Northern Basin Programs
Taskforce report
Northern Basin Review
Northern Basin Programs Taskforce
November 2017
Foreword

This report by the Northern Basin Programs Taskforce was informed by many individuals, community groups, irrigators, environmental and industry organisations, Aboriginal groups, local, state and Australian Government department representatives and northern Basin business owners. The Department of Agriculture and Water Resources wishes to thank everyone who gave their time so generously to talk to the taskforce.

The department greatly appreciates the openness with which people engaged with the taskforce and the advice and feedback provided regarding water recovery, environmental works and measures (also called ‘toolkit’ measures) and community support initiatives, and the impacts of, and improvements to, Australian Government and state government programs.

This report summarises the insights and ideas from the meetings held and provides ideas for future water recovery and related initiatives. In developing the recommendations the taskforce sought to balance social, economic, and environmental outcomes and enhance community development and Aboriginal outcomes. The need to sustain regional communities and continue to progress water recovery to achieve the Murray–Darling Basin Plan were key in finalising this report.

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Summary

In 2012, when the Murray–Darling Basin Plan was made, it was recognised that knowledge about the northern Basin and its specific requirements could be improved. Reflecting this, the Murray–Darling Basin Authority, with the support of Basin governments undertook a review of water recovery targets in the northern Basin which included new economic, social and environmental research and broad consultation with local communities.

The Authority released the Northern Basin Review report in November 2016. It recommended a reduction of the surface water recovery target for the northern Basin from 390 gigalitres (GL) to 320 GL, provided there are commitments from the Australian, New South Wales and Queensland governments to implement ‘toolkit measures’ (environmental works and measures). The environmental works and measures are a way of improving water management so similar environmental outcomes can be achieved with less water.

The Authority also recommended governments consider providing support to communities most impacted by water recovery and also consider the specific needs of Aboriginal people in relation to improved access to rivers and greater engagement in river management.

Since the release of the review report the Authority has undertaken further consultation with stakeholders and with Basin governments over the final set of recommendations to be made through a proposed amendment to the Basin Plan. The proposed amendment was submitted to the Assistant Minister for Agriculture and Water Resources, Senator the Honourable Anne Ruston, for consideration in November 2017.

In response to the Northern Basin Review, the Northern Basin Programs Taskforce was established by the then Deputy Prime Minister, the Hon. Barnaby Joyce MP, Minister for Agriculture and Water Resources, in November 2016 to provide advice and options for recovering the remaining water required in the northern Basin catchments in a way which avoids, minimises or mitigates any adverse social and economic impacts.

The taskforce held discussions with a wide range of stakeholders in the northern Basin to identify options for water recovery and community support, as well as potential environmental works and measures. Sometimes views were conflicting, for example some stakeholders supported a reduction in the water recovery target while others argued for greater water recovery targets. Consistently all stakeholders were keen to ensure any future water recovery took into account the broader impacts on local communities.

Options for water recovery

In accordance with its terms of reference, the taskforce has developed a catchment by catchment Northern Basin recovery strategy for those catchments that still require water to be recovered to meet targets. This strategy has taken into account potential socio-economic impacts and the consultations undertaken with local communities.

Since the release of the Authority’s Northern Basin Review, the Australian Government has recovered more water through infrastructure programs and strategic purchases. With these recoveries, under the proposed 320GL recovery target, the entire shared recovery target for Queensland has been achieved for the Basin Plan, and a significant contribution made to the remaining local water recovery target in Queensland. These strategic purchases (in the Warrego
and Condamine–Balonne catchments of 10.13 GL and 26.25 GL long term average annual yield respectively) contribute to environmental outcomes in the Barwon–Darling River while having relatively low impact on local employment.

While significant progress has been made on reaching the water recovery target, continued water recovery is required to ensure that the Basin Plan can be delivered in full by 1 July 2019, and the objectives and outcomes of the Basin Plan can be achieved. The taskforce concludes that to achieve the remaining water recovery required within the timeframes set by the Basin Plan, infrastructure programs need to continue to be prioritised with limited strategic water purchases undertaken as required.

The taskforce supports the state-led water recovery initiatives funded by the Australian Government and proposes the establishment of a new Commonwealth-led infrastructure program, the Northern Basin Water Program. In response to feedback from stakeholders, this program will consider a broader scope of activities designed to increase agricultural productivity and recover water in the northern Basin.

**Implementation of environmental works and measures**

Northern Basin communities were supportive of environmental works and measures (called ‘toolkit’ measures in the Northern Basin Review) and see these as a positive way to enhance environmental outcomes and provide community benefits. As such, the taskforce worked extensively with New South Wales and Queensland government agencies, the Authority and the Commonwealth Environmental Water Office to identify catchments where environmental works and measures could be implemented. These include: protection of environmental flows; removal of constraints in the Gwydir catchment; and improvements to fish movement and habitat.

The funding to be made available for environmental works and measures is based on the gross remaining water to be recovered from the proposed reduction to the northern Basin water target (that is, the reduction of 390 GL to 320 GL), and is therefore dependent on the Basin Plan amendment being made. Recognising that the funding to implement environmental works and measures is limited, processes are being established with the relevant government agencies to ensure potential projects can be assessed and prioritised in a manner that is consistent with government policy, including value for money, and maximises the environmental outcomes that can be achieved.

The importance of implementing these environmental works and measures has been recognised by all Basin States. On 16 June 2017, Murray–Darling Basin Ministerial Council members agreed, in-principle, to include a new schedule to the 2013 *Intergovernmental Agreement on Implementing Water Reform in the Murray–Darling Basin* to implement environmental works and measures. Both Queensland and New South Wales have since reconfirmed to the Commonwealth their in-principle commitment to implement the environmental works and measures. The intergovernmental agreement outlines how the governments will cooperate to implement environmental works and measures, and will be signed after the proposed Basin Plan amendment is made.

**Support to local communities and Aboriginal communities**

The proposed reduction in water recovery and the investment in environmental works and measures have the potential to improve the outlook for many communities in the northern
Basin. The Authority’s analysis found that the proposed 320 GL water recovery target offered better social and economic outcomes for some irrigation communities compared to the 390 GL target. The environmental works and measures will also provide increased investment in capital works in and around local communities. It is expected that around $150 to $210 million will be made available by the Australian Government to invest in the northern Basin as a result of implementing the environmental works and measures. In order to maximise the local benefits of this investment it is proposed that provisions be included in project agreements supporting the use, where available, of local and Aboriginal employment and services in the delivery of these works. This investment will provide a real boost to local communities and Aboriginal communities.

The taskforce considered further options to support local communities and Aboriginal communities. The taskforce focused on opportunities to support communities identified by the Authority as most impacted by water recovery. Communities require real and sustained opportunities that support long term growth and prosperity. Many of the ideas suggested by communities during consultations were unlikely to achieve the significant economic opportunities desired, or required further development prior to investment.

The taskforce acknowledges these communities require assistance in developing these ideas and proposals, as well as coming up with additional substantive options that will eventually provide long term growth for local communities. These proposals need to be developed from the grassroots to ensure that any development opportunities identified are appropriate and supported by the communities. At the same time it is recognised these communities will eventually need some funding support through regional development programs. That is why the taskforce recommends that funding be provided for three years for either a local engagement and/or development facilitator in particular communities, to help develop these ideas at the grassroots level. These ideas can then be submitted to relevant government programs for support. The communities most in need of such support, as identified by the Authority are St George, Dirranbandi, Collarenebri and Warren.

The taskforce also recommends that an Aboriginal facilitator be funded for three years to support engagement with state and federal agencies on Aboriginal concerns such as access to waterways and to increase participation in water management issues. Barriers such as fencing and lack of engagement with Aboriginal communities in water management issues can have adverse effects on the wellbeing of community members. As such, funding of an Aboriginal facilitator recognises the importance of participation in the governance of waterways and the cultural value that waterways have in maintaining Aboriginal and cultural practices. The knowledge of Aboriginal communities in water management is invaluable. Increased participation in water management will provide benefits not only to Aboriginal communities, but also the environment.
Recommendations

The Northern Basin Programs Taskforce recommends:

1) The Minister support the revised water recovery targets proposed by the Authority for northern Basin catchments, on the basis that Basin governments have provided in principle commitment to the implementation of environmental works and measures.

2) To meet the revised water recovery targets proposed for the northern Basin by 30 June 2019 (the proposed 320 GL target), the Australian Government:

   a) continue to prioritise infrastructure programs:

      i) by supporting the continued roll-out of state-led water recovery initiatives funded by the Australian government

      ii) by enhancing and extending current Commonwealth programs, establishing new programs and considering the inclusion of additional types of water entitlements, where they provide appropriate benefits (for example, unregulated entitlements)

   b) in consultation with relevant state governments, consider targeted strategic water purchases from willing sellers where it may help to achieve water recovery targets in a manner that achieves environmental objectives, taking into account the social and economic impacts of purchases relative to alternative recovery options.

3) The Australian Government work with the Queensland and New South Wales governments to implement the schedule of environmental works and measures, as agreed in principle by the Murray–Darling Basin Ministerial Council on 16 June 2017 and outlined in a new schedule to the 2013 Intergovernmental Agreement on Implementing Water Reform in the Murray–Darling Basin.

   a) In order to ensure effective implementation of the environmental works and measures, it is recommended that the Basin Officials Committee undertake a review into current and alternative mechanisms to ensure that environmental water is protected in the northern Basin.

4) Agreements for environmental works and measures projects should, where possible, include provisions to prioritise the use of Aboriginal and local suppliers, and employment. Prioritisation should be aligned with the objectives and outcomes sought by the Basin Plan and provide employment and community participation opportunities to the fullest extent possible.

