MURRAY VALLEY PRIVATE DIVERTERS (MVPD) INC

SOUTHERN BASIN

National Water Initiative (NWI)

Productivity Commission inquiry

Submission by

August 2020

Background description:

Murray Valley Private Diverters (MVPD) welcomes the opportunity to provide this submission to the Issues Paper published by the Productivity Commission, as part of its inquiry into National Water Initiative.

Broadening the scope of the inquiry beyond that required by legislation, is also a positive step.

MVPD members are NSW Murray irrigators who utilise water for irrigation and stock and domestic purposes, directly from the Murray system and its anabranches of the mid-Murray between Yarrawonga weir and the Edward Wakool Rivers junction.

Members can be individual pumpers, or members of small irrigation schemes or systems. The majority of irrigation entitlements in this region consists of Murray General Security entitlements with rules described in the Murray and Lower Darling Water Sharing Plan.

NATIONAL WATER INITIATIVE (NWI) (2004)

The agreed objectives of the NWI included (but are not limited to) the following important elements:

- (23i) Clear and nationally-compatible secure water access entitlements
- (23iii) Provision for the environmental and public benefit outcomes
- (23iv) Complete return of all currently over-allocated or overused systems to environmentally-sustainable levels of take
- (23vii) Assignment of risk relating to the consumptive pool

The assignment of property rights of water was a key element of the NWI.

- (25i) Enhance the security and commercial certainty of water access entitlements
- (25v) & (41) Implement firm pathways and open process for returning previously overallocated or over-drawn surface and groundwater systems
- (25vi) Clear assign responsibility for risks in regards to consumptive pool
- (46-50) Water access entitlement holders were to bear risks from
  1)seasonal or long-term changes in climate; and periodic events such as bushfire and drought
  2) Governments assigned risk for any reduction or less reliable water allocation arising from change in government policy (**eg new environmental objectives**)

Water Market and Trade objectives also included (58):

- Efficient water markets where water systems are physically connected
- Recognise and protect needs of the environment
- Provide appropriate protection of third-party interests

Environmental water recovery objectives included (23iii) (35**):**

- Investment in efficient water infrastructure
- Purchase or market - based mechanisms
- Selection of measures primarily on the basis of cost-effectiveness, and with a view of managing social and economic impacts

MVPD Stakeholder Assessment:

- Application of the National Water Initiative has not been consistent with agreed conditions as specified in the Intergovernmental Agreement.
- Disproportional and inequitable impacts have occurred to NSW Murray General Security entitlements (Southern Basin) from Federal and State Government water policies
- Inflexible and/ more cost-effective options to achieve environmental objectives have not been enabled/prioritised. (focus is on volumetric recovery targets in Southern Basin for 'end of system flows SA). Water recovery has focussed primarily on NSW Murray, Northern Victoria, Lower Darling (NSW)
- Water Market changes have failed regional communities, risks Australia's diverse nature of agricultural production. Third party impacts are evident, but ignored.

INFORMATION REQUEST 1

The Commission welcomes feedback on:

- *whether the signatories to the NWI are achieving the agreed objectives and outcomes of the agreement*
- *which elements of the NWI have seen slow progress*
- *whether there are cases where jurisdictions have moved away from the actions, outcomes and objectives of the NWI*
- *any other data and information sources that might be useful for assessing progress.*

(NWI) Clear and nationally-compatible secure water access entitlements (examples Issues 1 – 5)

Disproportional reliability impacts on NSW Murray General Security (GS) licences

NSW Murray General Security (GS) water entitlements reliability post the National Water Initiative, has declined from approximately 75% reliability, to less than 50%.

Change in reliability can be directly attributed to Government policy including:

- Inequitable geographic application of the Murray Darling Basin CAP and timelines
- Inequitable application of the Water Act 2007 and Murray Darling Basin Plan (2012)
- Cumulative impacts (rule changes) from water management decisions by the Murray Darling Basin Authority, Ministerial Council (MINCO) and Basin Officials Committee (BOC) – rules primarily applied to (NSW Murray General Security entitlements, Vic Sales entitlements)
- Politicisation of Federal and State Government's decisions *(winners V losers*)
- Murray Darling Basin Authority (MDBA) reluctance to include a broader suite of solutions to achieve environmental objectives

Change in reliability has also occurred from protracted drought eg Millennium Drought

- A reliance on NSW/Victorian Murray system to offset lower flows from the Darling River (Qld/NSW) to meet SA minimum entitlement flow of 1850GL
- Post Millennium drought responses have focussed on 'worst case scenario' and have reduced the value in drought management for Murray GS, historically provided by Australia's major Southern Storages (eg Hume; Dartmouth; Snowy Scheme)
- General Security (GS) Irrigation entitlement reliant businesses /communities closest to major Southern storages, have reduced capacity to withstand drought, (via reduced allocations annually, reduced access to water trades as a result of reduction in 'available water remaing to trade in the market'. (less resilience)

Issue 1: BASIN WIDE CAP

There has been inequitable application of the CAP on extractions and associated timelines.

1997: Murray River Agreement CAP 1993/94

2004: Murray Cap Southern Basin: implemented

• Southern Basin Cap requirements implemented in 2004 Water Sharing Plans

2020: Murray Cap Northern Basin: incomplete

- Northern Basin surface water incomplete (including floodplain harvesting)
- Northern Basin – CAP on extractions implementation timeframes extended for Queensland and Northern Basin (NSW), xii (Attach A)
- Queensland only fully entered into Cap arrangements in 2010 xiii (Attach A)
- Post 1997, Barwon Darling in regular breach of Basin CAP requirements xiv (A)
- Post 1997, Barwon Darling merged with Lower Darling for CAP reporting purposes (Instances of non- CAP compliance continued) xv (Attach A)
- 2012, NSW revised CAP model for Barwon Darling, extraction rules were increased in Barwon Darling Water Sharing Plan (2012) xvi (Attach A)

Issue 2: NATIONAL METERING STANDARDS:

There has been inequitable application of Nationally Agreed metering standards.

Failure to implement equitably, National Meter Standards and timelines, have led to inequitable application of Government policies stemming from the Murray Darling Basin Cap, NWI and subsequent water reform policies including environmental objectives.

Policies include the Water Act 2007, Murray Darling Basin Plan, drought reserve policies and States Water Sharing arrangements.

Environmental Water Recovery also has not been equitably achieved due to inadequate information on 'levels of take' in all parts of the Murray Darling Basin.

