

## ATTACHMENT 1

### 1. Application

#### 1.1 Applicant

Kapiti Coast District Council  
Private Bag 601  
PARAPARAUMU

#### 1.2 Consents Applied for

##### 1.2.1 *WP 990209 (01): Discretionary Activity*

Water permit to take water from the Wainui Stream (upper intake) for Paekakariki public water supply.

##### 1.2.2 *WP 990209 (02): Discretionary Activity*

Water permit to take water from the Wainui Stream (lower intake) for Paekakariki public water supply.

##### 1.2.3 *LU 990209 (03): Discretionary Activity*

Land use consent to construct a secondary intake structure in the Wainui Stream, immediately upstream of the existing upper intake.

#### 1.3 Location

Wainui Stream (Smiths Creek), Paekakariki, at or about map reference:

- NZMS 260:R26;762.223 at the upper intake
- NZMS 260:R26;760.227 at the lower intake
- NZMS 260:R26;762.223 at the proposed secondary intake

The Wainui Stream catchment itself lies to the north of the Paekakariki township and drains the coastal hills on the southern side of the Tararua Ranges. The Wainui Stream rises at Mt Wainui at 722 metres in altitude, and has a catchment area of approximately 7.6km<sup>2</sup>. The stream flows to the north from its headwaters until its foothills. From the foothills it then crosses State Highway One, flows through an area of flat pasture land, through Queen Elizabeth Park, and then to the sea. This is total distance of approximately 5.6km.

Te Puka Stream is the only major tributary of Wainui Stream. This tributary flows from the eastern flank of Mt Wainui, along what is commonly referred to as Transmission Gully, and joins the Wainui Stream after it crosses State Highway One.

The catchment is covered with a variety of native vegetation in its upper reaches, and predominately farmland and forestry in its lower reaches. The applicants note the significance of Wainui Stream Bush a 20 hectare section of bush dominated by kohekohe and tawa. The catchment is part of a larger area which has been identified in the Proposed Kapiti Coast District Plan as an Outstanding Landscape Area.

## 2. **Background**

The Kapiti Coast District Council (KCDC) has applied to renew their existing consents to abstract water from the Wainui Stream for public water supply.

Currently, KCDC has three water rights previously issued by the Manawatu Catchment Board and Regional Water Board in 1984 and 1986. Of these three water rights, the two issued in 1984 were to dam the Wainui Stream for the “*purpose of providing an intake for Paekakariki water supply*”, and for the “*supply of public water*”. Both of these consents expired on 17 July 1999. However, under section 124 (b) of the RMA, the Wellington Regional Council allowed the applicant to continue to abstract from the Wainui Stream under existing consent conditions while the current application was being processed.

The additional consent granted in 1986 was for the right to take water from a gallery intake situated further downstream from the original upper intake. This consent is not due to expire until September 2002. However, the applicant wishes to surrender it and reapply for renewal as part of the full suite of consents required for the management of the stream.

The present water supply system was developed in 1942 by the Public Works Department to serve the American military camp which was located in the vicinity. Prior to this, water was supplied to Paekakariki via an intake in McKay’s Creek.

## 3. **Proposal**

The applicant wishes to apply for a renewal of the two water abstraction consents which currently allow for a total combined take of no more than 18.8 litres per second. In reality it is only the abstraction from the upper intake which is relevant as the lower intake is currently blocked and remains unused. Under the proposed regime, this situation would remain the same unless the lower intake was required in an emergency situation. In addition, a new ‘secondary’ intake is proposed immediately above the existing upper intake. The proposal as outlined above is briefly outlined on below.

### 3.1 **Upper Intake**

The upper intake is the original abstraction point for this water supply system, and is located approximately 1.5 km upstream from State Highway One. Modified slightly over the years, this intake currently consists of a small weir and fine mesh screen, a sediment trap and a 150mm diameter cement lined steel supply main. Water taken at this location flows into the sediment tank and what does not flow down the pipeline is discharged from the sediment tank back into the stream just below the intake.

Water which is abstracted then runs by pipe to storage tanks adjacent to State Highway One where it is filtered through pumice and sand, then flows through a micro-filter and is chlorinated, and is then pumped to a storage reservoir above the Paekakariki township.