5) The Australian Government provide support (for a period of up to three years) to:

   a) the Dirranbandi, St George, Collarenebri and Warren communities by funding local engagement and/or development facilitators to help communities identify and implement opportunities for development or to support existing programs and initiatives

   b) the northern Basin Aboriginal communities by funding a locally based Aboriginal facilitator to work with Aboriginal communities to address concerns in water management matters and promote economic development opportunities.
6) The taskforce encourages Queensland and New South Wales to fully engage with local communities and Aboriginal communities on the development and implementation of water resource plans and other water management decisions in the northern Basin.
1 Introduction

1.1 Northern Basin Review

In finalising the Murray–Darling Basin Plan in 2012, the Murray–Darling Basin Authority conducted further research and investigations on the settings of the northern Basin sustainable diversion limits (SDLs) to determine if there was a case to change water recovery targets. Based on this review, the Authority proposed in its Northern Basin Review report that the Basin Plan surface water recovery target be reduced from 390 gigalitres (GL) to 320 GL in the northern Basin. The Authority released its proposed amendment to the Basin Plan for public consultation on 22 November 2016.

The proposed reduction to the water recovery target is based on consideration of environmental, social and economic outcomes, and requires commitments from the Australian, Queensland and New South Wales governments to implement a number of ‘toolkit’ measures (environmental works and measures) to improve water management in the northern Basin. The environmental works and measures are intended to achieve environmental outcomes in the northern Basin and include:

- Protection of environmental flows
- Targeted recovery of water
- Event-based mechanisms
- Improved coordination of environmental flows
- Removal of constraints in the Gwydir catchment
- Improvement to fish movement and habitat.

The Northern Basin Review report concluded that previous water recovery has had economic and social impacts on communities and recommended that governments consider further support for the:

- northern Basin communities most impacted by water recovery, particularly Dirranbandi and St George in Queensland, and Warren and Collarenebri in New South Wales.
- specific needs of Aboriginal people in improved access to rivers and better engagement in river management matters.

The proposed 320 GL water recovery target for the northern Basin was incorporated (along with changes arising from other reviews) into an amendment to the Basin Plan. Following consultation with the public and Basin water ministers, the amendment was provided to the Assistant Minister for Agriculture and Water Resources, Senator the Honourable Anne Ruston, for consideration in November 2017.

1.2 Northern Basin Programs Taskforce

In November 2016, the taskforce was established by the then Deputy Prime Minister, the Hon. Barnaby Joyce MP, Minister for Agriculture and Water Resources, within the Department of
Agriculture and Water Resources to provide advice on the best way forward in bridging the remaining SDL gap in the northern Basin to meet the proposed 320 GL water recovery target.

The taskforce's terms of reference (Appendix A) focused on the development of options for recovering water in the northern Basin catchments to meet the proposed revised Basin Plan recovery targets in a way which avoids, minimises or mitigates any adverse socio-economic impacts of the water recovery. This included the development of a catchment by catchment northern Basin recovery strategy, which would be the basis for expanding, modifying or developing new water recovery programs that could be implemented up to June 2019.

The taskforce was also required to identify opportunities to undertake water recovery and toolkit actions in partnership with state governments, industry and local communities.

1.3 Consultation and engagement

In line with the taskforce's terms of reference, the taskforce actively consulted communities to gather ideas and knowledge relating to water recovery options, potential toolkit measures and community assistance. The communities visited included Wee Waa, Bourke and Warren in New South Wales, and Dirranbandi, St George, Toowoomba, Chinchilla and Goondiwindi in Queensland. The taskforce also participated in community meetings held by the Authority and drew upon information provided to the Authority by communities as part of the Northern Basin Review.

In addition, the taskforce met with: key community organisations (such as local councils, chambers of commerce, irrigator and floodplain grazier groups, and environmental organisations); Aboriginal community representatives; local and regional business owners; and national bodies such as the National Irrigators Council, the National Farmers Federation, the Australian Conservation Foundation and the World Wildlife Fund. Where stakeholders were unable to attend regional meetings, meetings were held in Canberra or via teleconference. The taskforce also met extensively with relevant Australian and state government departments and agencies.

Stakeholders raised a diversity of views on the proposed reduction in water recovery, toolkit measures, current infrastructure programs, and the impact of water recovery and environmental watering on local communities and the environment. A summary of feedback from various stakeholder groups is at Appendix B. Key issues raised during the consultations are covered in the following sections of the report.

1.3.1 Results of taskforce investigations

The taskforce reviewed the current Water Recovery Strategy for the Murray-Darling Basin and consulted broadly with stakeholders and the relevant state governments in order to develop a response to the Authority’s recommendations. In line with its terms of reference, the taskforce:

1) Developed advice and options on the best approach to further water recovery needs.

2) Identified opportunities for further water recovery on a catchment by catchment basis with a view to achieving the 320 GL water recovery target while supporting ‘triple bottom line’ Basin Plan outcomes, including avoiding the need for any non-strategic water buybacks.

3) Worked in partnership with Commonwealth and state governments, industry and community organisations to identify options to implement toolkit measures, including the establishment
of agreed governance processes to ensure a thorough assessment of the cost and benefits of potential projects.

4) Considered options to further support local and Aboriginal communities as recommended by the Authority.

Further details on the consultation and analysis undertaken by the taskforce since November 2016, and its recommendations are outlined in the parts of the report relating to water recovery, toolkit measures and other Northern Basin Review recommendations.
2 Water recovery

2.1 Background

To achieve a sustainable balance between water for businesses, communities and the environment, the Basin Plan sets limits (Sustainable Diversion Limits, SDLs) on the average amount of surface water and groundwater that can be taken from the Murray–Darling Basin. These limits come into effect through Commonwealth accredited state water resource plans by 1 July 2019.

The Commonwealth has committed to recover both surface water and groundwater needed to meet these limits and has been recovering water in the northern Basin since 2008. This report focuses on the surface water recovery targets. These water recovery targets, set by the Authority, are divided between targets to meet local environmental needs (local recovery targets) and the environmental needs of the Barwon–Darling River (shared recovery target). These water recoveries will need to be met prior to the SDL taking effect—that is, by 30 June 2019.

As at 30 September 2017, water recovery progress in the northern Basin is estimated to be 313.2 GL long term average annual yield (LTAAY). To date, 265.7 GL (LTAAY) of this volume has been transferred to Commonwealth Environmental Water Holder (CEWH) licences (as at 30 September 2017). The remaining 47.5 GL (LTAAY) is under contract and is subject to change as contracts and infrastructure projects are undertaken and completed. As these projects are finalised and water is transferred to the CEWH, the department will update its monthly reports on progress of water recovery towards meeting SDLs on the website.

To calculate surface water long term average annual yields, the current long term diversion limit equivalent factors (v2.05) are used, as agreed to by the Ministerial Council in November 2011. However, for the Warrego catchment in the Warrego–Paroo–Nebine Water Resource Plan, newly accredited factors are used and for Queensland Overland Flow water recoveries factors are modelled for each water entitlement.

As part of the Northern Basin Review, the Authority recommended a number of environmental works and measures be implemented to help deliver environmental outcomes similar to those attainable under the current Basin Plan water recovery target of 390 GL. One of these measures includes that future water recovery be targeted to specific locations and water entitlement types. In particular the Authority found that water recovery should be targeted to prioritise the delivery of environmental water to the Narran Lakes, Lower Balonne and Culgoa floodplains and the Barwon–Darling River. This has been taken into consideration in the development of the catchment by catchment water recovery strategy for catchments that require water to be recovered under a 320 GL water recovery scenario (Appendix C).

2.1.1 Water recovery in the northern Basin

Water recovery targets are being met through a combination of water savings achieved through irrigation infrastructure upgrades and purchase of water entitlements from willing sellers.

Since 2013, the Australian Government has prioritised infrastructure investment over water purchasing in its water recovery programs. This policy is formalised in the Water Recovery
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**Strategy for the Murray–Darling Basin** which includes a statutory limit (in 2015) of 1,500 GL on surface water purchases. This policy commits the Australian Government to undertake strategic purchases that recover water in a way that achieves triple bottom line outcomes for both the environment and communities, while delivering value for money.

Since 2014, there have been no open market tenders for surface water purchasing, and a limited number of strategic water recoveries have been made to achieve key objectives of the Basin Plan in the north. Table 1 outlines the volume of water purchased and recovered through infrastructure in the northern Basin since 2008.

### Table 1 Commonwealth environmental water recovered in northern Basin since 2008 (surface water only) **a,b**

<table>
<thead>
<tr>
<th>Key dates</th>
<th>Open market purchase</th>
<th>Strategic purchase</th>
<th>Infrastructure</th>
<th>Gift<strong>c</strong></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 to September 2013</td>
<td>122.6</td>
<td>16.5</td>
<td>62.6</td>
<td>15.0</td>
<td>216.7</td>
</tr>
<tr>
<td>October 2013 to 30 September 2017</td>
<td>15.2</td>
<td>36.6</td>
<td>16.4</td>
<td>0.0</td>
<td>70.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>137.8</strong></td>
<td><strong>53.1</strong></td>
<td><strong>79.0</strong></td>
<td><strong>15.0</strong></td>
<td><strong>284.8</strong></td>
</tr>
</tbody>
</table>

*a* All water recovery figures are expressed in long term average annual yield (LTAAY) terms.  
*b* State recoveries of 28.4 GL LTAAY have been excluded from this table. However state water recoveries have been included in the estimated water recovery volume (313.2GL LTAAY).  
*c* Water gifted to the Commonwealth by the Queensland Government.

The Australian Government has invested more than $630 million in infrastructure programs in the northern Basin. There have been two on-farm infrastructure programs open to irrigators to undertake water efficiency projects in the northern Basin – the New South Wales Irrigated Farm Modernisation Project (IFM) and the Queensland Healthy HeadWaters Water Use Efficiency Project (HHWUE). These programs have been funded by the Australian Government and delivered by New South Wales and Queensland respectively through the managed Water Management Partnership Agreements.

