

Carp Management Program

ANNUAL REPORT

2022-23



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This annual report details the Carp Management Program activities for the financial year 2022 – 23.

The objective of the program is:

To eradicate carp from Tasmanian waters and, in the meantime, to minimise the impact of carp on Tasmania from economic, recreational and ecological points of view.

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Executive Summary

Focused fishing effort was undertaken from mid-October to mid-December. The water level in Lake Sorell was very high and there were extended periods of warm, sunny weather. These environmental factors induce carp spawning activity and increase the efficiency of fishing. Despite intensive fishing effort around the environmental cues, only one carp (female) was caught. After an intensive 28-year program, European carp (*Cyprinus carpio*) have now been declared functionally eradicated from Lake Sorell, meaning the few, if any, remaining carp are unable to breed.

The invasive carp were confirmed in lakes Crescent (23km²) and Sorell (53km²) in 1995. These large lakes have wetlands of state, national and international significance and are home to the endemic golden galaxias (*Galaxias auratus*). The Carp Management Program (CMP) was established in response to this incursion. The last carp in Lake Crescent was caught in 2007, with eradication announced in 2009. Effort was then focused on the much larger Lake Sorell.

Using the proven strategies implemented in Lake Crescent, techniques were modified to suit the larger Lake Sorell. These techniques included intensive gill netting, biotelemetry, electro-fishing, spawning habitat barriers and traps. From 1995 to 2023, 41,504 carp were removed from Lake Sorell and 7,797 from Lake Crescent.

Eradication efforts in Lake Sorell were assisted by the jelly gonad condition (JGC) in male carp, which causes sterility. It has been determined that any remaining carp in Lake Sorell are likely to be either female or JGC males. The last fertile male was caught in the 2018-19 season with only a single female carp captured in the 2022-23 season.

Annual juvenile carp surveys in Lake Sorell have not detected any evidence of recruitment since 2013. This is despite ideal environmental conditions for carp spawning in spring over a number of years, highlighting their inability to breed. A juvenile carp monitoring program will continue in Lake Sorell to confirm eradication, and educational campaigns on the threats invasive species pose to Tasmania will continue.

1. Carp Captures and Fish-down Effort

1.1 Carp Captures at a Glance

Table 1. Carp Captures from lakes Sorell and Crescent (2022/23).

Lake	Total 2022/23	Adult / Juvenile	Total 1995 to present
Sorell	1	1 / 0	41,504
Crescent	0	0	7,797

1.2 Lake Sorell

Overview

From July to September, maintenance was undertaken at Lake Sorell to prepare for the peak carp spawning season (October to December). This involved inspecting and repairing the barrier fyke nets, as well as the 14 kilometres of barrier net blocking the wetlands. In mid-September, the big fyke nets were sewn into the barrier nets. These were placed in strategic locations to catch mature carp pushing into the shallows seeking spawning habitat. The big fyke nets are a proven method for catching mature carp when they move inshore, allowing further targeted effort to be undertaken.

Coming into the 2022-23 carp season, Lake Sorell was in a precarious position, reaching full supply level in mid-August, due to the wet La Niña years in 2020 and 2021. Big rainfall events in mid-October resulted in Lake Sorell rising quickly, and in two days the lake increased by 289mm (filling Lake Sorell to approximately 324mm over full supply). Due to the construction of a precautionary levee bank around a southern section of the lake, an uncontrolled/unscreened spill into the interconnected carp-free Lake Crescent was avoided. However, sand bagging was necessary to patch up low and degraded sections of the bank.



Picture 1. With Lake Sorell at record high levels, many of the barrier nets were inundated with water, allowing carp access into the marshes.

With more rainfall events occurring throughout October and November, the level of Lake Sorell continued to rise further, peaking at 804.836 Australian Height Datum (AHD) in late October (476mm over full supply). This level is the highest recorded since December 1975.

Lake Crescent also exceeded its full supply level in mid-August, and peaked in late October, 372mm over full supply. The high level in Lake Crescent caused back flooding of the Lake Sorell outlet containment screens limiting the capacity to release water. Due to these conditions there was a heightened risk of uncontrolled/unscreened spill from Lake Sorell, and the potential spread of carp from Lake Sorell into Lake Crescent and down the River Clyde system. On a positive note, with the temperature also rising throughout this period, the combined environmental factors provided the perfect opportunity to catch any remaining carp in the lake. The strong spawning cues were likely to draw carp into the shallow marshes, making them susceptible to capture. However, it also meant that the CMP had to be on high alert, given the huge expanse of inundated marshes (spawning habitat) which were now present. Due to the extreme lake level, the majority of barrier nets set were no longer able to block access to all wetlands, with water surpassing the ends of most the nets.



Picture 2. Checking trammel gill nets set in the shallow marshes behind the barrier nets.

Some of the barrier fyke nets were also too deep and unable to be checked, and were closed off. New barrier fyke nets were reinstalled in shallower sections of the barrier net. This season, the main fishing strategy was solely focused on targeted netting effort in the wetlands behind the barrier nets, with an assumption that all marshes were now accessible to carp. This netting effort would target spawning related carp movement with trammel gill nets, small fyke nets, and electrofishing (backpack and boat) effort. Trammel gillnets were used due to their high catch efficiency on a range of carp sizes.

From mid-October to mid-December, trammel gill nets and small fyke nets were systematically set in the shallow clear waters in the marshes behind the barrier net, targeting the channels and drains. Any carp which have penetrated the marshes would most likely be moving actively in these areas. In combination with these nets, the electroboat was used regularly during these three months in an attempt to either shock or herd

any carp into the nets. Over the three months, 1431 electrofishing minutes were undertaken (not including electrofishing during juvenile carp surveys), as well as 39 359 100m net hours, all focused in the marshes behind the barrier net (Figure 1).