2004 National Water Initiative (NWI): agreed national metering standards

- Southern Basin (NSW/Vic) metering programs rolled out/completed

2020: **Metering incomplete across States (Northern Basin -----Qld, NSW)**

- South Australia, metering standards still involve levels of self reporting
- Metering/Telemetry not consistent across states /or regions (Qld, NSW, SA)

2008 (post) Northern Basin – Floodplain harvesting

• Floodplain Harvesting licensing and National metering standards not implemented or incomplete

2017: MDBA Compliance Report includes:

• "*Having only adopted the Cap on diversions in 2010, Queensland has had the least experience with developing a compliance culture*" (*source MDBA)*

• Report highlighted that 2/3 thirds of take in Queensland is not metered or measured

Issue 3: Murray Darling Basin Agreement: currently is enabling;

• A reduction *in-flow* contributions from the Northern Basin's Darling River system to the Menindee Lakes, to be subsidised from water resources in the Southern Basin with specific effects on NSW Murray General Security water property rights

• Negative ecological impacts of SA infrastructure changes affecting the Coorong, Lower Lakes and Murray Mouth to be offset by increased flow demands upstream from the Murray River (eg construction of barrages, diversions of historical catchment flows in South East of South Australia away from the Coorong, into the Southern Ocean)

Murray Darling Basin Agreement does not factor in substantial reduction in flows from the Northern Basin (Qld/NSW) resulting from drought and/or progressive increases to 'extractions' (eg Floodplain harvesting and/or licenses and/or amendments - river pumps)

Pre 2000, the Darling System contributed 39% to South Australia's minimum entitlement flow of 1850GL. An assessment of live river data (flows) over Weir 32 (Lower Darling) determines that flows have been progressively **reduced by 69%. (refer Attachment A)**

This can be attributed to:

1. Periods of drought in the Northern Basin (Darling River system Qld/NSW) where insufficient, or no flows, reach Menindee Lakes

2. Irrigation expansions in the Northern Basin (floodplain harvesting, storage diversions, or direct river pumping) have reduced flows from the Darling System to Menindee in non-drought years (eg average years to wet years)

3. South Australia's minimum entitlement flow requirements of 1850GL is being met by a reduction in reliability by NSW Murray General security irrigation entitlements

Issue 4: Trade Impacts

Council of Australia Governments (COAG) 1993/94 included policies to enable or encourage water to move to theorised scenarios, of '*high value'* crops.

The NWI further progressed policies that separated land and water and encouraged trade. Policies did not factor in the following:

- Natural river system limitations (capacities) in the Southern Basin
- Dominance of new trade demands moved downstream to former dryland zones (cheaper land), with major investments by corporate entities in permanent crops
- Government acquisitions of water for the environment – scale of impacts on water markets
- Increased system or conveyance losses being applied to NSW Murray GS

Downstream Trade Losses

This rapid expansion of downstream development away from the original irrigation areas, has resulted in more water being required to be delivered, substantially beyond its original delivery location. The increases system losses are **not** being attributed to the new users

account. Losses are being socialised across all users, but the direct risks, because of current rules, is primarily reducing general security access to allocations.

- Increased trade volumes to new irrigation developments below known Murray River system limitations, should not be subtracted from the pool available for NSW Murray GS licence allocations.

- It was originally intended that 'loss factors' would be developed and attributed as a debit to water volumes traded to different locations, however this has never been done between the states and needs addressing as a matter of urgency. Until this has been achieved, urgent additional seasonal limitations on water trade, must be implemented

- Federal, State and Local Governments also need to urgently enact land and water planning policies to limit downstream irrigation development.

- The NWI Agreement (Clause 31 vii) states "*water access entitlements will be recorded in a publicly-accessible reliable register that fosters public confidence and states unambiguously who owns the entitlement".*

- This has not been implemented by State/Federal Governments.

Issue 5: Drought Reserves

Murray Darling Basin Authority (MDBA) required increased drought reserves to provide additional assurances for towns, South Australia minimum entitlement flows, river operations (eg conveyance) and higher levels of surety for high security entitlements.

Modelling:

Southern Basin Water resources includes modelling based on 'worst case scenario' and this is disproportionally affecting NSW Murray General Security entitlements through reduced annual allocation announcements. This includes:

  - Calculations on '**dry sequence inflow'** and implementation of levels of percentile risks which affect allocations to NSW Murray General Security (GS) entitlements
  - **Serial correlated flows**. Modelling is based on 110-115 yrs of historic records, but modelled predictions of inflows are based historic lows (worst case inflows annually). Each year over the modelled period, wet, average, dry, the models include the driest inflows that historically have occurred. In determining annual resource availability, for example, in wet years current inflow scenarios are also assessed.
  - A focus on 'worst case' inflow scenario, can mean reduced annual allocation for NSW Murray General Security based on an over reliance on the 'pre cautionary' principle.
  - **Note:** NSW Murray General Security entitlements incur the highest impact as rules have been progressively amended to increase security for High Security entitlements in NSW

Snowy Hydro License Amendments (June 2011)

- Amendments to Snowy Hydro License and NSW Murray Required Annual Release (RAR Murray – 1062GL)

- New Reserve Volume has been determined by MDBA modelling and is set out in the new Schedule H to the Murray-Darling Basin Agreement.
  1. **Murray Valley**: new 225 GL conveyance reserve to ensure that critical human water needs can be met through a repeat of a drought of similar magnitude to the recent one.
  2. **Murrumbidgee Valley**: MDBA states impact of the recent drought (Millennium) was less severe, and 150 GL to be set aside is required to support town water supply, important regional industries, and 50% of high security entitlements.

NOTE: Details of disproportional impacts of NSW Murray General Security Entitlements are described in:

Attachment A: MURRAY VALLEY JOINT STAKEHOLDER SUBMISSION January 2020
Inquiry into management of the Murray–Darling Basin (KEELTY REVIEW)

Attachment B: MURRAY VALLEY JOINT STAKEHOLDER SUBMISSION
Independent assessment of social and economic conditions in the Basin
Draft report (3rd April 2020) *(SEFTON REVIEW)*

(NWI) Provision for the environmental and public benefit outcomes

NSW Murray General Security has incurred a disproportional impact of providing Federal/State environmental targets. **83% of physical water recovery for the environment has occurred in the Southern Basin** primarily in NSW Murray /Northern Victoria and Lower Darling

Insufficient attention to *'cause and affect' and a* pre- defined '*end of system flow'* target (SA) as a measurement of Basin Wide health, is preventing cost effective infrastructure solutions.

Murray Darling Basin Plan:

- 2750 GL of water recovery
  - 2289GL of '*real water'* water is being recovered from Southern Basin (NSW Murray Valley and Northern Victoria)
- Basin Plan also specifies 971GL, to achieve downstream targets to South Australia
  - NSW Share of 971GL is 458GL
  - NSW Government has determined **458GL will primarily be contributed via NSW Murray system and Lower Darling (not Murrumbidgee or Northern Basin)**
- Basin Plan Northern Review (2018), MDBA reduced:
  - water recovery from 390GL to 320GL
  - reduced environmental flow targets to Menindee Lakes from 143GL to 41GL

(NWI) Complete return of all currently over-allocated or overused systems to environmentally-sustainable levels of take

Federal and State Government policies on over-allocated or overused systems has not been applied equitably across states or regions.