Feedback from participants in on-farm infrastructure programs has been generally positive. For example during the 2011 floods, a cattle and lucerne property in the Lower Balonne lost its irrigation equipment. The owner then replaced the lost irrigation equipment with a more efficient and less labour intensive system under the HHWUE program. It was found the key benefits of the upgraded system were greater ease of watering, improved uniformity of watering (from 85 per cent to 90 per cent) and increased crop production.

A recent assessment of the **off-farm infrastructure investment**, has shown that there is likely to be significant improvement in farm revenue despite the reduction in water entitlements. The Private Irrigation Infrastructure Operators Program (PIIOP) is a Commonwealth-led program that aims to improve the efficiency and productivity of private irrigation networks and deliver water savings for the environment. Modelling was undertaken to assess the impact of modernisation of the Trangie network in the Macquarie catchment under PIIOP in New South Wales. Key outcomes include:

1) An improvement in water delivery efficiency to the farm gate from 65 per cent to 93 per cent
2) Up to two additional years of crop production in a 14 year period
3) Increase in the hectares of cotton grown ranging from 10 to 46 hectares (depending on whether on-farm works were also undertaken).
Figure 1 outlines the northern Basin proposed water recovery targets, the volume in Commonwealth water licences and the remaining water still to be recovered under state agreements for each northern Basin catchment. The figure shows no further water is required to meet the shared recovery targets in Queensland and New South Wales. However, water will need to be recovered to meet local recovery targets in a number of catchments in Queensland and New South Wales. Further details on affected catchments are provided below in sections 2.1.2 and 2.1.3.

**Figure 1 Northern Basin water recovery progress under a 320 GL water recovery target**

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**Notes**

1. All water recovery figures are expressed in long term average annual yield (LTAAY) terms.
3. Estimated water recovery—water to be recovered through state agreements that is not yet transferred to the Commonwealth as at 30 September 2017.
4. Potential over-recovery is further discussed in section 2.1.4—Other considerations.

## 2.1.2 Current status of water recovery in the northern Basin Queensland

Water recovery has progressed since the release of the Northern Basin Review in November 2016, through infrastructure programs and strategic water purchases.

A recent strategic purchase in the Warrego catchment will result in no further shared recovery being required in Queensland, should the 320 GL recovery target recommended by the Authority be adopted. The recovery was carefully considered, in order to gain environmental outcomes while minimising impacts on irrigation productivity and employment across the northern Basin. It should not preclude the development of new water-related industries in the region in the future as about 85 per cent of water remains available for consumptive use in the catchment.

In Queensland, further local recovery is required in the Condamine–Balonne and Border Rivers to meet the proposed local recovery target. In July 2017, the Commonwealth made a strategic purchase of 26.25 GL (LTAAY). This strategic purchase from a willing seller will contribute to the environmental needs of the Lower Balonne, including wetlands of international importance listed under the [Ramsar Convention](https://www.ramsar.org/) such as the Narran Lakes. An assessment commissioned by the department confirmed that the recovery is likely to have minimal impacts on local...
employment and production. Following this recovery, and if the revised NBR target is adopted, 12 GL LTAAY more water will be required from this region (as at 30 September 2017).

In the Queensland Border Rivers, a further 0.2 GL LTAAY is required under a 320 GL water recovery scenario (as at 30 September 2017). This recovery is necessary because some infrastructure projects in the catchment will not be completed, leading to a small reduction in contracted water recovery.

2.1.3 Current status of water recovery in the northern Basin New South Wales

Should the 320 GL target be adopted, in New South Wales, the shared recovery target has been met. New South Wales has been contracted by the Australian Government to deliver water, which has not yet been completed. If these contract obligations are not met, further water would be required to meet targets across New South Wales. Further local water recovery (not yet under contract) is required in two catchments, the Namoi (8.5 GL LTAAY) and New South Wales Border Rivers (3.7 GL LTAAY). The Australian Government will continue to work with the New South Wales government to meet the water recovery requirements of the Basin Plan.

2.1.4 Other considerations

Planning assumptions are used to determine the average use of water in each entitlement type for each catchment, based on past and future predictions of water use. Most current assumptions are based on information used to determine the Murray–Darling Basin cap on diversions and were agreed by Ministerial Council in November 2011.

A review of these assumptions will be undertaken by state governments when they develop their state water resource plans and determine the long term average volumes of water in each catchment. These assumptions will affect consumptive and environmental water entitlements equally. An example recently occurred where the Warrego–Paroo–Nebine Water Resource Plan was accredited. This plan, developed by the Queensland government, put forward revised planning assumptions which resulted in less water recovery being required in the Warrego.

There is currently an estimated 17.5 GL (LTAAY) of water either held or contracted to be recovered in the Nebine, Barwon–Darling, Intersecting Streams, Macquarie–Castlereagh and Gwydir catchments which will exceed the water recovery targets for these catchments should the proposed reduction in the northern Basin recovery target be made. The development of the remaining state water resource plans (due to be completed by June 2019) may change the long term average volume of over-recovery in those catchments.

2.2 Stakeholder views

The taskforce heard a mix of views regarding the Authority's proposed recommendation to reduce the water recovery target, as outlined in Appendix B. Many environmental groups, Aboriginal community representatives, some landholders (for example, floodplain graziers) and several local councils did not support a reduced water recovery target as they were concerned that a reduction in flows within northern river systems (relative to the 2012 Basin Plan settings) could negatively affect environmental outcomes.

Irrigators, agricultural industry groups, community groups and other local councils, particularly in Queensland, generally (although not universally) welcomed the proposed reduction in the
water recovery targets as it would mean less water needing to be removed from agricultural production.

The taskforce heard that information on water recovery targets needed to be communicated in ways that could be more clearly understood by communities. This included the reasons for the local and shared catchment recovery targets and allocation of the shared reduction to particular catchments. Community members also wanted more evidence of the environmental outcomes being achieved with environmental water to justify the continued recovery of water. The taskforce has relayed these views to both the Commonwealth Environmental Water Office (CEWO) and the Authority. The CEWO update its website regularly to convey information about what has been achieved with environmental water (see Northern unregulated rivers) and are keen to convey monitoring results to the community.

The proposed reduction in the water recovery targets still requires water to be recovered in a number of catchments. Advice was sought by the taskforce on potential options to recover the remaining water required. There was broad community and industry preference for any further water recovery to be through infrastructure improvements.

The taskforce sought views on current water recovery programs and their impact on local communities. Some people had participated in these programs and felt that the program had benefitted their business. Other people felt the programs were useful but had already undertaken their own water efficiency improvements or could fund such works themselves. However, there were also some concerns that water infrastructure programs benefit only those irrigators directly involved, and that the economic benefits from these programs has not flowed into the surrounding local communities and businesses.

Many stakeholders raised concerns regarding current water infrastructure programs including a perceived lack of transparency of water prices, short timeframes to complete projects and the administrative burden of the application and payment process.

There were concerns from some irrigators that funding more water efficient systems in exchange for water entitlements has increased their energy costs and substituted an appreciating asset (water) with a depreciating asset (water efficient infrastructure).

A number of suggestions were provided to increase participation in the water infrastructure programs including establishing a more streamlined application process and changes to participation criteria, such as broadening the scope for eligible entitlements and locations.

### 2.3 Taskforce outcomes

Progress has been made in recovering water to meet the northern Basin water recovery targets. However further water recovery is still needed in specific catchments (Condamine Balonne and Border Rivers in Queensland, and the Namoi and Border River catchments in New South Wales) to meet the requirements of the Basin Plan under the Authority’s proposed reduction to 320 GL. The taskforce considered a range of options including strategic water purchase, reviewing and modifying existing water recovery programs and developing new programs to develop catchment scale strategies that deliver on triple bottom line outcomes.

#### 2.3.1 Current and new water efficiency programs

In response to community and industry feedback on existing water infrastructure programs, the Australian Government worked with the New South Wales and Queensland governments to...
modify rounds of IFM and HHWUE completed in 2016–2017. Modifications included increasing communication activities (IFM) and extending the range of eligible catchments (HHWUE).

Despite these program modifications there was no identifiable increase in uptake for the IFM and HHWUE programs. Feedback from consultation indicates that some irrigators who are interested in the programs have already participated and are unlikely to participate again. Other irrigators feel there is insufficient time to complete upgrades by the project end date or would prefer a wider scope of activities to be considered for funding.

In order to provide a more targeted program for specific catchments, the taskforce proposes the establishment of a new water recovery program. The Australian Government Northern Basin Water Program will provide an opportunity for irrigators to access funding to improve farm productivity or water efficiency through a broad range of activities, while also recovering water to meet the water recovery target in the northern Basin (Appendix C).

Projects undertaken through this program will contribute to the water recovery needed to reach the targets in the northern Basin. This will enable projects to be undertaken after 30 June 2019.

2.3.2 Considering additional types of water entitlements on a case-by-case basis

In direct response to community feedback, the taskforce also reviewed other types of water entitlements eligible for Commonwealth water recovery, in particular the potential acquisition of unregulated entitlements in the Namoi catchment in New South Wales. Unregulated entitlements are from rivers without major storages, or rivers where the storages do not regulate the release of water downstream. Water from unregulated river access licences is subject to specified rules (for example, commence to pump and cease to pump) set out in the relevant Water Sharing Plans. Depending on these rules, if water from unregulated licences are left in-stream they are not protected from other water licence holders legally extracting and using or storing this water. Protection of these water entitlements for the environment is necessary for this type of entitlement of water recovery to have benefit for the environment.

