



Public Participation at SEKID:
The Concerned Citizens of the Hall Road Area

Internal Report
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November 2, 2001

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Introduction

The South East Kelowna Irrigation District is an improvement district providing water utility services to about 22% of the area of the City of Kelowna. The district has about 1,700¹ domestic water services and 400 irrigation services. The service area is predominantly rural agricultural, with the exception of two areas that are not in the Agricultural Land Reserve.

One of these areas is known as the Hall Road Area (see Figure 1.). The HRA was developed primarily in the late seventies and early eighties and consists mainly of single-family detached homes on larger lots.

Water service to the development was approved on the basis of ground water supply from a well developed on O'Reilly Road. Given the technology of the day and the limited number of homes in the HRA (169), well water was deemed too expensive to supply on a full time basis. As such, the area was supplied with the same surface water supply as the rest of the district and well water was supplied only during drought periods or when the water quality was very poor.

Water quality has been an on-going concern for many residents in the HRA over the years. The district's surface water supply originates in the upper watershed on the northwest slope of Little White Mountain. The water is coloured by naturally occurring

¹ These 1,700 domestic services provide water to an estimated population of 6,000.

tannins and tends to be turbid² at times throughout the year. The HRA is at the end of our distribution system and this exacerbates the colour and turbidity problem.

Consequently, district staff routinely dealt with water quality complaints from both new and long time residents of the HRA. A study was done in the mid-eighties to look at what the cost of a full time well water supply would be. That study concluded that residents would have to pay an additional \$17.00 per month for well water. The monthly toll at that time was \$10.00 and most residents rejected what amounted to a 170% increase in their monthly toll rate. The board decided to not proceed with the full time well water supply at that time.

The situation remained unchanged until 1997, at which time the district began to encourage those who were not happy with water quality to get in contact with others in the area that felt the same way. The decision to encourage group action was made by district staff for three reasons: 1) there had been a considerable turn-over in residents in the twelve years since the last proposal had been defeated, 2) technology advancements made it likely well water could be supplied more economically than in the past, and 3) there appeared to be a heightened concern and awareness of water quality as a public health issue.

In the late winter of 1997 a group of HRA residents got together and formed The Concerned Citizens of the Hall Road Area.

² Turbidity is the measurement of fine particles (clay, silt, organic compounds, etc.) suspended in the water column.

The Concerned Citizens of the Hall Road Area (CCHRA)

The Concerned Citizens of the Hall Road Area was made up of a group of HRA residents who had initially been put in contact with each other by the staff at the district. They had all expressed concern about water quality and had been advised that the most effective way to get the ear of the Board of Trustees was to form a group and demonstrate some degree of support from the HRA as a whole.

The General Manager, with the approval of the board, met with the group several times to provide advice and support. The CCHRA presented a petition to the Board of Trustees at a meeting April 15, 1997. The question read:

We are dissatisfied with the water provided for this area and request that the South East Kelowna Irrigation District determine what alternatives are available to us. In light of the recent outbreak of cryptosporidium³, we would like to ensure that our ongoing water supply is safe for consumption.

There were 164 signatures on the petition, representing 144 homes in the Hall Road area.

The board thanked the group for their efforts and passed a motion to have Mould Engineering Services Ltd. do a study on alternative water supply options to the area.

The Board of Trustees

The political concerns of the board surrounding this issue were subtle but not insignificant. For the most part, the five-member board was made up of trustees with

³ The City of Kelowna water utility had a *cryptosporidium* outbreak in August of 1996.

constituents in the rural portion of the district. All trustees had acreages and there were no board members from “the subdivisions”.

This rural or agricultural representation on the board is understandable given the importance of water supply for irrigation. It is also interesting to note that, by and large, when a candidate from outside of this group runs for a trustee position, it is often met with an increase in voting from rural constituents. Consequently, it is difficult for someone who is not perceived as being sympathetic to the rural sector to get on the board.