Failure to incorporate nationally agreed standards to assess 'take' (eg metering, licensing or telemetry) has encouraged governments to focus on 'low hanging fruit' or 'easiest pathways' to deliver on broader policy objectives (Qld, NSW, SA)

This means the Southern Basin, primarily NSW Murray and Northern Victoria has worn the majority of risk in delivering Government political policy.

Two specific geographic regions benefit from how this NWI objective has been implemented:

1. Northern Basin (Qld/NSW) – key environmental targets at Murray Mouth primarily delivered from the Southern Basin (NSW/Vic Murray, not the Darling River system)

2. South Australia (increased reliability, increased environmental flows, increased capacity to defer its own monthly entitlement flows)

Murray Darling Basin Plan:

1. Southern Basin: 2289 GL to be recovered (primarily being achieved from NSW Murray and Lower Darling, less recovery from the Murrumbidgee River)

2. 2000 GL of this to be delivered to South Australia (3 yr rolling avg)

3. Northern Basin: 390 environmental water recovery target reduced (*2018) reduced to 320, with a corresponding reduction in environmental flow requirements to Menindee Lakes from 143GL to 41GL.

(NWI) Assignment of risk relating to the consumptive pool

Governments and Water access entitlement holders were to bear risks and percentage formulas were applied as prescribed under the NWI

Water Access Entitlements bore risks for:

- seasonal or long-term changes in climate; and periodic events such as bushfire and drought

Governments were assigned risk for any reduction or less reliable water allocation arising from change in government policy

- eg new environmental objectives

Cumulative changes/risks are not being effectively assigned to the NWI risk assignment: eg

- additional drought/or urban water reserves,
- environmental outcomes may not be efficient, or require a mix of infrastructure
- drought reserves
- increased security to High Security licenses, decrease security to NSW Murray General Security
- Trade rules that are not consistent with NWI (clause 60)

IMPACTS;
NWI agreements for assignment of risks relating to the consumptive pool have not been applied as per agreement.

Cumulative Federal and State water policy decisions have been disproportionally assigned (eg states; within state valley; irrigation license entitlement types)

(NWI) Enhance the security and commercial certainty of water access entitlements

Federal and NSW State Government policies have:

- reduced reliability of NSW Murray General Security reliability
- increased security of NSW Murray High Security entitlements (policy to ensure 2nd year of High Security attained, corresponding reduction in General Security allocations)
- Murray River Agreement; NSW state contribution to South Australia's minimum entitlement flow of 1850GL have a reduced reliance on Darling River (Northern Basin)
    - Increased levels of take in Northern Basin (extraction rules, unmetered, unlicensed, retrospective licensing)
    - NSW decision to meter/fully license for example floodplain harvesting in Northern NSW are post Basin Plan water recovery decisions,
    - Queensland metering/licensing, determination of levels of take remain unknown and application/timelines for national standards is unclear
- NSW Water Sharing Plans rules permitting levels of take in valleys (except the NSW Murray Water Sharing Plan) that have progressively reduced flows to the Murray
- NSW Water Sharing plans do not specify effective downstream contribution volumes to South Australia's minimum entitlement flow (except for NSW Murray and Lower Darling Water Sharing Plan)
- When Darling River is not contributing, NSW Murray General Security annual allocations against entitlements are reduced accordingly to meet SA minimum entitlement flow of 1850GL

Information Request 2
Is the NWI adequate to help Governments address the identified challenges?

Are there any other current emerging water management challenges where NSWI could be strengthened?

Identified Challenges*:* Elements of the National Water Initiative continue to attract stakeholder support (eg property rights) but inequitable application is not consistent with NWI principles or objectives. A number of emerging factors now require urgent amendments to policies.

- Government failure to implement standardised metering (states and/or regions eg Northern Basin V Southern Basin, South Australia).
    - River Murray Agreement is not adequately recognising a reduction of flows – Darling system and South East of South Australia (currently diverted to sea)
    - Environmental water recovery policies are being finalised prior to full metering of take across Northern Basin (Qld/NSW)
- MDBA's application of objectives for the environment:
    - Focus on water recovery (measured in volumetric entitlements or numbers), lack of inclusion of other indicators of environmental health and failure to identify *'cause and effect'*.
    - Reliance on '*end of system flow'* targets (SA Murray Mouth) primarily achieved using the Murray River (NSW/Vic Murray) and Goulburn River (Vic) (*note: not Darling or Murrumbidgee River systems)*
    - Lack of inclusion of 'adaptive management'; flexibility; incorporation of new knowledge /science, or flow connectivity from Northern Basin or SE of SA.
    - Top down approach, inability to effectively collaborate and engage to incorporate local knowledge and identify cost effective solutions
- Political failures: Government(s) incapacity to identify failures in public water policy and its implementation.
    - Avoidance of adaptive management principles or incorporation of new information (social, economic, environment)
    - Incapacity to see collaborative benefits of working with local stakeholders on co design of more cost- effective solutions
    - Failure to address long standing community/stakeholder concerns about the objectives, culture, inflexibility, of the Murray Darling Basin Authority (MDBA)
    - Inability to find mechanisms to progress policies across all political spectrums
- Clause 60 of NWI has clear Trade obligations but aspects are not enforced. These include recognition of supply losses, supply source constraints and trade zones. MDBA, Federal and State Governments are ignoring NWI agreement conditions

- COAG agreement (2004) on policies to facilitate/enable water to move to a theorised 'highest value use' is placing at risk Australia's irrigated agriculture and tax base derived from current production systems
- Highest Value Use is misnomer –Australian agricultural history (current/past) clearly defines volatility in agricultural commodities and related pricing. Governments picking winners has not been considered even remotely accurate.
- Highest value developments, (eg MIS Schemes or current almond developments) often end up in international ownership with economic income being assessed under international tax rules.
- Investors in 'high value crops' have primarily focussed new developments on cheaper and previously unirrigated lands, (*located further away from water sources)*
    - ❖ *New developments are impacting supply and conveyance losses currently being borne by NSW Murray General Security entitlement holders (*
- Climate change/ drought/floods – current application of NWI, Basin Plan - is reducing drought preparedness (nationally and regionally)

Emerging challenges:

- High Value Crops: (requires a full review)

    - ❖ Risks traditional crop diversity and sustainability of agricultural production systems in the Southern Murray Darling Basin
    - ❖ Continues to encourage water use to new developments without acknowledging natural system limitations (rivers /creeks/supply systems)
    - ❖ Encourages a dominance of large-scale investors in water (traders and/or corporate investors in new developments) are risking supply and demand to other existing users (eg high security)
    - ❖ NSW Murray GS entitlements face increased reliability risks as increased system demands (supply risks, including future 'cease to pump' rules; and/or conveyance losses) are being attributed to general resource availability and therefore restrictions are being primarily borne by NSW Murray General Security and Northern Victoria Sales Water) and not to new developers and/or other forms of water entitlements
    - ❖ Increased system demands (environmental flows plus new developments) are placing additional risks:

