

Tindall Mataranka to Daly Waters Water Advisory Committee

*Meeting Record 6*

*21 August 2018 – 10.00 am*

*Mataranka Community Hall*

**Members Present**

Rebecca Mohr-Bell

Chris Parry

Sharon Hillen

Tim Helder

Vin Lange

Justin Dyer

David Ciaravolo

Clair O'Brien

Ben Lewis

Independent Chair

Proxy for Sarah Kerin, Department of Tourism and Culture

Roper Gulf Regional Council

Proxy for Quintis, Water Extraction Licence Holder

TopEnd Farm

Proxy for NT Cattlemen's Association

Amateur Fishermen's Association of the Northern Territory

Regenerative Agriculture

Proxy for Allister Andrews, Jawoyn Association

**Members Absent**

Kane Younghusband

Helena Lardy

Jocelyn James

Kerry Roberts

David Crook

Horticulturist, Water Extraction Licence holder

Jilkminggan Community Aboriginal Association

Jilkminggan Community Aboriginal Association

Jilkminggan Community Aboriginal Association

Aquatic Ecologist, CDU

**Advisors Present**

Tim Bond

Michelle Rodrigo

Bridie Velik-Lord

Director Water Planning and Engagement, DENR

Water Planner, DENR

Water Planner, DENR

**Observers**

Pru Ducey

DENR - Minutes

## 1. OPENING (Chair)

Meeting opened at 10.05am. Welcome and round table introductions

### 1.1. Apologies

Kane Younghusband	Horticulturist, Water Extraction Licence holder
Kylie Gracey	NT Cattlemen's Association
David Crook	Aquatic Ecologist, CDU (Overseas on a scholarship until 13 November 2018)
Helena Lardy	Jilkminggan Community Aboriginal Association

## 2. MINUTES FROM MEETING 5 (Chair)

**All agreed** the Minutes of Meeting 5 held via two teleconferences 22 June 2018 were a true and correct record.

## 3. BUSINESS ARISING FROM THE MINUTES (Chair)

The Chair received an email in response to the comments provided by the Committee on the unused water and trade policies advising it was well structured and useful feedback.

Copies of the response letters KWAC received from David Ritchie and Jo Townsend regarding concerns raised by KWAC in relation to implementation of recommendations of the Hydraulic Fracturing Inquiry Report were available for members to read during the lunch break.

The Action Items from Meeting 5 were not reviewed by the Committee.

## 4. RECAP ON WAC PROGRESS TO DATE (Planner)

The Committee were provided with a presentation **Appendix 1** recapping

- Committee Purpose
- Meeting Timeline
  - Stage 1 – Scene setting and knowledge development - Meetings 1-4
  - Stage 2 – Objectives setting – Meetings 4-6
  - Stage 3 – Development of the Plan – Meetings 7-9
- Evaluation
- What can be improved?

Information Gaps / Process Gaps / Engagement Gaps

Discussion points:

- Need to spend more time to gain a better understanding of the technical information on inflows to Roper River. Concerned about absence of David Crook and what that will mean in terms of ecological knowledge inputs to the process.
- Serious concerns expressed over the Department's acceptance of a Groundwater Extraction Licence application from Vermelha Station during the Water Allocation Planning process. Committee of the view there should be no applications during this period.

- Vermelha submitted an application to increase extraction to 20GL for agricultural development. Tim advised that the legislation states the department is obligated to accept the application for assessment by the Water Controller. The Controller takes on board the best information available at the time of assessment. The department is currently providing advice on the status of the planning process, and noting that information in previous draft Plans may not be accurate.
- Will the Controller make a decision before the Plan is completed – can't speak for the Controller
- Is there a precedent where the Controller has granted a licence during the Planning process – yes, on a number of occasions
- ❖ **ACTION** – The Chair will write to the Controller: recognising there are requirements under the legislation in relation to making a decision on a licence application; advising the Committee is putting a lot of work into developing a Water Allocation Plan; requesting the Controller consider deferring a Decision; and noting at the conclusion of the planning process the Committee will have a number of recommendations. Draft letter will be circulated to the Committee
- The planning process is yet to determine the consumptive pool, or thresholds for extraction, but the application deserves assessment

Generally, the timeframe for water extraction licence decisions is:

- within 30 days of lodgement of an application, give notice of the Controller's intention to make a water extraction licence decision
- the notice includes an invitation to make written comments within 30 days (completed)
- Controller conducts assessment and makes a decision as soon as practicable after the end of the period allowed for comments (if possible, within 30 days after the end of that period).
- Committee concerned this could seriously impact Strategic Aboriginal Water Reserve (SAWR) entitlements i.e. there may not be any water available for SWR if this application is granted.
- Previous draft Plan, applicants were asked to voluntarily withhold extraction licence applications until completion of the Plan
- If an application is submitted, the Controller has no choice but to make a decision
- There is a real chance that the system could already be over allocated
- Counterintuitive to grant a licence for such a large volume of water- it is about the volume, not the applicant.
- key issues – (1) the Estimated Sustainable Yield (ESY) is yet to be determined, and (2) this large volume might compromise SAWR
- This also impacts people who have voluntarily not submitted an application.

Vin Lange advised he is happy for a copy of the letter from NLC/Centrefarm/TopEndfarm to be shared with the Chair.

Other discussion points:

- Need some assessment of proposed subdivision in Mataranka which will increase number of septic, and possibility of contamination. Growing at 43% annually, a growing town on a septic system. Can it be converted to a reticulated system to reduce the risk to groundwater quality?

- Continuation of allocations when we don't have a threshold and boundaries are changing creates mistrust in the process because of the constant change throughout the agenda – undermines integrity of the WAC and the process.
- Is there a time frame for working out recharge for different basins/aquifers and what the consumptive pool will be? Today will be settling the Committee's advice on the new boundary and possible extent of management zones. Department's Water Assessment Team then revises the water balance. ESY can then be determined.
- Would this be ready for next meeting? Good possibility this may be available for the next meeting, if we can give the assessment team clear parameters to work with
- If you don't know recharge, yield and flow, how do you decide on allocation? The Planner will work through principles of where boundaries should sit with the Committee and then seek advice from hydrogeologists. Committee will also advise on principles for determining management zones, then we will seek technical advice from the hydrogeologists to map these zones
- What about pumpage numbers? Part of what we will be getting advice on. The department doesn't receive 100% of pumpage returns. Will get advice on how much is actual and how much is estimated. The Plan will be based on assumed full allocation. Modelling will help to determine whether there are any undesirable consequences at full usage. Then this will come back to the WAC for consideration.

Members were referred to page 13 of the Minutes from Meeting 5, the Water Balance diagram. 'Pumpage' is the actual reported pumpage from metered bores, not total entitlements/allocations. Estimations are made for Stock and Domestic use as these bores are not metered. The 'recharge' figure is the one that may change with changes to the WAP boundary.

The 80/20 rule is a guiding rule. Is 80/20 right, or is a more conservative approach needed? The WAC should provide advice on what is the best balance for this area/system.

The Plan area needs to be determined (WAC will consider this and provide advice at this meeting), and then the water balance can be recalculated.