Nonetheless, in this situation, the board could not ignore the clear message from the CCHRA to do something about water quality in the Hall Road area. There was concern and considerable discussion amongst the board that providing well water to the HRA would create resentment from other areas of the district. On the other hand, area residents had legitimate concerns regarding water quality and had demonstrated a clear majority of landowners in the area wanted something done about it. It was also an on-going issue that took up staff time and resources and was not going to go away on its own. The board concluded that the best course of action was to be seen to be reactive while in fact being proactive.

Staff was advised to provide general assistance to the CCHRA and consult the Ministry of Municipal Affairs as to the district’s statutory requirements, if any, for proceeding with the project. Staff was also instructed to look at financing options that ensured only those benefiting from the project would pay for it.

The Ministry of Municipal Affairs

The Improvement District Section of the Ministry of Municipal Affairs was not particularly concerned with how the district was to proceed.

They advised that if the district were to finance the improvements from reserves it was within the board's authority to make the capital improvements necessary, designate the HRA a special service area and impose a rate schedule on the residents - all without a public consultation process.

The ministry advised that if the monies were to be borrowed, the district would be required to demonstrate the majority of HRA residents approved. Again, there are no specific guidelines as to how this is accomplished, but ministry staff indicated referenda, petitions and public meetings were all acceptable methods.

Engineering study

In July of 1997 Mould Engineering Services Ltd. presented the board with a study entitled *O'Reilly Pump Station Automation Study*. The report looked at the costs to refit the well with a variable frequency drive and to enable the well to be monitored by computer from the district office. Variable frequency drives are not new technology, but the unit cost has become much cheaper in recent years.

The report also presented the estimated operating costs for the automated system broken down between full and part time operation. The part time operation of the well called for it to not be operated during the winter months when water quality in the HRA is relatively good.

The board reviewed the study and, after some discussion instructed staff to forward copies of the report to the CCHRA. This was done under cover letter dated July 17, 1997.

The letter indicated to the CCHRA that the district would consider financing the project out of reserve funds and those monies would be considered as a loan to the project. A special charge would be levied against the HRA in an amount that would cover the operating costs, a contribution to an equipment replacement reserve and the loan.

The letter cautioned there were a number of variables in the study that the board had yet to decide upon. These included such things as the interest rate on the loan, amortization period and the environmental impact on the various ponds in the area⁴. The letter also indicated that the board would favor the full time operation of the well. The levy for this option was estimated to be an additional \$16 per month for each of the 165 homes served by the district in the HRA⁵.

In light of this dramatic potential rate increase, the board requested an indication from the area residents that there remained sufficient interest to proceed. It was at this stage in the public processes some twelve years earlier that the residents had balked at a \$17 per month increase and the project had been shelved⁶. The board was reluctant to proceed until they had an indication from the CCHRA that there remained sufficient interest to do so. As such, the CCHRA was requested to review the report and contact the manager to discuss the issue in greater detail.

⁴ The Hall Road ponds are a series of natural ponds that receive a supplementary water supply from the district. There was concern that a switch to well water could affect the amount of water available to the ponds and that this could have an environmental impact on the ponds.

⁵ The domestic toll rate for the area in 1997 was \$15.50 per month.

⁶ The domestic toll rate for the area in 1985 was \$10.00 per month.

Public Relations

Almost nine months elapsed before a response was received from the CCHRA. This time period was a source of concern to both the district staff and Board of Trustees on a number of levels.

The district had spent almost \$3,000 on the report and the absence of a response was an indication that the report may have been rejected and we were back to square one, less the cost of the report. This was an obvious setback to staff given that the board had acted on staff recommendations and the project appeared to have stalled. It was also a concern in that if the project did not advance, then the chronic water quality problems from the HRA would persist.

From the board's perspective, in addition to the above, there was a public relations issue. The CCHRA had presented a petition in April and had received a comprehensive response from the district in July – a fairly fast turn around for any public body. The board was concerned that the residents be made aware that the district had acted in a timely fashion and were not the cause of any delay.

