National Farmers Federation



26 March 2021

Productivity Commission National Water Reform Inquiry 2020 GPO Box 787 Canberra ACT 2601 Australia

Via email: water.reform.2020@pc.gov.au

Dear Dr Doolan

Re: Submission to draft report of the Productivity Commission National Water Reform 2020 Inquiry

The National Farmers' Federation (NFF) welcomes the opportunity to provide a submission to the Productivity Commission National Water Reform 2020 Inquiry Draft report. Please see the NFF's submission below.

Should you require any further information, please contact Warwick Ragg, General Manager Natural Resource Management,

Yours sincerely

TONY MAHAR

Chief Executive Officer





National Farmers' Federation

Submission to the Productivity Commission National Water Reform 2020 Inquiry Draft Report

26 March 2021

NFF Member Organisations

































































National Farmers Federation



The National Farmers' Federation (NFF) is the voice of Australian farmers.

The NFF was established in 1979 as the national peak body representing farmers and more broadly, agriculture across Australia. The NFF's membership comprises all of Australia's major agricultural commodities across the breadth and the length of the supply chain.

Operating under a federated structure, individual farmers join their respective state farm organisation and/or national commodity council. These organisations form the NFF.

The NFF represents Australian agriculture on national and foreign policy issues including workplace relations, trade and natural resource management. Our members complement this work through the delivery of direct 'grass roots' member services as well as state-based policy and commodity-specific interests.

Statistics on Australian Agriculture

Australian agriculture makes an important contribution to Australia's social, economic and environmental fabric.

Social >

There are approximately 88,000 farm businesses in Australia, 99 per cent of which are wholly Australian owned and operated.

Economic >

In 2018-19, the agricultural sector, at farm-gate, contributed 1.9 per cent to Australia's total Gross Domestic Product (GDP). The gross value of Australian farm production in 2018-19 is estimated to have reached \$62.2 billion.

Workplace >

The agriculture, forestry and fishing sector employs approximately 318,600 people, including full time (239,100) and part time employees (79,500).

Seasonal conditions affect the sector's capacity to employ. Permanent employment is the main form of employment in the sector, but more than 26 per cent of the employed workforce is casual.

Environmental >

Australian farmers are environmental stewards, owning, managing and caring for 51 per cent of Australia's land mass. Farmers are at the frontline of delivering environmental outcomes on behalf of the Australian community, with 7.4 million hectares of agricultural land set aside by Australian farmers purely for conservation/protection purposes.

In 1989, the National Farmers' Federation together with the Australian Conservation Foundation was pivotal in ensuring that the emerging Landcare movement became a national programme with bipartisan support.

Table of Contents

NFF Mei	mber Organisations	3
Statistic	es on Australian Agriculture	5
Table of	Contents	6
Executiv	/e Summary	7
Introduc	etion	14
Respons	se to draft report	16
1.1	NWI renewal	16
1.2	Good governance for renewed NWI	22
1.3	Water Entitlements and planning frameworks	23
1.4	Water Trading and Markets	26
1.5	Environmental management	29
1.6	Securing Aboriginal and Torres Strait Islander people's interest in Water .	34
1.7	Ensuring the integrity of water resource	36
1.8	Urban water services	38
1.9	Water reform in rural Australia	41
1.10	Government investment in major water infrastructure	42
1.11	Community engagement	44
1.12	Knowledge, capacity and capability building	46

Executive Summary

The NFF welcomes the Productivity Commission's work to update the National Water Initiative (NWI) to ensure it is contemporary and can capture the changing needs of the communities and address the long-term impacts of climate change.

The initial NWI supported by the Commonwealth, states and territories in 2004 offered a useful framework to guide water reform processes in Australia, including through the development of the *Water Act 2007* and the Murray-Darling Basin Plan. Large parts of the initial NWI are complete, some are ongoing, but there are pertinent lessons to consider, especially in the context of the Murray-Darling Basin, to ensure future water reform processes do not make the same mistakes.

A renewed NWI must engender confidence, stability, and equity.

Reform fatigue complemented by an undercurrent of distrust in many Basin communities set the tone and context of discussing reforms to the NWI, particularly as the Murray-Darling Basin Plan is being implemented.

At a high-level, a renewed NWI must include the following principles:

- There should be no increased burden on consumptive users in overallocated and developed systems, especially in the Murray-Darling Basin, which are already suffering impacts of rebalancing due to the Murray-Darling Basin Plan.
- All entitlement holders should bear the burden of reduced inflows due to climate change, including the environment and urban users.
- Water policy decisions must ensure a balance between social, economic, and environmental outcomes.
- Water regulation and other activities should be guided by a risk-based approach, under a fit-for-purpose water planning framework.
- No additional pools of water should be created in highly developed systems.
- The security of property rights, and minimising third-party impacts must be enshrined in a renewed NWI.

NWI Renewal

The NFF recognises the incorporation of climate change and Traditional Owners' interests into a renewed NWI. However, the NFF notes the following must be recognised.

- A renewed NWI must respect the geographical diversity and complexity of water resources across Australia.
- The impacts of climate change are already accounted for in various jurisdictional frameworks.
- The security of property rights must remain central in a renewed NWI, as well as the need to minimise and mitigate third party impacts.

- There must be robust processes under the water planning framework to genuinely balance social, economic, and environmental outcomes.
- The impact of climate risk must be borne by all water entitlement holders, and not solely consumptive users.
- Activities and programs that seek to improve cultural outcomes should not be funded through water management charges or cost recovered from other users.
- The idea of 'highest value use' entrenches a myopic view of value into the national framework a dollar value. Highest value means different things to different people.
- There is a growing tendency towards the use, collection, and dissemination of data for transparency and decision-making purposes. Privacy for individuals must be considered as part of the broader principles.

Recommendations

- That concerns about cost recovery be reflected in the final report.
- Governments to take a national approach to recommendations 8 and recommendation 19 of the Sefton report to independently develop a program of continuous evaluation, including the development of timely and relevant social and economic indicators, as well as a framework that creates a solid baseline and tracks outcomes from water reform
- The following changes to the following modernised objectives:
 - 2. (a) is risk-based, matching the level of management with the level of water extraction **and complexity** in a system.
 - 5. the capacity to trade water to promote its highest value use within the physical, ecological and social constraints of water systems in an open, transparent water market with a level of regulation that is proportional to the maturity of market development.
 - 6. a **fit-for-purpose and cost-effective** system of water metering, measurement and accounting, coupled with effective compliance, that promotes water user and community confidence in the integrity of water management and water markets.
- The overarching principle (2) should be reworded to the following:
 - 2. Management effort and regulation are **cost-effective and** fit for purpose.
- The inclusion of the protection of privacy, especially data, as a key overarching principle that should apply across all areas of key water resource management.

Good governance for renewed NWI

Strong governance and leadership are essential to provide oversight of water policy and giving effect to a renewed NWI.

NFF considers a body of sufficient stature, that is, the National Cabinet should have superintendence over NWI implementation. The complexities will need

advice from an appropriate Ministerial Council, but the full scope of the NWI is beyond their remit.

Recommendations

- NFF recommends that governance arrangements be reviewed to ensure they are fit-for-purpose in implementing a renewed NWI.
- NFF recommends that the National Cabinet should oversee progress and implementation of a renewed NWI, noting that they should be advised by appropriate Ministerial Councils.

Water Entitlements and planning frameworks

NFF supports having a robust fit-for-purpose water entitlement and planning framework. We note the following below.

- The NFF does not support the concept of rebalancing consumptive and environmental shares and cannot see how it would be applied on-ground. If poorly implemented, there is a significant risk that it would undermine the security and reliability of landholder property rights.
- The approach of a renewed NWI should focus much less on concepts of 'rebalancing' but rather at opportunities to create and maximise opportunities to deliver environmental water and achieve environmental outcomes. The NFF agrees there must be a process to identify and assess the feasibility and practicality of environmental objectives under climate change scenarios, and in the context of changing water availability.
- NFF supports the removal of exemptions for mineral and petroleum industries from the water access entitlement and planning arrangements.
- NFF supports a risk-based approach to managing significant interception activities under water access entitlement frameworks.
- Governments must commit to ensure that the security of property rights are maintained and not diminished, and that third party impacts and minimised and mitigated.
- The NFF notes that landholders and entitlement holders should not bear the cost associated with environmental monitoring.

Recommendations

- The NFF recommends that, in integrating extractive industries into the planning framework, that the integrity of the consumptive pool be protected for irrigation purposes.
- The NFF recommends that the Productivity Commission clarify and reconsider the principle to 'rebalance' environmental and consumptive uses.

Water trading and markets

The ACCC review of the water markets should play a guiding role in how the NWI considers its principles. However, NFF notes the following:

- NFF supports the need to emphasise the purpose of water trading and markets, as a tool within a water resource management framework to increase efficiency. There is no support for water trading and markets as a means and ends to themselves.
- NFF supports diverse agricultural economies.
- As above, the focus on 'highest value use' of water is myopic and does not capture the relative values of social and environmental goods, as well as the need for diversity and economic resilience.
- The biggest tension in the water market, particularly in the Murray-Darling Basin, is water requirements between perennial and annual crops.

Recommendations

- NFF recommends that the NWI principles explicitly recognise the importance of diversified economies to support socio-economic resilience.
- Governments should consider if or how the water market is facilitating diverse agricultural economies, noting that the NFF does not support quotas or mechanisms to cap the amount of different crop types.
- NFF recommends that the principle that specific crops or types of crops should not be preferentially priced by Governments be included in a renewed NWI.

