

Carp Management Program Update October / November / December 2007

Carp captures at a glance

Lake Sorell

Oct – Dec 2007 (Total)	Female / Male / Indeterminate	Total YTD (1/7/2007 – 31/12/2007)	Total 1995 to present
35	21 / 12 / 2	74	2732

Lake Crescent

Oct – Sep 2007 (Total)	Female / Male / Indeterminate	Total YTD 1/7/2007 – 31/12/2007)	Total 1995 to present
3	1 / 2 / 0	3	7797

Activities

As environmental conditions turned warmer in the final quarter of 2007, the Carp Management Team (CMT) responded with daily monitoring of tracker fish movement. After a successful winter, the CMT were eager to increase the pressure on remaining populations. Spring rainfall only increased water levels marginally, providing no new spawning habitat for carp. Barrier nets already established also barred access to prime spawning habitat.

As predicted, tracker fish became increasingly mobile and were geographically located throughout a much wider distribution. Fishing pressure was applied whenever the opportunity arose with mixed results.

Carp Movement

Lake Crescent

Lake Crescent was tracked 43 times from October to the end of December. Figure 1 represents a collective illustration of where tracker fish were found during this time. The size of fish symbol is relatively proportional to the number of times tracker fish were found in that area.

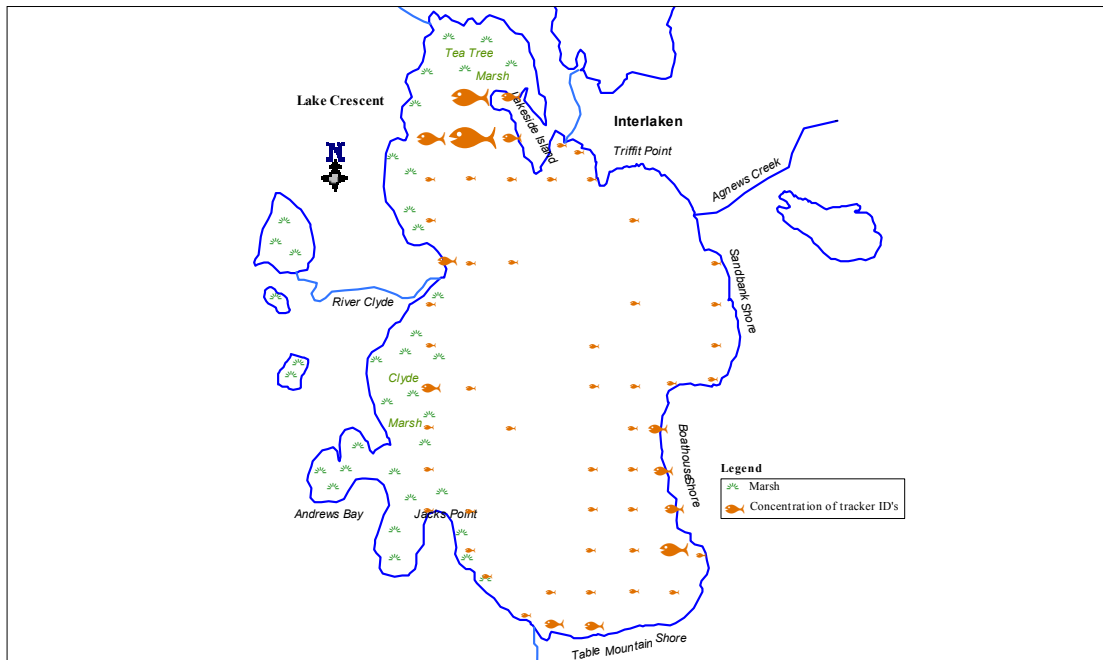


Figure 1. Lake Crescent tracker detection (Oct - Dec 2007)

Tracker fish were most commonly detected within Tea Tree Marsh at the northern end of Crescent. This area contains warm mud flats and deep holes providing cover. Tracker fish that were not found in this area were often located along Boathouse Shore or Table Mountain Shore.

