

**Public Submission**

**NSW Government:  
Murray Regional Water Strategy**

**22nd May 2022**

**MURRAY VALLEY PRIVATE DIVERTERS (INC)**

## **OPENING COMMENTS:**

Murray Valley Private Diverters (MVPD) represents private entity river pumpers and landholders in the NSW Murray Valley (Southern Basin). Members predominantly have Murray General Security entitlements; stock and domestic licenses; Basic Landholder Rights. Some members also have groundwater licenses in the 016 Groundwater Management zone.

### **The draft Murray Regional Water Strategy;**

- ❖ is not viewed as a visionary document for managing water resources over the next 20 to 40 years
- ❖ is seen as reactionary and over precautionary concept for managing Murray Valley water on the basis of climate risks (modelled assumptions) that does not recognise the effectiveness of water management systems that currently exists and which already allow for climate variability
- ❖ is also not a visionary document for climate preparedness through infrastructure investments.
- ❖ The strategy also fails to recognise;
  - The Southern Storages and their design capabilities which effectively manage droughts and climate variability under most circumstances. However Australia has not invested in further water storages to manage for a ten year and beyond drought.
  - The natural limitations of the Murray River and Edward Wakool System
  - Connectivity flows between the Darling and Murray River systems in RWS proposed modelling and current document descriptions
- ❖ The underpinning principle and assumptions for addressing future modelled climate risks is to increase a more precautionary approach based on 'worst case scenarios' and this means modelled assumptions on climate risks are apportioned to Murray Valley General Security Water entitlements.
- ❖ Consultation on developing the Draft Murray Regional Water Strategy has not been inclusive of Murray Valley stakeholder Groups, those with understanding and knowledge of Murray Valley water issues
- ❖ There needs to be direct consultation with Murray Valley stakeholder groups in reviewing and designing a Murray Regional Water Strategy

There is no recognition or solutions to issues where Murray Valley General Security entitlements holders have already had their water yield reliability considerably eroded by cumulative decisions of the Federal and NSW Government since the late 1990s right through to current period. Post the 1997 CAP on extractions, a major feature of reduced reliability arises from:

- Cumulative rules and policy change by (or accepted by) the NSW Government and the Murray Darling Basin Authority in the Murray Darling Basin Agreement
- How the NSW Government has apportioned policy changes and therefore risk to General Security entitlements

- NSW Government decisions on Northern Basin Water Sharing Plans and extraction limits
- NSW Government rule changes which place ever increasing emphasis on the environment in Murray & Lower Darling Water Sharing Plan
- Murray Darling Basin Authority's inflow modelling and policies that accepts the disconnection effectively of the Darling River systems from the Murray outside major flood events
- The Murray Darling Basin Plan and Federal Water Act 2007 Trade conditions that did not abide by the requirements specified in the Water Act

Murray Valley General Security entitlements continue to be eroded by **cumulative decisions up to 2022** and this is set to be heightened further under the NSW Governments Murray Regional Water Strategy.

Under NSW Governments review of NSW Murray and Lower Darling Water Sharing Plan, the official Murray State Advisory Panel (SAP) was also advised that unresolved issues would be addressed in the Murray Regional Water Strategy.

- The Murray Regional Water Strategy is not consistent with DPIE's statements

The NSW Government's Murray Regional Water Strategy is an opportunity to rectify risks to General Security licensed entitlements but the proposed draft Murray Regional Water Strategy will further reduce NSW Murray General Security entitlements reliability

The Murray Regional Water Strategy in its current denies agriculture the capacity to develop business viability in the Murray Valley to meet climate change predictions. The RWS does not just affect irrigators, its affects if implemented as proposed, will also cause more frequent major regional floods as Dartmouth and Hume are required to retain more and more water in storages (unused water annually) on an assessment of 'worst case scenario inflows' based on modelled climate risks.

The RWS makes no inclusion or provision for increased floodings arising from the application of an even more conservative approach to the use of irrigation water stored in the Southern storages. It appears condoned or ignored in the strategy.

The RWS will result in agricultural producers in the region having significantly reduced capacity to meet climate change predictions of less frequent rainfall.

#### **Recommendation:**

- ***NSW Government reject NSW DPIE Murray Regional Water Strategy and develop a new strategy that improves water security, reduces regional risks and builds business confidence for the future***

#### **NSW Government: Fact Sheet Developing Regional Water Strategies: (April 22)**

**(PUB20/69 (v3))**

Department of Planning, Industry and Environment (DPIE) fact sheet describes the following

1. Deliver and manage water for local communities
2. Enable economic prosperity
3. Recognise, protect Aboriginal water rights, interests and access to water
4. Protect and enhance the environment
5. Affordability – identify least cost policy and infrastructure options

#### **Recommendations:**

- *The Fact sheet and draft Strategy are at odds and therefore not consistent with meeting these objectives (1, 2, 4, 5, )*
- *The Fact sheet suggests the Strategy will be evidence based and prioritised on need, risks, inclusive of upstream catchments, analysed to inform downstream catchment strategy development. There is no evidence in the draft Strategy that this is to occur within the final strategy or how.*
- *There is no acknowledgement of the agricultural sector nor water dependent industries (eg Irrigation or dryland farming sectors); that would meet (1, 2, 4, 5)*

#### **NSW Government: DPIE Fact sheet (INT 20.99486)**

Describes the 12 Regional Water Strategies for a more water-secure future! Key features include: A 4-step approach to better understanding past and future climate

1. Building on 130 years of recorded climate data
2. Adding 500 years of paleoclimatic climate data
3. Looking at the past to understand 10,000 years of climate data
4. Using climate-change projects to improve NSW understanding of future risks

NSW claims water supplies are less secure in the future than they thought!. The panel also notes that *“this is an area where the science is still developing”*

#### **Recommendations:**

- *DPIE revisit the Murray Strategy based on climatic cycles (droughts/medium/wet years/floods) and progress a Murray Water strategy for the next 20 to 40 years on what information can genuinely be considered credible now*
- *DPIE cannot accurately forecast, nor has it even finished the modelling to substantially validate decisions that undermine the social and economic base of the Murray Valley*
- *DPIE should not progress using this approach (outlined in the Fact sheet) if it is acknowledged within the same fact sheet “that the science is developing”*

#### **NSW Government: DPIE Frequently Asked Questions: (PUB20/69 (v3))**

Fact sheet states it is still working with the Murray Darling Basin Authority (MDBA) and Snowy Hydro and Icon Water to enhance integration and functionality of hydrologic models. The Fact sheet states that such modelling information is to be released in future.