Water Planners visited Jilkminggan yesterday and met with their representatives on the Committee to discuss the planning process and issues of importance to them. They relayed some very interesting observations about water levels, and floodplains and waterholes drying up quicker than before. These are critical observations and we need to work out how to incorporate this into the Plan. Rainfall data indicates there have been higher than average wet seasons over the past 10 years; what is being observed on the ground seems at odds with this data. We will continue working with the Jilkminggan members and have committed to having similar meetings during the planning process. The discussions at WAC meetings are a challenge for everyone. Parks and Wildlife will provide any support for community engagement that they can. Further discussions are scheduled for this afternoon on a field trip to a monitoring bore this afternoon.

- ❖ **ACTION** – Michelle Rodrigo will seek permission to share notes from the discussions with Jilkminggan and circulate to the Committee.
- Consideration should be given to having a more open meeting to include town residents, Roper River Landcare Group, other Jilkminggan residents etc. Need to

consider at what stage we have enough information available to present for discussion. Consider having a more public event in November.

- ❖ **ACTION** – Sharon Hillen will provide the Chair and Planner with dates for local management meetings.

Sharon Hillen offered the use of the Conference Room at the new Roper Gulf Shire Council premises, for the next meeting in Katherine.

## 5. **CHANGES TO WATER ALLOCATION PLAN BOUNDARY** **(Planner)**

### Changes to Water Control District boundary

Members were provided with a map and a factsheet **Appendix 2** on the new Daly Roper Beetaloo Water Control District (WCD) boundary within which the Katherine, Ooloo, Tindall Mataranka to Daly Waters and future Beetaloo water allocation plans will sit. Boundaries have been matched up with pastoral boundaries where possible to make it easier for people to know whether they are inside or outside the WCD.

One recommendation of the Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory is to prepare water allocation plans for the North Beetaloo Sub-basin and the South Beetaloo Sub-basin which is enabled by the extension of the WCD.

Any new bores in this WCD will require a Bore Construction Permit (BCP), and any commercial use of water requires a licence. Extension of the WCD does not influence access to groundwater for Stock and Domestic purposes.

What are the reasons for requiring a Bore Control Permit? This is not required for Stock and Domestic but is required for new bores or to have work done on an existing bore to ensure they are constructed to the required standard in a WCD. Having BCPs ensures that if various bore permits are coming in at the same time, the Water Controller can make an assessment on the likelihood of any impact on existing users, as well as required separation from septic systems. No metering. The exemption for licensing if use is less than 5 ML still applies in the expanded WCD.

Don't all bores need to be registered? Although a BCP is not required outside a WCD, still need to use a licensed driller who submits a Bore Report to the department for bore registration. Primarily, this is required for managing the intensification of use within a WCD.

The location of all bores in the NT is some hard to ascertain, some may have been decommissioned. In the last 30 years, 40,000 bores have been drilled. Bore registration assist with management of potential impacts between existing and new bores. Fracking operations need water for fracking and for camps, and will be required to register all bores.

Concerns about the turnaround time for BCPs. Turnaround time is 14 days, and currently the process is taking around 10 days. Normal bores get processed quickly. Flexibility exists for bore positioning within the area covered by the permit. In the longer term, as processing becomes more efficient, the turnaround time may decrease even further.

Is there a priority in circumstances where people might have no other water source? If an application is critical, it would likely get priority under the emergency procedures contained in the *Act*.

Letters about the changes and the new WCD were sent to all drillers, pastoral properties and 15 stakeholder groups. Advertisements were placed in the paper and there was a media release, to the public aware of the changes.

### Water Allocation Plan Boundary

In addition to the discussion paper, members were provided with large scale maps **Appendix 3** showing 3 options for a revised Plan area. The main reason for realigning the boundary is to avoid a situation of overlapping water allocation plans that manage the same water resource.

All 3 options presented have minor adjustments on the eastern side and minor adjustments on the western side. It is the southern boundary which is substantially different across all 3 options.

- Most licenced irrigation is in the northern part right now, and the northern Beetaloo sub-basin will butt right up against that, which is a concern
- The western boundary follows a geological fault which acts as a barrier to groundwater flows; there are no flow paths from west to east into the Plan area.
- Is the Georgina basin an important boundary as well? Yes, but it's not a hard geological boundary; groundwater flows very slowly from the Georgina Basin, north into the Daly Basin
- Beetaloo sub-basin – the best information is documented in the fracking report, and the Implementation Plan details government's intentions to implement the report's recommendations.
- The Water Allocation Plan will be reviewed 5 years after declaration, and new information can be incorporated at that point
- Need to consider the practical implications of the different boundary options
- Beetaloo sub-basins - is that another flow of water? 'Beetaloo' refers to the shale gas resource. Beetaloo is not an aquifer. The Tindall Limestone Aquifer sits quite close to the surface; the Beetaloo gas resource sits approx. 3km below ground.
- Need to do water allocation plans (WAPs) for the Beetaloo areas. The petroleum industry has advised that the water required for camps and fracking is likely to be sourced from the Tindall. The Strategic Regional Environmental Baseline Assessment (or SREBA) will be undertaken over the next 3 years and that will inform the Beetaloo WAPs.

WAC recommendations following review of the boundary options:

- Align future reviews of the 3 WAPs – Mataranka, Beetaloo north, Beetaloo south
- Preference for boundary to follow hydro-geological features, where clear and logical
- Revised model should be based on 100 years climate period
- Agree on boundary change to enable Plan to be finished, not delayed by Beetaloo/SREBA
- Increased monitoring required to detect changes in the resource as a consequence of activities in neighbouring WAP areas

## 6. WATER MANAGEMENT ZONES WITHIN THE PLAN AREA

(Planner)

### Presentation Appendix 4

The Committee were asked to consider the principles that should be applied to the determination of management zones.

Possible management zones – North Mataranka, South Mataranka, Larrimah area

What are the principles behind possible management zones?

- Flows - direction and speed
- Water quality in different zones – mixing at the boundaries. If the Plan seeks to preserve quality in the Roper, then the 'mix' needs to be preserved; consider that water quality in the river is determined by the mixing of water sources with different properties.
- Larrimah – groundwater moving very slowly through the geology, picking up elements of the geology (as it goes through).
- Effect on recharge/discharge is more direct on both Mataranka zones than in the Larrimah zone where throughflow is slower.

Is there an obvious area that is more intensive agriculture versus other uses, or scattered throughout, if we were to apply landuse and future landuse as a layer? A land suitability study has been done for Larrimah and shows there could be agricultural activities and improved pasture. The water has low palatability but meets drinking water standards. The other intensive agriculture zone is close to Mataranka.

Protection of riparian zones. In the draft Ooloo WAP, 'Groundwater Discharge Protection Areas' have been defined along river reaches where additional measures have been deemed necessary to protect river inflows.

Are there any Surface Water Extraction Licences on the Roper? Yes, 32-33 ML for Ilminite mining. During the dry, most of the water that flows down the river comes from groundwater discharges from the Tindall Limestone Aquifer.

There are four 'groundwater protection discharge zones' in the Ooloo WAP. Three have a 1.5km buffer zone and Stray Creek has a 3km buffer zone. The discharge rate and volume can depend on how cavernous the source limestone is. 'Protection zones' can limit development of new extraction points. Discharge is not uniform across the Katherine and Daly Rivers. There are areas with lots of discharge, then areas of limited to no discharge, then lots of points of discharge again at Stray Creek. You can see the springs on the side of the river, but the actual bed of the river has a lot of discharge points. How was that identified and how was it brought to the attention of the WAC. Steve Tickell, hydrogeologist, has undertaken a lot of work identifying the main discharge points.

