Fact sheet

Harvestable rights dams – where can they be built?

Where can harvestable rights dams be located?

Harvestable rights dams **cannot be located**:

- on or within 40 metres of a third-order or higher order stream[1]
- on, or within 3 km upstream of, a wetland of international importance (listed under the Ramsar Convention). This includes any area of the catchment located within 3 km upstream of the wetland boundary.

Harvestable rights dams **can be located** on:

- non-permanent minor streams
- hillsides
- gullies

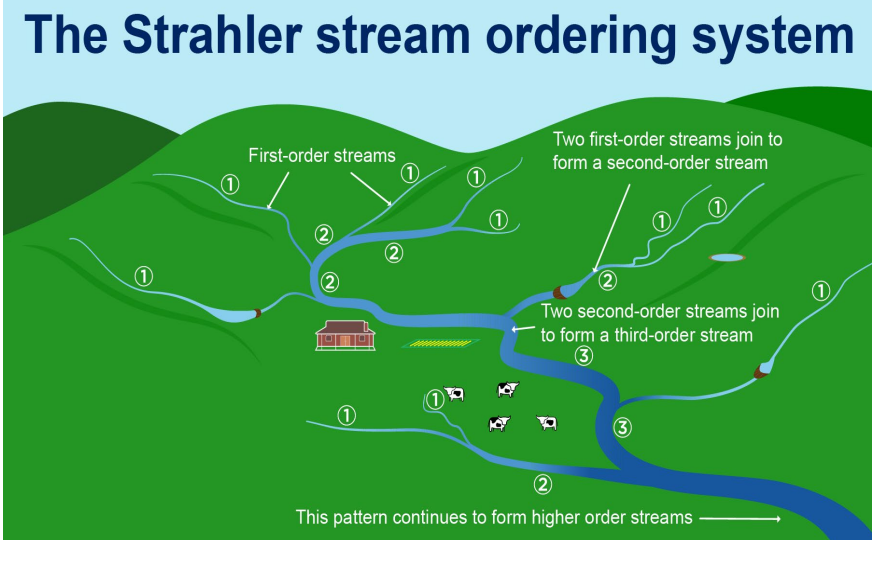
For more information on **harvestable rights** see the Department of Planning and Environment website.

What is a minor stream?

A minor stream is a **first-order or second-order stream** or part thereof that does not permanently flow[2], and any stream of part thereof that is not identified as a watercourse in the hydroline spatial data. Minor streams are defined in the harvestable rights orders. For more information please visit the Department of Planning and Environment website.

The Strahler stream ordering system is the method used to determine the watercourses and the order of a stream. The system is explained in the description and image below:

- Starting at the top of a catchment, any watercourse that has no other watercourses flowing into it is classed as a first-order stream (1).
- Where two first-order streams join, the stream becomes a second-order stream (2).
- If a second-order stream is joined by a first-order watercourse – it remains a second-order stream.
- When two or more second-order streams join they form a third-order stream (3).
- A third-order stream does not become a fourth-order stream until it is joined by another third-order stream and so on.



[1]The 40 metre prohibition is measured perpendicularly (that is, at a right angle) from the bank of the stream. This means the dam can be located within 40 metres upstream of the point where two second-order streams join to become a third-order stream.
[2]A permanent flow is a visible flow which occurs on a continuous basis, or which would so occur if there were no water extractions, diversions or obstructions of flow upstream.

Harvestable rights dams - where can they be built?

How do I determine the minor streams on my landholding?

Landholders in the central inland-draining and coastal-draining catchments harvestable rights areas must use the hydroline spatial data to identify watercourses and determine the stream order on a landholding. Landholders in the Western Division must refer to the topographic maps listed in that order[4].

The hydroline spatial data can be accessed through the *Water Management (General) Regulation 2018 Hydro Line spatial data* portal. Refer to the 'Determining stream order' factsheet for further information.

Example: Geoff owns a 60 hectare landholding. Geoff would like to build two dams using his harvestable right. There are no existing dams in the harvestable rights zone. *However*, if there were existing dams, then their existing capacity would need to be deducted from the Maximum Harvestable Right Dam Capacity (MHRDC) to determine the size of any proposed dam Geoff was intending on building.

