Contents

Introduction and Background 4
Process 5
Current and Future Context 5
Goals achieved thus far 6
Planning and Development 7
Recreation, public access and safe use 7
Communication, information and awareness 7
Water Quality & Healthy Ecosystems 8
Implementation Actions and Strategies 9
Introduction and Background

Many different sectors of the community regard Lake Mulwala as a valuable resource. Lake Mulwala is an important asset because it provides water for farm irrigation and domestic and stock use. It creates recreation and tourism opportunities benefitting regional economic growth whilst also providing biodiversity conservation values and a social and cultural focus for the towns of Yarrawonga and Mulwala. Lake Mulwala and the associated waterways and landscape are places of high cultural significance to Yorta Yorta and Cummergunja people.

In 1994 COAG agreed to the Strategic Water Reform Framework for Australia. This supports the National Water Quality Management Strategy which seeks to achieve sustainable use of the nation’s water resources by protecting and enhancing their quality while maintaining economic and social development.

The Lake Mulwala Land and On-Water Management Plan ("the Plan") was publicly released in December 2004. The Plan was conceived in response to the identified need for a strategic approach to the management of land and on-water management activities at Lake Mulwala. The Plan was developed by Goulburn-Murray Water acting on behalf of the Murray Darling Basin Commission, now Murray Darling Basin Authority.

Initial expectations were that the Plan would be reviewed approximately every five years. Since its initial release there have been many developments and changes to the ‘operating environment’, bringing a number of new challenges and concerns for lake managers and the communities around the lake.

In 2008, the Lake Mulwala Community Reference Group implemented a review of the Plan. The key outcome of the review was to produce an addendum to the original Plan which included refocused and more specific actions and strategies more relevant to the current operating environment.

In October 2013, these issues were again the focus of discussions with the Lake Mulwala Community Reference Group. It was determined that the time was right to review the Plan. It was determined that wholesale revision of the original Plan was not required. The original Plan should remain the key reference document, unchanged in its own right. The key outcome of the review should be an another addendum to the original Plan, which includes refocused and more specific actions and strategies more relevant to the current operating environment, but which remains true to the vision, themes and intent of the original Plan.

The intent of the Plan is to better manage the ever increasing pressures on the important values of the lake and its foreshore, such as the water quality and environmental values, recreation and public access, planning and development, cultural heritage and others.

The Plan aims to identify and protect important values associated with our waterways by outlining priority issues and identifying key actions to be implemented over the next five years.

The Plan aims to increase communication, consistency, coordination and cooperation between agencies, stakeholder groups and the community to protect and promote the values and attributes of Lake Mulwala.
Cultural Heritage Acknowledgement

Until recently the process for obtaining cultural heritage assessments and approvals was not clear. However of note is the passing of the Aboriginal Heritage Act 2006 (AHA 2006) in Victoria, and the associated Aboriginal Heritage Regulations 2007, which provide clarity around the legislative requirements in relation to Aboriginal cultural heritage management. The AHA 2006 also defines Yorta Yorta Nation Aboriginal Corporation as the Registered Aboriginal Party (RAP) in relation to Aboriginal cultural heritage management for a large area of northern Victoria, including the Victorian foreshore of Lake Mulwala. In 2013, GMW entered into a general agreement with Yorta Yorta Nation Aboriginal Corporation. The General Area Agreement provides a framework under which cultural heritage in the Yorta Yorta area is managed between the two parties. The agreement in particular outlines the principles relating to consultation and protection of Yorta Yorta cultural heritage, and the terms on which GMW consults and engages monitors if required. Significant opportunity exists to develop greater understanding of the Yorta Yorta culture in relation to the Lake Mulwala environment.

On the New South Wales (NSW) foreshore environment of Lake Mulwala the ‘NSW Aboriginal Land Council in conjunction with the Cummeragunja Aboriginal Land Council and the Albury Land Council are the governing bodies under the Aboriginal Land Rights Act (1983). One of the key objectives of the NSWALC is to provide for the development of land rights for Aboriginal people in NSW through among other things provision for ‘Maintenance and enhancement of Aboriginal culture, identity and heritage including the management of traditional sites and cultural materials within NSW.’ http://www.alc.org.au/about-nswalc/our-organisation.aspx

Process

The process for the development of this addendum to the Plan has included:

- an internal desktop review of performance against original actions from the Plan;
- a review of the current and expected future context for the Plan;
- an assessment of the continued relevance of existing key actions from the Plan, and a re-prioritisation of those issues;
- an identification of new and emergent issues for the Plan;
- development of a re-prioritised program of actions (existing and new) to be implemented over the next phase of implementation; and
- definition of roles and responsibilities for implementation.