        - on riparian landholders (eg increase in major floods risks) and loss of agricultural production from MDBA constraints management strategy (eg Basin Plan related 'easements to flood' eg land acquisitions)
        - On NSW Murray GS entitlements through restrictions of access as increased system demands may lead to new rules for Murray River sharing and/or access rules

- **Corporate entity proposals** for new rules (capacity shares) further risks to NSW Murray General Security, fails to acknowledge complexities of Murray and Edward Wakool systems. ***(highly theorised solution with high risk of failures and third- party impacts)***

❖ Market distortions: (high value crop and/or free trade)
- water pricing – concentration of pricing disadvantaging agricultural diversification and engagement in water markets
- Scale of Government water ownership – reduction in tradeable water annually and market distortions
- Rule changes to meet emerging supply and demand impacts – Environmental flows plus new irrigation developments downstream of known supply limitations (eg Murray and Goulburn Rivers)
- Carryover rules are being manipulated to maximise access to other entitlement holders not currently permitted to utilise carryover rules.
- Carryover rules are not equitably applied to avoid loss of reliability on other entitlement holders (surface water) (Northern V Southern Basin; South Australia)

- Climate change:
  - ❖ Risks of reduction in inflows and water availability is not being universally attributed/applied
  - ❖ NSW Murray GS is principally wearing the lions share of risk as annual allocations are applied only after South Australia's minimum entitlement flow is assured,

- Management of Environmental water and environmental objectives
  - ❖ MDBA's 'end of system flow targets' (SA) places increased reliance on the Goulburn (vic) and NSW/Vic Murray River; (upstream of the junction of the Murray and Darling at Wentworth); increasing system demands will place restrictions on existing users
  - ❖ MDBA's modelled formula for environmental entitlement losses delivered Hume Dam to Murray Mouth is set at 20%. Stakeholders have rejected percentage formula on the basis of inaccuracy and the related impacts to loss of yield /reliability on NSW Murray GS entitlements (eg High Security is not affected)
  - ❖ An urgent review of Climate change impacts on South Australia's Lower Lakes is essential to identify more sustainable infrastructure solutions.

Information request 3

The Commission welcomes feedback on the matters that should be considered for inclusion in a renewed NWI.

- Review of current rules for protection of property rights to avoid winners and losers
- Application of NWI risk assignment to ensure Government policy changes are not adversely affecting water property rights without compensation
- Review of COAG policy – movement of water to 'highest value use'
- Requirement for Connectivity between State based Water Sharing Plans and Water Resource Plans (NSW and Qld) to protect water and land -based Property Rights
- Review of Murray River Agreement to incorporate actual flow conditions from Darling System. Ensure that NSW Murray General Security irrigators do not a reduction in property rights through reductions in annual allocations to account for loss of flows from the Darling system (to meet SA minimum entitlement flow under River Murray Agreement)
- Rules that prevent new irrigation developments when there is publicly known and identified river system limitations /capacity constraints
- Increased flexibility by the Murray Darling Basin Authority to achieve environmental objectives (reduction in reliance of one river system to replace another eg Murray replacing loss of Darling flows or South East of SA catchment flows)
- Increased focus on infrastructure solutions to implement/achieve environmental objectives
- Increased collaboration with local stakeholders to develop a partnership approach to identifying issues and solutions (including to existing NWI initiated policies eg Basin Plan)
- Re focus on environmental water recovery until all states have equal metering standards implemented for irrigation purposes

Information request 4

How effective are water plans at managing extreme events such as severe drought?

Are NWI principles being applied at these times?

Previous water plans in the Southern Basin (NSW Murray) were historically effective at managing extreme events such as severe drought however current Governments have amended drought security arrangements:

- Historic Government investment in Southern Basin storages were constructed to ensure secure water during periods of drought.

- The 10year Millennium drought has led to Government/MDBA policy responses to conserve water to cover extended period droughts. This is now limiting water accessibility for NSW Murray GS entitlements for short term droughts. This is

at odds with why Governments invested in irrigation systems and their location originally. This means Government policies are conserving water for a future '10 yr drought' (which may occur for example in 30 or 50 yr cycles) and limitations are applied for productions systems to cope with short term droughts (1- or 2-year length droughts).

- Basin Plan has reduced drought economic and production system preparedness for drought (Government/MDBA cumulative policies have meant loss of reliability pre drought and post drought). Drought policies have also decreased capacity for farmers to grow, plan and store enough fodder/grains.

- Water policies have now created disproportional property rights (eg States such as SA are more secure); entitlements such as High Security (NSW) are more secure, but NSW Murray GS entitlements are less secure

- Environmental water recovery (scale of entitlements) has reduced accessibility to water markets in times of drought, with a focus on 'highest value users' and corporatisation of water (eg traders or large- scale developments)

- Trade/ Water pricing have already identified negative impacts from loss of crop diversity (eg new focus on permanent plantings, highest value use) and market affordability

- Increased water property right protection in Northern Basin (Qld/NSW) and lack of metering/real time data, is adversely affecting property rights and drought management in the Southern Basin

- National Water Initiative Principles for protections of property rights, security of town/conveyance water and /or achievements of environmental objectives are not being applied equitably.

- Identifiable and urgent need for investment in sustainable and cost-effective environmental solutions (including continued shifting goal posts)

Information Request 5

How could the NWI be amended to support best practice monitoring and compliance across jurisdictions?

What steps have been undertaken — or should be undertaken — to plan for long term changes in climate

What lessons have recent extreme events (bushfires and COVID-19) provided for planning

- Application of NWI risk assignment and equitable application to all water property rights (avoidance of application to some not others)

- Full application of NWI National metering standards (Northern Basin, NSW/Qld and South Australia); include full telemetry

- Review of how property rights under NWI principles have been actioned and identify and address those that have been negatively impacted

- Inclusion of Northern Basin Floodplain Harvesting volumetric take (Qld/NSW) into current Basin water reforms

- Review of Northern Basin levels of 'take' and incorporate new information into the Murray Darling Basin Plan. **Currently Basin Plan has accounted for 200GL of take for Floodplain harvesting**, however this figure cannot be considered accurate as licensing and metering of the Northern Basin remains incomplete.

- Adjust downwards Southern Basin water recovery for the environment to reflect more accurate 'take' information in the Northern Basin

- Adjust Murray Darling Basin Plan to incorporate major loss of catchment flows from South East of South Australia, currently diverted away from the Coorong to the Southern Ocean. Investigate restoration of a proportion of historic flows to the Southern End of the Coorong, or enable creation mechanisms to utilise Southern Ocean inflows to the Southern Lagoon to replicate fresh water flows from the SE of South Australia

    - ❖ Note: eg (450GL) or 450,000 ML was diverted to the Southern Ocean in 2000

- Ensure 'connectivity' requirements (downstream flows) in rules for managing water in the Northern Basin (Qld/NSW). Rules must incorporate flow conditions to ensure Darling River contributions to South Australia's minimum entitlement flow of 1850GL

- Full review of Murray Darling Basin Agreement to incorporate protection of NWI agreed property rights, to all water users.

