Environmental Defenders Office

Submission on the Draft Surface Water Take – Wet Season Flows Policy & Interference with a Waterway Guideline

9 January 2023

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We have over 30 years' experience advising on water law and policy across all Australian jurisdictions and have accordingly developed an in-depth understanding of best practice water law and governance.

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Acknowledgement of Country

EDO recognises and pays respect to First Nations Peoples. We pay our respects to Aboriginal and Torres Strait Islander Elders past, present and emerging, and aspire to learn from traditional knowledges and customs that exist from First Laws so that together, we can protect our environment and First Nations' cultural heritage through Western law. We recognise that their countries were never ceded and express our remorse for the deep suffering that has been endured by the First Nations of this country since colonisation.

A Note on Language

We acknowledge that there is a legacy of writing about First Nations without seeking guidance about terminology. We also acknowledge that where possible, specificity is more respectful. Where possible, we have used specific references. More generally, we have chosen to use the term "First Nations". We acknowledge that not all Aboriginal and Torres Strait Islander peoples will identify with that term and that they may instead identify using other terms or with their immediate community or language group.

INTRODUCTION

EDO welcomes the opportunity to comment on the Draft Surface Water Take – Wet Season Flows Policy (**Draft WSF Policy**) and the Draft Interference with a Waterway Guideline (**Draft Guideline**) (together, the **Draft Policies**). For the reasons set out in this submission we do not support the Draft Policies in their current form.

Our recommendations are informed by best-practice principles for water management, including those set out in the National Water Initiative (**NWI**).

As a signatory to the NWI, water planning in the NT must reflect the principles and processes that it sets out. As such, the starting point is that the take of wet season flows should be regulated through NWI compliant statutory water plans (i.e. Water Allocation Plans) – not policies. This is particularly the case in areas where there is a need for improved management of water resources including Water Control Districts (**WCDs**). We caution against reliance on any sort of policy other than WAPs in WCDs.

However, acknowledging that there are and will remain areas in the NT that sit outside of WCDs and thus are not the subject of statutory water plans, we accept the necessity to have policies in place to determine water availability outside of WCDs.

Any such policies must also reflect the principles of the NWI and seek to implement NWI water planning processes. Important principles and processes include such things as ensuring appropriate consultation with all stakeholders, applying the best available scientific knowledge and socio-economic analysis, and applying informed consideration of competing environmental, cultural and economic outcomes. In its current form, the Draft WSF Policy falls far short of best practice principles for water management, including those set out in the NWI.

In addition to falling short of NWI principles and processes, our submission identifies several other weaknesses with the Draft WSF Policy – including the proposed approach to relying on "science" (noting that, in principle, EDO strongly supports science-based policy).

In relation to floodplain harvesting (**FPH**), any WSF policy should expressly excluded FPH from its scope: complex catchment specific considerations are required to appropriately regulate FPH and it is not suited to regulation under generalised policies.

In relation to the Draft Guideline, we identify several material issues in terms of both content and the intended approach. In particular, there are significant issues with the proposed reliance on self-assessment. We identify a very real risk that, as drafted, the Draft Guideline would encourage the rapid expansion of smaller structures built by applicants who incorrectly conclude that the threshold for a permit is not satisfied. It may also lead to unforeseen and un-monitored cumulative impacts and a dearth in accurate information regarding the nature and number of structures diverting water from waterways.

Our submission sets out recommendations for improving the Draft Policies. However, bearing in mind the substantial issues identified, including information gaps that limit the scope for meaningful contributions on all issues, our overall position is that the Draft Policies are materially

deficient and require a complete redraft (taking into account the recommendations made here). This should be followed by further public consultation.

In the meantime, we strongly caution against granting any licences for the take of wet season flows. If the NT Government is minded to grant licences in the meantime, a precautionary approach must be adopted. This should involve relying on the proposed contingent allocation rule in the Draft Guideline (rather than the existing contingent allocation rule), and not adopting the proposed "scientific research" method for determining consumptive pools (which, as drafted, is flawed in several important respects). Licences should also be temporary to ensure that the NT Government is not locking in water take that could later be identified as unsustainable and/or inappropriate for other reasons.

SUMMARY OF RECOMMENDATIONS

Draft WSF Policy

1. Within WCDs, determine the consumptive pool for the take of wet season flows in the Top End through NWI-compliant water allocation plans rather than generalised policies.

2. Outside of WCDs, determine the consumptive pool for the take of wet season flows in the Top End through the application of NWI water planning processes, as described in this submission. This could be achieved via a redrafted WSF Policy (see Recommendations 3-9 for further details).