Consultation has been limited to selective, targeted engagement and consultation to obtain the advice of key management agencies with direct management responsibilities at Lake Mulwala, as well as the advice and endorsement of the Lake Mulwala Community Reference Group.

Agency consultation has included discussions with senior representatives of Moira and Corowa Shires, Yorta Yorta Nation Aboriginal Corporation NSW Roads & Maritime, Murray Darling Basin Authority and other agencies.

The vision, themes and intent of the Plan remain unchanged, and a comprehensive re-write of the plan, which would necessitate a more comprehensive consultation strategy, is not envisaged.
Current and Future Context

The Lake Mulwala Land and on-Water Management Plan begins the task of realising the vision for Lake Mulwala as ‘part of a healthy working River Murray system, managed for water supply, environmental, cultural, recreational and tourism needs.’

The original Plan and subsequent Addendum have proven to be a useful instrument for the better management of land and on-water issues at Lake Mulwala. Lake Mulwala is a peaceful and well kept place where the general public can enjoy the picturesque environment of this effectively functioning water storage. The Plan identifies a strategy to manage the lake effectively accommodating for a vast array of user groups. (WHP)

Since the original release of the Plan a number of new strategies, developments and other changes have occurred, and the operating context for the management of land and on-water issues Lake Mulwala has changed. Of note:

- the completion of a Yarrawonga-Bundalong Foreshore Master Plan, which provides agreed long term direction and provides planning for the southern shoreline of the lake;
- the development of Model By-Laws for Recreational Areas by GMW board (applies to Victorian environment only.)
- the review of the Water Act 1989;
- the imposition of a moratorium on restricting private infrastructure (Jetty’s, Slipways and other structures);
- subsequent lifting of moratorium on private infrastructure (Jetty’s)
- the development of Jetty & Mooring Zones to differentiate where private infrastructure would be considered;
- The development of guidelines to better manage erosion and riparian restoration associated with new and existing Jetties.
- the declaration of powered boat exclusion zones;
- increased monitoring to control problems with invasive aquatic weeds;
- investigations on the potential for biological control of Arrowhead;
- continued rapid urban development of proximal lands (e.g. the Silverwoods & Botts Road Development, Lakeside Drive, and The Junction projects);
- continuing recreation, tourism and residential amenity pressures and expectations regarding lake management, particularly regarding lake levels and weed management;
- ongoing planning discussions on environmental offsets associated with urban developments.
- continued evolution of Corowa and Moira Shire planning frameworks;
- completion of a number of scientific studies which have filled many of the ‘information gaps’ and increased understanding of the lake environment and lake processes;
- a need to emphasise Lake Mulwala as one component of a much wider river system and broader Murray River community;
- progression of new legislation, strategies and plans with relevance to the management of Lake Mulwala.
- completion or significant progress against many of the original actions from the Plan;
The future context for the Plan is not known with any certainty. The MDBA’s Strategic Plan 2012-2015 outlines a vision ‘To achieve a healthy working Basin through the integrated management of water resources for the long-term benefit of the Australian community.’ This correlates strongly with the ‘Plans’ vision for Lake Mulwala as part of a healthy working River Murray system, managed for water supply, environmental, recreational and tourism needs. With this in mind the main objectives of the Plan are to:

- Identify and enhance Lake Mulwala’s environmental, cultural, social and economic values by outlining key actions to be implemented during the next five years;
- Encourage safe public access for recreational users, whilst ensuring protection of operational requirements and long term water quality as a resource for local and downstream users;
- Improve formal and informal processes and planning instruments to manage the lake and surrounding foreshore and improve the management of development pressures around the lake. This includes ensuring that development pressures on the Victoria foreshore are compliant with the Aboriginal Heritage Act 2006.
- Promote natural and cultural values by obtaining broad-scale agreement between agencies on principles for sustainable use and development of the lake and surrounding foreshore.

At the same time residential development on both sides of the lake seem likely to continue. The Yarrawonga-Bundalong Foreshore Master Plan continues to provide direction for many of the management issues for the Victorian foreshore.

Corowa Shire Council are in the process of developing a ‘Mulwala Foreshore Open Space Master Plan.’ In recent times the Lake Mulwala Community Reference Group and the Mulwala Progress Association has lobbied Corowa Shire to acquire public land on the NSW foreshore, this has resulted in the acquisition of 18-22 Melbourne Street Mulwala.

