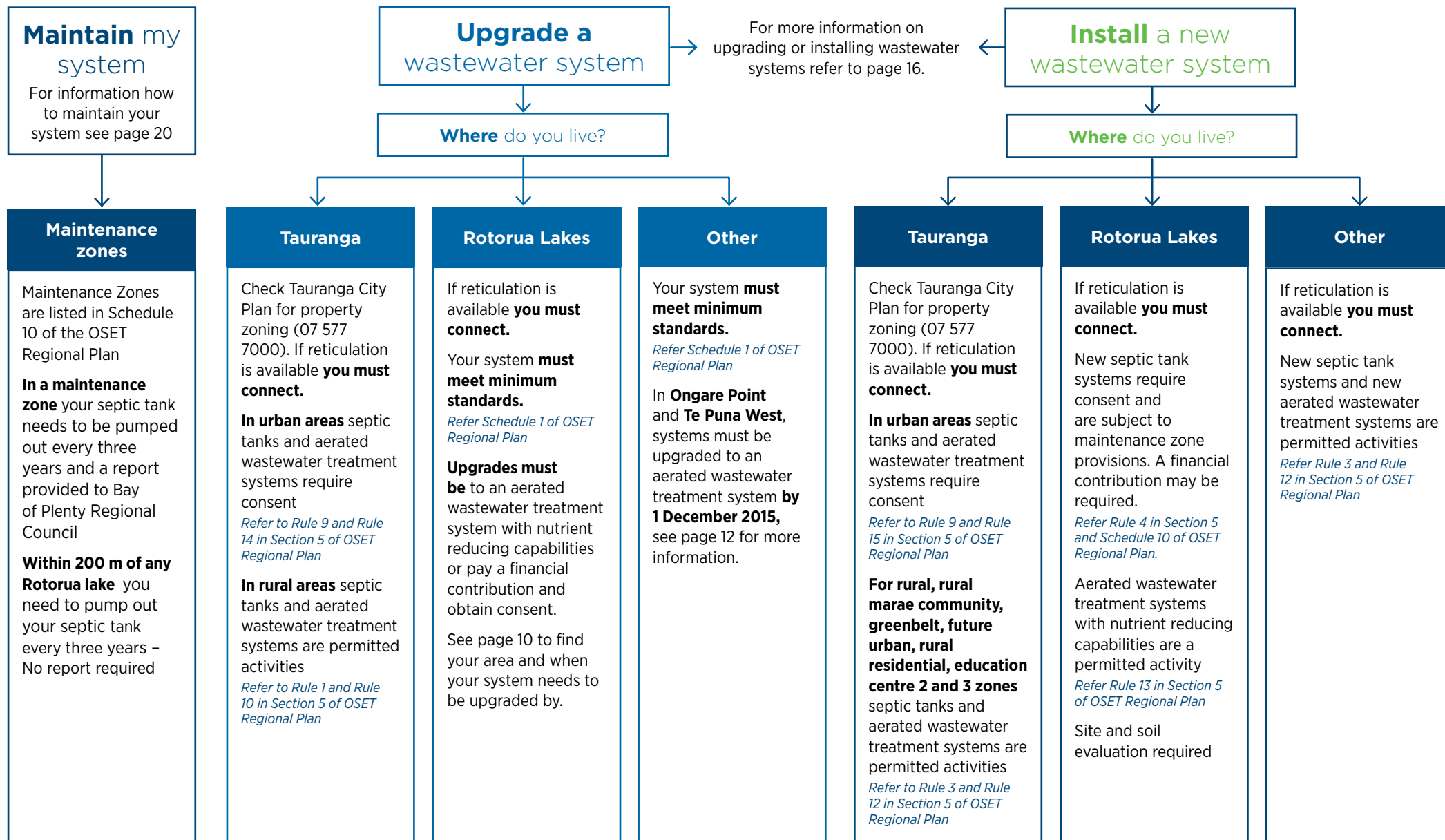


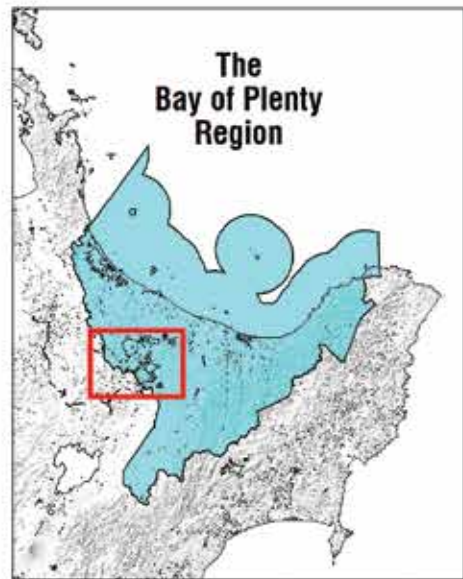
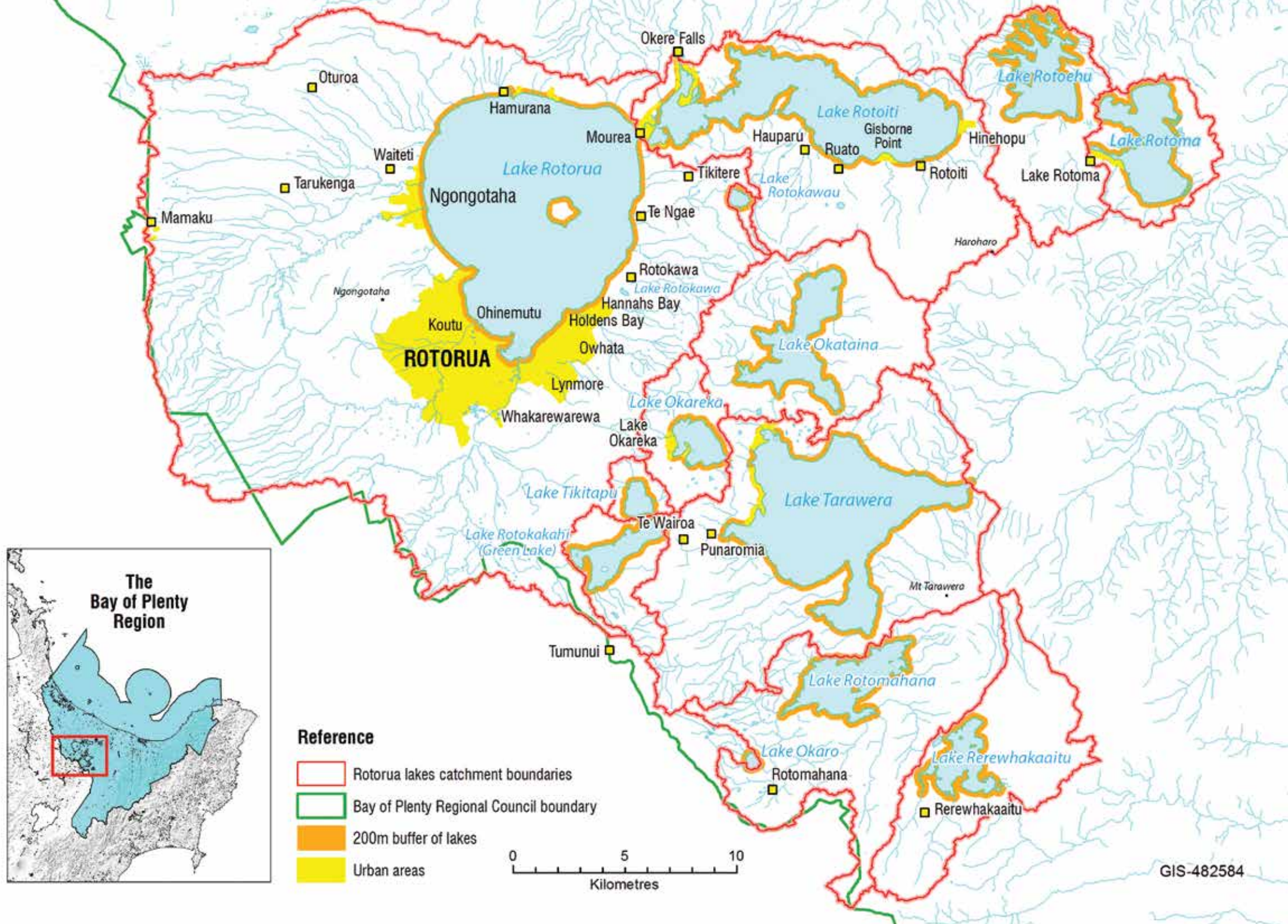
# Managing your wastewater

