



Dams in NSW

What size are your existing dams?

You need to know your current dam capacity to determine whether your existing dams need to be licensed or whether you can build more dams without a licence or approval. A simple method of estimating dam capacity is provided here.

If the capacity of any of the dams is estimated to be greater than 10 megalitres you will need to do a more accurate calculation to determine the dam's capacity. For more information contact the NSW Office of Water.

Step 1. Determine if any of the dams on your property should not be included in the calculation of your Harvestable Right Dam Capacity (see *Dams in NSW – do you need a licence?*), that is:

- existing dams licensed prior to 1 January 1999
- special dams exempt from harvestable rights
- dams located on permanently flowing watercourses.

Step 2. List in Table 1 all the dams on your property that are part of your harvestable right.

Step 3. Determine the width, length and depth of each dam and fill in the calculation table accordingly.

Step 4. Using the formula relevant to the dam shape, calculate surface area in square metres of each dam and enter in the table.

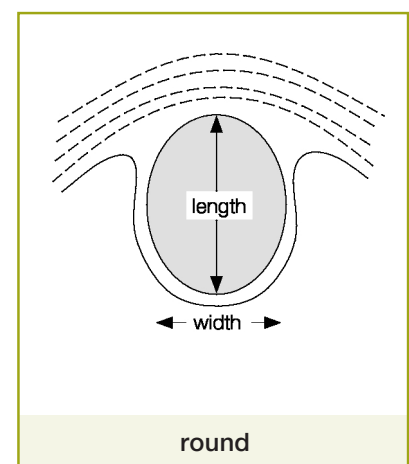
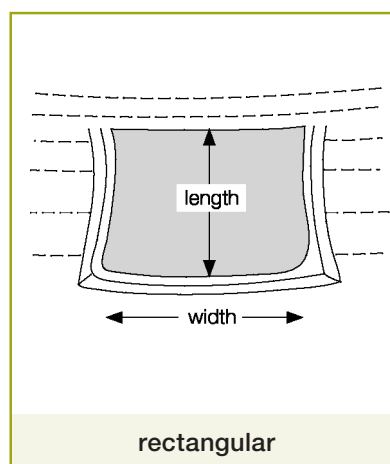
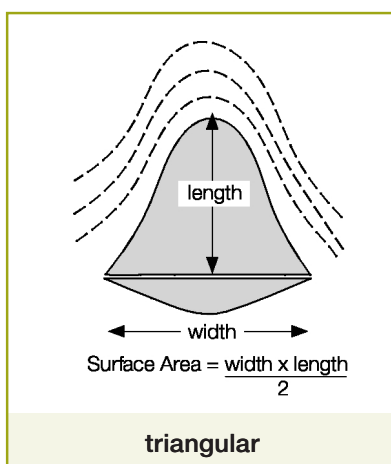
Step 5. Using the following formula, calculate the volume in cubic metres (m³) and enter the results in the table.

$$\text{Volume (m}^3\text{)} = 0.4 \times \text{Surface Area} \times \text{Depth}$$

0.4 is a conversion factor that takes into account the slope of the sides of dams.

Step 6. Calculate the capacity of each dam in megalitres (ML) by dividing the volume in cubic metres (m³) by 1000 and enter this in the table.

Step 7. Add up the storage capacity of all your dams in the table to give your Total Existing Dam Capacity.



DAMS - WHAT SIZE ARE YOUR EXISTING DAMS?

Table 1: Calculation table

Dam name or Number eg Ram paddock	Width (m)	Length (m)	Depth (m)	Surface Area (m ²)	Approx volume (m ³)	Dam capacity (ML)	Additional Information eg date constructed
Total existing dam capacity							

How much is 1 megalitre (ML)?

One megalitre is approximately equivalent to:

- 5.5 standard rainwater tanks - a 40,000 gallon rainwater tank contains approximately 180,000 litres or 0.18 of a megalitre
- 14.5 hours of pumping water using a 100mm pump

Some comparisons with other units of measurement:

1 megalitre (ML) = 1 000 cubic metres
 = 1 000 000 litres
 = 1 308 cubic yards
 = 219,969 gallons

MORE INFORMATION

Find out more about water licensing at www.water.nsw.gov.au

Contact us

Contact a water licensing officer at a local office listed on our website, free call the licensing information line on 1800 353 104 or email information@water.nsw.gov.au