This entire chapter has been notified as part of an Intensification Planning Instrument, using the Intensification Streamlined Planning Process (ISPP) in accordance with Section 80E of the RMA.

## Te Tūāhanga o Ngā Wai e Toru

### **Three Waters**

THW	Three Waters
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#### Introduction

Well-functioning three waters networks (drinking water, wastewater and stormwater) are crucial to the health and wellbeing of water and the wellbeing of Wellingtonians, and to continued residential and business growth and development in the city.

Te Mana o te Wai is a hierarchal framework which means that the health and wellbeing of water bodies and freshwater ecosystems must be prioritized first, followed by the health needs of people and then the ability for people and communities to provide for their social, economic and cultural well-being. The Three Waters chapter in the District Plan has a role to play by promoting positive effects and avoiding, remedying or mitigating adverse effects of urban development on water in relation to three waters infrastructure, by including objectives, policies and rules which help to achieve these outcomes and contribute towards contribute towards gives effect to Te Mana o te Wai.

The projected increase in urban development in the city will put additional pressure on the existing stormwater network due to increased runoff, with this likely to be further exacerbated by future climate change-induced flooding events. To address this, all new subdivision and development will need to demonstrate that the discharge quantity, and flow rate of associated stormwater runoff generated is no greater than the peak runoff and volumes discharged from the site in an undeveloped state its current state. New development will also need to include water sensitive design methods so that development contributes to promoting positive effects and avoids, remedies or mitigates adverse effects on the health and well-being of water.

Degradation of water quality in urban freshwater ecosystems can occur when stormwater runoff from impervious surfaces is channelled directly into streams and rivers. The 'first flush' of stormwater during a rain event can include higher levels of contaminants. New development using copper or zinc building materials (two common contaminants) will need to treat these surfaces or the stormwater from these surfaces to avoid copper or zinc from entering stormwater. New development will also need to include water sensitive design methods so that development contributes to promoting positive effects and avoids, remedies or mitigates adverse effects on the health and well-being of water bodies, freshwater ecosystems and receiving environments. The adoption of stormwater capture and retention and water sensitive design techniques will assist in managing the environmental effects of the 'first flush' of stormwater as well as peak flows and volumes.

The projected increase in urban development will also put additional pressure on the existing wastewater network, which already experiences discharges of untreated sewage to fresh and coastal water bodies.

The ability of three waters networks to sustain projected future population growth faces several challenges. These include:

- · Renewing and replacing aging infrastructure;
- Increasing their resilience to cope with the impacts of natural hazards and climate change;
- Increasing existing capacity and providing sufficient new infrastructural capacity to accommodate anticipated growth; and

• Phasing investment in existing and new infrastructure in a way that balances affordability (both now and in the future) with servicing future growth needs.

In response to these challenges future growth and development in the city will be managed through the District Plan to:

- Align with projected increases in infrastructure capacity;
- Ensure that appropriate levels of service are maintained; and
- Provide sufficient development capacity to meet expected short, medium- and long-term demand.

This is particularly important as significant investment in three waters infrastructure is required to support future growth, with infrastructure capacity currently constrained across the city. Future investment includes essential upgrades to existing networks to address present constraints along with new infrastructure specifically required to accommodate growth. As these works will need to be staged over time to ensure they are affordable and deliverable, some areas of the city will not have capacity to accommodate significant growth in the short to medium term until investment is made in increasing capacity.

#### Other relevant District Plan provisions

It is important to note that in addition to the provisions in this chapter, the following Part 2: District-Wide chapters may also be of relevance, including:

- Strategic Directions This chapter sets out high-level objectives for managing growth, land use and development in Wellington City. It recognises the critical importance of three waters infrastructure to support growth and also provides a high-level overview of the water quality issues for the city.
- Tangata Whenua This chapter acknowledges and enables the relationship of tangata whenua to their land, resources (including water), sites and traditions, and articulates relevant and significant resource management matters.
- Subdivision The Subdivision chapter contains provisions which manage subdivision of land.
- Natural Hazards The Natural Hazards chapter addresses subdivision, use and development in the Natural Hazard Overlays.
- Residential zone chapters the High Density Residential and Medium Density Residential zone chapters include a requirement for minimum areas of permeable surfacing for sites subject to new development.
- **Development Areas** these chapters contain provisions for the development of the city's Greenfield areas, including ensuring that new development is supported by sufficient three waters infrastructure, achieves hydraulic neutrality, and water sensitive design methods are incorporated.
- Earthworks The Earthworks Chapter manages the adverse effects of earthworks on the environment, including visual amenity values and stability of land plus adverse health and safety effects, damage to property and the creation or increase in the risk of natural hazards.