Building, buying and living in a property with an on-site wastewater treatment system



# I need to...





## This booklet will help you understand Bay of Plenty Regional Council's On-Site Effluent Treatment Plan (OSET) and how it affects you

The OSET Plan deals with the effects of domestic wastewater discharge on water quality and the environment in the Bay of Plenty. It sets out policies and rules about how domestic wastewater can be properly disposed of on a property and manages the effects of wastewater on water quality in our lakes, rivers, harbours and land.

This booklet helps you work out which of the Plan's rules and schedules apply to you, then you'll need to refer to the Plan for more detailed information.

The Plan is on our website [www.boprc.govt.nz](http://www.boprc.govt.nz), at your local library, district or city council or at our offices.

Wastewater design information is in the New Zealand Standard 1547:2012 On-site domestic wastewater management document, which you can get from any of our offices.

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# What do I need to know?

## What's 'wastewater'?



**Wastewater** is used water from kitchens, laundries, bathrooms and toilets in houses, institutions or commercial facilities.



**Domestic greywater** is wastewater from kitchens, bathrooms and laundries.



**Domestic blackwater** is wastewater from the toilet.

The OSET Plan sets out policies and rules that manage effects on the environment caused by treated domestic wastewater discharged to land. You do not need a resource consent if your system meets the conditions in the Plan for a permitted activity.

If you can't meet these, your activity is 'discretionary'. You need a resource consent to ensure that any bad effects your activity might have on the environment are controlled through conditions.

## What is the On-Site Effluent Treatment Plan?

All homes and many other buildings produce wastewater which is normally discharged into a sewer.

In some parts of the region there is no sewer, so wastewater must be collected and treated in a septic tank or aerated wastewater treatment system and discharged to land on your site. This is referred to as an OSET system. The OSET Plan includes rules to make sure that both public health and the environment are protected from the effects of discharge of treated wastewater.

This Plan also includes information about designing and constructing wastewater systems to ensure that they give good service over their intended life and are properly maintained. In some parts of the Bay of Plenty our environment is affected by high levels of nutrients. In these areas we may specify how clean the discharged effluent needs to be to control nutrients which could damage the environment.

If your treatment system and land application area can meet the permitted activity rules of the OSET Plan, then a resource consent is not required. If you can't meet these rules, your activity is 'discretionary'. You need a resource consent to ensure that any adverse effects your activity might have on the environment are controlled through conditions.

The Plan allows discharge of up to two cubic metres per day (or 2000 litres per day) of treated domestic effluent (wastewater) from a single dwelling onto land, provided certain requirements are met. Up to four dwellings, each with its own wastewater system is permitted, provided that the total discharge does not exceed 2000 litres per day. This is about the amount of wastewater from a household of about 10 people. If your wastewater discharge is more this, or if you fall outside of the permitted rules for this Plan you need a resource consent. Even if your system is a permitted activity and you do not need a consent, you still need to know about what's in the OSET Plan.



The OSET Plan can be found at [www.boprc.govt.nz/osetplan](http://www.boprc.govt.nz/osetplan)

# What does this mean for me?

## Maintenance zones

In some parts of the Bay of Plenty, the installed systems may not be sustainable, or they may be having an adverse effect on the environment. Where monitoring has shown that water quality is being affected, or there are health issues in a community, they have been identified as a Maintenance Zone.