## Modelling

The fact sheet points include:

- That new climate and hydrological results for the Murray and Murrumbidgee regional water strategies will be available in the future
- The Fact sheet confirms that models for the Regulated Southern Basin – Murray Valley, DPIE do not include modelled flows from the Darling systems when assessing climate implications and/or surface water availability
  - The role of Menindee Lakes is a major feature for water availability in the Southern Basin, a resource shared by NSW and Victoria
  - The role of Menindee Lakes is also a critical component of how South Australia's minimum entitlement flow of 1850GL is met
  - The role of Menindee Lakes has been recognised since 1894 and construction works commenced to include its operations in 1949 (*Menindee Water Conservation Act*) and completed in 1968.
  - Menindee Lakes since 1962 have been recognised as a Murray Darling Basin storage
  - Menindee Lakes plays a pivotal role in the 'harmony rules' whereby River Operators in the Southern Basin managed water movement to South Australia (inclusive of Menindee) which recognised the physical natural limitations of the Murray, Murrumbidgee, Goulburn Rivers

## Recommendations:

- *The Strategy must be inclusive of complete storage and supply systems that influence Murray River flows*
- *This includes the Darling River System*

## SDL Adjustment Mechanism Program

- The Fact sheet points to NSW existing commitments to the Sustainable Diversion Limit Adjustment Mechanism program.
  - DPIE notes challenges with the program which is a positive recognition however;
  - SDL projects risks assessments are confined to timeframes and achievements of environment outcomes only. There is no risk assessment done for impact on people, towns, elevated flood risks or additional operational delivery losses /or rule/policy changes associated with SDL projects which are then attributed to Murray General Security entitlements.
  - The Strategy does not recognise the need for a more adaptive approach to decisions in the Basin Plan' a more innovative and flexible approach to maximise taxpayer investments in the SDL Adjustment Mechanism projects

## Recommendations:

- *Murray Regional Water Strategy makes no recognition or recommendation that increased flexibility of SDL projects can account for new knowledge or smarter infrastructure investments options and a more holistic approach to forward planning on delivery of operational, environmental and irrigation water*

## Why Murray and western regional water strategies boundaries are different from NSW Water Resource Plans

- The Fact sheet states that boundaries of the Murray and Western regional Water strategies are different from those of the Water Resource Plans (surface water)
  - The fact sheet states that *“this reflects issues and concerns raised by stakeholders about addressing connectivity along the length of the Barwon-Darling system in a coordinated way”..... “allow us to consider issues in the Lower-Darling when we shape strategy outcomes for the Barwon Darling upstream of Menindee”*

### Other Jurisdictions?

- The Murray Strategy states it “touch on complexities of interstate water sharing arrangements”
- The Strategy however then states it focuses on issues concerning the NSW Water Management Framework

### Comments:

- DPIE is not clear in its comments on alignment of boundaries, and with the Barwon Darling.
- If alignment for inclusion of the Barwon Darling is to occur, there appears to be a major omission in other sections of the Murray RWS.
  - The Barwon Darling is not included in the Murray Regional Water models?
  - This is either a mistake or a mechanism to permanently reduce recognition of inflow/outflow influence on Murray resources.
  - DPIE needs to further clarify what its intention is in relation to its comments on realigning the boundaries of the Murray and Western Water strategies
- DPIE refers to inter-states issues, but then falls back on the claims it intends to only look at NSW Water Management issues:
  - This implies that there will be no inclusion of water management issues as they are affected by the Murray Darling Basin Agreement
  - The fact sheet implies there is no effective inclusion of water supply issues historically supplied by the Barwon Darling to Menindee Lakes;
  - Any options to improve water security in the Murray Strategy will be excluded under the parameters described by DPIE Fact sheet

### NSW Government: DPIE Climate Analysis

DPIE states the Strategy is a roadmap for the next 20 to 40 years

Page 60 of the Draft Murray Strategy notes:

***“A note of caution about modelling***

***The scenarios that will be modelled not necessarily eventuate. They are potential scenarios with a level of uncertainty”***

**Page 59** (figure 14) graph of annual inflows to the shared Murray resource appears selective and excludes the following:

- role of the Darling River in total resource calculations
- appears selective in years, for example excludes the Murray catastrophic floods (2016) levels of inflows

DPIE states the 12 Water strategies include policy, planning, infrastructure solutions to meet current and future water needs.

- **NOTE:** there are no effective solutions in the Murray RWS

Climate analysis is based on models. It includes assessment of 130 years of climate history and describes this as insufficient timeframe to meet modelled climate risks. DPIE does confirm Australia's natural variability, and wet and dry patterns in that timeframe.