Lake Sorell

Lake Sorell was tracked on 65 occasions during the months of October / November / December. As can be seen on the thematic map (Figure 2), tracker fish were located at many different sites. It is clear however that the rocky habitat north west of St Georges Island was a very popular refuge for a number of tracker fish.

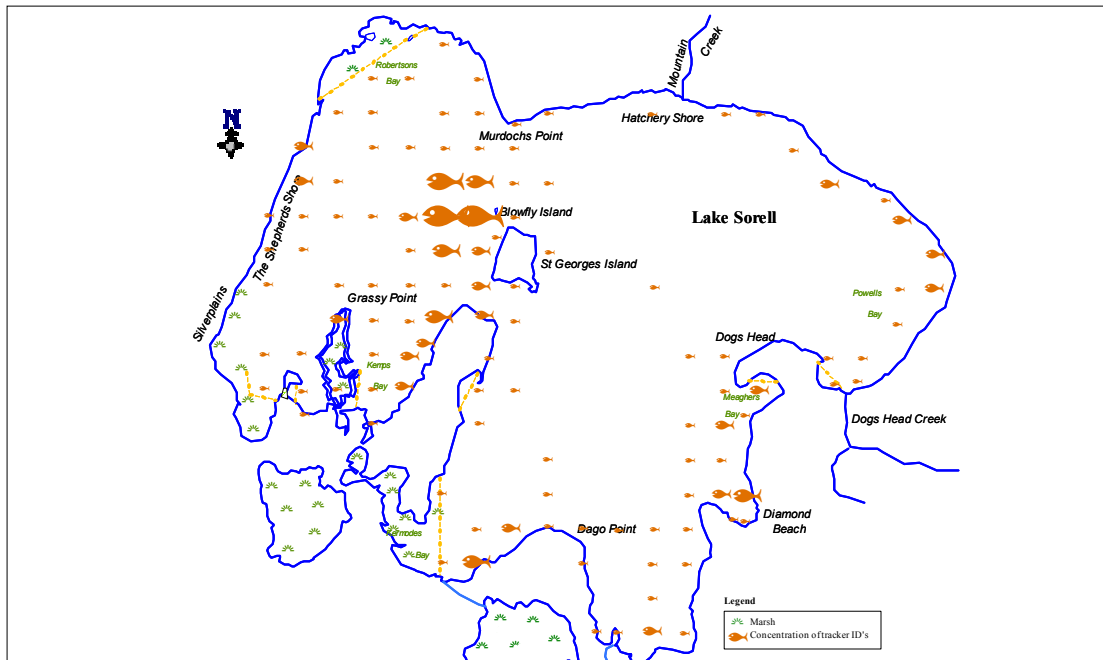


Figure 2. Lake Sorell tracker detection (Oct - Dec 2007)

Carp Captures

Lake Crescent

Three carp were captured in Lake Crescent from October to December. On 21 December 2, tracker fish were located in the eastern bay of Boathouse Point. Fishing pressure was subsequently applied resulting in the capture of the first female since November 2006. This was a very significant catch, as it is uncertain if there are any females remaining. 2 tagged males were also captured (part of the remaining population from the mark recapture study). Figure 3 provides an updated monthly catch frequency chart from February 1995.

