Development information form – Wastewater network planning summary assessment

Information to be completed by Developer/ Engineering Consultant

Development consideration	Description	Comments
Query status	Resource Consent Application	*Pre-purchase enquiry / Enquiry to support Plan Change application / Pre-application enquiry / Resource Consent application / Engineering Plan approval.*
Query submission date	16/09/2025	
Address	147-153 Edgewater Drive, Pakuranga, Auckland 2010	*Include suburb*
Attach layout plan	Please refer to DCC Civil Engineering Plan Set	*Plan must clearly show proposed development site and include:* • *Aerial photograph with elevation contours (Note 1)* • *Road names* • *Boundary of development* • *Preferred point of connection to existing water supply and wastewater asset.*
Current land use	Residential (single Family dwellings)	*Residential (single family dwellings) / Residential (multi-unit dwellings) / Residential (multi-storey apartment blocks) / Commercial / Industrial / Other (Please specify).*
Proposed land use	Residential (multi-storey elderly retirement village apartment complex)	
Unitary plan zoning	*Mixed Housing Suburban Zone*	*Refer Auckland Unitary Plan*
Total development site area (m^2/ hectares) (i.e. Land area for residential developments)	2990 m^2	
Total development floor area (m^2) (i.e. Include all levels of multi-storey apartments and commercial developments)	Block A – 4715 m^2 Basement: 659 m^2 Ground Floor: 677 m^2 Level 1: 676 m^2 Level 2: 676 m^2 Level 3: 676 m^2 Level 4: 676 m^2 Level 5: 674 m^2 Block B – 3625 m^2 Ground Floor: 681 m^2 Level 1: 626 m^2 Level 2: 626 m^2 Level 3: 626 m^2 Level 4: 598 m^2 Level 5: 469 m^2	

Number of proposed residential dwellings (Typically consent or include ultimate if development is to be staged and consented at a future date)	*Two 6 storey elderly retirement village apartment complex* *Block A – 6 storey residential apartment with 24 units.* *Block B – 6 Storey residential apartment with 27 units.*	*Include type and number of bedrooms for residential dwellings:* *Type:* — *Quantity:* *1 bed* — 10 *2 bed* — 12 *2+ bed* — 23 *3 bed* — 6 *4bed* — 0 *5+bed* — 0
Note: (1) Watercare's GIS Viewer for Asset Data Query and Land Development/ Subdivision can be used to display aerial photography and land contour information.		

(This section should not be duplicated if both water and wastewater is applied. Refer to Chapter 6 of the CoP.)

Refer to the Auckland Code of Practice for Land Development and Subdivision chapter 5: Wastewater, when completing this form:

Wastewater development assessment			
Design consideration		**Description**	**Comments**
Existing site design flows - pre-development scenario (If site is currently undeveloped, write 0.00 L/s in the design flows for this section)	**Residential Design Flows (L/s)**	Self-Cleansing Design Flow = 2.95 L/s Peak Design Flow = 6.60 L/s	*Show calculations based on Watercare CoP.* *Ultimate development:* *Ultimate development is where further development may / can / will occur upstream / or within the development site currently under consideration.* *If relevant Ultimate Peak Design Flow is to be calculated and will include number of potential units/ lot.* *For further guidance on whether this application needs to consider Ultimate development, refer CoP Sections:* • *5.3.2 Structure Plan* • *5.3.3 Future development* • *5.3.4 System Design*
	Non-Residential Design Flows (L/s)	Self-Cleansing Design Flow = N/A Peak Design Flow = N/A	
Proposed development site design flows - post-development scenario	**Residential Design Flows (L/s)**	Self-Cleansing Design Flow = 3.92 L/s Peak Design Flow = 8.75 L/s *And if relevant* Ultimate Peak Design Flow =	
	Non-Residential Design Flows (L/s)	Self-Cleansing Design Flow = Peak Design Flow =	

