

## LAKE WIVENHOE REVIEW JUNE 2025

### INFORMATION RATING



Stocking group: Somerset and Wivenhoe Fish Stocking Association

Species stocked: Australian Bass, Golden Perch, Silver Perch, Mary River Cod, Southern Saratoga

Stocking timeframe: 2012-2018

Fish timeframe: 2016-2025 Jan-Jun

Fisher timeframe: 2021-2025 Jan-Jun

DAF link: <https://www.daf.qld.gov.au/rsa/sips-dams-and-weirs/profile?dam=wivenhoe-dam>

Stocking Group Facebook link: <https://www.facebook.com/SomersetWivenhoeFishStocking/>

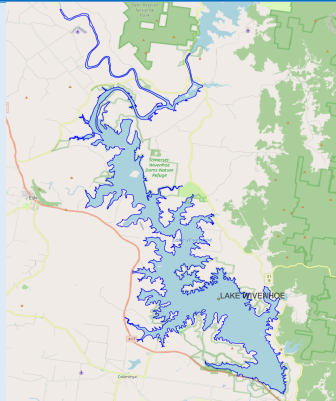

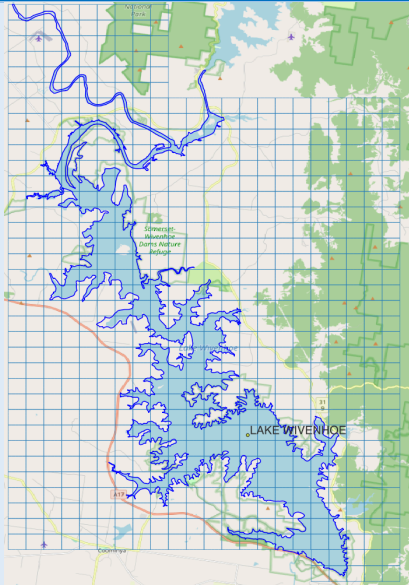
Lake Wivenhoe is mostly a local fishery with 86% of recaptures made by locals living less than 60km from the lake. Remaining recapture fishers mostly live less than 100km, coming mainly from south of the lake from Ipswich to Toowoomba and to a lesser extent from Brisbane and the Gold Coast. The fishery is mostly experiential with a harvest rate of 17% of legal fish by recfishers other than taggers.

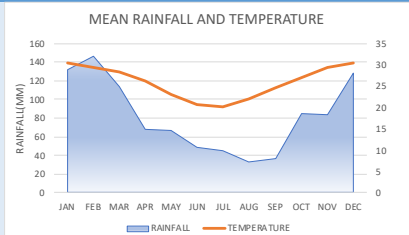
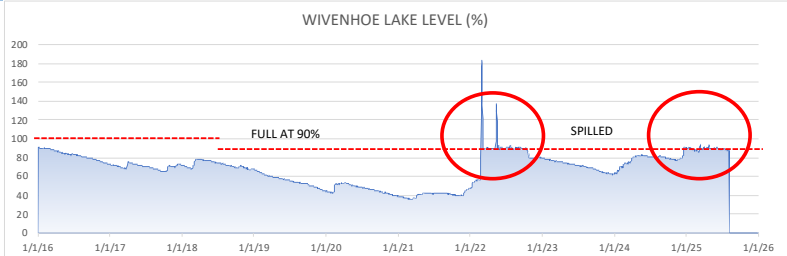
As there is a 6-knot limit on the lake most activity is close to boat ramps in the bottom part of the lake. Fishing activity occurs throughout the year with a peak from Apr-Oct with a drop in Jul. Fishing on weekends is preferred by both taggers and those recapturing fish.

The spilling of Lake Wivenhoe in 2022 resulted in lower tagging effort there with few recaptures. However, since then the tag rate has risen substantially with an average of over 11 fish tagged per day. This has resulted in a shift of some effort from Lake Somerset where the tag rate is has been lower.

Following the spilling of the lake in 2022 there have been 36 recaptures of fish in the Brisbane River from below the dam wall to below the Mt Crosby Weir and in the lower reach of the Brisbane River.

There were water releases from the lake from mid-Dec 2024 through to Mar-Apr this year however there has not been a significant increase in effort below the dam with only 2 additional recaptures in the river not far below the dam. Just one fish has been recaptured below the dam that was tagged in the lake after the 2022 spill.