These changes to the context all point to the need for a re-focus of the Plan. In particular the Plan should now have:

- a greater focus on foreshore management issues on the NSW side of the lake;
- an emphasis on projects and programs to enhance the lake’s usability
- an emphasis to seeking external funding and drawing a connection between investment in key infrastructure and implementation of key action items.
- Continued commitment to water quality and ecological monitoring programs;
- a more proactive communication and awareness raising program, and
- a more proactive and innovative approach to the management of aquatic weeds and other environmental threats.
- Identification of the cultural heritage values and Aboriginal cultural heritage places in relation to Lake Mulwala, and consideration of these values and places in future management decisions.
- Lake Mulwala, and consideration of these values and places in future management decisions.
Goals achieved thus far

There have been numerous examples of successful works driven from the Plan. Some of which is reactive some proactive and in all cases has the backing of the community driven plan. The ever changing environment requires various projects to sustain the health of the immediate foreshore environment. There have also been projects at a catchment wide level that have resulted in positive change in the management of Lake Mulwala. The key driver of the plans success is stakeholder partnerships, completion of tasks that appease to numerous stakeholders has been the catalyst for success and it is acknowledged significant opportunity exist to strengthen these partnerships.

Projects commenced or completed due to implementing key actions of the Plan include the following:

- Investment in a study to explore ‘Biological controls’ for the management of Arrowhead.
- Supporting synthesis study on the long term management controls of Egeria.
- Lake Mulwala Water Quality Study.
- Lake Mulwala Foreshore Vegetation assessment (Victorian side)
- GMW standards developed for jetties and retaining walls.
- Establishing criteria for erosion control and riparian enhancement associated with private jetty applications.
- Rationalising diversion points (Insert photo of Buchananans).
- Specific revegetation projects (List) Buchanan’s Road, Pyke St, Bott’s Road, Lakeside Drive, George Edward Drive, Camperfield Drive, Bathumi subdivision, Kiffyn’s Reserve, Majors lane.
- Surveying property boundaries and installation of boundary bollards.
- Removal of cross fences allowing public access along the foreshore.
- Removal of disused private fuel storage tanks.
- Declaration of powered boat exclusion zones.
- Installation of public mooring points in public spaces.
- Installation of solar lighting at public boat ramps.
- Walking tracks along the foreshore at Bathumi and Bundalong.
- Lake Mulwala website – Boating & Facilities map.
- Trial sites for erosion protection using geosynthetic stabilisation (BTL Landlock) materials – Kiffyn’s Reserve, Luton Drive, and Adjacent Woodlands Reserve.
- Better referral system from Moira Shire regarding subdivision developments and subsequent foreshore outcomes.
- The establishment of Infrastructure Zones to control development along the foreshore.
Planning and Development

Inappropriate development around Lake Mulwala was a key driver for the development of the original Plan. The original Plan and subsequent Addendum have promoted better planning outcomes for the lake environment. In particular there has been significant improvement in understanding of requirements, communication and cooperation between municipal planning authorities and the authorities responsible for the management of the lake.

Practical examples of foreshore landscape management are evident in offsets at Botts Road development and Silverwoods in Yarrawonga. There is now a stronger appetite for key stakeholder partnerships in delivering aspects of the Lake Mulwala Land & On-Water Plan and the Yarrawonga-Bundalong Master Plan. In many instances such actions are community driven and should be encouraged moving forward. Groups such as the Eastern Foreshore Committee, Friends of Chinamans Island, Bundalong Action Group and the Mulwala Progress Association are becoming more active in promoting and protecting the Lake Mulwala environment.

Significant work has been done to remove unauthorised works from the foreshore environment. There has been a successful program of removing fuel driven pumps from foreshore environments and in places rationalising pump sites incorporating environmental offsets when restoring the foreshore environment.

The Yarrawonga-Bundalong Foreshore Master Plan developed by Moira Shire in conjunction with Goulburn-Murray Water further strengthens the position of the Plan and its key objectives. Both plans have a shared focus on enhancing safe public access to the lake and foreshore, improve facilities and enhancement of environmentally sensitive areas. The shared objectives provides for greater certainty and direction for key stakeholders, residents, commercial operators and general users of the lake environment.

Both documents should be used as a strategic tool to generate change and open up opportunities for better utilisation of the lake and its surrounds.

Opportunities may exist in instances where re-zoning land classifications and subsequent greater flexibility of land usage facilitate optimisation of water front property.

Opportunities exist for a stronger focus on the NSW foreshore environment. In recent times there has been significant progress in conveying future direction on the NSW foreshore environment. The Community Reference Group has been active in alerting and endorsing opportunities for Corowa Shire Council to acquire key public open spaces. There has also been discussion on development opportunities at Spring Drive and Kyffins Reserve. Corowa Shire Council are developing a ‘Mulwala Foreshore Public Open Space Master Plan’ for the Mulwala foreshore. Corowa Shire Council have also been active in attracting funding to support better infrastructure on the foreshore environment.

