

Three Waters Management (TWM)

Issues

The Three Waters Management (TWM) Chapter implements provisions to manage the impact of [land](#) use and [subdivision](#) on water resources and services, namely [stormwater](#), [wastewater](#) and water supply:

- [Stormwater](#) systems manage the quality and quantity of [stormwater](#) runoff to minimise flood damage and to protect people, [land](#), [infrastructure](#) and the receiving [environment](#) from adverse [effects](#).
- [Wastewater](#) systems collect and convey [wastewater](#) for subsequent treatment and disposal. This will normally consist of either connection to the [reticulated wastewater](#) network, or on-site treatment and disposal (either individual or communal in nature).
- A water supply is necessary to ensure that a sufficient quality and quantity of water is available to all properties.

Adequate provision must be made for three waters services when subdividing [land](#) to enable the anticipated use of that [land](#) and manage potential adverse [effects](#). Subdividers are encouraged to consider efficient, low impact [infrastructure](#) designs when preparing applications. Larger scale developments and [subdivisions](#) may require an Integrated Three Waters Assessment.

Where a public [reticulated](#) three waters network with sufficient capacity is available, connection to it is required when undertaking [subdivision](#) where connection is practicable. Connection is also encouraged where this would be a logical extension of the public [reticulated](#) network. Successfully implemented and managed [reticulated](#) three waters networks have significant economic, social, environmental and cultural benefits and should be protected as [regionally significant infrastructure](#).

Where a connection to the public [reticulated](#) network is not available or practicable, an alternative private system will be required when undertaking [subdivision](#). It is important that private systems are appropriately designed to protect the health and wellbeing of residents as well as the health of the receiving [environment](#) both on-site and within the surrounding area.

In addition to the District Plan, Whangārei District Council Bylaws may impose controls and restrictions on three waters management. Consent may also be required from the Northland Regional Council with regard to [stormwater](#), [wastewater](#) and water supply.

Objectives

TWM-O1 – Connections	Ensure that connections to public reticulated three waters networks are provided within Reticulated Stormwater Areas , Reticulated Wastewater Areas , and Reticulated Water Supply Areas .
TWM-O2 – Reticulated Networks	Maintain the effectiveness, efficiency and sustainability of reticulated three waters networks.
TWM-O3 – Integrated Infrastructure	Plan and provide for three waters infrastructure in an integrated and comprehensive manner.
TWM-O4 – Private Systems	Ensure that private three waters systems are provided where connections are not provided to public reticulated networks.

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TWM-O5 – Adverse Effects

Minimise adverse [effects](#) from [stormwater](#) and [wastewater](#) on people, property, [infrastructure](#), the receiving [environment](#) and cultural values.

Policies

TWM-P1 – Three Waters Infrastructure

To ensure that three waters resources are appropriately managed by requiring [subdivision](#) and development to provide three waters [infrastructure](#) that:

1. Is coordinated, integrated and compatible with the existing [infrastructure](#) and capacities.
2. Enables the existing public [reticulated](#) network to be expanded or extended to adjacent [land](#) where that [land](#) is within a [Reticulated Stormwater Area](#), [Reticulated Wastewater Area](#) or [Reticulated Water Supply Area](#).

TWM-P2 – Reticulated Areas

To sustainably and efficiently manage three waters resources by avoiding private three waters systems where connection to the public [reticulated](#) network is practicable in a [Reticulated Stormwater Area](#), [Reticulated Wastewater Area](#) or [Reticulated Water Supply Area](#).

TWM-P3 – Capacity

To manage the scale and design of [subdivision](#) and development where connection is proposed to public [reticulated](#) three waters networks to ensure that there is sufficient capacity in the public [reticulated](#) networks, or where necessary require upgrades and/or extensions to the public [reticulated](#) networks to enable appropriate [subdivision](#) and development.

TWM-P4 – Future Development

To ensure that three waters [infrastructure](#) is designed to accommodate the anticipated servicing requirements of plan enabled development in the locality.

TWM-P5 – Vested Assets

To require vested assets, and connections to vested assets, to be designed and constructed in a manner that protects the ongoing operation, maintenance and upgrading of that asset.

TWM-P6 – Private Systems

To ensure that where connection to a public [reticulated](#) three waters network is not available or practicable that provision can be made for:

1. A water supply.
2. The treatment, disposal, and where appropriate attenuation, of [stormwater](#) in a way that does not lead to significant adverse [effects](#) on or off [site](#).
3. Management of [wastewater](#) via:
 - a. An on-site [wastewater](#) treatment system; or
 - b. Approval to connect to a private [wastewater](#) system.