Environmental management

NFF supports principles to maximise use of environmental water to achieve practical and agreed environmental outcomes, including clearly specifying objectives and outcomes as part of a renewed NWI.

It is increasingly likely that the future will require a greater consideration of trade-offs between social, economic, and environmental outcomes, and it is important that robust processes and principles be in place to improve transparency and guide decision-making. The NFF also notes the following.

- Under a future constrained by water scarcity, it is the view of the NFF that improving the efficiency of water uses, and maximising outcomes should be key objectives of water planning.
- Central to decision-making processes will be strong governance processes that engender confidence and enable buy-in from the community.
- NFF supports integration of the management of environmental water with complementary waterway management.
- NFF supports discretionary power afforded to environmental managers to use environmental water and balance complex trade-offs between competing environmental needs and different locations and times.

- Environmental water holders should have the same obligations as consumptive users and must demonstrate how and when they are using their portfolios.
- There has been a lesser focus on using and delivering environmental water as opposed to acquiring 'held' environmental water. Several partnership agreements between the Commonwealth Environment Water Holder and other bodies offer a mutually beneficial approach to improving environmental outcomes and should be explored and encouraged.

Recommendations

- NFF recommends that any move towards integrated management be guided by clear objectives and best practice regulation.
- The NFF recommends that environmental water holders are enabled and encouraged to use a range of mechanisms to deliver environmental water, including through the use of partnerships.

Securing Aboriginal and Torres Strait Island people's interest in water

The NFF recognises the incorporation of Traditional owners' interests into a renewed NWI. However, the scope of Traditional Owners' interests in the NWI should be limited only to water issues and respect existing regimes and other instruments to resolve Traditional Owners' other interests.

For overallocated and highly developed systems, however, the NFF notes the following.

- The NFF supports the provision of water for indigenous use only where this does not result in third party impacts to existing entitlement holders, including the environment.
- The NFF supports the use of existing held and planned environmental water entitlements for the co-benefit of indigenous cultural water use.
- The NFF supports the use of existing market mechanisms to acquire indigenous water entitlements from willing sellers for contemporary economic use. However, NFF does not support Government participation in the water market, particularly through the provision of public funds to access water for any purpose including First Nations economic use.
- The NFF acknowledges that the ownership framework for indigenous water entitlements for contemporary economic use is a matter for governments and indigenous peoples.
- The NFF seeks that the delivery of indigenous water to off river sites includes the associated river losses for the off river delivery.
- If the above framework were adopted the current hierarchy of water entitlements, as enshrined in state legislation, would be respected and therefore unaffected.

Recommendations

The Productivity Commission must clarify the structure, scope, and detail
of the proposed Committee on Aboriginal Water interests.

Ensuring the integrity of water resource

NFF supports system integrity as a new element of a renewed NWI. However, the NFF notes the following.

- Any regulatory system must be fit-for-purpose, risk-based and proportionate.
- While metering and measurement of surface water and groundwater is important, the cost of metering can be prohibitive.

Recommendations

 NFF recommends continued research that aims to progressively reduce the cost of technologies, especially measurement technologies, for entitlement holders.

Water reform in rural Australia

Rural, remote, and regional communities face a wide range of pressures that cannot be fully captured within the NWI. While the NWI offers guidance in respect of water-related issues, the Commission should take a holistic approach to structural adjustment.

NFF does not support the Commission's recommendation to avoid industry assistance and subsidies. A range of economic tools should be used on a case-by-case basis to support industry.

Recommendations

• NFF recommends removing the following line: industry assistance and subsidies should be avoided.

Government investment in major water infrastructure

The principles underpinning development in major water infrastructure will play a significant role in development northern Australia, consistent with the NFF's 2030 Roadmap goals.

The NFF is also concerned about full-cost recovery principles. The NFF only accepts full cost recovery where:

- assets have been 'contributed' or paid for by a government (or another party, such as a housing developer) with the intent of lowering water prices, or
- 2. a government provides a transparent community service obligation (CSO) to fund a portion of the cost of the infrastructure.

And thereafter the residual cost recovery is equitably shared.

NFF also adds that, where assets are heavily underutilised and where services are delivered at standards that far exceed user needs, water users should not bear the brunt of poor investment decisions of asset owners.

NFF notes that any non-agriculture infrastructure that are built, such as river marinas and hydroelectric stations, river operations should not interfere with existing water users or, river management protocols or environmental management.

Community engagement

NFF supports a coherent community engagement framework, consistent with the Sefton Basin Social and Economic Assessment. The success of future water reform, and confidence in the systems will be underpinned by the capacity of Governments to engage with communities, draw on local knowledge, understand shared values, and navigate a system of competing values and beliefs effectively and meaningfully.

Communities should be at the centre of decision-making communities, supported by expertise, knowledge and advice of Government and relevant stakeholders. NFF supports the principle outlined, noting that an ongoing challenge will continue to be the capacity of stakeholders and governments to engage, particularly in time and resource-constrained environments.

NFF further emphasises the importance of regionally based staff to facilitate connection between communities and Government, this would also allow for continuous engagement.

Recommendations

- Governments ensure they have the appropriate governance and frameworks in place to acquire and integrate local knowledge into their decision-making processes.
- Governments ensure they have realistic timeframes that enable consultation, approvals processes, planning, and implementation to be undertaken properly.

Knowledge, capacity, and capability building

NFF supports strong knowledge, capacity and capability building, the principles are sound. Water research is complex.

NFF suggests that that one of actions of a renewed NWI include dissemination of research to communities and other stakeholders. The point about strong, durable partnerships between decision-makers and knowledge generators partly addresses this action.

Introduction

The NFF welcomes the opportunity to provide a submission to the Productivity Commission 2020 National Water Reform Inquiry draft report. The NFF recognises the importance of the National Water Initiative (NWI) in providing an enduring framework to guide water reform in Australia.

On matters related to water, the NFF is the only national body that brings only a farm-focused viewpoint. The NFF represents the interests of farmers that are affected by water management decisions including irrigators, riparian and floodplain landholders and stock and domestic users.

Since its creation in 2004, the NWI has provided a valuable framework to advance water reform in Australia. In 2021, it is clear the NWI is outdated and must be renewed, reflecting lessons of past and current water management in Australia (particularly the Murray-Darling Basin) and build the foundations to address future challenges.

The NFF recognises the integration of climate change adaptation and Traditional Owners' interests into a renewed NWI, they are pieces of work that remain important to water security and regional sustainability.

A renewed NWI must respond to the following challenges:

- A range of climate scenarios across Australia, particularly apparent longterm decline in water availability across most of Australia;
- Increasing trade-offs to ensure a balance between social, economic and environmental outcomes;
- Developing fit-for-purpose water planning frameworks and regulation; and
- Ensuring buy-in and trust from stakeholders, especially from affected communities. Consultative processes and responses by Government must be responsive to water users.

The NFF notes the priority areas of improvement listed in the draft assessment report, including:

- continuing to improve the specification of environmental and other public benefit outcomes (particularly in relation to Indigenous cultural values and social benefits) and incorporating climate change and extreme events in water planning;
- further integration of environmental water management into natural resource management;
- better monitoring, review and reporting arrangements to support achievement of environmental and other public benefit outcomes;
- engaging with Aboriginal and Torres Strait Islander communities:
- improving service delivery around water trade processing and information provision; and
- improving decision-making processes for new infrastructure to ensure economic viability and environmental sustainability.

Overall, the NFF agrees with the direction of the Commission; however, some areas require significant improvement, and must also be assessed from the perspective of practicability and feasibility.

A renewed NWI must engender confidence, stability and equity. Reform fatigue in communities, especially in the Murray-Darling Basin, is significant, and ill-conceived and inequitable reform will undermine trust, capacity for continued engagement and thus ability to acquire best outcomes from and for communities.

In the context of the Murray-Darling Basin, there should be no increased burden on consumptive users who are already suffering the impacts of rebalancing due to the Murray-Darling Basin Plan.

Furthermore, consumptive users should not solely bear the full burden of reduced inflows due to climate change. All entitlement holders should bear some of the impact, including the environment and urban users.

NFF's fundamental position is that, in that the pursuit to improve environmental outcomes should not damage the social and economic fabric of communities.

Response to draft report

1.1 NWI renewal

... ittii i ciictta

3.1 Modernised Goal

Draft Advice

The overarching goal of the National Water Initiative remains sound but should be modernised through reference to adaptation to climate change and recognition of the importance of water in the lives of Aboriginal and Torres Strait Islander people. Suggested wording follows:

The Parties commit to this renewed National Water Initiative in recognition of the continuing national imperative to increase the productivity and efficiency of Australia's water use, to service the changing needs of rural, urban and remote communities and to ensure the health of river and groundwater systems and their surrounding landscapes whilst adapting to a changing climate. In continuing to implement this agreement, the Parties also acknowledge the importance of water to the lives of Aboriginal and Torres Strait Islander people.

NFF comment

NFF recognises the reports broad focus on climate change and Traditional Owners' interests. A renewed NWI must respect the geographical diversity and complexity of water resources across Australia. It should also be recognised that the impacts of climate change are already accounted for in various jurisdictional frameworks.

The security of property rights must also remain central to a renewed NWI, as well as the need to minimise and mitigate third party impacts. There must be robust processes under the water planning framework to genuinely balance social, economic, and environmental outcomes.

While the modernised goal of the NWI applies beyond the Murray-Darling Basin, the Commission must be sensitive to experiences of Basin communities who have seen the consequences of water policy processes that have not been sufficiently equitable. Trust is deficient amongst many communities.