- ❖ **ACTION** – Planner will look at what evidence we have of discharge zones in the Roper.

One of the maps does show the major discharge points. After Elsey Homestead, there are no discharge points downstream.

Does everyone agree we need to decide on management principles before deciding on management zones? The key is what sort of principles, then hydrogeologists and planning team would base zones on this information.

There is quite good mapping of discharge areas along the river. Is the Oolloo example good to apply here? Discharge zones mapped along river, Elsey and Roper Creek. Buffering/protection zones around the Daly is based on work done by Steve Tickell. If you are close to the Roper and sink a bore which gets a 100l/s flows then you are likely to be intercepting a major conduit that is feeding the springs.

Committee discussed the following as basis for principles:

- Water quality at Elsey should remained unchanged.
- Restricting bores in discharge zones, definitely something to consider
- Can also use zones to manage trade
- Land suitability principles, not all development happens at the same rate
- Trading is one consideration. Concentrated use in one small area of the plan may have impacts on other areas. Zones have the capacity to spread use out more evenly, but there are also other ways.
- Is the principle not trading between the inflow point and the outflow point? The Plan gives guidance to the Controller when making decisions on trade applications. The Plan might make a rule that water can be traded north to south, but not south to north.
- Main thing is springs - don't want to change the water quality
- Iconic features in this region should remain unimpacted by extraction
- One of the things we looked at for the Ti Tree WAP, was to have different rules depending on depth to groundwater as a way of protecting groundwater dependent ecosystems (GDEs). The area around Bitter Springs, for example, has fairly shallow ground water - certain species or whole vegetation communities may be accessing the shallow groundwater during the dry. .
- Any particular reason for having zones around populated areas? Borefields can be a distance away, and there are already management mechanisms available for buffer zones around borefields which are supplying potable water.
- Maybe zones could be complimentary to land use planning zones
- Other plans have overlays to protect certain objectives. Can't decide on zones until we know what the objectives are.
- Need to look more at variation in flows at Roper Bar over 100 years
- Can't identify zones until we see if there are activities that need different rules to other areas of the Plan. Is there a reason why a particular area/activity needs to be managed differently to another area/activity?

Planning team will map out some zones based on the principles suggested by the Committee. Will run models for various scenarios to test how the resource reacts to water extraction in various locations. If the water moves in different directions then need to separate those areas. Scenario outcomes will be presented to the WAC.

Suggested management zone principles:

- Maintain natural water quality in Roper
- Reflect current and future land use intensity
- Borefield potable water supplies → compatibility with management zones
- Distribute extraction / avoid concentration
  - spreading could even increase the consumptive pool
- Maintain spring flow and stream flow
- Trade management / future proofing across areas of differing recharge/water dynamics

## 7. WATER ALLOCATION PLAN OBJECTIVES

(Planner)

Discussion paper - **Appendix 5**

Committee Action 1 - to confirm the objectives previously drafted.

Changes required:

- Objective 1 – aquatic and associated ecosystems
- Objective 2 - Commercial Tourism – just use 'tourism' as this incorporates everything

Committee Action 2 – consider the emerging Management Principles and recommend other principles for inclusion.

- acknowledge climate change and inherent uncertainty
- local knowledge – PowerWater borefields are now located north where the water quality is better
- ❖ **ACTION** – Planner to get meeting papers out well before the meeting to allow members time to absorb and consider information.
- ❖ **ACTION** – Planner will try and program in a session on climate change scenario, and how this might be incorporated into scenario modelling

### Continuation of Item 4: **RECAP ON WAC PROGRESS TO DATE**

Review of Stage 2 Meetings 4-6

- WAC advice on guidelines for changes to the Plan Area boundary – Completed
- WAC advice on guidelines for determination of management zones – Started

Stage 3 Meetings 7-10 – Development of the Plan

- Next logical step is start getting a feel for Estimated Sustainable Yield and how this fits with Management Zones. Once this is determined, Beneficial Uses will follow from there.

There will be 4 really full meetings. It is recommended the scenarios are presented in the papers prior to the meetings so any issues can be clarified. Options /scenarios are better way forward as WAC members can then provide input. They are a good discussion starter.

## 8. KEY MESSAGES FROM THIS MEETING

(Chair)

- Need better clarification on current licence applications and where they stand while the WAP is in preparation
- Plan boundaries – generally agreed the revised boundary should follow hydro-geological features/boundaries
- Committee would like further technical information on how climate change is considered in the Plan
- Consultation with other groups such as Jilkminggan is essential and will continue

- Sharon Hillen to provide regional meeting dates
- Members should suggest other events or major newsletters through which information on the WAP can be communicated
- Ongoing assessment of where we are at and where we need to get to
- Need to look at management principles more thoroughly at next meeting
- Committee would like to see revised recharge information at next meeting (based on new boundary). Tim Bond will discuss this with the hydrogeological group to determine when this work can be completed.

## 9. OTHER BUSINESS

EO AFANT advised members there is currently a proposal from a mining company to extract groundwater and streamflow from the Roper River. TOR is out and community consultation has started. It is the old Sherwin Iron Ore mining lease. Pumping from the river to off stream storage is part of the plan.

DENR has commissioned some work on off-stream storage and flood harvesting to assist the development of clear policy on these activities. This information will come in while the WAP is being developed. Other applications for flood harvesting in the Roper Valley have been received, but recently withdrawn

- ❖ **ACTION** – Tim Bond will provide a link to information on the Roper Valley Iron Ore project.
- ❖ **ACTION** – Planner will provide a summary of licence applications for the bigger region.

## 10. CALENDAR OF MEETINGS

(Chair)

A September meeting is not practical given it is now 21 August

Vin Lange and Clair O'Brien not available first half of October. Pru to confirm date of David Crook's return.

## 11. NEXT MEETING

(Chair)

To be confirmed – possibly last week of October.

**Meeting closed 2.20 pm**

### Summary of Actions arising from TMDWWAC Meeting 5 – not reviewed at Meeting 6

Responsibility of	Action	Status
Michelle Rodrigo	Email members a copy of the presentations from Meeting 3 with the draft Minutes of Meeting 4	tbc
Michelle Rodrigo	Check for the most up to date draft of each policy and re-send to all members	Completed
Members holding a Water Extraction Licence Chair	Those with direct experience in dealing with letters about unused water, to make a list of reasons and send them to the Chair. The Chair will then update the dot points and recirculate to the Committee.	New
Michelle Rodrigo	Send members an Information Sheet about this year's survey and a weblink to previous published reports - <a href="#">Water Quality of the Roper River 2012-2016</a> .	New
Members Chair	All members to email comments on the proposed Objectives to the Chair. The Chair will collate these comments and circulate to the rest of the Committee.	New
David Crook	Circulate a presentation given by Dr Alan Andersen (member of fracking inquiry panel) on the outcomes of the inquiry	New Completed 28/6/2018
Rebecca Mohr-Bell & Michelle Rodrigo	Assess WAC progress, clarify information needs and define a clear focus for upcoming meetings.	New
Michelle Rodrigo	Liaise with Committee to arrange meeting to update Jilkminggan members	New

