	440	Mixed molluscs
500m-1km	4	1	16/12/2025	1615	177	Blue-throat wrasse	252	285	Unidentified
500m-1km	4	2	16/12/2025	1620	177	Blue-throat wrasse	230	220	Unidentified
500m-1km	4	3	16/12/2025	1635	177	Blue-throat wrasse	267	315	Mussel, other unidentified
1-3 km	1	1	15/12/2025	1630	174	Sand flathead	270	175	1 x white crab
1-3 km	1	2	15/12/2025	1632	174	Sand flathead	330	235	Empty
1-3 km	1	3	15/12/2025	1635	174	Sand flathead	340	250	1 x small juvenile flathead
1-3 km	2	1	15/12/2025	1637	174	Sand flathead	300	155	Empty
1-3 km	2	2	15/12/2025	1639	174	Sand flathead	260	130	Small white bait fish, molluscs
1-3 km	2	3	15/12/2025	1641	174	Sand flathead	220	85	Empty
1-3 km	3	1	15/12/2025	1643	174	Sand flathead	300	180	Small squid
1-3 km	3	2	15/12/2025	1645	174	Sand flathead	240	120	2 x small green crabs
1-3 km	3	3	15/12/2025	1646	174	Sand flathead	220	80	Empty
1-3 km	4	1	15/12/2025	1640	174	Australian Salmon	410	720	Half-digested small white fish
1-3 km	4	2	15/12/2025	1645	174	Australian Salmon	390	560	Half-digested small white fish
1-3 km	4	3	15/12/2025	1700	174	Australian Salmon	470	1110	Little squid, little white bait fish
>3km_M6_HI	1	1	15/12/2025	1350	175	Blue-throat wrasse	310	480	Green crab
>3km_M6_HI	1	2	15/12/2025	1355	175	Blue-throat wrasse	330	550	Broken shells
>3km_M6_HI	1	3	15/12/2025	1410	175	Blue-throat wrasse	300	420	Shell grit
>3km_M6_HI	2	1	15/12/2025	1412	175	Blue-throat wrasse	310	375	Mussel shell
>3km_M6_HI	2	2	15/12/2025	1415	175	Blue-throat wrasse	280	310	Green algae
>3km_M6_HI	2	3	15/12/2025	1420	175	Blue-throat wrasse	265	270	Shell grit
>3km_M6_HI	3	1	15/12/2025	1415	175	Sand flathead	290	198	Empty
>3km_M6_HI	3	2	15/12/2025	1430	175	Sand flathead	220	80	Empty
>3km_M6_HI	3	3	15/12/2025	1435	175	Sand flathead	285	165	Tiny squid
>3km_M6_HI	4	1	15/12/2025	1435	175	Sand flathead	245	102	Empty
>3km_M6_HI	4	2	15/12/2025	1445	175	Sand flathead	195	55	Crab
>3km_M6_HI	4	3	15/12/2025	1450	175	Sand flathead	180	35	Empty
>3km_B10	1	1	15/12/2025	1200	176	Sand flathead	255	95	Isopod
>3km_B10	1	2	15/12/2025	1300	176	Sand flathead	315	220	Crab + seagrass
>3km_B10	1	3	15/12/2025	1306	176	Sand flathead	250	90	Unidentified partially digested
>3km_B10	2	1	15/12/2025	1130	176	Blue-throat wrasse	180	90	Unidentified partially digested
>3km_B10	2	2	15/12/2025	1135	176	Blue-throat wrasse	195	115	Empty
>3km_B10	2	3	15/12/2025	1140	176	Blue-throat wrasse	210	160	Shellgrit, molluscs
>3km_B10	3	1	15/12/2025	1145	176	Blue-throat wrasse	220	190	Molluscs + seaweed
>3km_B10	3	2	15/12/2025	1220	176	Blue-throat wrasse	195	115	Crustaceans
>3km_B10	3	3	15/12/2025	1230	176	Blue-throat wrasse	230	150	Oysters
>3km_B10	4	1	15/12/2025	1240	176	Blue-throat wrasse	260	295	Unidentified
>3km_B10	4	2	15/12/2025	1250	176	Blue-throat wrasse	240	225	Molluscs
>3km_B10	4	3	15/12/2025	1300	176	Blue-throat wrasse	320	535	Molluscs

Table A5.5: Wild fish sample data associated with treatment H2 (weekly design) Week 1 survey.

Zone	Pool	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
1-3km	1	1	12/08/2025	1340	188	Sand flathead	266	120	Crabs, shrimp
1-3km	1	2	12/08/2025	1342	188	Sand flathead	308	175	Empty
1-3km	1	3	12/08/2025	1345	188	Sand flathead	330	240	Fish
1-3km	1	4	12/08/2025	1350	188	Pike	418	465	Empty
1-3km	1	5	12/08/2025	1352	188	Sand flathead	286	150	Empty
1-3km	1	6	12/08/2025	1352	188	Blue-throat wrasse	310	510	Bivalves (shells)
<500m	1	1	12/08/2025	1800	ZS13	Sand flathead	226	95	Unidentified, stomach content
<500m	1	2	12/08/2025	1801	ZS13	Sand flathead	246	95	Shrimp (crustaceans), algae
<500m	1	3	12/08/2025	1801	ZS13	Sand flathead	235	100	Shrimp (crustaceans)
<500m	1	4	12/08/2025	1802	ZS13	Sand flathead	218	65	Shrimp, isopod
<500m	1	5	12/08/2025	1802	ZS13	Sand flathead	210	65	Empty
<500m	1	6	12/08/2025	1803	ZS13	Sand flathead	208	65	Shrimp

Table A5.6: Wild fish sample data associated with treatment H2 (weekly design): Week 2.

Zone	Pool	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
1-3km	1	1	15/12/2025	1840	188	Sand flathead	260	115	Empty
1-3km	1	2	15/12/2025	1845	188	Sand flathead	300	170	Shell grit, white meat
1-3km	1	3	15/12/2025	1855	188	Sand flathead	270	105	Digested crab
1-3km	1	4	15/12/2025	1910	188	Sand flathead	320	220	Digested crab. Shell grit
1-3km	1	5	15/12/2025	1915	188	Bluethroat wrasse	330	525	Shell grit, sand
1-3km	1	6	15/12/2025	1920	188	Bluethroat wrasse	310	445	Shell grit, little crab
<500m	1	1	16/12/2025	0810	ZS13	Sand flathead	190	50	Tiny white fish
<500m	1	2	16/12/2025	0830	ZS13	Sand flathead	220	75	Black/yellow crustaceans
<500m	1	3	16/12/2025	0845	ZS13	Sand flathead	240	90	Black/yellow crustaceans
<500m	1	4	16/12/2025	0850	ZS13	Sand flathead	260	90	Empty
<500m	1	5	16/12/2025	0900	ZS13	Sand flathead	280	120	Small amphipods
<500m	1	6	16/12/2025	0902	ZS13	Sand flathead	230	75	Empty

Table A5.7: Wild fish sample data associated with treatments H5-H9 (weekly design): Week 1.