Other areas requiring attention from a planning and development perspective will be moorings and jetties. In 2014 MDBA endorsed lifting of a moratorium preventing new private infrastructure on the Victorian embankment. GMW has been successful in addressing MDBA concerns applying rigor to structure approvals and ensuring erosion control and riparian restoration remain a key focus on any proposed works. GMW have identified a need to process private jetty applications however private slipways (private boat ramps) will not be considered for approval. GMW has also been proactive in establishing a review of Jetty & Mooring Zones on the Victorian foreshore. This has been subject to consultation and feedback of the Community Reference Group and in response to a number of challenges to the initial zoning plan.

GMW will now embark on addressing jetties and pseudo jetties constructed during the moratorium without appropriate approval. These will be managed via a number of means, legitimising structures (retrospectively), outlining a program to conform with GMW standards, provide rationale for structures above and beyond the GMW standards or removal of the unauthorised structures.

GMW is also active in addressing perceived lack of public mooring facilities and have begun a program of establishing infrastructure within clearly identified ‘Public Use Zones.’ This will assist in the management of unauthorised moorings.

It is recognised that ongoing relationships with NSW Roads and Maritime, Moira Shire Council and Corowa Shire Council are critical in managing compliance and development opportunities in the lake and foreshore environment.
Recreation, public access and safe use

Lake Mulwala is an important recreational and tourism asset. The lake attracts tourists and community involvement from Victoria and New South Wales and supports a wide range of recreational activities including fishing, boating activities, swimming, cycling and picnicking.

Enhancement of safe public access is a goal of the Plan, and the recreational and tourism opportunities for the Yarrawonga-Mulwala community are seen as a positive benefit of the lake, provided these activities do not compromise the underlying principles of public safety, water quality and environmental protection and the operation of the lake in its primary role as a critical irrigation water supply storage.

Significant progress has been made on promotion of safe use and investment in better public access for recreational purposes. A critical driver for these actions has been the active involvement of the Community Reference Group and key stakeholders such as Moira Shire, Corowa Shire and NSW Roads & Maritime.

Significant investment has taken place to provide for public mooring opportunities, repair and enhancement of public boat ramps, and investment in recreational infrastructure in the foreshore environment. This remains a key focus for the plan as it presents a great opportunity to link educational material and community awareness to ensure greater care for sustainable use of the lake.

Various funding opportunities exist such as ‘Community Grants’, Department of Economic Development, Jobs, Transport and Resources (DEDJTR) Recreational Fishing Grants & Boating and Infrastructure Grants, New South Wales (NSW) Office of Water ‘Regional Boating Plan Grants.’ Close liaison with Local Government ‘Grants Officers’ should prove critical in ensuring mutually beneficial project submissions are successful.

Communication, information and awareness

One of the key objectives of the plan is to strive for a community committed to the sustainable use of Lake Mulwala. This has been a constant theme since the initial Plan was realised with a specific focus on engaging the community in the management of Lake Mulwala in order to enhance its values.

The actions of the community and user groups are critical to the sustainability of the lake. Those actions are the consequences of attitudes which are in turn the result of knowledge and understanding. Lake users be it visitors or local residents play an important role in sustainable management of the lake. All those who interact with the lake have a duty of care to maintain the health of the lake and its surrounds.

Some community awareness raising activity has been undertaken at Lake Mulwala notably the development of a Lake Mulwala website (www.lakemulwala.org.au), fliers, signage, newsletters and ongoing community engagement projects. It is however apparent that a general lack of knowledge and confusion over the purpose of the storage and the responsibility for its management still exists and presents challenges moving forward. Opportunities exist to promote environmental, operational, economic and recreational values of the lake. The establishment of significant interpretive material at key points around the lake remains a significant vehicle for conveying information and remains a high priority moving forward to engage the many users of the lake. The growth of the region coupled with more engaged community groups should be seized upon to enhance the values and perception of Lake Mulwala.

The Lake Mulwala Plan Community Reference Group has been a successful and effective communication mechanism and should continue to function, however there is seen to be a need for an increased role for the Community Reference Group to be more proactively engaged with the community and agencies on issues of concern.
Key stakeholders like GMW, Corowa Shire, and Moira Shire also have an opportunity to educate the greater community. At times significant projects have been rolled out with little fanfare. An opportunity exists to celebrate goals and objectives and key partnerships outlining the importance of the project. This could be broadcast wide via a host of mediums.