The construction of the *Water Act 2007* and subsequent development of the Plan has entrenched perceptions of inequity that will be difficult to change. Moving into a water constrained future, the impact of climate risk should be borne by **all water entitlement holders**, and not solely, or disproportionately, consumptive users.

Environmental objectives will have to be amended as a result of climate change within the scope of existing entitlements.

3.2 Modernised Overarching Objectives

The National Water Initiative has a strong focus on water resource management. A renewed agreement should give greater emphasis to water service provision and this should be reflected in the overarching objective. The objective should also include reference to cultural outcomes to recognise the aspirations of Aboriginal and Torres Strait Islander people. Suggested wording follows.

NFF supports a greater emphasis on water service provision. Furthermore, in our view, opportunities to improve cultural outcomes fall within the remit of broader indigenous policy objectives and the National Agreement on Closing the gap.

Activities and programs that seek to improve cultural outcomes should not be funded through water management charges or cost recovered from other users.

The overarching objectives of the Parties in implementing this Agreement are to:

- optimise economic, environmental, social and cultural outcomes through best-practice management of Australia's water resources.
 In the process, this will provide certainty for investment, water users and the environment
- enable entitlement holders, communities and the environment to contend with climate variability and adapt to a changing climate
- ensure effective, efficient and equitable provision of water services that meet the needs of customers and communities in a changing climate.

NFF recommends that concerns about cost recovery be reflected in the final report.

The NFF notes that is important to reflect on progress to 'optimise, social, economic and environmental outcomes'. While the goal is necessary to recognise the importance of these outcomes in a legislative and strategic context, it is difficult to develop a set of criteria to objectively and conclusively achieve an optimal outcome when social, economic, and environmental values are relative and vary greatly.

The most practical outcomes, as noted in the Productivity Commission draft report, are mutually agreeable outcomes determined by all parties after assessing trade-offs using the best available information. The NFF emphasises the importance of having strong state and Commonwealth governance arrangements in place that engender public confidence in the process, the science, and decision-making.

Various government and non-government reports have now highlighted the diminished trust in communities, especially in the Murray-Darling Basin, and it is important that these lessons are reflected nationally to ensure long-term policy stability and best outcomes.

It is also important to recognise, consistent with the *Sefton Basin Social and Economic Analysis final report*, that the social and economic indictors underpinning 'triple bottom line' assessment are underdeveloped relative to environmental indicators, especially in the Murray-Darling Basin, and requires further research and decision-maker to ensure what whatever is ultimately used in the assessment framework are robust, representative, and acceptable to stakeholders.

Given the diversity of the Australian landscape and hydrological systems across Australia, including groundwater systems, governments must recognise that social, economic, and environmental indicators will be sitespecific and there is no one-size-fits-all set of indicators.

The NFF thus recommends that one key action for governments is to take a national approach to recommendations 8 and recommendation 19 of the Sefton report to independently develop a program of continuous evaluation, including the development of timely and relevant social and

economic indicators, as well as a framework that creates a solid baseline and tracks outcomes from water reform.

Recommendation 8

To support adaptive management and better prepare for scheduled formal reviews, the MDBA should bring forward a program of continuous evaluation, including the development of timely and relevant social and economic indicators (Schedule 12, item 3).

This program should build on the MDBA's 2020 evaluation of the effectiveness of the Basin Plan. It should establish a clear framework and approach for information sourcing so that social and economic condition and change information is directly comparable and reports at the appropriate spatial scale. Information should be sourced and reported as it becomes available.

Recommendation 19

To improve decision making and enable well focused and timely responses to wellbeing concerns, governments should agree on a framework that creates a solid baseline and tracks environmental outcomes from water reform, and how these impact Basin communities' social and economic wellbeing. Improvements in monitoring and evaluation measures should include, but not be limited to, demonstrating how enhanced environmental outcomes of water reform affect tourism, recreation, liveability, human health and wellbeing, and cultural values.

Governments should ensure there is adequate resourcing of agencies and organisations involved in monitoring, evaluating and reporting all baseline environmental, social and economic conditions that Basin reforms are being evaluated against.

NFF notes further recommendations below that seek to improve the decision-making process.

3.3 Modernised objectives

A — a nationally-consistent planning, market and regulatory based system of managing surface and groundwater resources for rural, urban and remote use that:

- optimises economic, environmental, social and cultural outcomes
- enables entitlement holders, communities and the environment to contend with climate variability and adapt to a changing climate. by achieving the following:

NFF notes the following objectives:

(3) statutory water provisions for the environment which are integrated with complementary natural resource management to achieve agreed environmental outcomes and where this does not compromise environmental outcomes, managed to also achieve cultural and social benefits

This appears to be poorly expressed.

- clear, nationally-consistent statutory systems for secure water access entitlements
- 2. transparent, statutory-based water planning that:
 - (a) is risk-based, matching the level of management with the level of water extraction in a system
 - (b) includes all sources of water, recognises connectivity between surface and groundwater, and takes into account water quality
 - (c) clearly identifies the agreed environmental, cultural and other public benefit outcomes to be met through the water planning process
 - (d) includes agreed processes for water sharing and management during periods of water scarcity
 - (e) includes clear pathways to an agreed and improved balance between the environment and consumptive water use in overallocated or overused systems
 - (f) includes clear triggers and processes for reviewing the balance between water for the environment and consumptive use, such as in response to the effects of climate change
- 3. statutory water provisions for the environment which are integrated with complementary natural resource management to achieve agreed environmental outcomes and where this does not compromise environmental outcomes, managed to also achieve cultural and social benefits
- 4. processes to enable Aboriginal and Torres Strait Islander people to have ongoing influence in water planning and natural resource management that affect Country and access to water consistent with the 2020 National Agreement on Closing the Gap
- 5. the capacity to trade water to promote its highest value use within the physical, ecological and social constraints of water systems in an open, transparent water market with a level of regulation that is proportional to the maturity of market development
- 6. a system of water metering, measurement and accounting, coupled with effective compliance, that promotes water user and community confidence in the integrity of water management and water markets
- 7. clarity on the assignment of risk arising from future changes in the availability of water for the consumptive pool and how future adjustment should be managed.

(5) the capacity to trade water to promote its highest value use within the physical, ecological and social constraints of water systems in an open, transparent water market with a level of regulation that is proportional to the maturity of market development

As expressed later in the submission, 'highest value use', whilst an inherent consideration in farming businesses, entrenches a myopic view of value into the national framework — is a dollar value. Highest value means different things to different people and it should be up to individuals to determine their highest value use. For example, social and environmental values are strong preferences for many individuals but are not generally represented by a dollar value.

(6) a system of water metering, measurement and accounting, coupled with effective compliance, that promotes water user and community confidence in the integrity of water management and water markets

Governments must recognise the diversity of water resources across Australia including the Murray-Darling Basin and the Great Artisan Basin. Metering must be fit-for-purpose and cost-effective to ensure flows can be measured and accounted for.

While NFF supports the metering of all significant water use, in some instances, like stock and domestic, deeming will be the most appropriate mechanism.

Furthermore, the current National Water Meter Standards (NWMS) requires that meters for non-urban water supply complies with the AS4747 standard. AS4747 provides information such as minimum technical requirements, installation and commissioning requirements, and in-serve compliance, for closed conduit and open channel water meters.

However, a major concern for irrigators is the implementation and application of standards to metering. In Queensland, the size of the metering required under AS4747 makes it difficult for manufacturers to develop patent approved meters and is therefore difficult for them to meet the requirements under the standard.

B — effective, efficient and equitable provision of water services that meets the needs of customers and communities in a changing climate by achieving the following:

- access to safe and reliable drinking water, including in remote communities
- 2. clear objectives for the level and quality of water services which reflect customer preferences
- 3. in cities and towns:
 - (a) integrated planning and management of water supply, wastewater and
 - (b) stormwater services
 - (c) efficient water services that deliver outcomes, including urban amenity and liveability, in line with customer preferences and willingness to pay
- 4. cost-reflective pricing of water services wherever possible, with transparent subsidies to high-cost regional and remote community services
- 5. institutional arrangements that
 - (a) ensure the separation of policy setting, service delivery and regulation with clear roles for each
 - (b) incentivise water service providers to be efficient and innovative, and to deliver services in ways that are cost-effective and in the interests of their customers
- 6. processes that ensure that new water developments are ecologically sustainable, economically viable and culturally responsive.

The NFF recommends the following changes to the following modernised objectives:

- 2. (a) is risk-based, matching the level of management with the level of water extraction **and complexity** in a system.
- 5. the capacity to trade water to promote its highest value use within the physical, ecological and social constraints of water systems in an open, transparent water market with a level of regulation that is proportional to the maturity of market development
- 6. a **fit-for-purpose and cost-effective** system of water metering, measurement and accounting, coupled with effective compliance, that promotes water user and community confidence in the integrity of water management and water markets

NFF notes for 2(b) the complexity of some systems can have multiple sources of water, and which can be facilitated by trade. For example, inter-valley trade in the southern Murray-Darling Basin.

3.4 Overarching principles

In achieving the objectives outlined in previous advice, governments agree to the following principles and seek to apply them across all key areas of water resource management and water service provision:

- 1. Capacity to contend with droughts, floods and shocks, and to adapt to a changing climate, is strong.
- 2. Management effort and regulation are fit for purpose.
- 3. Decisions are based on the best available information.
- 4. Innovation and continuous improvement are encouraged and adaptive management is required.
- 5. Communities are engaged effectively in all aspects of water resource management and water service provision.
- 6. Communities have sufficient water literacy to engage effectively.

NFF broadly supports the overarching principles.

The Commissioner should clarify section (1). Should they be 'economic' shocks?