The vehicle to get this message out was the district's newsletter. The district produces a spring and fall newsletter each year, which is mailed to all landowners in the district. A series of items about the HRA study and the actions of the district were included in the newsletter to keep people up to date and aware of the district's actions on this issue. As the public consultation process advanced, items from the CCHRA were also included in the district newsletter.

Establishing the Public Process

As mentioned earlier, nine months passed from the time the engineer's report was forwarded to the CCHRA and the time a formal response was received. District staff had made several inquiries in the intervening months to find out what was going on. These inquiries were made to both provide information to the board and to try and get the CCHRA back on track.

In April of 1998 the district received a letter from the CCHRA requesting additional information. The letter requested detailed information about water quality, the groundwater source, fire flows, the Hall Road ponds and public health, all issues that had been raised in the engineer's report. The district responded to the letter June 3, 1998, providing in-depth technical details on all of these issues.

The letter also reiterated the board's position that no further action would be taken until the CCHRA could demonstrate a significant portion of the local residents would be willing to pay a significant increase for well water.

Again, several months elapsed with no response from the CCHRA. The district included an item in the fall 1998 newsletter indicating the district's actions and lack of response from the CCHRA.

In the winter of 1999 several phone calls and meetings occurred between the manager and one of the founders of the CCHRA, Mr. Gordon Falkowsky. Over time a relationship was developed and this provided the opportunity for a frank exchange of ideas and the formation of a strategy to advance the public consultation process.

The CCHRA was made aware of the district's reluctance to be overtly proactive on the file. It was also apparent the CCHRA had limited resources and would need assistance to proceed. At a meeting in May of 1999 the Board of Trustees agreed to staff recommendations in three key areas that were critical for the public consultation process to advance:

1. A petition would be an acceptable means of determining if a majority of ratepayers in the area were in favor of well water,
2. A two thirds majority would be a compelling majority, and
3. The board was willing to commit a budget of \$300.00 to assist the CCHRA.

It is significant to note that the board made it clear that they would not be bound by the results of the petition. The petition would indicate to the board whether it was worthwhile to proceed with further public consultation, specifically a public meeting. The petition on its own would not determine whether the project was approved.

The Petition

The district newsletter in the spring of 1999 included a message from the CCHRA summarizing its activities and providing the phone numbers of two directors that residents could contact for more information.

Shortly after this a meeting was held in the district boardroom between the district manager and six members of the CCHRA, including Mr. Falkowsky. All CCHRA members attending had expressed a willingness to participate in circulating the petition.

The primary purpose of the meeting was to brief the members of the CCHRA on the events to date and to determine the best course of action to proceed.

There were several concerns the district had about the petition procedure and a great deal of care had to be taken to ensure these were addressed. The primary concern was one of bias. All of the members of the CCHRA were in favor of well water. These were the same people that would be going from door to door circulating the petition.

A number of steps were taken to address this concern. First of all the district requested that a fact sheet be developed and sent to all residents in the HRA prior to the petition being circulated. It was agreed that the manager would draft this document based on the technical information provided in the engineer's report and the supplementary information provided by the manager in the letter of June 3, 1998.

It was also agreed that this information would be presented as a newsletter from the CCHRA and the district would cover the production and postage costs. Care was taken to present as much information as possible in a clear and concise way. The final text was six pages and listed twenty-two questions and answers related to the supply of well water to the HRA (see Appendix 1).

The second issue was the question to be posed on the petition. After considerable debate and discussion the following question was agreed upon:

Are you in favor of paying an additional \$16.00 per month for domestic water tolls to receive a full-time, interruptible supply of clear well water from the South East Kelowna Irrigation District?

From the district's perspective the word "interruptible" was required to ensure residents knew that in the event of a power failure, mechanical failure, main break, or any number of other possibilities, the supply of well water could be interrupted. If this were to happen, the area would be supplied with the same water as the rest of the district.

On the other hand, the district did not want the word "clear" or any other adjective used to describe the well water because we felt the phrase was biased in favor of the question. After considerable discussion, however, the word was left in with a caution that the board could consider the question to be somewhat leading.