3. To the extent that the NT Government proposes to rely on a WSF policy to determine consumptive pools, redraft the Draft WSF Policy so that it has regard to the principles of the NWI and implements the water planning processes set out in the NWI, including:

    a) consultation with stakeholders, including those within or downstream of the plan area;

    b) the application of the best available scientific knowledge and, consistent with the level of knowledge and resource use, socio-economic analysis;

    c) adequate opportunity for consumptive use, environmental, cultural and other public benefit issues to be identified and considered in an open and transparent way; and

    d) reference to broader regional natural resource management planning processes.

4. Be transparent in the WSF Policy about how and what “science” will be used to determine consumptive pools, including by:

    a) providing detail about the process that will be applied to obtain and develop the relevant scientific information and research;

    b) relying on science that is subject to independent peer review;

    c) relying on science that will be made publicly available; and

    d) setting out how issues of scientific uncertainty or disagreement among experts will be addressed.

5. Include guidance within the WSF Policy on the role of science when weighing competing social, economic and environmental interests to determine consumptive pools.

6. Release the scientific basis for the Proposed Wet Season Contingent Allocation Rule for public scrutiny. Ideally, this would occur as part of a further public consultation process.

7. Include a requirement in the WSF policy for downstream flow targets. These targets should be determined by reference to the water requirements of key environmental, cultural and community needs.

8. Include a requirement in the WSF policy for the setting of maximum rates of take, having regard to the cumulative impact of all licences and with the explicit purpose of achieving identified environmental, cultural and community outcomes.

9. Expressly exclude floodplain harvesting from the scope of the WSF Policy.

Draft Guideline

10. Ensure the definition of "material change" in the Draft Guideline aligns with the intended purpose of the Act and supports regulatory certainty. In particular, replace requirements for changes to be “noticeable, obvious” and “capable of straightforward observation and measurement” with requirements that are more objective, clear, and responsive to the legislative intent.

11. Amend the Draft Guideline to differentiate the three types of impacts identified in the Act (rather than identifying all impacts by reference to flow changes). (See also recommendation 14 regarding reliance on self-assessment).

12. Amend the Draft Guideline to clearly indicate that *any* activity that alters the stability of the beds or banks of a waterway will amount to an interference with a waterway (i.e. materiality is not a feature).

13. Amend the Draft Guideline so that it is clear that any one of the listed impacts (i.e. to waterway, shape, flow, or the stability of beds or banks) will qualify as an interference and establish that an activity requires a permit.

14. Limit reliance on self-assessment in the Draft Guideline and instead:

    a) guide applicants as to when they must obtain expert evidence regarding the impact of proposed activities and when this advice must be provided to the Department; and

    b) require applicants who conclude that they do not require a permit to nevertheless notify the Department of their proposed interference with a waterway, the basis upon which they consider no permit is required and update the Department when the relevant works are complete.

15. Clearly indicate in the Draft Guideline which information and documents must be submitted in respect of the various activities for which a permit may be sought, noting that the requirements may differ depending on the specific activity in question.

THE DRAFT WSF POLICY

Determining the consumptive pool

Consumptive pools must be determined in accordance with the National Water Initiative (NWI)

The determination of consumptive pools is a central element of water planning. The NWI commits signatories to ensuring that the consumptive pool of specified water resources will be "determined by the relevant water plan".[1] It defines the "consumptive pool" as the "amount of water that can be made available for consumptive use in a given water system under the rules of the relevant water plan" (emphasis added).[2]

More specifically, the NWI sets out a number of "water planning processes" that should be followed when preparing water plans (and which therefore ought to be prerequisite steps to the determination of consumptive pools). These include:

- consultation with stakeholders including those within or downstream of the plan area;
- the application of the best available scientific knowledge and, consistent with the level of knowledge and resource use, socio-economic analysis;
- adequate opportunity for consumptive use, environmental, cultural and other public benefit issues to be considered in an open and transparent way; and

[1] Intergovernmental Agreement on a National Water Initiative, [28], available here: https://www.dcceew.gov.au/sites/default/files/sitecollectiondocuments/water/Intergovernmental-Agreement-on-a-national-waterinitiative.pdf

[2] Ibid, p 29

- reference to broader regional natural resource management planning processes.[3]

These steps are important because the purpose of water plans is to assist governments and the community to determine water management and allocation decisions to meet productive, environmental and social objectives. Critically, these steps scaffold a process that inevitably involves settling trade-offs between competing demands for water resources.

Unfortunately, the Draft WSF Policy allows for the determination of consumptive pools *without* a NWI compliant (or indeed any form of) water plan in place. It also fails to adhere to the water planning processes set out in the NWI. The table below summarises how the Draft WSF Policy fails to adhere to these important water planning processes:

Determination of the "consumptive pool"		
(NWI water planning processes[4])	**Through an NWI Compliant Statutory Water Plan**	**Through the Draft WSF Policy**
"Consultation with stakeholders including those within or downstream of the plan area"		
"The application of the best available scientific knowledge and, consistent with the level of knowledge and resource use, socio-economic analysis"		
"Adequate opportunity for consumptive use, environmental, cultural and other public benefit issues to be identified and considered in an open and transparent way"		
"Reference to broader regional natural resource management planning processes"		

EDO acknowledges that there are and will continue to be areas in the NT that are not covered by WCDs. For those areas, we recommend that NWI water planning processes can and should still be applied. This could be achieved via a redrafted WSF Policy; therefore any final WSF Policy should:

- apply only to the determination of the consumptive pool outside of WCDs; and
- apply NWI water planning processes.