DPIE then states natural variability makes predicting NSW future climate uncertain. However;

- DPIE has assumed *worst case inflows* in its modelling as the basis for all water related decisions making
- **Under NARClm1.0 modelling, DPIE states its ignores other scenarios that are arguably equally appropriate and probable.**
- DPIE has ignored how the Murray Darling Basin system of historic water management has worked
- DPIE has not adequately recognised how climate variability (wet/dry cycles) occur in the Southern Basin and **how existing systems of water management already prepare and respond to those cyclical events through the AWD process**
- DPIE appears to be attempting a sense of perfect predictions utilising past and future climate models, yet to be completed to make future water decisions

### **Recommendations:**

- *The Murray Valley Regional Water Strategy is not proceeded with in its current form until NSW has completed its modelled work and such work is transparently made available to the public and discussions held with stakeholders and a more credible and realistic scenario selected*
- *DPIE does not rely on 'worst case scenario' or 'lowest inflow modelled data' upon which to base current or future decisions on water access, or flood risks management*
- *NSW Government must assess what the social and economic impacts will be on the NSW Murray Valley as a result of a RWS that is based on 'worst case inflows or modelled scenario' on climate change*
- *DPIE has not provided sufficient or clear evidence that natural variability patterns in the Murray Darling Basin are not effectively managed and incorporated with existing water management regimes in the Southern Basin and in particular within the NSW Murray Valley*
- *DPIE has not provided any evidence in the Murray Water Strategy that will improve water security*
  - *Policy or future planning options*
  - *Infrastructure investment options to meet its climate predictions (data yet to be complete)*

## NSW Government: Fact sheet DPIE Modelling Strategy

- The fact sheets notes inclusion of Murray, Murrumbidgee and Snowy models
- The Fact sheet also includes rainfall run model for South Australia catchments and development of a regressive model for Adelaide Water supply
- The fact sheets **makes no mention of models that include/account for inflows from the Darling River system**
- The Modelling Strategy focusses on 'climate change lowest inflow risks' and does not include any assessment for higher rainfall patterns or existing or future elevated flooding risks
- The Modelling Strategy notes it does not have the capability to consider.... "*does not represent complex flood behaviour*"
- The Modelling Strategy then states "*despite limitations, the new climate datasets and modelling will be an important first step in advancing our understanding of the risks to surface water systems in NSW Murray and Murrumbidgee*"

### Recommendations:

- *DPIE's Modelling strategy that underpins the Murray Regional Water Strategy requires completion, public transparency and considerable review prior to further work on the Murray Strategy*
- *DPIE should explain in writing why previous and future Flooding events is not included in the model and therefore why/how can DPIE make assessment on water availability without no consideration for flood risks or flood flows*
- *DPIE should explain why the Darling System is not included in the Murray models when considering policy responses to modelled climate scenarios*

## Murray Regional Water Strategy: Document Number PUB20/319

The Draft Plan (page 17) identifies;

### Water Security

- DPIE focusses on town water supplies, population growth predictions

### Water Reliability

- DPIE refers to irrigation water reliability (eg 60%) with no Strategy content that either preserves the already diminished reliability (due to cumulative rule changes),
- DPIE appears to suggest there would be some other form of measuring reliability
  - Eg Provision of a service at a different time of year

### Resilience Water Resources

- DPIE refers to resilience to withstand extreme events but offers no solution
- DPIE draft strategy reduces business resilience to climate change through a reduction in both yield and reliability of General Security irrigation entitlements



## Flood Intensity (page 18) & Flood risks management (page 85)

- DPIE suggests they need to gain a better understanding of the flood intensity and frequency in the region
- DPIE does not highlight the existing high levels of documented data on flooding, nor does it recognise the value of 'oral', or personal documented evidence or local knowledge on flood events over multi generations, particularly documented information within the farming sector
- DPIE has not acknowledged that a range of SDL Adjustment Mechanism rule changes and projects may or are likely to increase **'flooding risks in the region'**
- DPIE refers to development of flood risks management plans and places a focus on councils preparedness or capacity to address risks.
- DPIE does not make mention of the Central Murray Floodplain Plan and the considerable work involved in floodplain plans already in place. This submission acknowledges some gaps or sections of enactment of the plan still need to be addressed
- DPIE has ignored the impacts of flooding on the agricultural sector
- DPIE refers to NSW State Emergency Services but does not encourage or highlight in SES policy or processes, rules that prevent pre-preparation (eg for example SES provision of sand bags is not permitted until a flood event is in place, the nature of the terrain and flood behaviour, ultimately may rule out accessibility to obtain sand bags as a locality may already be isolated, yet the rule denies preliminary pick ups

### NOTE:

DPIE refers to recent development of the Healthy Floodplain Project in the Northern Basin and then states ***"in Contrast, there has been limited reform around 10 existing and fragmented local floodplain plans in the Southern Basin"***

The Central Murray Floodplain Plan was developed and implemented following the 1970s wet decade and has been largely effective since its commencement date. Some Western sections remain to be completed

### Flood Operations

- DPIE suggests better data and information on floods is required and risk associated with floods. This ignores what's been done to date and the extent and quality of local knowledge
- The Murray Strategy hints that DPIE is intending to rewrite Central Murray Floodplain Plans. This implies that any changes carry risks to the Agricultural sector
- The Murray Strategy describes limited capacity of major dams to provide flood mitigation yet:
  - Operational rules **do allow a level (limited) volume for air space management but this is often not acted upon**
  - DPIE reliance on modelled data and a decadal policy **that assumes 'worst case inflows scenarios' results in:**
    - ❖ less active use of existing airspace rules and a continuance of major storage fills even in BOM forecast above average wet years
    - ❖ DPIE still assumes 'worst case scenario inflows' which results in zero or minimal assess or management to avoid major floods

- ❖ DPIE has not demonstrated its acceptance of the third operating rule for management of Hume Dam (Objective & Outcomes Document)

## Water Quality

- The Murray Strategy makes minor references to water quality. This may in general the high quality of water within the main stem of the Murray and Edwards/Wakool rivers
- The Strategy makes no mention of changes of risks to baseline flows that could occur if CEWH (now the largest holder of entitlements) prioritises use of its water in Spring, leaving insufficient emphasis on the value of baseline flows through rest the of seasons/year.
- The Strategy notes potential risks for water quality plants (treat waste/sewerage water re-entering the Murray)