TWM-P7 – Flooding

To reduce the risk of flood hazards or increased upstream and downstream flood levels resulting from [stormwater discharges](#).

TWM-P8 – Integrated Three Waters Assessments

To require Integrated Three Waters Assessments for large scale developments to:

1. Provide three waters [infrastructure](#) in an integrated and comprehensive manner.
2. Enable and recognise the benefits of [green infrastructure](#) and low impact design.

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TWM-P9 – Infrastructure

To require subdividers and developers to meet the fair and reasonable costs of any upgrades or extensions of public reticulated three waters infrastructure which are attributed to the impacts of the subdivision or development.

Rules

TWM-R1	Any Activity Not Otherwise Listed in This Chapter	
All Zones and Port Nikau Development Area	Activity Status: Permitted Where: 1. Resource consent is not required under any rule of the District Plan. 2. The activity is not prohibited under any rule of the District Plan.	

Stormwater

TWM-R2	Subdivision	
All Zones and Port Nikau Development Area	Activity Status: Restricted Discretionary Where: 1. All <u>allotments</u> are designed and located so that provision is made for: a. The collection, treatment and disposal of <u>stormwater</u> that meets the following requirements: i. There will not be an increase in peak <u>discharge</u> flow rates to receiving environments. ii. In <u>Flood Susceptible Areas</u> , the post-development 1% <u>Annual Exceedance Probability (AEP)</u> storm event flow rates is limited to 80% of the pre-development 1% AEP event flow rates. iii. Outside <u>Flood Susceptible Areas</u> , the post-development 20% and 50% AEP storm event flow rates is limited to 80% of the pre-development 20% and 50% AEP event flow rates. iv. Any attenuation required by TWM-R3.1(a)(ii)-(iii) is able to accommodate an additional 20% for climate change. v. The primary <u>stormwater</u> system is capable of conveying a 50% AEP storm event (+20%) where the system is a piped network with no surcharge. vi. The primary <u>stormwater</u> system is capable of conveying a 20% AEP storm event (+20%) where the system is a piped network allowing a <u>discharge</u> within 0.3m of the lid level. vii. The secondary <u>stormwater</u> system is capable of conveying the 1% AEP storm event (+20%) within a defined path to ensure that <u>surface</u>	Activity Status when compliance not achieved: Discretionary

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- water will not enter buildings (excluding detached garages).
- viii. The stormwater system will not connect or overflow to any wastewater system.
 - ix. The stormwater system is designed and constructed for an asset life of at least 50 years.
- b. Connection to a public reticulated stormwater network where the allotment is located within a reticulated stormwater area.

Matters of discretion:

1. Adverse effects on existing reticulated stormwater networks.
2. The capacity of existing reticulated stormwater networks and whether the servicing needs of the proposal require upgrades to existing infrastructure.
3. Feasibility of connection to and logical extension of the existing reticulated stormwater networks.
4. Adverse effects on the surrounding environment and neighbouring properties from the collection, treatment and disposal of stormwater.
5. The efficient provision of services to the land being subdivided and to nearby land that might be subdivided in the future.

Note:

1. *Acceptable means of compliance for the provision, design and construction of infrastructure is contained within the Whangārei District Council Engineering Standards.*

Wastewater

TWM-R3	Subdivision	
All Zones and Port Nikau Development Area	<p>Activity Status: Restricted Discretionary</p> <p>Where:</p> <ol style="list-style-type: none"> 1. All <u>allotments</u> (excluding any <u>allotment</u> for <u>access</u>, <u>roads</u>, utilities and reserves) are designed and located so that provision is made for: <ul style="list-style-type: none"> a. Collection, treatment and disposal of <u>wastewater</u>. b. Connection to a public <u>reticulated wastewater</u> network where the <u>allotment</u> is located within a <u>reticulated wastewater area</u>. <p>Matters of discretion:</p> <ol style="list-style-type: none"> 1. Adverse <u>effects</u> on existing <u>reticulated wastewater</u> networks. 	<p>Activity Status when compliance not achieved: Discretionary</p>

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2. The capacity of existing reticulated wastewater networks and whether the servicing needs of the proposal require upgrades to existing infrastructure.
3. Feasibility of connection to and logical extension of the existing reticulated wastewater networks.
4. Provision of wastewater collection, treatment and disposal.
5. Adverse effects on the surrounding environment and neighbouring properties from the collection, treatment and disposal of wastewater.
6. The efficient provision of services to the land being subdivided and to nearby land that might be subdivided in the future.

