

# Thames Valley Water Project



NEWSLETTER #2

NOVEMBER 2012

**W**e've started working on the Thames-Valley Water project as part of our 2012-2022 Ten Year Plan work programme adopted by the Council earlier this year.

This newsletter has been written to help you understand more about the project and the various options we need to consider with the community to improve and future-proof the water supply in Thames Valley area.

## *The Community and Council need to find the answers together*

The way forward is to work together to put on the table all of the options, price them up and select the option to implement based on what the community want and what's most cost-effective. We're sure that we all aren't looking for a Rolls Royce, when a dependable & reliable Toyota will do!

**The pressure is on; the Regional Council want to see our preferred option by the end of March 2013.**

To do this we have set up a community working group nominated by the community and approved by the Thames Community Board to work with us to throw around the various options, to go back to the community at large and to whittle down the options until we can find a pragmatic, cost-effective solution the majority can live with.

**We'll also hold a few more public meetings as we progress through the options with the working group and take feedback along the way to ensure we're all on the same page.**

## *Need more information?*

Please visit our website [www.tcdc.govt.nz/thamesvalleywater](http://www.tcdc.govt.nz/thamesvalleywater) or email us [rodney.clark@tcdc.govt.nz](mailto:rodney.clark@tcdc.govt.nz) or [ben.day@tcdc.govt.nz](mailto:ben.day@tcdc.govt.nz) or phone **868-0200**.

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## *Project Background*

The Thames Valley water supply upgrade project has been identified in our plans for a number of years for the following reasons:

- ▶ The water supply pipes are very old (in some places well over 60 or 70 years) and they need replacing
- ▶ We need to apply for new resource consents from the Regional Council to take water from the Omahu, Apakura and Matatoki streams. The Regional Council have told us that we can't take as much water from these streams in the future. This means a new source of water could be required or we have to reduce our take from the current sources and conserve more water

## *The Water Schemes*

The Thames Valley Water Project covers the following settlements and three separate water supplies:

- ▶ Hikutaia and Omahu - supplied by the Omahu Stream
- ▶ Puriri, the village and the rural community, is supplied from a Hauraki District Council owned intake on the Apakura stream (which is a tributary to the Puriri Stream)
- ▶ Matatoki - supplied by the Matatoki Stream