Step 1: Geoff first needs to calculate his Maximum Harvestable Right Dam Capacity (MHRDC).

Using the calculator, Geoff works out he can build dams with a combined dam capacity of up to 7.8 ML.

Step 2: Geoff then needs to work out the size and location of his harvestable rights dams on his landholding. Some of the possible options are outlined below.

The following are examples of what is **permitted** under harvestable rights:

Scenario 1 - permitted

- Dam 1 located on a first order stream with a capacity of 2.8ML.
- Dam 2 located on a second-order stream with a capacity of 5 ML.

The combined capacity of both dams is equal to the MHRDC for the landholding.

Scenario 2 - permitted

- Dam 1 located on a first-order stream with a capacity of 3ML.
- Dam 2 located on a hillside with a capacity of 4.8 ML.

The combined capacity of both dams is equal to the MHRDC for the landholding.

[4]Streams are shown on topographic maps as broken or continuous blue lines and are deemed to be continuous even if they lose definition and then reappear.

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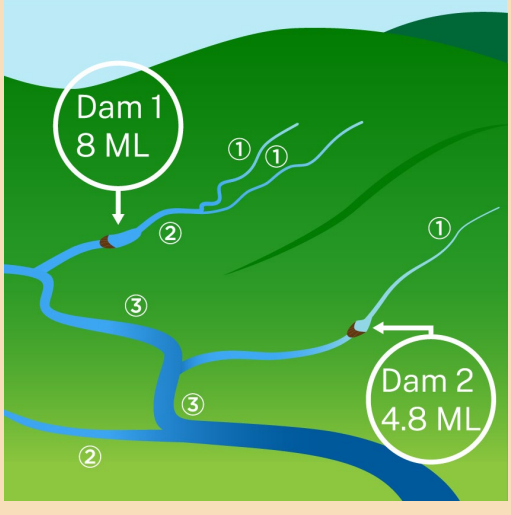
The following are examples of what is **not permitted** under harvestable rights:

Scenario 3 – not permitted

- Dam 1 located on a second-order stream with a capacity of 8 ML.
  This is **not permitted** as a harvestable rights dam as the capacity is greater than the MHRDC of 7.8 ML.
- Dam 2 located on a first-order stream with a capacity of 4.8 ML. This is a permitted harvestable rights dam based on its size and location.

To ensure the dams comply with the harvestable rights rules, Geoff could reduce the capacity of Dam 1 to 3 ML so the combined capacity of both dams is equal to the MHRDC. Or, Geoff could apply for a water supply works approval and water access licence to build Dam 1 and use the stored water. This would not be a harvestable rights dam.

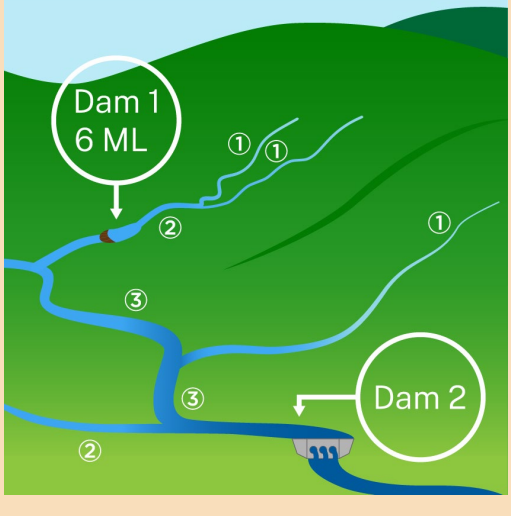


Scenario 4 – not permitted

- Dam 1 located on a second-order stream with a capacity of 6 ML, which is less than the MHRDC of 7.8 ML. This is a permitted harvestable rights dam based on its size and location.
- Dam 2 located on a third-order stream.

Dam 2 is not permitted as a harvestable rights dam as they cannot be constructed on third- or higher order streams.

If Geoff wishes to build a dam at this location, he must obtain a water supply works approval from WaterNSW before commencing construction. Geoff would also need to hold a water access licence for this dam.



More information

Please contact our friendly Customer Service team on 1300 662 077 or email Customer.Helpdesk@waternsw.com.au