Wastewater development assessment			
Design consideration		**Description**	**Comments**
	Non-Residential Discharge profile / trend (i.e. Operations)	*24 hr operation Residential*	*E.g. 24 hr operation / 10 hr (9am – 5pm) / Other (Please specify).*
Change in site flows	**Net difference between post-development and pre-development site design flows (L/s)**	Net Change in Self-Cleansing Design Flow = 0.97 L/s Net Change in Peak Design Flow = 2.15 L/s	
New assets required for development		2 new 1050mm wastewater manholes. Two new 150mm u-PVC SN16 pipes.	*If applicable please provide supporting calculations and indicative design parameters (i.e. pump station and rising main or storage.*
Existing network infrastructure capacity assessment *A sewer capacity check is to be carried out if the 'Net Change in Peak Design Flow' calculated above shows a net increase of greater than 1.0 L/sec.* <u>Notes:</u> 1. *At Watercare's discretion, a Sewer Capacity Check may be required even if the net increase in site flow is < 1.0 L/sec.* 2. *The Level 1 Sewer Capacity Check as described in the CoP is to be undertaken in the first instance, unless specifically advised by Watercare. The Level 1 Capacity Check is intended to help identify applications that may require more accurate/detailed design calculations and/or identify whether data*		Type of Sewer Capacity Check undertaken: = Level 3 Did the *Existing WW Capacity Assessment Design Flow* exceed the pipe-full capacity for *<u>any</u>* pipes within the *Existing Network Assessment Extents?* On pipes where asset data (i.e. gradient and diameter) is known: *= No* On pipes where asset data was assumed: = No	*See Watercare's GIS Viewer for Asset Data Query and Land Development/Subdivision to assist with obtaining data required for the capacity assessment.* *In addition to the assessment findings summary requested here, other required existing network capacity assessment key steps/ deliverables include<u>:</u>* 1. *<u>Network Assessment Extents</u> to be identified as described in the CoP. A map is to be provided showing the network assessment extent.* 2. *<u>Catchment Boundaries</u> for the assessment is to be determined. Catchment Boundary data (where available) can be viewed in the Watercare GIS Viewer. Where not*

Wastewater development assessment		
Design consideration	**Description**	**Comments**
held on the existing network is sufficient to enable an accurate assessment of capacity.		*available, the developer and their engineers will be required to produce catchment boundaries. A map is to be submitted depicting the catchment extents.* 3. *<u>Existing WW Capacity Assessment Design Flow</u> is to be calculated as described in the CoP. The flows are to be tabulated for each pipe-reach within the Network Assessment Extent. A pipe-reach will typically be regarded as the section of network between points where significant tributaries enter the network.* 4. *<u>Pipe Capacity Vs. Design Flow Check is to be carried out;</u> a table detailing the calculated full pipe capacity compared to the 'Existing WW Capacity Assessment Design Flow' is to be provided. Pipes with missing asset data are to have the missing data assumed as described in the CoP.* 5. *<u>Pipe Full Capacity Exceedance</u> - Pipes where the 'Existing WW Capacity Assessment Design Flow' exceeds the pipe full capacity are to be identified both in the tabular data, and on a map of the Network Assessment Extent. Pipes with assumed data are to be identified separately to those with known data.*
Further wastewater comments:		

Wastewater Calculations

Site

DODD CIVIL CONSULTANTS

Job Name:	**147-153 Edgewater Drive Pakuranga**	Job No.:	**496/03**
Calculations By:	**JF**	Date:	**2/05/2025**
Checked By:	**NP**	Page No.:	**1**

Discharge Parameters Per Watercare Services' standards

Average Dry Weather Flow

Residential = 225 litres/person/day

Peak Dry Weather Diurnal Flow

Residential = 675 litres/person/day PF = 3

Peak Wet Weather Flow

Residential = 1500 litres/person/day PF = 6.7

Occupancy Rates

Typical Residential Dwelling =	3	persons
Studio =	1	persons
1 Bedroom Apartment =	2	persons
2 Bedroom Apartment =	2	persons
2+ Bedroom Apartment =	3	persons
3 Bedroom Apartment =	4	persons

Existing Site

Type	No Units	No Persons	ADWF (l/s)	PDWDF (l/s)	PWWF (l/s)
Res Dwelling	4	12	0.03	0.09	0.21
Existing Totals	4	12	0.03	0.09	0.21

Proposed Site

Apartments	No Units	No Persons	ADWF (l/s)	PDWDF (l/s)	PWWF (l/s)
1 bedroom	10	20	0.05	0.16	0.35
2 bedroom	12	24	0.06	0.19	0.42
2+ bedroom	23	69	0.18	0.54	1.20
3 bedroom	6	24	0.06	0.19	0.42
Employees	10	10	0.03	0.08	0.17
Proposed Total	61	137	0.38	1.15	2.56

Discharge Increase

	No Units	No Persons	ADWF (l/s)	PDWDF (l/s)	PWWF (l/s)
Increase	57	125	0.35	1.05	2.36

Wastewater Calculations

Network Capacity Check Existing

DODD CIVIL CONSULTANTS

Job Name:	**147-153 Edgewater Drive Pakuranga**	Job No.:	**496/03**
Calculations By:	**JF**	Date:	**2/05/2025**
Checked By:		Page No.:	**1**

Discharge Parameters

Per Watercare Services' standards
(refer also to the attached catchment plan)

Peak Wet Weather Flows

Residential	=	1500	litres/person/day PWWF	
	=	0.017	litres/person/second PWWF	
Hospital	=	0.270	litres/second ADWF	PF = 6.7
	=	1.809	litres/second PWWF	
Proposed development	=	2.360	litres/second PWWF	