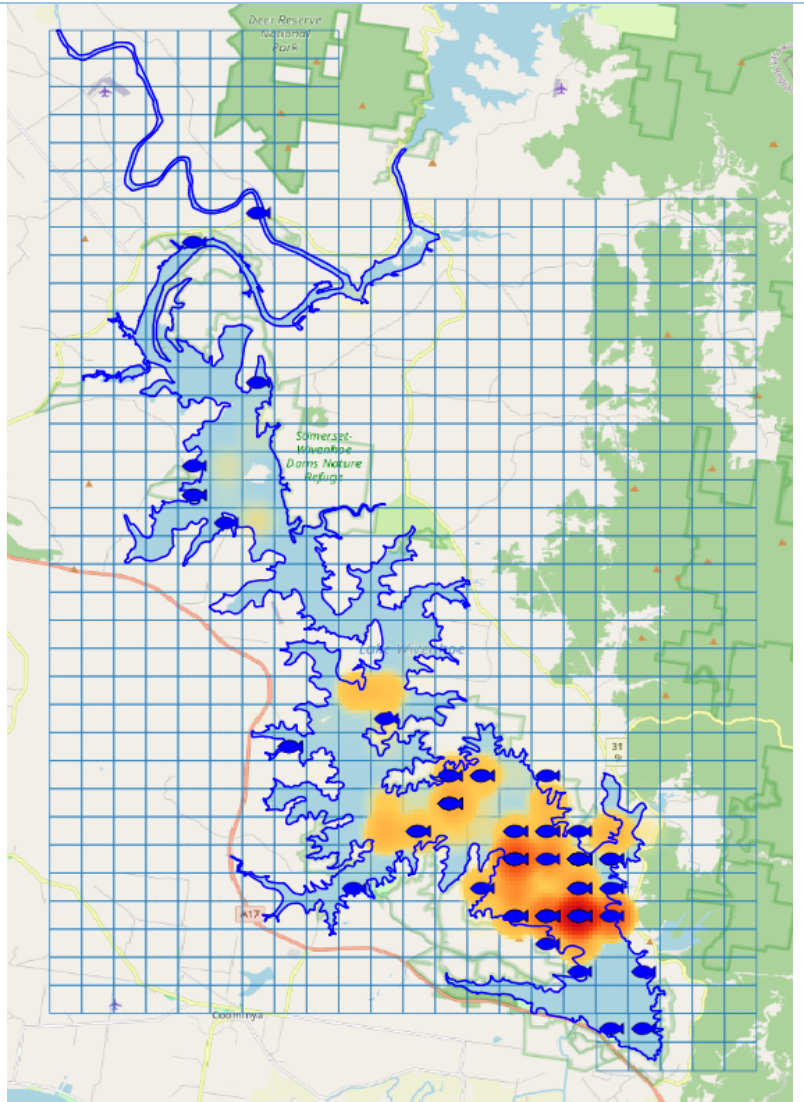
LAKE WIVENHOE		LOCATION
	Lake Wivenhoe 27.3°S 152.6°E	
IMPOUNDMENT		
<b>Grid map</b> <b>Lake Wivenhoe LWH</b>	Surface area      109.4km <sup>2</sup>	

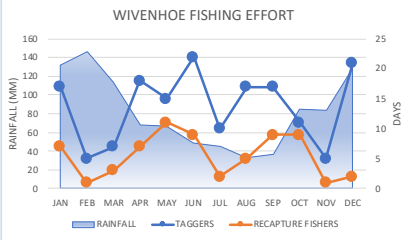
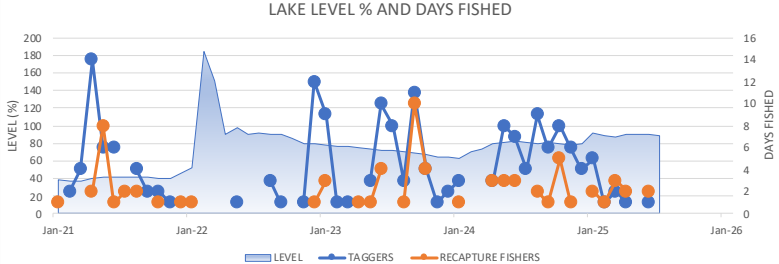
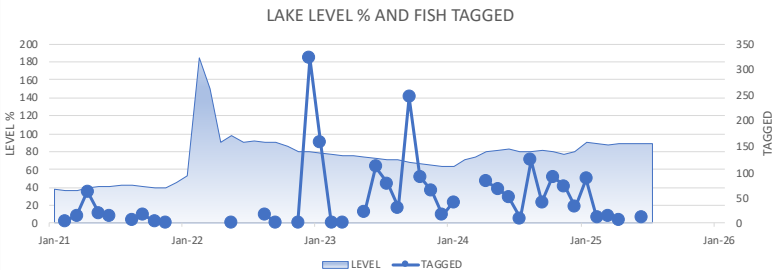
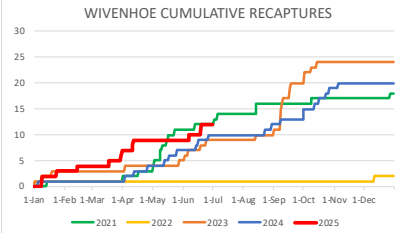
ENVIRONMENTAL			
<b>Mean monthly rainfall (mm)</b>  <b>Mean monthly air temperature (oC)</b>	Rainfall High  Temperature High	Month Feb Jan Month Dec-Jan	mm 146 131 oC 30
			
<b>Lake level 2016-2025</b> <b>Spilled</b> <b>2022 Feb                      184%</b> <b>2022 May                      137%</b> <b>2025 Jan, Mar 94% Apr</b>			