Unregulated entitlements can provide environmental benefits where:

- water is delivered in a more natural flow pattern which will match the environmental demands of water dependent plants and animals
- water is delivered when the catchment is wetter, resulting in reduced water loss
- the temperature of the water is not impacted by storage, which can be associated with cold water pollution.

Given this, the Australian Government is currently working with the New South Wales government on how these types of water entitlements could be protected if left in-stream.

If options for adequate protection are identified, the addition of unregulated types of water entitlements would allow a wider range of water entitlement holders to participate in recovery programs, thereby sharing the opportunities more broadly across the community.

2.3.3 Northern Basin Water Recovery Strategy

Analysis of participation trends and water delivery timeframes indicates that infrastructure programs alone are unlikely to recover the remaining water in the northern Basin by
30 June 2019 (Figure 2). Instead the taskforce proposes a strategy to recover water which seeks to prioritise recovery through infrastructure programs such as the Northern Basin Water Program, but includes opportunities for limited strategic purchases under certain circumstances within the 1500 GL cap for the Basin as a whole. The Northern Basin Catchment by Catchment Water Recovery Strategy is at Appendix D.

**Figure 2 Rate of water recovery in northern Basin**

<table>
<thead>
<tr>
<th>Year</th>
<th>Water Recovery (GL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009/10</td>
<td>70</td>
</tr>
<tr>
<td>2010/11</td>
<td>40</td>
</tr>
<tr>
<td>2011/12</td>
<td>30</td>
</tr>
<tr>
<td>2012/13</td>
<td>20</td>
</tr>
<tr>
<td>2013/14</td>
<td>10</td>
</tr>
<tr>
<td>2014/15</td>
<td>5</td>
</tr>
<tr>
<td>2015/16</td>
<td>2</td>
</tr>
<tr>
<td>2016/17</td>
<td>1</td>
</tr>
<tr>
<td>2017/18</td>
<td>0.5</td>
</tr>
<tr>
<td>2018/19</td>
<td>0</td>
</tr>
</tbody>
</table>

**Notes**

1. All water recovery figures are expressed in long term average annual yield (LTAAY) terms.
2. Estimated infrastructure recovery required is an estimate of the future rate required to meet targets in the northern Basin through infrastructure only by 30 June 2019.

### 2.4 Taskforce recommendations

The taskforce recommends that the Minister support the revised water recovery targets proposed by the Authority for northern Basin catchments, on the basis that Basin governments have provided in principle commitment to the implementation of toolkit measures.

The taskforce recommends that in order to meet the revised water recovery targets proposed for the northern Basin by 30 June 2019 (the proposed 320 GL target), the Australian Government:

1) Continue to prioritise infrastructure programs:
   a) by supporting the continued roll-out of state-led water recovery initiatives funded by the Australian government
   b) by enhancing and extending current Commonwealth programs, establishing new programs and considering the inclusion of additional types of water entitlements, where they provide appropriate benefits (for example, unregulated entitlements).

2) In consultation with relevant state governments, consider targeted strategic water purchases from willing sellers where it may help to achieve water recovery targets in a manner that
achieves environmental objectives, taking into account the social and economic impacts of purchases relative to alternative recovery options.
3 Environmental works and measures

3.1 Background

During consultation for the Northern Basin Review, the Authority heard from the northern Basin communities that there was a need and opportunity for other measures in addition to water recovery to improve environmental outcomes.

In proposing the northern Basin water recovery reduction from 390 GL to 320 GL, the Authority requested that the Australian, Queensland and New South Wales governments commit to implementing ‘toolkit’ measures (environmental works and measures). These are intended to reduce the social and economic implications of the Basin Plan while also enhancing the use of environmental water. Table 2 outlines the Authority’s intended benefits for these environmental works and measures.

<table>
<thead>
<tr>
<th>Environmental works and/or measures</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection of environmental flows</td>
<td>To protect environmental water as it flows through the system which allows water managers to get the most out of a smaller volume (improvements to state water management arrangements to safeguard low flows across the north, particularly in the Condamine–Balonne and Barwon–Darling)</td>
</tr>
<tr>
<td>Targeted recovery of water</td>
<td>To improve environmental watering into Narran Lakes, Lower Balonne and Culgoa floodplains and the Barwon–Darling River.</td>
</tr>
<tr>
<td>Event based mechanisms including: one-off temporary trade by event, options for pumping into wetland sites, and store and release of environmental water</td>
<td>To alter the timing, rate or proportion of water flows to meet important flow targets for the rivers, floodplain and wetlands.</td>
</tr>
<tr>
<td>Improved coordination of environmental flows</td>
<td>To maximise environmental outcomes for environmental water moving from upper catchments to downstream rivers, such as the Barwon–Darling and the Lower Balonne Rivers.</td>
</tr>
<tr>
<td>Removal of constraints in the Gwydir catchment</td>
<td>To help address current physical restrictions to achieving desired flows to the Gwydir wetlands.</td>
</tr>
<tr>
<td>Environmental works and measures to promote fish movement and habitat</td>
<td>To promote native fish health through improving their ability to move through the river system and access habitat in the northern Basin.</td>
</tr>
</tbody>
</table>

In July 2017, the Four Corners television program aired allegations of theft and corruption in the management of water resources in the Murray–Darling Basin, specifically the Barwon–Darling River. In response, the New South Wales Government commissioned Mr Ken Matthews, AO, former Chair of the National Water Commission, to investigate the allegations. Interim findings released in September 2017 clearly indicate significant shortcomings with New South Wales’s compliance and enforcement regime, including the investigation of alleged compliance breaches.

In response to the interim findings, in September 2017, the New South Wales Government announced it will act immediately on key components of the Compliance package, including
consideration of a new Natural Resource Asset Division and Natural Resource Access Regulator; and installation of water meters for all large water users—where they do not currently exist—over the next 12 months. The final Matthews review report is expected to be completed by 30 November 2017.

On 30 July 2017, the Prime Minister and the then Deputy Prime Minister, the Hon. Barnaby Joyce MP, Minister for Agriculture and Water Resources, jointly announced that the Authority will conduct an independent Basin-wide review into compliance with state-based regulations governing water use. The Authority will present its report to the Ministerial Council at its scheduled meeting in November 2017. In August 2017, the Queensland Government announced it will conduct an independent review into rural water metering. The review includes an audit of existing water for irrigation take in the Queensland Murray–Darling catchments to ensure that entitlement holders are not exceeding their licence(s). The review will provide its initial findings by November 2017, and will work with the national inquiry.

Separately, in October 2017, ABC Lateline aired information on a Queensland Police Service investigation into potential illegal or fraudulent behaviour in relation to the Queensland HHWUE program. The Australian and Queensland governments are working to ensure that any program issues identified through the Queensland Police investigation are acted upon.

3.2 Stakeholder views

During its consultations, the taskforce heard that environmental works and measures were seen as a positive way to enhance environmental outcomes and provide community benefits. A number of stakeholders supported the need to protect environmental water and raised concerns about the current regulations, which they believed supported increased extraction by irrigators. Some stakeholders considered that environmental works and measures could provide similar environmental outcomes without needing to recover any further water.

Environmental groups and Aboriginal representatives expressed strong views that environmental works and measures should be implemented for environmental benefits, and should not be conditional on a reduction in water recovery. There was also a mix of views about whether engineering solutions, such as fishways and thermal curtains on dams, could deliver the environmental outcomes anticipated under the Basin Plan.

Many stakeholders supported local participation in developing and implementing environmental works and measures. In particular, there was strong support for environmental works and measures that would address Aboriginal interests where possible, while also providing opportunities for local employment.

Stakeholders suggested a broad range of projects to implement the environmental works and measures that included proposals such as fishways, fish restocking and establishing snags in rivers. These suggestions are listed in Appendix B.

3.3 Taskforce outcomes

On 16 June 2017, Ministerial Council members made an in-principle commitment to a new schedule to the 2013 Intergovernmental Agreement on Implementing Water Reform in the Murray–Darling Basin (IGA) to implement environmental works and measures, including the protection of environmental flows. Both Queensland and New South Wales governments have since reconfirmed to the Commonwealth their in-principle commitment to implement
environmental works and measures in the northern Basin. The final agreement by relevant First Ministers is subject to the proposed Basin Plan amendment being made.

The taskforce has worked closely with the Queensland and New South Wales government agencies, the Authority and the CEWO to identify the catchments where environmental works and measures could most effectively be implemented and the parties responsible for the implementation.

The total amount of Commonwealth funding available to implement environmental works and measures will be sourced from the reduced water recovery target budget. This would provide around $150 to $210 million to invest in the northern Basin environmental works and measures. The Sustainable Rural Water Use and Infrastructure Program (SRWUIP) is the key mechanism to ‘bridge the gap’ to the sustainable diversion limits under the Basin Plan. Funding has been quarantined in the SRWUIP for implementation of environmental works and measures and social and economic support equivalent to the value of funding that would otherwise have been used on water recovery.

It is anticipated that projects can commence as soon as possible following the tabling of the amendment in the Federal Parliament and expiration of the disallowance period (15 sitting days), with funding available through to 2024 (or until funding is exhausted) for completion of the projects.

In the event that there are more environmental works and measures projects proposed than are able to be funded by savings associated with a reduced water recovery target, a prioritisation process will be required. The taskforce, in consultation with Australian and state government agencies, has developed governance processes to enable potential projects to be prioritised and assessed in a transparent manner. This is critical to ensure that work on these projects can commence as soon as possible following the Basin Plan amendment being made.

Once finalised, the new schedule to the IGA is intended to include arrangements for cooperation between signatory governments on the implementation of the environmental works and measures including:

1) Consultative governance arrangements that provide certainty and transparency that environmental works and measures will be implemented by 2024. This includes the establishment of an inter-jurisdictional project group to provide advice on implementation matters and report regularly on progress to the Basin Officials Committee (who reports to the Ministerial Council).

