

Practice Note: What is ‘Water’ and What is an ‘Artificial Watercourse’?

Introduction

This practice note provides an explanation as to what is water when considering activities to take, re take and use water, dam water, divert water or to discharge water or contaminants to water. This helps to identify when the RMA and Otago’s Regional Plan: Water (RPW) may apply and when a consent may be required.

The practice note also distinguishes what an artificial watercourse is as opposed to a river. This is relevant for determining whether consents are required for instream works and for understanding what is included when a rule refers to ‘river’.

It is useful to note that an artificial watercourse (e.g. a water race or reservoir) could contain water. This means that regional rules may not apply to works within the artificial watercourse but do apply to the takes from, damming of water within or discharges to the watercourse.

How does the RMA define ‘Water’?

Section 2 of the RMA defines water as follows:

Water

(a) Means water in all its physical forms whether flowing or not and whether over or under the ground:

(b) Includes fresh water, coastal water, and geothermal water:

(c) Does not include water in any form while in any pipe, tank, or cistern:

The definitions of freshwater and water body are also relevant:

Freshwater means all water except coastal water and geothermal water:

Water body means fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area.

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The definition of “water” under the Act is wide and broadly inclusive. The only exclusions are when water is inside any “pipe, tank or cistern.”

What does the exclusion for water in a “pipe, tank or cistern” cover?

As the RMA does not define these words. The starting point for considering the exclusions is the plain and ordinary meaning of each term.

The *New Zealand Oxford Dictionary* defines the terms “pipe”, “tank” and “cistern” as follows:

- a. Pipe: A tube used to convey water, gas, oil or other fluid substances.
- b. Tank: A large receptacle or storage chamber, usually for liquid or gas.
- c. Cistern: A tank for storing water, especially one in a roof space supplying taps or as part of a flushing toilet.

The terms “tank” and “cistern” are relatively narrow and unlikely to apply to any water infrastructure in the region.

The term “pipe” is less clear and case law is a relevant consideration to provide direction on how this is interpreted. Relevant case law includes:

- *Minister of Conservation v South Taranaki District Council*¹ (a tunnel dug into the earth but not lined was a ‘pipe’ in the case of a wastewater application),
- *Gisborne District Council v Mckendry*,²
- *Otago Regional Council v Paterson Pitts Partners (Wanaka) Ltd*³ (question of whether a pipe in an aquifer amounted to a take or diversion of water – the water taken through the pipe did amount to a take of water); and most recently
- *Aotearoa Water Action Incorporated v Canterbury Regional Council*⁴

In the most recent decision, water taken from the ground is not “water” while it remains in a pipe but is “water” again once it leaves the pipe. A water bottle was not regarded to be a ‘tank’ or ‘cistern’.

This case law generally reflects a purposive approach being taken to interpretation of the term ‘pipe’ under the RMA. “Pipe”, “tank” and “cistern” should be applied relatively narrowly. A regional council’s ability to control water, in order to give effect to the sustainable management principles under the Act, is likely to be curbed only in narrowly prescribed situations where it is not practicable to do so.

¹ *Minister of Conservation v South Taranaki District Council W061/93 (PT)*.

² *Gisborne District Council v Mckendry (2005) 11 ELRNZ 458 at [11]*.

³ *Otago Regional Council v Paterson Pitts Partners (Wanaka) Ltd High Court, Dunedin, (2010), Fogarty J.*

⁴ *Aotearoa Water Action Incorporated v Canterbury Regional Council (2022) NZCA 325 at [91-97]*

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Once water is in a pipe, any subsequent taking from the pipe will not be of “water”. In such situations, the taking is regulated at the point the water is taken from a water body, such as a lake, river or an artificial watercourse, and transported into a “pipe, tank or cistern”.

However, once the water is no longer in a “pipe, tank or cistern” it is no longer excluded and is considered to be “water” again. This means that within a take and distribution system there can be various take points as water flows through rivers, races, reservoirs and pipes.

Physical water in the various conveyance and storage systems present in the region (e.g. water races, canals for irrigation and electricity generation, farm drains and reservoirs) will be considered to be “water” for the purposes of section 14 and 15 of the RMA. The clear exception will be any water within piped irrigation infrastructure.

What happens when water from a pipe enters a race or river and then re-enters a pipe?

As outlined above, water in a pipe is not considered to be “water” under the RMA and the regional council does not regulate takes from a pipe. However, if water from a pipe enters a watercourse and there is a take of water out of the watercourse back into a pipe, that take is regulated. This is because when the water leaves the pipe it becomes water again.

This does mean that there can be multiple takes in a network where water transitions between rivers, races, pipes and reservoirs. Every time there is a take that is not from a pipe the take will need to be provided for by section 14 of the RMA, permitted by the regional plan or there will need to be a consent for the take.