### Summary of Actions arising from TMDWWAC Meeting 6

Responsibility of	Action	Status
Rebecca Mohr-Bell	Write to the Controller: recognising there are requirements under the legislation in relation to making a decision on a licence application; advising the Committee is putting a lot of work into developing a Water Allocation Plan; requesting the Controller consider deferring a Decision; and noting at the conclusion of the planning process the Committee will have a number of recommendations. Draft letter will be circulated to the Committee	New
Michelle Rodrigo	Seek permission to share notes from the discussions with Jilkminggan and circulate to the Committee	New

<b>Responsibility of</b>	<b>Action</b>	<b>Status</b>
Sharon Hillen	Provide the Chair and Planner with dates for local management meetings.	New
Michelle Rodrigo	Look at what evidence there is of discharge zones in the Roper	New
Michelle Rodrigo	Planner to get meeting papers out well before the meeting to allow members time to absorb and consider information	New
Michelle Rodrigo	Try to program in a session on climate change scenario and how this might be incorporated into scenario modelling	New
Tim Bond	Provide a link to information on the Roper Valley Iron Ore Project. <a href="https://ntepa.nt.gov.au/environmental-assessments/register/roper-valley-iron-ore-project">https://ntepa.nt.gov.au/environmental-assessments/register/roper-valley-iron-ore-project</a>	New Completed 29/08/18
Michelle Rodrigo	Provide a summary of licence applications for the bigger region	New

### Decisions TMDWWAC Meeting 6

<b>Decision</b>	<b>Moved/Seconded</b>	<b>Status</b>
The Minutes of Meeting 5 held via two teleconferences on 22 June 2018 were a true and correct record.		<b>Unanimous</b>

# Water Advisory Committee Progress so far...

August 2018

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## **COMMITTEE PURPOSE...**

- advice and recommendations to the department on development of a Water Allocation Plan
- advice on water management and water sharing arrangements in the Plan
- to bring the knowledge and interests of community sectors into the water planning process

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## Meeting timeline

	July-17	Aug-17	Sept-17	Oct-17 to Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sept-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	
Stage 1	M1		M2	Hiatus for Planner recruitment	M3	M4															
Stage 2						M4		M5		M6											
Stage 3												M7		M8			M9				
Stage 4																					M10

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### STAGE 1

#### Scene setting and knowledge development

#### Meetings 1 – 4

- Presentations and discussions on the planning process, role of Committee/terms of reference
- Committee Plan of Work developed
- Presentations and discussions on a range of topics – monitoring, hydrogeology, water licensing, water policies, hydraulic fracturing & Beetaloo sub-Basin, Water Act reforms, Strategic Aboriginal Water Reserve Policy, etc.
- Preparation of advice and recommendations on draft water policies – Unused Water Policy & Water Trading Policy
- Values Workshop - to inform objectives

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## STAGE 2

### Objectives setting

Meetings 4 - 6

- New Plan Objectives drafted – based on values analysis
- *WAC advice on guidelines for changes to the Plan Area boundary*
- *WAC advice on guidelines for determination of management zones*

*Yet to be tackled....*

- *WAC advice on monitoring framework for tracking progress towards the Plan Objectives i.e. how will we know if the high-level objectives have been achieved (or not)?*

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## STAGE 3

### Development of the Plan

M7 – M9

<p><b>3.1 WAC provides clear guidelines for framing key components of the water allocation plan</b></p>	<p>WAC provides guidance/recommendations on key topics to assist drafting of the Plan (led by the Planner). Topics may include:</p> <ul style="list-style-type: none"> <li>○ Beneficial Uses and Estimated Sustainable Yield</li> <li>○ Allocations to non-consumptive and consumptive pool</li> <li>○ Application of management zones</li> <li>○ Strategies and rules for sustainable allocations (e.g. management zones) implementation of current water policies (e.g. Unused Water and Trade)</li> <li>○ Performance indicators/limits to change</li> <li>○ Monitoring requirements</li> <li>○ Priority research projects for improving knowledge and management of the resource</li> </ul> <p>WAC provides feedback on draft sections of the Plan to maximise the likelihood of achieving the agreed Plan objectives</p>
<p><b>3.2 A Draft Water Allocation Plan is endorsed for public consultation</b></p>	<p>WAC meets to recommend the draft for release to a public consultation period (Note: Majority, not consensus, endorsement by Committee is required. The position/views of all members will be clearly documented.)</p>
<p><b>3.3 Public consultation on the draft Plan engages key stakeholders and considers all feedback</b></p>	<p>Planner and WAC members attend community information sessions in Mataranka &amp; Larrimah to talk about the Plan</p> <p>WAC members meet with representative groups and encourage feedback during public comment period</p> <p>WAC considers feedback received (Consultation Report prepared by the Planner) and recommends amendments, where required, to the draft Plan</p>

## Evaluation...

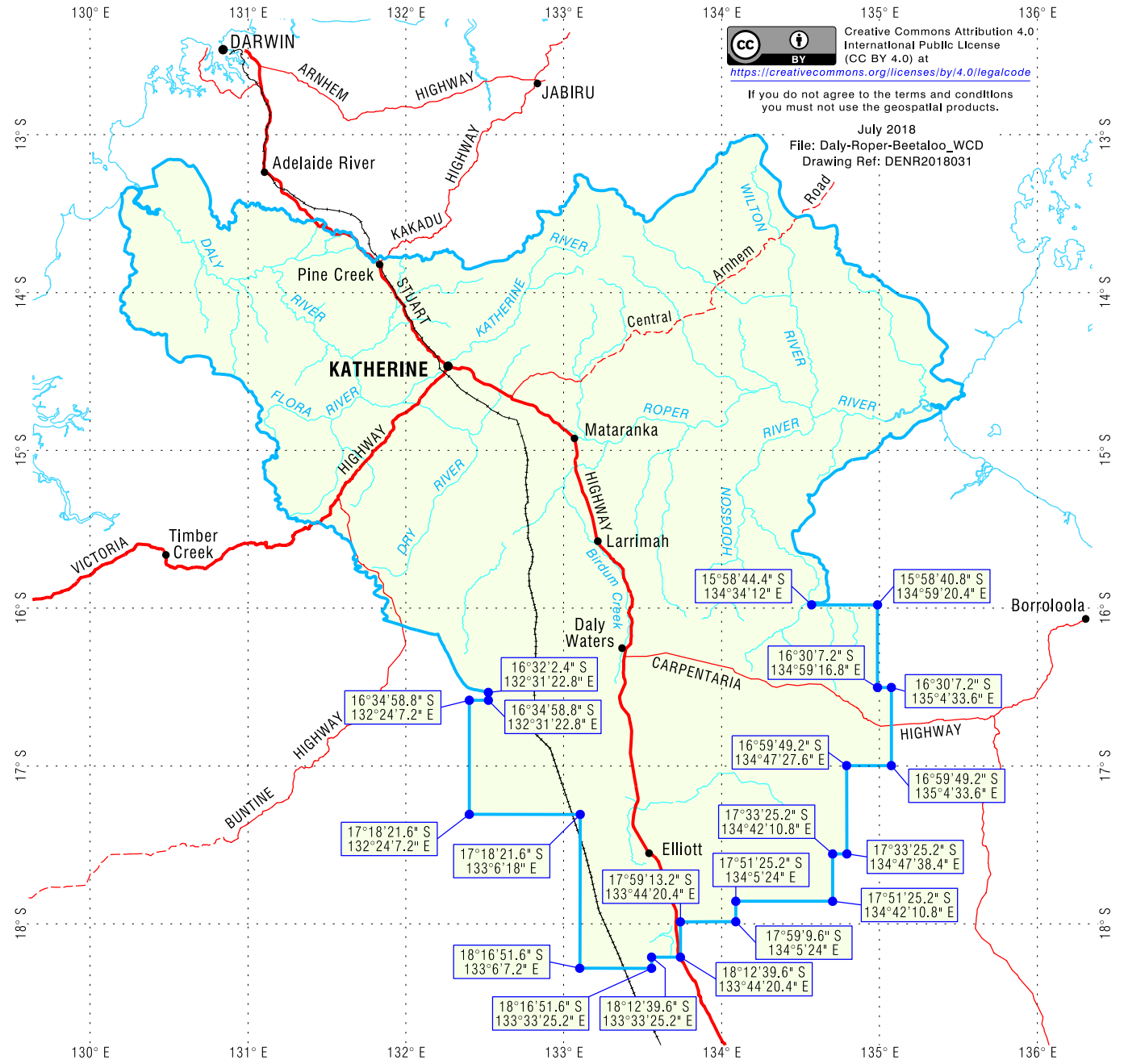
- Reasonably 'on track' according to timeline
- Attention required on some unanticipated issues e.g. Plan boundary
- More intensive period approaching – Stage 3 Plan Development