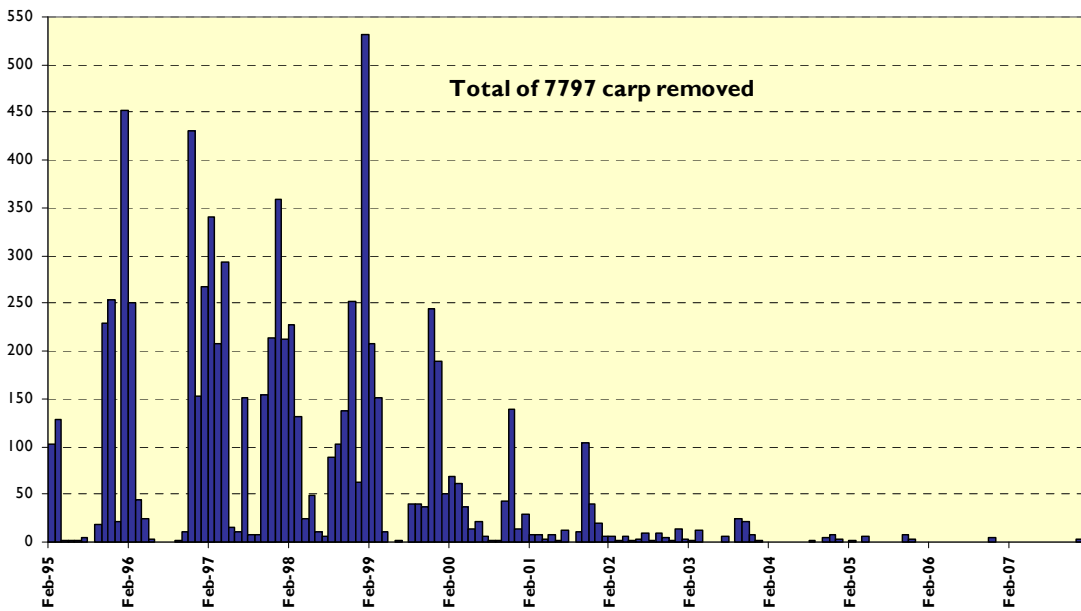


Figure 3. Lake Crescent monthly carp captures (Feb 1995 - December 2007)

Lake Sorell

35 carp were caught from Lake Sorell from October to December (Figure 4). Carp were captured using a combination of techniques including gillnets, backpack electrofishing and boat electrofishing.

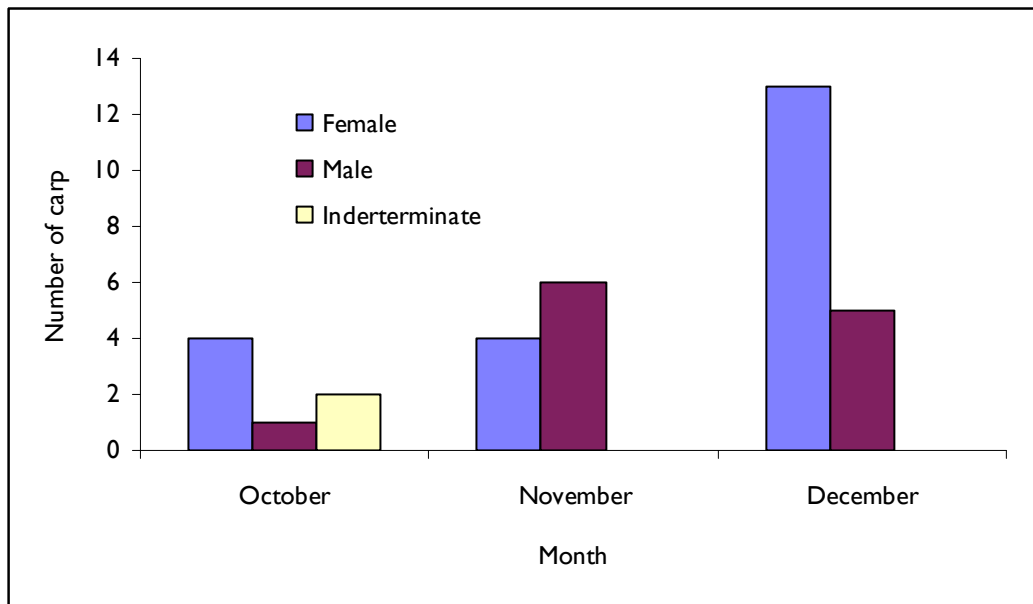


Figure 4. Lake Sorell carp captures (Oct - Dec) 2007)

Figure 5 shows a length frequency plot for all carp captured during the three-month period.