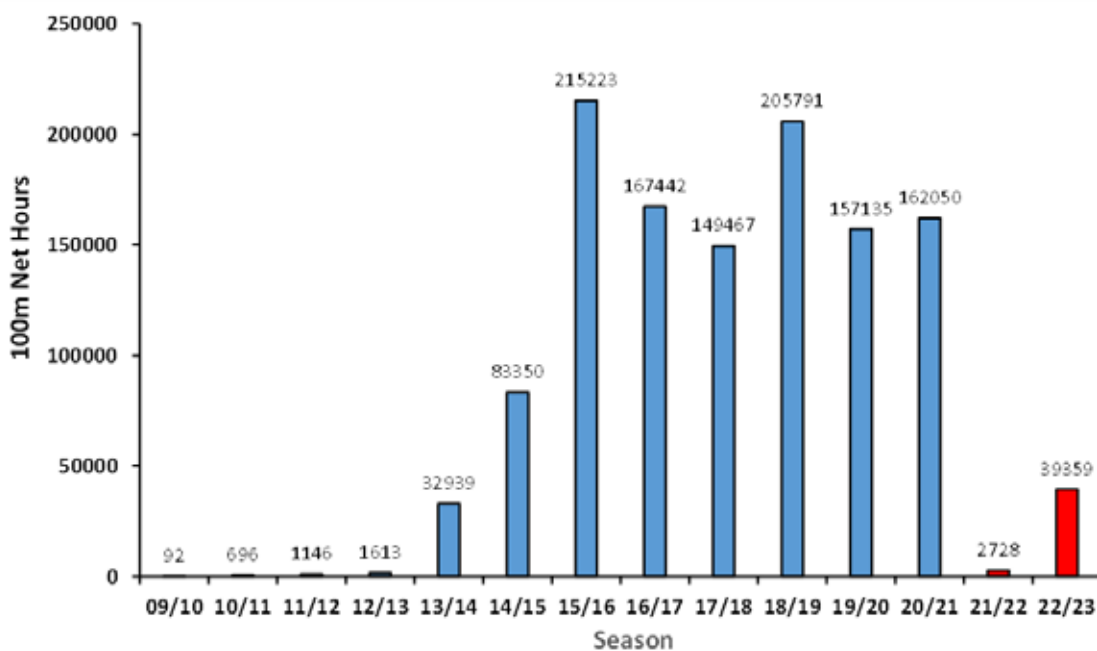


Figure 1. Total seasonal netting effort used in Lake Sorell (2009 – 2023).

Note: Blue: Non-targeted netting effort; Red: Short term netting effort targeting environmental/spawning cues.

The 2022/23 carp season resulted in one carp caught in early November (Table 2, Figure 2). It was caught in a trammel gill net set in the marshes behind the barrier net at Dogs Head Bay. This carp was a 415mm, 1500gm mature female, with a gonadosomatic index (GSI) of 21%. All eggs were completely intact, indicating she had not spawned. The capture of this carp was likely influenced by the strong environmental cues, which normally trigger active movement around the marshes of the lake to look for spawning opportunities.

Table 2. Total carp captured from all methods used in Lake Sorell (2022/23).

Gear Type	Jul-Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr-Jun	Grand Total
Gill nets	0	0	0	0	0	0	0	0	0
Barrier fyke nets	0	0	0	0	0	0	0	0	0
Backpack electro-fisher	0	0	0	0	0	0	0	0	0
Boat electro-fisher	0	0	0	0	0	0	0	0	0
Gill nets behind barrier nets	0	0	1	0	0	0	0	0	1
Grand Total	0	0	1	0	0	0	0	0	1

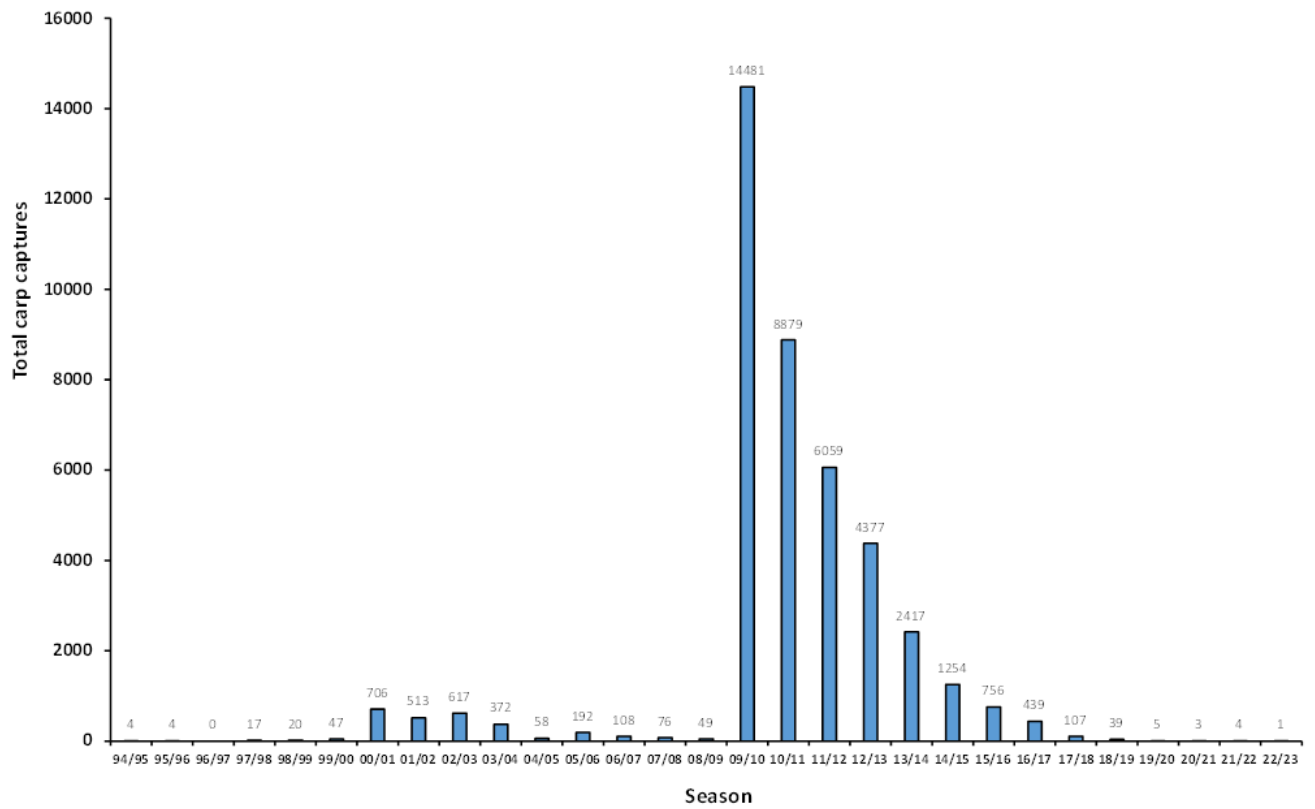


Figure 2. Total seasonal carp captures from Lake Sorell (1995 – 2023).