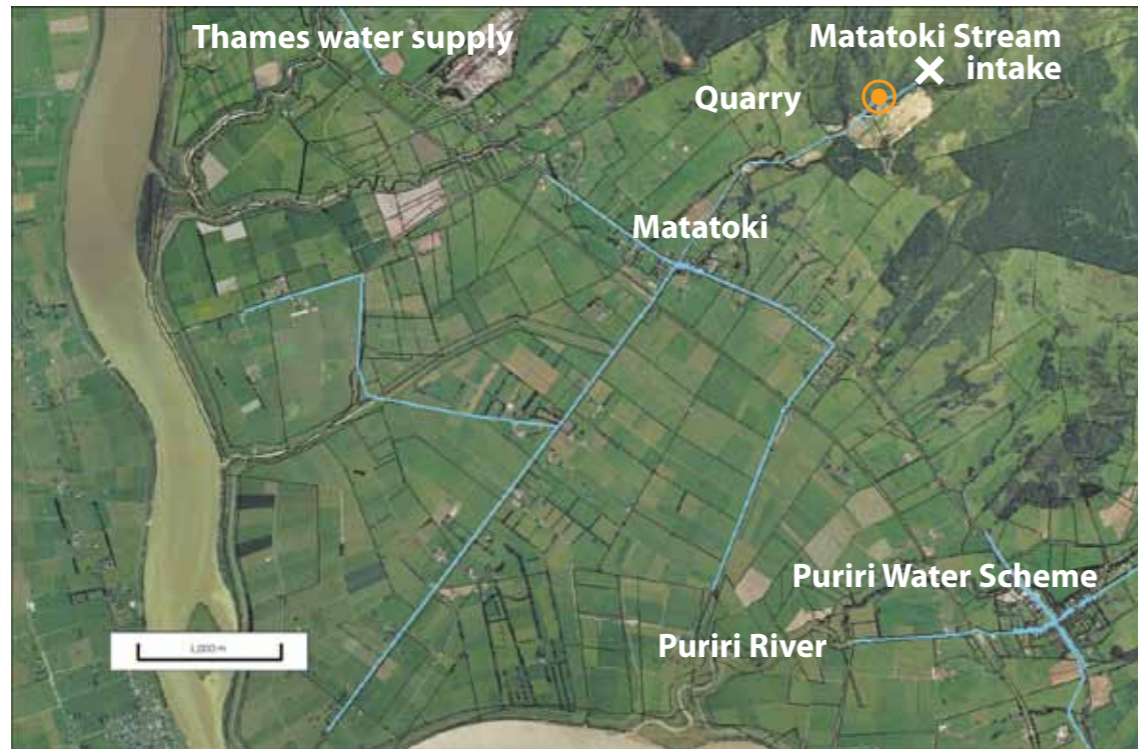
## *The Thames Valley*



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## Matatoki Water Scheme

- The water for Matatoki is supplied to us from the Matatoki Stream with the intake located adjacent to the Quarry (see map below)
- The water is treated with chlorine and 130 micron disc filter, it is recommended consumers install onsite systems to treat the water
- This supply does not currently meet Drinking Water Standards (DWS)
- The Matatoki scheme is not connected to the Thames town supply or to the Puriri scheme



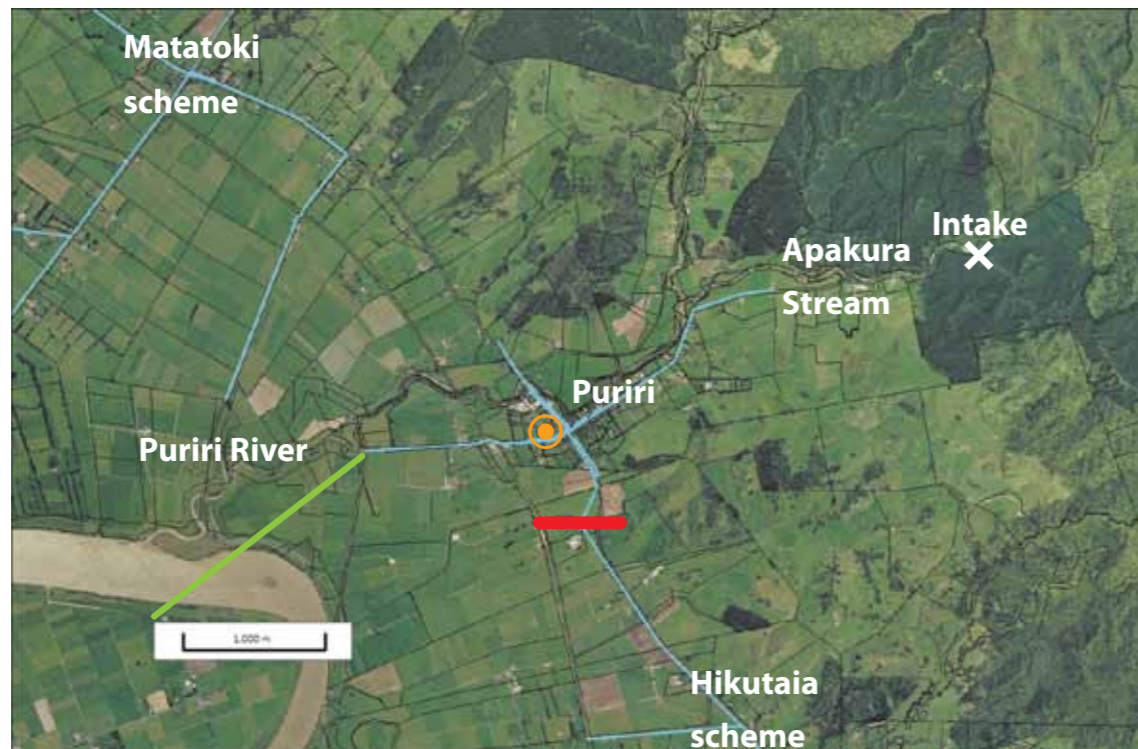
**KEY**

- Water pipes
- Water filter (new)

## Puriri Water Scheme

- Puriri, the village and the rural community, is supplied from a Hauraki District Council owned intake on the Apakura stream (which is a tributary to the Puriri Stream)
- This supply is not treated and does not currently meet Drinking Water Standards (DWS)
- The Puriri scheme is not connected to the Matatoki scheme
- The Puriri scheme is connected to the Hikutaia scheme. (However, while the two schemes are joined they are normally kept separate with the valve remaining closed unless more water is needed by one scheme.)