More details on section 14 of the RMA and the permitted activity rules can be found here: [Practice note: Stacking of water takes](#).

Figure 1 below is a stylised schematic that show examples of different take points in an irrigation network and where these would be considered takes of “water” under the RMA (yellow stars).

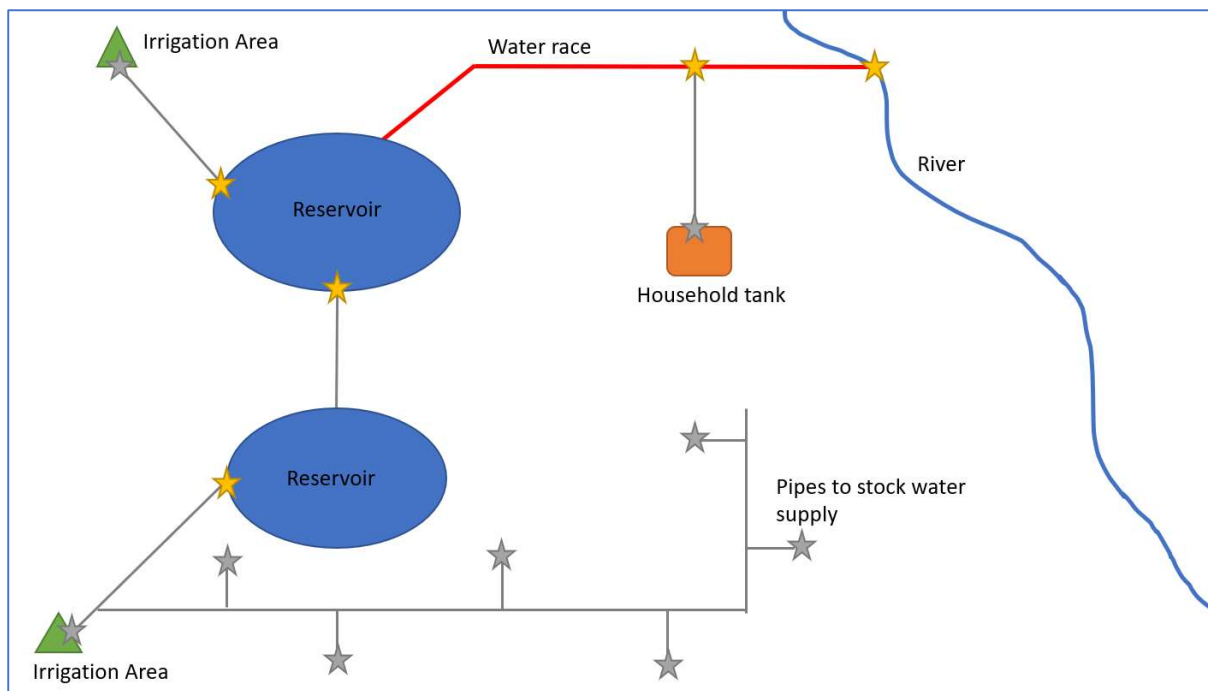


Figure 1: Schematic showing a river, artificial watercourses (water races and reservoirs) and pipe network. The yellow stars show all the points of take of water under the RMA. These takes may require resource consent if they do not meet s14 of the RMA. The grey stars show points of take from a pipe and these takes are not regulated by the RMA.

What is the different between an artificial watercourse and a modified watercourse?

Section 2 of the RMA defines "river" as follows:

River means a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal).

The definition of river includes a modified watercourse, but expressly excludes an artificial watercourse. The definition also states that an "artificial watercourse" includes an irrigation canal, water supply race and farm drainage canal. It is noted that artificial watercourse is not separately defined in the RMA.

The distinction between modified watercourses and artificial watercourses is important, as it determines whether a particular watercourse falls within the definition of "river" or not. This in turn determines whether the watercourse falls within the definition of "water body" and whether section 13 of the RMA applies.

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The distinction between artificial watercourses and rivers can also have a bearing on the Council's plan making functions. This is because some functions in section 30 of the RMA, only apply to a "water body" and not "water".

Under section 30 of the Act, regional councils do have the power in relation to artificial watercourses to:

- a. control maximum and minimum flow levels; and
- b. allocate the taking and use of water.

River: Defined by the RMA means a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal)

Water body: Defined by the RMA means fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area

Modified watercourse: Not defined in any planning documents but derived from case law. A river that has been modified in some manner for example by diversions, piping, and/or other structures.