**Within 200 metres of any Rotorua Lake** and the following communities, are in a maintenance zone:

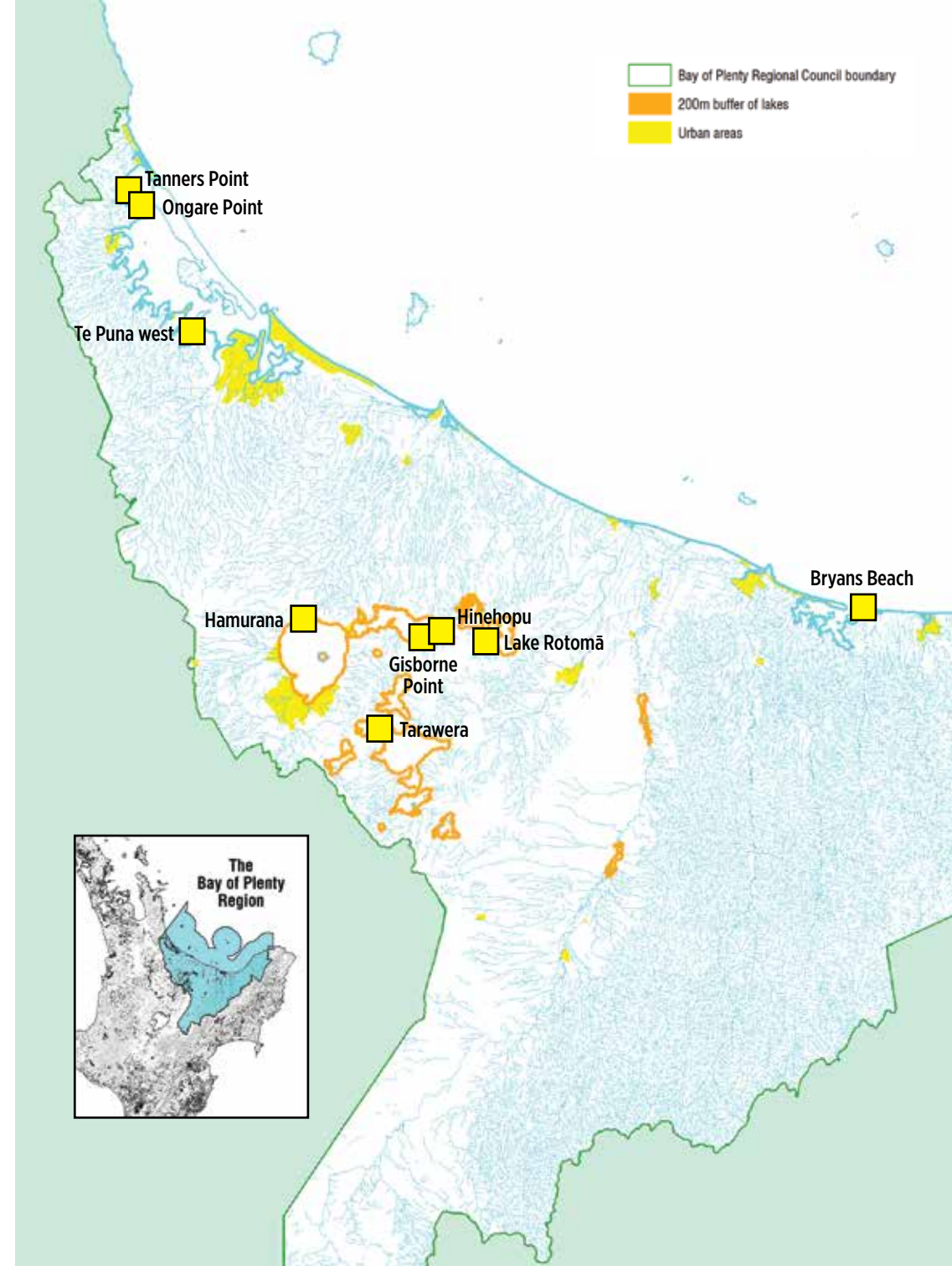
- Tanners Point
- Ongare Point
- Te Puna West
- Bryans Beach
- Gisborne Point
- Hinehopu
- Rotomā
- Tarawera

These areas are required to maintain systems regularly. This includes pumping out the septic tank, inspecting it to see how well it is working and measuring for size to ensure it will perform properly. Maintenance needs to be carried out by certifiers who have been trained and warranted by Bay of Plenty Regional Council. Generally maintenance is carried out every three years, but this may be extended to six years once it's inspected.

Regular maintenance improves the performance of wastewater systems and upgrades and repairs can improve the environment.



Check our website  
[www.boprc.govt.nz](http://www.boprc.govt.nz)  
for a list of certifiers



## Reticulation zones (sewerage)

The OSET Plan identifies some communities throughout the region as being in one of three types of reticulation zones. These zonings are intended to provide certainty for communities about how reticulation will be provided.

### Operating Reticulation Zone:

A sewer is provided. Subject to the provisions of the Local Government Act 1974, if you are in this zone, you must connect to the sewer. If you can't connect you will need to get a consent for either an existing system or a new system.

### Confirmed Reticulation Zone:

The local authority has confirmed that it will provide a sewer in time. Existing systems must meet a minimum standard, and as long as systems are regularly maintained, no upgrading is required. Once reticulation is provided, then you must connect to it.

### Future Reticulation Zone:

The local authority is investigating options for reticulation. The OSET Plan provides some dates for these decisions to be made. Homeowners in the Future Reticulation Zone will be advised when the decision is made and what they need to do. If a sewer is provided, then you will need to connect. If a sewer is not provided, OSET systems may need to be replaced or upgraded and you may need to apply for a resource consent. A new system to be installed in a Future Reticulation Zone will need to comply with the OSET Plan rules.



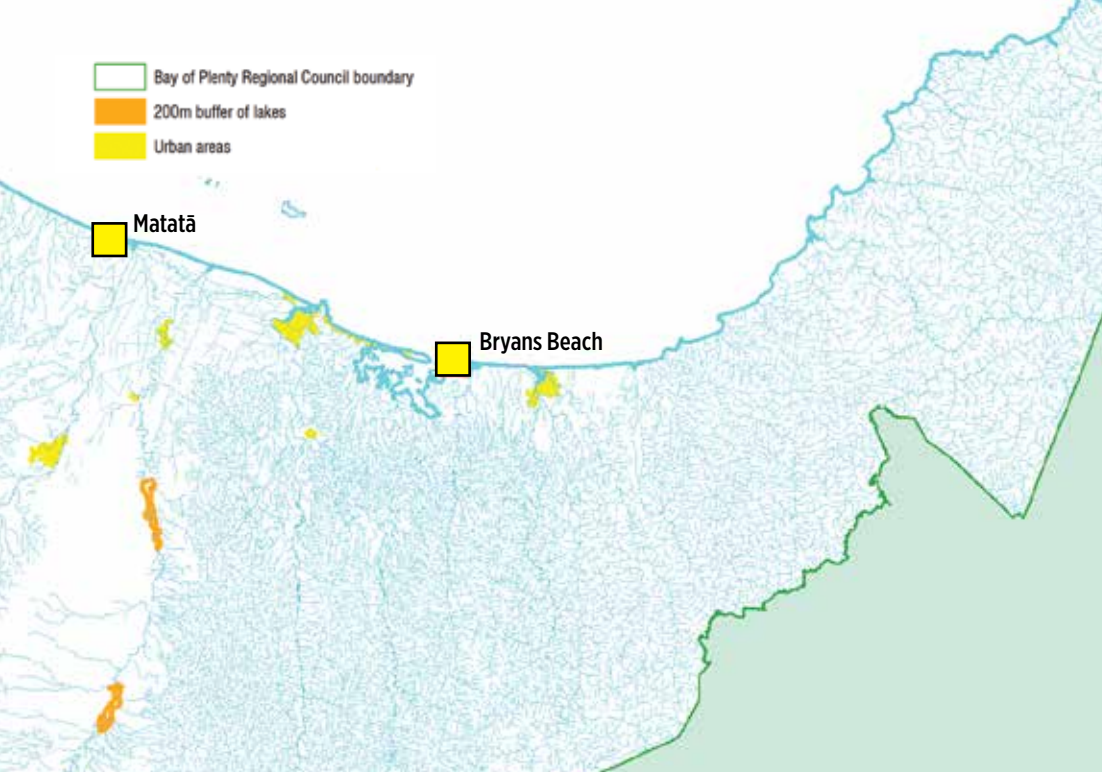
#### Minimum Standard for a septic tank on-site effluent treatment system in a **Confirmed Reticulation Zone**