2) Careful prioritisation and assessment of proposals at the feasibility and business case stages to:
   a) understand and mitigate any adverse third-party impacts
   b) maximise the environmental outcomes that can be achieved from projects
   c) ensure projects can be completed on time and within budget.

The taskforce recognises the seriousness of the allegations of water theft and the interim findings of the Matthews inquiry of significant shortcomings with New South Wales’ compliance and enforcement regime. It is the responsibility of all Basin states to ensure that state-based compliance and enforcement regimes are appropriate to support the implementation of the environmental works and measures (in particular, to ensure environmental water is adequately protected) and to ensure people can have confidence that the Basin Plan is being delivered.
3.4 Taskforce recommendations

The taskforce recommends the Australian Government work with the Queensland and New South Wales governments to implement the schedule of environmental works and measures (called ‘toolkit’ measures in the Northern Basin Review), as agreed in principle by the Ministerial Council on 16 June 2017 and outlined in a new schedule to the 2013 Intergovernmental Agreement on Implementing Water Reform in the Murray–Darling Basin.

In order to ensure effective implementation of the environmental works and measures, it is recommended that the Basin Officials Committee undertake a review into current and alternative mechanisms to ensure that environmental water is protected in the northern Basin.

The taskforce also recommends agreements for environmental works and measures projects should, where possible, include provisions to prioritise the use of Aboriginal and local suppliers, and employment. Prioritisation should be aligned with the objectives and outcomes sought by the Basin Plan and provide employment and community participation opportunities to the fullest extent possible.

As part of the project prioritisation process, Basin governments should consider environmental works and measures that deliver on the intended environmental outcomes and also support cultural benefits. This process could also consider projects such as improvements to fish passage at Wilcannia and Cunnamulla weirs that provide positive social outcomes to local and Aboriginal communities. All projects would need to be considered on their relative costs and benefits, particularly if funding is insufficient to cover the costs of all potential projects.
4 Northern Basin Review—other recommendations

4.1 Background

As part of the Northern Basin Review report, the Authority considered the economic and social impacts of water recovery on communities in the northern Basin. Based on their findings, the Authority also recommended in their report that governments should consider:

1) Providing further support to northern Basin communities, particularly for Dirranbandi and Warren.

2) Addressing specific concerns of Aboriginal people that include:
   a) ensuring Aboriginal access to waterways
   b) replacing or refurbishing weir pools at certain locations, such as Wilcannia and Cunnamulla
   c) continuing to improve the capacity of Aboriginal people to engage in water planning and decision-making, in order to factor in their social and cultural imperatives.

4.1.1 Authority’s social and economic analysis

The Authority focused on 21 communities to better understand how towns with differing degrees of dependence on irrigation have changed over time. The research looked at how changes in water availability affected the area of irrigation and the flow-on effect on community employment, both in agriculture and other types of jobs such as retail, transport and government services. Many factors contributed to social and economic impacts of water recovery to a community, but the Authority found the modelling of changes to the maximum irrigated area and employment provided a consistent way to identify the effects of water recovery across the 21 communities. The Authority’s consultation with communities also indicated that changes in the condition and wellbeing of a community are best reflected in employment.

The Authority’s social and economic analysis of the northern Basin found the effects of water recovery ranged from modest to quite large in nine communities. Taking into account both previous and future potential water recovery (combined with other drivers of change), Dirranbandi, St George, Collarenebri and Warren were found to be the most affected.

4.1.2 Existing Commonwealth and state funding

The taskforce consulted with other Australian and state government agencies to consider options to support local communities and Aboriginal communities. These discussions revealed that a broad suite of Aboriginal and regional economic development, employment support and community building programs are currently available to northern Basin communities (Table 3).
Table 3 Examples of Australian Government programs available to further support local and Aboriginal communities *

<table>
<thead>
<tr>
<th>Australian Government programs</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Better Regions Fund</td>
<td>Nearly $500 million is available through this program to provide funding for infrastructure and community investment projects that will create jobs, drive economic growth and build stronger regional and remote communities into the future.</td>
</tr>
<tr>
<td>New Enterprise Incentive Scheme (NEIS)</td>
<td>Job seekers who are interested in running a new small business may be eligible to participate in NEIS. Support includes accredited small business training and mentoring for up to 52 weeks, income support for up to 39 weeks and personalised mentoring and support from NEIS provider in the first year of the new business.</td>
</tr>
<tr>
<td>Roads to Recovery Program</td>
<td>Approximately $4.4 billion from 2013–14 to 2020–21 will be distributed to Australia’s local councils, state and territory governments responsible for local roads in the unincorporated areas to support maintenance of the nation’s local road infrastructure asset, which facilitates greater access for Australians and improved safety, economic and social outcomes.</td>
</tr>
<tr>
<td>Indigenous Advancement Strategy</td>
<td>Funding of $4.9 billion (to 2018–2019) for activities such as community led grants and tailored assistance employment grants.</td>
</tr>
<tr>
<td>Indigenous Rangers</td>
<td>Indigenous rangers combine traditional knowledge with modern scientific expertise to protect and conserve threatened species, marine systems and cultural places, and address environmental threats caused by feral animals, invasive weeds, marine debris and wild fire. As of September 2017, the Indigenous Rangers and Indigenous Protected Areas programs have created more than 2,500 jobs for First Australians, as well as delivering important economic, social, cultural and environmental outcomes.</td>
</tr>
<tr>
<td>Indigenous Cadetship Support (ICS)</td>
<td>Provides up to $7,050 per semester to employers to support cadets with a living allowance and study related costs and offset employer administration costs.</td>
</tr>
</tbody>
</table>

* For more information see [Grants, Assistance and other support](#).

These programs are in addition to the Australian Government’s previous commitment of $72.7 million under the Basin Plan to assist Basin communities to increase economic diversification and adjust to a water-constrained environment. Investments have been made under the Murray–Darling Basin Regional Economic Diversification Program to create jobs and increase the output of local and regional economies.

In addition to the existing Australian Government programs and initiatives, there are various state programs that may provide further support to northern Basin communities. These include:

- New South Wales Industry-Based Agreements—with key industry groups to implement initiatives to improve employment and job retention outcomes for Aboriginal people. Currently there are agreements with New South Wales Indigenous Chamber of Commerce, Master Builders Association and Civil Contractors Federation.
• Jobs for New South Wales—this fund offers financial assistance to significant regional investment projects.

• New South Wales Aboriginal Participation in Construction requirements: aims to support greater participation by Aboriginal people in government construction projects across New South Wales. It is generally relevant for projects over $1 million, or where the project is directed towards Aboriginal communities.

• Queensland’s Moving Ahead: a strategic approach to increasing the participation of Aboriginal people and Torres Strait Islander people in Queensland’s economy 2016–2022 - an initiative to improve the skills and diversity of the Queensland workforce and ensure greater representation of Aboriginal and Torres Strait Islander people across the public sector. It aims to support Aboriginal and Torres Strait Islander businesses to competitively tender for government business, increase opportunities and demand for Aboriginal and Torres Strait Islander employees, and encourage business growth and innovation.

• Queensland’s Building our Regions—$375 million targeted regional infrastructure program for local government projects. The primary purpose of the program is to provide funding for critical infrastructure in regional areas of the state, while also generating jobs, fostering economic development and improving the liveability of regional communities.

The Australian Government has also committed to ensuring Indigenous Australians are provided with more opportunities to participate in the economy. As such, the Indigenous Procurement Policy sets a procurement target for Commonwealth goods and services to be sourced from Indigenous businesses. The policy recognises that Indigenous businesses are key to creating jobs and employing more Indigenous Australians. In 2015–16, the Australian Government exceeded its target awarding 1,509 contracts, valued in total at $284.2 million to 493 Indigenous businesses. The Department of Agriculture and Water Resources awarded 54 contracts to Indigenous businesses during this period.

4.1.3 Access to waterways and refurbishment of weir pools

In reviewing the Northern Basin Aboriginal Nations’ Our water, our life – An Aboriginal study in the northern Basin report and through taskforce consultations, it was recognised that access to water ways is important to Aboriginal people so they can fulfil their cultural and spiritual obligations. In its Aboriginal access to waterways – overview document, the Authority noted strategic actions to remove impediments to waterway access. These include redressing the physical and regulatory problems blocking access to waterways; such as illegal fencing, gates and closures of stock routes, installing facilities for cultural gatherings and low impact water recreation.

As access to waterways and refurbishment/replacement of weirs relate to state responsibilities, the Australian Government raised these concerns with the New South Wales and Queensland governments and encourages states to consider these matters to further support Aboriginal communities, including options to replenish or refurbish weir pools in certain locations, such as Wilcannia and Cunnamulla.
4.1.4 Engagement with Aboriginal communities

The taskforce recognises the importance of continuing to improve the capacity of Aboriginal people to engage in water planning and decision-making, as recommended in the Northern Basin Review.

The department has recently published the module to the 2017 National Water Initiative Policy Guidelines for Water Planning and Management—Engaging Indigenous Peoples in Water Planning and Management. This module can assist water planners and managers to develop processes which support Indigenous social and spiritual interests and customs. The taskforce encourages all jurisdictions and water managers and planners to consider this module when developing water plans.

The taskforce consulted with other Australian Government agencies, in particular the Authority and CEWO regarding their support to build capacity and engagement with Aboriginal people in water planning and decision making. Examples of current engagement and processes include:

- The Authority’s Aboriginal waterways assessments (AWA)—a tool for Aboriginal communities to measure the health of rivers and wetlands. The AWA has been tested and modified in three Basin communities (Deniliquin, Walgett and in the Victoria Alps).
- The CEWO’s Local Engagement Officers—six local engagement officers work with partner regional organisations including Riverina Local Land Services (Dubbo, New South Wales) and Queensland Murray–Darling Committee (Goondiwindi, Queensland). These officers provide outreach to local communities throughout the Basin.
- The CEWO also works closely with a number of Indigenous communities across the Basin under memoranda of understanding and other arrangements to provide opportunities for them to engage in CEWO planning processes for environmental water delivery.