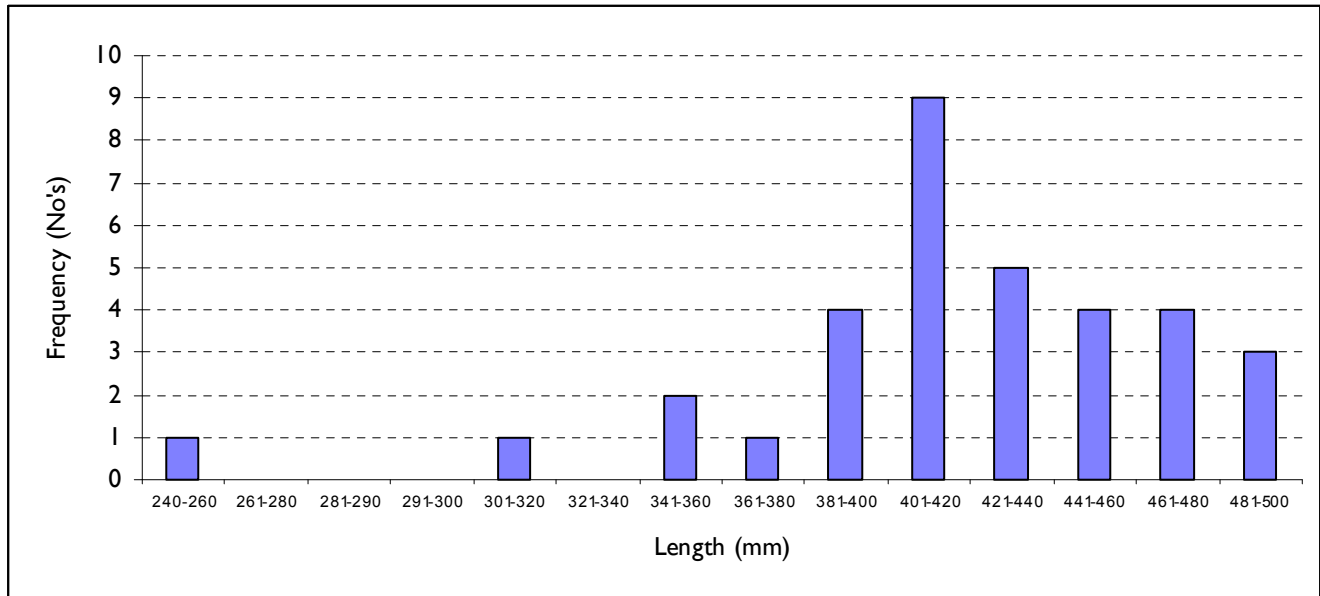


Figure 5. Lake Sorell length frequency plot (Oct - Dec 2007)

Figure 6 provides an updated monthly catch frequency chart from February 1995.