## What can be improved?

- Information gaps ?
- Engagement gaps ?
- Process gaps ?

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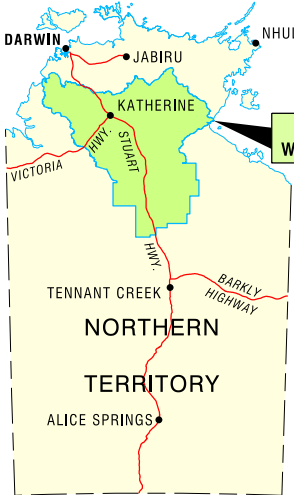
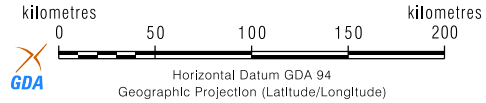
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July 2018  
File: Daly-Roper-Beetaloo\_WCD  
Drawing Ref: DENR2018031

**LEGEND**

- Water Control District
- Highway
- KATHERINE
- Main Road
- Pine Creek
- Major Town
- Railway
- Minor Town
- Watercourse



**LOCATION MAP**  
Not to Scale  
**DALY ROPER BEETALOO WATER CONTROL DISTRICT**

For further information contact  
Dept. of Environment and Natural Resources  
Water Resources Division  
P: 08 8999 4455  
E: [water.licensing@nt.gov.au](mailto:water.licensing@nt.gov.au)  
Web: [nt.gov.au/water](http://nt.gov.au/water)  
Goyder Centre, Chung Wah Terrace  
Palmerston, Northern Territory



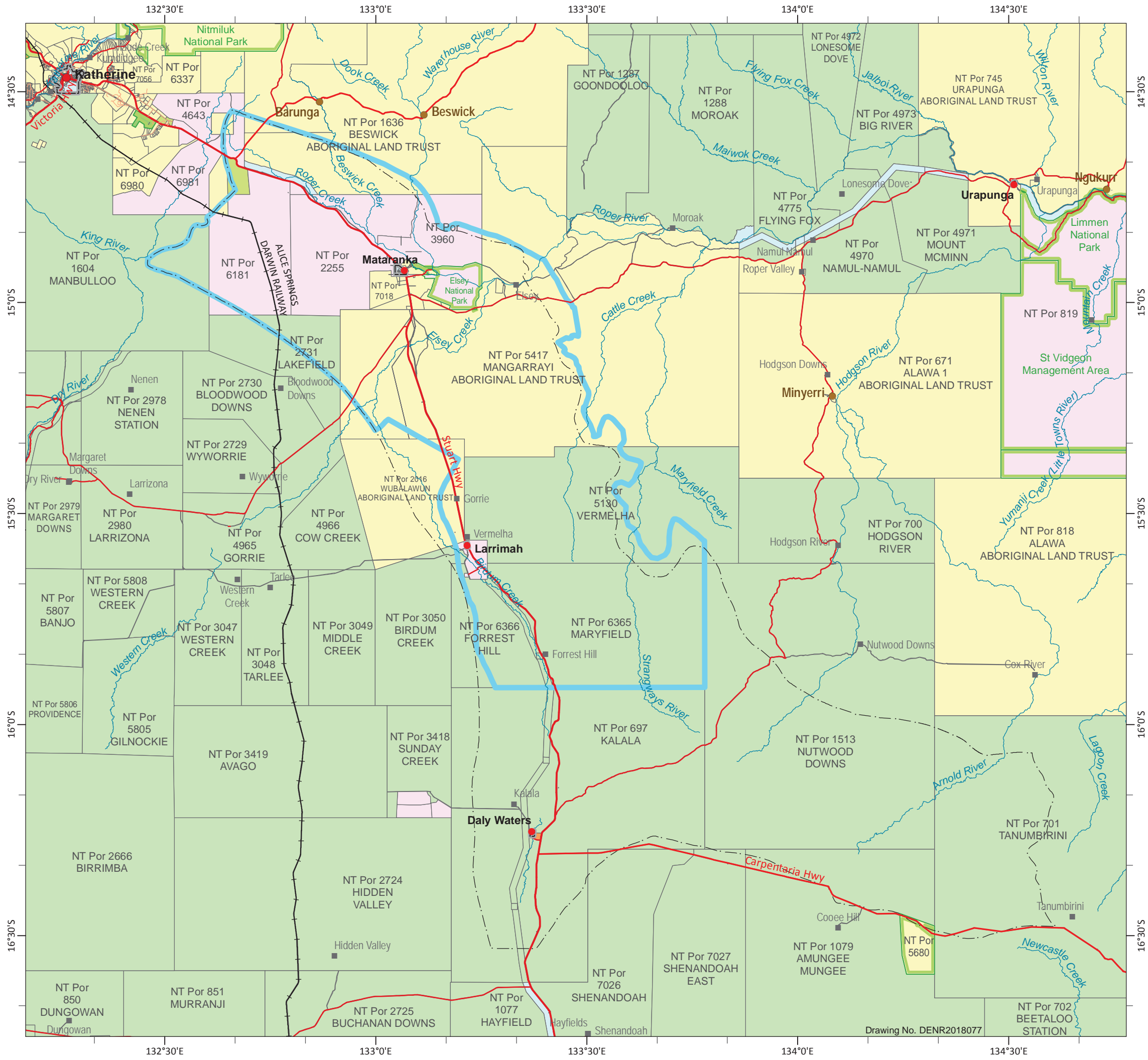
**Notes:**

- 1. Revocation:**  
Northern Territory Government Gazette No. S58 dated 20 July 2018 revoked on 22 June 2018 the Daly Roper Water Control District declared on 8 December 2008 and published in Gazette No. G50 dated 17 December 2008.
- 2. Declaration:**  
Northern Territory Government Gazette No. S58 dated 20 July 2018, declared the Daly Roper Beetaloo Water Control District on 22 June 2018.
- 3. Purpose:**  
Daly Roper Beetaloo Water Control District declared for surface water and groundwater management purposes.