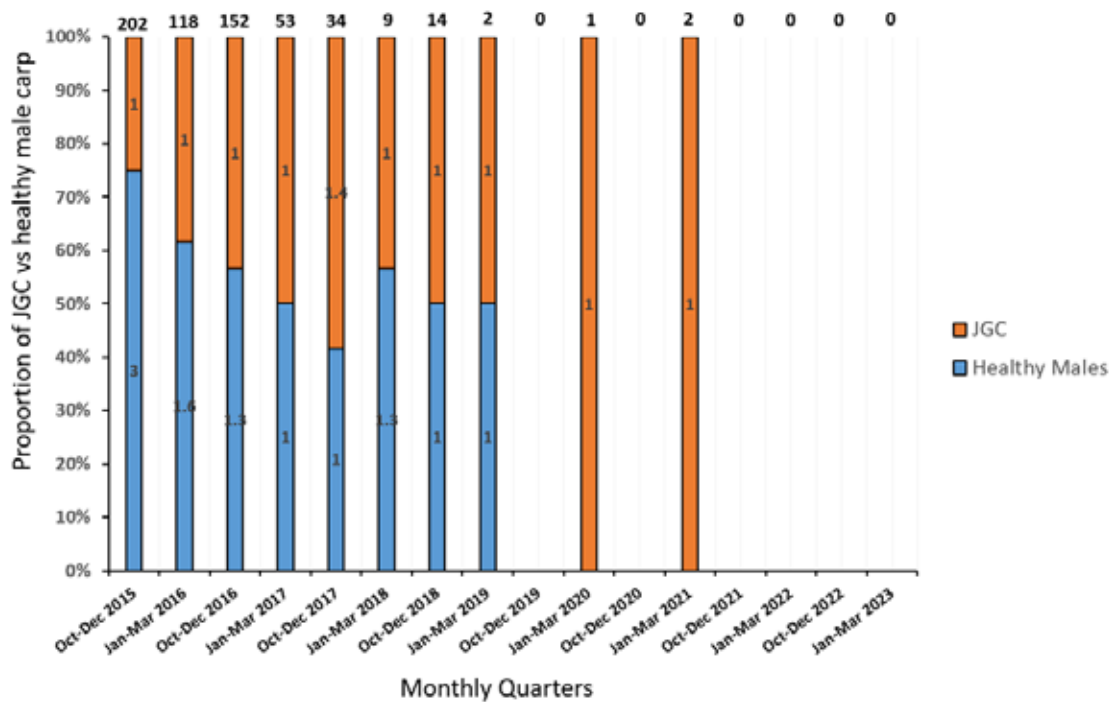


Figure 3. The change in proportion of healthy males to jelly gonad condition (JGC) males from 2015-23, compared by October to December and January to March quarters.

Note: Actual numbers of male carp caught for each quarter are listed above each bar.

41 504 carp have now been removed from Lake Sorell since their discovery in 1995. There has been no sign of spawning this season, and there has not been a significant spawning event since 2009. The last healthy, sexually mature male carp was caught on 16 December 2018. Taking into account the stunted average size, poor general reproductive condition, and low numbers of males remaining (with a high proportion affected with JGC- Figure 3), the carp population in Lake Sorell has now been deemed as functionally eradicated.

In June, the removal of all 14km of barrier net around Lake Sorell commenced, and by August this was completed. All other carp related infrastructure in the lake which includes fish traps, star pickets, buoys, screw anchors, and old fences were also removed. The Kermodes Cut levy bank was also removed in June, allowing water from Lake Sorell to flow naturally into Lake Crescent once full supply level is reached. The internal mesh and grating from the Lake Sorell screen structures will be removed in September, to allow water to flow unscreened between the two lakes. This will restore the system back to the way it was before carp were established.

The CMP will now be decommissioned, and next season the Inland Fisheries Service will monitor Lake Sorell to confirm eradication and undertake educational campaigns on the threats invasive species pose to Tasmania.



Picture 3. A boat-load of barrier net being removed from Lake Sorell.



Picture 4. The one (female) carp caught this season. It was caught in early November in a trammel gill net set in the marshes behind a barrier net, which had been electro-fished the previous day.

Water turbidity in Lake Sorell has been steadily decreasing since 2009, however over the last few years there have been various short-term spikes and decreases in the total turbidity. This can be attributed to changes in lake levels, combined with wind conditions during the time the water samples were taken. Wind fetch on the lakes can cause a spike of natural silt re-suspension in the water column. Despite the increase in total turbidity at times, the associated colloidal component of the turbidity is relatively stable, and is still declining slowly. This season, the total turbidity in Lake Sorell reached the lowest level in over 25 years, which is likely to be due to a combination of high lake levels, as well as large amounts of flushing (high inflows and outflows) as a result of the wet La Niña years in 2020 and 2021 (Figure 4).

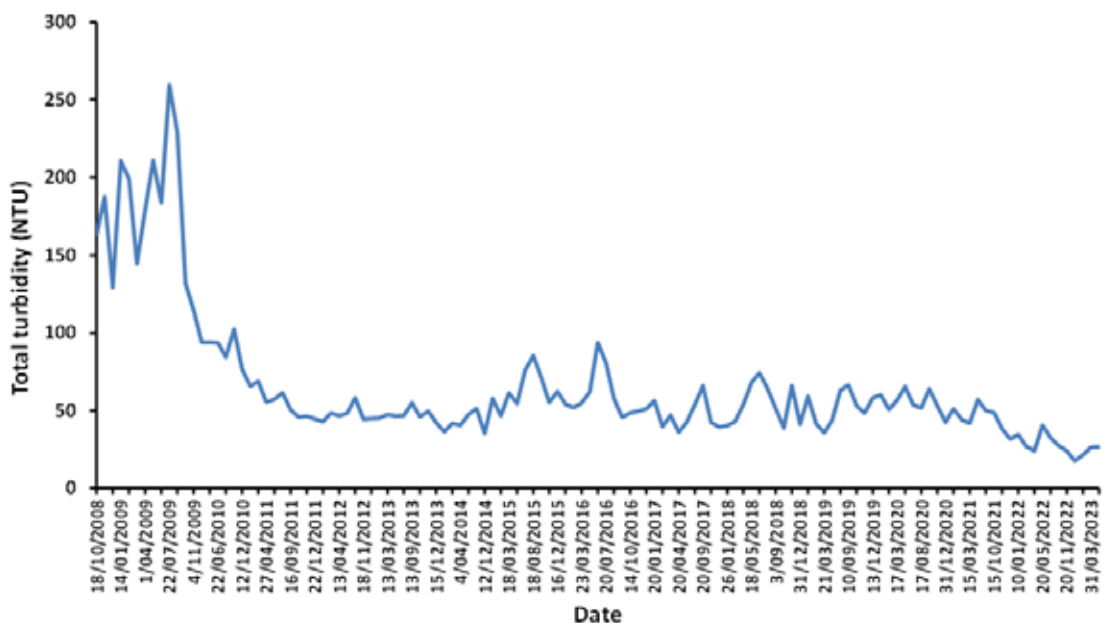


Figure 4. Total turbidity levels in Lake Sorell (2008 – 2023).