For section 2, the NFF suggests the following wording:

2. Management effort and regulation are **cost-effective** and fit for purpose.

The NFF also notes the growing tendency towards the use, collection and dissemination of data for transparency and decision-making purposes in line with principles of the original NWI. NFF recognises the challenge in finding a balance between transparency to instil public confidence and the need to protect the privacy of individuals.

	However, the NFF strongly emphasises the importance of privacy. In no way should data be disseminated in a format that allows third parties to identify individual landholders. While there is a case for transparency, especially for large businesses, individual landholders must be afforded the right to safety. While several states already have these provisions, and are continuing to improve transparency processes, it is an important principle for a renewed NWI to champion and uphold.
	The NFF recommends the inclusion of the protection of privacy, especially data, as a key overarching principle that should apply across all areas of key water resource management.
3.5 elements of a renewed agreement	
The overall goal, objectives and principles will be delivered through the following elements:	
Water resource management 1. Water access entitlements and planning frameworks 2. Water markets and trading 3. Environmental management 4. Aboriginal and Torres Strait Islander people's interests in water 5. System integrity	
Water services provision 1. Pricing and institutional arrangements 2. Urban water services 3. New infrastructure development	
Supporting arrangements	
 Community engagement, and adjustment Knowledge, capacity and capability building 	
3.6 Updated statement of interactions The current paragraph of the National Water Initiative covering interactions with other key initiatives needs to be brought up to date. Suggested wording follows.	
Other initiatives with a significant water focus, subject to separate agreements by the Parties, include the Water Act 2007 (Cth), the 2012 Murray–Darling Basin Plan, the Murray–Darling Basin Agreement and the	

2020 National Agreement on Closing the Gap. These play an important and complementary role in improving the management of water in Australia. Continued linkages to the National Water Quality Management Strategy will also complement achievement of the objectives of this Agreement.

1.2 Good governance for renewed NWI

4.1 governance arrangements for renewed NWI

A strengthened governance architecture that reflects the presence of national water policy leadership and ensures confidence in reform effort, needs to be included in a renewed agreement.

To that end, the Commission advises that:

- water ministers should convene periodically to oversee development of a renewed National Water Initiative, and to receive, consider and act upon advice that comes out of any periodic review of the new agreement
- the new agreement should clearly link desired outcomes to objectives and limit prescriptive actions, instead setting out principles for best practice, and fit-for-purpose approaches to achieving outcomes
- each jurisdiction should commit to preparing three-year rolling work programs setting out how they aim to achieve the outcomes set out in the renewed agreement
- there continue to be three-yearly assessment of the adequacy of these work programs, with public reporting on jurisdictional progress against them, and the effectiveness of the agreement, as per the functions the Productivity Commission currently performs under the *Water Act 2007* (Cth)
- a requirement for comprehensive policy review every 10 years should be written into the agreement
- the National Water Reform Committee should provide on-going collective oversight of the agreement, initiating policy advice and guidance, if need arises, and commission the 10 yearly reviews of the agreement.

Strong governance and leadership are essential to provide oversight of water policy and giving effect to a renewed NWI.

To that end, NFF cautions the establishment of any new bodies that do not address clear gaps in function, particularly without first assessing the effectiveness of current bodies.

NFF considers a body of sufficient stature, that is, the National Cabinet should have superintendence over NWI implementation. The complexities will need advice from an appropriate Ministerial Council, but the full scope of the NWI is beyond their remit.

Whichever governance arrangement is chosen, there should be clear roles and responsibilities that are understood by stakeholders, streamlined decision-making processes that are transparent, and processes that stakeholders can have confidence in and importantly, can facilitate the integration of local knowledge and experience.

For example, in the Murray-Darling Basin, the Basin Officials Committee (BOC) and the Basin Communities Committee are two committees that contribute to policy development. The BOC lacks transparency, there is no detail about when they meet, their agenda nor outcomes of meetings that have significant implications for Murray-Darling Basin policy. Following Greg Claydon's independent review of Murray-Darling Basin joint governance arrangements, and joint governments' response paper, it is unclear whether recommendations have been assessed or incorporated into their operations.

NFF recommends that governance arrangements be reviewed to ensure they are fit-for-purpose in implementing a renewed NWI.

NFF recommends that the National Cabinet should oversee progress and implementation of a renewed NWI, noting that they should be advised by appropriate Ministerial Councils.

1.3 Water Entitlements and planning frameworks

6.1 managing use under water entitlements framework

To improve on the entitlements framework, jurisdictions should:

- remove exemptions for mineral and petroleum industries from water access entitlement and planning arrangements, so that these industries are subject to the same water access entitlements framework that applies to other consumptive users
- establish a process to determine whether alternative water sources (including stormwater and recycled water) can be incorporated into water access entitlement frameworks, and the extent to which current management arrangements for alternative water sources create barriers to investment
- adopt a risk-based approach to managing significant interception activities under water access entitlement frameworks (including fit-for-purpose measurement and accounting of interception activities, and monitoring of the ongoing efficacy of the use of interim measures) and fixed term or other types of entitlements.

NFF supports the removal of exemptions for mineral and petroleum industries from the water access entitlement and planning arrangements. We agree with the Commission that water use should be fully incorporated to promote transparency and confidence among other water users that already comply with the framework. The current approach under the NWI leaves it exposed to criticisms that there are 'two sets of rules' — one for farmers and the other for the resources industry.

NFF notes from the Supporting Document that removing these exemptions would 'further incentivise trade in areas where markets are well established...' and allow operators in minerals and petroleum industries to trade their entitlements on water markets. NFF is concerned that, should this occur, these industries have an inherent capacity to outbid irrigation users for water entitlements, which may impact production of food and fibre.

NFF recommends that, in integrating extractive industries into the planning framework, that the integrity of the consumptive pool be protected for irrigation purposes.

NFF supports a risk-based approach to managing significant interception activities under water access entitlement frameworks. Understanding and managing interception activities is critical to the integrity and sustainability of water resources in Australia. In its absence, it is difficult for water users to have confidence in the integrity of the entitlement and whether it is being for their intended purposes.

This must be complemented by work to achieve a robust water accounting framework that provides an understanding of cumulative water resource availability, and where water moves to.

The NFF also supports recognition of stock & domestic activities in the water entitlement framework. However, the NFF notes that stock &

domestic represents minimal risk to the cumulative pool, has animal welfare implications, and it is likely that any move towards regulation will incur costs that outweigh the benefits provided.

NFF supports the metering of all significant water use, however in some instances, like stock and domestic, deeming will be the most appropriate mechanism.

NFF notes that the 2004 NWI already provides a sound set of principles and actions to address interception activities and notes the NSW Government's progress in establishing a licencing framework for floodplain harvesting.

6.2 water planning

In renegotiating the National Water Initiative (NWI), State and Territory Governments should ensure that water planning provisions are maintained and enhanced.

Priorities to improve water planning are to:

- better specify, measurable and well-informed cultural and environmental outcomes and improve engagement with Traditional Owners
- include principles to frame the process for assessing and reflecting the relative values placed by communities on environmental, social and economic outcomes to inform the trade-offs that have to be made in water planning. This process should be transparent, evidence-based and involve effective engagement with stakeholders
- include principles for independent review of water plans. While the
 review processes would be determined by jurisdictions, the NWI
 could set out principles for reviews to promote their need to be
 robust and fit for purpose, focused on achieving net benefits and to
 involve community participation.

Processes to better account for climate change are also required, including that:

 water plans include priorities, actions and rules that cover drought conditions, as well as mechanisms for dealing with more extreme scenarios, including clear triggers, roles and responsibilities for actions and a hierarchy of uses

Rebalancing

The NFF does not support the concept of rebalancing consumptive and environmental shares and cannot see how it would be applied on-ground. Fundamentally, all entitlement holders should bear the burden of climate change, including the environment and urban users. If poorly implemented, there is a significant risk that it would undermine the security and reliability of landholder property rights.

NFF notes the following:

- NFF members are concerned that efforts to rebalance water would mean further loss of water from the consumptive pool, rather than from the environmental pool. The Murray-Darling Basin Plan is one example where this has been the case and farmers have been disproportionately burdened in the water reform process. There is little appetite within communities for further water recovery.
- There is a further challenge of implementation. The experience in the Murray-Darling Basin leaves many with little confidence this can be done well and done equitably, and communities would be rightly sceptical about any proposal to rebalance water shares, especially without any meaningful structural adjustment measures or economic revitalisation that can replace the loss of productive potential.

NFF acknowledges that climate change will increase pressure on the capacity of environmental managers to support the delivery of environmental objectives. However, the approach of a renewed NWI should

- water quality issues are better incorporated into water planning, particularly in drought scenarios
- water planning processes in relatively undeveloped and developing water systems take climate change into account in ways that manage the risk of less water
- as water plans reach the end of their planning cycle, review processes promote improved water use and system operation to lessen risks in meeting the agreed environmental and consumptive objectives
- a process for rebalancing between environmental and consumptive uses as a result of climate change is developed. Rebalancing due to climate change should occur when there is sufficient evidence that the expected benefits will outweigh the likely costs. Where this occurs, governments should ensure that a water plan review reassesses the objectives of the plan (including environmental and consumptive objectives), leads to selection of the most costeffective option for meeting them and agrees a pathway to transition to the new balance
- there are clear provisions for allocating risk, with water access entitlement holders continuing to bear the risks to the consumptive pool arising from climate change and periodic natural events (as reflected in paragraph 48 of the NWI).

focus much less on concepts of 'rebalancing' but rather at opportunities to create and maximise opportunities to deliver environmental water and achieve environmental outcomes. The NFF agrees there must be a process to identify and assess the feasibility and practicality of environmental objectives under climate change scenarios, and in the context of changing water availability.

