



**INTEGRATED  
CATCHMENT  
MANAGEMENT**

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By email to: [waterplanning.mary@rdmw.qld.gov.au](mailto:waterplanning.mary@rdmw.qld.gov.au)

Department of Regional Development, Manufacturing and Water  
Chief Executive  
Water Services South Region  
Att: Senior Project Officer LMB 383  
Gympie, 4570

To whom it may concern,

**Re: Review of the Mary Basin Water Plan**

The Mary River Catchment Coordinating Committee (MRCCC) was formed by the community in 1993 following a series of devastating flood events which resulted in massive erosion of the riverbanks and loss of agricultural land. The MRCCC is a not-for-profit community-based integrated catchment management group comprised of representatives from primary production: dairy, beef, horticulture etc, and community organisations including Landcare and the general community. The MRCCC and its delegates provided significant input into the [2006 Mary Basin Water Resource Plan \(WRP\)](#) through a series of well organised community consultation opportunities including the Community Reference Panel (CRP). Members of the catchment community have vivid memories of a thorough and credible community consultation process for the draft WRP (released in 2005), only for the final WRP (2006) to be released as a vastly different report from the draft that they were closely involved with. The MRCCC recommends the Department undertakes a full public consultation process for this new plan process.

This submission focuses on issues arising from consultation, discussion and input from the catchment community over the past 15 years. The MRCCC has had a long association with the current WRP and water planning in the Mary River catchment (MRC) with many MRCCC delegates represented on community reference panels and consultative committees over the past 25 years. The MRCCC welcomes the upcoming review of the Water Plan, and believes a new plan is needed to resolve many critical aspects of the existing plan given the current state of the river and future predictions.

**The “Mary” Magic Pudding**

Unfortunately, the Mary River catchment (MRC) is presently viewed as a “Magic Pudding” that can seemingly do everything for everyone including:

1. Provide water to Brisbane, SEQ and possibly Warwick via the Southern Downs pipeline;
2. Provide water to a growing Sunshine Coast (including Caloundra South, Aura etc);
3. Maintain Environmental Flow Objectives (EFOs) for threatened aquatic species;
4. Provide sufficient freshwater input to the Ramsar listed Great Sandy Strait to maintain estuarine function;
5. Sustain irrigation industries under an ever increasing evaporative landscape and changing irrigation regime;
6. Provide pumped water to Borumba Dam for hydropower to SEQ.

*The MRCCC gratefully acknowledges the support of*

*The Sunshine Coast Council, Noosa Council and Gympie Regional Council,*

*the Australian Government Department of Environment, the Burnett Mary Regional Group, the Queensland Department of Main Roads, the Department of Environment and Science, Seqwater, HQPlantations and landholders throughout the Mary Catchment.*

**DONATIONS TO THE MARY CATCHMENT PUBLIC FUND ARE TAX DEDUCTIBLE**

There are too many competing demands and there is an ever growing risk the river could collapse. Each Spring – Summer in the past few years the river has stopped flowing in key reaches. Last Summer (Oct-Nov-Dec 2020) the entire river system was at virtual cease-to-flow conditions, which was considered an unprecedented situation.

The MRC is unfortunately located between the SEQ and Wide Bay regional planning frameworks, with the river's headwaters located in the SEQ region and the downstream section of the river that flows in the Ramsar listed Great Sandy Strait located in the Wide Bay regional planning area.

From a river perspective, this makes planning difficult with each plan at times having competing demands for the same water resources. The WRP should be the over-arching document that controls and regulates this.

#### **April 2019 Minister's Performance Assessment Report – Water Plan (Mary Basin) 2006**

The MRCCC supports the findings of the 2019 Ministerial Report. The review on the current performance of the WRP highlights significant concerns with regard to inadequate protection of key environmental assets/habitats such as the Mary River Cod survival in Six Mile Creek downstream of Lake Macdonald and inadequate water reserves in the lower Mary River for the long term protection of the Mary River Turtle.