- Existing septic tank of 2000 litres or more
- Approved outlet filter
- Easily accessible lid
- Sludge and scum do not exceed one third of volume
- Land application area operates correctly
- If also in a Maintenance Zone, has been pumped as required



#### Minimum Standard for a septic tank on-site effluent treatment system in a **Future Reticulation Zone**

- Existing septic tank of 2700 litres or more
- Sludge and scum do not exceed one third of volume
- Land application area operates correctly
- If also in a Maintenance Zone;
  - Easily accessible lid, and
  - Has been pumped as required



## OSET Maintenance Zones and Reticulation Zones

Identify your area to see what type of zone you are in and how that may affect you:

### Eastern Bay

#### Bryans Beach

##### Maintenance Zone

You need to regularly maintain your septic tank and have it pumped out every three years. The certifier will determine the pumpout interval after an inspection or pumpout. The interval can be up to six years. You may be required to bring the system up to minimum standard or a resource consent may be required.



### Western Bay

#### Ongare Point and Te Puna West

##### Maintenance Zone

By **1 December 2015** you will be required to either connect to reticulation, install an Aerated Wastewater Treatment System or get a consent\*. You will also need to regularly maintain your septic tank and have it pumped out every three years. The certifier will determine the pumpout interval after an inspection or pumpout. The interval can be up to six years. You may be required to bring the system up to the minimum standard.

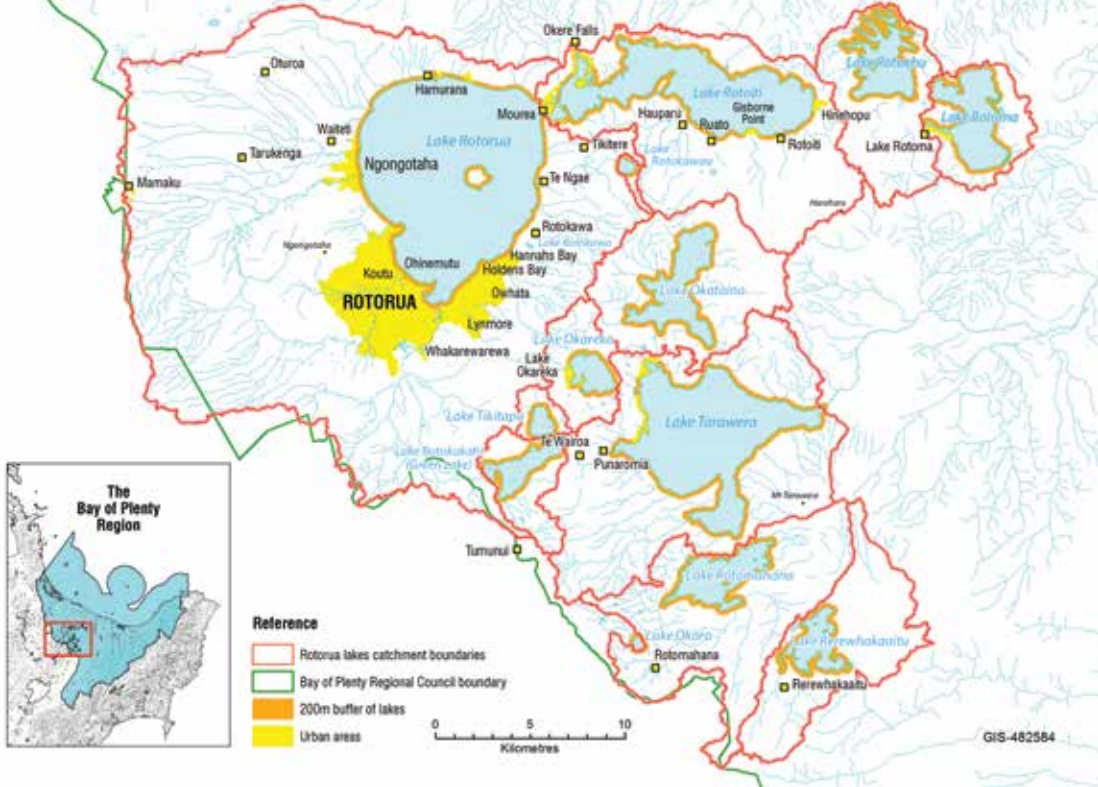
#### Tanners Point

##### Maintenance zone

You need to regularly maintain your septic tank and have it pumped out every three years. You may be required to bring the system up to minimum standard.

\* Septic tanks and aerated wastewater treatment systems are explained on page 20 and 22.





## Rotorua Lakes

### 200 metres from any lake edge (13 Rotorua Lakes)

Not in a Maintenance Zone or Reticulation Zone

If reticulation is or will be provided you must connect to it. Otherwise by **1 December 2014** you will be required to either install an Aerated Wastewater Treatment System\* with nutrient reducing capabilities or get a resource consent.

### Rotoiti, Ōkaro, Rotorua and Ōkāreka

Maintenance Zones, Reticulation Zones and wider catchments of these lakes

If reticulation is or will be provided you must connect to it. Otherwise by **1 December 2014** you will be required to either install an Aerated Wastewater Treatment System\* with nutrient reducing capabilities or get a resource consent.