NB: The Hauraki District Council (HDC) may retire their intake and give up their consent at the Apakura River once the upgrade to their Kerepehi Water Treatment Plant is completed later this year.  
The Regional Council have told us that this water take at current volumes is not going to be able to be given to TCDC if HDC give up their consent (the Regional Council believe there is too much water being taken by both councils so they will reduce the take when HDC stop their supply from this stream).

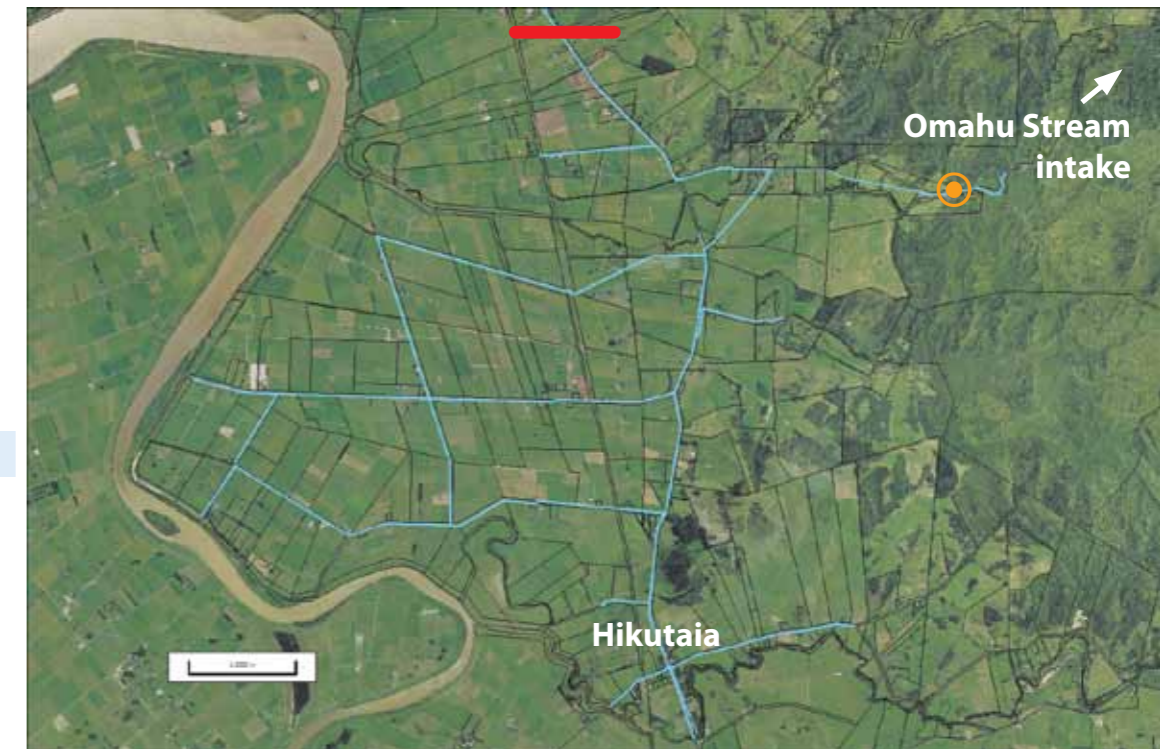


**KEY**

- Water pipes
- Valve between Puriri scheme and Hikutaia Scheme
- Existing Water filter (next to fire station)
- Hauraki District Council water pipe (under river)

## Hikutaia Water Scheme

- Hikutaia and the surrounding rural communities (e.g. Omahu) are supplied from an intake on the Omahu Stream
- This supply is not treated other than the new water filter and does not currently meet Drinking Water Standards (DWS)
- The Puriri scheme is connected to the Hikutaia scheme. (While the two schemes are joined they are normally kept separate with the valve remaining closed unless more water is needed by one scheme)



**KEY**

- Water pipes
- Valve between Puriri scheme and Hikutaia Scheme
- Water filter (new)

## Challenges

The project has to deal with a few challenges at once, including 3 separate water schemes, requiring 3 new Regional Council resource consents soon (requiring reduced water takes), ageing infrastructure, increasing demand for water and the government's drinking water standards which are forcing many communities to upgrade or install water treatment facilities.