4.2 Stakeholder views

Community consultations confirmed that water recovery does affect communities and this effect varies across the northern Basin. This is consistent with the analysis and modelling undertaken by the Authority to inform its findings on the effect water recovery has had on northern Basin communities. Consultations identified similar issues to those raised through submissions to the Authority on the Northern Basin Review. These submissions identified the economic impacts of water recovery on business and employment, and the importance of river health for the well-being of local and Aboriginal communities.

In its consultations, the taskforce heard from individuals, businesses and community members who reported impacts including loss of employment opportunities and flow on community effects. Local community members and organisations, including councils, are seeking longer term economic development and employment opportunities to better manage the effects of water reform.

Some stakeholders suggested the introduction of structural adjustment programs such as financial assistance, support for community led planning and development of adjustment and diversification strategies, or support to implement selected programs and initiatives.

The taskforce also heard that communities would like support to access funding for community-led projects to boost local social and economic benefits. Funding for economic development
officers or liaison officers could assist communities to translate ideas and projects into feasibility studies or investment proposals, which can then be submitted for funding.

Local communities also noted the importance of ongoing meaningful employment for local and Aboriginal communities. They suggested potential employment opportunities could include the delivery of cultural flows, stream management activities and the construction of environmental works.

Aboriginal representatives raised concerns regarding:

- Fencing of private and public land (such as stock routes) and locked gates, which prevent Aboriginal people from accessing the waterways. Some community members suggested there should be facilitators to assist with discussions between landholders, government and non-government bodies on matters such as funding opportunities, access to waterways and training opportunities.

- Reduction of the water recovery target and the impact that the proposed reduction may have on environmental watering. For example, the negative effects of lows flow on fish numbers and movement, bird breeding and health of riparian vegetation including spiritually significant trees. In addition to this, issues regarding cultural flows were also raised and the benefits that cultural flows have on improving health and wellbeing of Aboriginal people.

- Lack of meaningful employment opportunities for Aboriginal communities, particularly in natural resource management.

### 4.3 Taskforce outcomes

In reviewing the work undertaken by the Authority, and the taskforce’s consultation with communities, the taskforce agrees that water recovery to date has severely affected some communities, in particular the towns of Dirranbandi, St George, Warren and Collarenebri.

The taskforce also found that these towns have the determination and desire to rejuvenate their communities. However many have lacked the resources to do so, with barriers to date including access to finance, lack of networks and lack of time and skills to develop ideas into successful funding applications.

These towns require real and sustainable development opportunities that provide long term potential growth for local businesses. The development ideas need to come from the grassroots to ensure there is real commitment and drive for their success. Using community feedback, options focused on providing resources to help develop and implement longer term plans that would allow the communities to adjust to a changing economic environment. They also need the opportunity to access existing programs to support these plans over the long term.

Furthermore, the taskforce recognises the different community structures and economic conditions of these communities, and therefore considered options and support that will assist communities to:

- identify their needs through facilitated discussions and strategic planning
- develop a long term vision
- identify opportunities to improve their socio-economic structure
• gain a better understanding of the existing government programs and initiatives that can provide support.

Further consultations with individual communities should be undertaken to ensure support is provided in the most appropriate manner. This will ensure that the funding available will maximise the benefits for the northern Basin communities.

In addition to consultations with local communities, the taskforce also worked with the Northern Basin Aboriginal Nations (NBAN). This work highlighted the need for resources so they can develop Aboriginal employment opportunities and training pathways for Aboriginal people. Additional resources would also help to establish better engagement with government agencies to address Aboriginal concerns such as access to water ways and participation in water planning and decision-making.

Based on this work, the department and the Authority provided NBAN with assistance to complete the development of their ten year economic development strategy. The taskforce also considered whether an Aboriginal facilitator could assist in supporting NBAN and Aboriginal communities to further develop Aboriginal capacity to engage in water management and planning. A facilitator could also raise awareness of Aboriginal cultural and social matters and assist negotiations between Aboriginal communities, landholders and state governments for access to waterways.

Water resource plans play a central role in managing water throughout the Basin, incorporating existing water planning and management undertaken by Basin states with new requirements consistent with the Basin Plan. The taskforce recognises the value of local communities and Aboriginal communities contributing to the development and implementation of water resource plans in their areas.

Under the Basin Plan, Basin states are required to consult with relevant indigenous organisations, including where appropriate the Murray Lower Darling Rivers Indigenous Nations and NBAN, and ensure that indigenous objectives and outcomes in the management of water resources are identified. The Authority has a role in ensuring these requirements are met, through consultation with the relevant indigenous organisations.

4.4 Taskforce recommendations

Noting the broad range of existing funding available to support local and Aboriginal communities, the taskforce recommends the Australian Government provide support (for a period of up to three years) to:

1) the Dirranbandi, St George, Collarenebri and Warren communities by funding local engagement and/or development facilitators to help communities identify and implement opportunities for development or to support existing programs and initiatives

2) the northern Basin Aboriginal communities by funding a locally based Aboriginal facilitator to work with Aboriginal communities to address concerns in water management matters and promote economic development opportunities.

In line with the Australian Government commitment to achieving the water recovery target and environmental outcomes in the northern Basin that benefit the communities, it is proposed that provisions be included in project agreements supporting the use, where available, of local and
Aboriginal employment and services in the delivery of works and measure for the implementation of environmental works and measures in the northern Basin.

The taskforce encourages Queensland and New South Wales to fully engage with local communities and Aboriginal communities on the development and implementation of water resource plans and other water management decisions in the northern Basin. This also includes when developing and implementing measures that contribute to the achievement of Basin Plan environmental objectives (for example, measures to protect environmental flows in the Barwon–Darling and Lower Balonne).
5 Proposed way forward

Discussions with local communities have highlighted the need for certainty regarding the Australian Government’s strategy to recover water in the northern Basin.

The taskforce has proposed a strategy that seeks to recover the water in a way that minimises any further impacts on local communities and enables water users to plan for the future.

In addition the taskforce has identified several ways to provide further community support through the implementation of toolkit measures and community engagement/development facilitators.

It is expected that the Northern Basin Water Program will be launched in the near future. This would allow landholders to transition from current water efficiency measures programs to the new ongoing water efficiency program.

Subject to the Basin Plan amendments (including the recommendations from the Northern Basin Review) being adopted and once the disallowance period has passed, it is anticipated that the following steps will be taken. The Australian Government will continue to work with Queensland and New South Wales governments to:

- Finalise the draft IGA schedule to implement environmental works and measures in the northern Basin and for Basin government First Ministers to sign the new schedule
- Develop work plans for the development and implementation of each toolkit measure
- Assess and prioritise potential toolkit projects in consultation with the New South Wales and Queensland state governments, CEWO and the Authority
- Put in place appropriate contractual arrangements so that the toolkit measures can be implemented
- Put in place appropriate contractual arrangements so that local development and Aboriginal facilitators could be employed.
Appendix A: Terms of reference

Purpose

In response to the proposed Basin Plan amendment arising from the Northern Basin Review, the government has decided to establish a taskforce to provide advice on the best way forward in bridging the remaining sustainable diversion limit (SDL) gap in the Northern Basin.

The aim of the taskforce is to advise the Minister for Agriculture and Water Resources on options for recovering water in the Northern Basin catchments to meet the proposed revised Murray–Darling Basin Plan recovery targets. The proposed approach will focus on achieving the targets in a way which avoids, minimises or mitigates any adverse socio-economic impacts of the recovery and aims to avoid non-strategic water buy-back.

The taskforce will develop catchment by catchment Northern Basin recovery strategies, including consideration of risks, which would be the basis for expanding, modifying or developing new water recovery and ‘toolkit’ based programs that could be implemented from June 2017 to June 2019.

Membership

The Northern Basin Programs Taskforce will initially be overseen by the Special Advisor, Water in the Department of Agriculture and Water Resources and be located in the Water Infrastructure Northern Basin Branch. It will comprise a small team of staff.

Term

The taskforce will operate from December 2016 to June 2017, coinciding with the Basin Plan amendment process, when the Authority gives its final recommended amendments to the Minister regarding the Northern Basin SDL.

Stakeholder consultation

The taskforce will consult with relevant industry and community stakeholders in each northern catchment, and with relevant State and Commonwealth government agencies.