**Water Quality & Healthy Ecosystems**

Water quality protection and enhancement remains a key objective of the Plan. Water quality in Lake Mulwala has been regularly monitored as part of Goulburn Murray Waters Major Storages Operation Monitoring Program since 1992. Eleven water quality parameters (including pH, electrical conductivity, turbidity, nutrients and chlorophyll) are monitored at least monthly and levels are annually compared to long-term objectives which have been designed to protect ecosystem health. Over the past five years (2009-2013) the majority of long-term objectives have been met in most years with the exception of chlorophyll which has not met objectives. Statistical analysis of the past five years of data has determined that the only significant trend in water quality detected at Lake Mulwala was electrical conductivity which has shown a moderately increasing trend.

Blue-green algae (BGA) levels are monitored at five sites across Lake Mulwala and are compared to guidelines outlined by the Department of Environment, Land, Water and Planning (DELWP). Since 2009 two recreational BGA warnings have been issued for Lake Mulwala. The first warning was issued in March 2009 and lasted for 63 days before being removed in May 2009, and the second BGA warning was issued in February 2010 and was removed in May 2010 (duration 45 days). The BGA warnings were not isolated to Lake Mulwala and were part of a larger BGA warning along the Murray River (upstream and downstream). Outside of these warning periods low BGA levels were consistently present across the lake.

Annual reports are available from GMW which provides further analysis of the water quality in Lake Mulwala.

Water storage managers (GMW) and water suppliers (Urban Water Corporations) are obligated to identify and where possible mitigate risks to water quality from the catchment to the consumer’s tap, in accordance with their responsibilities under the Safe Drinking Water Act 2003.

The most recent Safe Drinking Water Act water quality risk assessment was completed for Lake Mulwala during November 2014. The following hazardous events (land-uses and on-water activities) that could affect water quality within the storage were rated as being of High to Very High risk to water quality:

- Discharge from and/or failure of domestic and commercial onsite wastewater management systems,
- Recreation and camping leading to litter, human waste discharge, fires, sediment runoff, chemical and fuel spills,
- Runoff from urban areas entering stormwater drains,
- Fertiliser runoff from application to private land,
- Exposure, transfer and mobilisation of contaminated soils, spills, leaks or releases of fuel, oil, chemicals, etc. from activities on waterways,
- High turbidity due to high river flows,
- Floods and intensive rainfall events leading to contaminated water and the potential for landslips and bank slumping, and
- Algal blooms and the presence of toxins.

Comprehensive water quality studies completed have given lake managers a much better understanding of the threats and processes affecting water quality in the lake. While many of the impacts on water quality in the lake are now recognised as being the result of upper catchment processes, there are still opportunities for local programs and actions that can be taken to protect water quality.

Water quality is critical for the communities that use water from Lake Mulwala for irrigation, commercial, and agricultural uses, for recreational activities, and for raw water supply to drinking water treatment systems. Water quality is also important for the preservation and health of aquatic ecosystems. The general public also have a duty of care under the Environment Protection Act 1970 to minimise impacts to water quality arising from their use of the storage and its surrounds.
Recreational users of the lake have the potential to impact on water quality, and are in turn impacted by the effects of poor water quality. It is considered one variable that can be managed via greater understanding and change in attitude with regards to environmentally friendly practices.

Examples of recent improvements are the removal of fuel storage infrastructure from foreshore areas and the adoption of more stringent design and performance standards for the approval of stormwater discharges from new developments. Goulburn Murray Water has been active in addressing erosion issues having implemented an Erosion Management Plan. Goulburn Murray Water now require significant erosion control and riparian restoration as part of any private works application for new jetties. This was due to ongoing concerns over the impact increased boating activity (wash) had on the banks of the lake. There have also been successful revegetation projects with a specific focus on strategically enhancing ecological values of riparian zones in accordance with recommendations from the Murray Darling Freshwater Research Centre Water Quality Study (2005).

The MDFRC study provided a greater understanding of the lakes ecosystems and ecological processes, a good example being the comprehensive baseline vegetation survey completed in 2005. Foreshore revegetation and protection projects works by Goulburn-Murray Water, Parks Victoria, and community groups such as the Eastern Foreshore Committee are enhancing and improving environmental values in parts of the lake environment. Anecdotal reports indicate that the fishery is healthy, with native fish prospering seemingly at the expense of undesirable species such as carp. Lake Mulwala is considered one of the most productive Murray Cod fisheries in Australia, this is mainly due the quantity of fallen and standing timber providing ample ambush locations and breeding sites. It is believed that the Murray Cod population is self sustaining in this lake environment due to these factors and the provision of a fish ladder allowing migration at the Yarrawonga Weir. Golden Perch also prosper within Lake Mulwala however Cod remain the target of most anglers.

