Resource Consent Application Form 6A

Wastewater Discharges to Land Less than 14,000 Litres Per Day

Otago Regional Council

This application is made under Section 88 of the Resource Management Act 1991	**Phone: 0800 474 082** **Website: www.orc.govt.nz**

IMPORTANT NOTES TO THE APPLICANT

This form is to be used for domestic sewage/wastewater discharges to land with a maximum daily volume less than 14,000 litres including sewage/wastewater discharges from small scale commercial-type operations (e.g. motels, camp grounds, tearooms/restaurants, public toilets etc). Ensure that you complete this application Form 6A **and** Resource Consent Application Form 1 **in full**

Larger wastewater discharges for communities, subdivisions and developments, ski fields, wineries etc should complete Resource Consent Application Form 1 **in full** and prepare a full and separate application and Assessment of Effects on the Environment (AEE). The application should include descriptions of wastewater quantities and quality, the treatment and land application system, site description, and an assessment of potential adverse effects on groundwater, surface water, soil health, site stability, flooding, public health and air quality, appropriate to the scale and nature of the activity. This form may be used as guidance on the general topics to be considered.

The Council strongly recommends that a **Consulting Engineer** or appropriate **technical specialist** experienced in wastewater treatment and disposal is engaged to review any existing treatment and disposal system(s) and/or design any new systems, and assists with this application for a discharge permit.

In terms of hydraulic loading, the application will be assessed in accordance with the Australian/New Zealand Standard 1547:2000 "*On-site Domestic Wastewater Management*" dated February 2012. The application will also be assessed in terms of potential adverse effects on **groundwater, surface water, soil health, site stability, flooding effects and public health**. Consideration should be given to these potential effects in the design of the wastewater treatment and disposal system.

For the consent application to be processed efficiently in the minimum time and at minimum cost, it is critical that as much relevant information as possible is included with the application. If all the necessary information is not entered on the form or supplied with the application then Otago Regional Council may **return your application**, request further information, or publicly notify your application. This will lead to delays in the processing of your application and may increase processing costs. This application form, when properly completed, should provide an adequate "Assessment of Effects on the Environment" (AEE) where the adverse effects of a proposal are not significant. However, this can only be determined on application.

If questions are marked with an asterisk (*), please read the notes that appear on the back of this application form. These notes provide guidance on answering certain questions and indicate where additional information may be required.

PART A: GENERAL

A.1 Is this application *(tick which applies)*:

☐ for a NEW wastewater discharge ; or *Go to question A.3*

☐ to REPLACE a current Discharge Permit?

Discharge Permit number: _____

Expiry date: _____

A.2 If it is an existing discharge,

(a) Was the treatment and disposal system installed before 28 February 1998?

☐ Yes *Go to question A.3*

☐ No

(b) Has the treatment OR disposal system been modified in any way since 28 February 1998 or is the treatment OR disposal system to be modified as part of this application?

☐ Yes *Go to question A.3*

☐ No

A.3* Tick the option(s) that apply to the proposed discharge:

☐ Daily discharge volume exceeds 2,000 litres per day (calculated as a weekly average)

☐ Discharge will occur in the A zone of any groundwater protection zone, or in the Lake Hayes catchment

☐ Discharge will occur within 50 metres of a surface water body

☐ Discharge will occur within 50 metres of an existing bore/well used to supply water for domestic needs or drinking water for livestock

☐ Discharge will occur within 50 metres of the coastal mean high water springs

☐ There will be a direct discharge into a drain, water race or groundwater

☐ Discharge may run off to another person's property

PART B: LOCATION OF DISCHARGE

B.1* Property on which wastewater to be discharged

(a) Name of owner(s)_____

(b) Address/Location

_____

_____

_____

(c) Legal description(s) of disposal site(s) (*as shown on Certificate of Title*)

Lot_____DP_____Sec_____
Survey District (SD)_____
Other (specify)_____

(d) Please attach a current Certificate of Title to the application

☐ Yes, Certificate of Title attached

☐ Council to obtain a Certificate of Title on my behalf (this will incur a small fee)