Zone	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
>3km_M6	1	22/12/2025	1415	175	Sand flathead	308	185	Digestive material
>3km_M6	2	22/12/2025	1417	175	Jackass morwong	275	250	Empty
>3km_M6	3	22/12/2025	1420	175	Jackass morwong	290	295	Digestive material, worm
>3km_M6	4	22/12/2025	1420	175	Australian salmon	294	295	Empty
>3km_M6	5	22/12/2025	1422	175	Blue-throat wrasse	339	660	Shells, gastropods
>3km_M6	6	22/12/2025	1424	175	Blue-throat wrasse	304	530	Brown coagulated contents
>3km_M6	7	22/12/2025	1424	175	Blue-throat wrasse	298	460	Shell grit
>3km_M6	8	22/12/2025	1426	175	Sand flathead	181	35	White baitfish
>3km_M6	9	22/12/2025	1427	175	Sand flathead	245	95	Empty
>3km_M6	10	22/12/2025	1428	175	Blue-throat wrasse	350	735	Mussels, gastropod
>3km_M6	11	22/12/2025	1430	175	Blue-throat wrasse	324	575	Shell grit
>3km_M6	12	22/12/2025	1430	175	Senator wrasse	210	115	Shell grit
1-3km	1	22/12/2025	1140	188	Sand flathead	270	105	Small worms
1-3km	2	22/12/2025	1142	188	Sand flathead	240	85	Gastropod
1-3km	3	22/12/2025	1144	188	Sand flathead	230	75	Arthropods
1-3km	4	22/12/2025	1150	188	Blue-throat wrasse	440	325	Shell grit, molluscs
1-3km	5	22/12/2025	1152	188	Blue-throat wrasse	250	275	Shell grit
1-3km	6	22/12/2025	1154	188	Blue-throat wrasse	260	295	Shell grit, gastropods
1-3km	7	22/12/2025	1237	174	Australian salmon	490	550	White baitfish
1-3km	8	22/12/2025	1239	174	Australian salmon	365	640	Baitfish
1-3km	9	22/12/2025	1240	174	Australian salmon	365	605	Empty
1-3km	10	22/12/2025	1243	174	Sand flathead	320	215	Crabs
1-3km	11	22/12/2025	1245	174	Sand flathead	320	200	White baitfish, arthropods
1-3km	12	22/12/2025	1247	174	Blue-throat wrasse	352	750	Crab, mussel shells
<1km_ZS	1	22/12/2025	1030	190	Sand flathead	220	70	Small arthropods
<1km_ZS	2	22/12/2025	1031	190	Sand flathead	210	65	Small arthropods, white baitfish
<1km_ZS	3	22/12/2025	1033	190	Sand flathead	240	110	Empty
<1km_ZS	4	22/12/2025	1036	190	Sand flathead	125	75	Arthropods, molluscs
<1km_ZS	5	22/12/2025	1039	190	Sand flathead	250	85	Small crabs
<1km_ZS	6	22/12/2025	1041	190	Sand flathead	240	95	Arthropods, squid
<1km_ZN	7	22/12/2025	1110	183	Sand flathead	320	210	Pellets (x2)
<1km_ZN	8	22/12/2025	1112	183	Sand flathead	245	115	Arthropod, small whitebait
<1km_ZN	9	22/12/2025	1115	183	Sand flathead	250	100	Worms, arthropods
<1km_ZN	10	22/12/2025	1118	183	Sand flathead	275	120	Arthropods, crabs
<1km_ZN	11	22/12/2025	1120	183	Sand flathead	245	105	Arthropods
<1km_ZN	12	22/12/2025	1122	183	Sand flathead	175	60	Empty
>3km_B10	1	22/12/2025	1030	176	Sand flathead	360	285	Crabs, shells
>3km_B10	2	22/12/2025	1031	176	Sand flathead	300	135	Empty
>3km_B10	3	22/12/2025	1033	176	Sand flathead	290	165	Empty
>3km_B10	4	22/12/2025	1036	176	Sand flathead	260	115	Gastropod
>3km_B10	5	22/12/2025	1039	176	Barber Perch	234	50	Empty
>3km_B10	6	22/12/2025	1041	176	Australian salmon	360	430	Pilchards
>3km_B10	7	22/12/2025	1110	176	Australian salmon	370	485	Pilchards
>3km_B10	8	22/12/2025	1112	176	Australian salmon	380	470	Pilchards
>3km_B10	9	22/12/2025	1115	176	Australian salmon	340	275	Shell grit
>3km_B10	10	22/12/2025	1118	176	Blue-throat wrasse	400	875	Shell grit
>3km_B10	11	22/12/2025	1120	176	Blue-throat wrasse	220	155	Gastropods, worms
>3km_B10	12	22/12/2025	1122	176	Blue-throat wrasse	270	295	Empty

Table A5.8: Wild fish sample data associated with treatments H5-H9 (weekly design): Week

Zone	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<1km_ZN	1	2/01/2026	0956	184	Sand flathead	240	95	Empty
<1km_ZN	2	2/01/2026	1005	184	Sand flathead	232	90	Fish & crab
<1km_ZN	3	2/01/2026	1007	184	Sand flathead	222	70	Pellet
<1km_ZN	4	2/01/2026	1012	184	Sand flathead	244	95	Crustaceans, amphipods
<1km_ZN	5	2/01/2026	1015	184	Australian sardine	121	12	Unidentified digested material
<1km_ZN	6	2/01/2026	1021	184	Australian sardine	114	8	Empty
<1km_ZS	1	2/01/2026	0910	189	Sand flathead	254	110	Unidentified digested material
<1km_ZS	2	2/01/2026	0910	189	Sand flathead	274	135	Crustaceans, amphipods
<1km_ZS	3	2/01/2026	0915	189	Sand flathead	240	95	Pellet
<1km_ZS	4	2/01/2026	0924	189	Sand flathead	248	90	Empty
<1km_ZS	5	2/01/2026	0924	189	Sand flathead	221	70	White digested material
<1km_ZS	6	2/01/2026	0920	189	Sand flathead	251	95	Crustaceans
1-3km	1	2/01/2026	0630	174	Australian salmon	375	655	Bait fish
1-3km	2	2/01/2026	0635	174	Australian salmon	307	320	Small white fish & crustaceans
1-3km	3	2/01/2026	0645	174	Purple wrasse	355	730	Hard, white flesh
1-3km	4	2/01/2026	0700	174	Blue-throat wrasse	302	450	Shells
1-3km	5	2/01/2026	0720	174	Sand flathead	276	145	Empty
1-3km	6	2/01/2026	0740	174	Sand flathead	288	195	Crustaceans
1-3km	7	2/01/2026	0820	188	Australian salmon	309	305	Crustaceans
1-3km	8	2/01/2026	0820	188	Australian salmon	313	330	Bait fish
1-3km	9	2/01/2026	0825	188	Blue-throat wrasse	315	530	Bait fish, crustaceans
1-3km	10	2/01/2026	0827	188	Sand flathead	320	220	Crustaceans; unidentified digested material
1-3km	11	2/01/2026	0830	188	Sand flathead	327	240	Empty
1-3km	12	2/01/2026	0840	188	Australian salmon	286	235	Empty
>3km_B10	1	2/01/2026	1155	176	Sand flathead	285	140	Unidentified digested material
>3km_B10	2	2/01/2026	1159	176	Sand flathead	297	165	Unidentified digested material
>3km_B10	3	2/01/2026	1200	176	Sand flathead	245	95	Empty
>3km_B10	4	2/01/2026	1208	176	Red cod	263	245	Fish spine
>3km_B10	5	2/01/2026	1210	176	Ocean perch	332	540	Molluscs
>3km_B10	6	2/01/2026	1212	176	Australian salmon	315	360	Pilchards
>3km_B10	7	2/01/2026	1218	176	Australian salmon	294	275	Pilchards
>3km_B10	8	2/01/2026	1220	176	Australian salmon	296	270	Pilchard
>3km_B10	9	2/01/2026	1228	176	Blue-throat wrasse	253	250	Molluscs
>3km_B10	10	2/01/2026	1231	176	Blue-throat wrasse	262	335	Molluscs
>3km_B10	11	2/01/2026	1232	176	Purple wrasse	279	365	Molluscs
>3km_B10	12	2/01/2026	1235	176	Australian salmon	364	540	Empty
>3km_M6	1	2/01/2026	1330	175	Jackass morwong	247	170	Shells, digested molluscs
>3km_M6	2	2/01/2026	1333	175	Jackass morwong	264	190	Crustaceans
>3km_M6	3	2/01/2026	1334	175	Sand flathead	311	200	Red algae & fish scales
>3km_M6	4	2/01/2026	1340	175	Sand flathead	260	100	Empty
>3km_M6	5	2/01/2026	1345	175	Australian salmon	326	350	Pilchard
>3km_M6	6	2/01/2026	1349	175	Australian salmon	352	465	Empty
>3km_M6	7	2/01/2026	1350	175	Australian salmon	358	480	Pilchards
>3km_M6	8	2/01/2026	1352	175	Australian salmon	336	360	Small scales
>3km_M6	9	2/01/2026	1359	175	Australian salmon	337	420	Pilchards
>3km_M6	10	2/01/2026	1414	175	Blue-throat wrasse	361	800	Hard orange flesh
>3km_M6	11	2/01/2026	1420	175	Blue-throat wrasse	282	370	Urchin spines, large crustaceans
>3km_M6	12	2/01/2026	1426	175	Sand flathead	306	205	Empty