FISHERS																																					
DATA RELIABILITY																																					
Sample size (days fished) Tag days (blue arrow) Recaptures (orange arrow) Confidence % Error % 2021-2025	<table><tr><td>Reliability level</td><td colspan="2">LOW</td><td colspan="2">MODERATE</td><td colspan="2">MODERATE</td><td colspan="2">HIGH</td></tr><tr><td>Samples</td><td>10</td><td>41</td><td>68</td><td>271</td><td>384</td><td>664</td><td></td></tr><tr><td>Confidence</td><td colspan="2">80%</td><td colspan="2">80%</td><td colspan="2">90%</td><td colspan="2">95%</td></tr><tr><td>Error</td><td colspan="2">20%</td><td colspan="2">10%</td><td colspan="2">5%</td><td colspan="2">5%</td></tr></table>		Reliability level	LOW		MODERATE		MODERATE		HIGH		Samples	10	41	68	271	384	664		Confidence	80%		80%		90%		95%		Error	20%		10%		5%		5%	
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TYPE OF FISHERY																																					
Seasonality Mean monthly rainfall (mm) temperature (oC) Days fished combined Taggers Recapture fishers 2021-2025	Days 231 Months most effort Fishers combined Jun May																																				
Harvest or experiential fishery Release rate of recaptured legal Bass 2021-2025 2025 Jan-Jun	Bass legal fish kept rate Legal fish 52 Kept 9 (17%) Released 43 (83%)																																				
Local or visitor fishery Where recapture fishers live 2021-2025 2025 Jan-Jun	Recapture fishers 72 Local 62 (86%) Visitor 10 (14%)																																				
Gender of recapture fishers (ex-taggers) 2021-2025 2025 Jan-Jun	Recaptures 55 Male 51 (93%) Female 4 (7%)																																				

ACTIVITY					
<b>Monthly activity</b> <b>Days fished</b> <b>Taggers (165)</b> <b>Recapture fishers (66)</b> <b>2021-2025</b> <b>2025 Jan-Jun</b>	Taggers  Recaps	Month	%		<b>WIVENHOE DAYS FISHED BY MONTH</b> 
		May	14%		
		Jun	14%		
		May	20%		
		Jun	15%		
<b>Monthly activity</b> <b>Recaptures</b> <b>2023-2025</b> <b>2025 Jan-Jun</b>					<b>WIVENHOE MONTHLY RECAPTURES</b> 
<b>Weekday activity</b> <b>Days fished)</b> <b>Taggers (165)</b> <b>Recapture fishers (66)</b> <b>2021-2025</b> <b>2025 Jan-Jun</b>	Taggers  Recaps	Day	%		<b>WIVENHOE WEEKDAY FISHED</b> 
		Weekend	35%		
		Weekdays	65%		
		Weekend	47%		
		Weekdays	53%		

**Activity by location**  
**Taggers (red-orange heat map)**  
**Recapture fishers (blue fish)**  
**2021-2025**  
**2025 Jan-Jun**



EFFORT			
<b>Monthly effort</b> <b>Rainfall (mm)</b> <b>Days fished</b> <b>Taggers</b> <b>Recapture fishers</b> <b>2021-2025</b> <b>2025 Jan-Jun</b>	<b>Months most effort</b> <b>Taggers</b>  <b>Recap fishers</b>	<b>Jun</b> <b>Dec</b> <b>May</b> <b>Jun</b>	 <p>WIVENHOE FISHING EFFORT</p>
<b>Lake level (%)</b> <b>Days fished</b> <b>Taggers</b> <b>Recapture fishers</b> <b>2021-2025</b> <b>2025 Jan-Jun</b>	 <p>LAKE LEVEL % AND DAYS FISHED</p>		
<b>Lake level (%)</b> <b>Taggers</b> <b>Fish tagged</b> <b>2021-2025</b> <b>2025 Jan-Jun</b>	 <p>LAKE LEVEL % AND FISH TAGGED</p>		
<b>Cumulative recaptures in lake</b> <b>2021-2025</b> <b>2025 Jan-Jun</b>	<b>Year</b> <b>2021</b> <b>2022</b> <b>2023</b> <b>2024</b> <b>2025 Jan-Jun</b>	<b>Recaps</b> <b>18</b> <b>2</b> <b>24</b> <b>20</b> <b>12</b>	 <p>WIVENHOE CUMULATIVE RECAPTURES</p>

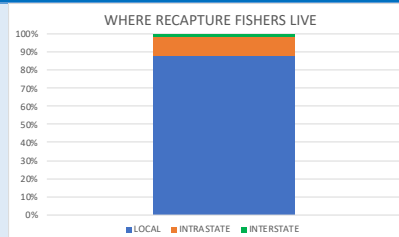
TRAVEL			
Cumulative distance (km) home to recapture location 2021-2025 2025 Jan-Jun	Year	Km	
	2020	547	
	2021	728	
	2022	52	
	2023	942	
	2024	664	
	2025 Jan-Jun	368	
Proxy travel distance (km) home to recapture location Local Intrastate 2021-2025 2025 Jan-Jun	Year	2023	
	Interstate (1)	1084	
	Not included		
Proxy average travel distance (km) home to recapture location 2021-2025 2025 Jan-Jun	Trips	72	
	Average distance (km)		
	Local	33	
	Intrastate	81	
Proxy travel distance (km) home to recapture location Local Intrastate Interstate 2021-2025 2025 Jan-Jun	Interstate	1084	
	Trips	72	
	Range (km)		
	Local	8-59	
	Intrastate	60-109	
	Interstate*	1084	
	*not show on graph		