(e) Total property area (hectares)_____

B.2 Map reference of the mid-point of the discharge area

NZTM 2000 E_____N_____

If the discharge area is greater than 50 m^2 please provide map references for the boundaries of the discharge area

NE corner: NZTM 2000 E_____N_____
SE corner: NZTM 2000 E_____N_____
SW corner NZTM 2000 E_____N_____
NW corner NZTM 2000 E_____N_____

B.3 Fill out the table below showing separation distances for the treatment and disposal systems or mark these distances on the plan required in B.4

Separation distance from nearest	Treatment system separation distance (m)	Disposal field separation distance (m)
Property boundaries		
Habitable buildings		
Embankments/retaining walls		
Groundwater Wells/bores		
Surface water: Roadside drains		
Rivers and streams		
Lakes and ponds		
Coastal marine area		
Wetlands		
Other (specify)		

B.4 Provide a plan showing the location of discharge site – please clearly mark on the following:

- ☐ The location of the dwelling/building(s) to which the discharge relates
- ☐ The location of the treatment system and the complete extent of the discharge (disposal) area
- ☐ The location of any reserve disposal area(s)
- ☐ The location of stormwater cut-off drains
- ☐ Any waterbodies (including streams, drains and water races) within 500 metres of the edge of the discharge area
- ☐ All dwellings or buildings within 100 metres of the edge of the discharge area
- ☐ Other wastewater treatment and disposal systems within a radius of 100 metres from the edge of the discharge area
- ☐ All bores within 100 metres of the edge of the discharge area
- ☐ The location of any cultural or heritage features including historic, waahi tapu and archaeological sites
- ☐ The location of soil assessment bore holes or test pits that relate to this application
- ☐ An arrow indicating the direction of groundwater flow and a note stating how this was determined
- ☐ Road names
- ☐ A north symbol (*oriented to the top of the page if possible*) and scale bar.

PART C: GENERAL SITE ASSESSMENT

C.1 Topography

(a) Is the proposed disposal area situated on a slope?

☐ Yes, state the approximate slope angle (e.g. 10°) _____

☐ No

(b) Which aspect does the proposed disposal area face?

☐ North	☐ Northeast.....	☐ East
☐ Southeast	☐ South	☐ Southwest
☐ West	☐ Northwest	

(c) Is the treatment and disposal system located in a flood plain?

☐ Yes, please show relevant flood levels on a site plan (i.e. one in 5 years and/or 20 years and/or 100 years and attached a flood plain assessment report)

☐ No

C.2* Site Stability

(a) Has expert evaluation of the site stability been undertaken?

☐ Yes, please attach a copy of the geotechnical report

☐ No, please explain why not

_____

_____

_____

_____

C.3* Subsoil Investigation

Note: All bore holes and test pits should be drilled in the location of the proposed disposal field and/or reserve area and their location marked on the appended site plan – a minimum of three bore holes or test pits are required for soil category assessment.

(a) Please identify the soil profile determination method

☐ Test Pit (Maximum depth _____m) No. of test pits_____

☐ Bore hole (Maximum depth _____m) No. of bore holes _____

☐ Other (specify)

_____

_____

(b) Soil report attached?

☐ Yes

☐ No

C.4* Percolation or soil infiltration testing

(a) Has percolation or soil infiltration testing been carried out?

☐ Yes, please specify method _____

K value: _____

☐ No

(b) Test report attached?