The district produced the petition itself. The most obvious distinction of this petition was that it contained the names and addresses of all of SEKID's water users in the HRA. Additionally, the respondents had the option to answer yes, no or to abstain. This latter option was included to try and deal with the possibility of residents being bullied into a favorable response by an over-zealous petitioner. It was felt that if this were the case, the resident might find it easier to abstain than to answer no. The district's final concern with the petition was that it be comprehensive and the CCHRA was advised to solicit a response from all residents on the list.

The newsletter was mailed out in late June and shortly after that the petitioners began their task. The group circulated the petition over the summer months and presented the results to the board on September 14, 1999.

The results of the petition:

| | <u>Count</u> | <u>Percent</u> |
|---------|--------------|----------------|
| Yes | 117 | 69.2 |
| No | 42 | 24.9 |
| Abstain | <u>10</u> | <u>5.9</u> |
| Total: | 169 | 100 |

The board agreed that there was sufficient interest expressed by the residents of the Hall Road area in obtaining an interruptible supply of well water to justify holding a public meeting. The manager was instructed to proceed with the appropriate arrangements.

The Public Meeting

The date of the public meeting was set for Monday November 1, 1999 at 7:30 P.M. at the South Kelowna Elementary School. A notice of the meeting was sent to each household in the Hall Road area. The notice advised of the results of the petition and that the board would not make a decision on the matter until after the public meeting. The meeting was also advertised in the local newspaper.

The meeting was billed as an information meeting and the agenda included a welcome and introductory remarks from the chair, a presentation on the potential project by the manager and a question and answer period. All members of the board attended, as did the engineer who did the initial study on the project, Stu Mould.

An attendance record of the meeting was kept. Forty-six residents attended, all from the HRA. The question period was focused generally on technical and financial issues about the project. A majority of the residents who voiced an opinion at the meeting were in favor of the project. Detailed minutes of all questions, answers and comments were recorded. The meeting adjourned at 9:30 P.M. with the board committing to making a

decision on the project at the next meeting of the board scheduled for November 16, 1999.

The Decision

The second item under “Unfinished Business” on the agenda of the November 16, 1999 board meeting was a memo from the manager with the following recommendation:

IT IS RECOMMENDED THAT the board resolve to proceed with the automation of the O'Reilly Pump Station with the intent to provide the Hall Road area residents with an interruptible supply of well water.

AND FURTHER THAT the board execute and submit to the Ministry of Municipal Affairs a bylaw authorizing the district to levy a special charge of \$16.00 per month to residents in the area to pay for the capital and operating costs of automating the O'Reilly Road well.

AND FURTHER THAT the board makes this resolution available to the public along with the minutes of the public meeting of November 1, 1999, the petition received September 14, 1999, the petition received April 17, 1997 and other relevant documents.

A resolution was moved and carried unanimously by the board to accept the recommendations as presented. The members of the CCHRA were notified directly by the district offices and the item appeared on the front page of the district newsletter a short time later.

Bylaw #551, the *Hall Road Area Special Charge* bylaw was passed by the board and subsequently registered by the Inspector of Municipalities a short time later. The monies

for the capital improvements were borrowed from the districts Future System Improvement Reserve Fund⁷ at a rate of 5% per year.

Conclusion

The Concerned Citizens of the Hall Road Area disbanded shortly after the decision to provide the Hall Road Area with well water was made. This was to be expected as the group had accomplished its goal.

The automation of the well took place over the winter months and the area was provided with well water at the beginning of April. Ironically, the district still receives water quality complaints, mainly due to the hardness of the water. The number of complaints is considerably lower than the number received prior to the switch to groundwater. In addition these complaints have become less frequent as residents become accustomed to the water⁸.