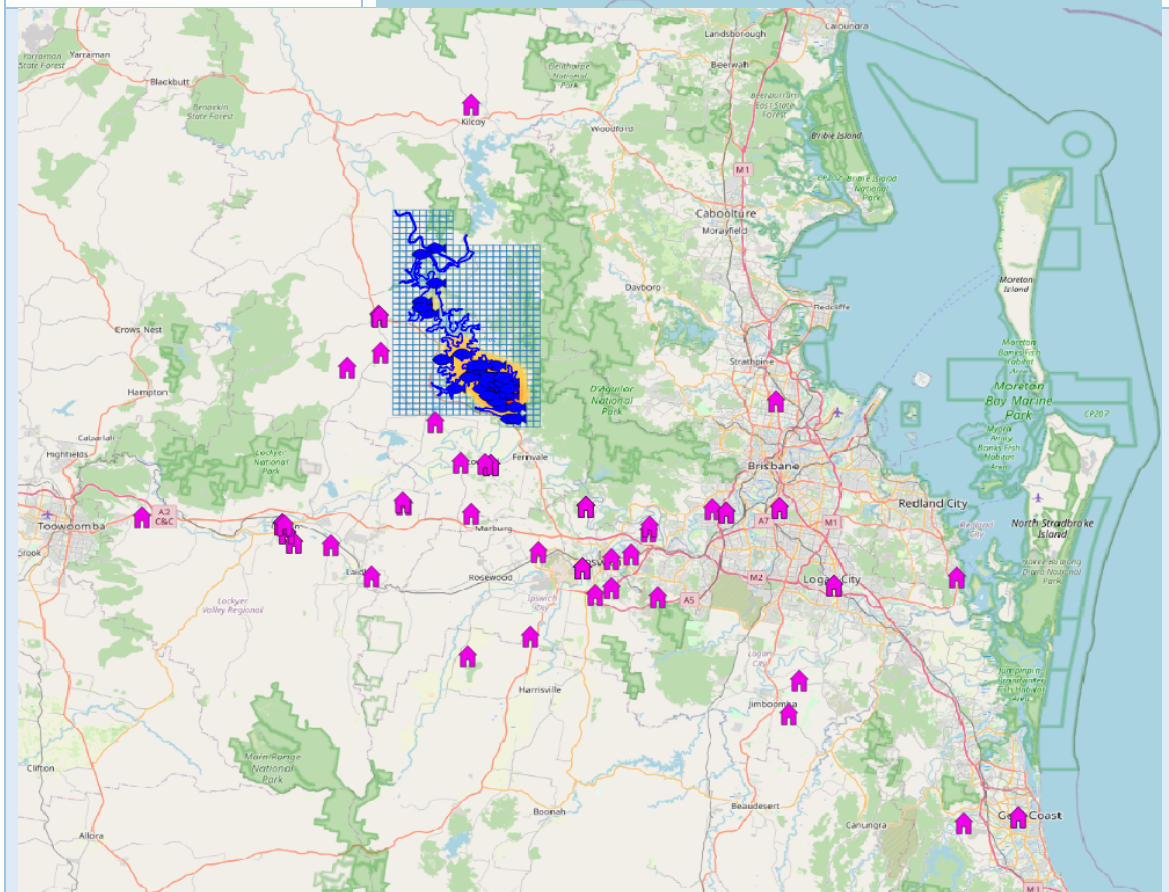
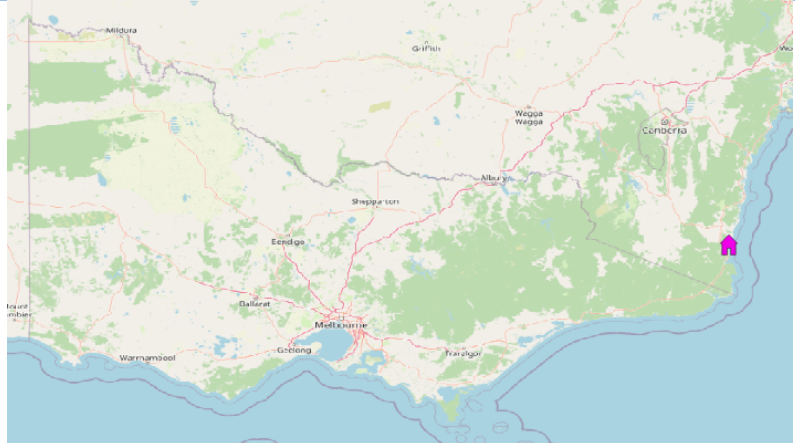
## WHERE RECAPTURE FISHERS LIVE

**Where recapture fishers live**  
**2021-2025**  
**2025 Jan-Jun**






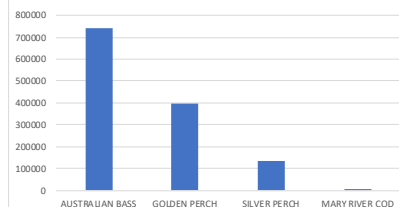
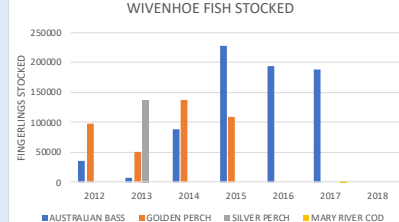
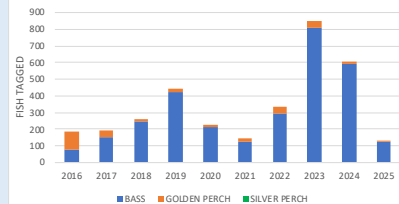
**Fishers** 72  
**Local** 62 (86%)  
**Intrastate** 9 (13%)  
**Interstate** 1 (1%)