    - ❖ Currently South Australian and High Security property rights in the Southern Basin are protected at the expense of NSW Murray General Security, and to a lesser extent NSW Murrumbidgee General Security and Victorian Sales water

    - ❖ Darling Water Sharing Plans do not adequately account for 'connectivity' flow rules to enable sufficient downstream flows to reach Menindee Lakes (thus co- contribution to SA 1850GL minimum entitlement flow)

    - ❖ Amend drought reserves policies to remove current reduction in reliability to NSW Murray General Security to meet new reserve policies.

        - A reduction in General Security property rights is occurring (reliability loss) to '*sure up*' increased security for SA minimum entitlement flows (1850GL) and High Security entitlements in Southern NSW (eg 2 yrs)

- Drought reserve policies are also reflective of a reduction in inflows to Menindee from the Northern Basin from either flow reductions from either increased levels of take' or as a result of drought.

- Revise Murray Darling Basin Plan to account for 2020 retrospective licensing of Floodplain Harvesting levels of 'take' in the Northern Basin.

    - Basin Plan has implemented water recovery targets prior to implementation of policies of the NWI.

<u>Best Practice and compliance:</u>

- Ensure Government policy that re-establishes positive relationships with local stakeholders

- Ensure Government policy that 'enables' or enforces improved department relations with local communities to rebuild trust and respect

- New recognition that water entitlements, measured in volumetric targets is largely ineffective in achieving a full suite of environmental outcomes. Refocus to ensure a mix of complementary measures, infrastructure investments to achieve cost effective and more sustainable environmental outcomes.

- Recognition that 'best practice monitoring' should be based on genuine 'lessons learnt' and that governments should be open and transparent where things aren't working and what alternate solutions could be invested in

- Recognition that 'best practice monitoring' is more likely to be effective, affordable, sustainable in the long term, when Governments/MDBA/Departmental staff form effective and long relationships with landholders most impacted by decisions,

    - ❖ Benefits can include increased private property access

    - ❖ Private /public partnerships for monitoring environmental outcomes (less cost to taxpayers)

<u>Changing Climate conditions:</u>

- Major infrastructure investments in the Coorong, Lower Lakes and Murray Mouth are necessary to achieve sustainable and cost- effective outcomes

- Adaptive management policies for Lower Lakes in times of extreme drought to enable return of estuarine conditions.

    - ❖ investment in associated infrastructure to protect fresh water supplies to Adelaide and regional towns to enable use of sea water to prevent exposure of acid sulphate soils during extreme drought

- Return natural South East of South Australia catchment inflows to the Southern end of the Coorong or;

- Investment in a Southern Ocean inflow mechanism to the Southern End of the Coorong to help flushing action and increased flushing outflows in the Murray Mouth (*note: this is **NOT** 'the Coorong Connector' as posed by SA irrigators on Lake Albert)*

- Avoid major water system losses through current MDBA focus on a 'single solution' (eg freshwater solution for Murray Mouth)

- Restoration of estuarine influences on Murray Mouth; full automation of barrages and potential reconfiguration of some of SA barrages at Lake Alexandrina) *(refer: MDBC: River Murray Barrages – Environmental Flows 2000)*

- Equitable recognition of property rights – avoidance of one class of water property rights bearing the burden of drought policy and/or climate change

Lessons Learnt – Covid/Bushfires:

- A refocus on current centralised decision making. Develop solutions with local expertise /regional knowledge in respectful collaboration

- Covid – need for Governments to value more consultative and flexible policies.

- Policies must be adaptive, ensure a balance between social, economic, health and environment.

- Identify necessary investments to plan for forecasted or known situations and events – avoid sticking to policy despite know risks or failures.

- Bushfires: - need for Governments to value local knowledge, local decision making, enable adaptive management and capacity to incorporate new information into previous fixed government policies.

- Federal, MDBA and State Government policies fail to incorporate new information. Rigidity of Government policy is not cost effective.

- Enable transparency on issues/events and genuinely enable adaptation of new information

- Include ***'lessons learnt'*** principles where evidence already exists

- Acknowledge 'lessons learnt' from NSW Murray catastrophic floods in 2016.

    - ❖ Floods identified that increased volumes of environmental flows down the Murray are not a solution to sedimentation of the Murray Mouth

- Current water policies are leading to:

    - ❖ Inequitable social and economic impacts (eg NSW Murray and Northern Vic)

- ❖ loss of diversity to NSW Murray Valley Agricultural production systems and associated impacts to major value added industry (eg rice)
- ❖ loss of trust and participation in public consultation.
- ❖ Centralised decisions where cost effective local solutions are not identified or incorporated in Government decisions.
- ❖ Reduction in farmer/stakeholder participation in future Government led natural resource management programs (eg landcare type activities)

Information request 6

Are environmental outcomes specified clearly enough in water plans to guide management actions, monitoring and accountability?

Are institutional and administrative settings effective in supporting these outcomes? Do environmental water managers have the necessary authority, resources and tools to achieve agreed outcomes?

Is environmental water management (including planning for use of held water, delivery of held water, use of markets and compliance with planned environmental water) sufficiently integrated with complementary natural resource planning and management frameworks?

Can environmental outcomes be more cost-effectively achieved with greater and more innovative use of water markets and market-like mechanisms?

Is the monitoring and assessment of environmental outcomes sufficient?

How effective has adaptive management and planning decision-making been during the recent drought?

Do environmental water managers maximise opportunities to achieve social or cultural outcomes alongside environmental watering? How could this be improved?

- Environmental outcomes are clearly specified in some water sharing plans but not others. Those that are specified already have strict rules that are currently implemented in Water Sharing Plans
- Where Environmental outcomes not specified, eg 'connectivity flow requirements to Menindee Lakes (Northern Basin Water Sharing Plans), then rules in Water Sharing Plans only allow for limited more localised environmental outcomes
- The MDBA is inconsistent with its application of environmental standards and issues of connectivity. MDBA have focussed 'connectivity' and water recovery requirements for the environment on the Southern Basin, particularly to NSW Murray. This is also reflected now in the Basin Plan, and compulsory additions to NSW Murray and Lower Darling Water Sharing Plan.
- MDBA has not applied same levels of requirements to Northern Basin Plans and/or Murrumbidgee Water Sharing Plan (eg connectivity requirements)

- MDBA Basin Plan and Environmental Water Managers focus on 'held environmental water entitlements' is inconsistent with widely held principles for natural resource management outcomes. Ie MDBA focused on a singular method of measurement of success (eg targeted volumetric acquisitions)
- Government policies under Water Reforms for the Environment, is at odds with the principles of cooperation and collaboration that has previously occurred with Natural Resource Management programs eg Landcare or Murray Land and Water Management Plans.
- There are substantial gains for the environment if a genuine 'lessons learnt' approach is built into policy development and consultation. Legacy issues from current water policy implementation is negative to achieving broader environmental outcomes

INFORMATION REQUEST 7

What progress are States and Territories making on including Indigenous cultural values in water plans, and how are they reporting progress?

