

Tindall Mataranka Daly Waters Water Advisory Committee

Minutes – Teleconference

Date	Thursday 24 October 2019	Location:	Various via teleconference
Chair	Rebecca Mohr-Bell (present from 2.15pm)	Secretariat:	Pru Ducey, Executive Katherine (DENR)
Attendees	Clair O'Brien Vin Lange Ben Lewis David Ciaravolo	Regenerative Agriculture (member) Centrefarm / Top End Farm (member) Jawoyn Association (proxy for Allister Andrews) Amateur Fishermen's Association of the NT (member)	
Advisors	Michelle Rodrigo Tim Bond	Water Planner, DENR Director Planning and Engagement, DENR	
Guests	None		
Apologies	Sharon Hillen Sarah Kerin Helena Lardy Rohan Leach Liza Schenkel	Roper Gulf Regional Council (member) Department of Tourism, Sport and Culture (member) Jilkminggan Community Aboriginal Association (member) Northern Territory Cattlemen's Association (proxy for Tracey Hayes) Community Engagement, Water Resources, DENR (advisor)	
Not present	Jocelyn James Kerry Roberts Mark Hansen Rick Fletcher	Jilkminggan Community Aboriginal Association (member) Jilkminggan Community Aboriginal Association (member) Water Extraction Licence Holder (proxy for Quintis) Northern Land Council (observer)	
Agenda No.	Agenda Item	Action Required (e.g. information / discussion / decision)	
	Meeting open	1.40 pm	
1.0	Welcome	Michelle Rodrigo opened the meeting and welcomed those attending.	
	Attendance and apologies	Attendance as shown above. Apologies noted above. Members noted that Rohan Leach has left NTCA and the NT.	

2.0	Summary of progress on Mataranka Tindall water allocation planning since May 2019
2.1	<p>Update on scenario modelling and analysis</p> <p>Modelling enables predictions to be made about how features of the water resource, such as groundwater levels, spring flows and river flows, will perform and change under different water extraction regimes. Nine different water extraction scenarios have so far been modelled for the Mataranka Tindall planning process. Scenarios range from current levels of extraction through to hypothetical expansion of water developments across the Plan area including taking surface water during the dry season downstream on the Roper River. The data outputs for each scenario are now being analysed and the results will be summarised in a meeting paper for Committee consideration.</p> <p>Discussion / Questions / Feedback</p> <p>At the last meeting, the Committee recommended that modelling should be undertaken to better understand the expected level of impact under different extraction regimes.</p> <p>Nine extraction scenarios now have been modelled – Scenario 1 being the current level of extraction, through to Scenario 9 being a projection of future water demand.</p> <p>Scenario 9 models approx. 45,000 ML of groundwater and baseflow extraction which is significantly higher than the 26,000 ML of existing licenced entitlements (Scenario 4).</p> <p>Outputs from the model are currently being analysed, but this task is yet to be completed. Preliminary analysis shows that certain management zones may be approaching full allocation i.e. in the context of an ESY based on 20% of median annual recharge.</p> <p>Since the email update was sent out last week, the Water Assessment team has advised us that a new version of the Roper Model may be ready for use. The Committee has previously been briefed about updates to the Roper Model. Consideration needs to be given to re-running the nine extraction scenarios and the natural water balance figures (recharge, inflows, outflows etc.) with the new version of the model. Doing this will obviously push the Plan timeline back by another few months, however, the new version may generate results with higher confidence levels i.e. make better predictions of changes in groundwater levels, spring flows, Roper River baseflows etc.</p> <p>The Roper Model has been updated to include the neighbouring Georgina Basin/Beetaloo area to the south, and now accounts for flows into the Mataranka Tindall Plan area from the larger aquifer system. The new version has been developed by an expert modelling consultant (Anthony Knapton) who developed the model in the early 2000s when he was working for Water Resources. We are fortunate to have access to Anthony for ongoing troubleshooting and updating of the model and for training modellers within Water Resources in the use of the model.</p> <p>Committee members shared a range of views about the merits of bringing the new version of the model online now and re-running the scenarios, or proceeding on the basis of the current modelling results in order to avoid further delays with finalising the water allocation plan.</p> <ul style="list-style-type: none"> • Some members were of the view that it is better to use the updated version of the model and the improved predictions it can make, the decision being pretty clear if the Plan is to be based on the best available information at the time of its declaration in 2020. Others expressed concerns about ongoing changes and delays, and noted that the planning process is already behind where we thought we would be by now. • A clear analysis of the benefits of the new versus the existing version of the Roper Model would be useful to the Committee. Water Resources is in the process of obtaining this comparative analysis of the two versions from the Water Assessment team. The intention is to get a better sense of the degree to which the new version will improve predictions of change in river flows, groundwater levels, etc. Information will be shared with the Committee when it is available. • Important to keep in mind that the Committee has already developed a framework of key principles and recommendations, such as for the groundwater discharge protection zone, that will provide the basis for further recommendations on the ESY and flow thresholds for each management zone, once the results of the modelling are fully analysed and available. • Planners spoke about several major investigations currently underway in the Mataranka/Roper River region, but which are happening independently of the Plan's development. Projects