## Recommendation:

- *The Murray Regional Water Strategy has not recognised that Murray Water Sharing and Management rules in the Murray Valley already prioritise water security town water*
- *The Strategy does intend to look at urban recycling in the Murray Valley to encourage forward planning by regional Shire Councils. This is supported*
- *There is no avoidance of the NSW Government granting new licenses (eg Broken Hill Pipeline) from existing resources where there are third party impacts on NSW Murray General Security irrigation entitlements.*
- *The Strategy makes no effective recognition and therefore meaningful inclusion of Water Security and Reliability to agricultural industries,*
- *The Strategies mentions Flood Intensity, Flood Operations and the need to build in existing knowledge/capacity, however the Strategy makes no mention of avoidance of elevation of flood risks through cumulative rule changes that are/will increase risks of regional flood events at the higher scales*
  - *Eg increasing carryover allowance in Dartmouth Dam (eg allowance of South Australia to store carryover note: this was meant to be a one off only*
  - *Eg Enable High Security entitlements to carryover by temporarily 'parking or leasing' onto General Security entitlements at the end of a water year*
  - *Note: High Security entitlements do not have carryover provisions as part of their entitlement*
- *Water quality proposals do not recognise or encourage Governments/MDBA/CEWH to maintain a baseline level of flows in Rivers and Creeks off the main Murray River.*
  - *Increased recognition is required to protect baseline flows in such systems for human requirements, refugia and to maintain water quality*
  - *Note: The Murray Darling Basin Plan encourages higher use of CEWH in Spring*
- *Risks for lack of baseline flows include:*
  - *poor water quality for human or stock needs,*
  - *higher risks of algal blooms in summer/autumn*
  - *reduced opportunity for refugia for fish/aquatic invertebrates*
  - *a non- conservative use pattern that looks at all risks over a water season (ie concentrated use in spring)*
- *DPIE identify what its options are in the Strategy to identify or manage risks from disposal of water from waste- water systems*

- *DPIE Draft RWS also inappropriately suggests that measuring water reliability could be achieved by delivery at a different time of the year.*
  - *This demonstrates that the Murray RWS is not consistent with the necessary levels understanding of agricultural production*

## **Groundwater**

- The Murray Strategy does not demonstrate it has sufficiently recognised the full suite of Groundwater Management Planning that is already in place
- The Strategy does not account for the social and economic impacts that has occurred regionally with the implementation of the 68% cut-backs to irrigation entitlements that has already occurred
- The Strategy does not discourage further groundwater development, instead it suggests that new opportunities for further investigation of new groundwater sources should be done
- The draft RWS in its current form, could indicate to a non- informed reader that NSW Government has not undertaken any of the substantial work to ensure groundwater plans in the Murray have already taken account of a wide range of environmental issues and set extractions limits accordingly.

## **Recommendations:**

- *DPIE recognised the considerable work and effort by both the NSW Government and regional stakeholders to develop rules of management that already deliver environmental and extraction management strategies for Groundwater management Plans in the Murray Valley. Such rules also manage climate risks.*
- *DPIE investigate whether there are sufficient protection for existing users, in their processes of issuing new groundwater licenses to new entitlement owners, prior to the granting of new licenses*
- *DPIE ensure sufficient groundwater hydrologists to avoid creation of 'hot spots' where new licenses are created that could adversely affect existing Groundwater license entitlements*
- *DPIE does not proceed with interstate trade options for groundwater due to the strong potential pose further risks to the 016 groundwater management zone*
- *DPIE re-instates the former public advertising of any new groundwater licenses in order for full transparency and public confidence and capacity to engage in avoidance of further risks to the resource*

## **Water Trade:**

- NSW Government/DPIE should recognise trade stipulations outlined in the Federal Water Act 2007. This includes:
  - Natural capacity limitations
  - Apportionment of additional losses when transferring water downstream to new irrigation developments
  - **(refer Attachment A Water Act 2007)**

## **Recommendations:**

- *NSW Government/DPIE recognises the requirements in the Water Act 2007 that enable protection of third party impacts in relation to water trade*
  - *Attachment A (copy of relevant section Water Act 2007 to be provided post lodgement)*
- *NSW Government accepts property rights established under the National Water Initiative (NWI) and implements policy decisions that avoids risks to those rights*

## **Knowledge & information are essential to manage water resources (page 103)**

- DPIE suggests they need to continuously need to improve their understanding of the resources how they are used across the region

## **Recommendations:**

- *The NSW Government commits to establishment of regionally located and dedicated Murray Regional Director supported by a water knowledge and trainee team that can meet the complex needs of water management with a three -state agreement and facilitate effective discussions on behalf of NSW with the Murray Darling Basin Agreement*
- *A Murray Regional Director should coordinate and oversee all NSW Murray water issues*

## **Indigenous Water Rights/access to water**

### **Recommendations:**

- *MVPD encourages within the Murray Water Strategy, options for additional indigenous access to water for cultural or indigenous practises, to be achieved through the utilising Commonwealth Environmental Water Holder entitlements.*
- *MVPD encourages direct discussions with locally based indigenous groups within the Murray Valley*
- *Retention of characteristics of original entitlements as per conditions of CEWH water should also be respected and that no third-party impacts to other existing entitlements and/or property; should occur with accessing or delivery of water for cultural purposes*

## **Protect and Enhance the Environment**

- DPIE approach to Murray Water Strategy in this section does incorporate recognition of major environmental protections in Water Sharing Plans, local environmental projects, NSW Government and/or MDBA water recovery programs, previous or current Catchment Management programs
- The Strategy highlights environmental negatives which suggests that previous work is either unimportant, or has not been effective

### **Recommendations:**

- *This section of the Strategy is rewritten to account for considerable environmental achievements, collaborative programs and water recovery options for the environment that have occurred since late 1990s*

- *The RWS should also play an important role in recognising achievements, its current approach focusses on environmental negatives. This is not considered an effective approach to community engagement or trust. The approach also discourages further participation in environmental programs*

## **MURRAY REGIONAL WATER STRATEGY LONG LIST OF OPTIONS**

Murray Valley Private Diverters (MVPD) does not accept that the Murray Water Strategy long list of options while it is underpinned by the extreme worst case scenario. There are a range of viable methods to combat climate change and retain existing water resources/security.

MVPD strongly encourages a complete review of the draft strategy with the view that the options list should be recommenced by working directly with affected stakeholder groups already established in the Murray Valley.