Occupancy Rates

Average residential unit = 3 persons

Downstream Wastewater Capacity Check

Refer to attached Wastewater Catchment Plan, Rev 1
Min gradient = 0.55 % assumed for all pipes
Pipe ks factor = 1.5 mm (Coleboooke- White)

Line	Ctmnt	Units	PWWF *l/s*	Cum. PWWF *l/s*	Pipe dia *m*	Gradient *%*	Capacity *l/s*	Velocity *m/s*
A	A	39	2.03					
	Hospital		1.81	3.84	0.150	0.55	11.54	0.65
B	B	35	1.82	1.82	0.150	0.55	11.54	0.65
C	A+B			5.66	0.150	0.55	11.54	0.65
D	D	18	0.94	0.94	0.150	0.55	11.54	0.65
E	C+D			6.60	0.150	0.55	11.54	0.65

Adequate Capacity Confirmed

Wastewater Calculations

Network Capacity Check Proposed

DODD CIVIL CONSULTANTS

Job Name:	**147-153 Edgewater Drive Pakuranga**	Job No.:	**496/03**
Calculations By:	**JF**	Date:	**2/05/2025**
Checked By:	**NP**	Page No.:	**2**

Discharge Parameters

Per Watercare Services' standards
(refer also to the attached catchment plan)

Peak Wet Weather Flows

Residential = 1500 litres/person/day PWWF
= 0.017 litres/person/second PWWF

Hospital = 0.270 litres/second ADWF PF = 6.7
= 1.809 litres/second PWWF

Proposed development = 2.360 litres/second PWWF

Occupancy Rates

Average residential unit = 3 persons

Downstream Wastewater Capacity Check

Refer to attached Wastewater Catchment Plan, Rev 1
Min gradient = 0.55 % assumed
Pipe ks factor = 1.5 mm (Coleboooke- White)

Line	Ctmnt	Units	PWWF *l/s*	Cum. PWWF *l/s*	Pipe dia *m*	Gradient *%*	Capacity *l/s*	Velocity *m/s*
A	A	35	1.82					
	Prop site		2.36					
	Hospital		1.81	5.99	0.150	0.55	11.54	0.65
B	B	35	1.82	1.82	0.150	0.55	11.54	0.65
C	A+B			7.81	0.150	2.10	22.55	1.28
D	D	18	0.94	0.94	0.150	0.55	11.54	0.65
E	C+D			8.75	0.150	0.55	11.54	0.65

Adequate Capacity Confirmed

Watercare
An Auckland Council Organisation

Development information form – Water network planning summary assessment

Development consideration	Description	Comments
Query status	Resource Consent Application	*Pre-purchase enquiry / Enquiry to support Plan Change application / Pre-application enquiry / Resource Consent application / Engineering Plan approval.*
Query submission date	16/09/2025	
Address	147-153 Edgewater Drive, Pakuranga, Auckland 2010	*Include suburb*
Attach layout plan	Please refer to DCC Civil Engineering Plan Set	*Plan must clearly show proposed development site and include:* • *Aerial photograph with elevation contours (Note 1)* • *Road names* • *Boundary of development* • *Preferred point of connection to existing water supply and wastewater asset.*
Current land use	Residential (single Family dwellings)	*Residential (single family dwellings) / Residential (multi-unit dwellings) / Residential (multi-storey apartment blocks) / Commercial / Industrial / Other (Please specify).*
Proposed land use	Residential (multi-storey elderly retirement village apartment complex)	
Unitary plan zoning	*Mixed Housing Suburban Zone*	*Refer Auckland Unitary Plan*
Total development site area (m^2/ hectares) (i.e. Land area for residential developments)	2990 m^2	
Total development floor area (m^2)	Block A – 4715 m^2 Basement: 659 m^2	

(i.e. Include all levels of multi-storey apartments and commercial developments)	Ground Floor: 677 m^2 Level 1: 676 m^2 Level 2: 676 m^2 Level 3: 676 m^2 Level 4: 676 m^2 Level 5: 674 m^2 Block B – 3625 m^2 Ground Floor: 681 m^2 Level 1: 626 m^2 Level 2: 626 m^2 Level 3: 626 m^2 Level 4: 598 m^2 Level 5: 469 m^2	
Number of proposed residential dwellings (Typically consent or include ultimate if development is to be staged and consented at a future date)	*Two 6 storey elderly retirement village apartment complex* *Block A – 6 storey residential apartment with 24 units.* *Block B – 6 Storey residential apartment with 27 units.*	*Include type and number of bedrooms for residential dwellings:* *Type:* – *Quantity:* *1 bed* – 10 *2 bed* – 12 *2+ bed* – 23 *3 bed* – 6 *4bed* – 0 *5+bed* – 0
Note: (1) Watercare's GIS Viewer for Asset Data Query and Land Development/ Subdivision can be used to display aerial photography and land contour information.		