How could a refreshed NWI help Indigenous Australians realise their aspirations for access to water, including cultural and economic uses?

Indigenous communities have been granted $40 million for cultural water

- This submission encourages localised decision making within indigenous communities to identify and maximise cultural and localised employment opportunities with environmental water
- This submission does not support the granting of cultural water from the remaining productive irrigation pool as this would further reduce resource availability and property rights of existing entitlement holders
- Government acquired environmental entitlements should involve maximising indigenous and cultural values.

INFORMATION REQUEST 8

Are the institutional arrangements for metropolitan water service providers fit-for-purpose? Is there evidence of inefficient pricing or investment decisions?

- No comment – metropolitan water services

INFORMATION REQUEST 9

How can small regional providers best balance affordability with longer-term service quality? Are there barriers to effective local planning?

Is there scope for greater collaboration between small providers? When might government support be warranted, and how should it be provided?

- Application of full NWI standards on smaller irrigation networks or individual trusts is not cost effective or realistic

INFORMATION REQUEST 9

- Levels of reporting eg ACCC and implementation of full standards in the Southern Basin is not cost effective or required. Free trades rules are onerous/not cost effective

- Required reporting to the ACCC is also hampered by Government failures to abide by their own rules. Examples of this included:

  - Trusts managing smaller private water delivery systems/or schemes actually hold a single WAL license on behalf of the scheme.

  - Government rules require that any individual therefore must therefore notify or make arrangements with the WAL License holder for any sale of water by individuals within the scheme.

  - Governments are not adhering to these rules and are processing permanent sales or temporary transfers without notifying the WAL holder

- Inconsistent application of rules and standards is penalising Southern Basin smaller irrigators and or irrigation systems. Meter standards applied in Southern Basin but not in the Northern Basin.

- Murray Valley Private Diverter members had mandated replacement metering requirements imposed with a transfer to public ownership – 2004 Southern Basin Metering Pilot program

  - No capacity to verify accuracy 'in situ', high costs to challenge or verify accuracy, NSW Government only permitted off site in Urban laboratories (costs could exceed $7000)

  - New Meter readings if 'higher' were transferred as water savings' by NSW Government to the Federal Government (Basin Plan water recovery targets) – there was no compensation to affected parties

- Between 2019 and August 2020, NSW Government then proceeded with handing back the same meters to private ownership. Irrigators affected objected and lobbied for meters to remain in public ownership. This was granted in late August 2020, but now manual data logging is required per use

- In September 2020, Water NSW has notified NSW Murray Valley WAL holders that individual data loggers are required on existing and Federal funded Government new telemetry meters. This means further additional manual and time consuming reporting on meters readings that can be remotely read by the relevant authorities.

- Changing Goal Posts: *example*: Merran Trust has spent in excess of $80,000 - $100,00 on installing new Government advised metering standards. Unclear if now compliant

INFORMATION REQUEST 10

Do water service providers supply high-quality water services in regional and remote areas? Are there examples of poor water quality, service interruptions, or other issues? Have regional water service providers adequately planned for extreme events?

Are there sources of data that could be used to benchmark smaller providers' water service levels (with fewer than 10 000 connections)?

- Water NSW has procedures for stakeholder consultation through Customer Advisory Committees (CAG)
    - CAG's members are made up of elected representatives of individual stakeholder organisations. This is an effective method in providing information and dialogue between water service providers and stakeholders. It also ensures continuity of knowledge and relevant levels of experience to make informed comment /consultation
    - CAG meetings however are limited in what Water NSW is prepared to include as discussion items or agenda items. Eg Any issue that is deemed to be NSW Government policy related is not permitted for detailed discussion/or not regarded as relevant to Water NSW meetings.
    - CAG Inability to have informed discussion with both policy makers and implementation service providers often leads to an inability to find cost effective solutions and policy failures. Eg application of meters standards and changing goal posts. Eg irrigator stakeholder groups may require dialogue with two separate departments involved in environmental policy and water policy. Both departments have implications for how/why Water NSW activities but a lack of coordination with policy makers, impedes shared knowledge and progress on issues.
    - This can be frustrating and disadvantages smaller stakeholders where there is reduced ability to access information, or lobby to progress issues of concern. (eg NSW Office of Environment and Heritage, NSW Department of Primary Industries and how policies affect Water NSW – service delivery)

Information Request 11

What steps have been undertaken to address the priority areas for urban water reform identified in 2017?

Is further guidance on implementing an integrated water cycle management approach for delivering water supply, wastewater and stormwater management services required?

How does jurisdictional urban water service planning interface with urban land-use planning at different scales? Are the roles and responsibilities clearly set out?

Is the role of water in delivering amenity and liveability outcomes clear? How are the trade-offs with other NWI outcomes considered? Is it clear how the level and type of amenity delivered by urban water services will be funded?

- There is high risk and evidence to date that provisions to secure future urban/town water supplies will be correspondingly met with a reduction in resource availability for irrigation. This has increased risks for NSW Murray General Security
    - Securing urban/town supplies involve an increased share of prioritised water from the general pool and thus directly affecting GS
    - Murray River system (Vic/NSW/SA) has a higher level of population base, with increased demands for urban/town supplies. This aligns also with increased new irrigation developments in previously unirrigated regions
    - Rural subdivision into former rural land has direct impacts also on stock and domestic supplies. For example a hundred acre farm on a river front can be subdivided into 1 hectare blocks, this multiplies stock and domestic take: A solution is for a developer to be limited to the original stock and domestic license provisions and this is limited to one block only, with the balance having to source rain or water cartage supplies
    - Rural subdivision and responsibility for rural/urban conflicts over land use and water supplies is real and invariably under current scenarios means the remaining farmers are adversely impacted
    - Property right protections under the NWI are not applied to urban encroachment or development
    - Urban /town water and tourism amenities does have a co contribution to major rural infrastructure eg Management of Dams, Murray River operations, however the cost percentage is not equitably applied
    - Rural irrigators are in most cases subsidising a proportion of tourism, and urban/town supplies through IPART determined pricing

- MDBA charges for managing river operations are also inequitably applied across the Basin. MDBA charges are **NOT transparent, (operations V policy) or how they are apportioned**
- NSW Murray Valley incurs the highest proportion of MDBA charges, with General Security incurring the least reliability

---

INFORMATION REQUEST 12

Are there examples of projects that have not met the NWI criteria for new water infrastructure investment?

What principles should inform government funding or financing of new water infrastructure?

Project examples:

- A combined MDBA and Water NSW 20- year Infrastructure Options Plan is a good example of poor processes and failure to acknowledge the need for collaboration and involvement in early planning for stakeholder involvement and consultation.
    - The 20 yr Infrastructure Plan was designed remotely without active participation with stakeholders who would ultimately pay the costs
    - Consultation was limited to project names without detail.
    - Project proposals were remotely identified and were not necessarily reflective of regional knowledge or ‘on-ground reality’. There was a high

level of risk that proposed project proposals were realistic and based on incomplete or previously rejected information.