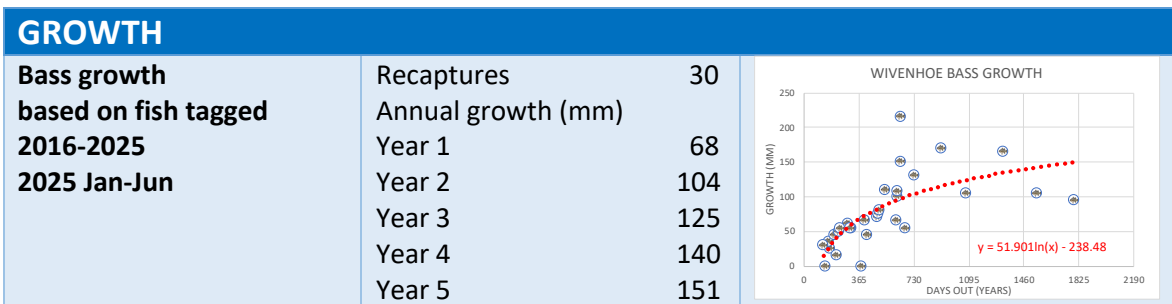
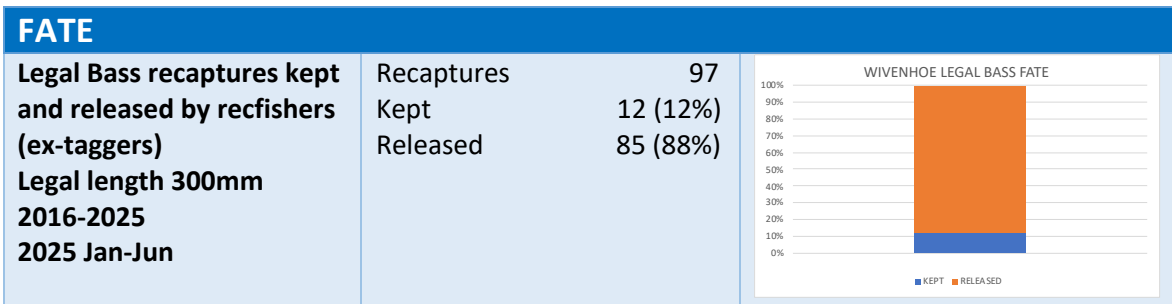
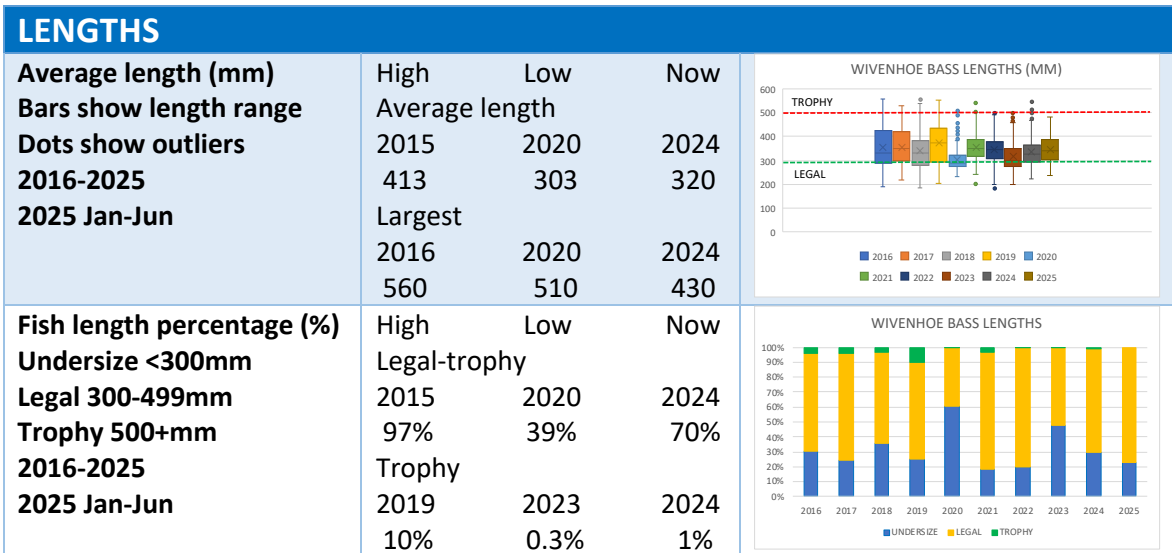
**Where fishers recapturing fish live (pink houses)**  
**Local**  
**Intrastate**  
**Interstate**  
**2021-2025**  
**2025 Jan-Jun**

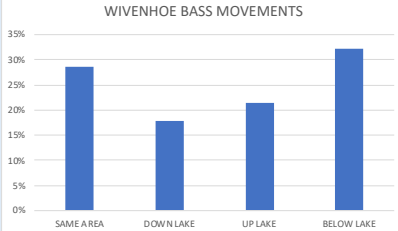
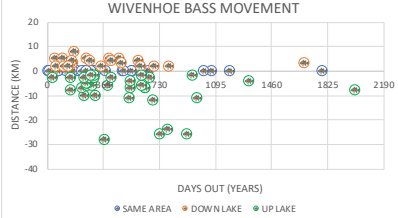