Significant work will continue with regards to monitoring and control of invasive weeds such as Dense Waterweed (Egeria densa), Arrowhead (Sagittaria) and invasive subspecies of willow. Current means of monitoring and control have proven effective in this battle against invasive weeds of significance. Investigations are currently in place to review alternate treatment methods particularly in areas of high sensitivity.

GMW have also been successful in obtaining funding via the Federal Government 20 Million Trees Programme. This will result in a concerted effort to improve ecological values through revegetation projects on Lake Mulwala perimeter lands.

Significant efforts are being implemented to address rate of erosion, a variety of techniques are used and range from the use of rush zone revegetation, coirlog installation, timber alignment, elcorock bags, rock armouring and in some areas retaining walls.
### Implementation Actions and Strategies

<table>
<thead>
<tr>
<th>No.</th>
<th>Action</th>
<th>Responsible agency</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Implement recommendations for facilities and infrastructure improvements from the Yarrawonga-Bundalong Foreshore Master Plan (2008).</td>
<td>Moira, G-MW, &amp; MDBA</td>
<td>H</td>
</tr>
<tr>
<td>2</td>
<td>Proactive compliance monitoring of private infrastructure (e.g. jetties, retaining walls) on public foreshore land.</td>
<td>G-MW, Moira Shire, Corowa Shire</td>
<td>H</td>
</tr>
<tr>
<td>3</td>
<td>Develop consistent information, education and warning signage at all access points with a specific ‘Lake Mulwala’ brand.</td>
<td>G-MW, Moira Shire, Corowa Shire, CRG, NSW Roads &amp; Maritime, YYNAC</td>
<td>H</td>
</tr>
<tr>
<td>4</td>
<td>Develop and review standards and apply to new private infrastructure (retaining walls, Jetties etc.)</td>
<td>G-MW, MDBA,YYNAC</td>
<td>H</td>
</tr>
<tr>
<td>5</td>
<td>Public paths and informal public access encouraged along public foreshore land, consistent with opportunities identified in Yarrawonga to Bundalong Foreshore Master Plan.</td>
<td>Moira Shire, G-MW</td>
<td>H</td>
</tr>
<tr>
<td>6</td>
<td>Develop and implement a Mooring &amp; Jetty Management Plan for the lake (NSW), Conduct regular review of the Jetty &amp; Mooring Zone Plan (VIC)</td>
<td>G-MW, Moira &amp; Corowa Shire, NSW Roads &amp; Maritime</td>
<td>H</td>
</tr>
<tr>
<td>7</td>
<td>Consider proposals for public jetty facilities and temporary mooring facilities at key access points as identified in Yarrawonga to Bundalong Foreshore Master Plan.</td>
<td>G-MW, Moira Shire</td>
<td>H</td>
</tr>
<tr>
<td>8</td>
<td>Illegally moored vessels (including floating pontoons) to be removed or licenced.</td>
<td>G-MW</td>
<td>M</td>
</tr>
<tr>
<td>9</td>
<td>Continue ongoing monitoring program with a specific focus on blue green algae, nutrient loadings, pH and sediment levels as per recommendations from the Murray Darling Freshwater Research Centre.(MDFRC, 2005)</td>
<td>G-MW &amp; MDBA</td>
<td>M</td>
</tr>
<tr>
<td>10</td>
<td>Continue implementing Erosion Action Plan and addressing erosion priorities.</td>
<td>G-MW, Corowa Shire, NSW Office of Water &amp; MDBA</td>
<td>M</td>
</tr>
<tr>
<td>11</td>
<td>Investigate and implement long term solutions for erosion occurring along River Road Yarrawonga and other high priority areas.</td>
<td>MDBA, G-MW, Moira Shire</td>
<td>M</td>
</tr>
<tr>
<td>12</td>
<td>All new developments surrounding Lake Mulwala to incorporate water sensitive urban design principles in accordance with current best practice standards and guidelines.</td>
<td>Moira Shire, Corowa Shire, G-MW</td>
<td>M</td>
</tr>
<tr>
<td>13</td>
<td>Investigate the possibility of limited timber realignment or re-positioning combined with fish habitat enhancement in select areas, subject to endorsement from NSW and Victorian Fisheries and fishing representative groups.</td>
<td>MDBA, NSW Fisheries, DELWP, Moira Shire, Corowa Shire, G-MW, NSW Roads &amp; Maritime.</td>
<td>M</td>
</tr>
<tr>
<td>14</td>