Planned review processes may well take into account the need to 'balance' environmental and consumptive uses, and already do in many cases. In NSW for example, water sharing plans already have in-built mechanisms to rebalance consumptive shares of water with climate change. Yearly allocations already account for variations in water availability due to climate change.

However, there are concerns about how governments have implemented policies in respect of apportioning risk. In NSW, General Security allocations are disproportionately burdened compared to High Security allocations.

The NFF recommends that the Productivity Commission clarify and reconsider the principle to 'rebalance' environmental and consumptive uses.

Water planning priorities

NFF supports the priorities listed in the advice. NFF recognises further integration of climate change into a renewed NWI. Climate change will continue to test the water planning framework and should continue to be refined under a clear set of principles and processes.

Governments must ensure that the security of property rights are maintained and not diminished, and that third party impacts and minimised and mitigated.

Effective water plans should provide stability and confidence. If developed correctly using best available information and tested against a set of scenarios, there should be no need for water plans to be suspended, as has been the case in NSW. Where Ministerial intervention is warranted to achieve agreed outcomes, there should be clearly defined triggers, as well as roles and responsibilities.

NFF agrees that water plans should have mechanisms to deal with extreme scenarios, especially those that are time-sensitive and present significant risk of short-term social, economic and/or environmental impact, for example, as COVID-19 has done. Under these scenarios, government processes should not impede action; rather, they must enable government resources to be mobilised where appropriate.

Data used to identify and underpin policy development under extreme scenarios should be made consistent and transparent.

1.4 Water Trading and Markets

7.1 role and application of water trading and markets

A renewed National Water Initiative should emphasise that the purpose of water trading and markets is as a tool within a water resource management framework to increase efficiency.

There is no guaranteed supply of water by location, time, quality, and for given users, and given the trade-offs in the values people place on availability, markets can play an important role in allocating water efficiently.

The diversity of water system hydrology — regulated and unregulated surface water, groundwater and conjunctive (surface and groundwater) systems — coupled with other economic and institutional pre conditions mean that the establishment of market arrangements need to suit their context. They need to be fit for purpose.

NFF supports the need to emphasise the purpose of water trading and markets, as a tool within a water resource management framework to increase efficiency. The hydrological characteristics, cultural values, and potential impacts on communities of misuse necessitates strong governance grounded with clear purpose. There is no support for water trading and markets as a means and ends to themselves.

NFF supports diverse agricultural economies. There are concerns about the impact on socio-economic resilience by simply subjecting water distribution to market forces. There are conflicts between diversity and 'highest value use', particularly if highest value use leads to a concentration of agricultural commodities and a consequential narrowing of the economic base. Highest value use also means different things to different commodities and different communities and change over time.

NFF acknowledges the Productivity Commission's recognition of the importance of diversity and that 'sufficient numbers of users and heterogeneous water use' are required to support the water market.

Actions taken by governments to address water market issues should be informed by the current ACCC review of water markets. Arrangements should be fit-for-purpose and led by jurisdictions to ensure that market structures appropriately reflect the underlying characteristics of the systems.

NFF notes the draft report's focus on water trade facilitating 'highest value use' of water. Again, the focus on 'highest value use' of water is myopic and does not capture the relative values of social and environmental goods, as well as the need for diversity and economic resilience. As above, the NFF recommends it be excised from the modernised objectives.

The NFF notes that, however, the biggest tension in the water market, particularly in the Murray-Darling Basin, are water requirements between perennial and annual crops. Producers of perennial crops have an incentive to hedge risk and trade at higher prices given their nature. Producers of annual crops, on the other hand, are afforded greater flexibility in being able to crop when supply is high and selling when supply is low.

NFF recommends that the NWI principles explicitly recognise the importance of diversified economies to support socio-economic resilience.

NFF recommends that Governments should consider if or how the water market is facilitating diverse agricultural economies, noting that the NFF does not support quotas or mechanisms to cap the amount of different crop types.

7.2 leading practice governance, regulatory and operational arrangementsRecommitting to the original National Water Initiative water trading and market principles would support the objective that arrangements facilitate the efficient operation of markets, where system and water supply considerations permit.

Reshaped principles covering governance, regulatory and operational arrangements for water markets and trading would provide stronger foundations for developing markets. Suggested principles include that:

- Roles and responsibilities of key parties involved in governance are clearly defined, and the parties' activities are effectively coordinated.
- Institutional arrangements are monitored and evaluated to ensure they remain in step with the level of a market's development.
- Trade is regulated to maximise overall community benefit (efficiency).
 - Arrangements protect against negative third party impacts of water trades on other water users and the environment.

NFF supports strong governance in the water market, the suggested principles are sound. NFF also supports long-term monitoring of the cumulative effects of trade, and that monitoring be incorporated into water system management.

If water trade is to be a tool to support sustainable resource management, then it is appropriate that monitoring and evaluation be included in the process, especially given the potential for third party impacts.

- The boundaries of water markets should be shaped by hydrology; trade between locations or sectors should not be limited by artificial administrative impediments.
- Regulatory consistency and compatibility apply where it is hydrologically feasible for interstate trade to occur.
- Where the changing of trading rules is necessary and well justified, the communication of these changes should be clear, timely and accessible to the market.
- Market access is open to all participants.
 - Development of an appropriate mix of tradeable water products is enabled.
- Water market operations optimise transaction costs, including both monetary (for example, trade approval fees) and non-monetary (for example, from trade approval processing times and regulation of trade related services).

Jurisdictions could also consider integrating water trade monitoring with system management in highly developed systems. Such a role could focus on the long term operation of the market within the water resource management system. In a changing climate, shared resources and connected systems will require consideration of the interaction between resource availability, system constraints and water trade; and the identification of risks as these interactions change.

7.2 Information to Support Efficient Water Markets

In efficient water markets:

- registers of all water access entitlements and trades are publicly-accessible, timely and reliable
- basic trade data including on prices (clearly specifying reasons for zero-price trades), volumes, dates, locations and product types — are publicly available
- publicly-provided non-trade information covers market rules and the quality and accessibility of water resources.

The NFF suggests information to support efficient water markets be informed by the ACCC water market review.

The NFF would like the Commission to comment on the merits Queensland Government's decision to differentially price water depending on the crop type.

In the lead up to the 2021 election, the Queensland Government announced a policy to reduce the price of irrigation water by 15 per cent and by 50 per cent where that water is used for horticultural crops.

NFF opposes the preferential treatment of certain crop types and industries. This runs counter to the efficiency objectives of the NWI which promotes the economically efficiency and sustainable use of water, one essential component being that are water prices being determined independent of the crop to which it is applied.

NFF recommends that the principle that specific crops or types of crops should not be preferentially priced by Governments be included in a renewed NWI.

1.5 Environmental management

8.1 Best practice environmental objectives and outcomes

Environmental objectives and outcomes agreed in water plans should be guided by criteria on the identification of key environmental assets and the values communities place on those assets.

- Waterways or water-dependent ecosystems should be considered high environmental priority if they have one, or more, of the following characteristics.
 - formally recognised significance (under Australian or State Government legislation)
 - the presence of highly threatened or rare species and ecological communities (under Australian or State Government legislation)
 - high naturalness values (for example, aquatic invertebrate communities or riparian vegetation)
 - vital habitat (for example, drought refuges or important bird habitats and key sites for connectivity).
- Environmental objectives and agreed environmental outcomes should then:
 - be set through a collaborative, stakeholder and community process that considers the relative community value of outcomes
 - be based on good scientific, objective and on-the-ground knowledge
 - clearly identify any risks and potential environmental tradeoffs under different climate scenarios (including average and dry years)
 - be transparent, logical and easily understood by stakeholders
 - be specific and defined well, enabling clear long-term performance indicators to be set and monitored.

NFF supports principles to maximise use of environmental water to achieve practical and agreed environmental outcomes, including clearly specifying objectives and outcomes as part of a renewed NWI. NFF also welcomes the shift from water recovery as a focus. Under a future constrained by water scarcity, it is the view of the NFF that improving the efficiency of water uses, and maximising outcomes should be key objectives of water planning.

NFF agrees that the selection of environmental objectives and agreed outcomes involve societal trade-offs and supports the emphasis on agreed environmental outcomes. What will ultimately be in place must be determined and prioritised with significant [local] community input, and input from other relevant stakeholders.

NFF supports the process outlined to establish environmental objectives and agreed environmental outcomes.

Central to this process will be strong governance processes that engender confidence and enable buy-in from the community. Governments should work with communities, respecting the time required for stakeholders to comprehensively assess the full suite of information available to make informed decisions. Decisions will continue to be difficult, involve tradeoffs, and the perceived independent of decision-makers must be reinforced.

Environmental objectives will have to be amended as a result of climate change within the scope of existing entitlements.

8.2 Integrated Management

The management of environmental water should be integrated with complementary waterway management at the local level by ensuring that consistent management objectives govern both the use of environmental water and complementary waterway management activities.

NFF supports integration of the management of environmental water with complementary waterway management as it recognises the complex and complementary relationships between flow and non-flow measures. the NFF has long called for a greater focus on non-volumetric measures such as, but not limited to, habitat restoration, feral and invasive species management, carp control. Governments must work in partnership with local communities on agreed outcomes.

There are concerns about the potential for regulatory creep and duplication, especially across various state and territory government institutions.

NFF recommends that any move towards integrated management be guided by clear objectives and best practice regulation.