Refer to a larger version of this map on the inner back cover

\* Aerated wastewater treatment systems are explained on page 20 and 22.

### Rotoehu, Rotomā and Rotoiti

Maintenance Zones, Reticulation Zones, wider Rotoehu catchment

If reticulation is or will be provided you must connect to it. Otherwise by **1 December 2016** you will be required to either install an Aerated Wastewater Treatment System\* with nutrient reducing capabilities or obtain a resource consent.

### Tarawera

Maintenance Zones and Reticulation Zones

If reticulation is or will be provided you must connect to it. Otherwise by **1 December 2017** you will be required to either install an Aerated Wastewater Treatment System\* with nutrient reducing capabilities or get a resource consent.

### Mamaku township

Maintenance Zones and Reticulation Zones

If reticulation is or will be provided you must connect to it. Otherwise by **1 December 2018** you will be required to either install an Aerated Wastewater Treatment System\* with Nutrient Reducing capabilities or get a resource consent.

### Properties within 200 metres of the lake edge of Rotokawau, Ōkātina, Tikitapu, Rotokakahi, Rotomahana and Rerewhakaaitu

Not in a Maintenance Zone

If reticulation is or will be provided you must connect to it. Otherwise by **1 December 2014** you will be required to either install an Aerated Wastewater Treatment System\* with nutrient reducing capabilities or get a resource consent.

### Property that is MORE than 2 hectares inside the Rotorua catchments

You will need to manage nutrients from your property under the Regional Water and Land Plan and will need to comply with general requirements of the On-Site Effluent Treatment Plan.

\* Aerated wastewater treatment systems are explained on page 20 and 22.

## What do I need to do?

### Rotorua Lakes Communities

The OSET Plan requires Rotorua Lakes communities to reduce the amount of nitrogen entering the lakes from their OSET systems. Existing systems need to be upgraded to an Aerated Wastewater Treatment System + Nutrient Removal (AWTS + NR), or you need a resource consent and may need to make a financial contribution to offset the nutrients by specific dates. Even if you get a consent and pay a financial contribution, your OSET system must still meet the minimum standard. This must be done by:

Catchment	Date
Lake Ōkaro	1 December 2014
Rotorua	
Ōkāreka	
Lakes Rotoiti	1 December 2016
Rotoehu	
Rotomā	
200 m of any other Rotorua lake	1 December 2014
Tarawera	1 December 2017
Mamaku	1 December 2018

### Communities outside Rotorua Lakes

Communities outside the Rotorua Lakes do not have to achieve the same nutrient reduction requirements. Properties within a Maintenance Zone must regularly maintain their systems. This includes Tanners Point and Bryans Beach. Properties in Ongare Point and Te Puna West have until 1 December 2015 to upgrade their system to an Aerated Wastewater Treatment System or apply for resource consent.



## Buying and selling properties with OSET systems

### Buying a property

If you are buying a property with an existing on-site effluent treatment system, you need to ask the right questions - details of the type of system, who installed it, who services it and how often, the location of the system and the land application area on the property. Land application systems do not last forever. All properties should have a reserve area which can be used for effluent disposal if required. If there is a reserve land application area you will need to know its size and location as this may limit development potential of the site. If the vendor has operation manuals and plans of the system, these should be part of the sale. If the vendor does not have any information, the District Council may be able to provide a copy of the plans. Ask the vendor when the system was last serviced, when it is next due and ask to see a copy of previous service report. This could reveal potential issues with the system.

If you want to expand or extend the dwelling you may need to upgrade your OSET system.

Check this booklet to find out if you are in a Maintenance Zone or if any upgrading of your OSET system may be required. If it does, you could ask that the issues be remedied, maintained or upgraded before completing the sale.

### Selling your property

When you sell your property tell the agent that you have an on-site system and provide as many details as possible. If there are plans and drawings of the system, give these to the new owner. Some records may be on the property file held by the District Council. If repairs or changes have been made, advise the new owner. An AWTS will need to be serviced regularly. Tell the new owner how often this is required, when the last service was completed and give them contact details of the company which services or does the pumpouts.



# Do I need a consent?

If you are building a new house and are outside of the reticulation area, or the existing system is old and beyond repair, you will need to install a new wastewater system.

If you are extending your house or your system does not meet minimum standards, you will need to upgrade your existing wastewater system.

Every property is different, so to ensure a new or upgraded wastewater system is suitable for your property you need to have a Site and Soil Evaluation completed by a suitably qualified and experienced person (SQEP). They will need to visit the site and evaluate the soil type, slope, ground water level and other factors. The form required is in Schedule 5 of the OSET Plan and on our website [www.boprc.govt.nz](http://www.boprc.govt.nz). The SQEP will also need to complete a Risk Reduction report as required by Appendix A of NZS 1547:2012.

If the property is in a recently-completed subdivision, there may already be a Site and Soil Evaluation. Check with the District Council.



The Site and Soil Evaluation will identify a system that has been tested, evaluated and approved and is considered suitable for the particular site. There's a list of tested and approved systems on our website. The wastewater system design will become part of an application submitted to the City or District Council for a Building Consent. A diagram of the consent process is shown on page 18. Our website has a list of tested and approved effluent outlet filters, septic tanks, AWTS and AWTS+NR ([www.boprc.govt.nz/approvedsystems](http://www.boprc.govt.nz/approvedsystems)).

The OSET Plan aligns with AS/NZS standards. As long as the design complies with permitted activity rules in the OSET Plan, the territorial authority will issue a building consent and no other approvals will be required. If the design doesn't comply then you will need to apply for a resource consent.

Once the installation is complete, the system manufacturer will issue a statement confirming that the system is as specified by the designer and as authorised by the Building Consent, and the installer will issue a completion of works certificate.

Once all the works are complete and the Building Consent Authority has inspected the work and received the certificates from the manufacturer and the installer, they will issue a Code Compliance Certificate.