<td>Continue with ongoing monitoring and treatment program of priority aquatic weeds, notably Dense Waterweed (Egeria densa) and Arrowhead (Sagittaria). Investigate alternate controls to manage these weeds of high priority.)</td>
<td>G-MW, MDBA</td>
<td>H</td>
</tr>
<tr>
<td>15</td>
<td>Continue foreshore and semi-aquatic vegetation enhancement and protection works programs. Develop a monitoring program to measure success of project. (Add as per Lake Mulwala Water Quality Study (MDFRC,2005)).</td>
<td>G-MW, Corowa &amp; Moira Shires &amp; Community Groups</td>
<td>M</td>
</tr>
<tr>
<td>No.</td>
<td>Action</td>
<td>Responsibility / Lead Agency</td>
<td>Proposed Completion</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>16</td>
<td>Continue to support Eastern Foreshore Committee projects for vegetation enhancement at Chinaman’s Island. (Continue to support environmental groups with a shared vision for Lake Mulwala)</td>
<td>Moira Shire, G-MW</td>
<td>M</td>
</tr>
<tr>
<td>17</td>
<td>Manage pest animal species and terrestrial weeds of high priority on public foreshore land.</td>
<td>G-MW, MDBA, DEPI</td>
<td>M</td>
</tr>
<tr>
<td>18</td>
<td>Maintain existing weeping willows (Salix babylonica) in urban areas where they are providing an erosion control benefit, until an effective alternative can be found (Replace with native vegetation (rushes, sedges, terrestrial plantings and natural abiotic components). Continue to progressively control invasive willow species (crack willow, black willow) from upper lake areas.</td>
<td>G-MW, Corowa Shire, Moira Shire, Parks Victoria.</td>
<td>M</td>
</tr>
<tr>
<td>19</td>
<td>Continue program of defining public/private land boundaries, removing barriers to public access and reclamation of eroded public foreshore areas.</td>
<td>G-MW, MDBA</td>
<td>M</td>
</tr>
<tr>
<td>20</td>
<td>Foreshore public land managers to maintain and regularly update public liability and safety risk registers.</td>
<td>G-MW</td>
<td>M</td>
</tr>
<tr>
<td>21</td>
<td>Investigate pedestrian access to Jackson’s Island/Thompson and support the Bundalong Action Group.</td>
<td>GMW, Parks Victoria, Moira Shire</td>
<td>H</td>
</tr>
<tr>
<td>22</td>
<td>Lake Mulwala Plan Community Reference Group to continue to provide advice on the implementation of the plan.</td>
<td>GMW, MDBA</td>
<td>M</td>
</tr>
<tr>
<td>23</td>
<td>Maintain and regularly update interactive website <a href="http://www.lakemulwala.org.au">www.lakemulwala.org.au</a> with a specific focus on website (containing maps, plans, zones, FAQ’s, summaries of management arrangements and by-laws. Include a timely and simple information portal pertaining to the operation of water levels in Lake Mulwala. Inclusive of comprehensive list of responsible agencies.</td>
<td>GMW, MDBA</td>
<td>H</td>
</tr>
<tr>
<td>24</td>
<td>Clear, consistent boating information and safety signage at all boat ramps.</td>
<td>G-MW, NSW Roads &amp; Maritime.</td>
<td>H</td>
</tr>
<tr>
<td>25</td>
<td>Develop and install interpretive and educational signage at key access points around the lake, focusing on the history, cultural heritage and ‘land &amp; on-water’ aspects of Lake Mulwala.</td>
<td>G-MW, MDBA, YYNAC</td>
<td>M</td>
</tr>
<tr>
<td>26</td>
<td>Broaden education campaigns to emphasise a greater understanding of the role of Lake Mulwala as an integral part of a greater River Murray System, and in particular the impacts of local activities and actions on downstream communities and environments. Engage and inform the wider community such as school groups, user groups etc. Maximise audience by linking in with special events such as EC Griffiths Cup and Cod Classic.</td>
<td>G-MW, MDBA, Moira &amp; Corowa Shires.</td>
<td>M</td>
</tr>
<tr>
<td>27</td>
<td>Support Mulwala Foreshore Public Open Space Master Plan for all priority areas of the NSW foreshore to preserve and enhance the aesthetic and environmental values of the lake and foreshore.</td>
<td>Corowa Shire, MDBA and GMW</td>
<td>M</td>
</tr>
<tr>
<td>28</td>