8.3 Waterway oversight

Where not in place, State and Territory Governments should establish a formal institutional oversight responsibility for wetland and waterway management that provides an interface between the management of waterways and environmental water.

The roles and functions of a waterway manager should include:

- undertaking collaborative planning processes that result in clearly articulated environmental objectives, targets and priorities
- ongoing collaboration with Traditional Owners
- ongoing environmental risk assessment
- providing input to water planning processes on environmental priorities and impacts
- oversight of natural resource management actions to achieve agreed objectives
- working with the system manager to achieve agreed environmental outcomes
- facilitating on-ground delivery of environmental water management
- monitoring and reporting on environmental outcomes and risk management
- evaluation where environmental outcomes were not achieved
- providing opportunities for community participation, to facilitate change and awareness of waterway issues
- communicating policy changes to stakeholders.

8.4 Review processes for outcomes

Clear processes should be established for reviewing progress on environmental outcomes, understanding their feasibility given climate induced changes in water availability and other factors (such as sea level rise and increased temperatures), and determining if and when management objectives should be revisited within planning review processes.

NFF supports this advice.

8.5 Objectives and priority setting for held water

The overarching objective for environmental water managers managing held environmental water is to make decisions on where, how and when environmental water should be used (or whether it should be traded or carried over) based on the best use for the environment over the long-term.

Criteria for prioritising environmental watering should be embedded in a new National Water Initiative and include the:

- extent and significance of environmental benefit
- likelihood of success
- longer-term benefits
- urgency of watering needs
- feasibility of the action
- environmental or third-party risks
- cost effectiveness of the watering action
- efficiency of water use
- additional cultural, economic, social and Traditional Owner benefits.

Objectives for seasonal environmental watering under different climate scenarios should be embedded in a new National Water Initiative such as:

- avoid critical loss, maintain key refuges and avoid catastrophic loss during drought scenarios
- maintain river functioning and high-priority wetlands and manage dry-spell tolerances during dry scenarios
- improve ecological health and resilience and recruitment opportunities for key species during average-climate scenarios
- restore key floodplain and wetland linkages and enhance recruitment opportunities for key species during wet scenarios.

NFF supports the discretionary power afforded to environmental managers to use environmental water and balance complex trade-offs between competing environmental needs and different locations and times.

However, NFF suggests there should be a proportionate responsibility for environmental managers to justify their decision-making. It is unclear how the criteria would be assessed and understood by local communities; however, we further emphasise the importance of community engagement and communication as part of the decision-making process.

8.6 Transparent trade strategies

Environmental water holders should have in place transparent and publicly reported trading and carryover strategies and reporting statements for entitlements and allocations that show the best use of water to contribute to environmental outcomes as opportunities arise.

Revenue from trading should be held in a dedicated, ring-fenced account with the ability to be carried over and devoted to activities that enable the best use of environmental water over time. And, use of this revenue should be publicly reported.

NFF supports this, environmental water holders should have the same obligations as consumptive users and demonstrate how they are using their water portfolios. For example, in the Murray-Darling Basin, the Commonwealth is the single largest entitlement holder and should have greater transparency obligations, especially as environmental water holder strategies can impact trade and thus market outcomes.

8.7 Innovative market approaches

Environmental water holders should work with system managers and consumptive entitlement holders to pursue innovative market approaches.

NFF supports more innovative market approaches provided implications can be assessed against NWI outcomes — that is, does not create third party impacts and environmental impacts.

To date, the preference of Governments has been to acquire water entitlements to be 'held' in environmental water portfolios. There has been a much lesser focus on non-permanent approaches to obtain water for the environment, especially in the context of an evolving water market. For example, partnerships between environmental water holders and Infrastructure Irrigation Operators, using longer term options agreements, and using the temporary market, have not been adequately explored.

There have been examples of partnerships between the Commonwealth and state water holds with industry that have highlighted the potential benefits for both industry and environmental users. The agreement between Renmark Irrigation Trust and the Commonwealth Environmental Water Holder in 2016 is one example of mutually beneficial relationships in the Basin that has enabled the delivery of environmental water through private infrastructure, particularly to areas that may have otherwise been inaccessible. Irrigators have received income for the use of their infrastructure. Other examples include the partnership between the CEWH and the Australian Landscape Trust, as well as the Murraylands and River Landscape Board that can offer guidance on how this can occur.

The NFF recommends that environmental water holders are enabled and encouraged to use a range of mechanisms to deliver environmental water, including through the use of partnerships.

8.8 Capacity to vary entitlement portfolio

Environmental water holders should be enabled to vary their entitlement portfolio over time to match ecological requirements in a changing climate. Governments should develop clear guidelines on the criteria for selling environmental water entitlements including cost-benefit analysis, consideration of possible consequential adjustments to catchment sustainable diversion limits and environmental provisions in water plans, a formal approvals process and publicly reported trade activity.	
 8.9 Actively pursue public benefit outcomes Environmental water holders should: give explicit consideration to other public benefit outcomes including cultural and social outcomes, where they do not compromise environmental outcomes improve collaboration and communication with Traditional Owners on cultural water decision making and outcomes in environmental water planning processes report on any instances where specific cultural outcomes were unable to be delivered because they were incompatible with agreed environmental outcomes build on their knowledge of the potential for environmental water to achieve shared community benefits under drying climate scenarios. 	NFF supports this advice. However, governments must ensure social, economic and environmental impacts are considered when decisions are being made.
8.10 independent managers and auditing Where governments own significant held environmental water that can be actively managed they should ensure that decisions on the use of this water are made by independent bodies at arm's length from government. Governments with held environmental water entitlements should provide for independent auditing, on a three-yearly basis, of the adequacy and use of environmental water entitlements to achieve the best outcomes. 8.11 the system manager's role in environmental management Water system managers should be obligated to use their best endeavours, while protecting third-party interests, to achieve agreed outcomes. State and Territory Governments should report and evaluate system managers' efforts at facilitating the achievement of agreed environmental and other public benefit outcomes.	

8.12 Commitment to adaptive management

In planned environmental water systems, State and Territory Governments should:

- establish mechanisms to ensure that adaptive management is implemented consistently and explicitly in practice
- ensure adequate monitoring, evaluation and reporting efforts on agreed environmental outcomes, and report openly about instances where these outcomes are not achieved.

Environmental water holders should:

- use the results of monitoring, evaluation and research to improve water use as part of an adaptive management cycle and ensure that this is adequately resourced
- publicly report on environmental water use, the outcomes of watering events, the achievement of ecological outcomes, and monitoring of objectives.

NFF strongly supports adaptive management principles to be included in a renewed NWI. There is scope for adaptive management principles to be more explicit and expanded in recognition of the complexity of water reform and uncertainty of future water availability.

However, there is an inherent tension between the need to be flexible and adaptive to incorporate new knowledge and respond to external events, and the need for certainty for entitlements holders. NFF suggests that there should be a process within the water planning framework that details what aspects are, and may be subject to, adaptive processes and adaptive management. For example, this may include a process to adapt environmental objectives, but note this must be agreed to by stakeholders.

1.6 Securing Aboriginal and Torres Strait Islander people's interest in Water

9.1 A new co-designed element

The renewed National Water Initiative (NWI) should include both an objective and new element dedicated to Aboriginal and Torres Strait Islander people's access to water and the involvement and participation of Aboriginal and Torres Strait Islander people in water management. The Commission supports the establishment of the Committee on Aboriginal Water Interests to develop the new NWI element.

In developing the new element, the committee should:

- ensure alignment between commitments under the National Agreement on Closing the Gap and new NWI content
- have a terms of reference that allows for an advisory role to the Coalition of Peaks
- report directly to water ministers.

This needs further work to ensure irrigation farmers can be confident in this process. NFF seeks further information on checks and balances, limitations on scope e.g., that Native Title Claims are not included, and assurances that additional entitlement pools are not created.

The NFF recommends that the Productivity Commission clarify the structure, scope and detail of the proposed Committee on Aboriginal Water interests.

9.2 Improving cultural outcomes using existing frameworks

In developing a new National Water Initiative element, the Committee on Aboriginal Water Interests should consider content that ensures that: NFF supports the delivery of cultural objectives using environmental water

- cultural objectives are explicitly identified and provided for in water plans and progress in achieving those objectives is regularly monitored and reported publicly
- environmental water holders seek to deliver cultural outcomes whenever consistent with their ecological obligations
- natural resource managers incorporate cultural objectives into river and wetland plans and work with Traditional Owners in on ground management programs to achieve them
- Traditional Owner engagement in water planning, environmental water management and natural resource management is of high quality and fostered through the development of long term relationships (Draft NWI renewal advice 6.2, 8.3 and 8.9).

NFF remains open to considering opportunities benefiting Indigenous communities along with other priority outcomes.

9.3 improving access for economic development

In developing a new National Water Initiative element, the Committee on Aboriginal Water Interests could consider content that ensures that, where State and Territory Governments have decided that providing access to water is an effective way to support the economic development of Aboriginal and Torres Strait Islander communities, access is provided by:

- sourcing water within existing water entitlement frameworks, such as by purchasing water on the market or as part of transparent processes for assigning unallocated water
- ensuring adequate supporting arrangements (such as training and business development) are in place to enable Aboriginal and Torres Strait Islander communities to maximise the value of the resource for their needs and uses
- actively involving Aboriginal and Torres Strait Islander communities in program design.

This would be supported by:

- specifying and implementing governance arrangements for such water
- regularly monitoring and publicly reporting on the inland waters target under the National Agreement on Closing the Gap.

Where governments invest in new water infrastructure, particularly in undeveloped areas, governments should consider whether reserving a share of any new water rights for Traditional Owners would be consistent

NFF supports aspirations of Traditional Owners to access water for social, cultural, and economic purposes.