☐ Yes

☐ No

C.5* Soil category

(a) Based on the results of C.3 and C.4 above, please indicate the disposal field soil category (based on the dominant soil type in the first 1 m depth in accordance with Table 5.1 page 39 of Australian/New Zealand Standard 1547:2012 "*On-site Domestic Wastewater Management*")

Soil Category	Description	Tick one
1	Gravels and sands;	
2	Sandy loams;	
3	Loams;	
4	Clay loams;	
5	Light clays;	
6	Medium to heavy clays;	

Comments:

_____

_____

_____

_____

(b) Topsoil depth: _____metres

PART D: DISCHARGE DETAILS

D.1 Water supply source for the property/properties

☐ Public supply

☐ Private supply from bore/well

☐ Rainwater (roof collection)

☐ Other (*please specify*) _____

D.2 Source of the wastewater

☐ Single residential dwelling

☐ Multiple dwellings (*please specify how many*) _____

☐ Motel/Hotel

☐ Camping ground

☐ Tea rooms/restaurant

☐ School

☐ Public toilets

☐ Other (*please specify*)_____

D.3 Wastewater volumes

(a) Please complete Table 1 below

Table 1: Typical Wastewater Flow Allowance in Litres/Person/Day *(as outlined in Table H3 and H4 pages 123-124 of Australian/New Zealand Standard 1547:2012 "On-site Domestic Wastewater Management")*

Source	Number	Maximum Occupancy	On-site Roof Water Tank Supply	Reticulated Community or Bore Water Supply	Total Volume
Households with standard facilities			180	200	
Households with standard water reduction facilites			145	165	
Households with full water reduction facilites			120	145	
Households (black water only)			60	60	
Households (grey water only)			90	120	
Motels/Hotels					
Guests/resident staff			220	220	
Non-resident staff			30	30	
Reception rooms			20-30	20-30	
Bar trade (per customer)			20	20	
Restaurants (per diner)			25-30	25-30	
Community Halls					
Banqueting			20	30	
Meetings			10	15	
Tea Rooms/Lunch bars (per customer)					
Without restroom facilities			10	15	
With restroom facilities			15	25	
Schools (pupils plus staff)			15 -30	15-30	
Rural factories, shopping centres			30	50	
Camping grounds					
Fully serviced			100	130	
Recreation areas			50	65	
Total					

(b) Maximum volume discharged in a day

_____litres per second

_____litres per day

(c) Average volume discharged in a day _____litres per day

(d) Is the discharge

☐ Continuous

☐ Intermittent

(e) Are seasonal fluctuations in wastewater flows likely?

☐ Yes, please describe below

☐ No

_____

_____

_____

D.4* Do you have or propose to install:

(a) Water conservation devices?

☐ Yes

☐ No

(b) Water recycling?

☐ Yes

☐ No

If you have answered yes, please provide additional information including the estimated reduction in water useage and details on the water saving fixtures in place or proposed to be installed

_____

_____

_____

If you have answered no, please explain why not

_____

_____

_____

PART E: TREATMENT AND DISPOSAL

If you have a manual or specifications document for the treatment and disposal system proposed to be installed please attach this to the application.

E.1* Primary treatment

(a) Please indicate the number and capacity (litres) of all septic tanks/pre-treatment tanks, including type (e.g. single/dual/grease traps), to be installed or currently existing.

No. of tanks/grease traps	Type of tank/trap (e.g. concrete, plastic, fibreglass)	Capacity (litres)

Total capacity _____litres ..

(b) Are biosolid filters proposed to be installed on the septic tank outlet(s)

☐ Yes, please describe

_____

_____

☐ No

E.2* Secondary and Tertiary Treatment

(a) Please indicate the types of additional treatment to be installed

Treatment type	Make and model (if known)	Tick if to be installed
Home/commercial aeration plant		
Home/commercial packed bed reactor plant		
Activated sludge		
Oxidation/settling ponds		
Intermediate sand filter		
Re-circulating sand filter		
Membrane bioreactor (MBR)		
Clarification tank/ponds		
Ultraviolet (UV) disinfection		
Chlorination		
Constructed wetlands		
Other (specify)		

E.3 Other components (tick the appropriate boxes where applicable)

Components	Description of component	Tick if to be installed
24 hour emergency peak flow storage		
Alarms –visual and/or audible alarm		
Remote Telemetry Unit (RTU)		
Datalogger		
Wastewater meter		
Disc filter		
Other (specify)		

E.4* Discharge method

(a) Please identify the discharge methods proposed for the site (as outlined in Section 5.5 Land Application Systems page 48 of Australian/New Zealand Standard 1547:2012 "*On-site Domestic Wastewater Management*")

Discharge method	Details	Tick if to be installed
Surface dripper irrigation		
Sub-surface dripper irrigation		
Conventional soakage trench		
Spray irrigation		
Mound		
Evapo-transpiration bed		
Other (specify)		

(b) Please indicate the proposed loading method:

Loading Method	Brand/Model	Tick if to be used
Gravity		
Dosing siphon		
Pump/timer does loading		
Loading demand dose		

(c) What is the total basal area of the disposal field? _____square metres

(d) Will the treated wastewater be discharged over the entire disposal field each day?