Artificial watercourse: Not defined in any planning documents but derived from case law. A watercourse that has been man made e.g. irrigation canal, water supply race, canal for the supply of water for electricity power generation, farm drainage canal

Drain:

Defined by the RPW as an *Artificial channel or subsurface conduit (e.g. mole drain, tile drain or drainage tunnel) constructed to either lower the water table or divert water, excluding a water race.*

Defined by the National Planning Standards means any artificial watercourse designed, constructed, or used for the drainage of surface or subsurface water, but excludes artificial watercourses used for the conveyance of water for electricity generation, irrigation, or water supply purposes⁵.

How do I determine if the watercourse is an 'artificial watercourse'?

The case law does not set out any overarching test to determine whether a particular watercourse is a modified watercourse or an artificial watercourse. Ultimately, the determination will come down to the particular facts and context of the watercourse in question. However, the cases set

⁵ **Discharges of water from drains to water** (i.e. to rivers, waterbodies, modified watercourses and artificial watercourses) are regulated by the Regional Plan: Water (RPW) and reference should be made to Chapter 12.C.1 of the RPW to determine whether consents are required for such discharges.

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out a range of factors to consider when making such an assessment. It is clear that a holistic approach should be taken to the assessment.

The factors, derived from caselaw, that should be considered when distinguishing between a river and an artificial watercourse are as follows:

- a. Whether the water is **fresh water**, as defined in **section 2 of the RMA** (i.e. not water in a pipe, tank, or cistern). If the water is not fresh water for the purposes of the Act, it will not fall within the definition of river and will not be a modified or an artificial watercourse.
- b. To be a river (including a modified watercourse), the freshwater must be **continually or intermittently flowing**. Intermittently is a standard applied to protect the goals in section 13 i.e. the merit of protecting the riverbed and the existence of river values including the habitat of plants and animals (an artificial watercourse may develop biologically to sustain life, but is still artificial e.g. irrigation channels).
- c. If modified, whether a **pre-existing natural water body was present prior to the modification**. A pre-existing natural watercourse may have been extensively modified, but still be an intermittently flowing body of freshwater within the definition of river. For example, would there be a flow but for the modification or is it merely a gully/channel fallen into disuse by natural changes (e.g. in *Carruthers v Otago Regional Council*⁶, had there been no diversion there would have been no flowing water, so in that case it was an artificial watercourse).
- d. Whether there is an **artificial bed** (by piping or channelling comparable to the list of watercourses that qualify as artificial: irrigation canal, water supply race, farm drainage canal etc). Or, the **presence of natural bed materials**. Note: there is a distinction between an **artificial channel of a river** and an **artificial watercourse**, and a diversion through an artificial channel can remain part of the river.
- e. The **source of the flow**, which will not be determinative, but could indicate whether the watercourse is artificial, or not (e.g. in *Warburton v Porirua City Council*⁷ when the water in an artificial watercourse originated from stormwater run-off from a residential system).
- f. The **path of the watercourse**; again, this will not be determinative, but may provide an indication i.e. a meandering path is more likely to be evidence of a modified watercourse rather than an artificial watercourse; however, a straight path/channel can also be a modified watercourse.
- g. The **size of the watercourse**, although this will not be determinative of the outcome as there is no reference to size in the definition of "river" under the Act, and therefore this factor should be given a relatively low weighting.

⁶ *Carruthers v Otago Regional Council* [2013] NZHC 632, (2013) 17 ELRNZ 156, [2013] NZRMA 428

⁷ *Warburton v Porirua City Council* [2013] NZEnvC 179.

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Finally, and overlaying all of the above factors, is the requirement to take a purposive approach to interpretation by having regard to the purpose of the RMA in Part 2 of the Act. This requires an assessment of whether the watercourse is modified or artificial by considering the purpose of promoting the sustainable use of natural and physical resources.

Some earlier cases relied quite heavily on a purposive interpretation because the RMA previously precluded the consideration of the allocation of water within an artificial watercourse. The RMA now provides regional councils with the function of establishing rules to allocate the taking and use of all water under section 30(1)(fa).

Is taking water from an artificial watercourse a “take” for the purposes of the RMA?

The taking of ‘water’ from an artificial watercourse can be considered a “take” of water under section 14 of the Act.

The Environment Court in *Alexander v Wellington Regional Council*⁸ addressed the issue of whether taking water from an irrigation race is a “take” for the purposes of the RMA. The Environment Court held: water taken from a water race of an irrigation scheme is water within [the RMA’s] definition, and that section 14(1) applies to it.

After concluding that water taken from a water race of an irrigation scheme is “water” under the RMA, the Court stated that, as the appellant did not require the water for domestic needs, there was no exemption to taking water from a water race.

Although water in a pipe, tank or cistern is not “water” for the purposes of the RMA, water which comes in and out of the pipe, tank or cistern remains “water” for the purposes of the RMA. Therefore, the Act is clear that water in artificial watercourses, such as irrigation canals or water supply races, is “water” under the Act.