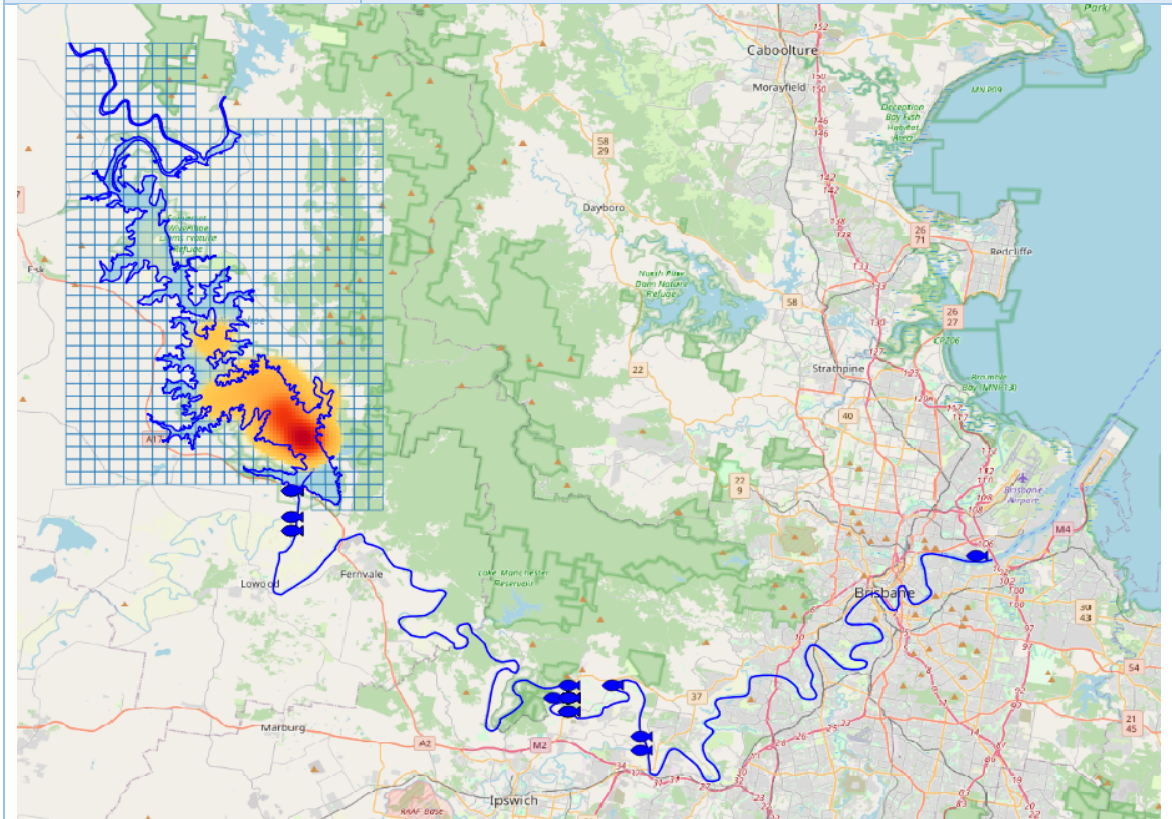


FISH		ACTUAL	GRAPH or MAP												
AUSTRALIAN BASS		GOLDEN PERCH	SILVER PERCH												
															
MARY RIVER COD		SOUTHERN SARATOGA													
															
STOCKING															
<b>Fingerlings stocked by species 2012-2018</b>		<table><tr><td>Bass</td><td>Fingerlings</td><td>743,463</td></tr><tr><td>Golden Perch</td><td></td><td>396,755</td></tr><tr><td>Silver Perch</td><td></td><td>136,412</td></tr><tr><td>Mary River Cod</td><td></td><td>2,660</td></tr></table>	Bass	Fingerlings	743,463	Golden Perch		396,755	Silver Perch		136,412	Mary River Cod		2,660	
Bass	Fingerlings	743,463													
Golden Perch		396,755													
Silver Perch		136,412													
Mary River Cod		2,660													
<b>Fingerlings stocked by year 2012-2018 (stocked fish numbers after 2018 not available)</b>															
SPECIES TAGGED															
<b>Species tagged 2015-2024</b>		<table><tr><td>Australian Bass</td><td>2965</td></tr><tr><td>Golden Perch</td><td>460</td></tr><tr><td>Silver Perch</td><td>4</td></tr><tr><td>Mary River Cod</td><td>0</td></tr><tr><td>Saratoga</td><td>0</td></tr></table>	Australian Bass	2965	Golden Perch	460	Silver Perch	4	Mary River Cod	0	Saratoga	0			
Australian Bass	2965														
Golden Perch	460														
Silver Perch	4														
Mary River Cod	0														
Saratoga	0														

