

# Brisbane River Cod Recovery Strategy

## “Bringing Back the Bumgur”



### Introduction

The Brisbane River cod was likely a unique form of *Maccullochella* cod that occurred naturally in the Brisbane River system, an east coast river system in south east Queensland. The Brisbane River Cod was known as the Bumgur (meaning blue cod) by the Jinibara people centred in the Kilcoy region and the junction of the Stanley and Brisbane Rivers. Their exact taxonomic status will never be known as there are no known specimens, even within the Qld Museum. Based on several genetic studies it is suspected that Brisbane River Cod were a species intermediate between eastern freshwater cod (*Maccullochella ikei*) of the Clarence and Richmond River systems in northern New South Wales and Mary River cod (*Maccullochella mariensis*) of the Mary River in central Queensland. ([Wikipedia](#))



630mm & 5.2kg Cod surveyed on Stanley River. 2021

Two populations of *Maccullochella* occur in the eastern coastal drainage areas. The eastern freshwater cod, *Maccullochella* sp. nov., which is found only in the Clarence River system of northern N.S.W., has recently been identified as a separate species (Rowland, 1985). The Mary River system in southern Queensland also contains a small population of cod, the Mary River cod, *Maccullochella* sp. However, the taxonomic status of this latter

population remains undetermined. Reports from the late 1800s and early 1900s indicate that large populations of cod were once present in each of the Clarence, Richmond, Brisbane and Mary River systems. Since the 1920s, however, cod have disappeared from the Richmond and Brisbane River systems (Rowland, 1985, 1988). The eastern freshwater cod was extremely abundant when the Clarence Valley was first settled in the 1830s, but now only small numbers of the species are found in several tributaries containing relatively pristine habitat. Similarly, cod are now found only in several tributaries of the Mary River system that contain relatively pristine habitat.

Historical reports indicate that a number of massive fish kills caused by both natural (extensive bushfires followed by heavy rain and floods) and man-made (release of cyanide from mines) pollution during the 1920s and 1930s led to the initial decline of eastern freshwater cod. In addition, dynamiting of waters during the construction of railways is reported to have eliminated cod from some tributaries.

The eastern freshwater cod, like other species of *Maccullochella*, is a long-lived, slow-growing species, with relatively low fecundity (Rowland, 1985). Such species can suffer massive stock reduction and loss of reproductive potential when many of the older year-classes are lost. The eastern freshwater cod does not have the biological attributes that would enable it to recover rapidly from low population levels caused by major fish kills. Overfishing and alteration to riverine habitats following agricultural and urban development in the coastal valleys, probably also contributed to the extinction of cod in the Richmond and Brisbane River systems, and to the loss of cod from all waters other than those containing pristine habitat in the Clarence and Mary River systems.

Rowland (1988) stated that potential threats to the eastern freshwater cod were: loss of genetic variation, overfishing, habitat degradation or destruction, competition with or predation by introduced fish, disease, and hybridization with translocated hatchery-reared Murray cod. (Ingram, *et al.*, 1990)

It is widely believed that the Bumgur were extinct throughout the entire catchment. Anecdotal evidence suggests that there may well have been some remnant cod in the upper Stanley River, during interviews elderly third generation farmer, Ron Trimm described seeing cod as late as the 1960 & 70s.

Other evidence supports that while there were once cod in the upper Brisbane & Bremer / Warrill catchments', the fish were readily captured and treated as a resource to exploit, often harvested for use as "pig food".



*Cod caught in Brisbane River*

## **Stocking History**

Since the mid 1980s some Mary River cod have been restocked into the Brisbane, Stanley & Bremer systems with the majority of the focus being in the upper Stanley River for a couple of reasons.

A- proximity to Lake Somerset. Somerset was the main focus of restocking efforts since the introduction of higher intensity fish restocking, &

B- the better riparian vegetation along much of the Stanley River & feeder streams is in better condition than much of the upper Brisbane & Bremer river systems, &

C- the Stanley River has a more regular flow of water giving more reliable water making it the most suitable choice.

Much of the restocking done by Somerset & Wivenhoe Fish Stocking Assn (originally the Brisbane Valley Fish Management Committee) in the 1980s & 90s was focused on the upper reaches of Lake Somerset, north of Kirkleagh Recreation Area to approximately Villeneuve Bridge.