Table A5.9: Wild fish sample data associated with treatments H5-H9 (weekly design): Week 3.

Zone	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<1km_ZN	1	1/07/2026	1430	184	Sand flathead	236	95	Crabs, shrimps
<1km_ZN	2	1/07/2026	1438	184	Sand flathead	223	70	Arthropods (shrimps)
<1km_ZN	3	1/07/2026	1452	184	Sand flathead	224	70	Empty
<1km_ZN	4	1/07/2026	1505	184	Sand flathead	246	100	Soft material
<1km_ZN	5	1/07/2026	1510	184	Sand flathead	207	60	Empty
<1km_ZN	6	1/07/2026	1535	184	Sand flathead	183	40	Arthropod
<1km_ZS	1	1/07/2026	1355	189	Sand flathead	209	65	Empty
<1km_ZS	2	1/07/2026	1358	189	Sand flathead	254	120	Arthropod
<1km_ZS	3	1/07/2026	1410	189	Sand flathead	250	105	Arthropod
<1km_ZS	4	1/07/2026	1413	189	Sand flathead	239	105	Empty
<1km_ZS	5	1/07/2026	1416	189	Sand flathead	223	80	Empty
<1km_ZS	6	1/07/2026	1416	189	Sand flathead	274	135	Empty
1-3km	1	1/07/2026	1235	188	Sand flathead	245	80	Empty
1-3km	2	1/07/2026	1247	188	Sand flathead	220	80	Shells and grit
1-3km	3	1/07/2026	1255	188	Sand flathead	290	135	Crustaceans, squid/octopus
1-3km	4	1/07/2026	1320	188	Sand flathead	240	100	Squid, shells
1-3km	5	1/07/2026	1310	188	Blue-throat wrasse	230	220	Shell grit
1-3km	6	1/07/2026	1327	188	Blue-throat wrasse	270	330	Shells, crab
1-3km	7	1/07/2026	1335	188	Sand flathead	200	45	Empty
1-3km	8	1/07/2026	1338	188	Sand flathead	260	110	Shell grit
1-3km	9	1/07/2026	1345	188	Sand flathead	220	65	Algae
1-3km	10	1/07/2026	1623	174	Blue-throat wrasse	322	565	Algae, crab
1-3km	11	1/07/2026	1610	174	Sand flathead	275	125	Empty
1-3km	12	1/07/2026	1615	174	Sand flathead	274	125	Empty
>3km_B10	1	1/06/2026	1510	176	Sand flathead	286	170	Crab, crustaceans
>3km_B10	2	1/06/2026	1532	176	Sand flathead	297	170	Crab
>3km_B10	3	1/06/2026	1536	176	Pike	326	240	Empty (loads of eggs in body cavity)
>3km_B10	4	1/06/2026	1540	176	Pike	427	500	Empty
>3km_B10	5	1/06/2026	1505	176	Blue-throat wrasse	254	260	Algae, shell grit
>3km_B10	6	1/06/2026	1507	176	Blue-throat wrasse	320	570	Prawn, shells, algae
>3km_B10	7	1/06/2026	1515	176	Blue-throat wrasse	269	295	Fish roe
>3km_B10	8	1/06/2026	1527	176	Blue-throat wrasse	225	165	Shell grit
>3km_B10	9	1/06/2026	1531	176	Australian salmon	373	590	Anchovy
>3km_B10	10	1/06/2026	1535	176	Australian salmon	348	420	Empty
>3km_B10	11	1/06/2026	1540	176	Australian salmon	345	450	Empty
>3km_B10	12	1/06/2026	1542	176	Australian salmon	348	485	4 x anchovy
>3km_M6	1	1/06/2026	1603	175	Sand flathead	340	275	Empty
>3km_M6	2	1/06/2026	1605	175	Sand flathead	310	205	Crustacean
>3km_M6	3	1/06/2026	1650	175	Sand flathead	240	140	Empty
>3km_M6	4	1/06/2026	1710	175	Sand flathead	220	80	Crab
>3km_M6	5	1/06/2026	1720	175	Sand flathead	210	80	Empty
>3km_M6	6	1/06/2026	1610	175	Blue-throat wrasse	430	1390	Algae, crustacean
>3km_M6	7	1/06/2026	1623	175	Blue-throat wrasse	350	1030	Cephalopod (squid or octopus)
>3km_M6	8	1/06/2026	1651	175	Blue-throat wrasse	290	385	Shell grit, algae
>3km_M6	9	1/06/2026	1705	175	Blue-throat wrasse	300	305	Shell grit, algae, crustacean
>3km_M6	10	1/06/2026	1730	175	Blue-throat wrasse	390	485	Urchin
>3km_M6	11	1/06/2026	1645	175	Australian salmon	390	485	Anchovy
>3km_M6	12	1/06/2026	1710	175	Australian salmon	330	315	Anchovy

**Table A5.10: Wild fish sample data associated with treatments H5-H9 (weekly design): Week 4. Times in this table include the start and finish time for each site sampled (e.g. samples taken between 1025 and 1134 at <1km\_ZS).**