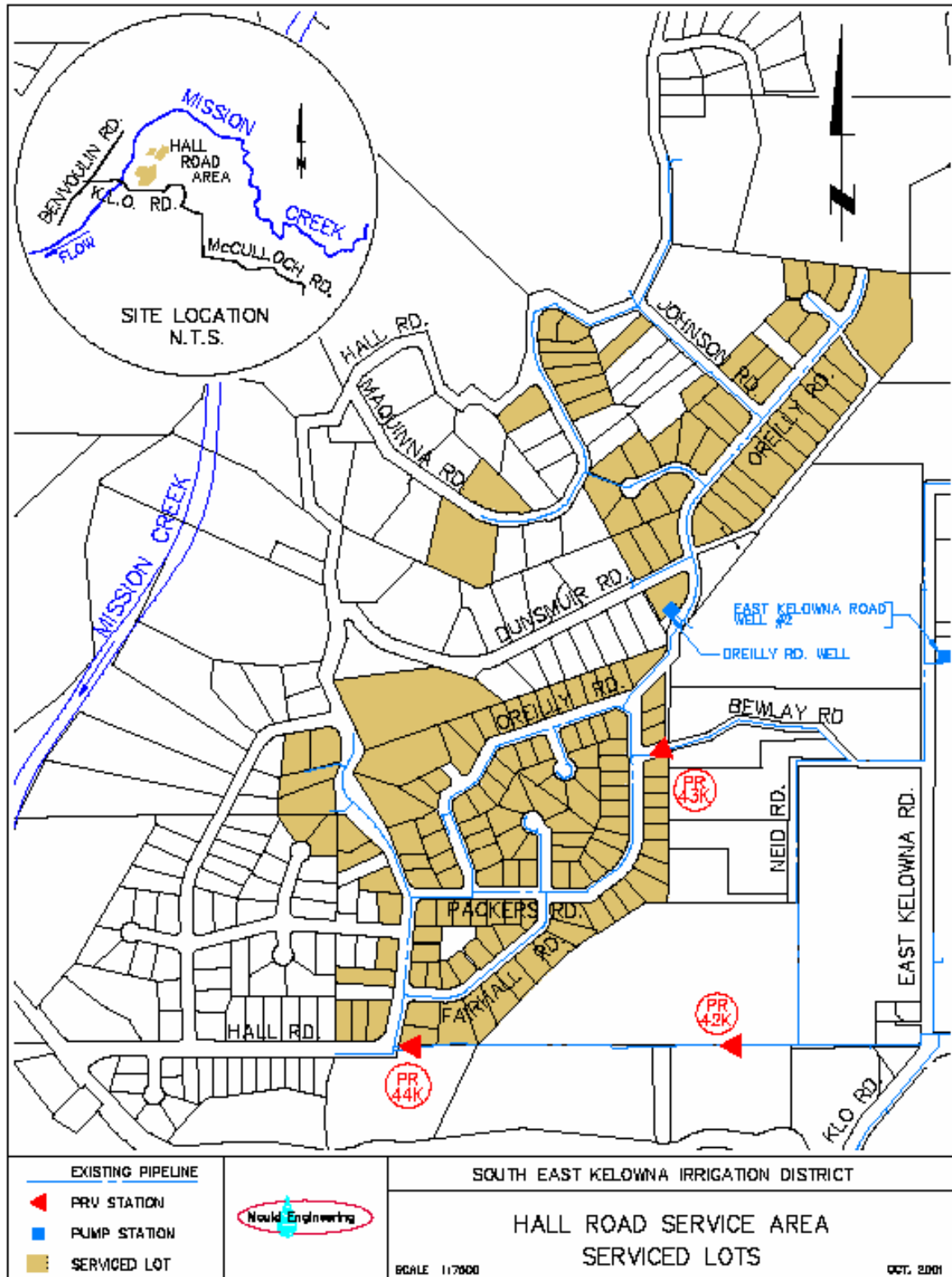
From beginning to end the district's involvement with the CCHRA spanned two and half years. The key to what most would consider a successful conclusion of the project was the cooperation and trust that was developed between the district staff and key players in the group. Had the group not been motivated and encouraged by the district, it would never have been formed to begin with and likely would have lost momentum and fallen apart after the first petition had been presented to the board in May of 1997.

