

Water Plan

Ridgy Didge Australian Champs : 6-7 May 2017

In putting this plan together the following assumptions have been made:

- a) The maximum number of competitors is 350.
- b) The location and time of year indicate that the weather will be mild, though the plan provides for warmer than average conditions at the time (daytime low 20s and altitude over 1,000m). This will be assessed via BOM forecasts in the week prior to the event.
- c) All competitors will start the event with their own supply of water (2-3 litres). However provision will be made for bus passengers (40 x 3 litres = 120 litres).
- d) No significant rainfall will occur to boost natural supplies (creeks and dams), but will also be assessed in the week prior to the event.
- e) Each competitor will resupply with 6 litres during the event. Assuming 50 will resupply at the HH and the other 300 will resupply at other points.
- f) Additional water will be used at the HH and ANC for food preparation and cleaning – approximately 150 litres at each site.
- g) After midday Sunday, assume 1 litre per person will be used = 350 litres.

Water resupply points on the course are shown on the attached diagram.

- South-east – water bottles at W1
- North – water bottles at W2
- West – water cube at HH
- Centre – water cube All-night-café site
- East – permanent water in Cowra Creek and Back Creek
- North east – permanent water in lower Schofields Creek
- Other – number of dams on the course and some flowing creeks depending on rain.

At the start of the event, the following potable water will be in place:

Water point	Type of container	No. of containers	Volume in litres
W1	Water bottles with hand pump	15 x 20 litre	300
W2	Water bottles with hand pump	15 x 20 litre	300
HH	Water cube with 3 taps sitting on a 4WD ute	1 x 1000 litre	1000
ANC	Water cube with 2 taps sitting on a 4WD ute	1 x 1000 litre	1000
Total water on the course at the start of the event			2,600 litres

Course setter notes will also highlight any quality water for use with sterilisation. There are at least 3 creeks with permanent flowing water and numerous dams on the course that would be suitable. This will be checked at the time of hanging controls about 14 days before the event. Final instructions will alert competitors to bring sterilisation tablets.

Resupply

Using the above assumptions we will require:

- a) 350 x 6 litres for competitor resupply – 2,100
- b) 120 litres for bus passengers – 120
- c) 150 litres at HH and ANC – 300
- d) 350 litres at the HH after midday Sunday

This makes a total of 2,870 litres.

RISKS

We know that use of resupply points is not evenly distributed. Given the course layout, it is likely that Water 2 and the ANC will experience greater demand for water resupply. In addition accidental spillage, leaving taps on and theft can affect the supply. For example a worst case scenario – 200 people go to water 2 in the first 8 hours and there is no reliable natural water between HH and W2, other than lower reaches of Schofields creek. This would require 200 x 3 litre = 600 litres; well short of our planned 300 litre supply outlined in the table above.

Risk	Likelihood	Measure to address risk
Water bottles stolen	Low	Bottles placed off main tracks and locked with a chain. Pumps used in the bottles
Water taps left on (cubes)	Moderate	Laminated sign reminding users to turn the tap off. Checking regularly.
Water bottles tipped over	Low	Pumps in lids attached to bottles to eliminate need to tip the bottle over. Rogainers asked to be especially careful as water refills are remote.
Demand for water at W2 is high	Moderate to high	Start with 300 litres. Analyse flight plans immediately after the start of the event to check expected numbers of teams visiting the water drops and ANC. Modify resupply if necessary. Undertake planned check after 6 hours.
Hot weather	Low	Increase water checking times Emphasise in final instructions and briefing for rogainers to bring and carry water and sterilisation tablets.
Refilling difficulty	Moderate	Resupply points include: HH owner's water tank (sterilise) Bredbo Fire Station – 30 mins from HH and ANC Bredbo Community Hall Cooma petrol station along Polo Flat Road for refilling W1 water
Time to do refills	High	An extra 4WD car will be available to do water resupply. This means that W1 and W2 can be refilled at the same time.
Response required to other incident on course	Moderate	There will be an additional three 4WD vehicles at the HH to respond to other emergencies or to do water drop runs if required.

A. Water cube at HH – 1000 litres + 10 x 20 litre containers

The water cube will be strapped to the 4WD ute with initial supply from Canberra (1000 litres). If this begins to get low, eg 200 litres left, the remaining water will be transferred to the spare 20 litre water containers. The HH landowner has offered to resupply from his water tank – 800m from the HH site. The ute would drive to his tank and refill using ACTRA potable water hoses. Anticipated time for this – 30 minutes. Returning patrol cars will also refill any empty bottles to be added to the water cube at the HH.

B. Water cube at the ANC + 10 x 20 litre containers

The water cube will be strapped to the 4WD ute with initial supply from Canberra or Bredbo (1000 litres). An additional 10 twenty litre containers will be brought in (filled at Bredbo). Water from the containers will be tipped into the cube as it is used. When the water in the cubes gets below 500, the 10 now empty containers will be used for refilling from Bredbo. Any water surplus to the requirements at W2 will be left at the ANC (in the cube). Anticipated time for refilling – 2 hours.

C. Water drop 1 – South East – 15 x 20 litre containers

This water drop is on the south-east side of the course and is not expected to have high initial demand. There will be 15 x 20 litre water bottles placed before the event. This will be checked at the time of a safety patrol at 22:00 - 10pm on Saturday and 6:00 – 6am on Sunday. The safety / water patrol will carry 10 full bottles to replace any used. Any remaining water will be returned for use at the HH. Access to Water 1 is via Numeralla and Peak View Road (3 hour return journey). The direct route to W1 along the fire trails is not suitable – slow travel, very boggy in 2 places and trees across the trail (great on a mountain bike though). If there is no significant rain prior to the event, this route may be drivable.

D. Water drop 2 – North -15 x 20 litre containers

This water drop is on the northern end of the course and, as mentioned above, likely to have higher demand. A check from the ANC will be undertaken at 16:00 – 4pm using water containers from the ANC. It takes 15 minutes to driver there from the ANC.

The safety patrol will check the water at 18:30 – 6.30pm on Saturday expecting to replace 10 of the containers (filled at Bredbo). Flight plans will also be checked to estimate team numbers visiting the W2 and W1.

Another check will be undertaken at 22.30 (10.30pm) Saturday and 7:30am Sunday. Water 2 is about 5kms from the ANC so any water not needed at W2 will be put into the water cube at the ANC. HH to Water 2 takes about one hour via Bredbo refill. (It is possible for a large 4WD to take the firetrail access, however the roads are small, some erosion and very slow going. One large tree is across the road although cars have managed to drive around it. Any ANC helpers coming past W2 will also be asked to check supply and if low, a call to HH will be made for resupply.

Bottle supply

We will need

- 15 + 15 at the water drops,
- 10 + 10 spare at ANC and HH
- 10 + 10 spare for water resupplying.

Total = 70 bottles

ACTRA has 28 bottles – mostly 20 litres with some 25 litre and a few 15 litres.

R&J have water cubes and can lend 5 x 20 litres.

OACT can lend bottles. They have about 20 bottles.

If containers cannot be sourced from members, they will be purchased.

Summary of water carting vehicles available – all 4WD

- 2 Toyotas with water cubes on tray;
- 3 vehicles at the HH available for water / safety patrols
- 2 vehicles at the ANC available to check or carry water esp to W2.

Overview Map

High-level view of water drop locations, water supplies and access