**DALY ROPER BEETALOO WATER CONTROL DISTRICT**

# Mataranka - Daly Waters Draft Water Allocation Plan Areas

## Option 1



**Legend**

- WAP Area Option 1
- Current Draft WAP Area
- NT Parks and Reserves

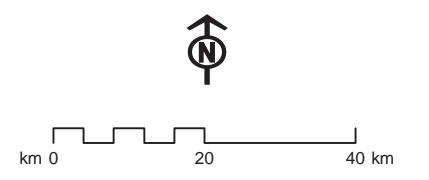
**Cadastral - Tenure Type**

- Freehold
- Pastoral Lease
- Crown Lease Perpetual
- Crown Lease Term
- Crown Land
- Government Use
- Special Purposes Lease
- Reserve
- Other Leases

**DATA SOURCE:**  
 Water Resource Information: Department of Environment and Natural Resources  
 Parks: Parks and Wildlife Commission NT  
 Cadastral/Roads/Placenames: Department of Infrastructure, Planning and Logistics  
 Drainage: 250K © Commonwealth of Australia (BoM) 2014

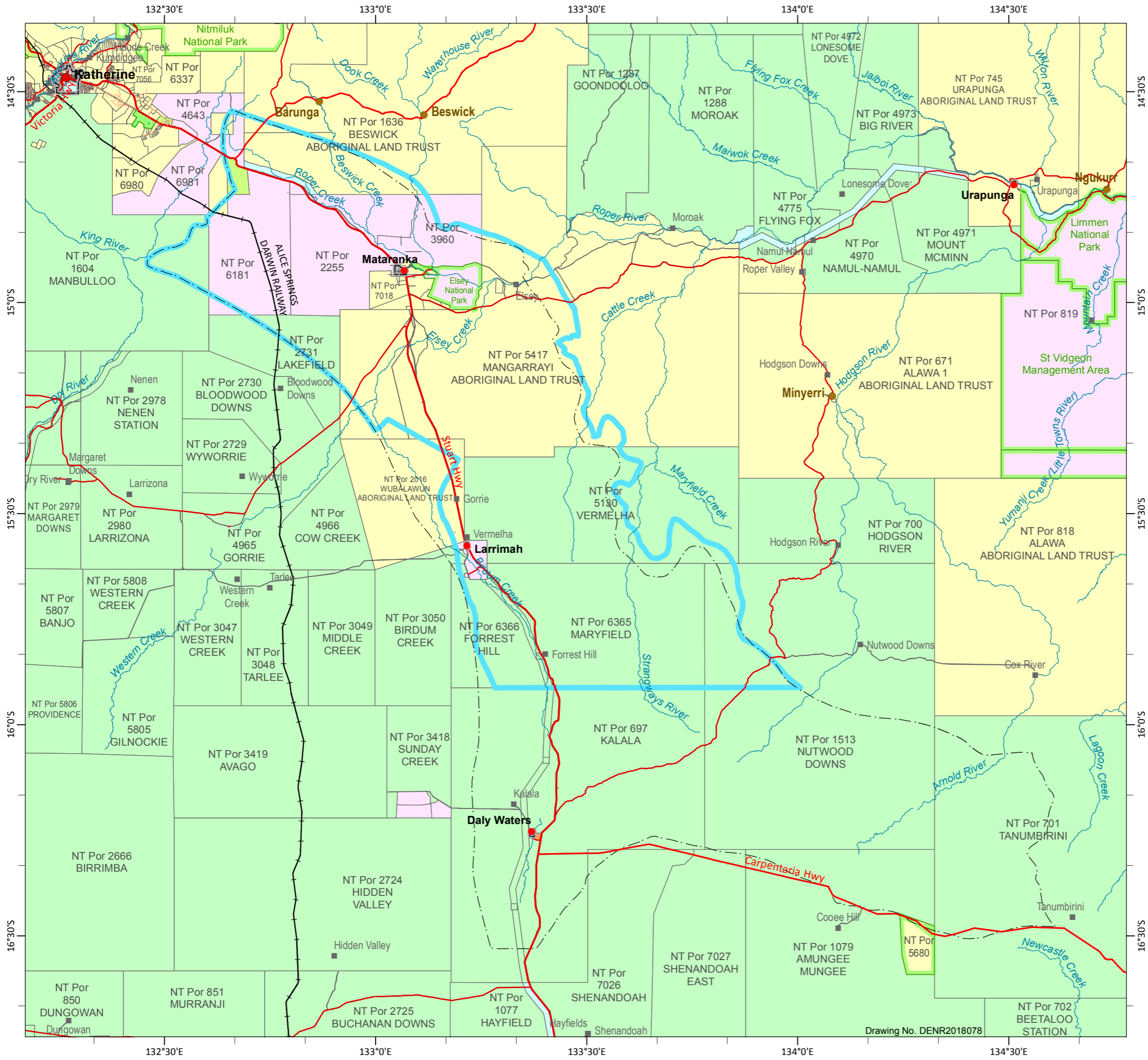
**DENR discussion purposes only  
Not for public display**

Map compiled: 17/08/2018  
 Department of Environment and Natural Resources  
 Geospatial Services  
 Drawing No. DENR2018077



Drawing No. DENR2018077

# Mataranka - Daly Waters Draft Water Allocation Plan Areas Option 2



**Legend**

- WAP Area Option 2
- Current Draft WAP Area
- NT Parks and Reserves

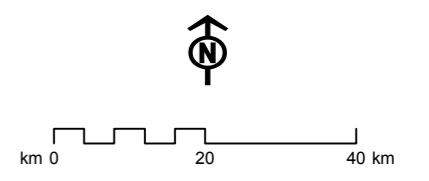
**Cadastre - Tenure Type**

- Freehold
- Pastoral Lease
- Crown Lease Perpetual
- Crown Lease Term
- Crown Land
- Government Use
- Special Purposes Lease
- Reserve
- Other Leases