It is not evident that sufficient emphasis has been placed on evaluating how existing water resources in the Murray Valley are managed and what are the externalities that are putting such resources at increased risks.

Climatic variability or climate is one element of risk but the Strategy appears to focus on that alone without the necessary level of understand of how the Murray regulated system works.

### **Recommendations:**

- *The draft Murray Water Strategy is withdrawn and undergoes a substantial review in conjunction with regional stakeholders and agricultural industries*
- *The strategy is reworked to develop a more innovative and broader suite of options and solutions. Otherwise it can be concluded that DPIE **preferred approach is to reduce access to water as the key response to climate risks (reduce rainfall only)***

**NOTE:** MVPD has include responses to options 1 – 44, but strongly encourages DPIE and the **NSW Government not to proceed or rely on such options, outlined in the Murray Strategy**

MVPD together with other regional stakeholders encourages a closer working relationship to develop a more proactive response to a future Murray Water Strategy

### **MVPD comments on DPIE's Murray Water Strategy Long List of Options**

#### **Options 1 – 6**

- Focus on Indigenous issues
- The Strategy should recognise that Indigenous, non- indigenous, and agricultural /irrigation industries capacity to assist Governments with managing water in the NSW Murray Valley

- The Strategy should avoid creation of division in regional communities by encouraging more equality in managing water and a more collaborative approach
- The Strategy reinforces that 'community engagement' can be inclusive of indigenous but not agricultural stakeholders
- This submission does not support erosion of water availability through new cultural rules if they have third party impacts on existing water rights or have adverse impacts to third parties (eg flooding risks or a reduction in baseline flows to other parts of the Murray systems)
- The Strategy needs to carefully weigh up the value of agricultural/industry/economic production in the Murray Valley and how water dependent industries have and could further enhance regional job opportunities for indigenous people

## **Option 8**

### **Drought rules**

- Murray and Lower Darling Water Sharing Plan, Water Resource Plans have already strong and robust drought responses and measures in place
- The draft Strategy suggest there is limited data, this is refuted by historical records and long- term plans in place
- The Strategies does not recognise the physical limitations of existing Southern Storages that are not equipped (capacity) to store water for a 10 year drought event
- There is substantial risk the draft Strategy will impose further limits on water access in non- drought years to accrue/conserves water in the event of a long term drought which may or may not occur. Such a ultra conservative approach ignores the physical limitations and would close down major industries and agricultural production systems in the Murray Valley.
- Former and historical Government design and planning for water security and irrigated agriculture in the Southern Basin would effectively be dismantled
  - Such an outcome defies the very purpose of why the Southern Storages were built in the first place.
- This submission strongly recommends that the Draft Strategy must incorporate greater recognition of the role the Darling system plays to the Murray River

### **Option 9 : Review Allocation & Accounting Frameworks (Regulated System)**

- The Strategy focusses on future identification of data gaps. Such data gaps can only be related to modelled scenarios as the Murray Darling Basin Agreement /and Murray regulated system has sufficient data knowledge to manage the system effectively within known Southern Basin storages limits
- The strategy makes no reference or future intention on the negative impacts on cumulative rule changes that have been inconsistent with property rights enshrined in the National Water Initiative
- There is no inclusion in water availability models, on the role the Northern Basin has historically played in co-contributions to the Murray River
- There is no recognition that Northern Basin Water Sharing Plans are not required to meet 'end of system flow targets' beyond Wilcannia (ie 200ML/per day)
- This section talks about future demands/changed use patterns but options do not include recognition of problems that have arisen because of:



- Failures of the NSW Government to introduce Land Planning SEPP to avoid elevation irrigation demands downstream of known Murray /Edward Wakool River systems natural river bank capacities
- The Strategy talks about climate risks and need for increased resilience to changes in water availability
  - BUT ; the strategy makes no approach to review NSW Governments cumulative rule changes that have reduced the resilience capability of the Murray Valley to meet climate challenges
- The Strategy then suggests intent to move allocations and water sharing in response to new climate information.

**Note:**

- **The Strategy should not further undermine Murray Valley General Security entitlements on yet to be done ‘modelled data’**
- **The Strategy should look internally within NSW at policy changes that have undermined existing water security and have reduction capacity/or resilience to climate variability**

**Option 10: Investigate Murray River system water sharing, delivery, accounting arrangements under the Murray- Darling Basin Agreement**

**MVPD encourages a review of the Murray Darling Agreement however any such an option can be undertaken unless the NSW Government acknowledges the role the Darling River system plays in Murray River flows**

- The strategy suggests an increase role in ‘worst case scenario’ climate risks would be included in any review of the Murray-Darling Basin Agreement
- This submission strongly rejects that climate predictions would further undermine water security and/or community resilience when the Murray Valley regulated system also has methods in place for water sharing, water extractions
- Any review of the Murray Darling Basin Agreement must re- incorporate recognition of the role of the Darling Rivers system (Northern basin) and required connectivity flows to the Murray River.
- There are issues within the agreement that do require review, these include but not limited to
  - South Australian Additional Dilution flow rule which was based on SA claim of increased salinity risks in the Murray Valley dating back to the 1980s
  - Current this rule leads to significant wasting of water resources

**Option 11 & 12: Review of Groundwater Extraction limits/Provide increased clarity about Sustainable Groundwater Management**

**MVPD rejects a review of Groundwater Extraction limits and need for increased clarity on SGM on the basis that:**

- The 016 region (Murray Valley) has already undergone 68% cuts to entitlements
- There is no scientific evidence that current rules in place defined in the 016 Water Sharing Plans are not working or are insufficient to protect environmental outcomes

- The 016 region has recently been included in a State-wide review of Groundwater Plans and was not deemed to require major changes to rules. Some adjustments were required as a requirement however, from the Murray Darling Basin Plan
- The NSW Government continues to issue new licenses despite documented objections/submissions by existing users
- NSW Government has introduced a new policy to avoid public advertising of such license applications, further undermining the capacity for local people to lodge objections
  - Without local knowledge of all risks being considered, there is a high chance that DPIE will approve new licenses.
  - Lack of transparency in granting new licenses when there maybe high chance of third party or adverse environmental impacts is not good practise