Resource consent may therefore be required under rules in this chapter as well as other chapters. Unless specifically stated in a rule or in this chapter, resource consent is required under each relevant rule. The steps to determine the status of an activity are set out in the General Approach chapter.

Objectives	
THW-O1	Protecting water bodies and freshwater ecosystems
	Subdivision and development contributes to an improvement in the health and wellbeing of water bodies and freshwater ecosystems.
THW-O2	Infrastructure-enabled urban development
	Enable subdivision, use or development in urban areas where:
	<ol> <li>Sufficient existing or planned three waters infrastructure capacity and/or level of service is, or will be, available to service the use or development; or</li> <li>It can be satisfactorily serviced through an alternative means where existing three waters infrastructure capacity and/or level of service is insufficient.</li> </ol>
THW-O3	Hydraulic neutrality

There is <u>no increase in</u> offsite stormwater peak flows and volumes <u>from current levels</u> as a result of subdivision, use and development in urban areas. <u>are reduced as far as is practicable to be at or below peak flows and volumes of each site in an undeveloped state.</u>

#### **Policies**

#### THW-P1 Water sensitive design

Water sensitive design methods are incorporated into new subdivision and development and they are designed, constructed and maintained to:

- 1. Improve the health and well-being of water bodies and freshwater ecosystems:
- 2. Avoid or mitigate off-site effects from surface water runoff;
- 3. Demonstrate best practice approach to the management of stormwater quality and quantity;
- 4. Reduce demand on water supplies.; and
- 5. Reduce Avoid wastewater overflows wherever practicable.

#### THW-P2 Building materials

The use of copper and zinc building materials is avoided or the effects of copper and zinc entering the stormwater system from the use as roofing, guttering and building materials are mitigated through the use of appropriate treatment.

#### THW-P3 Infrastructure-enabled urban development

New subdivision, use or development is enabled in urban areas that have existing or planned three waters infrastructure capacity to meet growth demand in the short to medium term.

#### THW-P4 Three waters infrastructure servicing

Subdivision or development in urban areas is serviced by three waters infrastructure that:

- 1. Meets the Wellington Water Regional Standard for Water Services v3.0 December 2021;
- 2. Has sufficient capacity to accommodate the development; and
- 3. Is in position prior to the commencement of construction.

<u>Limit-Provide for</u> subdivision and development in urban areas where existing three waters capacity and/or level of service is insufficient to service further development unless if:

- It can be demonstrated there is an alternative solution to avoid or mitigate any adverse effects on the three waters infrastructure network and the health and wellbeing of water bodies and freshwater ecosystems; and
- 2. The additional demand generated will not necessitate additional unplanned public investment in, or expansion of, the three waters infrastructure network or compromise its ability to service other activities permitted within the zone.

#### THW-P5 Hydraulic neutrality

Require new subdivision and development to be designed, constructed and maintained to sustainably manage the volume and rate of discharge of stormwater to the receiving environment so that <a href="https://hydraulic.neutrality">hydraulic neutrality is achieved.</a> the rate of offsite stormwater discharge is reduced as far as practicable to be at or below the modelled peak flow and volume for each site in an undeveloped state.

#### THW-P6 Permeable surface

Require development to provide permeable surfaces to assist with reducing the rate and volume of storm water run-off and improve water quality.