## **i** What is a SQEP?

**A person who is independent, applies good professional practice, is familiar with wastewater disposal and competent to make reports in accordance with the relevant New Zealand Standards and the Regional Plan. They will have attended a training course approved by Bay of Plenty Regional Council and be accredited in site and soil assessment for on-site wastewater management system design. They may be a member of a professional body.**

A list of SQEPs is available on at [www.boprc.govt.nz/approveddesigners](http://www.boprc.govt.nz/approveddesigners)

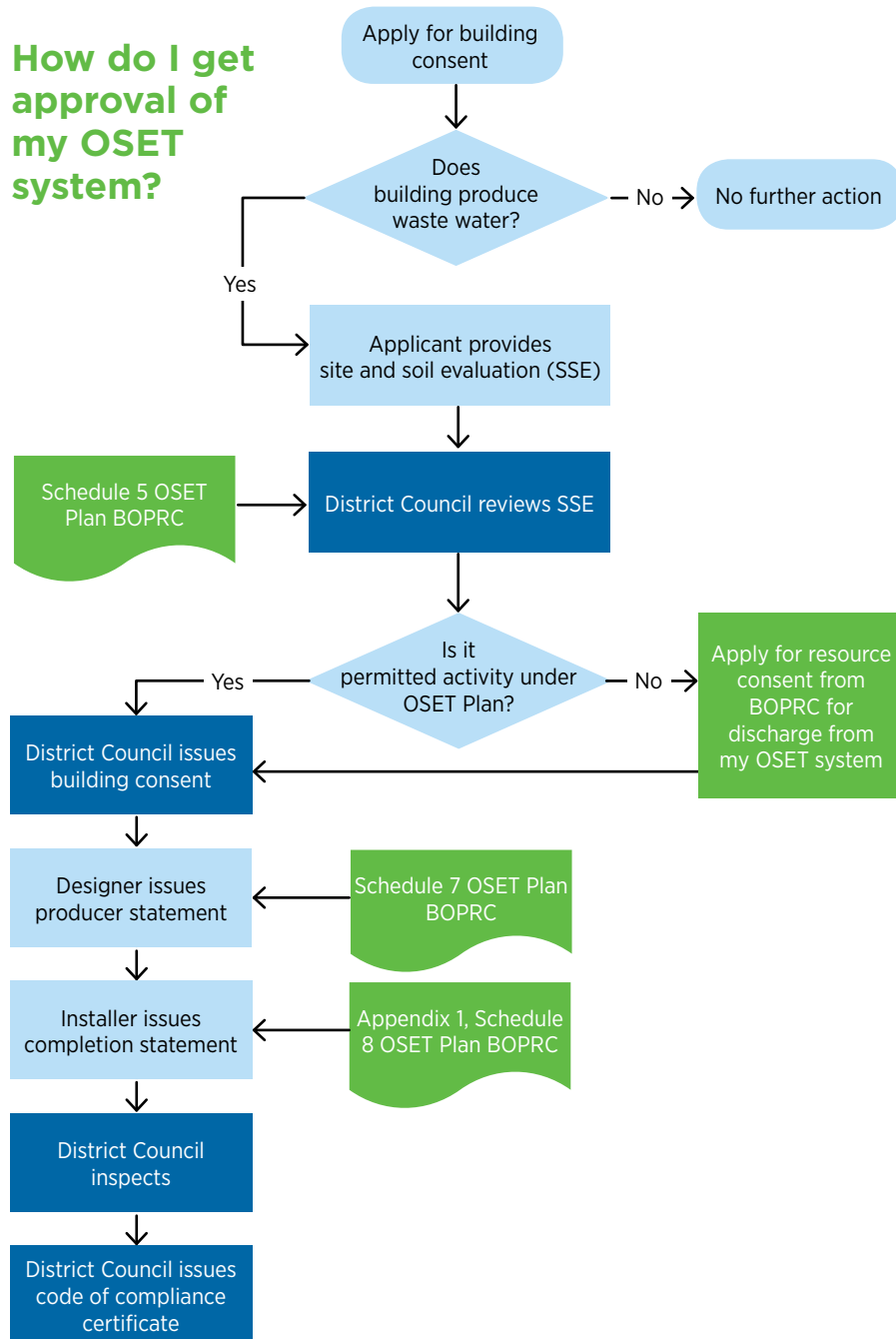
## **i**

**When applying for a building consent from a district/city council to install an on-site effluent treatment system, your designer will need to complete a Site and Soil Evaluation form from Schedule 5 of the Plan. Not providing this information could delay processing of your consent.**

## **i** Aerated Wastewater Treatment System with Nutrient Reducing capability (AWTS+NR)

- Tested at OSET National Test Programme in Rotorua
- Regularly maintained
- BOD5 30 grams per cubic metre
- TSS 45 grams per cubic metre
- TN 15 grams per cubic metre
- Where a dripper system is used it must be correctly installed and maintained.

## How do I get approval of my OSET system?



## Applying for a resource consent

If the system and/or the disposal method that your wastewater system designer has selected doesn't meet permitted activity rules, you will need to apply for a resource consent.

Within the Rotorua Lakes Communities, if consent is granted you may be required to pay a financial contribution to offset the effects of the nutrients on the lakes. Depending on which lake catchment the system is located in, this may include both nitrogen and phosphorus or just one of these nutrients. The cost is determined using the formula outlined in Section 6 Financial Contributions of the OSET Plan and you need to pay a financial contribution only once.

As part of the resource consent process you will still need to have a SQEP undertake a Site and Soil Evaluation Checklist.



More information is available on our website  
[www.boprc.govt.nz/resourceconsents](http://www.boprc.govt.nz/resourceconsents)