⁷ Approximately \$75,000.00 in capital improvements was required for the automation of the O'Reilly Road well.

⁸ The district has a tip sheet on hard water that is mailed to anyone who requests it.

The district provided organizational, strategic and administrative support to the residents of the Hall Road area and these were key to their successful participation in local government.

Figure 1.



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**Apendix 1: Concerned Citizens of the Hall Road Area
Newsletter, June 1999.**

Concerned Citizens of Hall Road Area
An Important Message about Your Water Supply:
Well Water for the Hall Road Area

The Concerned Citizens of Hall Road Area is a group of residents who are interested in improving the quality of domestic water supplied to our homes.

The existing gravity feed system is well known for the discoloration and sediment of its water. Better quality, clear water can be made available by converting to a well water supply on a year round basis.

The Board of Trustees at the South East Kelowna Irrigation District (SEKID) commissioned a study on the costs to supply the area with well water and has asked our group to determine if there is sufficient interest among area residents to bear these added costs to receive well water.

To determine if this is the case, our group will be circulating a petition asking if you are in favor or opposed to receiving well water from SEKID.

This newsletter is intended to provide information about the potential well water supply to enable you to make an informed decision. Your home will be canvassed with the petition in the near future by one of the members of our group listed below:

| | |
|------------------|----------|
| Gordon Falkowsky | 868-2294 |
| Ian Robertson | 862-8485 |
| Dave Cameron | 860-0189 |
| Brian Wright | 860-8576 |
| Doug Friend | 862-2435 |
| Dave Brubacher | 860-9353 |

**Please take the time to review the following information
and be prepared to make an informed decision when
the petition is circulated to your home!**

Frequently Asked Questions

The following FAQ's should provide most of the information you require. If you have additional questions, please contact one of the members of the Concerned Citizens of Hall Road Area.

1. What is the additional monthly cost for each SEKID user in the Hall Road area for well water?

The additional monthly toll for each domestic would be \$16.00. The current domestic toll rate is \$15.50 per month. This means that the monthly cost for well water would be \$31.50.

2. What is the additional \$16.00 per month charge based on?

The charge is based on a study commissioned by the district that looked at the capital, operating and maintenance costs to automate the O'Reilly Road well and operate it on a full-time basis. Financing of capital costs would be provided by SEKID at a rate of 5% with a five-year amortization.

3. After the initial capital costs have been repaid will there be a reduction in the monthly domestic toll rate?

SEKID informs us that revenue and expenditures would be monitored closely to ensure costs were fairly reflected in the toll rates.

4. Will domestic toll rates increase?

SEKID advises that any increase in domestic tolls for users outside the Hall Road area would also apply to users in the Hall Road area.

5. Would the tax rate change?

The minimum tax rate of \$60.00 per year for parcels of one acre or less would only change if there were a rate change for all landowners in the district.

6. Would it be possible to prepay yearly tolls if the new rate came into effect?

SEKID advises that should the new rate come into effect, it would be possible to prepay the annual domestic toll. Any discount terms for prepayment would be the same as for all users in the district.

7. How will the issue of new users coming on to the system be considered in the cost of supplying well water to the area?

SEKID advises that the amortization of capital costs over a five-year period is based on the existing 165 homes now serviced in the Hall Road area. New users coming on to the system would pay the same levy as existing users. The effect of new users would be to shorten the amortization period of the capital costs (for additional information see question 3).

8. How does the new monthly cost compare to other water districts in the Central Okanagan?

The costs would be higher than other utilities charging a flat monthly rate. The metered rates charged by the City of Kelowna and Rutland Waterworks vary according to the amount of water used. The following table gives a sample of rates from other water utilities in the area.

| | | |
|------------------------------|--------------------------|--|
| Black Mountain I.D. | \$17.00 | |
| Glenmore Ellison I.D. | \$15.33 | |
| City of Kelowna (metered) | \$8.00 (basic monthly) | Plus \$0.95/1,000 gallons |
| Rutland Waterworks (metered) | \$28.80 (basic, 3months) | Over 15,000 gallons, then \$0.70/ 1,000 gal. |
| SEKID (current rate) | \$15.50 | |
| Westbank I.D. | \$18.00 | |

9. Why should I pay more for well water?

Because of the discoloration and sediment in our current water supply, many of us have purchased expensive filtration systems that require high maintenance and filter replacement costs. Others purchase bottled water (approx. \$6.00 per bottle plus accessories). Some residents do their laundry at laundromats or elsewhere rather than do it at home.