Information to be completed by Developer/ Engineering Consultant
(This section should not be duplicated if both water and wastewater is applied. Refer to Chapter 5 of the CoP.)

Refer to the Auckland Code of Practice for Land Development and Subdivision chapter 6: Water, when completing this form:

Water supply development assessment		
Design consideration	**Description**	**Comments**
Average and Peak Residential Demand (L/s)	Average Demand Design Flow = 0.24 L/s Peak Demand Design Flow = 0.91 L/s	*Show calculations based on Watercare CoP.*
Average and Peak Non-Residential Demand **(L/s)**	Average Demand Design Flow = Peak Demand Design Flow =	*Show calculations based on Watercare CoP.*
Non-Residential Demand typical daily consumption profile / trend	N/A	*E.g. 24 hr operation / 10 hr (9am – 5pm) / Filling on-site storage at certain frequency.*
Fire- fighting classification required by the proposed site	FW3	*Refer to New Zealand Standard SNZ PAS 4509:2008.*
Hydrant flow test results	☒ Yes ☐ No	*Attach hydrant flow test layout plan and results showing test date & time; location of hydrants tested and pressure logged; static pressure; flow; residual pressure.*
Sprinkler system in building?	☒ Yes ☐ No	*Sprinkler design should consider Watercare Level of Service: minimum pressure at 200kPa and minimum flow at 25 l/min. The building owner shall conduct periodic review of sprinkler design.*
Further water supply comments		

WATER DEMAND CALCS

Watercare Code of Practice

Job Name:	**Ambridge Rose Apartment Complex**	Job No.:	**496/03**
Calculations By:	**JF**	Date:	**16/09/2025**
Checked By:		Page No.:	**1 of 1**
File:	**6-01 wat demand calcs - pre to post1.xlsx**	Rev.:	**1**

POST-DEVELOPMENT

Peaking Factor

Population	=	10000	*no.*
Peak day demand	=	1.50	*PF*
Peak hourly demand	=	2.5	PF

Hydraulic roughness values

Table 6.1	=	0.008	

Fire-fighting classification	=	FW3	

Design residential occupancy allowances

based on 220 L/p/day

Number of dwellings 1 bedroom	=	0	*no.*
Number of dwellings 2-4 bedroom	=	0	*no.*
Number of dwellings 5+ bedroom	=	0	*no.*
Number of dwellings unknown bedroom	=	0	*no.*

residential buildings 4 storeys+ - based on 200 L/p/day

Number of dwellings 1 bedroom	=	10	*no.*
Number of dwellings 2-4 bedroom	=	41	*no.*
Number of dwellings 5+ bedroom	=	0	*no.*
Number of dwellings unknown bedroom	=	0	*no.*

Average residential demand	=	0.24	*L/s*
Peak residential day demand	=	0.35	*L/s*
Peak residential hourly demand	=	0.89	*L/s*

Wet and dry commercial assumed design allowances

Dry retail (where kitchen/toilets not normally available to public)	=	0	*total m²*
Office buildings and dry retail - toilet facilities provided to customers	=	0	*total m²*
Wet retail - food and or beverage retail/preparation	=	0	*total m²*

Average commercial demand	=	0.00	*L/s*
Peak commercial day demand	=	0.00	*L/s*
Peak commercial hourly demand	=	0.00	*L/s*

Wet and dry industrial assumed design allowances

Light water users, or up to 2 storeys	=	0	*m²*
Medium water users, or 2 to 5 storeys	=	0	*m²*
Heavy water users, or 5 to 10 storeys	=	0	*m²*
Very heavy water users	=	0	*m²*

Average dry industry demand	=	0.00	*L/s*
Peak dry industry day demand	=	0.00	*L/s*
Peak dry industry hourly demand	=	0.00	*L/s*

Other facility design water flows and peaking factors

Day facility	Hospitals	=	0	*beds*
Night and day facility		=	0	*beds*
Staff		=	10	*employees*
Children	Child day-care	=	0	*children*
Staff		=	0	*employees*
Primary school	School (day students)	=	0	*students*
Secondary school		=	0	*students*
Staff		=	0	*employees*
Secondary school (boarding)		=	0	*students*
Student accommodation		=	0	*people*
Guests	Hotels & motels	=	0	*rooms*
Staff		=	0	*employees*
Community halls, churches, facilities with intermittent use		=	0	*seats*

Average other facility demand	=	0.01	*L/s*
Peak other facility day demand	=	0.01	*L/s*
Peak other facility hourly demand	=	0.02	*L/s*

Development Total Average Demand	=	0.24	*L/s*
Development Total Peak Day Demand	=	0.36	*L/s*
Development Total Peak Hourly Demand	=	0.91	*L/s*