☐ Yes

☐ No, please explain why not

_____

_____

_____
_____
_____

(e) Identify the maximum and average daily loading rates stating the reasons for selecting the maximum loading rate

Maximum loading rate _____mm/day
(Divide the maximum daily discharge volume (litres per day) from part D.3 (b) by the total area of land over which the effluent is to be discharged each day from E.4 (c))

Average loading rate _____mm/day
(Divide the average daily discharge volume (litres per day) from part D.3 (c) by the total area of land over which the effluent is to be discharged each day from E.4 (c))

Explanation/comments

_____
_____
_____

E.5 Please provide a plan or design drawing showing the design and dimensions of the disposal field.

☐ Yes, drawing attached
☐ No, please explain why not

_____
_____
_____
_____

E.6 What is the available reserve disposal area?

_____square metres

E.7 If disposal fields are to consist of multiple zones, discuss how even loading is to be achieved

_____
_____
_____
_____

E.8 Is there the potential for any short circuit pathways

☐ Yes, please discuss how this will be addressed
☐ No

_____
_____
_____
_____

E.9 Please describe the current and future land use, including vegetation, of the land disposal area.

_____
_____
_____
_____

E.10 Are sub-surface cut-off drains/bunds proposed?

☐ Yes, discuss in detail below

☐ No, please explain why not

_____
_____
_____
_____
_____
_____

E.11 Please provide a diagram of the wastewater flow showing each stage from treatment to the disposal field, including any recycled flows. An example of a flow diagram is shown at the end of this application form.

☐ Flow diagram attached

PART F: ASSESSMENT OF ENVIRONMENTAL EFFECTS

Although the Regional Council plans do not prescribe the effluent quality that can be discharged from wastewater treatment systems, the Council expects all small-scale domestic discharges to land to be secondary treated and to consistently meet the following limits:

Contaminant	Concentration
Biochemical oxygen demand (BOD_5)	20 mg/L
Total suspended solids	30 mg/L
Total nitrogen	25 mg/L
Faecal coliforms/ *Escherichia coli* (*E. Coli)*	1,000 cfu/100 mls

Adequate disposal area should be provided to minimise nitrogen loading to 150 kgN/ha per year or less. Greater loadings (up to 500 kgN/ha/yr) may be appropriate if cut and carry operations are proposed.

F.1 Wastewater quality

(a) Please state the expected effluent quality of the treated wastewater

Contaminant	Average concentration	Maximum concentration
Biochemical oxygen demand (BOD_5)	mg/L	mg/L
Total suspended solids	mg/L	mg/L
Total nitrogen	mg/L	mg/L

Nitrate nitrogen (if known)	mg/L	mg/L
Total phosphorus	mg/L	mg/L
Faecal coliforms	cfu/100 mls	cfu/100 mls
Escherichia coli (*E. Coli*)	cfu/100mls	cfu/100mls

(b) Any other effluent quality comments?

_____
_____
_____
_____
_____

F.2 Groundwater

(a) Depth to groundwater _____metres below ground

Source of this information (nearby bores, field tests)

_____
_____

(b) Does the water table rise during wet conditions?

☐ Yes, by how much? _____

☐ No

(c) What is the direction of groundwater flow at the disposal site? _____

Source of this information (e.g. field tests)

_____
_____

(d) Name or description of underlying aquifer (if known)

_____
_____
_____

(e) Describe the effects your discharge may have on groundwater quality (take into consideration the nature and quality of the discharge, depth to groundwater, use of groundwater in the locality...)