However, NFF's position is that:

- The NFF supports the provision of water for indigenous use only where this does not result in third party impacts to existing entitlement holders, including the environment.
- The NFF supports the use of existing held and planned environmental water entitlements for the co-benefit of indigenous cultural water use.
- The NFF supports the use of existing market mechanisms to acquire indigenous water entitlements from willing sellers for contemporary economic use. However, NFF does not support Government participation in the water market, particularly through the provision of public funds to access water for any purpose including First Nations economic use.
- The NFF acknowledges that the ownership framework for indigenous water entitlements for contemporary economic use is a matter for governments and indigenous peoples.
- The NFF seeks that the delivery of indigenous water to off river sites includes the associated river losses for the off river delivery.
- If the above framework were adopted the current hierarchy of water entitlements, as enshrined in state legislation, would be respected and therefore unaffected.

with plans for future community development and assist in meeting targets set under the National Agreement on Closing the Gap.	However, the scope of Traditional Owners' interests in the NWI should be limited only to water issues and respect existing regimes and other instruments to resolve Traditional Owners' other interests.
	There also needs to be further consideration of the approach of reserving a share of entitlements including new infrastructure for Traditional Owners. In Queensland, the Cape York Water Plan has delayed non-indigenous projects and has only given Traditional Owners non-permanently tradeable entitlements.

1.7 Ensuring the integrity of water resource

10.1 building system integrity through a renewed element

A renewed National Water Initiative would be strengthened by acknowledging that ensuring the integrity of water resource management requires more than robust water accounting. To build integrity into system management, consideration should be given to broadening the water resource accounting element to ensure that the provision of credible and reliable information and robust institutional processes provide assurance that:

- entitlement holders are operating in line with their rights and that water use is consistent with established rights and water plans
- water systems are being managed to best effect for all users.

The provision of information regarding the broader water context is also needed to improve understanding of key water resource challenges and potential risks, enabling entitlement holders, industry and communities to better plan for the future.

NFF supports system integrity as a new element of a renewed NWI.

10.2 ensuring the integrity of water use

To ensure the integrity of water use, a renewed National Water Initiative would be strengthened by requiring fit-for-purpose:

- metering and measurement of surface water and groundwater take
- registers and reporting on use that reflect the related benefits for water resource management and support compliance and enforcement systems

NFF supports greater integrity; however, any regulatory system must be fit-for-purpose, risk-based and proportionate. While metering and measurement of surface water and groundwater is important, the cost of metering can be prohibitive.

For example, the NFF notes the inherent difficulty in accurately monitoring and modelling the impact of floodplain harvesting on water availability, and generally movement on water across floodplains. Technologies

• compliance and enforcement systems, including a focus on available for these purposes are typically cost prohibitive, especially for proactive regulation to increase entitlement holders' awareness of regulatory purposes. their obligations. NFF recommends continued research that aims to progressively reduce the cost of technologies, especially measurement technologies, for Inclusion of leading-practice compliance principles would also strengthen the agreement. Compliance framework requirements from the Murrayentitlement holders. Darling Basin Compliance Review provide good foundation principles, but consideration should be given to augmenting them with requirements Water accounting and transparency should also consider commercial in consistent with leading-practice governance. confidence and personal privacy interests. NFF supports this, noting that the privacy of individual entitlement 10.3 ensuring the integrity of water system management To ensure the integrity of water resource management, a renewed National holders' rights must be protected. Water Initiative would need to require water system managers to: • adopt a risk-based approach to developing and maintaining information and data collections necessary for effective water system management. These collections should include information about how much water is in a system, where it is, how much is extracted (including by interception activities), how much is carryover, and who gets what and when ensure that information and data sources are publicly available and information is accessible and effectively communicated. Where multiple agencies are responsible for a system's management, collaboration is needed to ensure that data and language are consistent and information is accessible from a single online source implement quality assurance processes for information and data sources to enhance the credibility of information, including independent audits for highly developed and regulated systems ensure information about their decisions, operations and performance is transparent and that public concerns and information requests are responded to expediently. Stakeholder engagement would improve information provision and help system managers determine if available information adequately demonstrates to the public that water systems are being managed to best effect.

10.4 Ensuring information on the broader water context aligns with users'

needs

In renegotiating a renewed National Water Initiative, jurisdictions should commit to providing information on the broader water context that meets the needs of system participants (including water planners, managers, users and communities).

National and system water accounts should be reviewed. In undertaking these reviews, system participants must be engaged to ensure useful and meaningful information is reflected in accounts in the future.

A renewed National Water Initiative should acknowledge the utility of national water accounts and require their regular publication and avoidance of unnecessary duplication of effort in their preparation.

1.8 Urban water services

11.1: Best Practice Urban Water System Planning

Updating the National Urban Water Planning Principles and formally embedding them within the National Water Initiative would establish a standard for best-practice urban water system planning. A renewed National Water Initiative should include the following principles:

- Integrated management of water supply, wastewater and stormwater is embedded in urban water planning and management systems.
- Planning decisions align with system objectives for levels of water security, service quality, the environment and urban amenity.
- System objectives are discovered through a transparent and consultative approach and approved by governments in line with customer and community preferences.
- Urban water planning connects water planning across different scales and with land-use planning.
- All supply options are considered and their relative merits subject to a rigorous, consistent and transparent assessment of costs and benefits.
- Roles and responsibilities in the planning and management process are clearly assigned between relevant governments, utilities and other planning entities.
- Utilities, governments, regulators, developers and land-use planners collaborate effectively in planning.

 develop improved, practical guidance on funding stormwater management and incorporating stormwater into pricing frameworks recommit to the principle that developer charges are cost reflective. Jurisdictions should maintain institutional separation of water resource management, standard setting and regulatory enforcement from service delivery, including where local governments are owners. 	
11.5: Improving Pricing and Service Outcomes	
All urban water service providers, including those with fewer than 10 000 connections, should be subject to jurisdictional monitoring and public reporting.	
Through the National Water Initiative, jurisdictions should recommit to independent, public and annual reporting of key pricing and service quality indicators at a national level for all major urban water service providers. Monitoring and reporting should be designed to: increase transparency of service delivery feed into economic oversight, including by promoting competition by comparison through benchmarking, and by highlighting where performance improvements are required contribute to State and Territory government policy decisions underpin regular assessments of progress of National Water Initiative implementation.	
11.6: Ensuring Access to a Basic Level of Service A renewed National Water Initiative should include a commitment to ensure access to at least a basic level of safe and reliable drinking water to all Australians. State and Territory Governments could each develop a definition of, and commit to ensure access to, a basic level of service for each community in their jurisdiction.	
Cost-reflective user charges should remain the default arrangement, but some regional and remote services in high-cost areas will require operational subsidies to maintain a basic level of service to all customers. Any subsidies to those areas should be provided as transparent community service obligation payments. Payments to local government-owned providers should be: • designed to ensure access to a basic level of service in those communities where such service provision would otherwise be unviable	

 adequate to ensure a basic level of service is considered affordable based on credible data on efficient service costs, subject to a degree of independent oversight, following State or Territory government involvement in system planning calculated in a predictable fashion to provide a reliable source of funding conditional on ongoing operational improvements, such as improvements to utility governance, better service outcomes (based on performance benchmarking), compliance with guidelines for system and contingency planning, or for pursuing collaboration. 	
11.7: Governance of Regional and Remote Services	
A renewed National Water Initiative should contain agreed principles for	
governance of regional and remote water services where local	
governments retain ownership of utilities. Financial separation should be	
maintained, with utility finances ring-fenced from local government	
finances. Clear roles for State and Local Governments during extreme	
events should be defined.	
11.8: Monitoring and Reporting on Regional and Remote Service Quality	This should not be limited to remote Aboriginal and Torres Strait Islander
Monitoring and reporting of water quality and service outcomes in remote	communities.
Aboriginal and Torres Strait Islander communities should be coordinated	
with the development of data collection required to measure progress	
against the community infrastructure target under the National Agreement	

1.9 Water reform in rural Australia

on Closing the Gap.

12.1 helping communities deal with adjustment pressures

Inclusion of guiding principles in a renewed National Water Initiative would clarify how governments can respond to any significant community adjustment pressures resulting from policy-induced reductions in water availability.

- The socioeconomic impacts of any major potential policy change be assessed to identify possible community needs. Effective community partnerships and engagement are critical to understanding the wider context.
- Generally-available measures targeting the welfare and skills of individuals, and regional development planning and initiatives to

NFF notes that, while it is important to help communities deal with adjustment pressures, it is also equally important to be forward planning in supporting regional development, consistent with the Sefton report recommendations.

Rural, remote, and regional communities face a wide range of pressures that cannot be fully captured within the NWI. While the NWI offers guidance in respect of water-related issues, the Commission should take a holistic approach to structural adjustment.

- leverage community capabilities and competitive advantages, are usually the most appropriate responses to adjustment pressures.
- In rare circumstances it may be appropriate to take additional steps to address adjustment issues if policy changes that are beneficial to the wider community impose increased risk of permanent disadvantage for groups of individuals. Where generally-available measures will be inadequate particularly if more support could improve the efficiency of the adjustment process by addressing impediments to change.
- Where further support is warranted:
 - consideration should be given to how existing regional development programs support the adjustment process and whether policies and regulations not directly related to water unnecessarily impede change.
 - options for further support need to be considered on a case-by-case basis and consider all factors affecting a community (not just changing water availability) and the chosen option should be the one that delivers the largest benefits relative to costs.
 - measures that are likely to build adaptive capacity and secure employment or business opportunities should be the focus, and targeted to the most vulnerable individuals (those at risk of permanent disadvantage).
 - industry assistance and subsidies should be avoided.
 - a commitment should be made to public monitoring and evaluation of the effectiveness of any assistance.