Note:

1. *Acceptable means of compliance for the provision, design and construction of infrastructure is contained within the Whangārei District Council Engineering Standards.*

Water Supply

TWM-R4	Subdivision	
<p>All Zones and Port Nikau Development Area</p>	<p>Activity Status: Restricted Discretionary</p> <p>Where:</p> <ol style="list-style-type: none"> 1. All <u>allotments</u> (excluding any <u>allotment</u> for <u>access</u>, <u>roads</u>, utilities and reserves where no irrigation is required) are designed and located so that provision is made for: <ol style="list-style-type: none"> a. A water supply. b. Connection to a public <u>reticulated</u> water supply network where the <u>allotment</u> is located within a <u>reticulated water supply area</u>. <p>Matters of discretion:</p> <ol style="list-style-type: none"> 1. Adverse <u>effects</u> on existing <u>reticulated</u> water supply networks. 2. The capacity of existing <u>reticulated</u> water supply networks and whether the servicing needs of the proposal require upgrades to existing <u>infrastructure</u>. 3. Feasibility of connection to and logical extension of the existing <u>reticulated</u> water supply networks. 4. Provision of suitable <u>drinking water</u>. 5. The efficient provision of services to the <u>land</u> being subdivided and to nearby <u>land</u> that might be subdivided in the future. <p><i>Note:</i></p> <ol style="list-style-type: none"> 1. <i>Acceptable means of compliance for the provision, design and construction of <u>infrastructure</u> is contained within the Whangārei District Council Engineering Standards.</i> 	<p>Activity Status when compliance not achieved: Discretionary</p>

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Integrated Three Waters Assessments

TWM-R5	Subdivision	
<p>All Zones and Port Nikau Development Area</p>	<p>Activity Status: Restricted Discretionary</p> <p>Where:</p> <ol style="list-style-type: none"> The subdivision results in 8 or more additional allotments (excluding lots for the purposes of reserves, network utilities or transport corridors) from one parent allotment which existed at [Operative Date]. <p>Matters of discretion:</p> <ol style="list-style-type: none"> Recommendations, proposed mitigation measures and conditions of the Integrated Three Waters Assessment and any further information provided through the consent process. <p><i>Note:</i></p> <ol style="list-style-type: none"> Any application shall comply with information requirement TWM-REQ3. 	
TWM-R6	Land Use	
<p>Business Zones and Port Nikau Development Area – Local Commercial Area D</p>	<p>Activity Status: Controlled</p> <p>Where:</p> <ol style="list-style-type: none"> The activity increases the impervious area within a site by 1,000m² – 5,000m² from what existed at [Operative Date]. <p>Matters of control:</p> <ol style="list-style-type: none"> Adverse effects on environmental and cultural values from the management and discharge of stormwater and wastewater. The provision of integrated low impact design or green infrastructure solutions to minimise adverse effects. Opportunities for multipurpose infrastructure (i.e. stormwater reserves that function as walking tracks). The ability of three waters infrastructure to service potential future development within the site. <p><i>Notes:</i></p> <ol style="list-style-type: none"> Any application shall comply with information requirement TWM-REQ3. Impervious areas less than 1,000m² are permitted under TWM-R1. 	<p>Activity Status: Restricted Discretionary</p> <p>Where:</p> <ol style="list-style-type: none"> The activity increases the impervious area within a site by more than 5,000m² from what existed at [Operative Date]. <p>Matters of discretion:</p> <ol style="list-style-type: none"> Recommendations, proposed mitigation measures and conditions of the Integrated Three Waters Assessment and any further information provided through the consent process. <p><i>Note:</i></p> <ol style="list-style-type: none"> Any application shall comply with information requirement TWM-REQ3.