As Lake Somerset (and Wivenhoe) for many years was restocked by several bodies; SWFSA, DAF, Gerry Cook Hatchery & SEQWater – accurate numbers of Mary River Cod stocked may never be known – however the total numbers would be in the tens of thousands.

### **Upper Stanley River**

Upstream of the Woodford Weir Mary River Cod were restocked by the Caboolture Shire Fish Restocking Group supported by Gerry Cook Hatchery, as well as some released into the Woodford off-stream storage - 27,700 in total. (CSFSG, 2020 [http://www.caboolturefishstocking.com/CSFSG-Stocking%20Records\\_June2020.pdf](http://www.caboolturefishstocking.com/CSFSG-Stocking%20Records_June2020.pdf))

In recent years some large specimens up to 25-30kg have been captured in the mid & upper Stanley River which suggests that either there were some remnant Bumgur or that restocking with MRC has been quite successful.

Both Lakes Somerset & Wivenhoe have had MRC restocked into the main basins primarily as part of recreational fishing enhancement program utilising monies from fundraiser events, RFEP, SEQWater & SIPS grants.

At the Mary River Cod-ference held at Fernvale in 2019, it was agreed that the likely hood of cod successfully reproducing in a lake environment are almost nil – therefore S&WFSA will now only be restocking in these lakes for recreational fishing enhancement with no expectation of successful reproduction.

**Mid Brisbane River** (Wivenhoe Dam to Mt Crosby Weir) has been restocked with 1800 MRC from Gerry Cook Hatchery. BVA President Kerry McDougall states that a further 7000 MRC have been released by Brisbane Valley Anglers fishing club in various locations possibly including Manchester & Enoggera reservoirs. There is evidence that some cod have grown to adult sizes in the mid Brisbane River.

### **Upper Brisbane River**

Upper Brisbane River has had scant restocking undertaken to date. Prior to this strategy starting in 2020, the furthest upstream that MRC had been released on the main river channel is at Alf Williams Bridge, Gregors Creek [200] with some MRC released by the Yarraman Restocking Group upstream of Ted Pukallus Weir on the Cooyar Creek [750].

### **Bremer River**

Up to 2020 the **Bremer River** has received 2440 MRC released at several locations supplied by Gerry Cook hatchery. These being:

- Berry's Lagoon Weir
- Bremer / Warrill junction
- Area adjoining Amberley Air Force base, Walloon
- 7 Mile Hole (Amberley Rosewood Rd)
- Churchbank Weir on Warrill Creek

## **Current Status**

### **Stanley River**

While there have been some reports of recreational fishing captures of cod in mid Stanley (Somerset to



Woodford Weir) or upper Stanley (upstream of Woodford Weir). It is unknown if these cod are successfully reproducing.



*Stanley River – Peachester. Sept 2020*

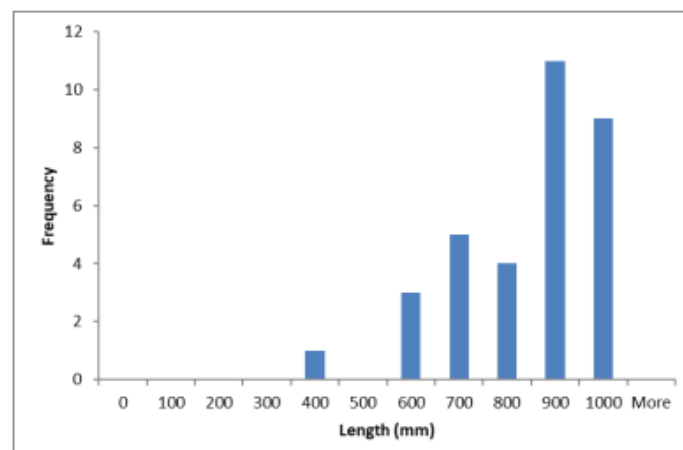
### **Brisbane River**

Mid Brisbane River - Based upon electrofishing surveys conducted by SEQWater on the mid-Brisbane river there is approximately one fish per 1.5km of river with no recruitment found. Please see below supplied by Dr David Roberts – SEQWater.