[3] Ibid, Schedule E
[4] Ibid, Schedule E.

Recommendations:

1. Within WCDs, determine the consumptive pool for the take of wet season flows in the Top End through NWI-compliant water allocation plans rather than generalised policies.

2. Outside of WCDs, determine the consumptive pool for the take of wet season flows in the Top End through the application of NWI water planning processes, as described in this submission. This could be achieved via a redrafted WSF Policy (see Recommendations 3-9 for further details).

3. To the extent that the NT Government proposes to rely on a WSF policy to determine consumptive pools, redraft the Draft WSF Policy so that it has regard to the principles of the NWI and implements the water planning processes set out in the NWI, including:

    a) consultation with stakeholders, including those within or downstream of the plan area;

    b) the application of the best available scientific knowledge and, consistent with the level of knowledge and resource use, socio-economic analysis;

    c) adequate opportunity for consumptive use, environmental, cultural and other public benefit issues to be identified and considered in an open and transparent way; and

    d) reference to broader regional natural resource management planning processes.

Lack of transparency risks perverse economic, social and environmental outcomes

EDO supports regulatory frameworks that are based on the best available science. The allocation rules in the Draft WSF Policy propose to rely on "scientific research" to determine the consumptive pool. However, the policy as drafted:

- lacks important detail about how "science" will be used to determine the consumptive pool; and
- fails to include scaffolding that is critical to ensure transparency, independent scrutiny, consistency and public confidence in allocation decisions.

This risks perverse economic, social and environmental outcomes. In particular, in relation to the "scientific information" to be used to set extraction limits, the Draft WSF Policy does not provide any detail on the following matters:

- The process for the development of this science. For example, will it be prepared internally by the Department, by consultants or by third parties?
- Whether the science will be subject to independent peer review.
- Whether the science will be made publicly available.
- The process for determining limits where the body of science is uncertain or there is disagreement among experts.

These issues could be mitigated if the policy were to promote scientific integrity, including: transparency, declarations of conflicts of interest, open access to models, results and data, and best-practice standards for peer-review.[5]

There are relevant lessons to be learned from other jurisdictions. One of the key lessons from the Murray Darling Basin (**MDB**), for example, is that transparency in decision making is paramount to ensuring the successful implementation of the law. The implementation of the *Basin Plan 2011* (Cth) (**Basin Plan**) has been hindered by a lack of transparency regarding the science it is based upon.

The South Australian Royal Commission into the Murray Darling Basin Plan (**Royal Commission**) found that in setting the Basin-wide limits on extraction, the Murray Darling Basin Authority "failed to act on the best available scientific knowledge".[6] This was described as "unlawful" and "indefensible".[7] It occurred despite an explicit statutory provision in the Commonwealth Water Act requiring the use of the "best available science".

The Royal Commission observed that:

> "best available scientific knowledge is neither secret nor classified. It is available to the scientific community, and the broader public. It involves processes and actions that represent science – that is, that are capable of being reviewed, checked and replicated."[8]

The Royal Commission found that by keeping its scientific inquiries private, the Murray Darling Basin Authority had failed to make itself accountable to the public and the wider community.[9]

[5] Matthew J. Colloff et al., "Scientific integrity, public policy and water governance in the Murray-Darling Basin, Australia", *Australasian Journal of Water Resources* (2021), 25 (2), 121-140, p 135, https://doi.org/10.1080/13241583.2021.1917097.
[6] Murray Darling Basin Royal Commission Report, p 54.
[7] Ibid, p 54.
[8] Ibid, p 53.
[9] Ibid, p 710.

Recommendations:

4. Be transparent in the WSF Policy about how and what "science" will be used to determine consumptive pools, including by:

    a) providing detail about the process that will be applied to obtain and develop the relevant scientific information and research;

    b) relying on science that is subject to independent peer review;

    c) relying on science that will be made publicly available; and

    d) setting out how issues of scientific uncertainty or disagreement among experts will be addressed.

"Scientific research" alone cannot determine the consumptive pool

The Draft WSF Policy identifies "scientific research" as the principal mechanism for determining consumptive pools.