<td>Establish a planner’s forum to meet annually with community representatives to discuss planning issues specific to Lake Mulwala and ensure a consistent, coordinated approach. (Corowa &amp; Moira Shire) (ie maintain discussion regarding offsets in the form of Landscape Plans for new developments)</td>
<td>G-MW, Corowa and Moira Shire</td>
<td>M</td>
</tr>
<tr>
<td>29</td>
<td>Commission a study to quantitatively assess the relative economic benefits (direct &amp; indirect) of recreation, tourism and residential property values, and the value of the lake to downstream irrigation industry and communities.</td>
<td>Corowa Shire, Moira Shire and MDBA. DEDJTR.</td>
<td>M</td>
</tr>
<tr>
<td>No.</td>
<td>Action</td>
<td>Responsibility / Lead Agency</td>
<td>Proposed Completion</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>30</td>
<td>Consider the need for public camping facilities and amenities in line with Parks Victoria’s ‘Levels of Service’ methodology, to ensure consistency with other river reserves and camping areas.</td>
<td>Parks Victoria &amp; NSW Water &amp; Energy, Corowa Shire, Lands Department.</td>
<td>M</td>
</tr>
<tr>
<td>31</td>
<td>Consider the introduction of amenities at Majors Creek Boat ramp.</td>
<td>Moira Shire Council.</td>
<td>M</td>
</tr>
<tr>
<td>32</td>
<td>Consider development of voluntary Aboriginal Cultural Heritage Plans of Management for public land along the foreshore and lake environment.</td>
<td>GMW, Yorta Yorta Nation Aboriginal Corporation, Cummeragunja Land Council &amp; Albury and Districts Land Council</td>
<td>M</td>
</tr>
<tr>
<td>33</td>
<td>Consider opportunity for practicable indigenous involvement in environmental monitoring, research projects and works programs.</td>
<td>GMW, Yorta Yorta Nation Aboriginal Corporation, Cummeragunja Land Council &amp; Albury and Districts Land Council</td>
<td>M</td>
</tr>
<tr>
<td>34</td>
<td>Assess and implement relevant recommendations from studies on impacts of vessels on foreshore erosion.</td>
<td>MDBA, NSW Roads &amp; Maritime.</td>
<td>M</td>
</tr>
<tr>
<td>35</td>
<td>Implement a comprehensive native fish monitoring program for native fish and macroinvertebrates as per recommendations of the Lake Mulwala Water Quality Study (MDFRC, 2005). (Lobby for Fishery Management Plan) (Potential to quantify fish numbers transported through the fish ladder) Lobby for re-stocking of Lake Mulwala.</td>
<td>NSW DPI Fisheries, Vic DPI Fisheries, G-MW, Corowa Shire, Moira Shire, DELWP.</td>
<td>H</td>
</tr>
<tr>
<td>36</td>
<td>Encourage similar stock exclusion along NSW shoreline areas through incentive programs for off-stream watering points &amp; fencing.</td>
<td>Corowa Shire &amp; MDBA.</td>
<td>H</td>
</tr>
<tr>
<td>37</td>
<td>Facilitate and support the Boating Safety Reference Group to advise authorities on boating safety and navigation issues in the lake.</td>
<td>NSW Roads &amp; Maritime, Boating Safety Reference Group.</td>
<td>M</td>
</tr>
<tr>
<td>38</td>
<td>Review boating zones and implement a program of better marking of safe boating areas.</td>
<td>NSW Roads &amp; Maritime</td>
<td>H</td>
</tr>
<tr>
<td>39</td>
<td>Identify, resource and deliver boating safety improvement, and awareness raising programs.</td>
<td>NSW Roads &amp; Maritime, MDBA, G-MW, DEDJTR.</td>
<td>H</td>
</tr>
<tr>
<td>40</td>
<td>Seek increased resources for monitoring and enforcement of boating rules and regulations.</td>
<td>NSW Roads &amp; Maritime, G-MW.</td>
<td>H</td>
</tr>
<tr>
<td>41</td>
<td>Quantify levels of demand including surveys of visitor numbers to better inform camping management.</td>
<td>Corowa Shire, Moira Shire MDBA.</td>
<td>M</td>
</tr>
</tbody>
</table>

**CRG** - Community Reference Group  
**DPI** - Department of Primary Industries  
**DWE** - Department of Water and Energy (NSW)  
**DELWP** - Department of Environment, Land, Water, Planning (VIC)  
**DEDJTR** - Department of Economic Development, Jobs, Transport, and Resources (VIC)  
**GMW** - Goulburn Murray Water  
**MDBA** - Murray Darling Basin Authority  
**YYNAC** - Yorta Yorta Nation Aboriginal Corporation
GMW Customer Enquiries

Email  
reception@gmwater.com.au

Phone  
1800 013 357

Website  
www.gmwater.com.au