### 3.2 **Lower Intake**

In 1986 a replacement intake was constructed in the bed of the Wainui Stream approximately 500 metres downstream of the upper intake. This intake comprised of a water stop membrane beneath the bed of the stream, and perforated plastic piped buried in the gravel acting as the intake system. It was originally intended that this intake would replace the upper intake. However, this intake was never utilised, and is currently blocked and remains unused. This intake would only be re-established if the existing upper intake became totally or partially inoperative.

It should be noted that at this location there is only intermittent surface flow, and below this point there is often significant losses to groundwater which can severely reduce flow by the time the stream reaches State Highway One.

### 3.3 **Construction of New Intake**

The applicant has also applied to construct a secondary intake in the area immediately upstream of the existing upper intake. This intake would only be used when maintenance works were being undertaken on the existing intake, and would ensure that security of the water supply. The construction of this secondary intake would not impact on the maximum allowable rate of abstraction.

This intake will consist of a fixed aluminium plate attached to an already existing concrete wall. A 150mm aluminium camlock will then be fixed to the aluminium plate. This will allow for a temporary intake pipe to be securely fixed to this structure when required.

## 4. **Other Consents and Approvals Required**

There are no other consents or approvals required for a continuation of this abstraction, nor the proposed construction works for the establishment of a secondary intake.

The catchment above the lower intake are designated by the Kapiti Coast District Council in the Proposed District Plan as “*water treatment plant, intake and catchment*”. The existing water permits and current consents sought are therefore consistent with the designated purpose of the area.

## 5. Consultation

The applicant was originally of the opinion that this application could be processed on a non-notified basis. As such, only limited consultation in the development of their application was undertaken, with Regional Public Health and Ngati Toa. No consultation was undertaken with affected parties or adjoining neighbours of the resource.

The Wellington Regional Council informed the applicant on receipt of their original proposal that the written approval of a downstream user of the Wainui Stream would be required prior to the processing of the consent. This downstream user of the resource runs a market garden, and abstracts from the Wainui Stream for domestic and shop supply. Despite some considerable effort by the applicant, this written approval from the downstream user was not forthcoming. As such, the application was publicly notified.

## 6. Notification and Submissions

In accordance with Section 93 of the Act, the applications to the Wellington Regional Council (WRC) were publicly notified in the Evening Post on Saturday, 8 April 2000, and in the Kapiti Mail on Thursday 13 April 2000. A sign was also posted outside of the KCDC Wainui Stream treatment plant adjacent to State Highway One.

The WRC directly notified individuals and organisations considered to be affected by the proposal. Such parties included the Department of Conservation, Ngati Toa as the local Iwi, Regional Public Health, the Paekakariki Community Board and neighbouring residents.

A total of two submissions were received as a result of this notification process. Of these, one submission from an adjoining neighbour opposed the application, and Regional Public Health gave its support to the proposal.

Concerns expressed in the submission opposing the application related to low flow provisions for the Wainui Stream, the general lack of information on the flow characteristics of the stream, and the long-term health of the stream.

A full list of submitters, including a summary of their submission, can be found at Appendix 1.

## 7. Further Information and Meetings

From discussions with the submitter in opposition to the application, it became apparent that it may be possible to reach an agreement on suitable conditions which would alleviate concerns expressed in the submission. As such, an on-site meeting was held on 20 April 2000 involving both submitters, the applicant and WRC.

In consultation and agreement with both the applicant and submitters, a draft set of conditions was prepared prior to the meeting which were intended to be workable for the applicant, and address the concerns of submitters. Following an inspection of the intakes, stream environs and consideration of the draft conditions, the proposed conditions were approved by all parties. As such, a formal hearing to make a final decision on this application is not required.

## 8. Statutory Reasons for Requiring Resource Consents

### 8.1 Water Permit for Abstraction

Section 14 of the Act, Restrictions relating to water, provides as follows:

- (1) *No person may take, use, dam, or divert any –*
  - (a) *Water (other than open coastal water); or*
  - (b) *Heat or energy from water (other than open coastal water); or*
  - (c) *Heat or energy form the material surrounding any geothermal water – unless the taking, use, damming or diversion is allowed by subsection (3).*
- (2) *No person may –*
  - (a) *Take, use, dam, or divert any open coastal water; or*
  - (b) *Take or use any heat or energy from any open coastal water, - in a manner that contravenes a rule in a regional plan or a proposed regional plan unless expressly allowed by a rule in a resource consent or allowed by section 20 (certain existing lawful activities allowed).*
- (3) *A person is not prohibited by subsection (1) from taking, using, damming, or diverting any water, heat, or energy if –*
  - (a) *The taking, use, damming, or diversion is expressly allowed by a rule in a regional plan [and in any proposed regional plan] or a resource consent; or*
  - (b) *In the case of fresh water, the water, heat or energy is required to be taken for –*