Again, EDO supports science-based policy. However, as drafted, the Draft WSF Policy fails to recognise or account for the important and unavoidable role of value judgments when making water allocation decisions. Determination of consumptive pools necessitates decisions about competing social, economic and environmental issues. These decisions can be informed, but not "determined," by "scientific research".[10]

This has been pointed out by scientists who have engaged directly with government to inform water policy and management in the Murray Darling Basin. These scientists acknowledge that "policy development is a complex product of compromise, trade-offs, weighing of scientific evidence, political imperatives, timing, individual agendas, and socio-economic factors."[11]

The NWI also makes this point:

> "recognising that setting the trade-offs between competing outcomes for water systems will involve judgments informed by best available science, socio-economic analysis and community input, statutory water plans will be prepared for surface water and groundwater management units in which entitlements are issued."[12]

Indeed, addressing these competing interests in an open and transparent way is the very purpose of statutory water plans.

[10] This issue has been raised specifically in relation to water management in Australia. See for example: Ross M Thompson et al., "Principles for scientists working at the river science-policy interface", *River Research and Applications* (2022) 38, 810-831, https://doi.org/10.1002/rra.3951; Matthew J. Colloff et al., "Scientific integrity, public policy and water governance in the Murray-Darling Basin, Australia", *Australasian Journal of Water Resources* (2021), 25 (2), 121-140, https://doi.org/10.1080/13241583.2021.1917097.

[11] Ross M Thompson et al, (n 9), p 828.

[12] NWI, [36].

Purporting to determine the available consumptive pool solely by reference to "science" risks value judgments being made behind closed doors where they are shielded from community input and criticism. This could undermine the credibility and quality of allocation decisions.

These issues could be mitigated if the Policy clearly outlined the role of science in *informing* value judgments regarding water allocations, rather than simply relying on "science" itself to make determinations.

Recommendations:

5. Include guidance within the WSF Policy on the role of science when weighing competing social, economic and environmental interests to determine consumptive pools.

The basis for the Proposed Wet Season Contingent Allocation Rule is unclear

The Draft WSF Policy sets out a Proposed Wet Season Contingent Allocation Rule that will be relied on in the absence of "scientific research" to determine the consumptive pool.

As described, it appears that the Wet Season Contingent Allocation Rule would allocate materially less water for consumptive use than would be allocated if the existing contingent allocation rules (per the Northern Territory Water Allocation Planning Framework) were applied to wet season flows.[13]

EDO supports in principle the proposal to adopt a conservative contingent allocation rule, noting that it is proposed to apply across a range of river systems each of which will have unique ecological, cultural and community needs.

However, the suite of documents released with the Draft Policies do not adequately explain how the Proposed Wet Season Contingent Allocation Rule was determined. This makes it impossible to meaningfully critique the proposal.

In regard to substantiating the Proposed Wet Season Contingent Allocation Rule, the Department's "Q&A" document (**Q&A Document**) says:

> "The WWF Global Free flowing rivers project points to a paper in Nature published in 2019 that says water use of more than 10 per cent is a pressure on free flowing river status and the overall importance of this factor is relatively low compared with other factors that were considered like dams and land use change."[14]

Unfortunately, the reference to the WWF Global Free flowing rivers project does not substantiate the Proposed Wet Season Contingent Allocation Rule. The linked WWF webpage contains no reference to the Nature paper or the 10% statistic.[15] A separate WWF webpage discussing the

[13] The Q&A Document states that the existing contingent allocation rule "would have enabled 20 per cent take of surface water flows to be used, with the draft policy proposing a contingent allocation of less than five per cent being available for use" (p 1).
[14] NT Government, *The Facts: Surface Water Take – Wet Season Flows Policy* (4 November 2022), p 2.
[15] The provided link is: https://www.worldwildlife.org/initiatives/free-flowing-rivers

Nature paper similarly does not identify the 10% water use statistic.[16] Further, the Nature paper itself focusses on identifying the percentage of the world's rivers that remain free flowing.[17]

Recommendations:

6. Release the scientific basis for the Proposed Wet Season Contingent Allocation Rule for public scrutiny. Ideally, this would occur as part of a further public consultation process.

Setting minimum flow thresholds and the maximum rate of take

The minimum flow threshold fails to protect downstream needs

The Draft WSF Policy states that "water take will stop when specified minimum flow thresholds cannot be met in the river basin." It states that these will:

- "be specific for the location of the water take";
- "be greater than transitional flows"; and
- "use river height as a surrogate measure for flow".

The document "Taking surface water in the wet season – A working example" (**Working Example**) provides that the minimum flow threshold will be "based upon the closest relevant gauging station to the proposed take point". However, no detail is provided about how these minimum flow thresholds will be determined. The Working Example states that:

> "to be able to determine the flow threshold we need to use 'rating curves' which is [sic] available from the department"[18]

The Consultation Report released with the Draft Policies indicates that the minimum flow requirements "will be based on the 25th percentile of flow to start and stop taking water."[19] How this would be applied in practice is unclear. For example, if it were based on instantaneous river flows, it may allow water to be taken during a short period of particularly heavy rainfall during an otherwise extremely dry wet season. Without adequate limits on the rate of take (discussed below) this would undermine the purported purpose of the minimum flow threshold in seeking to prevent significant extraction during particularly dry wet seasons.