_____
_____
_____
_____
_____
_____

F.3 Surface Water

(a) Are there any surface watercourses – including lakes, rivers, creeks, water races or drains within 500 metres of the disposal site?

☐ Yes, please describe the watercourse(s) (name, distance, direction from disposal site, size, depth, flow, riparian vegetation and bed substrate) and attach photographs of the watercourse (at its closest point to the disposal field) to the application.

Watercourse 1:

_____
_____
_____
_____
_____

Watercourse 2:

_____
_____
_____
_____
_____

☐ No

(b) Describe the effects your discharge may have on surface water (including effects on aquatic life, public health, recreation, water takes, iwi values)

_____
_____
_____
_____
_____
_____
_____

F.4 Within 500 metres downgradient or in the vicinity of the discharge are there any:

	Yes	No
Water abstractions?		
Obvious signs of fish, eels, insect life, aquatic plants, etc?		
Wetlands (e.g. swamp areas)?		
Recreational activities carried out (e.g. swimming, fishing, kayaking)?		
Areas of particular aesthetic or scientific values (e.g. scenic waterfall, rapids, archaeological site)?		
Areas or aspects of significance to iwi, including areas where food is gathered?		

If you have answered 'yes' to any of the above, please mark these onto the site map and describe what effects the discharge may have on these values and the steps you propose to take to avoid or mitigate these effects.

_____
_____
_____
_____
_____

F.5 National Environmental Standard for Sources of Human Drinking Water

(a) Is the disposal site upstream/up gradient of an abstraction point for a registered drinking water supply that provides no fewer than 501 people with drinking water for not less than 60 days each year?

☐ Yes, please discuss any adverse effects of the activity on the registered drinking water supply, as required by Sections 6, 7 and 8 of the Resource Management Regulations 2007.

☐ No

PART G: ALTERNATIVES

G.1 What alternative methods were considered for treating and disposing of the treated wastewater?

G.2 Explain why the proposed methods and location of disposal is the best practicable option.

PART H: MONITORING and MAINTENANCE

H.1 How is the proposed treatment and disposal system to be serviced/maintained/cleaned? (including regularity of services/cleaning, treated wastewater quality monitoring, discharge flow monitoring and whether a maintenance service contract will be entered into)

H.2 Please provide details of mitigation/contingency measures proposed in the design to minimise any adverse effects? (e.g. back up provisions, wet weather contingency plans, maintenance /servicing schedules, copies of operations and management plans)

H.3 Please detail the monitoring and management proposed to ensure any potential environmental effects on the environment are avoided, remedied or mitigated. (In particular, please outline any proposed monitoring to ensure that the discharge does not adversely effect soil or water resources. Include details on what is to be monitored, when, how and why).

PART I: CONSULTATION

I.1 Please describe any consultation undertaken with persons/parties potentially affected by your proposed discharge (e.g. Public Health South, landowners, neighbours, Kai Tahu ki Otago Limited (Fish and Game Otago and Department of Conservation- if close to surface water)). Please attach any written approvals received to the application. Please note that the Council only accepts unconditional written approvals and any conditions proposed by affected parties need to be agreed to and incorporated into the application.

PART J: DEPOSIT

A deposit is required upon lodgement of your application. Refer to the fees on Form 1. This deposit is not the final or maximum cost of your application. Further charges are incurred in accordance with Councils scale of fees and charges.

J.1 Deposit Enclosed

- ☐ No If no deposit is enclosed and no request to invoice then the application will be returned under Section 88 of the Act. If an invoice is requested, this has to be paid before we will commence processing of the application.
- ☐ Yes

PART K: CHECK LIST

K.1 In order to submit a complete application, have you remembered to?