In 2020 there is evidence to suggest that some natural recruitment may have occurred in the mid Brisbane River with one juvenile cod recorded. 2 larvae were sampled in a light trap on 1/10/2015 by DNRME in vicinity of riparian / rocky habitat.

### **Brisbane Experience**

- Limited habitats (likely substandard breeding)
- No/rare recruits
- Same fish on same logs. Mortality likely increase.
- 2013-2018 surveyed 42 cod (21 recaptures).





*Upper Brisbane River rock pool during drought. Sept 2020*

### **Recovery Strategy**

With the possible exception of the upper Stanley River, there are clearly not enough cod present for recovery to occur in the foreseeable future without a committed restocking strategy. Stocking has created self-recruiting populations of both Mary River Cod in the Mary River, East Coast Cod in the Clarence River catchment and Murray Cod throughout the Murray / Darling system. A concerted effort is required for the cod in the Brisbane River catchment for recovery to occur.

### **Objective**

To re-establish the self-sustaining presence of an apex predator *Maccullochella* cod species.

### **General Principles**

- A population of cod will not be re-established without the engagement with DAF, other stakeholders, land owners and the community.
- Community involvement & citizen science should be supported by appropriate levels of government.
- Existing community groups / networks should be used in preference to establishing new ones.
- The strategy should be kept simple, in lay person's terms so that the community can understand.

This strategy should follow the principles of the existing Mary River Cod Research & Recovery Plan, focusing efforts on the Brisbane River & tributaries.

### **Restocking**

The release of Mary River Cod at selected sites; approved by & under permit from Fisheries Qld. Each site is to have a maximum number of fingerlings for release each year of no more than 600 fish per hectare of surface water annually. As each site will have a different carrying capacity or may prove to more or less suitable over time, the optimal stocking number may change over time for specific sites but is not to exceed 600 fish / hectare / annum.

For the purposes of this strategy the surface areas of waterways has been calculated by measuring the length of a section of waterway on google maps and allowing an average of 5 meters of width for the main river trunk and 1 meter width for tributaries.

**Table 1 – Upper Brisbane River Maximum Stocking numbers by section**

<b>Upper Brisbane River - Maximum Fingerlings per annum @ 600 fish / hectare</b>					
<b>Section</b>	<b>Length in km</b>	<b>Mean width in meters</b>	<b>Surface area in sq meters</b>	<b>Surface area in Hectares</b>	<b>Maximum fish per annum</b>
Upper Brisbane River trunk	89	5	445000	44.5	26700
Emu Creek	18	1	18000	1.8	1080
Cooyar Creek up to Macaulays Weir	27	1	27000	2.7	1620
Macaulay Weir			100000	10	6000
Wallaby / Sandy Creek	1.5	1	1500	0.15	90
Monsidale Creek	10	1	10000	1	600
East Arm Bris River	28.5	1	28500	2.85	1710
<b>Total</b>	<b>174</b>		<b>630000</b>	<b>63</b>	<b>37800</b>

**Table 2 – Mid Stanley River Maximum Stocking numbers by section.**

<b>Mid Stanley River - Maximum Fingerlings per annum @ 600 fish / hectare</b>					
<b>Section</b>	<b>Length in km</b>	<b>Mean width in meters</b>	<b>Surface area in sq meters</b>	<b>Surface area in Hectares</b>	<b>Maximum fish per annum</b>
Mid Stanley River. Upper Somerset to Weir	9	5	45000	4.5	2700
Neurum Creek (All)	16	1	16000	1.6	960
Delaney Creek (All)	8	1	8000	0.8	480
Stoney Creek. Up to National Park	6.5	1	6500	0.65	390
<b>Total</b>	<b>39.5</b>		<b>75500</b>	<b>7.55</b>	<b>4530</b>

**Table 3 - Bremer / Warrill Maximum Stocking numbers by section**

<b>Bremer / Warrill - Maximum Fingerlings per annum @ 600 fish / hectare</b>					
<b>Section</b>	<b>Length in km</b>	<b>Mean width in meters</b>	<b>Surface area in sq meters</b>	<b>Surface area in Hectares</b>	<b>Maximum fish per annum</b>
Upper Bremer River Above Berry's Weir	73	3	219000	21.9	13140
Lower Warrill Creek. Bremer junction to Churchbank Weir	23.5	1	23500	2.35	1410
Upper Warrill Creek. Above Churchbank	57.5	1	57500	5.75	3450
Reynolds Creek - junction to Moogerah Dam wall	15	1	15000	1.5	900
<b>Total</b>	<b>169</b>		<b>315000</b>	<b>31.5</b>	<b>18900</b>