For flow targets to be effective they must protect high-priority requirements for environmental, cultural and community needs. For example, flow targets could reflect the amount of water required to reach key wetland sites, threatened species habitats and downstream communities.

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[16]WWF, "New study in Nature: Just one-third of the world's longest rivers remain free-flowing", available here:https://wwf.panda.org/wwf_news/?346815/New-Study-in-Nature-Just-One-Third-of-the-Worlds-Longest-Rivers-Remain-Free-Flowing.

[17]Grill, G., Lehner, B., Thieme, M. *et al.* "Mapping the world's free-flowing rivers", *Nature* **569**, 215–221 (2019), https://doi.org/10.1038/s41586-019-1111-9

[18] Working Example, p 5.

[19] Consultation Report – Surface Water Wet Season Take Policy Principles, p 6.

Crucially, the purpose of flow targets is to ensure that needs *downstream* of the relevant extraction point are met before irrigation extraction occurs. This is particularly important in unregulated river systems (those without large dams that can regulate flows).

While it may be appropriate to include flow targets at the point of take, by setting flow target thresholds solely on this basis there is no guarantee that water will make it to priority *downstream* targets.

Recommendations:

7. Include a requirement in the WSF policy for downstream flow targets. These targets should be determined by reference to the water requirements of key environmental, cultural and community needs.

There is no defined limit on the rate of take

The Draft WSF Policy states that "water take will have a maximum rate that considers instantaneous flows".

Any revised policy should provide for the setting of maximum rates of take having regard to the cumulative impact of all licences and with the explicit purpose of achieving identified environmental, cultural and community outcomes. Ideally, the policy would embed responsiveness to variability in flows from time to time to address the risk identified here.

The Working Example at page 6 limits the rate of extraction to "5 per cent of instantaneous flows". It is unclear whether this is intended to be an arbitrary figure adopted simply for the sake of the example, or if it is intended to reflect a likely limit on the rate of take that would be applied under the Draft WSF Policy. This is important because, using this 5% figure, the single licence holder used in the Working Example could take up to 46m^3/second.[20] We calculate that this would equate to 0.046 megalitres per second,[21] or 3,974.4 ML per day (3.9 GL/day). This is a very large amount of water and would likely allow most licence holders to meet their allocations within a number of days.[22]

If the maximum rate of flow is set very high, this will incentivise licence holders to install the largest pump practicable to facilitate rapid take. This is because the faster water can be extracted, the quicker a person's full annual entitlement can be taken – thus facilitating full take of the entitlement even in years where very few days exceed the minimum flow threshold. For example, if in a year of particularly low flows in which the minimum flow threshold is only met for say 10 days, the licence holder would be incentivised to extract all (or as much as possible) of their entitlement within those 10 days. This could be a troubling outcome for downstream ecosystems and

[20] It is unclear why the Working Example states that the licence holder could take water at a *"minimum* rate of 46m^3/s. We assume this is an error and was intended to read "maximum".
[21] 1 cubic meter = 0.001 ML. Therefore, 46 cubic meters is 46 x 0.001 = 0.046.
[22] By reference to the existing allocations granted for surface water take as detailed on the NT Water Register.

communities in low flow years, where additional downstream flows from high flow events are likely to be particularly important.

Any revised policy should provide for the setting of maximum rates of take having regard to the cumulative impact of all licences and with the explicit purpose of achieving identified environmental, cultural and community outcomes. Ideally, the policy would embed responsiveness to variability in flows from time to time to address the risk identified here.

Recommendations:

8. Include a requirement in the WSF policy for the setting of maximum rates of take, having regard to the cumulative impact of all licences and with the explicit purpose of achieving identified environmental, cultural and community outcomes.

Floodplain harvesting must be excluded from the scope of any final WSF Policy

The scope of the Draft WSF Policy is ambiguous. This has caused public debate as to whether it will introduce the practice of floodplain harvesting (**FPH**) in the NT.[23]

The Q&A Document claims that the Draft WSF Policy "does not provide for or regulate floodplain harvesting as it is defined in southern jurisdictions".[24] However, the very same page of that document states that "[u]nder Territory legislation water coming from a watercourse or wetland onto a floodplain is considered a waterway and will be regulated under the policy." The capture of overbank flows from floodplains is a form of floodplain harvesting and as such, we consider that the Q&A Document contradicts itself.

To determine the extent to which the Draft WSF Policy does apply to FPH, we have considered the relevant statutory definitions in the Water Act. This analysis leads us to conclude that in its current form the Draft WSF Policy covers the take of **all wet season flows, *including FPH***. We note the following:

- The Draft WSF Policy states that it relates to the granting of licences for a person to take "water" under section 45 of the Water Act. In section 45 of the Act, water "means water flowing or contained in a waterway" (emphasis added). The application of the Policy therefore largely depends on the meaning of "waterway", which is itself defined in the Act.