What is a retake of water and what is augmented water?

The Court in *Alexander* also addressed the issue of whether water can be “taken” twice. The Court held that water can be “taken” twice, for the purpose of section 14 of the Act. Council have termed these secondary takes of water from **artificial watercourses** as ‘**retakes**’

The Council’s Regional Plan: Water (**RPW**) provides for retaking of water delivered to a river primarily for the purpose of retaking at a later point. This provides for the scenario where creeks and rivers are used as part of the distribution network. There is a specific rule⁹ that applies to new takes of this nature (with all replacement permits considered under Chapter 10A of the RPW). To avoid confusion between retakes out of artificial watercourses and retakes from a river or lake, these are called ‘**augmented takes**’. The discharge from a water race to a river/creek to facilitate

⁸ *Alexander v Wellington Regional Council* (2004) 11 ELRNZ 39 at [12].

⁹ Rule 12.1.4.1 of the RPW.

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an augmented take typically does not currently require a consent under the RPW. The permitted activity rules in Chapter 12.C.1 will need to be checked to confirm this.

The region also has locations where excess water from irrigation, especially from flood and border dyke irrigation application methods, enters a waterbody. This may be a river or artificial watercourse. There is no means at present to distinguish the portion of water taken out of a river or artificial watercourse that is this **runoff water** and it is currently considered as part of these takes. As irrigation application methods change to more efficient application methods there will be a smaller percentage of this runoff water in takes. These application method changes may also impact on water availability in some rivers and aquifers due to reduced recharge from these sources.

Retake: *Water taken out of an artificial watercourse such as a race or reservoir*

Augmented take: *Water taken out of a river or lake that has been delivered (discharged) to the same or another river for the purpose of being later taken out.*

Runoff: *Overland flow that enters a river or artificial watercourse.*

Are separate consents required for takes of water from artificial watercourses?

The Environment Court's decision in *Alexander* confirmed that individual resource consents are **not** required for each individual take from a water race or irrigation canal and these takes can be included on one permit.

How does the regional plan manage takes of water from artificial watercourses?

As a general principle, the RPW does not distinguish between water takes from artificial watercourses and other water bodies. This is because Chapters 10 and 12.1 of the Regional Plan controls the taking and use of surface water. As discussed above, surface water includes water within artificial watercourses.

Permitted takes of surface water are set out in Rules 12.1.2. Except for **Rule 12.1.2.3**, which is applicable to artificial lakes only, the permitted activity rules apply to all takes of surface water.

Rule 12.1.2.3 provides for taking from artificial lakes (reservoirs) created before 28 February 1998 or where the damming activity is permitted¹⁰. This is relevant for reservoirs with catchment less

¹⁰ Rule 12.3.2.1 of the RPW
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than 50 hectares, have a volume no more than 20,000 cubic metres and have water immediately upstream of the dam that is no more than 3 metres deep.

However, there are few rules in the RPW which only apply to takes from certain water bodies. **Rule 12.1.4.1** applies only to the taking and use of surface water from any “lake” or “river”, which, as noted above, does not include artificial watercourses.

The remainder of the rules with restricted discretionary activity status regulate the taking of water within primary and supplementary allocation or the replacement of the taking and use of surface water. These rules apply equally to both taking and use from rivers and from artificial watercourses, although any takes from a river, and a downstream artificial watercourse should not be double counted in the allocation framework.

This means that that the take from an artificial watercourse does not require a separate consent or a separate rule classification.

Summary

- Water taken from an artificial watercourse, such as a water race or dam reservoir, is a “take” for the purposes of section 14. This means a resource consent will be required, unless the take is permitted by the regional plan or section 14(3) of the RMA.
- Water can be “taken” twice, with a resource consent potentially required for both takes.
- The RPW planning frameworks provides for takes from artificial watercourses to be considered within the current rules without the need for a separate consent.
- Takes from artificial waterbodies have been termed by the Council as ‘retakes’.
- When we are processing your water take and use application, you will be asked about the location details of any retakes you have.
- Instream works in artificial waterbodies do not trigger section 13 of the RMA and do not require consent. Bylaw requirements and District Council regulations should be checked before commencing works. Further details can be found:
 - [Flood Protection Management Bylaw](#).
 - Damming information: [Dam building consents information page](#)
 - Structures: [Practice note - Structures](#)
 - Stream clearance: [Practice note- Stream Clearance](#)
- Discharges to water in artificial waterbodies and discharges to water from artificial watercourses to rivers may require consent under the RPW if permitted activity rules in Chapter 12.C.1 cannot be met.

Questions?

If you have any questions regarding the information provided, please do not hesitate to get in touch with the Consents or Compliance team on 0800 474 082 or email us at public.enquiries@orc.govt.nz

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