**Table 4 – Mid Brisbane River Maximum Stocking numbers**

<b>Mid Brisbane River. Maximum fingerlings @ 600 fish / hectare / annum</b>					
<b>Section</b>	<b>Length in km</b>	<b>Mean width in meters</b>	<b>Surface area in sq meters</b>	<b>Surface area in Hectares</b>	<b>Maximum fish per annum</b>
Wivenhoe Dam to Mt Crosby Weir	50	20	120000	120	72000





*Mid Brisbane River- December 2019*

### **Release Sites**

Identify suitable sites on the Brisbane and Stanley Rivers and tributaries that are suitable for restocking. Suitable qualities in a site are as follows:

- Permanent water
- Suitable in stream habitat (reference to Juvenile Cod preferences – Dr Michael Hutchison)
- Riparian vegetation
- Access for restocking
- Access for monitoring (citizen science)
- Access for monitoring (electrofishing boat)

Learning from the Mary River Cod Recovery Plan on the Mary River, it has been found that greater success was had on restocking in tributaries. This is mostly likely due to overall better in-stream habitat & better riparian vegetation within the tributaries. Therefore, some effort should be undertaken to identify at least one suitable site in each of the following tributaries:

- Cooyar Creek (upper Brisbane River)
- Emu Creek (upper Brisbane River)
- Wallaby / Sandy Creek (upper Brisbane River)
- Monsidale Creek (upper Brisbane River)
- East Arm Brisbane River (upper Brisbane River)
- West Arm Brisbane River (upper Brisbane River)
- Neurum Creek (Lake Somerset / mid Stanley River). Lower section covered under existing permit
  - Delaney Creek. Flows into Neurum Creek, then Lake Somerset
- Mary Smokes Creek (Lake Somerset / mid Stanley River) Covered under existing permit
- Stoney Creek (mid Stanley River)
- Kilcoy Creek (flows into Lake Somerset) Covered under existing permit
- Bremer River
- Warrill Creek

Each site is to be restocked each season where ever possible.

Future release / monitoring sites may include:

- Upper Stanley River
  - Running Creek (upper Stanley River)
  - Crohamhurst Creek (upper Stanley River)
  - Ewen Creek (upper Stanley River)
  - London Creek (upper Stanley River)

Currently the upper Stanley River (upstream of Woodford Weir) is covered under a permit to stock by Caboolture Fish Stocking Assn.



London Creek upper Stanley River tributary – Sept 2020

- Mid Brisbane River
  - England Creek
  - Lower Lockyer Creek (below O’Rielly’s Weir)
  - Black Snake Creek
  - Cabbage Tree Creek
  - Sandy Creek
- Bremer River
  - Warrill Creek
  - Reynolds Creek
  - Western Creek
  - Purga Creek

Future release sites may be considered by the program & DAF only with the agreement of other relevant restocking groups if these waters currently have a permit to restock on them, eg Caboolture Shire Fish Stocking Assn on Upper Stanley River.

While not being restocked as part of this plan in the first instance, It is planned to conduct surveys on possible future release sites as a base line & to monitor existing populations in these waters. It is preferable that each stocking site should have a pre-stocking survey or inspection conducted to establish suitability and/or to determine what fish are currently present, be that *Maccullochella* sp or other finfish.



Bonnie Doon – Upper Brisbane River. Oct 2020





*Upper Bremer River near Rosewood - December 2016*

### **Access to sites**

Where ever possible access to sites will be via publicly access points; bridges, crossings, reserves etc. Where it is not possible to access the desired sites by means of public access point, local land owners are to be engaged for written permission to access sites through their property. Property owners are to be encouraged to engage with the program, offering input from their extensive local knowledge.

Nothing will protect fish better than a fired-up farmer!

### **Monitoring / Surveys**

Surveys are to be conducted to gauge the success / failure of restocking, monitor growth rates of fish, seek evidence of natural recruitment & to monitor the site for changes in habitat. Surveys will be, wherever possible conducted on an annual basis on each release site.