- ❖ Costing on projects and /or project options were not designed or consulted on with stakeholders
- ❖ Project costings were estimates based on little or no on ground knowledge or outdated information or prior inaccurate reports
- ❖ Consultation was subsequently described by NSW Government – Water NSW as being comprehensive, yet stakeholder feedback was limited to one meeting with little or no details provided.
- ❖ It was impossible for stakeholders to make informed comment on projects effectively or contribute to project options/solutions/ideas
- ❖ Numerous requests by stakeholders to have more detailed input /consultation on proposed projects were rejected, delayed or dismissed
- ❖ Costs for initial preparation of MDBA/Water NSW 20-year Infrastructure Plan is likely to have been partially attributed to irrigation entitlements through IPART determinations on Water NSW pricing

- ➢ Murray Darling Basin Plan – Southern Basin Sustainable Diversion Offset Projects (SDL) are a further example of imposed decision making, accompanied by future imposed costs to irrigators and/or local communities
  - ❖ SDL projects were meant to go through three phases for development
    1) Pre-feasibility
    2) Feasibility
    3) Business case
  - ❖ SDL projects proceeded to full lodgement as business cases by NSW Government to the MDBA
  - ❖ Federal Government public policy was that no SDL projects would be funded unless supported by stakeholders. This statement/policy was not kept by the Federal or NSW State Government
  - ❖ SDL projects submitted have major risks of a further reduction in 'reliability' for NSW General Security entitlements
  - ❖ SDL project budgets were poorly planned, were incomplete and based on estimates. Business Cases were in essence, still pre-feasibility stage.
  - ❖ SDL projects are not supported by stakeholders in the NSW Murray Valley in their current form and stakeholders are seeking an urgent review
  - ❖ NSW Government imposed the requirement that SDL projects would primarily affect NSW Murray Valley and Lower Darling Water Sharing Plan region.
    1) This means any loss of reliability is focussed on NSW Murray General Security entitlements
    2) Any budgetary cost excesses are borne by NSW Murray General Security entitlements in subsequent IPART determinations where Water NSW seeks full cost recovery
    3) SDL projects in their current form impose increased 'deliverability' risks for water supply in the Murray River and thus elevated impacts of 'losses' eg conveyance and environmental flows losses (20% modelled) --- risk factors then apportioned to NSW Murray General Security entitlements

4) SDL Project such as Menindee Lakes may have reliability impacts on Murray GS, plus the creation of a new environmental water entitlement (106GL) is proposed to be sourced not necessarily from Menindee Lakes but is likely to be from the Murray system including the Hume Dam
5) SDL Project such as Yanco Creek Regulator, aim to retain more water in the Murrumbidgee River and reduce tributary inflows to the Murray River
6) SDL Projects such as Constraints Management Strategy (CMS) aim to raise Murray River levels up to 3, to 5- or 7-times natural capacity of the river banks. This leads to major 'conveyance' losses as water (consumptive and environmental) will utilise the proposed new 'relaxed constraints' Murray River operational rules
7) CMS SDL projects will require application of 'easements to flood' over extensive areas of Private Land from Hume Dam on the Murray and throughout the Edward Wakool River system.

Additional Information:

Classes of Water Entitlements – NSW Murray Valley:

When the original water sharing plans were established in 2004, classes of water were created with different features or characteristics.

High Security and General Security entitlements rules ensured rules for distribution of water between water users on an annual basis. Distribution of water to Higher Security entitlements was given greater priority annually over General Security.

High security and Conveyance allocations were developed to ensure that in a very dry year the entitlement holder had the capacity to ensure they had water available to look after their permanent planting.

Alternatively, General Security water with lower reliability, was devised to allow for more flexibility to annual cropping and pasture programs with the capacity to maximise water availability in normal or wetter years.

General Security entitlements subsequently had new rules (2004) which allowed proportional carryover to the next water years. However, allocations and carryover volumes could not exceed 110% of entitlement.

These characteristics are reflected in the relative volumes of entitlements between classes of water with an entitlement allocation of 191,698 ML HS and 1,672,226 ML GS.

It is noteworthy to reflect, that most of the HS licence licenses were not fully utilised in most years, until the water reforms with a trade focus, were implemented.

The protection of property rights for all water users also meant that High Security and Conveyance entitlements could not be carried over to subsequent water years as defined in pre 2004 Water sharing rules.

Issue: Rule changes SA

- South Australia irrigation entitlements are defined within River Murray Agreement (1850GL) and previously such entitlements could not be carried over to subsequent years
- In 2019, SA irrigation entitlements (technically higher security due to River Murray Agreement), are now permitted to carryover.
- MDBA has further permitted South Australia the capacity to defer its monthly entitlement flow (previously prescribed in 1850GL rules). This now means South Australia can maximise river operational requirements and conveyance needs, through utilising environmental entitlements delivered under the Murray Darling Basin Plan

Issue: Rule changes High Security (NSW/Vic)

- High Security entitlements in NSW are not permitted to utilise carryover facilities (this is confined to General Security)
- Current Trade rules are enabling High Security entitlements (SA, Vic, NSW to be temporarily parked at the end of season, on General Security entitlements in the NSW Murray Lower Darling Water Sharing Plan.

Note: Carryover rules were to increase water availability for NSW Murray Valley General Security

- Providing 'temporary water entitlement parking facilities' enables High Security entitlements to bypass water sharing rules
- High Security inability to carry over has also previously meant any additional volumes in storage surplus to high security needs, would be 'spilt over to general security' resources
    - An unforeseen consequence of subsequent water reforms focused on 'free trade of water' now results in the trade of HS water to GS licences resulting in it losing its HS 'spill' characteristic when transferred or 'parked' onto General Security licences
    - Note: at the start of a new water year, the same water is transferred back from General Security to High Security, thus bypassing existing rules

Issue: Rule changes High Security (NSW/Vic/SA)
Lack of trade transparency makes quantifying the impact difficult

Establishing mechanisms to quantify the issues and prevent erosion of NSW Murray Valley General Security property rights is essential.

- Establish General Security sub categories to adequately identify and control any temporary trade of High Security entitlements onto GS licenses
- Develop transparent rules that prevent High Security entitlements utilising carryover provisions currently restricted to General Security licenses.
- Ensure that above proposed trade restriction is equally applied to High Security entitlements - South Australian, Murrumbidgee, NSW Murray, Vic High Reliability/LR
- This will ensure equitable spills of any unused High Security entitlements and water will then be attribute to General Security resources as previously had applied
- There is currently no transparency around the volumes and no way of differentiating between classes of water once they are credited to a GS licence.
- Recently at a NSW Murray Lower Darling ROSCO meeting, irrigation stakeholders were provided with the attached table. (**Appendix C**)

From the figures contained in this table for the end of June 19/20 it appears there had potentially been maximum volumes of HS and Conveyance transferred to GS to be parked for carryover of 190,407ML made up of:

High Security Water:	143,354 ML
Conveyance:	47,053 ML
	190,407 ML

This amounts to the equivalent of 11.3% General Security allocation that would have been available at the commencement of the 20/21 water year had these accounts spilt rather than having the volumes transferred to GS.