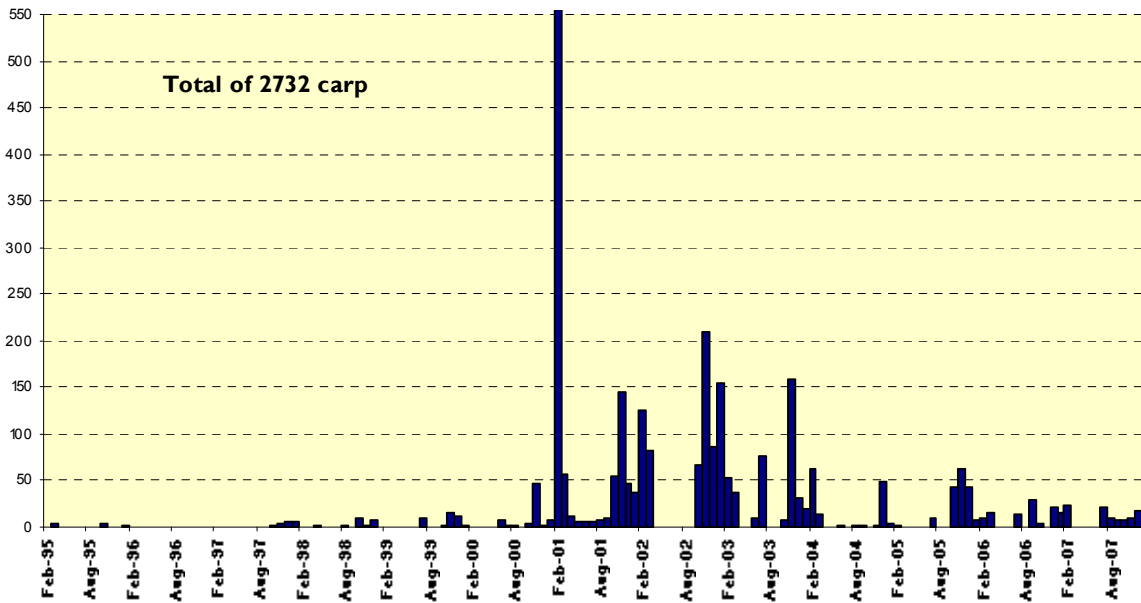


Figure 6. Lake Sorell monthly carp captures (Feb 1995 – Dec 2007)

Effort

Table 1 summarises catch effort data for Lake Crescent from October to December 2007.

Table 1. Lake Crescent catch effort data (Oct - Dec 2007)

Method	Total Shock/Soak Time (Hrs)	Carp	Bycatch
Backpack Electrofishing	3	1	2 Brown trout, 6 Eels
5" Mesh gillnet	3	0	2 Brown trout
6" Mesh gillnet	10	2	10 Brown trout, 1 Rainbow trout

Table 2 summarises catch and effort data for Lake Sorell from October to December 2007.

Table 2. Lake Sorell catch effort data (Oct – Dec) 2007)

Effort Type	Total Shock/Soak time (Hrs)	Carp	Bycatch
Backpack electrofishing	9	5	7 Brown trout, 1 Eel
5" Mesh Gillnet	23	13	59 Brown trout
6" Mesh Gillnet	21	15	14 Brown trout
Trap	960	0	17 Brown trout, 1 Rainbow trout, 16 Eels
Double Fyke Net	720	2	82 Brown trout, 1 Rainbow trout 15 Eels

Figure 7 represents fishing methods successful in catching carp and their associated percentage catch for October to December 2007. The 6-inch and 5-inch gill nets are the most successful, responsible for 43% and 37% of the total respectively. It is important to note here however, that when using gillnets the CMT electrofish within the confines of the nets encouraging movement of carp and therefore entanglement. It has been well proven that the combination of fishing techniques improves the probability of carp catches.

It is also worth noting that the probability of entanglement in the 6-inch gill net is far greater than the 5-inch. This is due to the 6-inch net being deployed inside the 5-inch, making it the first point of contact for any fish trapped within net and shore.

The size of the remaining carp (mainly 2003 cohort) in Lake Sorell is also more susceptible to capture within the 6-inch mesh.

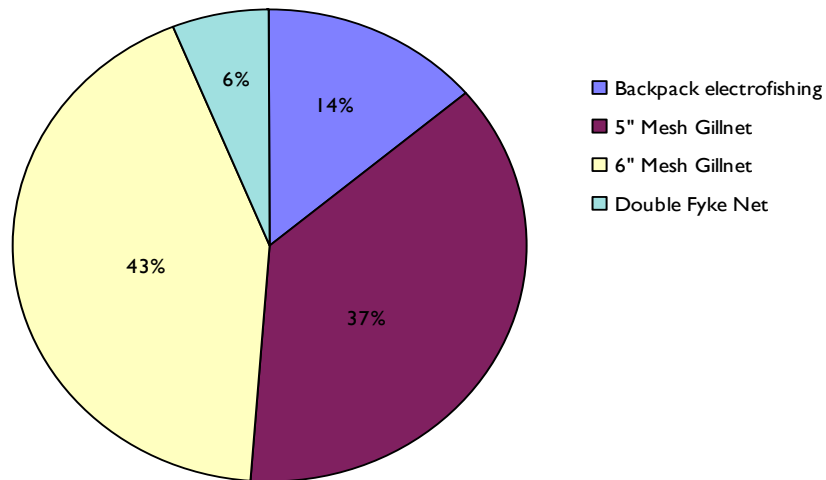


Figure 7. Lake Sorell carp capture methods and percentage catch (Oct - Dec 2007)

Biological information

Table 3 shows all biological data taken during the months of October, November and December 2007. Any running male carp were retained alive in a small dam for future tracker fish requirements. Subsequently, biological data is not available for all carp captured.