The Thames Valley water project needs to face all of these challenges and design upgraded water schemes that:

- Achieve new resource consents from the Regional Council
- Reduces demand or finds new water sources to achieve consent
- Deals with replacing old pipes and leaks (which will also help reduce water demand)
- Manages issues around the government's drinking water standards

### Challenge #1:

#### Resource consents and water demand

To take water from rivers and streams, district councils need to get resource consents from the Regional Council. It's their job to make sure the water being taken from these sources is sustainable and doesn't have a negative effect on the environment downstream.

**The issue:** Our resource consents are expiring soon and we need to apply for new ones, but the current supplies and the way the schemes are set up will make this a challenge without significant investment in upgrading the schemes and reducing our water take or finding new water sources to supplement the reduction of our water take from the current sources.

#### The facts:

- Obtaining resource consents for water supplies on the Coromandel Peninsula is often difficult due to the small capacity of most Coromandel streams
- Challenges have been faced over a number of years, in Matatoki in particular, due to the low flows in the streams during the summer period
- Waikato Regional Council (WRC) have confirmed that our water takes are not a sustainable for TCDC in the long term
- Matatoki consent expires in 2016
- Hikutaia expires in 2019
- Puriri (HDC) consent expires in 2015
- We need to have a plan of action submitted to the Regional Council by the end of March 2013, which shows how we are going to reduce the take from the streams or make the schemes more environmentally sustainable

#### Our water demand below shows we are taking too much water:

Catchment	Design Demand During Peak Summer Period (m <sup>3</sup> /day)	"Regional Council Policy" 10% of Q.5 (m <sup>3</sup> /day) low flow
Matatoki	1,150	86.4
Omahu and Hikutaia	1,860	302.4
Apakura	> 3500 (HDC) 800 (TCDC)	432

1 cubic meter of water (m<sup>3</sup>) = 1000 litres of water.  
10% of Q.5 (low flow) is the default allocable flow set by the Regional Council



Some examples of installed water meters.

## Water Meters

All agricultural users and those living on lifestyle blocks greater than 4 hectares will be getting water meters installed by the end of November, 90% of these properties already have these installed.

Water meters encourage water savings because people have to pay for what they actually use so are motivated to use less, which will ultimately help us reduce the amount of water we take from our streams and will make it easier to get new resource consents.

We think user-pays is a fairer way to charge for water.

Making better use of water may also reduce the need to find new water sources in the future, which will save ratepayers money as well.

So in the end, once the water meter system is helping us all to better manage water demand, our use of water from existing sources may become much more sustainable.

Here's a few questions and answers about meters.

### Why are you installing water meters?

- To encourage users to conserve water by moving to a user-pays charging model. The less you use, the less you pay
- To fully understand how much water is being used and how much may be leaking

### How are you going to stop the meters being blocked by debris?

The pipes in the various schemes are old and often full of debris, also our intakes also let in bits and pieces too.

We're installing large self-cleaning filters at the Hikutaia and Matatoki schemes (Puriri has had one for a few years), which will come on line in November (refer to the scheme maps for their locations).

As part of this project, we have also put on screens at the intakes to help reduce the chance for blockages.

### When will you start charging for water?

We are currently working through the details of the charging structure that will be implemented. The details of this will be communicated once completed and prior to any water rates notices being sent.

## Challenge #2: The pipes are getting old

The water pipes are over 60+ years old and were originally installed by the farming community, so parts of the network have come to the end of their useful life and large scale replacements are required.

### The facts:

- Regardless of what options are selected to improve the schemes, renewal of pipes will be required
- We also know we're losing water from leaks, which if fixed, will reduce our take from the streams and make getting resource consents easier (because we need less water)



## Challenge #3: Government Drinking Water Standards

Our current schemes do not comply with the Government's Drinking Water Standards.

### The Facts:

- As part of our 2012 Ten Year Plan, the decision was made not to pursue water treatment due to the cost, the uncertainty around the draft standards and the fact that this is a mainly rural/agricultural supply (this is why the budget for the project dropped from \$12M to just over \$5M - yes that's right, a water treatment plant would cost the community about \$7M)
- Good news: The latest indications from the Government are that the Drinking Water Standards should be applied only where practicable (i.e. only if it's affordable), so this issue might not be a major challenge after all!
- The Drinking Water Standards will be finalised in 2015-16 (this is when we will know for sure about the rules for treatment around rural water schemes), in the meantime we think our position to not treat the water is a sensible one, however the community at large may have a different point of view

## Solutions and options

So we've discussed the various inter-related challenges we face and the question is, what options should be pursued to reduce our water take from the existing supplies in order to gain resource consent from the Regional Council and what will it cost ratepayers?