- ☐ Fully completed this application form and Form 1?
- ☐ Attached a detailed site map? *Refer to B.3*
- ☐ Attached a disposal field design plan? *Refer to E.4*
- ☐ Attached a copy of a site stability report (if relevant)? *Refer to C.2*
- ☐ Attached a copy of the soil report and sub-soil testing? *Refer to C.3 and C.4*
- ☐ Attached specifications and/or manuals for the treatment and/or disposal system? *Refer to Part E*
- ☐ Attached a flow diagram from treatment to disposal? *Refer to E.11*
- ☐ Attached photographs of watercourses within 500 metres of the disposal field? *Refer to F.3*
- ☐ Attached any written approvals? *Refer to I.1*
- ☐ Paid your deposit or attached a cheque? *Refer to J.1*
- ☐ Attached Certificate of Title(s) less than 3 months old? *Refer to B.1*
- ☐ Council to obtain Certificate of Title(s) at your expense

To keep consent processing costs to a minimum it is strongly recommended that the checklist is complete and all items required are attached **before** you lodge your application to the Otago Regional Council.

NOTES TO PROVIDE GUIDANCE ON COMPLETING SCHEDULE 6A

PART A: GENERAL

Question A.3 Criteria that apply to discharge

If one or more of the criteria in question 2 apply this confirms that you need a resource consent. Section 12.6 of the Regional Plan: Water for Otago outlines the rules relating to the discharge of human sewage. Groundwater protection zones are identified on maps C1–C17 of the Regional Plan: Water for Otago. Please contact the Council if you require assistance.

PART B: LOCATION OF DISCHARGE

Question B.1 Property Details

- What is the physical address of the site on which wastewater is to be discharged?
- The legal description of the land can be found on your Certificate of Title.
- The total land area (ha) of the property can be found on your Certificate of Title.

Question B.2 Map Reference

Use New Zealand Transverse Mercator (NZTM) e.g. E1336382 N4984920. If possible, use a Geographic Positioning System (GPS) device to obtain a map reference accurate to 10 metres. The northing follows the easting.

Maps with NZTM co-ordinates can also be found at your local library, bookstores or can be downloaded from the Land Information New Zealand website:

http://www.linz.govt.nz/topography/topo-maps/index.aspx

PART C: GENERAL SITE ASSESSMENT

Question C.2 Site Stability

If the site is located in an area prone to slips, movement, flooding, etc., an assessment of the site geology should be undertaken to assess land stability.

Question C.3 Subsoil Investigation

A soil profile determination to the limiting horizon (hard pan, bedrock, seasonal water table) which identifies and documents soil type, texture and structure is required.

Question C.4 Percolation of Soil Infiltration Testing

Clean water soakhole testing of the natural soil can be carried out to assist the overall subsoil investigation. Where subsoil investigations are carried out in summer some estimate of winter high water table is necessary. The investigation should be undertaken in accordance with Appendix G of AS/NZS 1547:2012.

Question C.5 Soil Category

Soil categories should be based on those specified in AS/NZS 1547:2012.

PART D: DISCHARGE DETAILS

Questions D.1 Water Supply Source
Per capita wastewater production is likely to be significantly influenced by the type of water supply.

Question D.3 Wastewater Volumes
Design flows should be based on the maximum number of persons occupying the premises to be served by the wastewater treatment and disposal system, and a per person wastewater flow allowance according to the nature of that occupancy (e.g. full time/part time).

Household occupancy allowances are provided in Table 1. For all other sources the maximum number of occupants must be used.

Wastewater flows will depend on the nature of the facility being served and the per capita water consumption rates. The lower volume for facilities using roof water tank supply reflects the fact that supply constraints ensure good water use habits.

Sample Calculation
Tearoom with rest-room facilities serving up to 50 people per day. Water supply: bore

Max Occupancy	*Bore Supply*	*Total Volume*
50 (person)	*25 litres/person/day*	*1250 litres/day*

Question D.4 Water Conservation Devices
Where water conservation devices/recycling is proposed a full justification of the reduction in discharge volume from that obtained in E4 is required. This should include the types and extent of water conservation devices and the potential uses of recycled water and how recycled water volume is to be controlled.

PART E: TREATMENT and DISPOSAL

Primary Treatment Definition: The separation of suspended material from wastewater by settlement and/or flotation in septic tanks or primary settling chambers.