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Rules: Building and structures activities			
THW-R1	Connection to existing three waters infrastructure – new residential buildings		
All Zones (except for: General Rural Zone Large Lot Residential Zone)	1. Activity status: Permitted  Where:  a. It involves the construction of no more than three residential units; and b. Compliance with the following is achieved:  i. Wastewater — the level of service in Chapter 5, section 5.2.3 of the Wellington Water Regional Standard for Water Services v3.0 December 2021; ii. Water supply — the level of service in Chapter 6, Tables 6.1 and 6.2 of the Wellington Water Regional Standard for Water Services v3.0 December 2021; and  iii. Stormwater – the performance standard in Chapter 4 of the Wellington Water Regional Standard for Water Services v3.0 December 2021.  Note: Chapter 4 Stormwater, Chapter 5 Wastewater and Chapter 6 Water Supply of the Wellington Water Regional Standard for Water Services v3.0 December 2021 provide additional context for determining compliance with the references specified above.		
All Zones (except for: General Rural Zone Large Lot Residential Zone)	<ol> <li>Activity status: Restricted Discretionary         Where:         <ul> <li>a. Compliance with any of the requirements of THW-R1.1 cannot be is not achieved.</li> <li>Matters of discretion are:</li> </ul> </li> <li>The relevant sections of the Wellington Water Regional Standard for Water Services, v3.0, December 2021.</li> <li>Notification Status: An application for resource consent made in respect of rule THW-R1.2 is precluded from being either publicly or limited notified.</li> </ol>		
THW-R2	Connection to existing three waters infrastructure – four or more residential units and non-residential development buildings		
All Zones (except for: General Rural Zone Large Lot Residential Zone)	1. Activity status: Permitted  Where:  a. It involves the construction of multi-unit housing, retirement villages, comprehensive development or a non-residential building; and or  b. For the construction of four or more residential units or non-residential building in the Oriental Bay Precinct Area; and  c. There is capacity within the relevant part of the three waters network; and d. Compliance with the following is achieved:  i. Wastewater — the level of service in Chapter 5, section 5.2.3 of the Wellington Water Regional Standard for Water Services v3.0 December 2021; and  ii. Water supply — the level of service in Chapter 6, Tables 6.1 and 6.2 of the Wellington Water Regional Standard for Water Services v3.0 December 2021; and  iii. Stormwater — the performance standard in Chapter 4 of the Wellington Water Regional Standard for Water Services v3.0 December 2021.  Note: Chapter 4 Stormwater, Chapter 5 Wastewater and Chapter 6 Water Supply of the Wellington Water Regional Standard for Water Services v3.0 December 2021 provide additional context for determining compliance with the references specified above.		
All Zones (except for:	Activity status: Restricted Discretionary  Where:		

#### General a. Compliance with any of the requirements of THW-R2.1 cannot be is not achieved. Rural Zone Matters of discretion are: 1. The relevant sections of the Wellington Water Regional Standard for Water Services, Large Lot Residential v3.0, December 2021; Zone) 2. Design and effectiveness of an alternative solution; 3. Ownership, maintenance and operation arrangements; and 4. Any site constraints. Notification Status: An application for resource consent made in respect of rule THW-R2.2 is precluded from being either publicly or limited notified. THW-R3 Copper and zinc building materials – all residential and non-residential development All Zones 1. Activity status: Permitted (except for: Where new buildings and structures, or additions and alterations to existing buildings and General structures, use copper or zinc cladding and/or roofing materials (including guttering and Rural Zone spouting): Large Lot a. Building materials are sealed or otherwise finished to prevent water runoff which Residential contains copper or zinc; or Zone) b. Stormwater from copper or zinc surfaces is to be collected and treated in accordance with the Wellington Water Ltd Water Sensitive Design for Stormwater: Treatment Device Guideline (2019). All Zones 2. Activity status: Restricted Discretionary (except for: Where: General Rural Zone a. The requirements of THW-R3.1 are not met. Matters of discretion are: Large Lot Residential 1. Building material treatment; and Zone) 2. Stormwater treatment method. Notification Status: An application for resource consent made in respect of rule THW-R3.2 is precluded from being either publicly or limited notified. THW-R4 Incorporation of water sensitive design methods - four or more residential units and non-residential activity buildings All Zones 1. Activity status: Restricted Discretionary (except for: Where: General Rural Zone a. It involves the construction of multi-unit housing, retirement villages, comprehensive development or a non-residential building. and or b. For the construction of four or more residential units or non-residential building in Large Lot the Oriental Bay Precinct Area Residential Zone) Matters of discretion are: 1. The relevant sections of the Wellington Water Regional Standard for Water Services, v3.0, December 2021 and Wellington Water Limited's Water Sensitive Design for Stormwater: Treatment Device Design Guideline December 2019; 2. Design, location, efficiency and effectiveness of water sensitive design methods; 3. The feasible area of permeable surfacing: 4. 3. Adoption of best practicable option for stormwater retention and treatment; 5. 4. Ownership, maintenance and operation arrangements; and 6. 5. Any site constraints. Notification Status: An application for resource consent made in respect of rule THW-R4.1 is precluded from being either publicly or limited notified.