- "Waterway" is defined in section 4. The definition is expansive and includes "land which is intermittently covered by water from a waterway… but does not include any artificial channel or work which diverts water away from such a waterway". The definition of "waterway" therefore covers overbank flow onto floodplains.

[23] See for example: Kirsty Howey, "Floodplain harvesting killed the Murray Darling, now the Gunner Government wants to bring it here, writes ECNT" (opinion piece), *Katherine Times* (online, April 20 2022), https://www.katherinetimes.com.au/story/7706292/the-gunner-government-wants-to-bring-floodplain-harvesting-to-nt/; "New plan for taking Northern Territory water from wet season flows", *NT Country Hour,* ABC Radio (broadcast 8 November, 2pm).

[24] Q&A Document, p 2.

If the NT Government does not intend to use the Draft WSF Policy to issue FPH licences, this should be clearly stated in any final policy.

Our strong opinion is that any final WSF Policy should **not** allow for or facilitate the granting of FPH licences. More specifically, FPH licences should not be issued in the NT unless and until specific rules have been developed and implemented to regulate the practice. For water control districts that have a declared WAP, the rules should be stated within the WAP. This is because the regulation of FPH is notoriously difficult and requires complex, catchment specific considerations. These cannot be addressed through the application of a state-wide policy and the Draft WSF Policy does not contain or reflect the necessary level of detail – in terms of information or regulatory oversight – to support the introduction of FPH in the NT.

In our view, the NT regulatory framework and water monitoring network are not sufficiently sophisticated to support the introduction of FPH licences. To do so pursuant to a brief, state-wide policy that is subject to a number of deficiencies identified in this submission would risk adverse economic, social and environmental outcomes.

In this regard, the NT Government should take this opportunity to learn from the experience of other jurisdictions. For example, the first recommendation of the NSW Legislative Council's Select Committee on Floodplain Harvesting (December 2021) was that the NSW Government should:

> "conduct a thorough review of low and cease-to-flow data, as well as an assessment of downstream economic, social, cultural and environmental impacts and needs prior to finalising the volume of floodplain harvesting entitlements **in each valley** identified in the NSW Floodplain Harvesting Policy, and this includes locations of any proposed new river gauges and real time monitoring infrastructure"[25] (emphasis added).

In our view, the NT regulatory framework and water monitoring network are not sufficiently sophisticated to support the introduction of FPH licences. To do so pursuant to a brief, state-wide policy that is subject to a number of deficiencies identified in this submission would risk adverse economic, social and environmental outcomes.

Recommendations:

9. Expressly exclude floodplain harvesting from the scope of the WSF Policy.

THE DRAFT INTERFERENCE GUIDELINE

The Draft Guideline is inconsistent with the Act and is apt to confuse rather than clarify

The Water Act establishes that it is an offence for a person to engage in conduct that "interferes with a waterway" unless authorised to do so (section 40). Section 41 provides for the Controller of Water Resources (**Controller**) to grant a permit to interfere with a waterway.

[25] Available here: https://www.parliament.nsw.gov.au/lcdocs/inquiries/2818/Report%20no.%201%20-%20Select%20Committee%20-%20Floodplain%20harvesting%20-%20December%202021.pdf (Recommendation 1, p 57).

"[I]nterfere with a waterway" is defined (in section 4) as meaning "**any**" of the following:

(a) "cause a material change to the shape of a waterway"

(b) "cause a material change to the volume, speed or direction of the flow or likely flow of water in or into a waterway"

(c) "cause an alteration to the stability of the bed or banks of a waterway, including by the removal of vegetation".

An activity only need satisfy *one* of the above limbs to qualify as interfering with a waterway. For example, if an activity causes a material change to the shape of a waterway, but does not impact "flow", it will still amount to an interference with a waterway.

The Draft Guideline is intended to "provide guidance on applying for a permit" under the Water Act and information about the assessment process. Unfortunately, in its current form the Draft Guideline is unclear and inconsistent with the Act in several respects.

The proposed definition of "material change" is unclear and risks regulatory uncertainty

The Guideline states that it applies to activities that interfere with a waterway, including

> "activities that cause a material change in the shape of a waterway, the volume, speed or direction of flow in or into a waterway and activities that alter the stability of the bed or banks of a waterway."

This is consistent with the statutory definition of *interfere with a waterway*.

The term "material change" is not defined in the Act. In the Draft Guideline it is defined as:

> "A change that is noticeable, obvious, longer than the short-term, and is capable of straightforward observation and measurement."