Roles and responsibilities

The Northern Basin Programs Taskforce is responsible for:

- developing policy advice on the best approach to further water recovery needs
- exploring opportunities for further water recovery on a catchment by catchment basis with a view to achieving the proposed water recovery targets in a way that supports ‘triple bottom line’ Basin Plan outcomes and avoids, minimises or mitigates adverse socio-economic impacts of the recovery, including by avoiding the need for any non-strategic water buybacks
- the gathering and identification of stakeholder ideas and knowledge for water recovery
- identifying opportunities to undertake water recovery and ‘toolkit’ actions in partnership with state governments, industry and other community organisations
• identifying opportunities for any other water recovery in a catchment that will provide local economic benefit

• identifying, quantifying and costing all viable opportunities and undertaking a thorough assessment of the likely costs and benefits of each.
## Appendix B: Stakeholder consultation summary

Table B1 Stakeholders consulted by the Northern Basin Programs Taskforce from December 2016 to April 2017

<table>
<thead>
<tr>
<th>Irrigators and agricultural groups</th>
<th>Community groups, small business owners and individual community members</th>
<th>Environmental/natural resource management groups and Indigenous representatives</th>
<th>Local councils and government agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trafalgar Cotton</td>
<td>Dirranbandi Progress Association</td>
<td>Condamine Alliance/South West NRM</td>
<td>Balonne Shire Council</td>
</tr>
<tr>
<td>Carrington Cotton Corporation</td>
<td>Queensland Country Women’s Association</td>
<td>Western Downs Alliance</td>
<td>Western Downs Regional Council</td>
</tr>
<tr>
<td>Auscott</td>
<td>Murray–Darling Basin Authority Northern Basin Advisory Committee members</td>
<td>Queensland Murray–Darling Committee Western Local Land Services (Bourke office)</td>
<td>Brewarrina Shire Council</td>
</tr>
<tr>
<td>Cubbie Ag (Cubbie Station)</td>
<td>Wee Waa Chamber of Commerce</td>
<td>Border Rivers Environmental Water Network</td>
<td>Bourke Shire Council</td>
</tr>
<tr>
<td>Sunwater Agricultural Company</td>
<td>Glenlyon Dam Fish Stocking Group Community members and small business owners from the towns visited.</td>
<td>Macquarie Cudgegong Environmental Flows Reference Group</td>
<td>Warren Shire Council</td>
</tr>
<tr>
<td>Smart Rivers</td>
<td>Local mental health professionals and organisations.</td>
<td>Australian Conservation Foundation World Wildlife Fund</td>
<td>Goondiwindi Regional Council</td>
</tr>
<tr>
<td>Macquarie Cotton Growers Association</td>
<td></td>
<td>The Wentworth Group of Concerned Scientists</td>
<td>New South Wales:</td>
</tr>
<tr>
<td>Border Rivers Food and Fibre</td>
<td></td>
<td>Aboriginal representatives:</td>
<td>Department of Primary Industry – Water</td>
</tr>
<tr>
<td>Namoi Water</td>
<td></td>
<td>Northern Basin Aboriginal Nations members</td>
<td>Office of Environment and Heritage</td>
</tr>
<tr>
<td>Darling River Food and Fibre</td>
<td></td>
<td>Toomelah Land Council</td>
<td>Department of Primary Industry—Agriculture and, Fisheries</td>
</tr>
<tr>
<td>Bourke Cotton Growers Association</td>
<td></td>
<td>Aboriginal elders in northern Basin</td>
<td>New South Wales Water</td>
</tr>
<tr>
<td>St George and District Chamber of Commerce</td>
<td></td>
<td></td>
<td>Queensland Department of Natural</td>
</tr>
<tr>
<td>AgForce</td>
<td></td>
<td></td>
<td>Resources and Mines</td>
</tr>
<tr>
<td>National Farmers Federation</td>
<td></td>
<td></td>
<td>Australian Government Departments:</td>
</tr>
<tr>
<td>National Irrigators Council</td>
<td></td>
<td></td>
<td>Prime Minister and Cabinet</td>
</tr>
<tr>
<td>Individual irrigators</td>
<td></td>
<td></td>
<td>Environment and Energy</td>
</tr>
<tr>
<td>Australian Floodplain Association</td>
<td></td>
<td></td>
<td>Infrastructure and Regional Development</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Industry, Innovation and Science.</td>
</tr>
</tbody>
</table>
### Table B2 Stakeholder feedback on water recovery programs and proposed water recovery targets

<table>
<thead>
<tr>
<th>Feedback</th>
<th>Stakeholders</th>
</tr>
</thead>
</table>
| Broad support for the reduction of the water recovery target from 390 gigalitres to 320 gigalitres. | Irrigators and irrigation/agricultural industry groups  
Community groups, small business owners and individual community members  
Some Local Councils and government agencies |
| Some groups did not support the Murray–Darling Basin Authority’s proposed reduction in the northern Basin water recovery targets as it would reduce flows to the end of river systems. This may, in turn, negatively affect environmental outcomes. | Floodplain graziers  
Environmental/natural resource management groups and Indigenous representatives  
Some Local Councils and government agencies  
Irrigators and irrigation/agricultural industry groups  
Some Local Councils and government agencies  
Community groups, small business owners and individual community members  
Floodplain graziers |
| Many groups did not support further water purchasing. | Irrigators and irrigation/agricultural industry groups  
Some Local Councils and government agencies  
Community groups, small business owners and individual community members |
| Support for Commonwealth Environmental Water Holder to establish contracts with irrigators to purchase water allocations under specific conditions for environmental outcomes. | Irrigators and irrigation/agricultural industry groups  
Some Local Councils and government agencies  
Irrigators and irrigation/agricultural industry groups |
| Preference for any further water recovery to be through infrastructure improvements, and targeted to ensure minimal community impacts. | Irrigators and irrigation/agricultural industry groups  
Local Councils and government agencies  
Community groups, small business owners and individual community members |
| Concerns that water infrastructure programs were benefiting irrigators only and that the economic benefits from these programs has not flowed directly into the surrounding local communities and businesses. | Irrigators and irrigation/agricultural industry groups  
Local Councils and government agencies  
Community groups, small business owners and individual community members |
| Generally do not support any adjustment to entitlement holders’ ability to extract water. | Irrigators and irrigation/agricultural industry groups  
Environmental/natural resource management groups and Indigenous representatives  
Irrigator and industry groups |
| Broad concern that Basin Plan environmental outcomes will not be met under reduced recovery target of 320 gigalitres, particularly with additional climate change impacts. Concerns that current flows are impacting on health of the rivers and additional flows are required for sacred sites. | Irrigators and irrigation/agricultural industry groups  
Environmental/natural resource management groups and Indigenous representatives |

Suggestions to improve current Australian Government infrastructure programs included:

- simplify and streamline application processes
- extend implementation timeframes
- expand the range of farm activities that can be considered
- water price transparency
- reduce the minimum volume of water that can be recovered to encourage smaller irrigator’s participation
Feedback
- broaden the scope of programs to include unregulated and supplementary entitlements.

Consider providing tax benefits for efficiency program participants.

Water efficiency projects in exchange for water entitlements can cause increased energy costs and could not see the point in substituting an appreciating asset (water) with a depreciating asset (water efficient infrastructure).

The community felt that there was not enough justification for the need for further water recovery as they had not seen the environmental benefits gained so far and it was not clear the local benefits that would occur if more water was recovered.

Over-recovery should be returned to the area from which it was taken.

Additional water is required in the northern Basin rivers so it can flow to the end of the river systems.

### Stakeholders
Irrigator and industry groups
Community groups, small business owners and individual community members
Environmental/natural resource management groups and Indigenous representatives
Floodplain graziers.

<table>
<thead>
<tr>
<th>Table B3 Stakeholder feedback on environmental works and measures (Northern Basin Review’s ‘toolkit’ measures)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feedback</strong></td>
</tr>
<tr>
<td>General support for implementation of environmental works and measures to assist the use of recovered water to meet environmental outcomes, especially protection of environmental flows.</td>
</tr>
<tr>
<td>Environmental/natural resource management groups and Indigenous representatives</td>
</tr>
<tr>
<td>Irrigators and irrigation/agricultural industry groups</td>
</tr>
<tr>
<td>Local Councils and government agencies</td>
</tr>
<tr>
<td>Need improved engagement with local (including Aboriginal groups) communities and environmental organisations to develop and implement environmental works and measures to maximise environmental outcomes.</td>
</tr>
<tr>
<td>Community groups, small business owners and individual community members</td>
</tr>
<tr>
<td>Local Councils and government agencies</td>
</tr>
<tr>
<td>Concern that engineering solutions are too expensive, do not ensure the environmental health of the river system, and cannot be a substitute for environmental water.</td>
</tr>
<tr>
<td>Irrigators and irrigation/agricultural industry groups</td>
</tr>
<tr>
<td>Community groups, small business owners and individual community members</td>
</tr>
<tr>
<td>Local Councils and government agencies</td>
</tr>
<tr>
<td>In implementing event based mechanisms such as store and release there is a need to consider:</td>
</tr>
<tr>
<td>• utilising on-farm storages more effectively</td>
</tr>
<tr>
<td>• consider modification of bifurcation weirs to better deliver environmental flows</td>
</tr>
<tr>
<td>Irrigators and irrigation/agricultural industry groups</td>
</tr>
<tr>
<td>Community groups, small business owners and individual community members</td>
</tr>
<tr>
<td>Local Councils and government agencies</td>
</tr>
<tr>
<td>Feedback</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| • expansion of temporary water trade options to provide greater flexibility for environmental water delivery and other users. |\[
| Protocols for store and release developed in Queensland should be extended to New South Wales.  
| Store and release mechanisms may lead to a reduction in water quality and should not be used if water quality is put at risk. |\[
| A number of suggestions for potential environmental works and measures were provided, including: |\[
| • improve fish migration via construction of fish passages and utilise fish cages to lift fish over weirs  
| • riparian and other natural resource management enhancement projects  
| • carp eradication to improve fish habitat  
| • construct and operate series of off-stream storages to allow greater delivery flexibility  
| • establish pump screen trials to determine impact on fish prior to implementation. |\[
| Better real-time, event-based flow management is required to meet environmental objectives and improve the ability of environmental water holders to take advantage of natural flow events. |\[
| Monitoring programs are important to establish when implementing environmental works and measures to assess if environmental outcomes are met. |\[
| Delivery and protection of environmental flows should already be happening under the Basin Plan and through current intergovernmental agreements. |\[
| Concerns that the proposed new agreement to implement environmental works and measures will not work. Some stakeholders preferred to strengthen existing agreements and legislation with state governments. |\[
| Water entitlement holders are worried that there may be changes to entitlements or water use rules if measures to protect environmental flows are implemented. They don’t want any changes to current water sharing rules or licence conditions. |\[
| Protection of environmental flows need to continue across state boundaries to protect environmental water when it moves from Queensland to New South Wales. |
**Table B4 Stakeholder feedback on social and economic matters**