1.3 Lake Crescent

No carp were captured in Lake Crescent this year despite continued annual sampling, with the last carp caught in 2007. Since the extremely low water levels in 2008, the average total turbidity of Lake Crescent has improved considerably. This season, the total turbidity in Lake Crescent reached the lowest levels in over 25 years, which is likely to be due to a combination of high lake levels, as well as large amounts of flushing (high inflows and outflows) as a result of the wet La Niña years in 2020 and 2021 (Figure 5). The various short-term spikes and drops in the total turbidity is explained in the previous section.

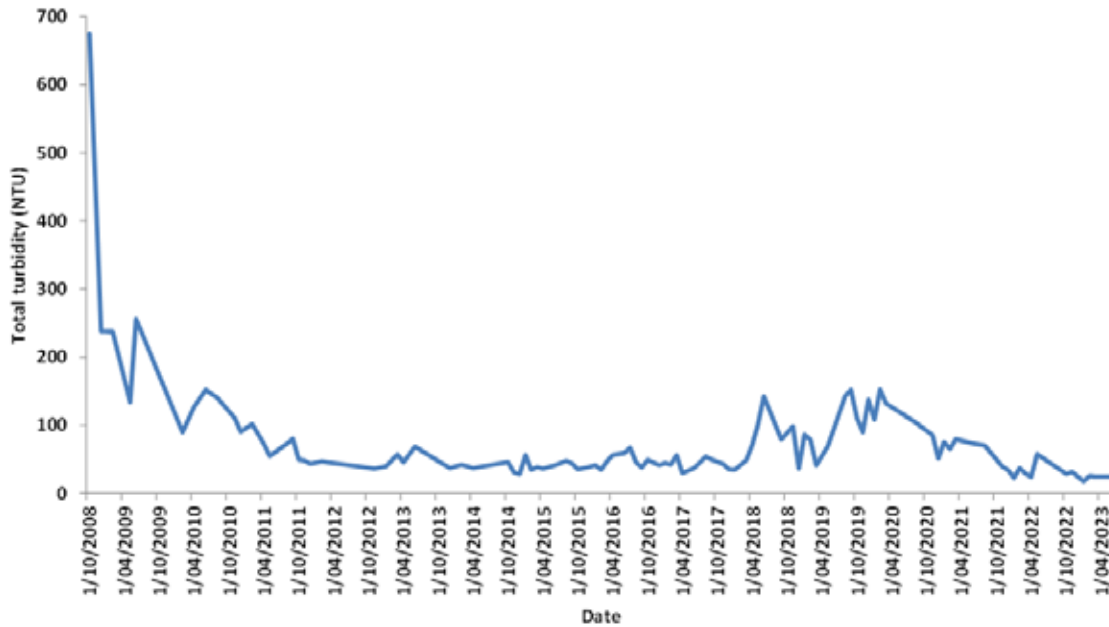


Figure 5. Total turbidity levels in Lake Crescent (2008 – 2023).

2. Juvenile Carp Surveys

The annual Lake Crescent juvenile carp survey took place on 20 - 21 March 2023. The aim of this survey was to ensure carp had not reestablished in Lake Crescent, and to look for any sign of spawning. Annual surveys have not detected any carp spawning in Lake Crescent since 2007. Rocky or sandy shores and areas with lots of aquatic plants were the main habitats targeted. 14 sites around the lake were surveyed using backpack electro-fishers, for a minimum of 10 minutes at each location. A total of 282 electrofishing minutes was undertaken, with short-fin eels, juvenile brown trout, and golden galaxias making up most of the catch. There was no sign of any carp in Lake Crescent.



Picture 5. Fyke nets are set around the margins of Lake Sorell to survey for juvenile carp.

The Lake Sorell juvenile carp survey was conducted from 1 – 5 March 2023. The aim of this survey was to check for any signs of carp spawning. Using the backpack electro-fishers and fine-mesh dip nets, shallow areas were thoroughly surveyed. Fyke nets were set behind and in front of barrier nets, wherever there was suitable habitat. 66 fyke nets were set at 22 locations around the lake, while backpack electro-fishing was also undertaken across 21 sites around the lake. Both fine mesh and standard mesh fyke nets were used to target carp in the 30 to 100mm size range. Electrofishing was undertaken for a minimum of 10 minutes at each location. In total, 6234 fyke net hours were put in over the survey, as well as a total of 363 electrofishing minutes. This resulted in eels, brown trout, golden galaxiids, and shrimps being caught, but no sign of any small carp.

In addition to the March juvenile survey, monthly surveys were also undertaken in December, January, and February. Each survey was undertaken over three days and involved backpack electrofishing (total of 709 electrofishing minutes), fine/coarse mesh fyke nets (total of 6346 fyke net hours), as well as fine mesh dip netting weedy areas. The marshes were the main locations surveyed, which included Kermodes, Silver Plains, Duck Bay, and Robertsons. The shallow weedy areas behind the barrier net were the main focus. No juvenile carp were found on any of the surveys.



Picture 6. One of the brown trout caught in a fyke net during the Lake Sorell juvenile carp survey.

3. The River Clyde Survey

In addition to the lakes Sorell and Crescent juvenile carp surveys, a downstream carp survey of the River Clyde was also undertaken. This survey has been undertaken for the last 28 years and focuses on sites with ideal carp habitat around Bothwell and Hamilton. Backpack electrofishing was done at three sites on the River Clyde which includes the Nant Bridge (500m stretch), the Bothwell sewage works (100m stretch), and the Hamilton Weir (150m stretch). A total of 95 electrofishing minutes was undertaken, resulting in 84 redfin perch, 18 tench, 25 brown trout, and 36 short fin eels. Most importantly, no carp were found, which shows that the containment strategy employed since 1995 has been successful.



Picture 7. Small redfin perch were plentiful in the River Clyde.

4. Carp Workshop

The Carp Management Program held its yearly workshop on 24 March 2023 at the IFS New Norfolk head office. The day involved presentations and discussions of different aspects of the data collected during the 2022-23 season, and comparing it with historical information. This allowed a critical assessment to be made on the success of the eradication effort. Dr. Alyssa Marshall, a research fellow/fisheries scientist from the Institute for Marine and Antarctic Studies attended the workshop as an independent reviewer. Dr. Marshall produced a report reviewing the Carp Management Program and included her recommendations going forward.