A strict application of this definition would mean that only changes capable of *straightforward* observation and measurement would be considered a "material change". Issues therefore arise as to what this requirement means. Is, for example, a lay person likely to make the same "straightforward" observations as a hydrologist or an ecologist who is an expert in river system ecologies? The examples of interfering with a waterway provided in the Draft Guideline include constructing waterway crossings (such as road or pipeline bridges), flood protection, and installation of surface water structures and structures such as dams.[26] Are changes caused by such works likely to be considered by many as capable of "straightforward" observation and measurement, when considerable hydrological and engineering expertise is typically required to determine the extent of such changes? Is the Draft Guideline intended to suggest that such activities do not require permits?

Similarly, what does it mean for a change to be "noticeable" and "obvious"? To whom is it supposed to be "noticeable" and "obvious"? Again, it seems reasonable to expect that a professional hydrologist and a lay person might have different opinions.

[26] Draft Interference with a Waterway Guideline, p 6.

At the core of the above issues seems to be the absence of a coherent objective or policy goal behind the adopted definition of “material change”: what is the Guideline intending to achieve and what impacts is it intending to capture?

Related to this is a further point concerning consistency with the Act. If court proceedings are brought alleging that a person has interfered with a waterway without a permit, the court will be required to determine whether there has in fact been an interference. Where it is alleged the person has caused a material change to shape or flow, the court will be required to determine whether the change is “material”. In order for the Draft Guideline to form a reliable basis on which the Government (e.g. as regulator) and water users (when contemplating whether a permit is required) can make decisions, the policy must reasonably align with the Act. Noting the issues above, we would say in its current form that it does not.

Recommendations:

10. Ensure the definition of "material change" in the Draft Guideline aligns with the intended purpose of the Act and supports regulatory certainty. In particular, replace requirements for changes to be “noticeable, obvious” and “capable of straightforward observation and measurement” with requirements that are more objective, clear, and responsive to the legislative intent.

The Draft Guideline conflates impacts to shape, flow and the stability of river beds or banks

As discussed earlier, the definition of “interfere with a waterway” identifies three distinct types of impact, *one of which* is a material change to flow. However, the self-assessment table provided at Attachment A of the Guideline assesses *all* impacts by reference to “flow”. That is to say, *every* row in the “shape” column and the “bed & banks column” refers to impacts on flow. This is inconsistent with the statutory definition extracted above which requires independent consideration of all three types of changes, and recognises that impacts to the shape of a waterway and alterations to the stability of the bed or banks of a waterway are important for reasons additional to and independent of their impacts on flow.

Again, this inconsistency with the Act undermines the utility of the Draft Guideline both for the regulator and the water user.

Recommendations:

11. Amend the Draft Guideline to differentiate the three types of impacts identified in the Act (rather than identifying all impacts by reference to flow changes). (See also recommendation 14 regarding reliance on self-assessment).

The Draft Guideline implies that permits are only required if an activity altering the stability of river beds or banks causes a "material" change

The definition of "interfere with a waterway" in section 4 of the Act (set out above) does not apply a "material change" qualifier in relation to activities that alter the stability of the beds or banks of a waterway. Accordingly, *any* activity that alters the stability of the beds or banks of a waterway will amount to an interference with a waterway (i.e. whether "material" or not).

This is not clearly expressed in the Draft Guideline. The self-assessment table (at Attachment A to the Draft Guideline) fails to grapple with alterations to the stability of river beds and banks, in that the Attachment only conceives of these impacts by reference to material impacts on flow.

A potential applicant may (understandably) interpret the self-assessment table to mean that unless the impacts of their activity cause a "material change" to the bed and banks of the river, they are not required to obtain a permit. This is inconsistent with the statutory definition of "interfere with a waterway".

Recommendations:

12. Amend the Draft Guideline to clearly indicate that *any* activity that alters the stability of the beds or banks of a waterway will amount to an interference with a waterway (i.e. materiality is not a feature).

The Draft Guideline is not clear that only one type of interference with a waterway is sufficient to trigger the requirement for a permit

As discussed above, the statutory definition of "interfere with a waterway" means that any *one* of the listed impacts (i.e. to waterway shape, flow, or the stability of beds or banks) will qualify as an interference and establish that an activity is an offence without a permit.

However, the structure of the self-assessment tool does not make this clear.

If for example, the impact to the "shape" of the river is determined as "high", but the impact to the "flow" as "low", it is unclear what the Draft Guideline is suggesting the overall impact rating will be. Based on the statutory definition, any impact that qualifies as a material change to flow or shape, or any change to the stability of beds or banks, will require a permit. The Draft Guideline and any assessment tool(s) should make this clear.

Recommendations:

13. Amend the Draft Guideline so that it is clear that any one of the listed impacts (i.e. to waterway, shape, flow, or the stability of beds or banks) will qualify as an interference and establish that an activity requires a permit.

Reliance on self-assessment risks rapid expansion of smaller structures, cumulative impacts, and lack of information

The Draft Interference Guideline relies on applicants to undertake self-assessment to determine:

- whether they are required to apply for a permit to interfere with a waterway under the Act; and
- if a permit is required, the level of detail that must be included with the permit application.