### **Survey Methods**

A- **Citizen Science.** This will consist of teams of two (2) skilled recreational anglers per team fishing with rod and reel in combination of lures, spinnerbaits etc; no bait is to be used. Teams should be identified by way of an ID card, a distinct shirt or and/or signage on dashboard of vehicles so that the survey teams can be easily identified by govt agencies and land owners. All gates and other property are to be left as found by survey teams.

Teams are to survey in their designated location focusing efforts on the primary site with some survey conducted immediately both upstream and/or downstream if conditions are suitable.

All hooks are to have the barb crushed.

Fish are to be handled with wet hands and /or wet cloth ensuring that the fishes abdomen is supported when lifted from the water.

The following will be recorded for all fish caught:

- Species
- Length
- Time of capture
- GPS coordinates or grid

Fish will be measured on a measuring mat with any *Maccullochella sp* caught being photographed on both left and right hand side of body ensuring good definition focusing on head area but

ensuring that the entire body is photographed. Photographs are to be retained for future reference / use of facial recognition software in the future to identify individual fish.

Fish are to be released as soon as possible after capture, as close as possible to the capture location. The entire process should be achieved in less than one minute, minimizing the time the fish are out of the water.

A bait trap may be set for 20 minutes to determine species & numbers of smaller fish present. Bait traps will have 50mm entrances so as to avoid entrapment of rakali, turtles and platypus that may be present.

Any noxious fish captured are to be humanely destroyed and either buried above the high water mark or taken off site by teams to be disposed of in public rubbish bins.


Survey effort in hours is to be recorded with fish per hour calculation compared over time.


An electronic data entry app has been developed for survey teams to enter data in-field. This app stores the data which can be exported into excel.





*Emu Creek -2019*


**BRISBANE RIVER COD SURVEY**

**NAME\*** Bill Smith 

**SURVEY SITE\***  
*pick one!* Upper Bris 1 - Gregors Creek 

**START TIME\***  
*Log On* 07 15 AM 

**SPECIES\***  
*Needed* Bass 

**TOTAL LENGTH\***  
*in cm* 46 


**TAG NUMBER**  
*if tagging*


**RECAPTURE**  
*enter tag number*

**DNA SAMPLE**  
*number on vial* D24

**LATITUDE**  
*coordinates* -26.9886618

**LONG**  
*coordinates* 152.4036375

**FINISH TIME**  
*enter at end of session* 00 00 AM 

**UPLOAD PICTURE**  
*full length pic*  **SELECT IMAGE**

**SUBMIT DATA**

*Screenshot of data recording app*

**B- Electrofishing**

Electro-fishing has proven to partner well with citizen science fisheries monitoring, providing data on size classes and species not usually recorded by anglers.

Access to all of the sites identified is not possible due to the terrain, representative sites with suitable access have been identified in all tributaries to provide fisheries independent data from each sub-catchment. Electrofishing will be conducted by suitably trained and experienced staff using approved equipment. These may be: Queensland Fisheries, SEQWater, MDBA or a suitably qualified 3<sup>rd</sup> party contractor.

Electrofishing sampling will be conducted using the standardised SRA techniques so changes in the fish community can be identified in the future.

Data gathered is not for the sole purpose of this recovery strategy. Data is to be shared with relevant govt agencies for the benefit of the environment & this strategy.

**Benefits of this Strategy**

- Restoring apex predator to the system
- Keep bodies of water environmentally balanced / improved water quality
- Control of noxious / introduced pest fish species eg Tilapia, Carp & Pearl Cichlids
- Improve long term recreational fishing opportunities.





*Darren McPherson from Somerset Regional Council releasing the first of 4000 Mary River Cod fingerlings into a pool on the upper Brisbane River. November 2020*

### **Roles / Responsibilities & Stake Holders**

The strategy will be led by Somerset & Wivenhoe Fish Stocking Assn inc (SWFSA).

On top of providing the lead role in the plan and much of the legs on the group releasing fish & monitoring, the SWFSA have also committed a small amount to the annual purchase of MRC fingerlings from approved breeders.