This report can be found at the link below:

https://www.ifs.tas.gov.au/media/publications/Review_and_assessment_of_the_Inland_Fisheries_Service_Carp_Management_Progr_x3VEM8E.pdf

Key points from the workshop:

- Despite perfect carp spawning environmental conditions, and targeted fishing effort, only one female carp was caught this season.
- There were no signs of carp recruitment detected in 2015-16, 2021-22, and 2022-23 despite ideal spawning conditions. La Niña conditions this season (2022-23) resulted in the highest lake levels recorded since the 1970s.
- The dominant carp cohort (2009 recruits) in Lake Sorell are close to natural mortality given their age and overall poor general condition.
- The sex ratio of the population is strongly biased towards females, and if any male carp are remaining, there is a high probability they will have the Jelly Gonad Condition (JGC) and be sterile.
- The non-targeted gillnet catch per unit effort (CPUE) has continued to decline each year.
- Carp can now be declared as functionally eradicated from Lake Sorell.

Future strategies:

- The Carp Management Program will be decommissioned, and juvenile carp monitoring will be undertaken in Lake Sorell after the carp spawning season for a number of years.
- Lake Sorell will be open to anglers.
- All long-term barrier nets that have blocked access to carp spawning areas will be removed
- Screens in the water control outlet structures to prevent downstream movement of carp into Lake Crescent will be removed.
- The levee bank at Kermodes Cut will be removed to allow water to flow naturally into Lake Crescent once full supply level is reached.



Picture 8. The Carp Management Program team and independent reviewers at the 2023 carp workshop.

5. Water Yields and Deficits

Total rainfall of 800.2 mm was recorded at the Lake Crescent field station from 1 July 2022 to 30 June 2023.

Table 3. Rainfall and water release data (2022/23).

Month	Rainfall (mm)	Sorell Release (ML)	Crescent Release (ML)
July	28.2	-	376.4
August	138.6	-	2228.2
September	58	-	7299.9
October	159.4	-	13029.1
November	82.2	-	19310.4
December	67.8	-	7030.1
January	19.8	-	1313.6
February	44	-	1364.4
March	45.6	-	837.4
April	41	-	367.6
May	36.6	-	180.4
June	79	-	26.6
Total	800.2	-	53364.1

*Note: There is no continuous flow monitoring on the Lake Sorell release. Only spot checks are done.

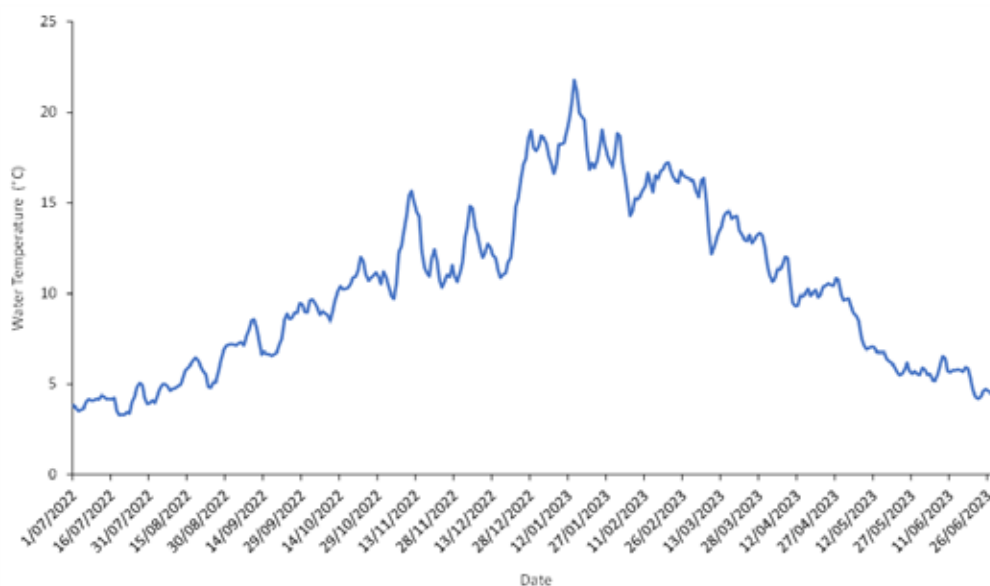


Figure 6. Lake Sorell water temperature from Diamond Shore deep site (July 2021 – June 2023).