# System maintenance

## Septic tanks

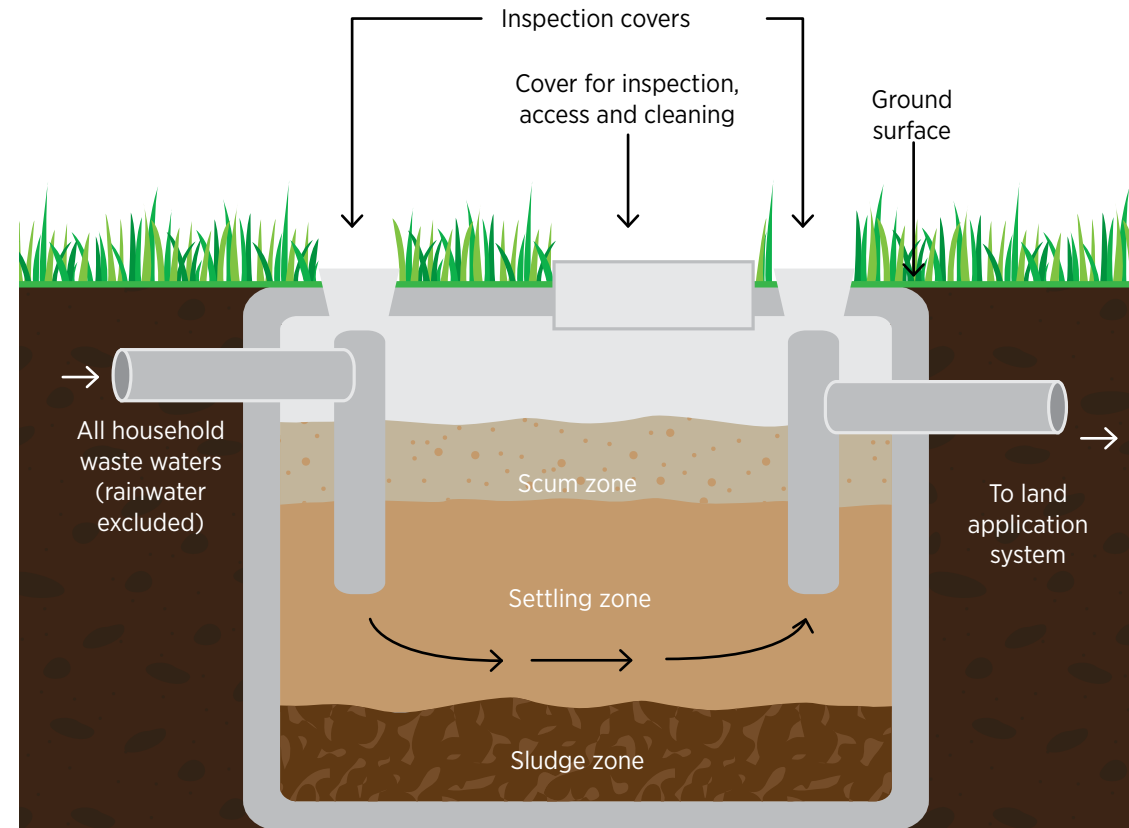
A septic tank is a large underground tank with a capacity of around 3000 litres. The tank is long and narrow, allowing solids to settle and fats, oil and grease to rise to the surface. The inlet introduces wastewater and lets effluent out of the tank from about mid-depth.

Over time, sludge and scum will accumulate in the tank and will eventually need to be pumped out. A build-up of sludge and scum will reduce effective operation. The rate of sludge and scum accumulation varies, but most often the tank should be pumped out by a contractor every three years.

If the septic tank has a filter on the outlet, it should be cleaned every three months. Using gloves, open the access lid and withdraw the filter. Support the filter over the tank access or a gully trap and gently wash it down with a hose. Replace it and put the lid back on. If the filter blocks, wastewater may discharge from the lowest gully trap, and if this happens often, it means the septic tank needs to be desludged.

The size of the tank is related to how many people live in the house. Effluent from the tank is discharged to a land application area, based on the size, soil type, proximity to groundwater and other constraints. These sizes can be calculated using NZS 1547:2012 On-site domestic wastewater management.

*A traditional septic tank*



## Aerated wastewater treatment systems

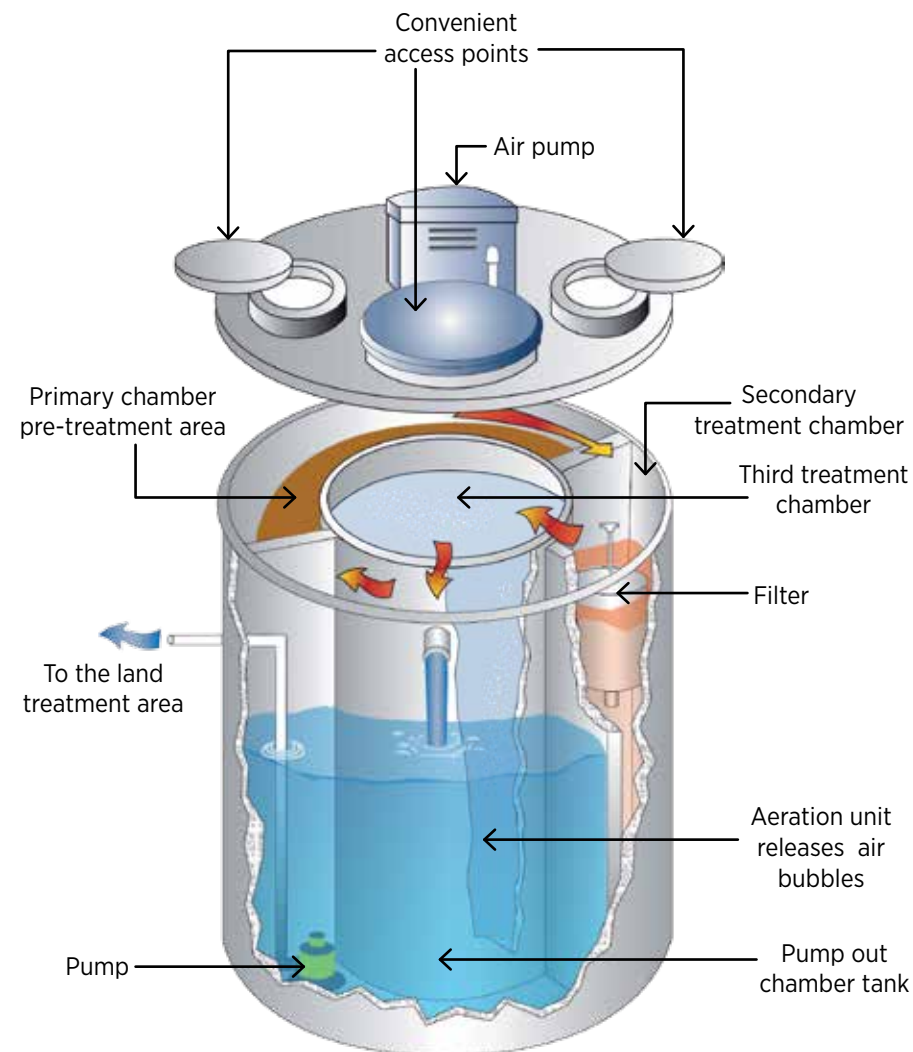
An aerated wastewater treatment system is a large underground tank or series of tanks to treat wastewater. The primary chamber works much like a septic tank. In the second chamber the effluent is treated with air from a blower, and the third chamber clarifies the effluent before discharge. If the final discharge is through drippers, there will be a pump and a filter.