include the SREBA (Strategic Regional Environmental Baseline Assessment) and the Geological and Bioregional Assessment (GBA) of the Beetaloo Basin (linked to development of the on-shore gas industry), plus the CSIRO's Roper River Water Resource Assessment (RoWRA) which is looking at land and surface water development opportunities in the lower Roper River area. Results from these major projects are likely to be a year or two away. The Planner confirmed that development of the Mataranka Tindall Plan will not wait for the results of these investigations, and that the timing of these projects means that results and new knowledge can feed into the first review of the water allocation plan.

- The CSIRO RoWRA projects will be developed without consideration of NT water planning and regulation, but any future uptake of the RoWRA development options might depend entirely on the water-sharing arrangements established by the Mataranka Tindall Water Allocation Plan, so it is critical that the Plan uses the best data available.
- Several members suggested it would be better to adopt the new version of the model now, because this will be the version used once the Plan is declared.
- The new version of the model will also be used by the SREBA and GBA projects. We do not want the planning process to be criticised for ignoring the most up to date information available. We are expecting close scrutiny of the Mataranka Tindall Plan when it goes out for public comment, given the issue of hydraulic fracturing in the region.
- One member questioned the merit of the 2018 decision to redraw the Plan boundary which cut out the Daly Waters/Beetaloo basin area, given the known connection between the Georgina Basin/Beetaloo and the Daly Basin/Mataranka Tindall Plan area.
- Members expressed some frustration that, four months since the last meeting, the Committee still doesn't have enough information (e.g. modelling results) to make good recommendations about setting the ESY.
- On the question of whether the new version of the model will be better than the old, it will be difficult to ascertain this until the new version is run and the outputs of both versions compared. It is expected that the new version will make better predictions about flows in the lower Roper; the focus of the old version was on the Tindall Limestone Aquifer and the upper Roper.
- The planner clarified that the Roper Model has been spatially updated to include the Georgina Basin/Beetaloo region, as this area was not previously part of the model domain. A Committee member reiterated that this is the reason why she would have preferred to stay with the previous Plan boundary which included some of the Beetaloo basin.
- The planner clarified that model updates are part of a continuous improvement cycle to ensure the model is fit for purpose and that it is utilising new knowledge as it becomes available, not because the current version of the model is no good.
- The planner clarified that the modelling undertaken so far has used the full climate period i.e. from 1900 to present.
- The Committee asked whether the two versions of the model are comparable. Planner advised that a comparison of the modelled natural flows from each version has been requested; will help gauge the degree of difference between the two versions. It may eventuate that the two versions produce very similar outputs which means nothing major needs to change and we can move forward with a high degree of confidence in the technical basis for the Plan.
- Ten scenarios have been modelled - nine are extraction scenarios and one is the natural, unimpacted (no water extraction) scenario. Each extraction scenario can be compared with the natural scenario to ascertain the likely degree of impact on the system resulting from each extraction regime.
- The decision to bring the updated model online rests with the experts in the Water Assessment team. We are seeking their guidance on the merits of re-running the Mataranka scenarios and anticipated timing.

2.2 Update on setting of Estimated Sustainable Yield (ESY)

Results of the scenario modelling work will directly inform the setting of sustainable water-sharing arrangements in the Plan, especially the ESY. An advanced water-sharing/ESY proposal will be presented in a meeting paper at the next Committee meeting.