- (i) *An individual's reasonable domestic needs; or*
- (ii) *The reasonable needs of an individual's animals for drinking water, -  
and the taking or use does not, or is not likely to, have an adverse effect on the environment; or*
- (c) *In the case of geothermal water, the water, heat, or energy is taken or used in accordance with tikanga Maori for the communal benefit of the tangata whenua in the area and does not have an adverse effect on the environment; or*
- (d) *In the case of coastal water (other than open coastal water), the water, heat, or energy is required for an individuals domestic or recreational need and the taking, use, or diversion does not, or is not likely to, have an adverse effect on the environment; or*
- (e) *The water is required to be taken of used for fire-fighting purposes.*

The proposed abstraction rate is not an activity which is expressly allowed for by a rule in a regional plan. As such, the abstraction requires consent under section 14 (a) of the Act.

The water permits applied for by the applicant are for a combined abstraction of up to 1,625,000 litres of water a day. As this abstraction level is above the permitted daily allowable abstraction level of 20,000 litres per day, it is therefore a *discretionary activity* under rule 16 of the *Regional Freshwater Plan*.

There are no rules in the *Wellington Regional Council Transitional Regional Plan* which have relevance to this activity.

## 8.2 **Land Use Consent for Works in the Bed of Stream**

Section 13 of the Act, Restrictions on certain uses of beds of lakes and rivers, provides as follows:

- [(1) *No person may, in relation to the bed of any lake or river:*
- (a) *Use, erect, reconstruct, place, alter, extend, remove, or demolish any structure of part of any structure, in, on, under or over the bed; or*
  - (b) *Excavate, drill, tunnel or otherwise disturb the bed; or*
  - (c) *Introduce or plant any plant or any part of any plant (whether exotic or indigenous) in, on, or under the bed; or*
  - (d) *Deposit any substance in, on, or under the bed; or*
  - (e) *Reclaim or drain the bed –*

*Unless expressly allowed by a rule in a regional plan and in any relevant proposed regional plan or a resource consent.*

(2) *No person may –*

(a) *Enter or pass across the bed of any river or lake; or*

(b) *Disturb, remove, damage, or destroy any plant or part of any plant (whether exotic or indigenous) or the habitats of any such plants or of animals in, on, or under the bed of any lake or river –*

*In a manner that contravenes a rule in a regional plan or a proposed regional plan unless that activity is –*

(c) *Expressly allowed by a resource consent granted by the regional council responsible for that plan.*

The land use consent applied for by the applicant to construct an emergency intake in the Wainui Stream is not an activity which is *expressly allowed* by a rule in a regional plan. As such, the proposed works require resource consent under sections 13 (1)(a) and (b) of the Act.

Under the *Regional Freshwater Plan*, the construction of an emergency intake and the associated disturbance of the Wainui Stream must be considered under rule 49 as a *discretionary activity*.

There are no relevant rules in the *Transitional Regional Plan* which relate to the proposed activities.

## 9. **Matters for Consideration**

Section 104 of the RMA outlines the matters that a consent authority must have regard to when assessing any application. The matters outlined in this section which are relevant for the consideration of this application include the following:

- Part II of the Act, and Section 13, 14, and 104;
- The Regional Policy Statement for the Wellington Region; and
- The Regional Freshwater Plan for the Wellington Region.

A more detailed list of these can be found at attachment 3.

## 10. Assessment of Effects

### 10.1 Sustainability of abstraction

Presently, at times of low flow, the level of abstraction from the upper intake does at times take the entire flow at the intake point. While this is not a frequent occurrence, it is nonetheless significant. In the majority of instances however, residual water will flow over the existing weir. Water can also be discharge back into the stream from the settling tank as a result of overflow either due to a sufficiently high natural flow rate above the level of demand, or if the reservoir is full and there is no water actually being abstracted.