THW-R5	Hydraulic neutrality – 1-3 residential units	
All Zones (except for:	Activity status: <b>Permitted</b> Where:	
General Rural Zone Large Lot Residential Zone)	<ul> <li>a. It involves the construction of 1-3 residential units; and</li> <li>b. A Wellington Water Limited approved solution for managing volume and rate of stormwater runoff is installed as part of the development.</li> <li>Note: An approved solution is one which meets the requirements of the Wellington Water Managing Stormwater Runoff – the use of approved solutions for hydraulic neutrality. Guidance for calculating peak stormwater flows and volumes is contained in the Wellington Water Quick Reference Guide for Design Storm Hydrology; Standardised Parameters for Hydrological Modelling, April 2019.</li> </ul>	
All Zones (except for:	2. Activity status: Restricted Discretionary	
Where:  General Rural Zone  a. Compliance with any of the requirements of TH Matters of discretion are:  Large Lot Residential Zone)  1. The relevant sections of the Wellington Water Region v3.0, December 2021; 2. Alternative methods for managing the volume and rareceiving environment; and 3. Any site constraints. Notification Status: An application for resource consent materials.	a. Compliance with any of the requirements of THW-R5.1 cannot be is not achieved	
	Alternative methods for managing the volume and rate of discharge of stormwater to the receiving environment; and	
THW-R6	Hydraulic neutrality – four or more residential units and non-residential buildings	
All Zones (except for:	Activity status: <b>Permitted</b> Where:	
General Rural Zone  Large Lot Residential Zone  City Centre Zone)	<ul> <li>a. It involves the construction of multi-unit housing, retirement villages, comprehensive development or a non-residential building; and or</li> <li>b. For the construction of four or more residential units or non-residential building in the Oriental Bay Precinct Area; and</li> <li>c. Stormwater management measures are incorporated which achieve post development peak stormwater flows and volumes which are the same or less than the modelled peak flows and volumes for the site in its current an undeveloped state.</li> <li>Note: Guidance for calculating peak stormwater flows and volumes is contained in the Wellington Water Quick Reference Guide for Design Storm Hydrology; Standardised Parameters for Hydrological Modelling, April 2019. Guidance on which storm events are to be</li> </ul>	
	managed is contained in Chapter 4 of the Wellington Water Regional Standard for Water Services v3.0 December 2021.	
All Zones (except for:	Activity status: Restricted Discretionary     Where:	
General Rural Zone	a. Compliance with any of the requirements of THW-R6.1 cannot be is not achieved.  Matters of discretion are:	
Large Lot Residential Zone	The extent to which the development incorporates stormwater management techniques or controls to mitigate any increase in <a href="its current state">its current state</a> undeveloped peak stormwater runoff;	
City Centre Zone)	The relevant sections of the Wellington Water Regional Standard for Water Services, v3.0, December 2021;	

	<ol> <li>Design, location, efficiency and effectiveness of measures to manage peak stormwater flows and volumes;</li> <li>Ownership, maintenance and operation arrangements;</li> <li>Off-site flooding effects; and</li> <li>Any site constraints.</li> <li>Notification Status: An application for resource consent made in respect of rule THW-R6.2 is precluded from being either publicly or limited notified.</li> </ol>	
THW-R7	Permeable Surface 1-3 residential units	
All Zones (except for: General Rural Zone Large Lot Residential Zone)	Activity status: Permitted  Where:  a. A minimum of 30% of the net site area is permeable surface.	
All Zones (except for:  General Rural Zone  Large Lot Residential Zone)	2. Activity status: Restricted Discretionary  Where:  a. Compliance with the requirements of THW-R7.1.a is not achieved.  Matters of discretion are:  1. The degree of non-compliance with rule THW-R7.1  2. Any other measures used to mitigate stormwater runoff.	
THW-R8	Large Lot Residential Zone	
Large Lot Residential Zone	Activity status: Permitted  Where:  a. A minimum of 60% of the net site area is permeable surface.	
Large Lot Residential Zone	2. Activity status: Restricted Discretionary  Where:  a. Compliance with the requirements of THWR8.1.a is not achieved.  Matters of discretion are:  1. The degree of non-compliance with rule THW-R8.1  2. Any other measures used to mitigate stormwater runoff;	

# Ngā Tautuhinga

# **Definitions**

Term	Definition
CONSTRUCTED WETLAND	means an artificial wetland that can be designed for flood control in addition to be used for natural processes involving wetland vegetation, soils, and their associated microbial assemblages to treat domestic wastewater, industrial wastewater, greywater or stormwater runoff, to improve water quality.
FIRST FLUSH	means the initial surface runoff from a storm event. Initial runoff from highly impervious areas typically has high concentrations of pollutants compared to the remainder of the storm.
HYDRAULIC NEUTRALITY	means managing stormwater runoff from subdivision, use and development through either on-site disposal or storage, so that peak stormwater flows and volumes are released from the site at a rate that does not exceed the modelled peak flows and volumes from the site in its current an undeveloped state, prior to any proposed subdivision, use or development.

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