### **SWFSA**

SWFSA members / volunteers are to release fish as close to the intended site as directed by the co-ordinator. Bags are to be placed into the water allowing time for temperature to equalise before breaking seal on the bag. If fingerlings are observed to becoming stressed due to heat or low DO, the remainder of the fingerlings may be released immediately with the number released and location noted. The co-ordinator is to record all numbers and locations of fingerlings released.

The co-ordinator is to supply SWFSA with regular updates of the strategy, noting any required updates.

The co-ordinator may also provide information directly to DAF or other stakeholders upon request.

### **Hatcheries**

The commercial suppliers of Mary River Cod fingerlings are listed below:

- Hinternoosa Hatchery
- Hanwood Fish Farm
- Bass Barra & Barcoo
- Russell Manning

The contribution of Gerry Cook Hatchery towards MRC fingerling production / supply over the years is acknowledged. Gerry Cook Hatchery is/was not a commercial aquaculture facility, rather a community based hatchery dedicated to reproducing MRC fingerlings for the Mary River Catchment. As such Gerry Cook Hatchery were not permitted to sell fingerlings but would donate any excess fingerlings to other catchments when available.

Suppliers are to ensure that all fish supplied are vigorous and free of any contamination, virus, bacteria or fungal infections. Suppliers are to adhere to all relevant state & federal govt laws regarding the holding, breeding and sale of critically endangered fish. Suppliers are to supply cod in plastic bags filled to approx 1/3 to 1/2 water with the remaining portion to be filled with pure oxygen gas.

## **Ipswich City Council (ICC)**

The Ipswich City Council has committed to support this strategy on an on-going basis. The commitments by ICC have included:

- Direct purchase of MRC fingerlings for the Bremer / Warrill catchment,
- Providing access to waterways via ICC owned lands,
- Investment of remediation of waterway barriers, eg Berry's Weir fishway
- Technical support from NRM team
- Community grant for stocking of Mid Brisbane River

## **Qld Department of Agriculture and Fisheries (DAF)**

Department of Agriculture and Fisheries is the lead government agency of this strategy and are responsible for the management of overall Mary River Cod Recovery Plan. DAF will also be responsible for issuing General Fisheries Permits for the release of cod into Qld waters.

It is hoped, where possible, that DAF will provide assistance with electrofishing surveys to verify the survival & growth of the fish released, analysing the results of all surveys, preparing annual reports and equally sharing the data with SWFSA & other stakeholders.

## **SEQWater**

While not assumed to be an active participant in this plan, SEQWater are deemed to be a stake holder of the rivers, lakes and creeks mentioned in this strategy. At all times SEQWater are welcome to provide input / support with all levels of this strategy including monitoring, site selection, actioning & updating of the plan and the reporting process.

## **Transport & Main Roads (TMR)**

TMR have granted access for the purpose of site assessment via the Brisbane valley Rail trail to two (2) pools on the Emu Creek, near Colinton. It is essential that uninterrupted access is maintained for the purpose of this strategy; releasing of fingerlings and annual monitoring.

There may be other suitable river sites that adjoin the Rail Trail that may be accessed in the future.

## **Scenic Rim Regional Council (SRRC)**

The Scenic Rim Regional Council LGA takes in the waters of the upper Bremer River & Warrill Creek as well as the section of Reynolds Creek covered under this document. As of 2022 SRRC have actively engaged with this strategy providing funding, technical support & location access information.

## **Somerset Regional Council (SRC)**

The Somerset Regional Council NRM has been assisting in the initial discussions of this document and assisting with determination of public access. It is hoped that SRC will continue to assist this plan by offering support where possible.

In November 2020 Somerset Regional Council approved a Community Assistance Grant of \$15,000 as seed funding of this project.

## **Healthy Land & Water**

Bruce Lord - Senior Scientist / Regional Agriculture Landcare Facilitator, Healthy Land and Water has been assisting with identifying suitable sites and contacting adjoining land owners. This strategy would not have proceeded without his assistance.

**CleanCo Queensland** are the operators of the Splyard Creek Pumped Hydro Station. As such they are committed to supporting this strategy on a three year basis from 2022 – 2025.

## **Application**

SWFSA are to forward a copy of the draft strategy to DAF for consideration. The plan may be amended to suit DAF requirements before final approval.