Zone	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<1km_ZN	1	15/01/2026	1200	184	Sand flathead	255	115	Empty
<1km_ZN	2	15/01/2026		184	Sand flathead	240	90	Unidentifiable soft material
<1km_ZN	3	15/01/2026		184	Barracouta	70	10	Empty
<1km_ZN	4	15/01/2026		184	Barracouta	80	10	Empty
<1km_ZN	5	15/01/2026		184	Sand flathead	245	90	Shrimp and unidentifiable soft material
<1km_ZN	6	15/01/2026	1415	173	Blue-throat wrasse	260	315	Molluscs
<1km_ZS	1	15/01/2026	1025	189	Sand flathead	170	35	Unidentifiable soft material
<1km_ZS	2	15/01/2026		189	Sand flathead	215	70	Unidentifiable soft material
<1km_ZS	3	15/01/2026		189	Sand flathead	255	95	Unidentifiable soft material
<1km_ZS	4	15/01/2026		189	Sand flathead	225	70	Empty
<1km_ZS	5	15/01/2026		189	Sand flathead	230	85	Arthropod (shrimp)
<1km_ZS	6	15/01/2026	1134	189	Sand flathead	210	65	Empty
1-3km	1	15/01/2026	0800	174	Sand flathead	250	100	Empty
1-3km	2	15/01/2026		174	Sand flathead	310	195	Empty
1-3km	3	15/01/2026		174	Australian salmon	310	310	Unidentifiable soft material
1-3km	4	15/01/2026		174	Australian salmon	305	310	Empty
1-3km	5	15/01/2026		174	Purple wrasse	360	740	Unidentifiable soft material
1-3km	6	15/01/2026		174	Blue-throat wrasse	270	325	Molluscs
1-3km	7	15/01/2026		174	Sand flathead	270	170	Empty
1-3km	8	15/01/2026		188	Purple wrasse	310	670	Unidentifiable soft material
1-3km	9	15/01/2026		188	Blue-throat wrasse	310	625	Unidentifiable soft material
1-3km	10	15/01/2026		188	Blue-throat wrasse	240	255	Unidentifiable soft material
1-3km	11	15/01/2026		188	Blue-throat wrasse	280	370	Brown algae and unidentifiable soft material
1-3km	12	15/01/2026	1000	188	Sand flathead	260	115	Empty
>3km_B10	1	14/01/2026	1420	176	Sand flathead	300	165	Crabs
>3km_B10	2	14/01/2026		176	Sand flathead	300	165	Isopods
>3km_B10	3	14/01/2026		176	Sand flathead	310	180	Empty
>3km_B10	4	14/01/2026		176	Barber perch	220	140	Empty
>3km_B10	5	14/01/2026		176	Blue-throat wrasse	310	515	Unidentifiable soft material
>3km_B10	6	14/01/2026		176	Barber perch	210	125	Unidentifiable soft material
>3km_B10	7	14/01/2026		176	Blue-throat wrasse	310	545	Molluscs
>3km_B10	8	14/01/2026		176	Pike	210	50	Empty
>3km_B10	9	14/01/2026		176	Blue-throat wrasse	330	670	Molluscs and urchin spines
>3km_B10	10	14/01/2026		176	Blue-throat wrasse	300	475	Molluscs
>3km_B10	11	14/01/2026		176	Blue-throat wrasse	220	160	Empty
>3km_B10	12	14/01/2026	1616	176	Blue-throat wrasse	290	400	Molluscs
>3km_M6	1	14/01/2026	1630	175	Australian salmon	380	670	Anchovies
>3km_M6	2	14/01/2026		175	Australian salmon	360	550	Unidentifiable soft material
>3km_M6	3	14/01/2026		175	Australian salmon	360	615	Empty
>3km_M6	4	14/01/2026		175	Australian salmon	350	520	Anchovies
>3km_M6	5	14/01/2026		175	Australian salmon	330	470	Anchovies
>3km_M6	6	14/01/2026		175	Australian salmon	350	470	Anchovies
>3km_M6	7	14/01/2026		175	Sand flathead	280	140	Unidentifiable soft material
>3km_M6	8	14/01/2026		175	Sand flathead	250	85	Empty
>3km_M6	9	14/01/2026		175	Sand flathead	280	125	Empty
>3km_M6	10	14/01/2026		175	Blue-throat wrasse	265	310	Molluscs
>3km_M6	11	14/01/2026		175	Blue-throat wrasse	190	105	Molluscs
>3km_M6	12	14/01/2026	1830	175	Senator wrasse	295	420	Molluscs

Table A5.11: Wild fish sample data associated with treatments H5-H9 (weekly design): Week 5.

Zone	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<1km_ZN	1	21/01/2026	0841	183	Sand flathead	270	125	Empty
<1km_ZN	2	21/01/2026	0847	183	Sand flathead	205	65	unidentifiable stomach content
<1km_ZN	3	21/01/2026	0850	183	Sand flathead	275	135	Empty
<1km_ZN	4	21/01/2026	0855	183	Sand flathead	240	100	unidentifiable stomach content
<1km_ZN	5	21/01/2026	0900	183	Sand flathead	225	60	Empty
<1km_ZN	6	21/01/2026	0915	183	Sand flathead	220	60	crustaceans
<1km_ZS		21/01/2026	1000	190	Sand flathead	180	40	Empty
<1km_ZS	2	21/01/2026	1005	190	Sand flathead	230	80	unidentifiable stomach content
<1km_ZS	3	21/01/2026	0930	190	Sand flathead	220	80	Worms, crustaceans
<1km_ZS	4	21/01/2026	0940	190	Sand flathead	210	55	Crustaceans
<1km_ZS	5	21/01/2026	0945	190	Sand flathead	210	55	Crustaceans
<1km_ZS	6	21/01/2026	0950	190	Sand flathead	210	55	Empty
1-3km	1	22/01/2026	0840	188	Sand flathead	300	205	Empty
1-3km	2	22/01/2026	0842	188	Sand flathead	230	90	Shrimp
1-3km	3	22/01/2026	0844	188	Sand flathead	295	170	unidentifiable stomach content
1-3km	4	22/01/2026	0846	188	Blue-throat wrasse	340	690	crustaceans
1-3km	5	22/01/2026	0850	188	Blue-throat wrasse	295	450	crustaceans
1-3km	6	22/01/2026	0852	188	Blue-throat wrasse	285	395	Algae, Shrimp. Bivalves
1-3km	7	22/01/2026	0855	174	Sand flathead	305	205	Shrimp
1-3km	8	22/01/2026	0859	174	Sand flathead	260	115	Empty
1-3km	9	22/01/2026	0905	174	Sand flathead	270	115	Alage, Crab
1-3km	10	22/01/2026	0910	174	Sand flathead	275	135	Worms
1-3km	11	22/01/2026	0915	174	Blue-throat wrasse	315	480	Bivalve, Crab
1-3km	12	22/01/2026	0925	174	Blue-throat wrasse	215	165	Algae, Shrimp. Bivalves
>3km_B10	1	21/01/2026	1030	176	Red Cod	340	505	Empty
>3km_B10	2	21/01/2026	1030	176	Blue-throat wrasse	315	575	Crustaceans, Crayfish
>3km_B10	3	21/01/2026	1035	176	Sand flathead	275	125	unidentifiable stomach content
>3km_B10	4	21/01/2026	1040	176	Blue-throat wrasse	360	810	Bivalves, algae, molluscs
>3km_B10	5	21/01/2026	1045	176	Sand flathead	240	95	empty
>3km_B10	6	21/01/2026	1050	176	Sand flathead	295	145	empty
>3km_B10	7	21/01/2026	1100	176	Blue-throat wrasse	210	145	Bivalves
>3km_B10	8	21/01/2026	1120	176	Blue-throat wrasse	310	490	Crustaceans, Urchin
>3km_B10	9	21/01/2026	1140	176	Red Cod	330	460	Shrimp
>3km_B10	10	21/01/2026	1155	176	Sand flathead	320	220	Small Fish
>3km_B10	11	21/01/2026	1200	176	Blue-throat wrasse	285	395	Shrimp
>3km_B10	12	21/01/2026	1202	176	Sand flathead	295	165	empty
>3km_M6	1	21/01/2026	1230	175	Blue-throat wrasse	280	405	Urchin, Bivalves
>3km_M6	2	21/01/2026	1240	175	Purple wrasse	290	495	unidentifiable stomach content
>3km_M6	3	21/01/2026	1250	175	Barber perch	205	145	unidentifiable stomach content
>3km_M6	4	21/01/2026	1300	175	Sand flathead	235	110	Small Fish
>3km_M6	5	21/01/2026	1320	175	Sand flathead	205	65	empty
>3km_M6	6	21/01/2026	1340	175	Blue-throat wrasse	435	1515	unidentifiable stomach content
>3km_M6	7	21/01/2026	1355	175	Blue-throat wrasse	430	1300	Bivalves
>3km_M6	8	21/01/2026	1400	175	Sand flathead	290	210	unidentifiable stomach content
>3km_M6	9	21/01/2026	1402	175	Sand flathead	305	200	empty
>3km_M6	10	21/01/2026	1406	175	Sand flathead	315	210	Squid
>3km_M6	11	21/01/2026	1408	175	Sand flathead	290	185	Small fish
>3km_M6	12	21/01/2026	1410	175	Sand flathead	155	155	Empty

Table A5.12: Wild fish sample data associated with treatments H5-H9 (weekly design): Week 6.