### **Option 13:**

#### **MVPD rejects moves by the NSW Government to allow conversion of General Security or Unregulated Licenses to High Security**

- This strategy would further diminish the security of Murray Valley General Security Licenses
- The Strategy refers to an existing problem in response to changing industry demands and future climate risks -----to implement such an approach simply provides new benefits to some, while ignoring the following:
  - The risks are then transferred to remaining General Security entitlement holders (this can be explained in further discussions with DPIE)
  - The Southern Storages are incapable of meeting further demand for High Security entitlements

### **Option 14: Investigate land use change/population growth impacts on water resources**

#### **MVPD rejects the concept that future population water needs will be achieved through a reduction in other existing water entitlements**

#### **Alternatives to address future population demands**

- Ensure that town /urban supplies requirements are achieved through recycling; installation of urban rainwater capture systems/tanks
- Ensure that subdivision of rural land with Basic Landholder Rights (BLR) access to water, cannot be multiplied through urban subdivision. One bloc of any such subdivision only should be attributed with BLR rights, while remaining subdivision blocks should be require to independently achieve water rights through trade or via other person supplies measures (eg tanks)

### **Option 15 Develop climate risk evidence in next Snowy Water License Review**

#### **MVPD rejects a review in Snowy Water Licenses based on project climate risks**

- Snowy License and methodologies already take account of evidence based climatic risks, known and projected



## Option 16 Enhance Southern Basin Floodplain Management Plans

MVPD is extremely concerned that the lack of effective floodplain management and unlicensed extraction in the Northern Basin will result in a review of the Southern Basin Floodplain Plans of management in order to implement the disproportional impacts of water recovery as defined under the Basin Plan

MVPD does acknowledge that if sections of the Central Murray Floodplain Plan are incomplete, then this should be progressed

However, a review of Southern Basin Floodplain Plans should not be used as tool to implement the Basin Plan objectives or political decisions in NSW that have disproportionately applied impacts of the Basin Plan to the Murray Valley

MVPD is concerned **objectives in the Basin Plan as defined in the Murray Lower Darling Long-Term Water Plan will result in:**

- Major changes to the Central Murray Floodplain Plan with corresponding social and economic impacts to private landholders who have developed their businesses over multi generations and who are compliant with existing license regimes
- Removal of 'delivery constraints' to meet environmental objectives
- Elevating flooding risks in the Murray Valley are already proposed as '**not compensable**' under the Reconnecting Rivers Project Landholder Negotiation Framework:

MVPD is also concerned that the Murray Strategy would look to the 'learnings of the Northern Basin'. This could be considered highly offensive when the considering the lack of regulation that has occurred over numerous decades. This is in contrast to existing rules within the Southern Basin

The Strategy also describes the **NSW Government intention to the "implementation of NSW Floodplain Harvesting Policy in areas outside the Northern Basin "**

- DPIE needs to advise Murray Valley water stakeholders why and how Floodplain Harvesting is to be permitted in Southern Basin Water Sharing Plans, plans that currently DO NOT PERMIT floodplain harvesting
- DPIE advice also needs to extend how such approvals affect existing property rights

### Recommendations:

- *NSW DPIE identify in responses to this submission how /why/where Floodplain Harvesting is to be permitted in the Southern Basin*
- *NSW DPIE to provide explanation on why the former 50ML limit on Floodplain Harvesting under former Murray Valley Water Sharing Plan was removed and that it now is to be replaced by a higher right (yet to be defined?)*
- *It is not clear why DPIE is placing such high emphasis on Murray Long Term Watering Plans and how such plans can undermine water security and/or elevated flooding risk without compensation*
- *The Murray Long -Term Watering Plan is an annual plan, reviewed annually, with implementation decisions determined annually on a wide range of circumstances.*
- *They are not legislated plans in themselves and as such have no legal basis*

## **Option 17 & 18 Water quality**

**MVPD encourages DPIE to recognise major programs and significant government/private investments (on and off farm) to improve water quality in the Murray Valley**

### **Recommendations:**

- *Recognise existing success, programs and actions that are already in place*
- *Urban run-off and reintroduction of Urban waste water discharge can affect water quality (algal blooms)*
- *That regulations in place currently prevent off farm discharge of effluent into water ways*
- *Salinity management in the Murray Valley has been effective and existing programs manage any risks*
- *DPIE should re consider granting of new groundwater licenses that can increased risks of salinity in existing groundwater zones*

## **Option 20, 21; Recycling and & Managed Aquifer Recharge**

### **Recommendation:**

- *MVPD encourages DPIE to encourage investment and policies in urban recycling*
- *MVPD encourages DPIE to investigate opportunities for Management Aquifer recharge (noting that South Australia have done this for decades)*
- *MVPD encourages recognition by DPIE that Governments/Agriculture industries have already achieved major outcomes with on farm recycling*

## **Option 22 Secure town access to groundwater**

### **Recommendation:**

*MVPD while supporting towns requirement to groundwater during periods of extended drought, the following should apply*

- *Additional Groundwater licenses for towns without securing water entitlements through trade should not be Granted*
- *Water licenses should be bought on the open market, to be consistent with Trade Requirements and to avoid third party impacts to existing users*

## **Option 23 Maintain water-related amenities in the Murray region during drought**

**DPIE** proposal maintain water amenity values in urban areas during drought is surprising to say the least

DPIE hasn't explained under what water entitlements this outcome could be achieved?