Table 3. Lake Sorell biological information (Oct - Dec 2007)

Date of capture	Method	Length (mm)	Weight (g)	Sex	Gonad Weight (g)	Gonad condition*
05-Oct-07	5" gill net	360	995	I	NA	NA
09-Oct-07	Backpack electrofishing	430	1918	F	224	3
09-Oct-07	Backpack electrofishing	410	1728	F	194	3
09-Oct-07	Backpack electrofishing	258	448	I	NA	NA
09-Oct-07	5" gill net	403	1531	F	206	3
11-Oct-07	Backpack electrofishing	385	1242	M	49	3
22-Oct-07	5" gill net	463	2445	F	395	3
18-Nov-07	5" gill net	440	1745	M	NA	NA
24-Nov-07	Double fyke net	490	2670	M	NA	NA
24-Nov-07	Double fyke net	NA	NA	M	NA	NA
27-Nov-07	5" gill net	422	1740	F	302	3
29-Nov-07	5" gill net	460	2360	F	384	3
29-Nov-07	5" gill net	400	1200	F	NA	NA
29-Nov-07	6" gill net	405	1449	M	NA	NA
29-Nov-07	6" gill net	390	1380	M	NA	NA
29-Nov-07	6" gill net	440	1600	M	NA	NA
29-Nov-07	6" gill net	405	1498	F	155	NA
08-Dec-07	5" gill net	490	2896	F	473	3
08-Dec-07	5" gill net	435	1841	F	303	3
08-Dec-07	5" gill net	402	1586	F	250	3
08-Dec-07	6" gill net	390	1410	M	2	NA
08-Dec-07	6" gill net	410	1568	M	NA	NA
08-Dec-07	6" gill net	355	1070	F	9	3
08-Dec-07	Backpack electrofishing	495	2530	M	NA	NA
14-Dec-07	6" gill net	380	1090	M	NA	NA
22-Dec-07	6" gill net	476	2750	F	510	3
22-Dec-07	5" gill net	412	1909	F	115	3
22-Dec-07	5" gill net	405	1307	M	NA	NA
22-Dec-07	5" gill net	404	1761	F	53	3
22-Dec-07	6" gill net	316	1692	F	322	3
22-Dec-07	6" gill net	456	2368	F	414	3
22-Dec-07	6" gill net	462	2441	F	123	3
22-Dec-07	6" gill net	445	2084	F	281	3
22-Dec-07	6" gill net	480	3178	F	544	3
22-Dec-07	6" gill net	460	2387	F	376	3

*I = Immature, gonad tissue developing; 2 = Gonad non-vascularised, eggs/milt visible; 3 = Mature, vascularised but not running; 4 = Running ripe; 5 = Spent

Water Management

Figure 8 represents a historical combination of water yields, deficits and lake levels, from 1997 to December 2007. The CMT record lake levels when appropriate (suitable weather conditions) and store all data accordingly.

Table 4 lists rainfall readings and water release data for both lakes from October to December 2007.

Table 4. Rainfall and water release data (October - December 2007)

Month	Rainfall (mm)	Lake Sorell release (ML)	Lake Crescent release (ML)
October	59	500	5
November	9	0	134.5
December	104	0	166.5
TOTAL	Total 2007: 500	500	306