Zone	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<1km_ZN	1	27/01/2026	0630	184	Sand flathead	150	30	Empty
<1km_ZN	2	27/01/2026	0640	184	Blue Mackerel	180	45	Isopod
<1km_ZN	3	27/01/2026	0705	184	Barracouta	160	20	Empty
<1km_ZN	4	27/01/2026	0715	184	Sardine	130	20	Empty
<1km_ZN	5	27/01/2026	0740	184	Sardine	130	20	Empty
<1km_ZN	6	27/01/2026	0830	184	Sardine	120	20	Empty
<1km_ZS	1	27/01/2026	0905	189	Barracouta	170	20	Empty
<1km_ZS	2	27/01/2026	0923	189	Barracouta	200	30	Empty
<1km_ZS	3	27/01/2026	0935	189	Barracouta	200	30	Empty
<1km_ZS	4	27/01/2026	0940	189	Barracouta	160	20	Empty
<1km_ZS	5	27/01/2026	1029	189	Barracouta	160	20	Empty
<1km_ZS	6	27/01/2026	1035	189	Jack Mackerel	170	50	Isopod
1-3km	1	26/01/2026	0630	174	Sand flathead	310	225	Crabs
1-3km	2	26/01/2026	0635	174	Sand flathead	250	130	Empty
1-3km	3	26/01/2026	0640	174	Australian Salmon	260	205	Empty
1-3km	4	26/01/2026	0710	174	Australian Salmon	360	550	Sardines
1-3km	5	26/01/2026	0715	174	Australian Salmon	390	785	Empty
1-3km	6	26/01/2026	0720	174	Blue-throat wrasse	250	270	Molluscs
1-3km	7	26/01/2026	0800	188	Sand flathead	250	95	Crabs
1-3km	8	26/01/2026	0815	188	Sand flathead	280	155	Crabs
1-3km	9	26/01/2026	0835	188	Sand flathead	250	95	Empty
1-3km	10	26/01/2026	0850	188	Sand flathead	300	175	Baby octopus
1-3km	11	26/01/2026	0910	188	Blue-throat wrasse	220	190	Shrimp
1-3km	12	26/01/2026	0913	188	Blue-throat wrasse	260	335	Empty
>3km_B10	1	26/01/2026	1530	176	Sand flathead	350	300	crabs
>3km_B10	2	26/01/2026	1538	176	Sand flathead	280	180	Empty
>3km_B10	3	26/01/2026	1542	176	Sand flathead	310	205	Empty
>3km_B10	4	26/01/2026	1542	176	Sand flathead	320	225	Fish
>3km_B10	5	26/01/2026	1605	176	Australian Salmon	290	280	Small fish
>3km_B10	6	26/01/2026	1628	176	Australian Salmon	330	440	Sardines
>3km_B10	7	26/01/2026	1642	176	Australian Salmon	370	620	Sardines
>3km_B10	8	26/01/2026	1701	176	Australian Salmon	350	520	Empty
>3km_B10	9	26/01/2026	1735	176	Blue-throat wrasse	210	165	Molluscs
>3km_B10	10	26/01/2026	1749	176	Blue-throat wrasse	270	320	Molluscs, sea urchin spines, crab
>3km_B10	11	26/01/2026	1808	176	Blue-throat wrasse	350	715	Molluscs, sea urchin
>3km_B10	12	26/01/2026	1840	176	Barber Perch	240	185	Empty
>3km_M6	1	26/01/2026	1300	175	Jackass Morwong	310	315	Unidentified brown algae
>3km_M6	2	26/01/2026	1310	175	Jackass Morwong	260	220	Unidentified brown algae
>3km_M6	3	26/01/2026	1310	175	Sand flathead	260	120	Crab
>3km_M6	4	26/01/2026	1320	175	Sand flathead	280	155	Isopod
>3km_M6	5	26/01/2026	1325	175	Sand flathead	330	250	Fish
>3km_M6	6	26/01/2026	1348	175	Sand flathead	240	85	Empty
>3km_M6	7	26/01/2026	1350	175	Sand flathead	240	85	Empty
>3km_M6	8	26/01/2026	1358	175	Blue-throat wrasse	310	465	Molluscs
>3km_M6	9	26/01/2026	1432	175	Blue-throat wrasse	260	310	Molluscs
>3km_M6	10	26/01/2026	1450	175	Blue-throat wrasse	350	685	Sea urchin, molluscs
>3km_M6	11	26/01/2026	1455	175	Blue-throat wrasse	410	1240	Sea urchin, molluscs
>3km_M6	12	26/01/2026	1455	175	Blue-throat wrasse	220	210	Molluscs

Table A5.13: Wild fish sample data associated with treatments H5-H9 (weekly design): Week 7.