BASS		ACTUAL		GRAPH or MAP	
					
DATA RELIABILITY					
Sample size (fish/year)		Reliability level		MODERATE	
Tagged (blue arrow)		Samples		MODERATE	
Recaptures (orange arrow)		Confidence		90%	
Confidence %		Error		5%	
Error %				95%	
2021-2025				99%	
		10		41	
		80%		80%	
		20%		10%	
				5%	
				5%	
				5%	
TAGGED AND TAG RATE					
Bass tagged and recaptured		Tagged		Recaptured	
2016-2025		3079		121	
2025 Jan-Jun		Recapture rate			
		3.9%			
		Tagged 2025 Jan-Jun		125	



MOVEMENT		
<b>Bass movements</b> <b>2016-2025</b> <b>2025 Jan-Jun</b>	Recaptures	112
	Same area	32 (29%)
	Down lake	20 (18%)
	Up lake	24 (21%)
	Below lake	36 (32%)
<b>Bass movement in lake</b> <b>2016-2025</b> <b>2025 Jan-Jun</b>		
		
<b>Recaptures below Lake</b> <b>Wivenhoe</b> <b>2016-2025</b> <b>2025 Jan-Jun</b>	After 2022 spill Bass 31 (blue fish)	



## LOCATIONS

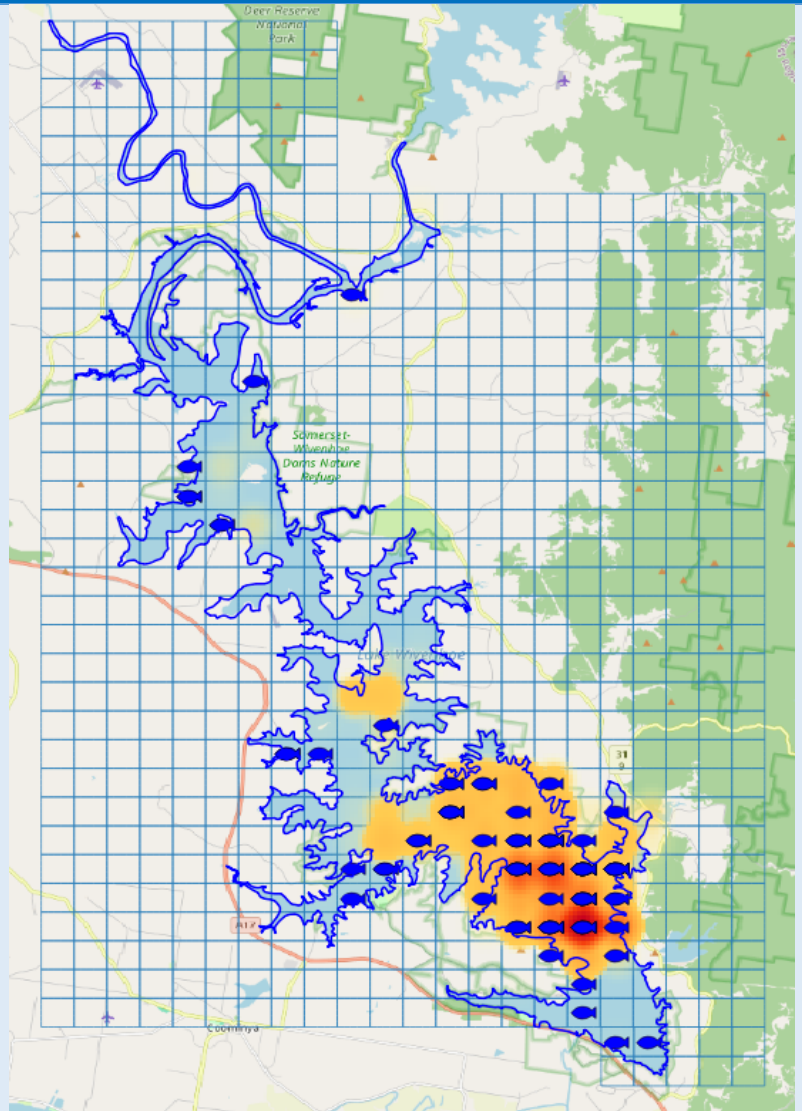
### Locations




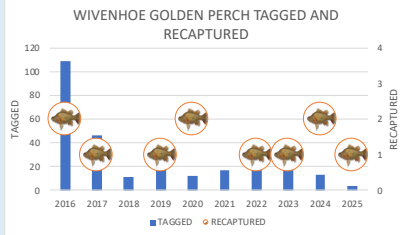
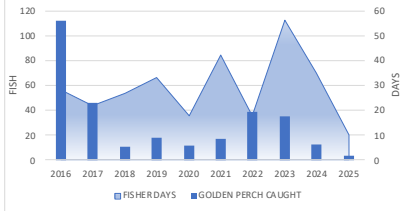
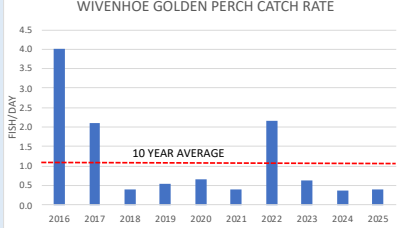
Tagged fish (red-orange  
heat map)

Recaptures (blue fish)