DPIE hasn't explained why urban water amenities are excluded from the impacts of drought, while having in place Water policies that have prevented the provision of quality water for human consumption or stock water (eg as occurred in the Lower Darling)

DPIE is suggesting that 'amenity water' be codified (protected) through regulation or policy options during declared drought stages

This is concept that overrides existing water management rules in the Murray Valley and further derides the important of agriculture in the state of NSW

DPIE should explain how it intends to manage public affairs when an 'amenity value lake' in a town region is of more value than stock without water or humans (eg Lower Darling) that can no longer access water of sufficient quality in which to utilise in their homes

#### **Recommendations:**

- *Option 23 should be removed completely as it is contrary to National Water Initiative and current Water Trade rules*
- *If option 23 was to remain, this further erodes the capacity for urban people to understand the severity of droughts and increased the misunderstanding of the impacts drought on rural people and on food production*

#### **Option 24 Investigate inter-regional connections**

MVPD cannot understand the basis or rationale for this option in the Murray Valley

The option:

- Is at odds with the existing rules of the Murray Valley regulated system
- Is at odds with protection of existing water property rights (National Water Initiative)
- Focusses on providing water to towns from multiple sources but fails to identify how these pipelines will obtain water?
- The option also indicates intent to obtain water from 'not-fully-allocated' groundwater sources. DPIE should explain where these are in the Murray Valley?
- DPIE needs to provide further clarity on how inter-regional pipe connections would source or transfer water between water sources and what affect they would have on existing entitlements and water sharing arrangements

#### **Recommendation:**

- *Option 24 be removed until the NSW Government can justify the removal of water property right from existing entitlement holders (General Security)*
- *Option 24 signifies the NSW Government's intent to repeat political decisions relating to the Broken Hill pipeline*
- *DPIE provide explanation on targeted groundwater regions and how it intends to avoid third party impacts to existing General Security entitlements*

#### **Option 25, Investigate groundwater desalinisation for industry and towns**

MVPD urges caution that such an approach for industry must be confined to the Western part of the Murray Valley where there is no or little significant extraction of groundwater for commercial purposes

- Encouraging extraction of groundwater through desalinisation must be geographically specific.
  - If not if applied comprehensively, will increase extraction risks to zones where commercial activities and property rights of groundwater/and system of management/and or water quality is already of high quality standard

- Option 25 appears broad-brush and at odds with all groundwater management rules that are currently in place
- If option 25 was considered, it should be extremely limited and only in Western zones

### **Option 26 Improve protection of groundwater dependent ecosystems**

MVPD is concerned that DPIE has applied a template approach to the Murray Valley on multiple issues, this includes option 26

- It is not clear why option 26 is included in the Murray Strategy when groundwater dependent ecosystems are already protected in Groundwater Sharing Plans, plans that have also undergone another substantive review

### **Option 27 Cold water pollution in Hume Dam**

MVPD acknowledges the effects of cold -water pollution in the Hume Dam.

This is not a new issue and the fact that this issue largely remains unresolved through infrastructure options, is problematic and symptomatic of Government processes.

#### **Recommendations:**

- *Address inaction in addressing the issue*
- *Avoid using cold water pollution reasoning to implement other Government policies*
- *DPIE needs to provide explanation on its intent in relation to 'action on landscape health' .....as a viable response to addressing cold water releases (Bottom of dam releases) from Hume Dam*

### **Option 28 Fish Passage**

MVPD is supportive of a range of various options to improve fish passage in the Murray Valley Landscapes.

MVPD encourages the NSW Government to incorporate a range of fish friendly options and investment as part of the Basin Plan's environmental outcomes

Such investments could be incorporated as part of the Sustainable Diversion Adjustment Mechanism to fast -track outcomes and ensure a more holistic approach to investments overall

#### **Recommendations:**

- *Enable collaborative partnerships to be developed with the NSW Government/DPIE/private landholders and Murray Valley Stakeholders to achieve a whole of system approach for fish outcomes*
- *Fast track investments and outcomes by including this in the SDL Adjustment Mechanism as an urgent and priority issue. Build within existing project options or include as complementary measures to attract immediate funding*

### **Option 29 Fish friendly water extraction**

MVPD acknowledges the benefits of fish screens on major pump sites. However to incorporate aspects on to smaller pipes may not be practical or economically feasible. Many of the smaller volume pumps already have screening methods.

MVPD encourages a fresh approach to collaboration and partnerships to maximise opportunities through voluntary approaches as opposed to increased regulation

MVPD also notes the challenges and often inflexible approach in government processes in delivering on objectives.

#### **Recommendations:**

- *NSW Government seek to include a range of fish outcomes within the Murray Darling Basin Plan SDL Adjustment Mechanism funding to enable more timely investments and outcomes on the ground.*
- *MVPD discourages further regulation and seeks DPIE recognition that collaborative partnerships delivers more than just infrastructure options, but could also deliver monitoring, ongoing commitment more broader than just the sites selected in option 29*

#### **Option 30 Improve flows to important ecological sites**

The Murray Water Strategy has made mention of a number of sites including the use of MIL channel system to supply water. However this is not a comprehensive or inclusive list and MVPD encourages direct collaboration with a range of stakeholders to facilitate a broader range of flow options over multiple sites

#### **Recommendations:**

- *Work with a broader range of stakeholders, including Murray Valley Private Diverters and Murray Regional Strategy Group, to identify and **progress other options not included in the Strategy***
- *To deliver more timely outcomes, NSW Government is encouraged to consider these and other options that could be incorporated into the Basin Plan Sustainable Diversion Adjustment Mechanism.*
- *This would enable more holistic design of works and flow options and speed up investments and outcomes*

#### **Option 31 Develop a river and catchment recovery program for the Murray region**

The strategy suggests developing rules to address climate risks to address future water availability. This appears consistent with the overall intent of the Murray Strategy to take a more cautionary approach from modelled climate risks

The strategy talks about land uses, land clearing and their impact on riverine and catchment health

The Strategy does not acknowledge the wide range of programs, agricultural innovations that are or have improved landscape outcomes

The Strategy talks of expected outcomes, but places no direction on emphasis on working with people. There is a high risk that such outcomes will be regulatory based

#### **Recommendations:**

- *Further explanation from DPIE is required*
- *DPIE should explain what 'absolute' or what 'standard' of ecological health is aiming for in a highly modified agricultural system*