Zone	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<1km_ZN	1	3/02/2026	1640	183	Sand flathead	395	440	Fish flesh
<1km_ZN	2	3/02/2026	1645	183	Sand flathead	230	75	Empty
<1km_ZN	3	3/02/2026	1650	183	Sand flathead	200	55	Empty
<1km_ZN	4	3/02/2026	1710	183	Sand flathead	215	55	Empty
<1km_ZN	5	3/02/2026	1715	183	Sand flathead	230	85	Unidentified material
<1km_ZN	6	3/02/2026	1720	183	Sand flathead	135	15	Empty
<1km_ZS	1	3/02/2026	1520	190	Sand flathead	180	30	Empty
<1km_ZS	2	3/02/2026	1523	190	Sand flathead	200	60	Empty
<1km_ZS	3	3/02/2026	1525	190	Sand flathead	270	140	Shells, algae, broken down material
<1km_ZS	4	3/02/2026	1530	190	Sand flathead	145	30	Empty
<1km_ZS	5	3/02/2026	1535	190	Barracouta	170	20	Amphipods
<1km_ZS	6	3/02/2026	1540	190	Barracouta	180	25	Small fish/flesh
1-3km	1	3/02/2026	1748	188	Sand flathead	310	220	Crabs, worm
1-3km	2	3/02/2026	1750	188	Sand flathead	320	220	Empty
1-3km	3	3/02/2026	1752	188	Sand flathead	235	95	Empty
1-3km	4	3/02/2026	1754	188	Sand flathead	240	95	Amphipods
1-3km	5	3/02/2026	1757	188	Blue-throat wrasse	295	445	Algae, shells, broken down material
1-3km	6	3/02/2026	1801	188	Pike	315	200	Empty
1-3km	7	4/02/2026	0840	174	Sand flathead	290	170	Green turfing algae
1-3km	8	4/02/2026	0843	174	Sand flathead	310	255	Fish flesh - anchovy
1-3km	9	4/02/2026	0850	174	Sand flathead	265	130	Unidentified digestive material
1-3km	10	4/02/2026	0854	174	Blue-throat wrasse	365	930	Shells
1-3km	11	4/02/2026	0855	174	Blue-throat wrasse	290	380	Empty
1-3km	12	4/02/2026	0857	174	Blue-throat wrasse	270	310	Empty
>3km_B10	1	4/02/2026	1030	176	Sand flathead	320	260	Crabs
>3km_B10	2	4/02/2026	1035	176	Sand flathead	280	145	Empty
>3km_B10	3	4/02/2026	1037	176	Sand flathead	290	145	Molluscs, shells
>3km_B10	4	4/02/2026	1221	176	Sand flathead	250	105	Empty
>3km_B10	5	4/02/2026	1035	176	Blue-throat wrasse	320	555	Shells, crustaceans, algae
>3km_B10	6	4/02/2026	1043	176	Blue-throat wrasse	360	840	algae, digested material
>3km_B10	7	4/02/2026	1052	176	Blue-throat wrasse	280	370	Algae, white flesh
>3km_B10	8	4/02/2026	1105	176	Blue-throat wrasse	320	555	Empty
>3km_B10	9	4/02/2026	1110	176	Blue-throat wrasse	190	130	Crabs
>3km_B10	10	4/02/2026	1135	176	Blue-throat wrasse	160	75	Algae, shells
>3km_B10	11	4/02/2026	1205	176	Barber Perch	230	185	White flesh
>3km_B10	12	4/02/2026	1223	176	Barber Perch	170	80	Algae, unidentified material
>3km_M6	1	4/02/2026	1305	175	Sand flathead	240	80	Empty
>3km_M6	2	4/02/2026	1308	175	Sand flathead	245	105	Empty
>3km_M6	3	4/02/2026	1310	175	Sand flathead	260	120	Empty
>3km_M6	4	4/02/2026	1312	175	Sand flathead	220	55	Empty
>3km_M6	5	4/02/2026	1315	175	Sand flathead	265	140	Fish
>3km_M6	6	4/02/2026	1320	175	Blue-throat wrasse	265	315	Crabs, shells
>3km_M6	7	4/02/2026	1320	175	Blue-throat wrasse	250	270	Shells, algae
>3km_M6	8	4/02/2026	1325	175	Blue-throat wrasse	260	310	Algae, crabs, shells
>3km_M6	9	4/02/2026	1328	175	Blue-throat wrasse	240	225	Shells, algae
>3km_M6	10	4/02/2026	1322	175	Barber Perch	195	115	Shells, broken down material
>3km_M6	11	4/02/2026	1324	175	Barber Perch	210	165	Empty
>3km_M6	12	4/02/2026	1327	175	Barber Perch	225	140	Fish bone

**Table A5.14: Wild fish sample data associated with treatments H5-H9 (weekly design): Week 8.**

Zone	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<1km_ZN	1	11/02/2026	0820	184	Sand flathead	240	110	Crustaceans
<1km_ZN	2	11/02/2026	0822	184	Sand flathead	235	110	Crab, digestive matter
<1km_ZN	3	11/02/2026	0824	184	Sand flathead	245	110	Digestive matter
<1km_ZN	4	11/02/2026	0830	184	Sand flathead	202	55	Digestive matter
<1km_ZN	5	11/02/2026	0835	184	Sand flathead	286	55	Digestive matter
<1km_ZN	6	11/02/2026	0840	184	Sand flathead	220	75	Digestive matter

**Table A5.15: Wild fish sample data associated with treatments H5-H9 (weekly design): Week 9.**

Zone	Number	Date	Time	GPS Point	Species	Length (mm)	Weight (g)	Gut contents
<1km_ZN	1	20/02/2026	1135	177	Barracouta	180	35	Empty
<1km_ZN	2	20/02/2026	1140	177	Barracouta	200	40	Amphipods
<1km_ZN	3	20/02/2026	1150	177	Sand flathead	155	35	Shell grit
<1km_ZN	4	20/02/2026	1200	177	Anchovy	120	15	Algae
<1km_ZN	5	20/02/2026	1210	177	Sand flathead	225	80	Shell grit
<1km_ZN	6	20/02/2026	1220	177	Anchovy	125	15	Empty

## Appendix 6: Benthic video survey – summary data.

Table A6.1: Benthic video observations for pre-treatment survey conducted by Huon Aquaculture. Depths denoted with an asterisk (\*) were taken from historic pen surveys.

Pre-treatment Survey													
Lot	Site	Date	Video start	Video end	Easting	Northing	Heading	Depth	Dive method	Dive type	Pellets	Faeces	Comments
ZN	ZN_PB01	1/01/2026	1:58	6:20	512028	5202130	325	39.0	ROV	stocked	no	many	
ZN	ZN_PB02	9/01/2026	1:10	4:23	512042	5202250		40.2*	ROV	stocked	no	many	Apalma ROV footage
ZN	ZN_PB06	9/01/2026	1:47	5:05	512264	5202037		41.8*	ROV	stocked	no	many	Apalma ROV footage
ZN	ZN_PB07	1/12/2025	2:12	5:43	512327	5201861	232	39.6	ROV	stocked	no	many	
ZN	ZN_PB10	9/01/2026	1:40	4:49	512522	5201894		41.6*	ROV	stocked	no	no	Apalma ROV footage
ZN	ZN_PB13	9/01/2026	1:42	5:26	511649	5201609		40.6*	ROV	stocked	no	many	Apalma ROV footage
ZN	ZN_PB14	11/11/2025	2:37	4:48	511946	5201438	161	40.2	ROV	stocked	no	many	
ZN	ZN_PB15	1/12/2025	2:25	6:16	511835	5201526	324	40	ROV	stocked	no	many	
ZN	ZN_PB16	1/12/2025	2:23	5:48	511908	5201662	233	39.6	ROV	stocked	no	many	
ZN	ZN_PB17	11/11/2025	2:00	6:13	511841	5201742	60	40.2*	ROV	stocked	no	many	
ZN	ZN_PB20	11/11/2025	3:14	7:43	512139	5201460	266	39.3	ROV	stocked	no	many	
ZS	ZS_PB01	24/12/2025	2:08	5:32	509410	5199627	296	44.0	ROV	stocked	no	many	
ZS	ZS_PB02	24/12/2025	2:09	5:40	509532	5199747	282	43.4	ROV	stocked	no	many	
ZS	ZS_PB03	15/12/2025	2:58	6:01	509514	5199546	249	42.6	ROV	stocked	no	many	
ZS	ZS_PB04	24/12/2025	2:14	5:41	509634	5199639	250	42.6	ROV	stocked	no	many	
ZS	ZS_PB05	15/12/2025	2:15	5:38	509626	5199461	242	41.6	ROV	stocked	no	many	
ZS	ZS_PB06	1/01/2026	3:05	6:26	509716	5199516	325	42.7	ROV	stocked	no	many	
ZS	ZS_PB07	15/12/2025	2:31	5:42	509714	5199368	252	41.0	ROV	stocked	no	many	
ZS	ZS_PB08	1/01/2026	2:58	6:13	509815	5199456	230	40.6	ROV	stocked	no	many	
ZS	ZS_PB11	1/01/2026	3:30	7:24	509013	5199222	25	44.6	ROV	stocked	no	many	
ZS	ZS_PB12	1/01/2026	3:11	6:45	509123	5199340	340	44.7	ROV	stocked	many	many	
ZS	ZS_PB13	15/12/2025	2:46	6:28	509139	5199153	200	43.2	ROV	stocked	no	many	
ZS	ZS_PB14	15/12/2025	2:25	6:29	509218	5199272	20	43.3	ROV	stocked	no	many	
ZS	ZS_PB16	24/12/2025	2:05	6:02	509331	5199146	252	42.6	ROV	stocked	many	many	
ZS	ZS_PB17	28/11/2025	3:56	7:25	509334	5198949		42.6	ROV	stocked	no	many	GoPro footage only
ZS	ZS_PB18	15/12/2025	2:25	5:52	509428	5199066	250	41.5	ROV	stocked	no	many	
ZS	ZS_PB19	24/12/2025	2:06	5:40	509426	5198854	280	42.6	ROV	stocked	many	many	
ZS	ZS_PB20	24/12/2025	3:36	7:33	509532	5198976	180	41.8	ROV	stocked	many	many	