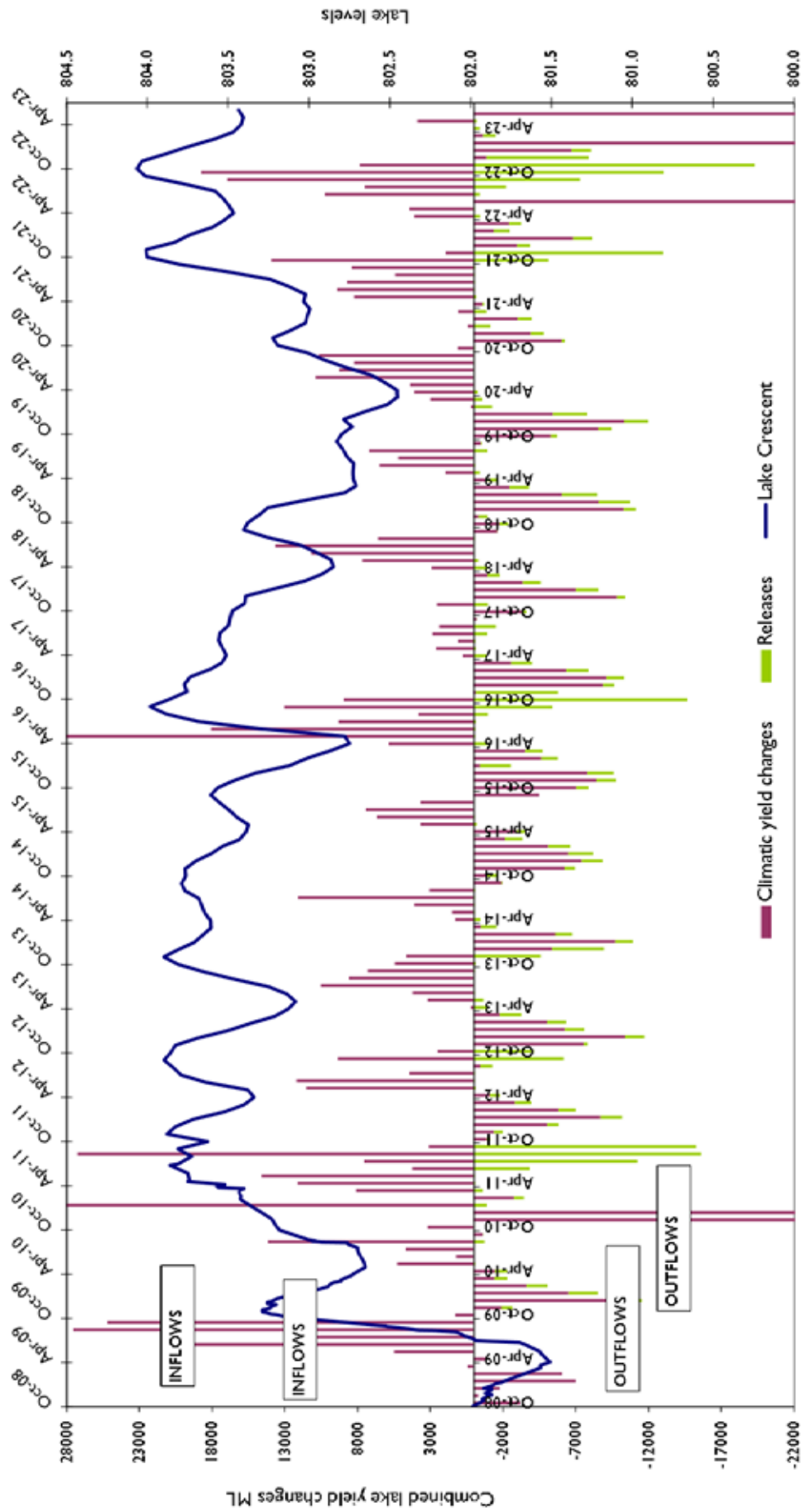


Figure 7. Lake Crescent lake levels, water yields and deficits (2008 – June 2023).

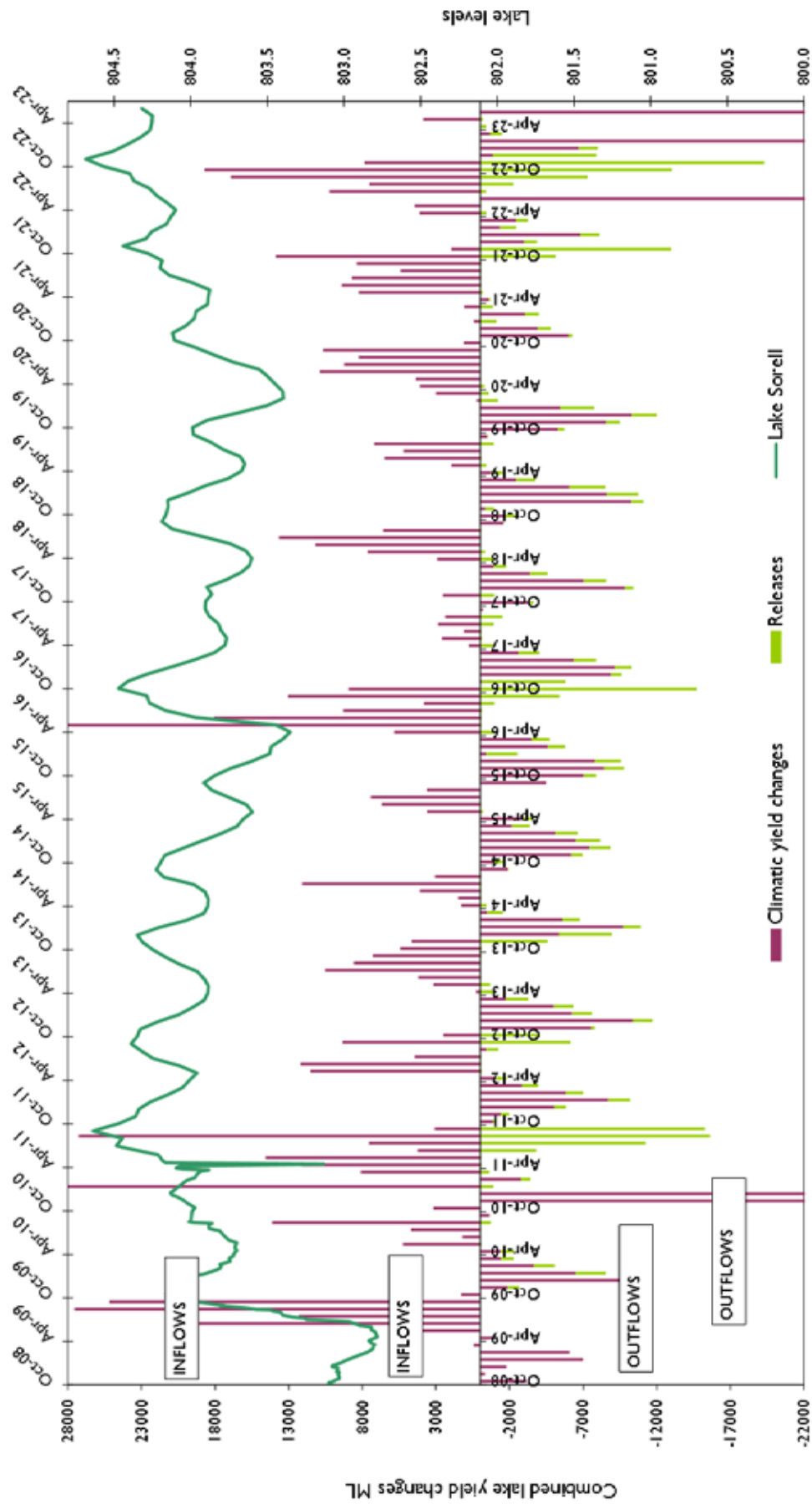


Figure 8. Lake Sorell lake levels, water yields and deficits (2008 – June 2023).

6. Staffing

6.1 Staff Positions

Two casual workers were employed to assist with carp management activities during the season.

Table 4. Staff positions (2022/23).

Field Officers	Robert Cordwell (0.6fte) Terry Byard (0.5fte)
Technical Officers	Brock Cuthbertson (1fte)
Program Leader	Jonah Yick (1 fte)
Section Manager	Chris Wisniewski (1fte)

Table 5. Casual positions (2022/23).