The applicant considers that the total proposed abstraction limit of 18.8 litres per second is reasonable given:

- This amount is the same as allowed for under the previous consent;
- The average highest weekly rate of abstraction (around 13.5 litres per second) is less than the upper limit sought, but still allows for the flexible management of the supply system;
- The District Council has a responsibility to continue public supply to the Paekakariki community;
- The Wainui catchment is designated for providing public water supply
- Wainui Stream has been subject to water abstraction for public water supply since 1942; and
- The effects of taking up to the same amount will not change

However, these effects of taking are not addressed by the applicant, who states simply that *“For the continuing abstraction of water from the Wainui Stream, it is considered that there will be no future effects which are not already well established.”*

A number of gauging runs have occurred in the last two years as part of the Wellington Regional Council’s Kapiti Coast Low Flows Project. This project has been commissioned by the Consents Management Department, and has been carried out by the Resource Investigations Department of the Council. It is aimed at increasing the knowledge and understanding of flow regimes in various streams in the Kapiti Coast, including the Wainui.

As part of this project a temporary flow recorder was installed in December 1998 above the location of the applicants upper intake. There were also a series of flow gauging sites used during this work located below the KCDC upper intake, at State Highway One, Queen Elizabeth Park and the Wainui Stream mouth. In addition, flow recorders in the Wharemauku Stream at Coastlands and in the Waikanae River at the Water Treatment plant were used to provide correlated flow records for the Wainui Stream. While high flow ratings taken from the recorder station require some confirmation, the low end of the rating curve is well defined and fully representative of gaugings undertaken. Therefore, the report states that the medium to low flow data can be used with confidence. Key findings of this research indicate the following:

- Zero flows are recorded at State Highway One, regardless of whether or not water is being abstracted at the upper intake. It is known to dry up often at this



site as what water flows naturally over the intake disappears below the ground between where the stream leaves the foothills and about 200 metres upstream of State Highway One.

- It is probable, given the amount of flow naturally in the stream, that there would still be periods of no flow at State Highway One even if there were no abstraction upstream.
- Flow is regained from the confluence of the Te Puka Stream onwards. By the time it flows through QEII Park, where it is both a scenic and recreational amenity, it has regained substantial flow. This is mainly through groundwater sources, although there is some minimal flow recovered from the Te Puka Stream tributary.
- Flow in the Wainui Stream will be below 19L/s for 9 percent of the time, or 33 days per year on average. Under current and proposed consent conditions maximum abstraction is 18.8 L/s.
- Correlated flows with the Waikanae River, above the KCDC intake, dating back to 1975 indicate that February is typically the driest month in the Wainui Stream in terms of mean monthly flow (43L/s).

The tables below extrapolate in more detail some of the findings indicated above. It should be noted that the figures below were obtained using gauging correlated from the Waikanae River. As noted above, these figures provide a good representation of low to mean flows, but may not define high flows very well. For the purpose of this report it is the low flows which are of major significance.

*Table 1: Historical abstraction Date for Wainui Stream above the KCDC Intake: 1975 – 1998. Mean Monthly and Yearly Flows (L/s)*

| <b>Years 1975-1998</b> | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | <b>Annual Mean</b> |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|
| Min                    | 19  | 14  | 11  | 15  | 28  | 33  | 33  | 33  | 20  | 33  | 29  | 24  | <b>42</b>          |
| Mean                   | 55  | 43  | 47  | 56  | 73  | 91  | 99  | 91  | 84  | 95  | 75  | 81  | <b>75</b>          |
| Max                    | 148 | 98  | 199 | 141 | 175 | 177 | 164 | 142 | 181 | 189 | 200 | 238 | <b>105</b>         |
|                        |     |     |     |     |     |     |     |     |     |     |     |     |                    |

While this table is representative only in that it is averaged correlated data, it does show that in general, mean flows in dry months are high enough to meet both public supply demands and in-stream requirements

For more detailed and recent data, it is possible to refer to recent gauging runs which have been undertaken in the last two years as part of the Kapiti Coast Low Flows Project. These figures have indicated the following flows at the locations highlighted:

*Table 2: Kapiti Coast Low Flow Program Gauging Results (L/s)*

| <b>Date</b>      | <b>Above KCDC Intake</b> | <b>Below KCDC Intake</b> | <b>SH1</b> | <b>Te Puka @ SH1</b> | <b>Beach</b> |
|------------------|--------------------------|--------------------------|------------|----------------------|--------------|
| 16 April 1998    | 16                       | -                        | 7          | 10                   | 14           |
| 28 January 1999  | 29                       | 4                        | 1          | 3                    | 24           |
| 12 February 1999 | 18                       | 6                        | 1          | 1.6                  | 16           |
| 14 April 1999    | 14                       | 0.5                      | 0          | 4                    | 11           |
| 2 March 2000     | 16                       | 11                       | 0.5        | 3                    | 8            |

It is clear from the above that the KCDC water supply has an obvious effect on the flow of the Wainui Stream. A large part of the flow during dry periods is removed at the intake, and at times little is left to flow downstream.