These issues highlight severe misgivings of the current plan in its current form, irrespective of further abstraction of water resources from the proposed Strategic Reserve if it comes online.

#### **Conflicting water planning frameworks**

Presently there are a suite of water planning frameworks that have conflicting recommendations/ outcomes for water management in the MRC:

1. The current WRP Plan with an additional 150,000 megalitre “Strategic Reserve” is flawed. The MRC cannot supply the current water entitlements, with the river drying up along its entire length during Spring-Summer in recent years. To consider abstraction of a further 150,000 megalitres is not feasible.
2. The recently announced [Borumba Pumped Hydropower proposal](#) – this doesn’t fit into the current WRP and has not been identified in any water planning framework.
3. [SEQW Water for Life Water Security Program 2016-2046](#) – identifies infrastructure for the Mary River and Borumba Dam. It appears that the Borumba pumped hydropower proposal and the SEQW Mary River infrastructure have not been planned in sequence.
4. Lack of integration between the SEQ Water Supply Strategy (informs the SEQW Water for Life Plan) and the Wide Bay Burnett Water Supply Strategy.

#### **Strategic Reserve**

In 2006 the ‘strategic reserve’ was artificially created to facilitate construction of the Traveston Crossing Dam. This ‘new’ water reserve of 150,000 megalitres was written into the Mary Basin WRP between the draft and final plans in 2006. In doing so, the environmental flow objectives (EFOs) were reduced to accommodate this new water. The MRCCC recommends the scrapping of the Strategic Reserve.

***There are currently approximately 161,000 megalitres of water entitlements*** in the Mary River catchment. If the strategic reserve actually existed and was activated, the river system, which is already in extreme stress, could not accommodate a doubling of water abstraction. The MRCCC is therefore calling for the strategic reserve to be scrapped.

As it stands the strategic reserve simply creates more uncertainty in the catchment and irrigation industries making the Mary River less attractive for potential investment.

## **Volumetric water entitlements**

Surface water availability in tributaries will be a severe ongoing issue if early indications of conversion of area based water entitlements to volumetric entitlements are an indication.

Many water entitlements – particularly those in the un-supplemented areas ie creeks – are rarely used today. The ‘Ministers Performance Assessment Report for the Mary Basin’ (April 2019) estimates that approximately 50% of un-supplemented water entitlements are used. This provides a distorted view of the current situation because there would be significantly less streamflow if all entitlements were active. In fact, ***in many creeks, there would be insufficient water available if all entitlements were activated under the current area based system.***

If all tributaries were converted to volumetric based entitlements, the system simply won’t have enough water available for irrigators, stock and domestic, urban and environmental flows.

## **Trigger levels for water use**

Links with conversion of current entitlements to volumetric entitlements need to be a clear, district level/reach based series of trigger levels to enable water use to be moderated with present and future streamflows.

The ‘Ministers Performance Assessment Report for the Mary Basin’ (April 2019) states that ***in the last 18 years, ten of these years were below average, and two of those years are the lowest streamflow on record.*** This is based on 109 years of streamflow data from the Mary River at Miva. In the first week of December 2020, the entire Mary River was virtually dry (0 meg/day flow above and below Kenilworth; 0.26 meg/day flow at Gympie, 12 meg/day flow at Miva and Tiaro) coupled with no flow in the creeks. This situation also occurred in December 2019. Despite this, no triggers for water restrictions were placed on the river during these bad times.

The four remaining Water Advisory Groups (1. Upper Mary, 2. Amamoor, 3. Widgee - Wide Bay, 4. Obi Obi) had imposed their own restrictions on water use during 2020, but the vast majority of the catchment today has no active water advisory groups.

The Lower Mary River Water Supply Scheme starts each water year with 100% allocation, irrespective of the current condition of the river or forecast rainfall. These mechanisms need a radical over-haul with local input to make these trigger levels suitable and effective.