This is not just an issue for the NSW Murray General security reliability as the same situation exists in the Murrumbidgee River system.

However, it is not that simple or advisable to use this as a real indication as it is unclear how much of the volume in the General Security accounts at the end of the season was in fact NSW High Security, conveyance or was VIC HR/LR or from SA and was 'parked' on NSW licences to allow carry-over and avoid forfeiture required by its licenced characteristics.

Rather, these figures seem to indicate the potential MAXIMUM extent of the issue.

Potential solution for transparency and mitigation of third- party impact on GS.

One way to still allow for the free trade of water for consumptive use in that year is to ensure that sub-categories are applied to NSW GS licences. This provides transparency for any 'in trades' of NSW High Security, or trades related to VIC HR/LR or from SA that are traded onto NSW Murray General Security licenses.

This would identify the volumes transferred onto the GS licence for use in that year and ensure that the water would be 'split' or forfeited from accounts at the end of the water year as always intended, thereby mitigating the unintended and unforeseen impact on general security allocation and the value of the property right.

Social and economic impacts

The focus on trade has resulted in consistent underuse of water within the valley as water is traded back and forward between the highest bidders and parked to avoid forfeiture.

The philosophy of having water move to the highest value production is not measuring the unforeseen consequential impact on communities. Often these 'higher value uses' are much smaller long- term employment generators than medium and lower value crops which have local vertical integration and processing generating employment as well as bulk input suppliers and service industries associated with them.

The unforeseen rapid expansion of permanent planting downstream of traditional irrigation on lower value land has resulted in a reduction of diversity of irrigated production and a decline in production from established irrigation areas with subsequent unemployment in these irrigation dependent communities.

When measuring the success, or otherwise, of water reforms under the NWI, there should be comprehensive monitoring of the broader community impacts with employment and diversity of crops and production levels assessed.

Transparency of MDBA Charges

In NSW all water related fees and charges must go through an IPART/ ACCC determination as monopoly providers. The single exception to this are the ever increasing MDBA charges which are passed through to irrigators without any transparency as to the basis of how they are derived and without any justification, scrutiny or validation.

Irrigators should not be paying for the cost of environmental water management resulting from the Basin Plan and its implementation.

MVPD strongly believe that as a monopoly provider, the MDBA should undergo an IPART or ACCC pricing determination, just as all other water providers in NSW do.

Increasing Reserve volumes.

The increasingly conservative or low risk approach to putting aside reserves by both Snowy Hydro in its Snowy Hydro Limited releases and the states is combining to result in lower and later season allocations, even in years with relatively higher inflows reducing the opportunity for General Security entitlement holders to plan and budget for summer and winter crops.

Environmental Impacts

When classes of water were determined, the recognition of the Chokes as an issue for delivery was taken into consideration by introducing trading Zones into the river. This ensured that water historically delivered above the Choke is not allowed to be traded to below the Chokes and thus create deliverability issues for other water users.

Whilst this rule still applies to entitlement volumes, more recently a change to a ‘No nett trade’ rule for allocation was implemented that only allows a volume of water to be traded to below the Chokes equivalent to what is traded upstream.

MVPD have serious concerns that the Zone 10 held environmental water is being transferred or delivered through the Chokes against the rules and characteristics attached to those entitlements. As there is no clearly transparent annual reporting or auditing of environmental water use, it is not possible to ascertain the extent of this issue.

The delivery of increasing volumes of environmental water from above to below the Chokes and through the system, is causing river bank slumping and associated within bank region tree loss through parts of the system. This is exacerbated by bulk deliveries of environmental water held in Zone 10 (above the Chokes) downstream to below the Millewa and Barmah Chokes.

It is important to note, there are multiple chokes on the Murray (Hume to Wakool Junction) and throughout the Edward Wakool River system. Chokes also exist on the Goulburn River in Victoria

Appendix C

2019/20 Water Availability for NSW Murray Upstream Picnic Point

Licence Category	Sum of Share Component	Sum of Account Balance	Sum of AWD Volume	Sum of Carryover In	Sum of Allocation Assignments In	Sum of Allocation Assignments Out	Sum of Usage	Sum of UCF Usage
DOMESTIC AND STOCK	1,405	458	1,405	-	-	-	947	-
DOMESTIC AND STOCK [DOMESTIC]	93	73	93	-	-	-	20	-
DOMESTIC AND STOCK [STOCK]	621	290	621	-	-	-	332	-
LOCAL WATER UTILITY	18,893	6,173	18,893	-	-	1,096	11,624	-
REGULATED RIVER (CONVEYANCE)	279,786	-	143,139	-	-	3,246	139,893	-
REGULATED RIVER (CONVEYANCE) - Environment	20,214	-	10,342	-	-	10,342	-	-
REGULATED RIVER (TEMPORARY CRITICAL CONVEYANCE)	3,000	-	3,000	-	-	-	3,000	-
REGULATED RIVER (GENERAL SECURITY)	1,143,381	287,076	34,303	242,152	87,494	45,279	31,617	23
REGULATED RIVER (GENERAL SECURITY) - Environment	157,855	10,065	4,736	15,054	19,850	5	29,571	-
REGULATED RIVER (HIGH SECURITY)	18,312	1,633	17,763	-	3,202	11,913	7,397	-
REGULATED RIVER (HIGH SECURITY) - Environment	4,499	-	4,364	-	-	4,364	-	-
REGULATED RIVER (HIGH SECURITY) [COMMUNITY AND EDUCATION]	-	-	-	-	-	-	-	-
REGULATED RIVER (HIGH SECURITY) [RESEARCH]	1	1	1	-	-	-	-	-
REGULATED RIVER (HIGH SECURITY) [TOWN WATER SUPPLY]	3,170	701	3,170	-	701	-	3,170	-
SUB-TOTAL	**1,651,230**	**306,470**	**241,828**	**257,206**	**111,248**	**76,243**	**227,570**	**23**
SUPPLEMENTARY WATER	126,987	126,605	126,987	-	-	-	382	382
SUPPLEMENTARY WATER - Environment	100,076	100,076	100,076	-	-	-	-	-
SUB-TOTAL	**227,063**	**226,681**	**227,063**	**-**	**-**	**-**	**382**	**382**
TOTAL	**1,878,293**	**533,151**	**468,891**	**257,206**	**111,248**	**76,243**	**227,952**	**405**

- All values are presented in Megalitres
- The last general security allocation for 2019/20 was made on 15 May 2020 (0.03ML/share)
- Environment volumes excludes e-water within Murray Irrigation as WaterNSW does not have access to this data
- Allocation assignment data shows a nett trade to upstream of the choke for NSW Murray. This data does not consider the trade activity occurring in the Victorian Murray.

26