At times of little to no flow in the Wainui Stream, the bed of the stream below SH1 does contain water, but it is largely stagnant and remains from the last time the stream was flowing. Towards the confluence with the Te Puka Stream, small amounts of surface flow reappear where groundwater returns to the surface.

The other factor of significance in assessing this information is the actual take abstracted by the KCDC. While proposed consent conditions allow a total of 18.8L/s to be abstracted, in reality this is seldom the case. The applicant notes that while the 18.8L/s gives flexibility in operating procedure to meet demand, actual abstraction in the years between 1991 and 1999 was 10.5L/s. Over this same period the highest abstraction rate (as a weekly average) has varied between 17.5L/s and 13.5L/s. Significantly, these figures were taken from abstractions in the summer months between November and March, where typically demand is higher, and supply of water lower.

The final point to note is the demand management regime which is in place for the Paekakariki community where year round sprinkler and garden watering bans are required. There is also an active leak detection and investigation programme established.

Based on the information above, I consider it reasonable to conclude that there will at times be an adverse effect on the flow of the Wainui Stream from this abstraction. However, I consider this is acceptable for short periods given the need to balance the security of water supply for the Paekakariki community. Periods where an adverse effect will occur should be limited, however, as the natural flow of the Wainui Stream is in most circumstances high enough to cater for both the proposed abstraction, and provision of sufficient in-stream flow.

It should also be noted that low flow monitoring of the Wainui Stream will continue as part of the Regional Council's annual gauging in Kapiti Coast streams and rivers. This will provide a greater level of information on the effect of the abstraction during the term of the consent.

## 10.2 Public Health – Water Quality

While being designated by the Wellington Regional Council as a water supply area, the site does to a large extent rely on its remoteness and relative inaccessibility of the intake to maintain a hygienic supply of water to the treatment plant. Livestock can graze in the catchment area, and carcasses have been found in and near the stream in the past. It is possible that this may occur at locations above the intake at various times. While these animals are privately owned and come from adjoining properties, this is clearly not appropriate for a water supply catchment, and more attention should be paid to the management of this area.

However, water quality from the treatment plant has continually increased, with the Register of Community Drinking Water Supplies in New Zealand now grading the water supply from the Wainui Stream relatively highly. In terms of the source and treatment gauging assessment, the supply is graded (B). This means the supply is “*Satisfactory, with a low level of risk.*” For the distribution zone grading, based on the condition of the reticulation system, management, and the actual potable water quality, the supply is graded (a). This is classified as “*Completely satisfactory, negligible level of risk, demonstrably high quality.*”

Based on this grading, I do not consider that there is an adverse health risk to the public from a continuation of this supply. In addition, Regional Public Health submitted in support of this application, stating that they would be concerned with any potential restrictions on water supply to the Paekakariki community.

## 10.3 Aquatic Life and Habitat

There is limited information available in relation to aquatic life and habitat in the Wainui Stream.

The Regional Freshwater Plan identifies the Wainui Stream and its tributaries upstream of the coastal marine area boundary as having a recorded instance of nationally threatened indigenous fish, namely, the Giant Kokopu. This recording was in the lower catchment near the mouth of the stream where there is a constant flow of water. While it is possible for fish to move up the catchment, the streams natural flow characteristic where significant flow is lost underground upstream of SH1, would suggest that there is not a naturally abundant habitat in this reach.

In general, fish species may have difficulty finding habitat in an intermittently flowing stream. As noted, given the fact that the stream naturally dries up near SH1, it seems fair to conclude that the presence of indigenous fish in this reach of the stream would be unlikely. There is also the added consideration that the culvert under SH1 also provides a significant fish barrier. It is also arguable that if fish species do exist in this environment, they would have had to adapt to a flow pattern which has included the abstraction of water since 1942. In reality, it would be expected that any fish that inhabit the Wainui Catchment would be found either upstream of the KCDC intake, or well below SH1 where the natural flow of the stream has been. The tributaries of the Wainui Stream will also provide fish habitat, although there is little knowledge of the flow or habitat characteristics of these tributaries.