## **Resource Operations Licenses (ROLs) water usage**

Individual ROL holders report water usage and performance data directly to the Department. However, the collective amount of water being extracted by all ROLs is not easily obtainable. The MRCCC recommends that the Department collates all ROLs data and releases an annual report specifically outlining how much water is being extracted and from what part of the Mary Catchment.

## **Water advisory groups (WAGs)**

Water advisory groups are fundamental to improved management of water resources in the MRC. Trigger levels need to be developed in consultation with the local community, and WAGs are essential to enable this to occur in a cooperative manner.

The current WRP does not provide adequate consideration of potential extreme weather events which have become more prevalent in the MRC since the preparation of the original plan. Summer droughts have occurred in 2015 (broken by Cyclone Marcia in late March), 2017 (broken by Cyclone Debbie in late March) and 2019 (broken by late summer rain in March). These recent events highlight an unprecedented change in rainfall patterns, in contrast to the Mary River previously receiving reliable summer rainfall that carried through the winter dry period.

These recent weather events put significant pressure on water resources, with many creeks now at or heading for cease to flow conditions resulting in conflict between neighbours over dwindling water supplies eg. Eel, Kandanga, Amamoor, Wide Bay, Widgee Creeks. It is clear to the MRCCC that the Department should be actively encouraging and supporting Water Advisory Groups (and establishing new groups) to enable irrigators to forward plan collectively and voluntarily based on best available scientific information. The review of the WRP should consider the crucial role WAGs can provide in being more in-tune with the current and future water scenarios.

### **Environmental flow objectives (EFO)**

Unlike other States in Australia, within the current Mary Basin WRP there are ***no actual water entitlements allocated for environmental flow purposes.***

In the Murray – Darling system, there are ‘water keepers’ that hold water entitlements purely for environmental flow releases when aquatic ecosystems are in stress. The Mary Basin WRP provides EFOs that stipulate how much water can be taken from the river at certain points (eg. Fisherman’s Pocket) during medium – high flood flows and how long the river can be allowed to go dry.

For instance, at Fisherman’s Pocket, the current WRP allows the river to have less than 1 megalitre flow for 3 months, 18 times during a 110 year stimulation period. To accommodate the strategic reserve, the draft plan’s EFOs were changed for the medium (every 2 year floods) to high flood flows (every 10 years). The draft allowed only 32% of these flood flows to be utilized, whereas the final plan doubled the amount of utilization to 58% of flood flows.

Fisherman’s Pocket (downstream of Gympie) and located approximately half-way along the Mary River is the uppermost Mary River EFO monitoring node. More EFO nodes are required in the upper catchment. The Mary River at Moy Pocket is continually displaying low to no river water levels in Spring – Summer, and is increasingly becoming an environmental flow concern, as well as an increasing water security issue.

The MRCCC recommends a review of the current EFOs – particularly in light of the 2019 Ministers Performance Report –based on the new information that is available on threatened aquatic species hydraulic habitat requirements and the observable decline in stream and river flows.

### **Water alternatives for a healthier catchment and a sustainable SEQ**

Baroon Pocket Dam should be utilized for provision of water to the Upper Mary River (Obi Obi Creek and Moy Pocket); likewise Lake Macdonald should be used for provision of water to Six Mile Creek (Mary River cod habitat). Water supply to Sunshine Coast and Noosa should be provided by water recycling, which will also take pressure off sensitive receiving environments such as Burgess Creek (Noosa), the Maroochy River etc. Water otherwise supplied to northern Brisbane via Baroon Pocket Dam can then be used to modulate river flows during these low/no flow periods. Brisbane (SEQ) urban water could be supplied via the Western Corridor Recycled Water Plant, Tugun Desalination Plant and demand management, instead of from Baroon Pocket.