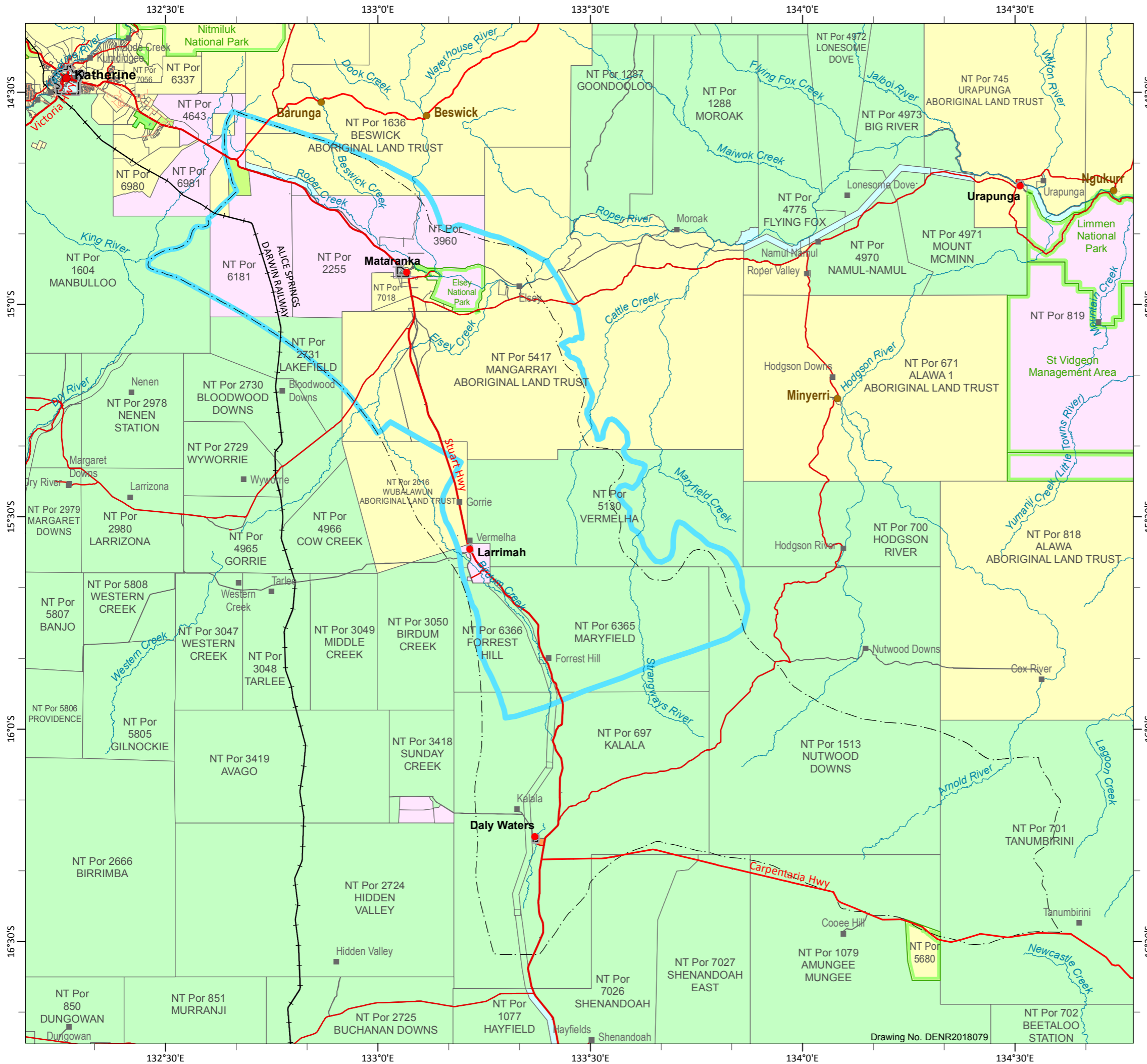
**DATA SOURCE:**  
 Water Resource Information: Department of Environment and Natural Resources  
 Parks: Parks and Wildlife Commission NT  
 Cadastre/Roads/Placenames: Department of Infrastructure, Planning and Logistics  
 Drainage: 250K © Commonwealth of Australia (BoM) 2014

**DENR discussion purposes only  
Not for public display**

Map compiled: 17/08/2018  
 Department of Environment and Natural Resources  
 Geospatial Services  
 Drawing No. DENR2018078



# Mataranka - Daly Waters Draft Water Allocation Plan Areas Option 3



**Legend**

- WAP Area Option 3
- Current Draft WAP Area
- NT Parks and Reserves

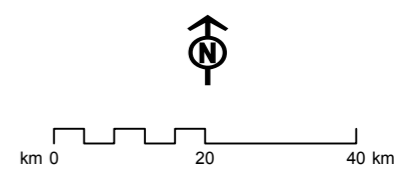
**Cadastre - Tenure Type**

- Freehold
- Pastoral Lease
- Crown Lease Perpetual
- Crown Lease Term
- Crown Land
- Government Use
- Special Purposes Lease
- Reserve
- Other Leases

**DATA SOURCE:**  
 Water Resource Information: Department of Environment and Natural Resources  
 Parks: Parks and Wildlife Commission NT  
 Cadastre/Roads/Placenames: Department of Infrastructure, Planning and Logistics  
 Drainage: 250K © Commonwealth of Australia (BoM) 2014

**DENR discussion purposes only  
Not for public display**

Map compiled: 17/08/2018  
 Department of Environment and Natural Resources  
 Geospatial Services  
 Drawing No. DENR2018079



# Management Zones

## Principles for determining zone boundaries and management arrangements

[www.nt.gov.au](http://www.nt.gov.au)



### Why create management zones ?

- Enable a Water Allocation Plan to create specific management arrangements in areas (zones) with different water resource dynamics/conditions
- Enable tighter water management arrangements in 'zones' where there is greater risk of springs/seepages and ground water dependent ecosystems being directly impacted by groundwater extraction
- Enable better protection of water quality and greater reliability of water entitlements for existing users – zone extraction limits

[www.nt.gov.au](http://www.nt.gov.au)



## Why have different zones for this Plan Area?

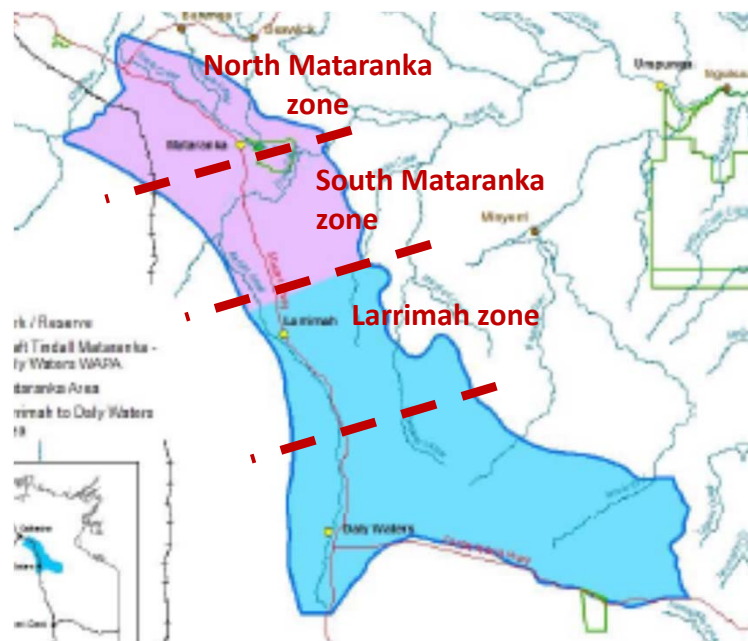
- Water resource dynamics are different - recharge, rainfall response, groundwater flow paths, through flow rates
- Dependency of spring discharges and baseflows on groundwater is variable
- Ecosystem and cultural value dependency on groundwater is variable
- Water quality is variable
- Local and regional differences in response of groundwater levels to extraction
- Existing spatial distribution of groundwater and surface water extraction is variable
- Projected spatial distribution of groundwater & surface water extraction is variable



[www.nt.gov.au](http://www.nt.gov.au)



## Possible Management Zones ?



[www.nt.gov.au](http://www.nt.gov.au)

## Principles for determining zone boundaries & rules

- Reflect variation in groundwater flow paths / flow rates / water quality / recharge rates
- Ensure licensing of new or increased water entitlements and water trading does not lead to a concentration of groundwater and surface water extraction that impacts on the water needs of the environment, cultural sites and existing users.
- Special management arrangement for protection around spring discharge/seepage areas e.g. Draft Ooloo Plan - minimum distances between spring discharges and extraction points, 1.5km to 3km
- Balance detailed, complex management arrangements (zone rules etc.) with practical, 'user friendly' implementation of the Plan
- Special arrangements to reflect interaction with neighbouring Plan areas (current & future)
- Impact of zoning arrangements on existing users to be considered/mitigated
- Consistency with the Water Act, Water Allocation Framework, policies

[www.nt.gov.au](http://www.nt.gov.au)



## Principles for determining zone boundaries & rules

- Other principles to guide the definition of zone boundaries and zone management arrangements and rules?
  - Small group discussion

[www.nt.gov.au](http://www.nt.gov.au)



## Tindall Mataranka-Daly Waters Water Allocation Plan - Objectives

### Discussion paper for WAC Meeting 6, 21<sup>st</sup> August 2018

#### Action 1

At this meeting (21<sup>st</sup> Aug 2018) the WAC will review and finalise the proposed Objectives (see table) for the new Water Allocation Plan.