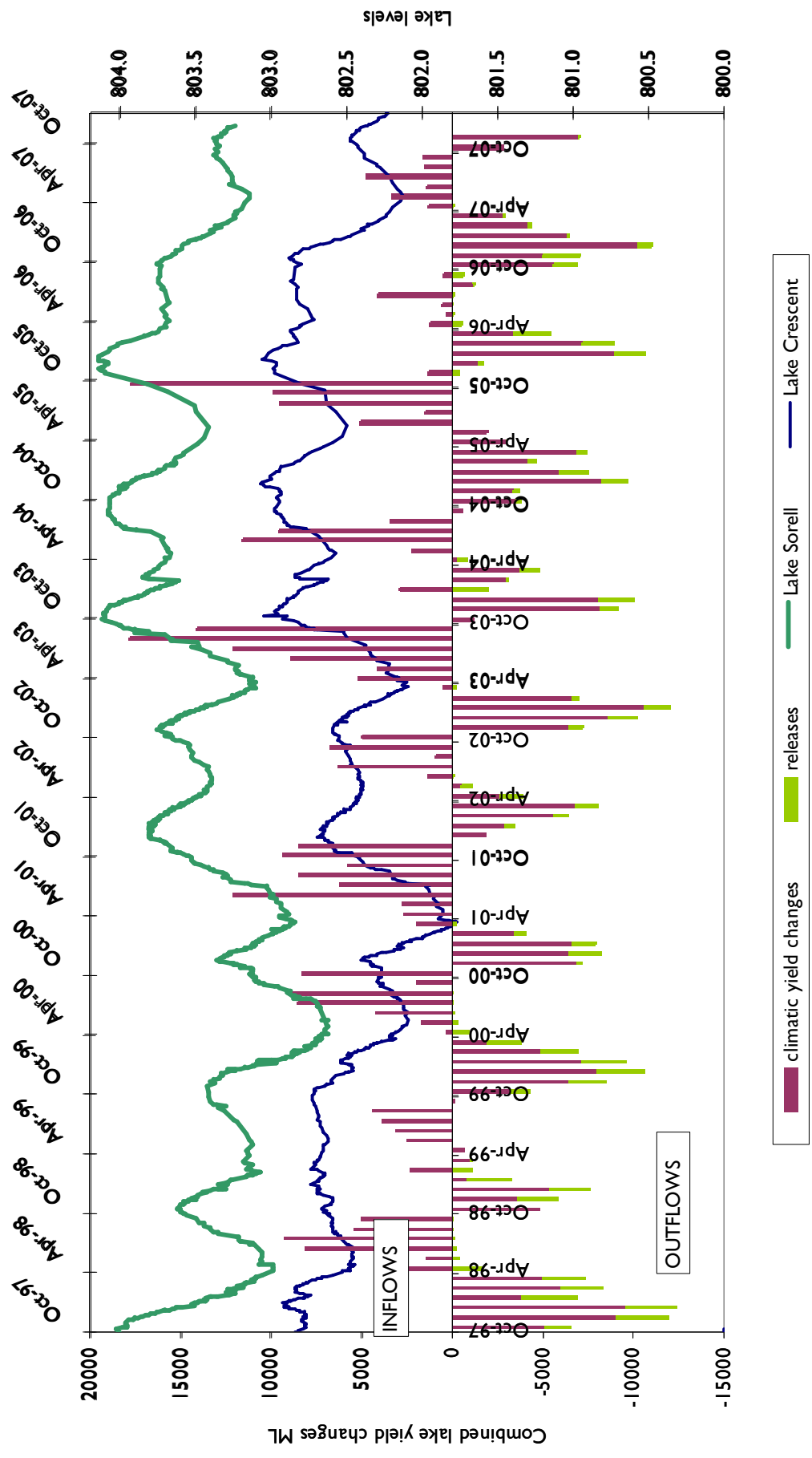


Figure 8. Combined water yields, deficits and plots (Oct 1997 - December 2007)