**Table A6.2: Benthic video observations for mid-treatment survey conducted by Huon Aquaculture. Depths denoted with an asterisk (\*) were taken from historic pen surveys.**

Mid-treatment Survey													
Lot	Site	Date	Video start	Video end	Easting	Northing	Heading	Depth	Dive method	Dive type	Pellets	Faeces	Comments
ZN	ZN_PB03	8/12/2025	2:37	6:40	512130	5202032		40.2*	ROV	stocked	no	few	
ZN	ZN_PB07	5/12/2025	2:27	6:27	512311	5201813		39.5*	ROV	stocked	no	many	
ZN	ZN_PB14	18/11/2025	2:43	6:15	511839	5201750	185	40.0	ROV	stocked	no	many	ROV footage used
ZN	ZN_PB15	5/12/2025	2:58	7:53	511835	5201513		41.1*	ROV	stocked	no	many	
ZN	ZN_PB16	5/12/2025	2:39	6:26	511905	5201498		40.8*	ROV	stocked	no	many	
ZN	ZN_PB17	18/11/2025	2:25	5:56	511943	5201435	250	40.0	ROV	stocked	no	many	ROV footage used
ZN	ZN_PB20	18/11/2025	2:34	6:03	512138	5201456	230	39.4	ROV	stocked	no	many	ROV footage used
ZS	ZS_PB17	1/12/2025	2:29	5:49	509311	5198954		35.1*	ROV	stocked	no	many	

Table A6.3: Benthic video observations for post-treatment survey conducted by Huon Aquaculture. Depths denoted with an asterisk (\*) were taken from historic pen surveys.

Post-treatment Survey													
Lot	Site	Date	Video start	Video end	Easting	Northing	Heading	Depth	Dive method	Dive type	Pellets	Faeces	Comments
ZN	ZN_PB01	13/01/2026	2:12	5:56	511972	5202207	197	38.9	ROV	stocked	no	many	
ZN	ZN_PB02	20/01/2026	2:32	5:58	512095	5202181	40	39.3	ROV	stocked	no	few	ROV footage used
ZN	ZN_PB03	15/12/2025	3:02	6:49	512139	5202057	245	39.3	ROV	stocked	no	many	
ZN	ZN_PB06	20/01/2026	2:47	6:22	512306	5202024	283	39.3	ROV	stocked	no	many	ROV footage used
ZN	ZN_PB07	11/12/2025	1:56	6:01	Missing	Missing	267	38.9	ROV	stocked	no	many	
ZN	ZN_PB10	20/01/2026	2:14	5:40	512505	5201836	49	38.1	ROV	stocked	no	few	ROV footage used
ZN	ZN_PB13	20/01/2026	2:37	6:07	511706	5201599	303	40	ROV	stocked	no	many	ROV footage used
ZN	ZN_PB14	21/11/2025	2:18	6:10	512131	5201458	221	39.8	ROV	stocked	no	many	
ZN	ZN_PB15	11/12/2025	2:20	5:51	511835	5201534	247	40.1	ROV	stocked	no	many	
ZN	ZN_PB16	11/12/2025	3:29	6:58	512037	5201532	248	39.6	ROV	stocked	no	many	
ZN	ZN_PB17	21/11/2025	2:04	6:08	511826	5201751	249	39.9	ROV	stocked	no	many	
ZN	ZN_PB20	21/11/2025	2:30	6:32	511932	5201429	155	39.2	ROV	stocked	no	many	
ZS	ZS_PB01	7/01/2026	1:51	5:36	509347	5199620		44.0*	ROV	stocked	few	many	(Apalma) Few pellets noticed @3:40
ZS	ZS_PB02	7/01/2026	1:43	5:37	512042	5202250		43.4*	ROV	stocked	few	many	(Apalma) Possible pellets.@3:50.
ZS	ZS_PB03	24/12/2025	3:48	7:52	509492	5199589	292	43.0	ROV	stocked	no	many	
ZS	ZS_PB04	7/01/2026	1:22	5:05	509628	5199660		42.6*	ROV	stocked	no	many	Apalma footage
ZS	ZS_PB05	24/12/2025	2:25	6:15	509616	5199455	2	42.1	ROV	stocked	no	many	
ZS	ZS_PB06	13/01/2026	2:23	6:10	509690	5199591	187	41.5	ROV	stocked	no	many	
ZS	ZS_PB07	24/12/2025	2:19	5:50	509715	5199364	175	41.6	ROV	stocked	few	many	
ZS	ZS_PB08	13/01/2026	2:06	5:55	509795	5199511	161	41.1	ROV	stocked	no	many	
ZS	ZS_PB11	13/01/2026	1:48	5:23	509019	5199276	232	44.5	ROV	stocked	no	many	
ZS	ZS_PB12	14/01/2026	4:45	10:36	509095	5199377	67	44.4	ROV	stocked	no	many	
ZS	ZS_PB13	24/12/2025	2:47	6:42	509133	5199155	258	44.0	ROV	stocked	no	many	
ZS	ZS_PB14	24/12/2025	2:17	6:19	509218	5199253	270	43.9	ROV	stocked	no	many	
ZS	ZS_PB16	13/01/2026	1:44	5:41	Missing	Missing	156	42.3	ROV	stocked	no	many	
ZS	ZS_PB17	8/12/2025	2:10	6:04	509339	5198953		35.1*	ROV	stocked	no	many	GoPro footage only
ZS	ZS_PB18	24/12/2025	2:03	6:37	509419	5199083	315	42.3	ROV	stocked	few	many	Noticed few pellets @4:30.
ZS	ZS_PB19	7/01/2026	1:13	4:18	509358	5198827		42.6*	ROV	stocked	no	many	Apalma footage
ZS	ZS_PB20	7/01/2026	1:19	5:03	509517	5198966		39.3*	ROV	stocked	no	many	Apalma footage