Secondary Treatment Definition: Aerobic biological treatment process, including settling and/or filtering or wastewater. Secondary treatment wastewater is expected to be equal to or better than 20 mg/L of five-day bio-chemical oxygen demand and 30 mg/L of suspended solids. Systems that can produce secondary treatment include well designed and operated stabilised aerated treatment plants, sand filters, advanced textile filters and packed bed reactors.

Tertiary Treatment Definition: Further polishing of secondary treated wastewater to further remove remaining organic and physical contaminants. This can be achieved by aeration within the system and may include further filtration (sand filtration, membrane filtration) and/or disinfection e.g. chlorination, ultra-violet radiation.

Questions E.1 Capacity of Septic Tanks
Septic tank capacities should provide room to store both the consolidating sludge and floating scum, and allow a minimum of 24 hours settling within the central liquid zone at sludge/scum "fall" condition and based upon design flows. Grease trap capacity should be equal to at least 2-3 days kitchen flow volume.

Questions E.4 Area of Disposal Field
For trenches/beds, please indicate if the disposal area is not specified as the basal area.

Basal loading is only the area of the bottom of the trench or bed. The areal loading rate is the total enclosed area comprising the bottom of trenches or beds and the area between them. The areal loading rate will be a lower number than the basal loading rate.

Note: To convert square feet into square metres, multiply by 0.0929.

PART F:ASSESSMENT of ENVIRONMENTAL EFFECTS

Details of information required in an AEE is included in the fourth schedule of the Resource Management Act and outlined on *Form 1 Resource Consent Application.*

The level of treatment specified is required as consents will only be required where the discharge is close to surface water, bores used for drinking purposes, within a groundwater protection zone or volumes of effluent are larger than standard household volumes.

Question F.1 Wastewater Quality
For package treatment plants, the manufacturer should be able to supply this information.

Question F.2 Groundwater
Depth to groundwater may be found from test pits or bore logs for nearby wells. Where this is determined from subsoil investigations carried out in summer, some estimate of the winter high water table is necessary.

PART G: MONITORING and MAINTENANCE

Question G.1 Servicing/Maintenance/Cleaning
Please outline the proposed frequency and scope of servicing, maintenance and cleaning (e.g., desludging of septic tanks, filter cleaning).

Question G.2 Mitigation/Contingency Measures
At least 24 hours storage at maximum flows should be provided in all pump chambers as well as some capacity for accumulated sludge and scum. Additional contingency/mitigation could include:

- dual pumps
- stormwater cut off drains
- fencing/signage to deter public/stock access
- high level alarm systems in all pump chambers
- separation distances from boundaries/public areas
- a reserve disposal area (i.e., an area of site set aside for the extension of the disposal field in the event of increased discharge volume or failure of the disposal field

If you have any queries relating to information requirements, please contact the Otago Regional Council Offices:

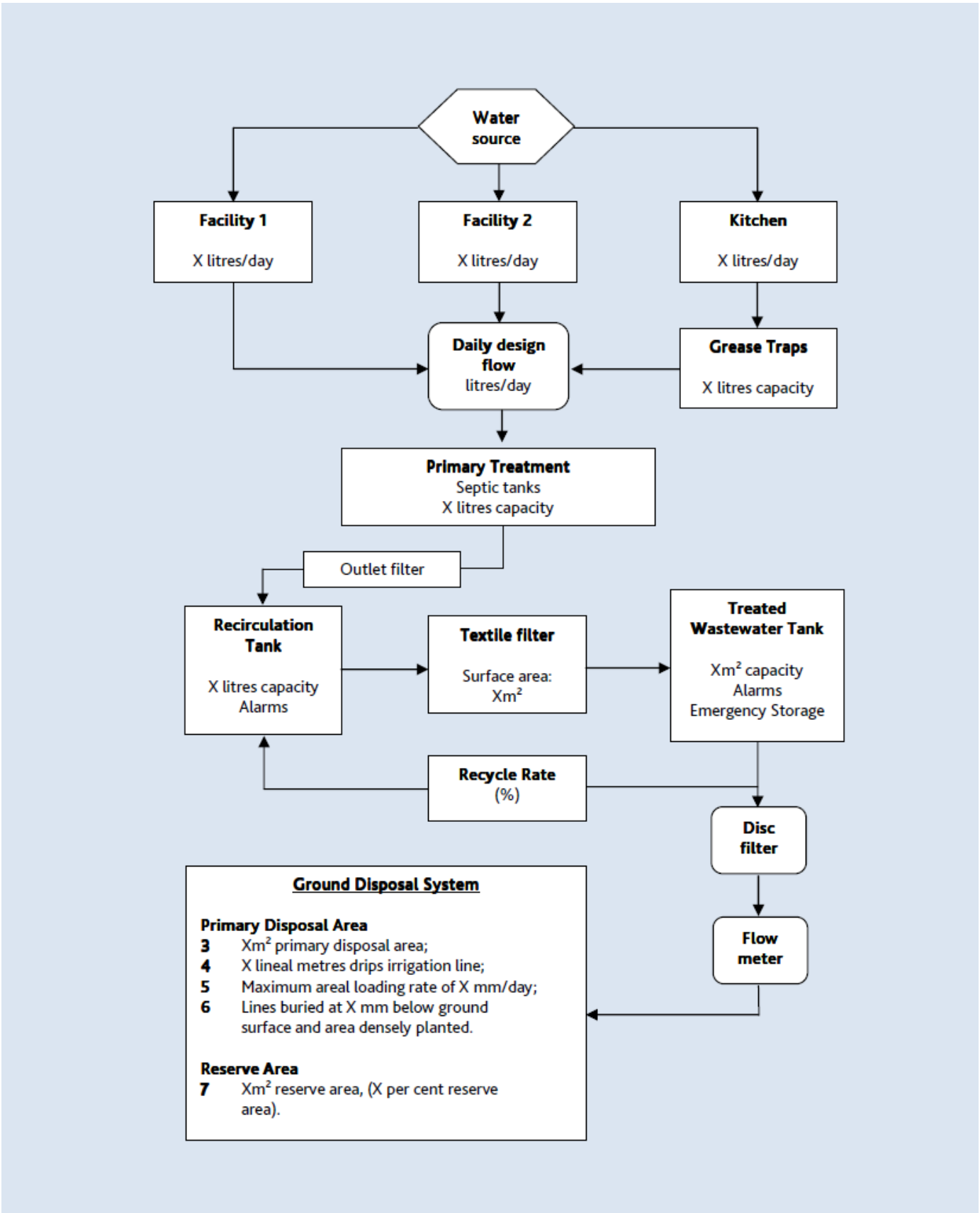
Dunedin Office
70 Stafford St
Private Bag 1954
Dunedin 9054
Phone 03 474 0827
Fax 03 479 0015

Alexandra Office
Dunorling St
PO Box 44
Alexandra 9340
Phone 03 448 8063
Fax 03 448 6112

Queenstown Office
Cnr Shotover & Camp St
PO Box 958
Queenstown 9348
Phone 03 442 5681
Fax 03 442 5682

Freephone: 0800 474 082

Flow diagram example for Question E.11


Water source
Facility 1
X litres/day
Facility 2
X litres/day
Kitchen
X litres/day
Daily design flow
litres/day
Grease Traps
X litres capacity
Primary Treatment
Septic tanks
X litres capacity
Outlet filter
Recirculation Tank
X litres capacity
Alarms
Textile filter
Surface area:
Xm²
Treated Wastewater Tank
Xm² capacity
Alarms
Emergency Storage
Recycle Rate
(%)
Disc filter
Flow meter
Ground Disposal System
Primary Disposal Area
3 Xm² primary disposal area;
4 X lineal metres drips irrigation line;
5 Maximum areal loading rate of X mm/day;
6 Lines buried at X mm below ground surface and area densely planted.
Reserve Area
7 Xm² reserve area, (X per cent reserve area).