- *DPIE should also explain what 'standard' is seeking for environmental outcomes within the existing natural assets, many of which already benefit substantially from programs, environmental water*

### **Option 32 Review of Environmental Water Arrangements**

MVPD is concerned that this option is aiming to use climatic models to review existing Water Sharing plan rules. **This is what is stated in the draft strategy**

This includes but is not limited to:

- Setting more water aside for the environment
- Reviewing the Barmah Millewa allowance
- Considering a new 'first flush' rule
- Responding to environmental needs on the basis of climate change

### **Recommendations:**

- *Option 32 should be removed as it undermines all water security for NSW Murray General entitlements, until after changes to the model from worst- case scenario, to something more reasonable and realistic*
- *Option 32 could be deemed offensive to all 'community, stakeholder and Government based initiatives to date that have delivered extensive environmental outcomes*
- *Option 32 appears designed to deliver the Murray Long Term Watering Plan, a document that has not passed as legislation but now appears to have attained under the draft strategy the capacity to undermine existing water and private land property rights*

### **Option 33: Re-establish threatened fish species through habitat restoration & conservation restocking; Under**

### **Question 34: Understand the value of ecosystem services**

Environmental partnerships are an effective way to deliver on ground environmental outcomes in human dominated landscapes. Such partnerships have strong interaction and flow on benefits with natural areas/waterways and or state forests and National Parks

To maximise uptake and enthusiasm, NSW Governments needs to understand and identify what are impediments that repeatedly occur in public policy.

- Restocking threatened fish species is a vital component to preserving or enhancing species diversity.
- Habitat restoration programs have been in place in the Murray Catchment for over twenty years and there are excellent examples where and why programs work or are inadequately supported beyond certain timeframes
- A key component for progression of Option 33 should be a re-evaluation by the NSW Government/DPIE of its relationships with rural landholders and people.
- These can include capacity of Governments to value the agriculture, farmers and the important position they play in the landscapes
- Harnessing potential opportunities can be disadvantaged when public policy does not value local opinion or see such people as equal partners in designing solutions and outcomes



- Ecosystem Services payments have been discussed in Australia but are still not of sufficient merit to capture broader outcomes
- A cost- effective way is to re evaluate how Natural Resource Policies are developed, whether they are based on relationships, dual methodologies in design and delivery, or whether public policy is imposed through regulation. Regulation is the least effective method of delivering natural resource outcomes on the ground.

**Recommendation:**

- *Develop ideas and options in equality partnership with local people at the onset of discussions*
- *Work with regional stakeholders on collaborative partnerships to design and deliver more effectively on ground outcomes*

**Option 35 – 37: Data Collection; studies on a range of issues including /surface groundwater to meet climate challenges; Under a Water Dependent Industry Resilience Study**

**Recommendation:**

- *DPIE to review existing data sets, policy programs that have already achieved significant benefits to the environment, addressed climatic variability, water quality, extraction limits*
- *DPIE to re consider over a decade of submissions, community and industry information on water related matters.*
- *DPIE to refocus on disproportional impacts of NSW Government water policies and the affects on regional mental health*
- *Any study in the context of reducing water security as proposed in the draft Murray Water Strategy will not underpin industry or community social and economic resilience*

**Option 38 – Develop education and capacity building programs**

**Recommendations:**

- *DPIE is not equipped to develop such options*
- *Reducing industry and regional industry resilience through public policy on the basis of ‘modelled predictions of climate’ with the approach outlined in the Murray Draft Water strategy cannot be ‘overcome’ with an education and capacity building program*

**Option 39 – Investigate water availability in the NSW Murray Region**

**Recommendations:**

- *The draft Murray Water Strategy should be reworked starting on the basis of DPIE’s improved understanding of the Murray Darling Basin Agreement and rules that currently determine water availability and management in NSW Murray Valley*
- *Option 39 should include ‘why public policy in NSW has effectively enabled the disconnection of the Darling River system from Murray in most years through water sharing plans rules, extraction limits and the inability to ensure meaningful connectivity flows to the Murray*

- Option 40 – 41 Investigate non – residential water efficiencies; and cloud seeding**
- Option 42 Undertake joint exploration for groundwater within NSW geological survey**
- Option 43 – Review water markets and trade**

#### **Recommendations:**

- *The Federal Water Act 2007 includes requirements for trade related matters. Many of these have not been enacted*
- *The Strategy assumes a lack of information in agricultural communities and thus an education program is required. However this may be an assumption within DPIE and there already exists a high level of understanding about trade matters in the Murray Valley. Concerns about aspects of trade, do not appear to be reflected in the term – education. Trade concerns relate to equity of participation and other documented concerns in submissions made to the ACCC.*
- *A key issue with trade problems are that public policies incorrectly encouraged or enabled, new irrigation developments in areas that were previously unirrigated. These areas are below known capacity limits of natural parts of the Murray and Edward Wakool River systems to deliver.*
- *Trade risks and delivery risks have arisen from the failures of Federal and State Governments to understand natural river system limitations in the southern Basin. Such limitations are not limited to the Barmah choke*
- *MVPD is concerned that NSW proposal for joint exploration of groundwater, must not jeopardise existing license holders in the Murray Valley*

#### **Option 44 Consider hydrological processes bushfire management**

The risks of a substantial reduction in catchment run off following major bushfires is substantial.

This is not a new phenomenon however, fire response, public land management may not recognise the full suite of risks of major and uncontrolled bushfires,

Australia's history has well documented major droughts and following bushfires since European settlement.

#### **Recommendations:**

- *Recognise Australia's major drought cycles; and amend NSW Native Vegetation laws that prevent 'cool burning' practises. Remove terms that currently class cool burning as 'clearing activities. This is at odds with traditional indigenous or European high country mountain practises as a methodology to reduce the risks of 'hot fires'.*
- *The Strategy refers to strategic water catchments protection however in understanding the extent and scale of trees/vegetation in the Snowy Mountains and catchments of Hume and Dartmouth Dam, geographically limited water shed activities will be limited in their effectiveness*