	<p>Discussion / Questions / Feedback See notes under 2.1</p>
2.3	<p>Update on Mataranka Tindall natural water balance report</p> <p>Water balance figures such as aquifer recharge, discharge and storage were presented and discussed at the March and May Committee meetings. These figures form the basis of our knowledge about aquifer dynamics, and establishes the baseline on which decisions can be made about acceptable limits of groundwater extraction from each management zone. Publication of the report is expected in the very near future.</p> <p>Discussion / Questions / Feedback See notes under 2.1</p>
2.4	<p>Groundwater discharge protection zone</p> <p>Establishment of a groundwater discharge protection zone was discussed at the May Committee meeting. Since then, Water Resources has been developing a contour map of depth to groundwater within the Plan area to add further scientific rigour to the spatial extent of the groundwater discharge protection zone. This mapping project will also assist with identification of wetlands and vegetation communities outside of the protection zone that might be directly accessing groundwater from the aquifer. Additionally, we have modelled the likely impact of each extraction scenario (see item 1) on groundwater levels at the boundary of the proposed groundwater discharge protection zone. The results will help to determine appropriate measures for managing the impact of neighbouring licenced groundwater extraction on the values of the protection zone. The modelled groundwater level data is currently being analysed. A meeting paper will be prepared for the Committee covering the depth to groundwater mapping and the analysis of modelled groundwater levels at the zone boundary, as well as updated management arrangements which may apply to the protection zone and any implications for existing and new water users.</p> <p>Discussion / Questions / Feedback</p> <ul style="list-style-type: none"> • Members asked whether the model considers impacts on groundwater dependent ecosystems (GDEs). The Planner confirmed that the modelling is looking at this, and spoke about similar modelling undertaken for the Ti Tree Plan in terms of changes in depth to groundwater and associated impacts on GDEs. The Roper Model can report on changes in groundwater levels in particular locations for the nine extraction scenarios. • Where groundwater is close to the surface, there is a good chance that terrestrial vegetation will be tapping into it. The lowering of groundwater levels as a result of bore pumping could potentially impact terrestrial vegetation/GDEs. • Steve Tickell, hydrogeologist, is currently working on a groundwater contour map for the Plan area which will help to define the location and extent of groundwater discharge areas, and therefore, better inform the boundary of the groundwater discharge protection zone.
2.5	<p>Update on application of the Plan's ESY arrangements to downstream baseflow extraction</p> <p>Following the May Committee meeting, legal advice was sought to confirm whether Roper River baseflows outside the Plan area can be treated as groundwater from the Tindall Limestone Aquifer, and whether current water legislation allows the Plan's ESY arrangements to be applied to proposed extraction of these downstream baseflows. The advice received confirms that the ESY arrangements established by the Plan can be legitimately applied to the extraction of Roper River baseflow outside the Plan area and inside the water control district. This legal clarification means that the planning process can now move forward with certainty on this matter.</p> <p>Discussion / Questions / Feedback</p> <ul style="list-style-type: none"> • The Committee addressed this issue at the May meeting when it agreed that the Plan should recognise dry season baseflows along the Roper as being Tindall groundwater, and that the Plan should manage the extraction of baseflows and not just extraction of groundwater within the Plan boundary.