#### Background

The Objectives of a Water Allocation Plan create an important framework on which all other elements of the Plan are built. Plan Objectives guide the design of the Plan itself, as well as its implementation and evaluation.

The Tindall Mataranka-Daly Waters Water Advisory Committee (the WAC), representing key stakeholders and water users in the community, has a pivotal role in shaping the Objectives of the Plan.

A draft Water Allocation Plan for the Mataranka region, prepared in 2011, proposed four Plan Objectives. Since then, much has changed in the region, including:

- extension of the Plan Area to Daly Waters
- changed representation on the Water Advisory Committee
- NT Government water management policy and legislative reforms
- ongoing improvements in hydro-geological knowledge of the aquifer
- changing community profile, water demands and licensed extractions
- improvements in the government’s water licensing framework

A new Water Allocation Plan is being developed by the NT Government, in conjunction with the WAC. It is necessary for the current WAC to review and reset the Plan Objectives to ensure they reflect current environmental, cultural, social and economic values and provide a relevant framework for the new Plan.

The WAC participated in a Values Workshop in May 2018 (Meetings 3 & 4). The outcomes of this workshop have assisted the WAC to reset the Plan Objectives such that they are responsive to current community values and the need for sustainable management of the groundwater resource. The proposed new Plan Objectives are provided in the following table:

#### Proposed Objectives:

<p><b>2011 Objective 1:</b>  <i>Preservation of the water quality, surface water flows and groundwater levels around Mataranka, including Roper River and Rainbow and Bitter Springs, which provide environmental, Indigenous cultural and other instream public benefits.</i></p>	<p><b>May 2018 review:</b></p> <ul style="list-style-type: none"> <li>• Maintain healthy aquatic ecosystems and processes that support:                             <ul style="list-style-type: none"> <li>- Environmental values – springs, rivers, stygofauna</li> <li>- High flows, base flows and wet-dry transition</li> <li>- Resilience / sustainability / natural variability</li> <li>- Fishing, recreation, cultural, social, tourism</li> </ul> </li> <li>• Remove place names – applies to whole plan area</li> <li>• Downstream environmental flows dependant on upstream wet and dry season flows</li> </ul> <p>Protect environmental processes for their intrinsic value, not only for value to humans (cultural flows, recreation, social)</p>
<p><b>Proposed Objective:</b></p> <p><i>The Tindall Limestone aquifer, and its connected surface waters, continue to support the health and natural variability of aquatic ecosystems and dependent cultural, recreational, and social values within the Plan area, including those downstream ecosystems which are highly dependent on Roper River flows from the Plan area.</i></p>	

<p><b>2011 Objective 4:</b>  <i>Maintenance and support for traditional land use in the predominately Aboriginal owned land surrounding the Mataranka Water Plan Area through the protection of culturally significant water dependant sites as well as providing access to water for commercial development.</i></p>	<p><b>May 2018 discussion points and review:</b>                  SWR is about economic development - may be better placed with Objective 2, or possibly become its own objective</p>
<p><b>Proposed Objective:</b>  <i>Cultural flows and culturally significant water-dependent sites which are essential to sustaining traditional Aboriginal land use and cultural practices are protected from the potential impacts of groundwater extraction in the Plan area.</i></p>	
<p><b>2011 Objective 3:</b>  <i>Provision of a water supply, with sufficient and reliable volume, for essential services to Mataranka and Jilkminggan as well as water for stock and domestic purposes to rural properties.</i></p>	<p><b>May 2018 discussion points and revisions:</b></p> <ul style="list-style-type: none"> <li>• Provide sustainable access to community water supply – RS&amp;D, community water supply, cultural</li> <li>• Provide flows downstream to support Ngukurr water supply</li> <li>• Essential services – potable standards; other civic/amenity use can be non-potable</li> <li>• Maintaining flows for downstream communities</li> <li>• Add a requirement for ‘quality’ water supply</li> <li>• Replace specific town names with ‘towns and communities’</li> </ul>
<p><b>Proposed Objective:</b>  <i>Towns, communities and rural properties have access to a quality, reliable water supply for domestic and visitor consumption (including downstream communities dependent on baseflow contributions from the Plan Area), and provision is made for current and future stock watering requirements.</i></p>	
<p><b>2011 Objective 2:</b>  <i>Development of agriculture, sustainable commercial tourism, and other water consumptive industries that form a significant part of the Mataranka and surrounding area’s economy.</i></p>	<p><b>May 2018 discussion points and revisions:</b></p> <ul style="list-style-type: none"> <li>• Environmentally, socially and economically sustainable industry development (Qualifier: all extraction will have some impact)</li> <li>• Minimise administrative barriers (reduce red-tape)</li> <li>• Both under and over regulation are potentially damaging for development and the resource</li> <li>• Possible separation of ‘stock’ and ‘domestic’ i.e. either inside or outside of the commercial realm; represents very small portion of use</li> <li>• Tourism and fishing depend on water, but consume water differently to production industries</li> <li>• Providing equitable access to water for environmentally sustainable industries (consumptive beneficial uses)</li> </ul>
<p><b>Proposed Objective:</b>  <i>Sustainable management of the Tindall Limestone aquifer and connected surface flows is supporting the region’s economic development by:</i></p> <ol style="list-style-type: none"> <li><i>a) enabling equitable access to water for responsible water consumptive industries such as agriculture and commercial tourism, while avoiding detrimental impacts on environmental and cultural values.</i></li> <li><i>b) supporting commercial development opportunities on Aboriginal lands in the Plan area through implementation of the Strategic Aboriginal Water Reserve.</i></li> </ol>	

## **Action 2**

WAC to consider the emerging Management Principles for the new Plan, and to recommend other relevant principles for inclusion.

### **Background**

Management Principles are general guidelines that regulate decision-making and behaviour, and might describe agreed ways of doing business. They may also reflect some of the assumptions that underlie the development, implementation and evaluation of the Water Allocation Plan. Several Management Principles have emerged during the Values Workshop, and others are yet to be defined.

### **Proposed Management Principles**

- a. The management settings in the WAP acknowledge the interconnectedness of groundwater in the Tindall Limestone aquifer and surface water expressions across the region, including stream flows in the Roper River and its tributaries both within and downstream of the Plan area.
- b. The management settings in the WAP are based on the best available knowledge of the dynamics and condition of the Tindall Limestone groundwater resource and the impact of extraction from this resource on the environmental, cultural, social and recreational values of the region.
- c. Meeting the water needs of the environment, cultural practices, regional towns and communities, recreation activities, tourism operations, pastoral stations and Aboriginal economic development are priorities under this Water Allocation Plan, followed by those of water consumptive industries such as irrigated agriculture, mining and petroleum.
- d. Other principles....