In conclusion, I consider that the proposed continuation of this abstraction does have the potential to cause an adverse effect on the aquatic life of the stream. However, given the likelihood that there is limited aquatic life in the stream below the upper intake and State Highway One where flow is most affected by the abstraction, I consider this adverse effect to be acceptable.

#### 10.4 **General Catchment Condition**

In general, the catchment below the intake to where the lower intake is situated is characterised by a large amount of debris, such as old pipe, plastic piping, concrete blocks and old bolts. Much of this material is in the stream margins. It is recommended that this material be removed to mitigate any flood hazard, and return this section of the catchment as much as possible to its natural state. It is my understanding that the replacement of the current 1940's supply pipe is subject of a separate application. It would be advisable to clean up of this area of catchment at this time.

#### 10.5 **Possible Alternative Water Sources**

The applicant has previously looked at a number of alternatives ways in which water can be supplied to the Paekakariki community, most recently when the WRC Regional Freshwater Plan was notified. These alternative options consisted of:

- Connection to the reticulation system in Raumati South;
- Whareroa farm supply piped to the existing treatment plant;
- Installation of bores in the vicinity of Queen Elizabeth Park; and
- Utilisation of Te Puka Stream

Due to a variety of cost, water quality, and sustainability issues, all of these options have been rejected for the status-quo. This decision was made in conjunction with the decision to upgrade the old pipeline which runs from the intake to the treatment plant. This work has been the subject of a separate application to the WRC.

I consider that alternative options for the management of the Paekakariki water supply have been well assessed by the applicant. On the basis of their assessments, and ultimate rejection of these alternatives, I would support the applicants proposal that the continued abstraction from Wainui Stream is the most practical way in which to provide water to the Paekakariki community.

#### 10.6 **Construction of a Secondary Intake**

The proposed secondary intake will in reality cause only very minor, and temporary disturbance.

As there is already an existing concrete wall in place to which the aluminium sheet will be placed, there will be little disturbance in the erection of the plate, nor in installing the camlock fitting. While some work in the stream bed will be required, and will release some sediment, the effect of this will be minimal and very short term

in nature. Once in place, the temporary placement of a hose pipe into the camlock will cause little or no disturbance.

## 11. **Recommendation**

As a result of assessing this application, I have no significant issues in relation to effect on the Wainui Stream as a result of the continued abstraction of water for Paekakariki public water supply. I consider that flow in the stream is both sufficient to meet public supply demands, and maintain the existing health and habitat of the stream system. In addition, flow information which is continuing to be gathered by the WRC will allow for a continued thorough assessment of any adverse effects which may arise from this abstraction in the future.

## 12. **Suggested Term of Consents**

The applicant originally requested that the term of consent be granted as 35 years. However, given the need to balance security of water supply with ecological concerns, I would recommend a term of 15 years. This recommended term repeats the term of the previous consents held by the applicant for this abstraction, and also meets with the approval of both submitters and the applicant.

Report prepared by:

Recommendation Approved by:

NIGEL CORRY  
Resource Advisor

ROB FORLONG  
Manager, Consents Management

| <b>Appendix 1</b>                |                                   |  |                         |                          |
|----------------------------------|-----------------------------------|--|-------------------------|--------------------------|
|                                  |                                   |  |                         |                          |
| <b>Surname/Organisation Name</b> | <b>First Names / Contact Name</b> | <b>Submission Reason</b>   | <b>Support / Oppose</b> | <b>Wish to be heard?</b> |
| Regional Public Health           | Chris Edmonds                     | Submitter supports the need for an adequate supply of safe water for drinking, personal hygiene and other purposes impacting directly on public health.              | Support                 | Y                        |
| Rowan                            | Jenny                             | Opposes on basis of the need for more environmental monitoring and understanding of low flow patterns. Also has concerns with rubbish in the vicinity of the stream. | Oppose                  | Y                        |
|                                  |                                   |  |                         |                          |
|                                  |                                   |  |                         |                          |
|                                  |                                   |  |                         |                          |