Once approved, any required changes to the strategy by SWFSA are to be submitted to DAF with supporting information.

Upon acceptance of this strategy, DAF will issue a general fisheries permit to SWFSA for the stocking and monitoring of MRC. This includes being in possession of endangered, undersized fish & over the permitted number that may be in possession under normal regulations. The application will cover the Brisbane River and tributaries upstream of the Wivenhoe Dam. Fingerling release sites within the upper Brisbane River and tributaries may be added or removed without a plan amendment but should be updated in relevant supporting documents as long as the overall maximum stocking rates are not exceeded per waterway reach as noted in stocking tables.

An application for amendment to the general fisheries permit will be required to add fingerling release sites outside of the upper Brisbane River and tributaries; namely the waters of the upper Stanley R (above Woodford Weir), mid Brisbane R (Wivenhoe to Mt Crosby Weir).

Consultation with existing stocking groups of these two areas would be required & stocking permits amended if deemed to be required.

### **Glossary**

Bumgur – Indigenous word for the extinct Brisbane River Cod

BVA – Brisbane Valley Anglers fishing club

CSFSG – Caboolture Shire Fish Stocking Group

DAF – Qld Department Agriculture & Fisheries

DNRME – Department of Natural Resources Mines & Energy

HL&W – Healthy Land & Water

ICC – Ipswich City Council

MRC – Mary River Cod (*Maccullochella mariensis*)

RFEP – Recreational Fisheries Enhancement Program

SBRC – South Burnett Regional Council

SEQWater – Qld Bulk Water Authority trading as SEQWater

SIP – Stocked Impoundment Permit

SRC – Somerset Regional Council

SRRC – Scenic Rim Regional Council

SWFSA – the Somerset & Wivenhoe Fish Stocking Assn

TMR – Transport & Main Roads department of Qld

Lower Brisbane River – all waters downstream from Mt Crosby Weir.

MBRC – Moreton Bay Regional Council

Mid Brisbane River – The section of river from the Wivenhoe Dam Wall to Mt Crosby Weir.

Upper Brisbane River – the waters upstream of the Wivenhoe Dam wall including Lake Wivenhoe extending to the headwaters of the Brisbane River including tributaries such as Emu & Cooyar Creeks and the East / West arms of the river.

Lower Stanley River – those waters from the Somerset Dam wall extending downstream to the junction of the Brisbane River. This section is often inundated by the backed up waters of Lake Wivenhoe depending on the lake level.

Mid Stanley River – the waters upstream of the Somerset Dam wall as far as the Woodford Weir. This includes the impounded waters of Lake Somerset & tributaries eg Neurum, Kilcoy, Sandy, Old Country, Mary Smokes & Stoney Creeks.

Upper Stanley River – all waters upstream of the Woodford Weir extending as far as the headwaters and includes tributaries such as Running, London, Ewen & Crohamhurst Creeks + Woodford off-river storage dam.

### **Attachments:**

Juvenile Cod Habitat Preferences – Dr Michael Hutchison.

[http://survey.sweetwaterfishing.com.au/wp-content/uploads/2021/05/Juvenile\\_Cod\\_Habitat\\_Preferences.pdf](http://survey.sweetwaterfishing.com.au/wp-content/uploads/2021/05/Juvenile_Cod_Habitat_Preferences.pdf)

Gerry Cook Hatchery production figures supplied by SEQWater.

[http://survey.sweetwaterfishing.com.au/wp-content/uploads/2021/05/GERRY\\_COOK\\_HATCHERY\\_FIGURES.xlsx](http://survey.sweetwaterfishing.com.au/wp-content/uploads/2021/05/GERRY_COOK_HATCHERY_FIGURES.xlsx)

### **References**



## **PARTNERS / SPONSORS**

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Brisbane River Cod Recovery Strategy Co-ordinator,  
Somerset & Wivenhoe Fish Stocking Assn

Name \_\_\_\_\_

Signature \_\_\_\_\_

Date of application

Fisheries Extension Officer  
Department of Agriculture & Fisheries

Name \_\_\_\_\_

Signature \_\_\_\_\_

Date



## Brisbane River Cod Recovery Project



# "Bringing Back the Bumgur"

SOMERSET WIVENHOE FISH STOCKING ASSN INC