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Rule Requirements

TWM-REQ1	Information Requirement – Connection to Public Reticulated Three Waters Networks
<p>All Zones and Port Nikau Development Area</p>	<ol style="list-style-type: none"> 1. Any consent application where connection to public <u>reticulated</u> three waters network(s) is proposed shall include an assessment detailing (where relevant): <ol style="list-style-type: none"> a. Provision made for connections to public <u>reticulated</u> three waters networks. b. Confirmation from Council that sufficient capacity exists within public <u>reticulated</u> three waters networks to service the proposed development. c. Any upgrades and/or extensions to existing public <u>reticulated</u> three waters <u>infrastructure</u> that are proposed or necessary. d. Consideration of the elevation of each proposed lot to establish a service envelope where that lot is able to be serviced without the need for on-site pumping. Reference shall be made to any part of the lot that is outside the service envelope. e. <u>Land</u> and <u>infrastructure</u> to be vested in the Council.
TWM-REQ2	Information Requirement – On-site Three Waters Management
<p>All Zones and Port Nikau Development Area</p>	<ol style="list-style-type: none"> 1. Any consent application where connection to public <u>reticulated</u> three waters networks is not proposed is required to show the details and layout of the proposed three waters system(s) including (where relevant): <ol style="list-style-type: none"> a. In a <u>Reticulated Stormwater Area</u>, <u>Reticulated wastewater Area</u> or <u>Reticulated Water Supply Area</u>, demonstration as to why connection to the public reticulated three waters network is not proposed or is not practicable. b. In a <u>Reticulated Stormwater Area</u>, <u>Reticulated Wastewater Area</u> or <u>Reticulated Water Supply Area</u>, an assessment of any <u>effects</u> on the practicability of future expansion of the public <u>reticulated</u> network, and any mitigation measures proposed (e.g. easements required to enable future expansion). c. Evidence that the proposed <u>wastewater</u>, <u>stormwater</u> or water supply system can either comply with the permitted activity standards of the Northland Regional Plan or a regional consent has been obtained or is concurrently being applied for. d. A <u>site</u> plan detailing the overall proposed development, showing existing contours in areas proposed for development of three <u>waters infrastructure</u>, and any overland flow-paths, <u>rivers</u>, wetlands, <u>water</u> bores etc. which exist pre-development in the subject property and in adjoining properties. e. Where any <u>buildings</u> or <u>structures</u> are located within overland flow-paths, <u>rivers</u>, wetlands, <u>water</u> bores, etc. demonstration of how the development will maintain their capacity to convey flows. f. Details of an effluent disposal area and reserve area and provision for ongoing maintenance and operation of the proposed <u>wastewater</u> system. g. Proposed <u>stormwater</u> attenuation and/or <u>water</u> quality treatment system(s), including location, preliminary sizing and associated works (e.g. <u>landscaping</u>, <u>road</u> construction).

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- h. Demonstration (by drawings, calculations and reports) that the requirements of rule TWM-R2.1(a) can be achieved.
- i. Details of [water](#) demand (flow and pressure) and suitable [drinking water](#) sources.
- j. Copies of any correspondence or written approvals from private persons or Council departments in relation to the proposed [stormwater](#) system, and confirmation of how any conditions of those approvals will be met.
- k. Where a private communal three [waters](#) system is proposed, details of a formal legal mechanism (e.g. proposed easements) by which each [allotment](#) owner is individually and severally responsible for the maintenance and performance of the system and ongoing ownership of the disposal area.

Notes:

- 1. *Additional information on details to be provided is contained within the Whangārei District Council Engineering Standards.*
- 2. *Evidence of a satisfactory [water](#) supply will be assessed as part of the [building](#) consent application. Applicants are advised to consult with the Fire and Emergency New Zealand, Northland Health and the Northland Regional Council, and to refer to the Drinking Water Standards for New Zealand 2005 (Revised 2008).*
- 3. *Sufficient [water](#) demand includes compliance with the Firefighting Water Supplies Code of Practice SNZ 4509:2008.*

TWM-REQ3	Information Requirement– Integrated Three Waters Assessments
<p>All Zones and Port Nikau Development Area</p>	<ul style="list-style-type: none"> 1. Any application under rules TWM-R5 – R6 shall include an Integrated Three Waters Assessment which details: <ul style="list-style-type: none"> a. How the proposal is consistent with the recommendations, measures and targets of any relevant Council approved Catchment Management Plan. b. An assessment of any potential effects (including cumulative effects) of the development in relation to the site, any adjoining sites, the wider catchment and cultural values. c. Information on how wastewater (including trade waste) will be managed to minimise any impacts on the reticulated network or from on-site discharges. d. The provision of water supply, wastewater disposal and/or stormwater disposal reticulation through the proposed development or subdivision to a standard necessary to provide adequate reticulation to adjacent land zoned for reticulated development. e. Any low impact design, or green infrastructure solutions that are proposed, what benefits these will provide, and how they will be operated and maintained to ensure ongoing water efficiency benefits. f. Consideration of opportunities to integrate three waters infrastructure and informal or passive recreation opportunities. g. Any proposed conditions.