Name	Background	Timeline
Kim Clark	Interlaken Shack Owner	11th Aug – 7th June
Craig Burgess	Huon Aquaculture	5th Oct – 24th Mar

6.2 Staff Requirements as per Industrial Agreement

IFS staff are required to undertake weekend work and hours beyond general conditions of service as part of the industrial agreement. The following table outlines the work undertaken by CMP staff for the year.

Table 6. Weekend work, public holidays and extra hours (2022/23).

Staff Member	Saturdays	Sundays	Public Holidays	Extra Hours
Jonah Yick	7	6	0	213.45
Brock Cuthbertson	12	12	0	220.75
Terry Byard	4	3	0	-
Robert Cordwell	4	6	0	103.43

7. Activities

7.1 Carp Sightings

3 March 2023 – Asian Grocer – Goldfish

7.2 Public Presentations

During the year staff from the IFS gave presentations to the following organisations on the CMP.

Table 7. Public presentations (2022/23).

Date	Organisation
7 February 2023	Glenorchy Probus Group
14 February 2023	University of Tasmania Field Ecology unit
14 March 2023	NW Fly Fishers Club
20-21 May 2023	Liawenee Trout Weekend
6 June 2023	Break O' Day Sports Angling Club
21 June 2023	ABC Radio Hobart, Mornings with Leon Compton

7.3 Timeline of Major Events

Table 8. Timeline of major events (2022/23).

Date	Event
July	
13th	Start checking and repairing barrier nets for holes and tears
August	
14th	Lake Sorell reaches and exceeds full supply level (804.360 mAHD)
15th	Lake Crescent reaches and exceeds full supply level (803.800 mAHD)
15th	Lakes Sorell and Crescent reach and exceed combined full supply amount (201 000ML)
30th	Lake Crescent gates are closed, Lake Crescent begins spilling at 151ML a day
September	
7th	All barrier net repairs and checks completed
20th	Big fyke nets installed into barrier nets but not opened up
26th – 28th	Lake Crescent shack gear inventory and clean up

Date	Event
October	
5th	Big fyke nets in barrier nets opened up
12th	Installation of trammel gill nets (focused fishing effort) behind barrier nets commenced today
13th	First significant rain event
13th	Some of the big fyke nets closed off due to high lake level
14th	Many of the barrier nets have been breached due to high lake level. Additional gill nets added to the ends of some barrier nets
15th	Installed new big fyke nets in shallower sections of barrier net
18th	Kermodes cut levee bank is sand bagged to repair small sections which have been breached
18th	River Clyde Trust directed to release approximately 200ML a day to reduce the combined full supply level. With 430ML spilling from Lake Crescent, a target release of 630ML a day is the aim
19th	Electrofishing in the marshes behind barrier nets commenced today
25th	Installed small fyke nets in the main marshes behind the barrier nets
28th	Lake Crescent reaches peak lake level height for the season (804.172 mAHD)
31st	Lakes Sorell and Crescent reach peak combined volume above full supply (231 716ML)
31st	Lake Sorell reaches peak lake level height for the season (804.836 mAHD)
November	
10th	First and only carp caught for the season: trammel gill net set behind the barrier at Dogs Head, 415mm, 1510gm, female, GSI 21%
December	
12th – 14th	Monthly Lake Sorell juvenile carp survey
14th	All big fyke nets removed from barrier nets, and all remaining small fyke nets installed in the marsh also removed
14th	All trammel gill nets installed behind barrier nets removed from the lake
January	
23rd – 25th	Monthly Lake Sorell juvenile carp survey
February	
6th – 8th	Monthly Lake Sorell juvenile carp survey

Date	Event
March	
1st – 5th	Annual Lake Sorell juvenile carp survey
15th	River Clyde downstream survey
20th – 21st	Annual Lake Crescent juvenile carp survey
24th	Carp Workshop
29th – 31st	Annual Lake Crescent and Sorell golden galaxias survey
April	
6th	Lake Sorell field station site inspection
May	
24th	Barrier net removal from Lake Sorell commences
June	
8th	Ministerial media release announcing carp are functionally eradicated from Lake Sorell and Tasmania
27th	Kermodes Cut levy bank removed
August *	
2nd	All barrier net is removed from Lake Sorell.
2nd	All carp program related infrastructure which includes fish traps, star pickets, buoys, screw anchors, poles, old fences, and the fish pen are removed from Lake Sorell
14th	12mm mesh and 1.5m of grate removed from all four bays in the Lake Sorell screens. The removal of the external and internal grates, and internal platform is booked in for September
14th	Begin cleaning up Lake Crescent Field Station for sale. Equipment is reallocated to other IFS sites

* Note: 2023/24 financial year.

7.4 Media Articles

- 25th October 2022 – Inland Fisheries Service website – “Carp Management Program Annual Report 2021-22”
- 25th October 2022 – DPIPWE Pod news and events – “Tasmanian Carp Management Program annual report out now”
- 3rd November 2022 – The Examiner – “Brown Dun”
- 3rd November 2022 – The Advocate – “End appears nigh for Lake Sorell carp”
- 4th November 2022 – The Mercury – “Carl Hyland”
- December 2022 – Australian Society for Fish Biology Newsletter, Lateral lines – “State Reports: Tasmania, Inland Fisheries Service: Carp Management Program Report”
- 15th March 2023 – The Derwent Valley Gazette – “Lake is back to its best”
- 11th May 2023 – Inland Fisheries Service website – “Scientific publication by the IFS receives best paper award”
- 24th May 2023 – The Derwent Valley Gazette – “Fishing”
- June 2023 – Australian Society for Fish Biology Newsletter, Lateral lines – “State Reports: Tasmania, Inland Fisheries Service: Carp Management Program Report”
- 8th June 2023 – Tasmanian Government Media Release, Jo Palmer, Minister for Primary Industries and Water – “Removing invasive carp from Tasmanian waters”
- 9th June 2023 – Inland Fisheries Service website – “Carp functionally eradicated from Tasmania!”
- 13th June 2023 – The Advocate – “Inland Fisheries declares victory after 28-year battle”
- 14th June 2023 – The Derwent Valley Gazette – “28-year carp war success”
- 15th June 2023 – DPIPWE Pod news and events – “Inland Fisheries Service wins the war on invasive carp”
- 16th June 2023 – The Mercury – “Carl Hyland”
- 21st July 2023 – The Mercury – “How Tassie won war on carp”
- 31st August 2023 – Centre for Invasive Species Solutions (CISS) Chronicle – “Carp functionally eradicated from Tasmania!”