There is significant Commonwealth influence in this role. For example, the National Water Grid Authority appears to be providing long-term funding to support projects to improve water security, reliability, and opportunities across Australia, and play a pivotal role in this task.

However, further projects, especially large infrastructure projects require long-term thinking. The NFF's regionalisation agenda provides a useful framework.

NFF does not support the Commission's recommendation to avoid industry assistance and subsidies, which does not appear to appreciate nor respect broader industry contribution to the local and national economies. Agricultural sectors have always strived to improve productivity and efficiency — to grow more with less — through RD&E, commodity market development and education, which can often be assisted by grants. A range of economic tools should be used on a case-by-case basis to support industry.

NFF recommends removing the following line: *industry assistance and* subsidies should be avoided.

1.10 Government investment in major water infrastructure

13.1 new water infrastructure element

In renegotiating the National Water Initiative, jurisdictions should develop an element to guide investment in water infrastructure.

The new element should restate the high-level principle that all infrastructure is to be assessed as economically viable and environmentally sustainable prior to the commitment of funding, with cost

The guide, when developed, should be publicly available.

recovery from users as the norm. Jurisdictions should agree to criteria on how adherence with the principle can be demonstrated.

The new element should also include an agreed framework to guide government investment in major water infrastructure.

13.2 Assessment criteria for water infrastructure

As part of the new infrastructure element, jurisdictions should agree to criteria on how projects can demonstrate adherence with the National Water Initiative (NWI) requirements for infrastructure.

Economic viability should be demonstrated by a positive benefit-cost ratio determined through a transparent and rigorous cost-benefit assessment, with:

- an assessment of a range of options, including non-infrastructure options where these can meet the investment objective, and selection based on the highest (positive) expected net benefit
- transparency supported by publication of business cases as a matter of course (except where commercially-sensitive data limits publication, in which case the business case should be reviewed by a qualified independent body)
- use of entitlement pre-sale to limit optimism bias
- robust estimates of social and distributional impacts.

Environmental sustainability should be demonstrated through environmental, social, and Aboriginal and Torres Strait Islander people's cultural heritage impact approvals, and compliance with a high-quality and NWI-consistent water plan that:

- establishes the environmental water provisions necessary to meet agreed environmental outcomes under a changing climate
- sets out the social, economic and cultural outcomes sought from the water plan
- clearly defines the expected reliability of water rights, taking into account the likely impacts of climate change.

Costs should be recovered from users as the norm, except where government funding is provided through a transparent subsidy. This should be limited to situations where:

• substantial public benefits associated with water infrastructure impose additional costs that are best borne by governments

The principles underpinning development in major water infrastructure will play a significant role in development northern Australia, consistent with the NFF's 2030 Roadmap goals.

NFF notes the Commission's draft advice that seeks to encourage governments to ensure that they make the upfront investment in scientific analysis required to support the long-term sustainability of the project, ensure NWI consistent water entitlement and water resource planning processes are in place and that investment decisions are made on sound and transparent businesses cases.

There is also still little clarity about how governments would weigh economic viability and environmental sustainability in the decision-making process.

NFF only accepts full cost recovery where:

- 1. assets have been 'contributed' or paid for by a government (or another party, such as a housing developer) with the intent of lowering water prices, or
- 2. a government provides a transparent community service obligation (CSO) to fund a portion of the cost of the infrastructure.

 And thereafter the residual cost recovery is equitably shared.

NFF also adds that, where assets are heavily underutilised and where services are delivered at standards that far exceed user needs, water users should not bear the brunt of poor investment decisions of asset owners.

Governments should consider the full range of costs and benefits associated with irrigation infrastructure development, including important flow-on impacts and impacts for communities and the economy as a whole.

This must include full examination of the public benefits associated with such investment, including the contribution of projects to regional development, avoided adjustment costs, the ability to mitigate

 an equity argument exists to support access to an essential service (for example, high-cost regional town water systems where the cost of supplying a basic level of services is considered unaffordable). 	environmental impact, and the local, regional and national economic benefits that flow from investment in water and irrigation infrastructure. This should contribute to the apportionment of costs for any new infrastructure.
Governments should not subsidise major water infrastructure for strategic objectives, such as regional development, unless they demonstrate that the project is the most effective means of addressing that objective. This requires alignment with broader high-quality and long-term strategic regional planning processes.	NFF notes that any non-agriculture infrastructure that are built, such as river marinas and hydroelectric stations, river operations should not interfere with existing water users or, river management protocols or environmental management.
Jurisdictions should maintain the principle supporting use of market mechanisms for allocating water. However, they should consider allocating entitlements in undeveloped systems to Traditional Owners, and ensure that project assessment processes are culturally responsive.	
13.1 Institutional arrangements A new water infrastructure element should clarify relevant institutional roles and responsibilities underpinning the framework for government investment.	
 State and Territory Governments should have primary responsibility for proposing (and overseeing) major water infrastructure developments in their jurisdictions. Australian Government funding should not exceed the contribution of the relevant State or Territory Government. Independent infrastructure advisory bodies should transparently review the business cases of major projects. 	

1.11 Community engagement

14.1 community engagement framework

Australian governments should recommit to best practice, cost-effective engagement with their communities on all water matters. To achieve this, a renewed National Water Initiative should develop a community engagement framework focused on:

• continuously improving and sustaining government engagement effort across all aspects of water resource management and water service provision

NFF supports a coherent community engagement framework, consistent with the Sefton Basin Social and Economic Assessment. The success of future water reform, and confidence in the systems will be underpinned by the capacity of Governments to engage with communities, draw on local knowledge, understand shared values, and navigate a system of competing values and beliefs effectively and meaningfully.

- ensuring that engagement effort and its resourcing are fit-forpurpose taking into account the scale of proposed change or reform, its sensitivities and its impacts, and that governments are clear about the purpose of their engagement and the role of communities in decision-making
- improving the effectiveness of community engagement through enhancing:
 - water information accessibility and comprehensibility
 - community water literacy.

The characteristics of inclusiveness, timeliness, partnership, respect, access to information, transparency, responsiveness and continuous improvement represent a best practice foundation for guidance on effective community engagement and information provision practice in water resource management and water service provision.

The Murray-Darling Basin Plan offer pertinent lessons for improving community engagement and consultation processes and must be incorporated into a renewed NWI. Communities should be at the centre of decision-making communities, supported by expertise, knowledge and advice of Government and relevant stakeholders.

NFF supports the principles outlined, noting that an ongoing challenge will continue to be the capacity of stakeholders and governments to engage, particularly in time and resource-constrained environments. For example, initiating consultation processes in the middle of harvest is unlikely to afford stakeholders the opportunity to fully assess the implications of policy.

Another part of effective engagement is whether stakeholders have confidence in the process, and perceived legitimacy. This requires:

- Governments having the capacity to incorporate local knowledge into the decision-making process;
- Transparency in the decision-making process; and
- Impacted stakeholders feeling heard.

For example, in the Murray-Darling Basin many elements of the Basin Plan are complex, interdependent, and contentious (particularly the implementation of the supply measures) and require committed and extensive consultation with communities, and other relevant stakeholders, over a reasonable timeframe. To an extent, there requires a level of innovation from Governments to ensure engagement is meaningful, representative, and worthwhile for stakeholders.

NFF further emphasises the importance of regionally based staff to facilitate connection between communities and Government, this would also allow for continuous engagement.

We also note the IAP2 community engagement spectrum in the Support Document which provides a useful framework for engagement. NFF adds that it is also important to manage expectations, stakeholders need to understand what engagement is for, and what it is not.

Consistent with our submission to the Issues Paper, **NFF recommends** that:

•	Governments ensure they have the appropriate governance and
	frameworks in place to acquire and integrate local knowledge into
	their decision-making processes.

 Governments ensure they have realistic timeframes that enable consultation, approvals processes, planning, and implementation to be undertaken properly.

1.12 Knowledge, capacity and capability building

14.1 effective knowledge generation

Commitment to a culture of evidence-based decision making, innovation and continuous improvement will underpin successful implementation of a renewed National Water Initiative. Inclusion of the following principles in a renewed National Water Initiative would bring that to effect.

- Knowledge building priorities are identified through processes that involve all jurisdictions and draw on input from the research community and research users.
- Governments invest in knowledge generation activities that align with identified priorities and serve the public good.
- Investments are streamlined through effective coordination between jurisdictions.
- Utilities are empowered to invest efficiently in knowledge generation.
- Strong, durable partnerships between decision makers and knowledge generators are developed and actively managed.
- Decision makers have the capability and capacity to use knowledge effectively in making evidence-based decisions.
- Water utility staff have the capacity and capability to discharge their functions.

NFF supports strong knowledge, capacity and capability building, the principles are sound. Water research is complex. Part of the challenge is identifying long-term priorities, prioritisation of research to ensure important questions and knowledge gaps are being assessed. NFF understands there is currently work in that space, but there does not appear to be clear link to the broader national agenda.

Another element of knowledge generation is dissemination of information to stakeholders and the broader community. Notwithstanding water policy, a significant amount of research already occurs, and it is difficult to keep up to date with research outcomes, why it is important, how it is useful and how it may impact policy development.

NFF suggests that that one of actions of a renewed NWI include dissemination of research to communities and other stakeholders. The point about strong, durable partnerships between decision-makers and knowledge generators partly addresses this action.