	<ul style="list-style-type: none"> Legal advice confirms that the Plan can be applied to downstream baseflows outside the Plan boundary, which means there is no need to change the boundary of the Plan area in order to apply the rules of the Plan to baseflow extraction from the lower Roper.
2.6	<p>Aboriginal engagement and cultural values mapping</p> <p>We continue to work with Aboriginal Ranger Groups and Traditional Owners on spring monitoring and cultural values mapping, including the identification of spring sites which were not previously mapped. Recent liaison with the Northern Land Council is also advancing efforts to ensure that all Aboriginal groups with cultural connections to the Plan area have the opportunity to contribute to the planning process.</p>
	<p>Discussion / Questions / Feedback</p> <ul style="list-style-type: none"> Committee suggests the Indigenous Land Corporation (ILC), now the ILS(Sea)C, should be engaged in this planning process. ILSC have changed their whole focus to include groundwater and surface water for agricultural use. Important this group is included in the process as the pastoral estate is where native title comes into play. Wubalawun Aboriginal Land Trust is very interested in water these days. We have been working with Land Council to ensure we identify the key people and groups that need to be consulted about the Mataranka Tindall Plan. NLC is keen to support better community engagement in water policy and planning wherever they can. This support will help to better engage groups like the Wubalawun in the water planning process.. A draft Community Engagement Plan is being developed in which key stakeholders are listed. Liza Schenkel and Michelle still finalising the document, but even in draft form, it is being used to guide engagement activities for the Mataranka Tindall planning process. On country cultural mapping and water monitoring trips have occurred with Mangarrayi Indigenous Rangers every three months or so. The rangers are learning how to use water quality and flow monitoring equipment, and have been identifying spring sites and groundwater discharge areas that need to be mapped and managed for potential impacts from nearby groundwater pumping. Very similar work is occurring with rangers groups and TOs in the Katherine and Ooloo water allocation plan areas. <p><i>Action: Provide Committee members with a copy of the draft Community Engagement Plan for information and comment.</i></p>
2.7	<p>Building the profile of the Plan's objectives with water users in the surrounding region</p> <p>The Water Planning team has been providing input to the assessment of water licence applications and environmental management plans for agricultural, petroleum and mining developments in areas neighbouring the Plan area. This has been important for building the profile of the Plan, including the objectives and values identified by the planning process, and for ensuring the fullest possible consideration of potential risks to the Mataranka Tindall Limestone Aquifer and mitigation strategies that may be required.</p>
	<p>Discussion / Questions / Feedback</p> <ul style="list-style-type: none"> The Planning team has been providing input to the assessment of groundwater extraction licence applications in areas surrounding the Plan area, such as the Beetaloo area to the south, and also to applications for surface water from the lower reaches of the Roper River, which is now of direct relevance to the Plan. The water-sharing arrangements developed to date as part of the water allocation planning process are being considered in these licence assessments, even though the Plan is not finalised. Several groundwater licences have been approved within the Plan area this year. The Department is required to assess and make a decision on water licence applications as they come in; applications cannot be put on hold while a Plan is being developed, but elements of the draft Plan can be taken into account by the Controller of Water Resources when making a decision. The Controller doesn't have the power not to consider an application under the Act.

	<ul style="list-style-type: none"> The Committee are concerned that licence applications can be considered and granted in the absence of a declared Plan and that ongoing delays with completing the planning process only compounds this problem. 	
3.0	Progress towards the next WAC meeting	
	<ul style="list-style-type: none"> The Planning team recommends that the four projects listed above at 2.1, 2.2, 2.3 and 2.4 need to be completed before the next meeting, so that the best information can be prepared for the WAC on which to base the next round of recommendations regarding the Plan ESY and related water-sharing arrangements. The scenario modelling project (2.1 above) is the most significant project area; 2.2, 2.3 and 2.4 fall out from 2.1. Members suggested that the WAC could consider other matters at the next meeting if these four priority items are not all completed in time. The Planning team may not have the capacity, however, to prepare meeting papers etc. for both the priority items as well as 'back-up' items and would prefer to stay focussed on the priority pieces of work. Committee agreed is it difficult to set a meeting date until more is known about the expected completion date for the four priority pieces of work, including a decision from the Water Assessment team about activation of the new version of the Roper Model. Committee would be disappointed if it didn't meet again before Christmas, indicating that there would need to be significant changes in what the updated model provides to justify waiting. The Planner spoke about the potential risks to the planning process if figures for water availability change part way through the process. This can lead to scepticism about the technical rigour of the science and the decision-making behind the Plan's water-sharing arrangements. The Committee and the Department needs good confidence in water balance and modelling figures as the basis for decisions regarding the ESY. Several members were of the view that the best information and expertise needs to be made available to the Committee, and that it would be disappointing to rush this through and surprising if government chose that path. There will be a lot of scrutiny of this Plan due to fracking, water use, potential dams, flood harvesting, and cotton. Not getting this right is not going to be an option. The Committee should only meet when it has the right information. Committee considered setting a meeting date, and the possibility of postponement if the information required is not available in time. <p><i>Action: Michelle Rodrigo to send members an update by Thursday 31 October advising on progress in relation to a decision and setting a meeting date.</i></p> <p>Members were invited to call Tim Bond or Michelle Rodrigo between meetings if they wish to discuss any of the matters covered today.</p>	
4.0	Next Meeting	
	To be confirmed	
Actions arising from teleconference (Teleconference - 24 October 2019)		
Action	Action Officer	Timeframe
Provide Committee members with a copy of the draft Community Engagement Plan.	Michelle Rodrigo	
Send members an update advising on progress in relation to a decision and setting a meeting date	Michelle Rodrigo	Thursday 31 October 2019
Meeting closed	3.05 pm	