While self-assessment can be an appropriate regulatory option for genuinely low risk activities, the Draft Guideline relies entirely on self-assessment regardless of the potential risks associated with certain activities. For example, we question the role of self-assessment in relation to complex activities requiring hydrological expertise, such as the installation of surface water diversion structures. There are several specific issues with the current self-assessment approach:

- First, the extent to which certain works may impact the shape or flow of a river, or the stability of river bed and banks, will often require hydrological expertise. Yet the Guideline is silent about when a prospective applicant ought to engage expert advice to determine whether a permit is required, and does not propose to make expert input mandatory in any circumstances.[27]
- Second, the Guideline provides no indication as to how the Government intends to keep track of un-permitted activities.
- Third, the Guideline provides no indication of how the Government intends to ensure that applicants are correctly conducting self-assessments, nor how the Government will enforce non-compliance (a problem amplified by other weaknesses of the Draft Guideline that are discussed below). This approach risks the rapid expansion of smaller structures built by applicants who incorrectly conclude that the threshold for a permit is not satisfied. Further, while individual structures may each have a minimal impact, their cumulative effect may lead to significant volumes of water being extracted without the Department's knowledge. Such unrecorded extractions may lead to total water take exceeding the determined consumptive pool. The Draft Guideline does not account for cumulative impacts.
- Fourth, there is a real risk that relying on the self-assessment process will lead to a dearth in accurate information regarding the nature and number of structures diverting water from waterways. Measures could be implemented to reduce this risk, such as requiring that expert advice be obtained in relation to certain activities, and that the advice be provided to the Department. Further, in circumstances where an individual determines that they do not require a permit with respect to a particular activity, there should be a requirement that they notify the Department of the activity and their determination.

[27] The Draft Guideline does identify that expert input might be required by the conditions of a permit, e.g. by requiring an erosion and sediment control plan be endorsed by a suitably qualified professional prior to construction. This does nothing however to ensure that permits are sought and obtained in the first place for interference activities: See Draft Guideline s 5.4.

As noted earlier, the NT Government should take the opportunity to learn from water regulation experiences in other jurisdictions. Lack of relevant information is one of the major impediments to the effective regulation of floodplain harvesting in the Murray Darling Basin. The NT Government should be careful to avoid repeating a similar mistake.

The Draft Guideline should be redrafted to substantially limit the reliance on self-assessment. Instead, it should contain requirements about the extent to which applicants must obtain expert advice regarding the impact of proposed activities.

Recommendations:

14. Limit reliance on self-assessment in the Draft Guideline and instead:

    a) guide applicants as to when they must obtain expert evidence regarding the impact of proposed activities and when this advice must be provided to the Department; and

    b) require applicants who conclude that they do not require a permit to nevertheless notify the Department of their proposed interference with a waterway, the basis upon which they consider no permit is required and update the Department when the relevant works are complete.

The Draft Guideline is unclear about information required in support of permit applications

Where an applicant determines that they require a permit, the Draft Guideline provides very little guidance on what information they must provide with their application. It states that:

> "the level of information provided in an application should be commensurate to the scale and nature of the proposal. The self-assessment tool (Attachment A) is intended to assist applicants in determining whether an application has low, medium or high information requirements."

However, the Guideline does not provide any detail on what "low, medium or high information requirements" actually include. While the Guideline refers to "maps, construction drawings, and an activity timetable for construction and an ongoing operation or maintenance of an interference", it is not clear if this information is always required, or if this will depend on whether an application has "low, medium or high information requirements".

We note that the current application form for a permit to interfere with a waterway includes greater detail regarding the specific documents that ought to accompany the application than the Draft Guideline itself.[28] However, the permit application form currently does not indicate that the extent of documentation required depends upon the potential risk of the relevant activity.

The NT Government should consider requiring that permit applications be accompanied by specified documents certified by experts with appropriate qualifications (such as a registered

[28] Northern Territory of Australia approved form 6 (03/12/08) application for a permit to construct or alter works pursuant to section 41 of the water act

engineer). This could include records of any independent advice obtained by applicants about the likely impacts of their works. For example, when applying for an overland flow water licence in Queensland, a registered professional engineer of Queensland must provide a certified report providing details on the relevant structures to be constructed. Certain information is required to be included, such as a completed data storage table, the calculation method used in determining the capacity of works, a statement on the management of flows and so forth. In the NT, such requirements would be particularly relevant where the works will divert water from waterways (including from floodplains).

Where necessary, requirements should correlate with the specific nature of the relevant activity for which a permit is sought.

Recommendations:

15. Clearly indicate in the Draft Guideline which information and documents must be submitted in respect of the various activities for which a permit may be sought, noting that the requirements may differ depending on the specific activity in question.