In addition, higher maintenance costs for plumbing, irrigation, hot water systems and so on have been experienced due to the sediment in the water. The net result will be an overall cost saving for many households, plus the personal satisfaction of drinking, bathing and washing in clear water.

10. How does the water quality of the O'Reilly Road Well compare to the current surface water supply?

The water from the O'Reilly Road well falls within all parameters of the Canadian Drinking Water Guidelines. As most area residents are aware, SEKID supplies the East Kelowna Road, Dunster Road and the Hall Road area with well water each spring to mitigate the effects of the spring runoff. The well that is used (located on East Kelowna Road) draws from the same groundwater source as the O'Reilly Road well. Water quality from the O'Reilly Road well would be comparable to what residents currently receive each spring.

Significant differences that would be apparent to residents are that the well water has less color, lower turbidity (cloudiness) and is harder than the surface water supply.

11. Does full-time operation mean that residents will have an uninterrupted supply of well water?

No, a number of events could happen that would result in the area being temporarily supplied with surface water. Under normal operating conditions the well will supply the area. The present surface water system, however, will remain connected to the area and would immediately supply the area if the well water supply were inadequate or interrupted.

Examples of when the well water supply would be interrupted include shut downs for routine maintenance and repairs, power failure to the well and the high demand of fire flows.

12. Will full-time operation of the well affect other residential wells in the area?

It is unlikely that other wells in the area would be affected by the full time operation of the O'Reilly Road well. Unlike most, if not all, of the residential wells in the area, the O'Reilly Road well is a very deep well. As such, the well draws from a different groundwater source than the residential wells in the area.

13. Will there be a need for a balancing reservoir?

The need for a balancing reservoir will be dictated by the number of residential units that the well will be required to supply. The number of homes in the area currently receiving water from SEKID is 165. It is estimated that the well could supply about 225 homes without the need for a balancing reservoir. There is considerable scope for growth before a balancing reservoir will be required.

Once growth in the area indicates the balancing reservoir will be required within the five-year period covered by SEKID's Capital Works Program (CWP), the cost of building the reservoir will be accounted for in that plan. The Capital Expenditure Charge (CEC) that is derived from the CWP is levied against all new lots developed in the district and the cost of building the reservoir would be financed from the funds so collected. In other words, new users are required to pay for the infrastructure needed to meet the increased demands they place on the system. This, of course, does not apply for the retrofit of the well because the improvements would be to the benefit of present users.

According to the consultant's report, the optimum location for a balancing reservoir is elevation 434m. This elevation would require the reservoir to be located on the East Kelowna bench. The addition of a 1,000,000 litre balancing reservoir would enable a total of 425 homes in the Hall Road area to receive well water.

14. What is the maximum number of homes that could be serviced from the O'Reilly Road well?

With the addition of a balancing reservoir, about 425 homes could be serviced from the well (see question 13.).

15. Why is the O'Reilly Road well considered to be the most feasible option for meeting the needs of residential users in the Hall Road area?

The O'Reilly Road well is clearly the most feasible option for providing well water to the residential users in the Hall Road area. The well is ideally located to serve the domestic demands of the area. The two wells SEKID has on East Kelowna Road also serve agricultural lands and would not be able to supply the Hall Road area during high irrigation flows.

16. In the event of a fire in the community, will the required fire flows be met by the well?

The current fire flows to the area are supplied through the existing infrastructure. The proposal calls for the well to supply the area with well water and system pressure under normal demand would be maintained by the well. All existing infrastructure would remain connected to the area. In the event that area demand became greater than the well could supply (i.e. fire flow demand, pipeline break, power failure, etc.), then the existing infrastructure would make up for any shortfall and maintain system pressure.