The townships of Kandanga, Amamoor, Kilkivan, Woolooga and Goomeri are reliant on streamflow from the MRC via their local creeks to provide town water supply. In October 2020, Amamoor Creek stopped flowing, the town ran out of water and the council was forced to truck in drinking water. Goomeri is partly reliant on Kinbombi Creek (from a weir above Kinbombi Falls) for town water supply. Consequently, water is transferred out of the Mary River catchment to Goomeri for their water supply. This water is simply denied to Wide Bay Creek, which also supplies water to downstream towns including Kilkivan and Woolooga. These towns struggle for water supply and need to have water supplies not reliant on climate or dwindling creek water flows eg. tanks, stormwater harvesting and water recycling. Small towns such as these can be revived with a construction program of new recycled water plants which would also create new jobs.

With small towns drawing their water supplies from the creek it is inevitable that ***conflict will occur between town users and irrigation users*** – a conflict which can be resolved.

## **Groundwater**

Groundwater extraction has been an ongoing concern in the MRC before the preparation of the 2006 Water Plan. Groundwater extraction and surface water interactions in Wide Bay Creek has been an issue for many years. In recent years, groundwater extraction has become an emerging issue in other sub-catchments of the MRC eg. Six Mile Creek and tributaries in the Mary Valley. Bottled spring water extraction in Six Mile Creek is a concern and landholders in the Mary Valley are drilling bores in the alluvium of creeks to extract the remaining surface water available via the creek aquifer.

Unfortunately, as no groundwater reserves in the MRC are declared, the regulation is devolved to local government who condition proposals on truck movements, noise etc and not on the sustainability of the groundwater reserve. Groundwater can also become unusable for irrigation purposes due to water quality, particularly salinity, when drawn down to very low levels.

Groundwater inflows from the MRC sustain deep aquifers within Great Sandy Strait/ K'gari / ocean.

## **Integration of EPBC Act with Mary Basin Water Plan**

The Mary Basin Water Plan needs to integrate with the Australian Government Environment Protection Biodiversity Conservation Act approvals eg. Goomong Mary River offtake limits / restrictions.

## **Great Sandy Strait Ramsar wetland**

The Mary Basin WRP needs to recognize the importance of the Great Sandy Strait Ramsar wetland and acknowledge the Ramsar convention. The Moreton WRP does acknowledge the Ramsar listed Moreton Bay with specific flow requirements and conditions.

The Great Sandy Strait is an inverse estuary that relies on the Mary River for salinity modulation. The interactions between sediment flux, geomorphology and hydrodynamics in the Mary River estuary are critically linked to river flow. Mary River stream flows are required to maintain estuarine bathymetry, sediment and salinity fluxes. These functions are linked to survival of endangered migratory shorebirds including the critically endangered Eastern curlew, which require sufficient food reserves to sustain their long flights to the northern hemisphere. If changes occur, there is the risk these endangered shorebirds will not accumulate enough reserves and therefore cannot sustain their flights to the northern hemisphere.

In the context of an anticipated drier and more evaporative climate, the increased demands being placed on water from the Mary River are extremely concerning. To guarantee water security, all levels of government and industry need to include alternative water technologies, including potable water recycling (waste water being the only water source increasing as population grows), desalination (with energy demands being met by solar and wind), rainwater tanks and vitally important demand management through water use efficiency. Click on the following link to watch Voices of the Valley, a documentary about the Traveston Dam protest.

<https://www.youtube.com/watch?v=v -bT8K2948&list=PL8mmnBtvEzl73AbzL77q3xfVrPUgmEc08&index=24>

The MRCCC coordinates a Community Waterwatch Program in partnership with 110 volunteers monitoring 105 sites across the catchment, from the river's headwaters to southern tributaries in the Fraser Coast region. In the course of over 2 decades collecting vital water quality data and information about riparian condition, these volunteers are effectively our eyes on the waterways of the catchment, reporting any incidents or issues. In addition, the MRCCC's annual catchment crawl takes a comprehensive snapshot of water quality throughout the river system over a two day period every October. Data collected in recent years indicates that streamflow is decreasing. Click on the link to access a copy of the MRCCC's [Waterwatch Reports](#) and reports from the Catchment Crawl.