8. Budget

Natural_Account	Total Prds	Period 0	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13
1201 - Motor Vehicles	3,590.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40,552.72	(36,962.18)	40,552.72	(40,552.72)
1202 - MV Acc Dep	10,978.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11,992.51	(1,013.82)	0.00
1204 - Vessels Acc Dep	(6,851.77)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(6,851.77)	0.00
1206 - P&E Acc Dep	(9,267.59)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(9,267.59)	0.00
1210 - Asset Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1217 - Infra Acc Dep	(571.40)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(571.40)	0.00
4529 - Misc Rev	(814.46)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(814.46)	0.00	0.00
4530 - Sale of Surplus	(100.00)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(100.00)	0.00
4601 - Gross disposals	(27,554.55)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(27,554.55)	0.00	0.00
5101 - Salaries	195,538.86	0.00	15,293.85	23,285.48	10,429.41	15,884.76	15,490.27	14,653.24	16,973.83	13,814.76	23,100.73	15,074.49	15,403.29	16,134.75	0.00
5102 - Lump Sum Leave	19,830.45	0.00	0.00	489.98	5,271.51	1,444.56	6,588.3	629.38	0.00	4,350.28	2,682.51	2,204.24	1,399.44	699.72	0.00
5106 - Superannuation	25,560.71	0.00	1,815.86	2,813.38	1,859.90	2,081.08	1,944.59	1,916.37	1,809.70	2,203.97	3,101.37	2,037.04	1,987.06	1,990.39	0.00
5107 - Otime-Penalties	2,903.36	0.00	0.00	0.00	0.00	4,780.5	358.54	956.10	0.00	539.47	571.20	0.00	0.00	0.00	0.00
5109 - Allowances	26,912.13	0.00	1,999.94	3,018.39	2,012.26	2,012.26	2,012.26	2,012.26	2,012.26	2,285.48	3,182.34	2,121.56	2,121.56	2,121.56	0.00
5112 - Workers Compens	(158.00)	(158.00)	316.00	0.00	(316.00)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5118 - Super Gap Payme	8,398.62	0.00	596.64	924.40	611.11	683.79	638.94	629.67	594.62	724.18	1,019.04	669.32	652.91	654.00	0.00
5207 - Equip Hire/Le	8,915.70	0.00	457.85	8,457.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5208 - Equipment Maint	122.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	122.48	0.00
5212 - Printing/Pubs	978.73	0.00	0.00	0.00	1,369.1	340.00	501.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5214 - Vehicle Fuel	8,864.83	(589.70)	765.75	512.53	566.82	811.78	1,273.05	643.53	761.96	1,291.90	587.55	973.83	264.26	647.64	353.93
5216 - MV Purchases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(40,552.72)	40,552.72
5217 - Vehicle Maint	1,138.33	(321.09)	321.09	0.00	0.00	0.00	0.00	346.33	0.00	592.00	0.00	0.00	0.00	0.00	200.00
5219 - Postage/Freight	5,749.25	0.00	265.26	(112.78)	563.342	0.00	0.00	0.00	0.00	0.00	(366.5)	0.00	0.00	0.00	0.00
5220 - Comp Hardware	2,650.41	0.00	0.00	0.00	0.00	0.00	2,561.32	0.00	0.00	0.00	0.00	0.00	0.00	89.09	0.00
5222 - Comp Software	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,500.00	0.00	0.00
5223 - Network Costs	767.65	0.00	590.5	590.5	118.10	0.00	590.5	590.5	590.5	590.5	590.5	0.00	590.5	177.15	0.00
5228 - Mob Phones Rads	5,163.65	0.00	619.05	242.54	1,735.04	182.01	341.57	296.68	243.89	298.71	243.42	170.37	189.91	600.46	0.00
5229 - Equip Purchases	(812.85)	0.00	0.00	0.00	0.00	0.00	(812.85)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5230 - Equipment Deprn	9,267.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9,267.59	0.00
5231 - MV Deprn	5,148.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,134.95	1,013.82	0.00
5232 - Vessel Deprn	6,851.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6,851.77	0.00
5234 - Op Supplies	1,448.85	0.00	53.41	499.4	340.13	0.00	181.49	440.24	52.95	98.13	88.00	0.00	0.00	144.56	0.00
5236 - Cont Services	19,290.33	0.00	0.00	187.78	919.02	2,411.11	1,327.24	5,616.99	2,450.8	767.67	4,104.97	951.08	985.98	896.21	877.20
5238 - OH & S	160.83	0.00	0.00	0.00	0.00	86.27	74.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5239 - Bad Debts Exp	0.00	0.00	0.00	113.69	0.00	0.00	(113.69)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5240 - Meetings & Conf	421.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	421.33	0.00
5243 - Misc Expenditur	14.00	0.00	0.00	0.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5245 - Building Clean	1,476.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,476.26	0.00
5248 - Elect & Power	0.00	0.00	0.00	0.00	0.00	0.00	770.00	0.00	(770.00)	0.00	0.00	0.00	0.00	0.00	0.00
5253 - Vessel Fuel	7,922.88	0.00	0.00	441.86	1,496.8	932.81	1,258.39	987.16	684.93	995.32	837.54	215.90	265.78	1,153.51	0.00
5255 - Intrastate Trav	10,988.08	0.00	286.70	556.95	1,500.59	1,259.40	3,401.48	1,142.05	451.32	810.75	642.70	0.00	143.35	792.79	0.00
5258 - Prot Clothing	1,240.64	0.00	81.82	490.9	1,89.95	641.82	184.20	0.00	50.91	1,595.82	0.00	15.59	0.00	27.26	0.00
5267 - Vessel Maintena	10,397.33	0.00	0.00	4,667.50	0.00	1,128.45	543.64	0.00	564.55	1,595.82	0.00	856.68	909.09	131.60	0.00
5269 - Office Printing	570.00	0.00	0.00	0.00	0.00	0.00	570.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5270 - WDV Disp Assets	20,834.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20,834.72	0.00	0.00
5288 - Infrastruc Depr	571.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	571.40	0.00
State/IFS Contribution	381,038.55														
Total Expenditure	381,038.55	(1,068.79)	22,932.27	45,757.63	31,157.85	30,378.15	33,224.70	30,343.05	23,735.05	30,427.49	40,183.77	65,842.82	(1,487.33)	28,180.76	1,431.13

9. Notes

The background features a dark blue color with abstract, light blue wavy lines that resemble water ripples or fish scales. On the right side, there is a faint, stylized outline of a fish, possibly a salmon, facing right. The overall aesthetic is clean and modern.

CONTACT DETAILS

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