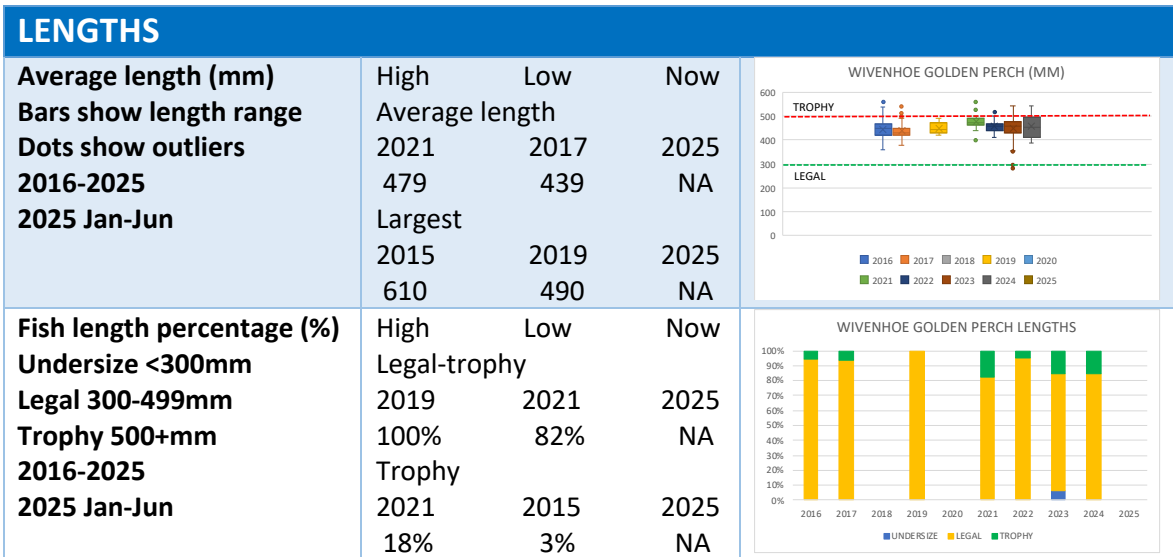
2016-2025

2025 Jan-Jun







GOLDEN PERCH		ACTUAL		GRAPH or MAP																					
																									
DATA RELIABILITY																									
Sample size (fish/year)		<table><tr><td>Reliability level</td><td>LOW</td><td>MODERATE</td><td>MODERATE</td><td>HIGH</td></tr><tr><td>Samples</td><td>10</td><td>41</td><td>68</td><td>271</td></tr><tr><td>Confidence</td><td>80%</td><td>80%</td><td>90%</td><td>95%</td></tr><tr><td>Error</td><td>20%</td><td>10%</td><td>5%</td><td>5%</td></tr></table>		Reliability level	LOW	MODERATE	MODERATE	HIGH	Samples	10	41	68	271	Confidence	80%	80%	90%	95%	Error	20%	10%	5%	5%		
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Recaptures (orange arrow)																									
Confidence %																									
Error %																									
2021-2025																									
TAGGED AND TAG RATE																									
Golden Perch tagged and recaptured	Tagged	Recaptured																							
2016-2025	304	11																							
2025 Jan-Jun																									
	Recapture rate																								
	3.6%																								
	Tagged 2025 Jan-Jun	4																							
Catch and effort taggers	High	Low	Now																						
Fish tagged	Catch																								
Days fished	2016	2018	2025																						
2016-2025	112	11	4																						
2025 Jan-Jun	Days	2022	2025																						
	56	18	10																						
Catch rate	High	Low	Now																						
Fish/day	2016	2024	2025																						
2016-2025	4.0	0.4	0.4																						
2025 Jan-Jun																									
	10 year average		1.1																						







SILVER PERCH		
		
TAGGED		
<b>Silver Perch tagged and recaptured</b> <b>2016-2025</b> <b>2025 Jan-Jun</b>	Tagged 0 Recapture rate 0% No fish tagged after 2015	<div>WIVENHOE SILVER PERCH TAGGED</div> 

MARY RIVER COD		
		
TAGGED		
<b>Mary River Cod tagged or recorded</b> <b>2016-2025</b> <b>2025 Jan-Jun</b>	No fish recorded Can be tagged from 2023	<div>WIVENHOE MARY RIVER COD TAGGED</div> 

## Data sources

Data used in the Lake Wivenhoe Crystal Bowl are:

- Tag records and recapture records for the impoundment at <http://crystalbowl.infofishaustralia.com.au/>.
- Dam level data from SEQwater at <https://www.seqwater.com.au/historic-dam-levels>.
- Stocked fish records from <https://www.data.qld.gov.au/dataset/queensland-freshwater-fish-stocking-records/>.
- Rainfall and temperature data from station 040189 Somerset Dam from <http://www.bom.gov.au/climate/data>.

## Basis for analysis

- Data reliability for fishers based on the sample size over the past 5 years for days fished by taggers and by fishers recapturing fish.
- Data reliability for fish based on average number of fish tagged and recaptured over the past 5 years.
- Catch rates calculated as number of fish tagged/days fished taggers with a minimum of 12 fisher days (at least 1 per month) to provide a reliable catch rate.
- Recapture rates relate to fish tagged in a particular year.
- Growth calculated using logarithmic curve from recaptures where fish were out for 90 days or more and had positive growth.
- Locations based on Infofish grid map LWH for the impoundment and other grid maps where fish were recaptured outside the impoundment.
- Travel proxy distance is the distance between where the fisher lives (address, suburb, town or postcode) and the recapture location. Local (60km, Intrastate Qld elsewhere, Interstate other than Qld).