Residents should note that when these events occur, the area would be subject to supply of treated surface water for the duration of the event (see question 11. for additional information).

17. How significant would 'dead' water in the lines be if the system is changed to the well and how will the district schedule flushing?

The dead water referenced in the consultant's study refers to water in the mains immediately upstream of pressure reducing stations 43K and 44K. These stations are located at the west end of Bewlay Road and near the south end of Hall Road, respectively. These stations currently supply the Hall Road area. If the area were to be supplied with well water, then these stations will only pass water if there were a power failure or other event, as described above (questions 11. & 16.). Consequently, the water in these lines has the potential to become stagnant. Because of the location of these stations, it is not practical to consider running a continuous flow of water. District staff will have to regularly flush these lines to insure the quality of water for those upstream of these stations.

The flushing program will be determined by testing for chlorine residual in the lines and flushing as required to maintain Ministry of Health requirements for potable water.

18. What effect would the change over to well water have on the ponds in the Hall Road area?

The issue of the Hall Road/Sutherland Hill Ponds is a complex one. The level of these ponds is determined by a number of factors. SEKID currently 'blows off' water into the Sutherland Hills ponds in order to keep the water in the distribution system fresh. This discharge supplements the supply of water to these ponds. The main factors in determining the water levels in area ponds, however, are a combination of surface runoff and the groundwater level. In recent years neither the Regional District nor local residents have made any requests for supplementary supplies from SEKID because natural pond levels have been quite high.

The natural pond levels will vary with the hydrologic cycle, however, and the volume of supplementary water available from SEKID will be reduced if the area is supplied from the well.

The consultant's report noted that the minimum amount of water required for motor cooling purposes of the O'Reilly Road well is 50 USGPM. This amount will be continuously discharged from the system to ensure proper operation. Whether this volume would be sufficient to maintain pond levels is unknown.

19. Will converting to well water mean installation of water meters in residential homes and how would meters affect domestic tolls?

SEKID advises that metering of domestic services is not contemplated in the near future. There is a trend both locally and nationally toward metering of domestic services to encourage efficient water use and minimize the need for infrastructure upgrading. If a metering program for domestic services were implemented in the future, rates would be structured to provide adequate revenue to operate the utility. How these rates would affect individual users depends upon the amount of water used: those using less water would naturally pay less than those using more.

20. If the system is changed over to well water, will this change also eliminate the risks of water borne pathogens such as giardia and cryptosporidium?

SEKID advises that the incidence of water borne pathogens such as giardia and cryptosporidium are greatly reduced in groundwater supplies. This would certainly be the case with the O'Reilly Road well. It is not possible, however, to state that the risk would be eliminated.

Wells are not fail-safe from contamination of pathogens from surface sources. Broken sewer lines and septic field leakage are two possible sources of contamination. It is unlikely that the O'Reilly Road well would be subject to contamination from surface sources for two reasons. First, the well is over two hundred feet deep and was drilled through a very dense layer of impermeable material, and second, high construction standards were maintained in developing the well. Consistent with those standards, the well casing was sealed against surface water contamination.

It should also be noted, as referenced above, that the Hall Road area will remain connected to the rest of the district system and surface water supply may be required to supplement well water supply in certain situations. The surface water supply meets all current public health requirements for disinfection, but has a higher potential for the presence of pathogens than groundwater.

21. Will the well water be tested on a regular basis to ensure that it meets the parameters of the Canadian Drinking Water Guidelines and provincial health standards?

Yes, SEKID's current water quality monitoring program will continue.

22. If the decision were made to proceed with well water supply to the area, how long would it take to do the work?

The retrofit of the well would likely take six to ten weeks, depending on the availability and delivery of parts.

If you would like a copy of the consultant's report entitled *O'Reilly Pump Station Automation Study*, or require additional information, please contact one of the committee members listed on page 1.