Team Rosters

Table 5. October CMT Roster 2007

Carp Management Team										
Date	Day	Paul	Adam	Andrew	Rob	Chris	Terry	Notes		
1	Monday	off	off	Crescent	Crescent	Crescent				
2	Tuesday	Chainsaw Train	off	Chainsaw Train	Crescent	Crescent				
3	Wednesday	Chainsaw Train	Head Office	Chainsaw Train	Crescent	Echo				
4	Thursday	Crescent	Head Office	Head Office	Crescent	Head Office				
5	Friday	Crescent	Crescent	Head Office	Crescent	Head Office	Crescent			
6	Saturday	off	Crescent	off	off	off	Crescent			
7	Sunday	off	Crescent	off	off	off	Crescent			
8	Monday	Crescent	off	Op Skill Train	Crescent	Head Office	Op Skill Train			
9	Tuesday	Crescent	off	Crescent	Crescent	Head Office				
10	Wednesday	Crescent	leave	Crescent	Crescent	Head Office				
11	Thursday	Crescent	leave	Head Office	Crescent	Crescent				
12	Friday	off	leave	Head Office	Crescent	Crescent				
13	Saturday	off	leave	off	Crescent	Crescent				
14	Sunday	off	leave	off	Crescent	Crescent				
15	Monday	Crescent	leave	Crescent	off	Head Office				
16	Tuesday	Crescent	leave	Crescent	off	Head Office				
17	Wednesday	Crescent	Head Office	Crescent	Crescent	Head Office				
18	Thursday	Crescent	Crescent	Head Office	Crescent	off	Crescent			
19	Friday	off	Crescent	Head Office	Crescent	off	Crescent			
20	Saturday	off	compliance	Crescent	off	off	Crescent			
21	Sunday	off	compliance	Crescent	off	off	Crescent			
22	Monday	off	Head Office	Crescent	Crescent	Head Office	Crescent			
23	Tuesday	Crescent	Head Office	Head Office	Crescent	Head Office				
24	Wednesday	Crescent	Head Office	off	Crescent	Head Office				
25	Thursday	Crescent	off	off	off	Crescent				Hobart Show
26	Friday	Crescent	off	off	Crescent	Crescent				Auratus Monitoring
27	Saturday	Crescent	off	off	off	Crescent				
28	Sunday	Crescent	off	off	off	Crescent				
29	Monday	off	Crescent	Crescent	Crescent	Head Office				
30	Tuesday	off	Crescent	Crescent	Crescent	Head Office				
31	Wednesday	Crescent	Crescent	Crescent	Crescent	Head Office				

Table 7. December CMT Roster 2007

Carp Management Team										
Dec-07										
Date	Day	Paul	Adam	Andrew	Rob	Chris	Terry	Notes		
1	Saturday	off	Crescent	off	off	kids	Crescent			
2	Sunday	off	Crescent	off	off	kids	Crescent			
3	Monday	off	off	Head Office	Crescent	Crescent				
4	Tuesday	off	off	Head Office	Crescent	Crescent				
5	Wednesday	Crescent	off	Head Office	Crescent	Head Office				
6	Thursday	Crescent	Crescent	Crescent	Crescent	Crescent	Crescent			Party
7	Friday	Crescent	Crescent	Crescent	Crescent	Crescent	Crescent			
8	Saturday	Crescent	off	off	off	Crescent				
9	Sunday	Crescent	off	off	off	Crescent				
10	Monday	off	Crescent	Crescent	Crescent	Head Office				
11	Tuesday	off	Crescent	Crescent	Crescent	Head Office				
12	Wednesday	off	Crescent	Crescent	Crescent	Head Office				
13	Thursday	Crescent	Head Office	Head Office	Crescent	off				
14	Friday	Crescent	Head Office	Head Office	Crescent	off	Crescent			
15	Saturday	off	off	off	off	off	Crescent			
16	Sunday	off	off	off	off	off	Crescent			
17	Monday	Crescent	Crescent	Leave	Crescent	Crescent	Crescent			
18	Tuesday	Crescent	Crescent	Leave	Crescent	off				
19	Wednesday	Crescent	Crescent	Leave	Crescent	off				
20	Thursday	Crescent	Crescent	Leave	Crescent	off				
21	Friday	off	Crescent	Leave	Crescent	Crescent				
22	Saturday	off	off	off	Crescent	Crescent				
23	Sunday	off	off	off	Crescent	Crescent				
24	Monday	off	off	Leave	Crescent	Crescent				
25	Tuesday	off	off	off	off	off				Christmas Day
26	Wednesday	off	off	off	off	off				Boxing Day
27	Thursday	off	off	Leave	Crescent	off	Crescent			
28	Friday	off	off	Leave	Crescent	off	Crescent			
29	Saturday	off	Crescent	off	off	off	Crescent			
30	Sunday	off	Crescent	off	off	off	Crescent			
31	Monday	off	Crescent	Leave	off	off	Crescent			