Appendix 7: Maps of wild fish sampling locations

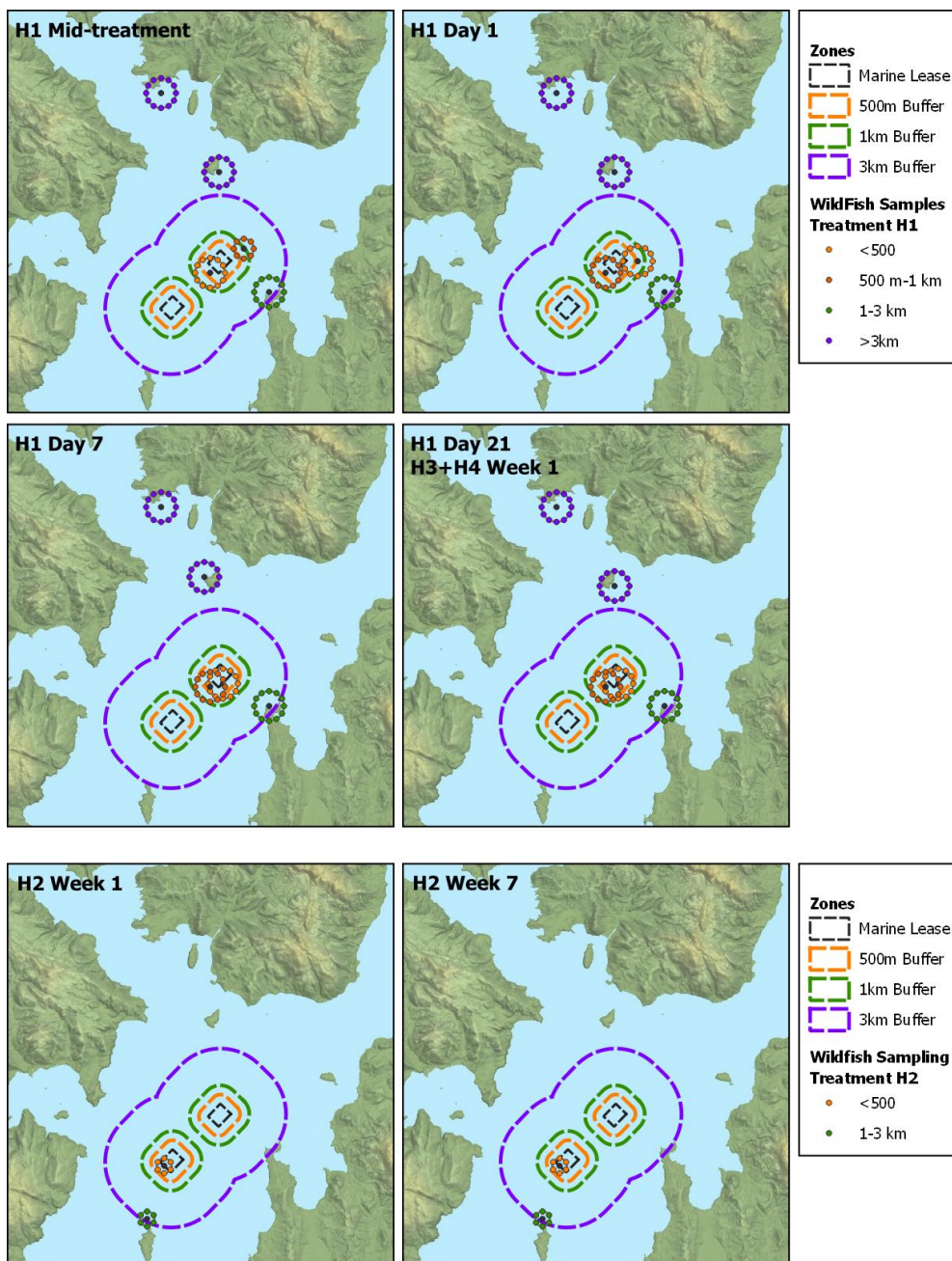


Figure A7.1: Location of sites where wild fish were collected for surveys associated with treatment H1 (n=12 fish in the <500 m, 500 m-1 km and 1-3 km zone and n=12 at each of the >3km reference sites) and treatment H2 (n=6 fish from the <500 m and 1-3 km zones). Overlapping samples were offset to concentric rings around a central point where the sample was taken. Note that the Week 1 survey associated with treatments H3 and H4, coincided with the Day 21 sampling event associated with treatment H1. Coordinates are provided in Appendix 2. Sampling details are provided in Appendix 5.

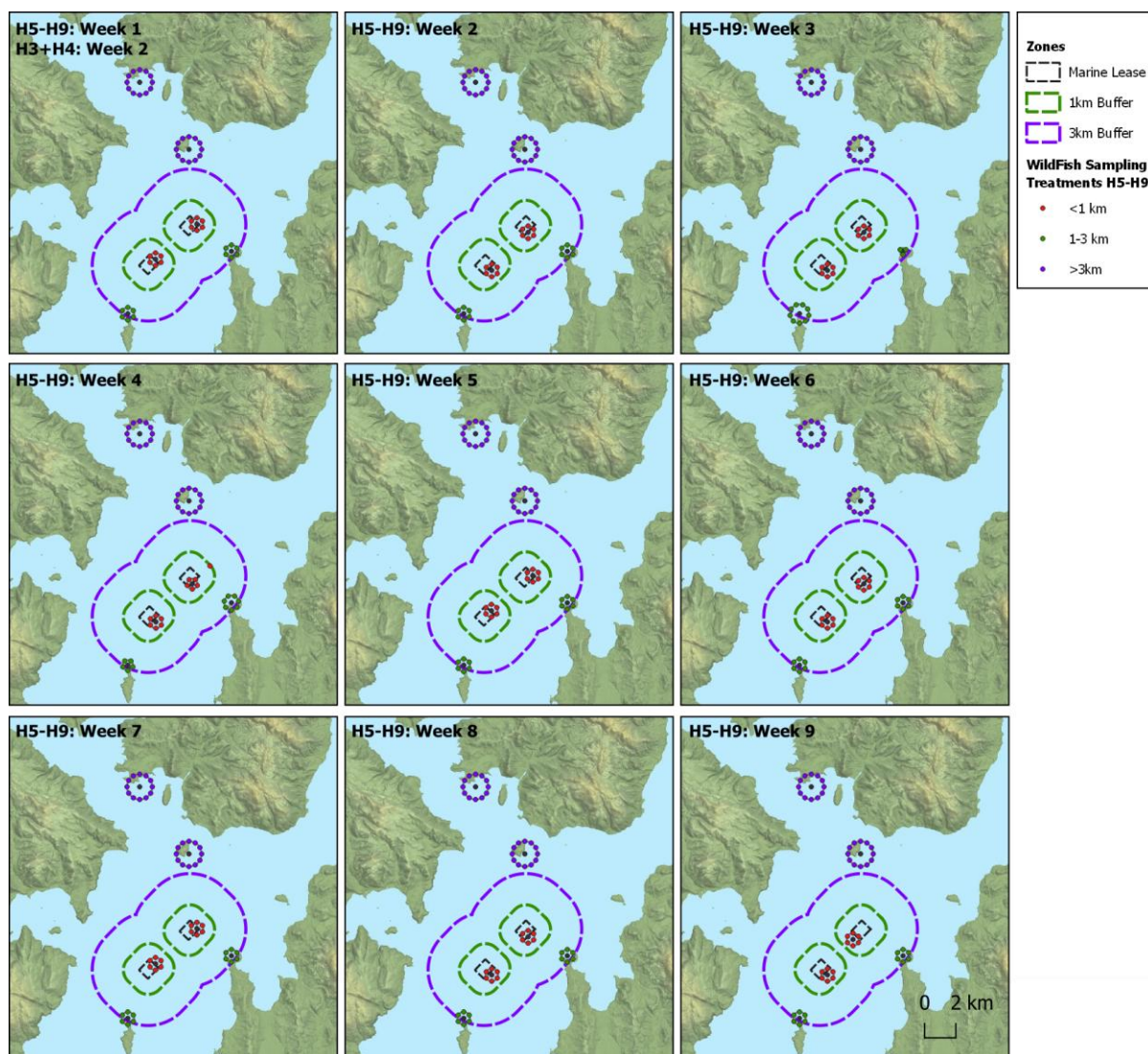


Figure A7.2: Location of sites where wild fish were collected for surveys associated with treatments H5-H9 (n=12 fish in the <1 km and 1-3 km zones and n=12 at each of the >3km reference sites). Overlapping samples were offset to concentric rings around a central point where the sample was taken. Note that the Week 2 survey associated with treatments H3 and H4, coincided with the Week 1 sampling event associated with treatments H5-H9. Coordinates are provided in Appendix 2. Sampling details are provided in Appendix 5.