### Are water-meters and fixing the pipes and leaks enough to reduce demand and achieve consent without needing to find new sources of water?

Over the years, various options have been thrown around and discussed to future-proof the area's water supply including:

- A new supply from the Puriri River - \$12.6M over 10 years
- Introducing more self-sufficiency (tanks collecting roof water) and transfer of the supply to the residents - \$2.2M for tanks and minor reticulation upgrades only, renewals and transfer of costs. The remainder would be up to farmers and how they want to run the system
- Combination of new groundwater and surface water supplies - \$7M over 10 years if a reliable source was found
- Optimise and retain existing operation - \$5.3M over 10 years
- Supply from Kerepehi Water Treatment Plant (using existing pipe in place from the plains to the Apakura Stream) - Budget costs are currently being investigated

## The 2012 Ten Year Plan

As part of the 2012 Ten Year Plan process, funds were allocated for the project based on the 'optimise and retain existing operation' option (\$5.3M over 10 years).

This budget and approach is not 'set in stone' and can be amended to reflect a new option as this project develops over the coming months and after more consultation with ratepayers and residents.

## Some options in more detail

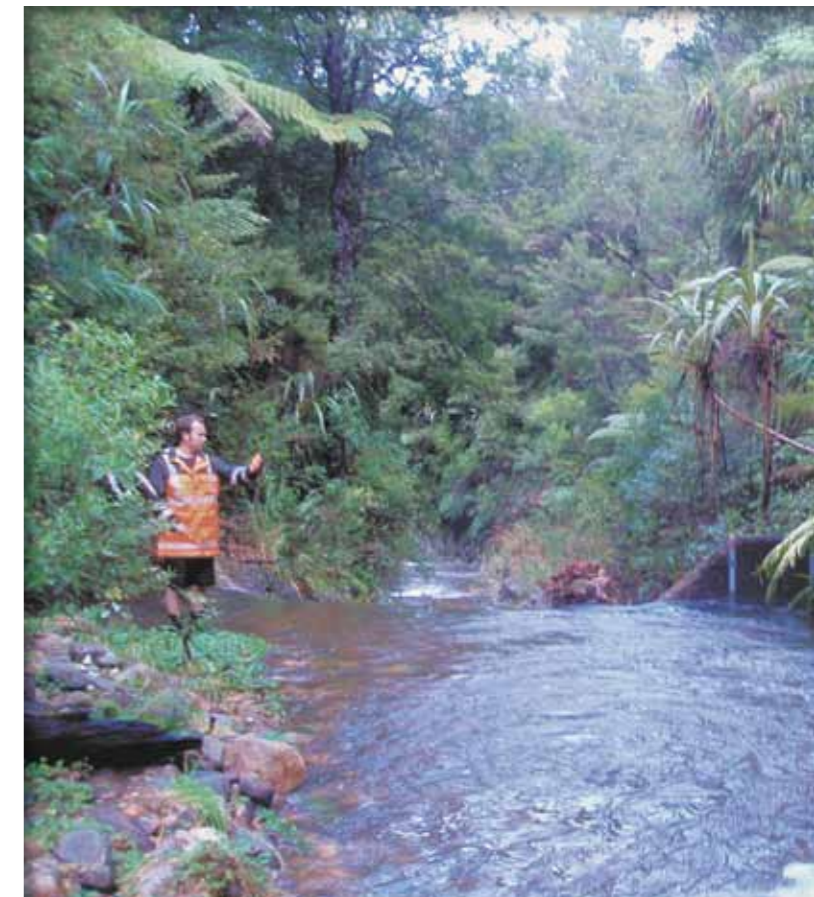
For our 2012 Ten Year Plan work, we investigated a few options in more detail including:

1. Supply all water from the Puriri River
2. More self-sufficiency for urban residents and hand back of the supply to farmers
3. Find new groundwater and surface water sources to complement existing sources
4. Optimise & retain existing operation
5. Supply from Kerepehi Water Treatment Plant

### Option 1: Supply all water from the Puriri River

This option includes the following:

- Apply for a new consent & intake on the Puriri River
- Build a new pump-station
- Renew and upgrade reticulation to stop leaks and breakages
- Install reservoirs to smooth out daily demands
- Minor treatment (solids & colour only)
- Connect the Puriri and Matatoki schemes (they aren't connected at the moment - refer maps for more information)
- Cost: \$12.6M over 10 years



## Option 2: More self-sufficiency for urban residents and hand back of the supply to farmers

- Connect the Puriri and Matatoki schemes (they aren't connected at the moment - refer maps for more information) - this will also reduce the take required on the Matatoki stream
- Start a process to stop supplying water to residents
- Install rain tank system to all dwellings (town and settlements only) so these dwellings are self-sufficient for water
- Tanks - \$1,950,000 (450 properties)
- Reticulation connection - \$417,000 (1.8km)
- Upgrades required (farmers) - Worse-case scenario \$4.5m (reticulation and consents over ten years)\*
- Operations and maintenance (farmers) - \$250,000/year\*

\*Farmers may be able to reduce costs and work up more cost-effective solutions given that they will be able to run the scheme cheaper than Council and could upgrade the network over a longer period of time using local sources of labour.

## Option 3: Find new groundwater and surface water sources to complement existing sources

- This option involves using ground water (new bores) to supply the Waihou River side of State Highway 25
- Supplying the hills side of the highway with the existing takes (Matatoki and Omaha)
- All of Puriri would remain supplied from the Apakura
- Renewing required pipework infrastructure
- \$7M over 10 years

We think finding suitable ground water may be difficult for this option.

## Option 4: Optimise & retain existing operation

- Retain the existing intakes and water schemes (including the Apakura)
- Connect the Puriri and Matatoki schemes (they aren't connected at the moment - refer maps for more information) - this will reduce the take required on the Matatoki stream
- Renewal of the existing pipelines to reduce leaks and breakages (undertaken as a 25 year programme)
- Reduce intake volumes over time as losses are reduced
- Install Chlorine dosing at each intake
- Upgrades to the intake infrastructure (screens etc)
- Water meters will also, over-time, reduce water demand making this option more viable
- \$5.3M over 10 years
- If the required consent volumes could not be achieved, a link from the Thames network could be installed for an extra ~\$1.8M

## Option 5: Supply from Kerepehi Water Treatment Plant

The Hauraki District Council (HDC) will soon complete their upgrade to the Kerepehi Water Treatment Plant.

We could buy water from HDC and pump the water to the Thames Valley using the water pipe they use to take water from the Apakura Stream (they might retire this intake when the treatment plant has been upgraded).

- This option was investigated previously
- It is now being investigated in further detail
- It is a "Drinking Water Standards" quality supply (is this needed for a rural supply?) Volumes, details & costs currently being looked into further

## We don't have all the ideas

While we've done much work in the past on the various options, it's important the community are involved in the way forward. Also, we don't have exclusive rights for generating good ideas, so there may also be other solutions out there we've completely missed!

Council and the community also need to be united when it comes to approaching the Regional Council for new consents, so we need to work together to find solutions that the majority agree with (we're never going to get 100% support for everything).

A community working group has formed to start working through the options and will be in touch via community meetings to discuss work-in-progress.

## Community Working Group Membership

Feel free to contact your community working group members

Deputy Mayor and Thames Councillor Peter French	email: <a href="mailto:frog03@xtra.co.nz">frog03@xtra.co.nz</a>	Ph: 07 868 6649
Thames Community Board member Mark Bridgman	-	Ph: 07 868 7273
Thames Community Board member Lester Yates	email: <a href="mailto:lester@lesteryatesmotors.co.nz">lester@lesteryatesmotors.co.nz</a>	Ph: 0274920243
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Iwi Representative Craig Reidy	email: <a href="mailto:ctrcorp@clear.net.nz">ctrcorp@clear.net.nz</a>	Ph: 868 6601

## Residents and Ratepayers Meetings

This year, we're holding another two meetings for residents and ratepayers of Thames Valley so they can hear back from the community working group and so the community can give them feedback about the options and ideas they're working on.

There is likely to be at least one more meeting in February 2013 (we'll let you know when and where closer to the time).

### November Meeting

Where : Puriri Hall  
When : Monday 19 November 2012  
Time : 12pm and 6pm (repeats - just choose one to attend)

### December Meeting

Where : Puriri Hall  
When : Monday 17<sup>th</sup> December 2012  
Time : 12pm and 6pm (repeats - just choose one to attend)