<table>
<thead>
<tr>
<th>Feedback</th>
<th>Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>There were many suggestions on how to provide targeted financial assistance to impacted communities to assist economic diversification and recovery, including:</td>
<td>Community groups, small business owners and individual community members</td>
</tr>
<tr>
<td>• support establishment of new industries and tourism opportunities</td>
<td></td>
</tr>
<tr>
<td>• indigenous employment opportunities</td>
<td></td>
</tr>
<tr>
<td>• compensation for those impacted by previous water purchasing</td>
<td></td>
</tr>
<tr>
<td>• refugee resettlement in regional areas</td>
<td></td>
</tr>
<tr>
<td>• build a prison (in Dirranbandi area).</td>
<td></td>
</tr>
<tr>
<td>Strong support for targeted financial assistance to impacted communities to assist economic diversification and recovery. For example, funding of development or liaison officers to assist communities identify opportunities for economic development and employment.</td>
<td>Local Councils and government agencies</td>
</tr>
<tr>
<td>Mental health is a significant issue and people's voices need to be heard. There is a need for greater access to mental health services.</td>
<td>Community groups, small business owners and individual community members</td>
</tr>
<tr>
<td>There is support for improving socio-economic outcomes as long as they do not adversely impact environmental outcomes.</td>
<td>Environmental/natural resource management groups and Indigenous representatives</td>
</tr>
</tbody>
</table>

**Table B5 Stakeholder feedback on indigenous matters**

<table>
<thead>
<tr>
<th>Feedback</th>
<th>Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong support for targeted assistance to Indigenous communities to create employment opportunities and improve involvement in environmental activities.</td>
<td>Environmental/natural resource management groups and Indigenous representatives</td>
</tr>
<tr>
<td>Restricted access to water ways is an important cultural issue.</td>
<td>Environmental/natural resource management groups and Indigenous representatives</td>
</tr>
</tbody>
</table>
### Table B6 Stakeholder feedback on other matters out of scope

<table>
<thead>
<tr>
<th>Feedback</th>
<th>Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy back and retire groundwater licences in the Condamine–Alluvium, to improve the security of current groundwater entitlement holders.</td>
<td>Irrigators and irrigation/agricultural industry groups</td>
</tr>
<tr>
<td>Environmental water needs to be better regulated by the states, especially regarding amalgamation of licence types which allow greater pumping volumes. There were also suggestions to improve entitlement compliance and conditions associated with water entitlements.</td>
<td>Environmental/natural resource management groups and Indigenous representatives</td>
</tr>
<tr>
<td>Concerns were raised about dryland salinity and the impacts of coal seam gas exploration/extraction on water resources and local farmers in the northern Basin.</td>
<td>Environmental/natural resource management groups and Indigenous representatives</td>
</tr>
<tr>
<td>Develop a more balanced strategy for providing annual water allocations to all entitlement holders.</td>
<td>Community groups, small business owners and individual community members</td>
</tr>
<tr>
<td>There is no use recovering water if other problems such as weeds and pests are not resolved as they are currently causing negative environmental outcomes.</td>
<td>Community groups, small business owners and individual community members</td>
</tr>
</tbody>
</table>
## Appendix C: Comparison of water infrastructure programs in the northern Basin

<table>
<thead>
<tr>
<th>Program</th>
<th><strong>Sustaining the Basin: Irrigated Farm Modernisation (IFM)</strong></th>
<th><strong>Healthy HeadWaters Water Use Efficiency project (HHWUE)</strong></th>
<th><strong>Proposed Northern Basin Water Program</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>To help irrigators improve on-farm water efficiency by providing funding for planning, infrastructure and training.</td>
<td>To help irrigators, communities and the environment in the Queensland Murray–Darling Basin by funding on-farm irrigation infrastructure improvements and supporting projects.</td>
<td>To provide water holders northern Basin focused opportunities to support agricultural production and rural innovation benefiting social, economic and environmental outcomes the northern Murray–Darling Basin.</td>
</tr>
<tr>
<td><strong>Catchments</strong></td>
<td>New South Wales Border Rivers, Gwydir; Namoi, Macquarie and Barwon-Darling</td>
<td>Queensland Border Rivers, Condamine-Balonne, Warrego, and Moonie</td>
<td>All northern Murray–Darling Basin catchments</td>
</tr>
<tr>
<td><strong>Open to applicants</strong></td>
<td>Closed</td>
<td>Future rounds under consideration</td>
<td>Open late 2017/early 2018</td>
</tr>
<tr>
<td><strong>Implementation of stakeholder feedback to improve water recovery programs</strong></td>
<td>Accepting funding applications at any time.</td>
<td>Extension of project dates to March 2020, although water will need to be transferred to the Commonwealth before 30 June 2019. Allowing irrigators to offer water from a different water management area other than where their approved projects will be undertaken.</td>
<td>Rolling applications where water licences holders can apply at any time Transfer of water to the Commonwealth needs to be completed prior to 30 June 2019. However projects may be completed after this date where they can continue to contribute to the efficiency measures Publically disclosed water prices based on contemporary water market prices for catchments Allow a greater range of agricultural productivity projects, not just water efficiency projects, where eligible and agreed volume of water can be transferred to the Commonwealth No co-contributions required; Shorter timeframes and streamlined administrative processes Project applications will need to show neutral or improved social and economic outcomes for the local community Administered through delivery partners where water holders can choose the delivery partner they use.</td>
</tr>
</tbody>
</table>
# Appendix D: Northern Basin Catchment by Catchment Water Recovery Strategy

This strategy has been developed for catchments in the northern Basin which require water to be recovered to meet targets under a 320 GL water recovery scenario.

<table>
<thead>
<tr>
<th>Catchment</th>
<th>Summary of consultations</th>
<th>Key issues identified</th>
<th>Water recovery strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condamine-Balonne</td>
<td>Community preferred further water recovery through infrastructure improvements. Suggestions were made for further water recovery above Beardmore Dam. The Queensland Healthy Headwaters Water Use Efficiency (HHWUE) infrastructure program was seen as a positive way to recovery water, with suggested modifications to administrative arrangements to promote uptake. Concern that water efficient systems may increase energy costs Targeted financial assistance required to aid recovery from effect of previous water buy-back, and to assist indigenous communities.</td>
<td>Previous water recovery through open market purchases has impacted local communities, such as Dirranbandi and St George in the lower Balonne. Further water recovery is needed. The Authority recommends recovery above Beardmore Dam. The water recovery target cannot be achieved through infrastructure programs alone. In the upper Condamine catchment, above Beardmore Dam, promoting HHWUE has been difficult as there is no specific industry group helping to promote uptake. Many landholders participated in HHWUE in the lower Balonne and so further recovery opportunities will be limited.</td>
<td>Continue to promote modified HHWUE program as rounds open and or until funding exhausted. Open Northern Basin Water Program to enable:  - a delivery partner specifically focused on the needs of the Condamine-Balonne  - a partnership with the Clean Energy Finance Corporation to link water projects with energy efficiency loan applications to reduce energy costs. Target water recover through water purchase from willing sellers that helps minimise social and economic impacts, including if appropriate, from large water holders below Beardmore Dam to enable key environmental outcomes.</td>
</tr>
<tr>
<td>Queensland Border Rivers</td>
<td>HHWUE infrastructure program was seen as a positive way to recovery water, with suggested modifications to administrative arrangements to promote uptake.</td>
<td>A small volume of water (0.2 GL) needs to be recovered in the catchment (local requirement) because some HHWUE projects in the catchment will not proceed.</td>
<td>Continue to promote modified HHWUE program to resolve this small gap. Target water recover through water purchase from willing sellers that helps minimise social and economic impacts.</td>
</tr>
<tr>
<td>Namoi</td>
<td>Community and industry generally preferred further water recovery through the New South Wales Irrigated Farm</td>
<td>Further water recovery to meet increased local recovery targets is required if proposed Basin Plan amendment are made.</td>
<td>Open Northern Basin Water Program to promote more flexible irrigation upgrade proposals and include stock and domestic</td>
</tr>
</tbody>
</table>
## Northern Basin Programs Taskforce report: Northern Basin Review

<table>
<thead>
<tr>
<th>Catchment</th>
<th>Summary of consultations</th>
<th>Key issues identified</th>
<th>Water recovery strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales Border Rivers</td>
<td>Community and industry preferred further water recovery through the Irrigated Farm Modernisation (IFM) infrastructure efficiency program. Some landholders did not support further water recovery as there was no evidence for the environmental benefit from the water that has been recovered to date. Others wanted further recovery through direct purchase as this was the most efficient (financially and time) way of providing water to the environment.</td>
<td>Decreased uptake for IFM program in the New South Wales Border Rivers</td>
<td>Further work, through delivery partners, on adapting the Northern Basin Water Program in the New South Wales Border Rivers to consider catchment specific needs. Consider water recover through water purchase from willing sellers that helps minimise social and economic impacts, including unregulated entitlements if they are able to be protected and provide environmental benefits.</td>
</tr>
</tbody>
</table>

Decreased uptake for IFM program in the Namoi. States unlikely to continue delivery of programs after 30 June 2017.

Water recovery strategies
- Target water recover through strategic water purchase from willing sellers that helps minimise social and economic impacts. Unregulated licences in the Namoi could be considered if further protection is provided by the New South Wales government to any unregulated entitlements recovered.
- Water licences that improve efficiencies in water conveyance.

Target further water recovery through the IFM program in the Namoi. States unlikely to continue delivery of programs after 30 June 2017.

Decreased uptake for IFM program in the Namoi. States unlikely to continue delivery of programs after 30 June 2017.