An AWTS will need to be serviced by the supplier under a maintenance contract every three or six months. All pumps, aerators, alarms and sludge returns will be checked and drip lines flushed. The final filter (before the drip lines) should be cleaned monthly. Ask the installer to show you how to do this and how to replace the filter.

### For both types of system

Inspect the land application area frequently, perhaps when you mow the lawns. Walk over the land application area to ensure that effluent is not ponding. If the area becomes water logged, you'll need to reduce water use or install water reduction fixtures. These include dual flush low flush 6/3 toilets, shower flow restrictors, aerator faucets and water-conserving automatic washing machines. Check that stormwater cut-off drains are directing rainfall away from the land application area.

Example of an advanced (AWT) system





## Caring for your system

Provided your on-site effluent treatment system is properly cared for, it will effectively dispose of effluent and give you many years of reliable service.

- ✓ Scrape dishes before washing.
- ✓ Keep all possible solids out of your system.
- ✓ Install water saving devices, such as dual flush toilets.
- ✓ Take showers instead of baths. Use biodegradable and low phosphate soaps and washing powder.
- ✓ Divert stormwater away from your land treatment area.
- ✓ Make sure your tank lid is easily accessible.
- ✓ Install an outlet solids filter. Keep a careful record of where your tank, soakage and any filter is installed, with photos.

## Don't

- ✗ Don't use a waste disposal.
- ✗ Don't put items like sanitary napkins, disposable nappies or baby wipes into your system even if they are labelled 'flushable'.
- ✗ Don't wash clothes until you have a full load.
- ✗ Don't over-use powerful bleaches and disinfectants, or put chemicals or paint down the drain.
- ✗ Don't allow vehicles or stock on the land treatment area.
- ✗ Don't cover the mushroom vent.
- ✗ Don't grow deep rooting plants over soakage trenches or pipes.
- ✗ Don't empty chemical toilet waste into your system.
- ✗ Don't build on your reserve land application area.

A failed septic tank system is a serious health and environmental hazard. The warning signs are obvious: wastewater ponding on the ground surface; the smell of sewage near the tank or land treatment area; slow running drains or toilets.



# FAQs

## On-Site Effluent Treatment Plan

### Q What is an On-Site Effluent Treatment System?

An On-Site Effluent Treatment (OSET) System collects and treats the wastewater from your household (toilet, kitchen, bathroom and laundry). This system includes the processes that take place inside the OSET system and how the resulting effluent is applied to the soil for further treatment.

### Q What is the OSET Plan?

The On-Site Effluent Treatment Regional Plan sets out the policies and rules around how domestic wastewater can be suitably disposed of on a property and manages the effects of the wastewater on water quality. We have incorporated best practice and additional disposal options to provide certainty about what is required and when.

### Q How might the OSET Plan affect me?

If you are connected to a sewer (often called reticulation), the OSET Plan **does not** affect you.

The OSET Plan sets out the standards and rules which individual property owners must meet when discharging wastewater onto, or into, the soil on their property. If you have an onsite treatment system then the plan may affect you as you will need to meet these standards, which means you may need to make some changes and upgrade your system.

You need to check that your OSET system is regularly cleaned out and inspected (about every three years) to make sure that it meets the Plan's requirements and standards.

## Sewage reticulation

Sewage reticulation is the system of pipes that is used to transport sewage from a property to a sewage treatment plant.

### Q Some communities will be connected to a reticulated waste water system. What does this mean and when will I know about it?

Your local District Council will decide which communities will be reticulated. This is usually based on a Health Impact Assessment which the District Council will carry out. The District Council will also decide which system will be used, connection fees and completion date.

### Q If my community is reticulated, do I need to connect?

Yes. This is a requirement of the Local Government Act 1974 (section 459). The proposed change to the OSET Plan includes a requirement that if you are in a Reticulated Zone, then you will no longer be allowed to discharge your household effluent using an OSET system.

### Q I have a resource consent for my OSET system. Do I need to connect to reticulation before the expiry date of my consent?

Most recent consents will contain a condition that requires connection to sewerage reticulation when it becomes available. If reticulation is not available or will not become available, it is likely that you will need to replace your resource consent.

### Q What is a financial contribution?

Financial contributions may be payable as a condition of resource consent for those properties in the Rotorua Lakes that do not have an AWTS+NR. The dollar value of the contribution is based on how many nutrients (nitrogen and phosphorus) are discharged, into the environment from an average household. The contribution is calculated using the formula outlined in Part 6 of the OSET Plan. This payment offsets effects of nitrogen and phosphorus from the OSET System on the environment.

## Upgrading my system

### Q How can I find out the details of my OSET system?

Your District Council should have details of the OSET system that has been installed on your Property File. It is a good idea to have a copy of these details available so that if anything should go wrong and you need assistance from a drainlayer you can make informed decisions about what to do. Get in touch with your local District Council for this information.

### Q What determines what OSET system I need to upgrade to?

The design of your OSET system needs to be based on your water supply, the number of bedrooms in your dwelling, whether you have water saving devices installed, the quality of treatment required for your location, land slope, soil type and method of disposal. If your property has constraints that mean that you cannot install a standard system then you will need to discuss options with your drainlayer.

## Further information

### Q I still have some questions or am unsure about the information. Who can help?

Contact Bay of Plenty Regional Council on 0800 884 880 and ask for a Senior Project Implementation Officer) or visit [www.boprc.govt.nz/oset](http://www.boprc.govt.nz/oset).

# Where to find more information

-  **OSET Plan** – [www.boprc.govt.nz](http://www.boprc.govt.nz) > knowledge centre > plans > on-site effluent treatment regional plan > Operative OSET Plan
-  **Tauranga City Council** – [www.tauranga.govt.nz](http://www.tauranga.govt.nz)
-  **Western Bay of Plenty District Council** – [www.westernbay.govt.nz](http://www.westernbay.govt.nz)
-  **Whakatāne District Council** – [www.whakatane.govt.nz](http://www.whakatane.govt.nz)
-  **Ōpōtiki District Council** – [www.odc.govt.nz](http://www.odc.govt.nz)
-  **Kawerau District Council** – [www.kaweraudc.govt.nz](http://www.kaweraudc.govt.nz)
-  **Rotorua District Council** – [www.rdc.govt.nz](http://www.rdc.govt.nz)
-  Copies of NZ Standards are at any of our BOPRC receptions. Some libraries may also have copies.



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**Website:** [www.boprc.govt.nz](http://www.boprc.govt.nz)

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