

Figure 3: Hydrogeologic section A-A' showing the locations of the May Road Wellfield (well 2) and the Kneuman Road Wellfield (well 4). All wells within both wellfields are completed in the Sumas aquifer. (USGS Report 98-41, excerpt of plate 2).

Geography

May Road and the Kneuman Road Wellfields are located within the Johnson Creek sub-basin, which is tributary to the Sumas River. The wellfields are both in a hilly, mostly forested, rural residential and agricultural area. Both wellfields are located within less than one-half mile of the Canadian border.

The only geographic boundaries affecting the Sumas service area are the jurisdictional limits of neighboring purveyors. There are no natural features or man-made structures presenting significant barriers to provision of water service in the vicinity of Sumas. As discussed immediately below, Sumas directly or indirectly provides water to a large area extending about 7 miles south of town. The international border with Canada generally prevents northward extension of the service area, although Sumas did historically provide water to the nearby community of Huntingdon, B.C. This service was largely discontinued in 1989, and only two Canadian customers remain.

Neighboring purveyors

There are three watersystems abutting Sumas. To the north is the water system of the City of Abbotsford, B.C. To the south and southwest is the Nooksack Valley Water Association, and to the southeast and east is the Sumas Rural Water Association. The latter two associations are wholesale customers that rely upon Sumas for their entire supply. Together with the City of Nooksack, which is a nonadjacent wholesale customer, the rural associations account for about 85 percent of the water pumped from the Kneuman Road Wellfield and occupy a 25-square mile region in the north-central part of Whatcom County.

Other existing rights held by Sumas

Kneuman Road Wellfield (Total of the following rights is 2250 gpm and 1919 ac-ft/yr)
Surface Water Certificate (SWC) 3427 - This certificate was issued for the diversion of 1.78 cubic feet per second, from an unnamed spring, tributary to the Sumas Creek (River) drainage. No annual quantity was specified. The purpose of use is for domestic supply. The priority date is March 14, 1946. The place of use is described as the Town of Sumas, Section 33, Township 41 North, Range 4 East.

Ground Water Certificate (GWC) 3485 - This certificate issued for 2250 gpm, 405 ac-ft/yr, from a well (now known as well 1). The annual quantity is based on a per capita consumption of 200 gallons a day (average of 0.9 ac-ft/yr per home) or a withdrawal of 405 ac-ft/yr for 450 homes, less any quantity diverted under the existing rights on the spring. The purpose of use is for municipal supply. The priority date is June 22, 1959. The place of use is described as the Town of Sumas; Town of Nooksack; Rural Nooksack; Rural Sumas; Whatcom County, Washington.

Ground Water Certificate G1-00063C - This certificate issued for 2250 gpm, 672 ac-ft/yr, from wells 2, 3, & 4. This right issued as a supplemental supply to SWC 3427 and GWC 3485. The total withdrawal from all sources was not to exceed 672 ac-ft/yr. The annual quantity was calculated at 0.224 ac-ft/yr per person (200 gallons per

day per person) for the estimated 1990 population of 3,000. The purpose of use is for municipal supply. The priority date is July 15, 1971. The place of use is described as the Area served by City of Sumas.

Ground Water Certificate G1-24025C – This certificate issued for 2250 gpm, 598.8 ac-ft/yr, from wells 1-4. The instantaneous quantity was not increased above the 2250 gpm previously allocated. The annual quantity was increased by 598.8 ac-ft/yr, for a system total of 1270.8 ac-ft/yr (613.2 ac-ft/yr for domestic, 657.6 ac-ft/yr for dairy farms). The annual quantity was based on 0.1333 ac-ft/yr per person (119 gallons per day) for a population of 4600 and 4.8 ac-ft/yr per dairy (for 137 dairies) in the year 2000. The purpose of use is for municipal supply/dairy farming. The priority date is January 15, 1982. The place of use is described as the City of Sumas service area.

Ground Water Certificate G1-25171C – This certificate issued for 2250 gpm, 1919.0 ac-ft/yr, from wells 1-4. The instantaneous and annual quantities are supplemental to all previously existing rights (648.2 ac-ft/yr of the 1919.0 ac-ft/yr is new water). The new (additional) annual quantity was granted so the City of Sumas could supply water to the City of Everson. The purpose of use is for municipal supply/dairy farming. The priority date is January 20, 1988. The place of use is the City of Sumas service area. Well 5 has been added to this water right through the submittal of a showing of compliance form consistent with RCW 90.44.100(3).

Kneuman Road Well Field (Total of the following right and G1-26398C is 1660 gpm and 1825.0 ac-ft/yr)

Ground Water Certificate G1-23698C – This certificate issued for 800 gpm, 445.0 ac-ft/yr, from the May Road wells 1 & 3. The annual quantity was calculated at 224 ac-ft/yr for domestic use (0.224 ac-ft/yr per person x 1000), plus 225 ac-ft/yr for dairy farming (4.5 ac-ft/yr per dairy x 50). The purpose of use is for municipal supply. The priority date is July 30, 1980. The place of use is the City of Sumas and area served by the City in Section 33, Township 41 North, Range 4 East.

Other rights in the vicinity of the proposed additional point of withdrawal

A search of Ecology's Water Rights Tracking System indicates there are two water right claims on file within Section 33: Elvin Johson, short form claim number 77832, for stockwatering, from springs and creek; and Donald May, short form claim number 42066, for domestic, stockwatering, and irrigation, from a well. Both of these claims are for points of diversion/withdrawal located more than 1/2 mile up-gradient of the proposed Sumas additional point of withdrawal (Kneuman Road Wellfield).

There are no state-issued permits or certificates within Section 33, except those held by the City of Sumas.

There is one water well report on file for Section 33 (other than those for the City of Sumas). It is under the name of Bob Samms. It is for the same property (parcel #410-33029066) as the Donald May claim.

There are no exempt water well reports, claims, permits, or certificates on file for the adjoining down-gradient area (Section 34).

Availability of water at the additional point of withdrawal

Legal availability

In accordance with WAC 173-501-040, Johnson Creek is closed year-round to new appropriations. The requested additional point of withdrawal is hydraulically connected to a tributary of Johnson Creek, but is located down-gradient of the original (hydraulically connected) point of withdrawal. The subject change is not a request for additional water from the source, therefore the legal availability of water will not change.

In addition, the original water right required (as mitigation) that the nearby unnamed spring-fed tributary to Johnson Creek be augmented at a rate of 18 gpm for every 100 gpm withdrawn under G1-23698 and G1-26398. Stream augmentation is required to occur simultaneously as water is withdrawn. This requirement must remain in place so as not to affect the legal availability of water under this right.

Physical availability

The five wells within the Kneuman Road Wellfield, in conjunction with the May Road Wellfield, have the physical capacity to pump the Qi and Qa authorized by this right.

DETERMINATIONS

Based on the above investigation, the following determinations have been made:

Validity of the right

Subject right is valid and is eligible for change.

Same body of public groundwater

The geography, geology, and hydrogeology of the May Road and Kneuman Road Wellfields show:

- The wellfields are in close proximity (same section) within the Johnson Creek sub-basin.
- The wells in both wellfields are completed in the Sumas aquifer.
- Aquifer recharge is from infiltration of precipitation that has fallen within the Johnson Creek sub-basin or up-gradient in the aquifer.

Based on the above, I have determined the May Road and Kneuman Road Wellfields tap the same body of public groundwater.

The right conveyed by the original water right will not be enlarged

No additional instantaneous rate or annual volume of water was requested or approved. Approval of the requested change will give Sumas operational flexibility in order to serve the neighboring high nitrate systems. Water to be used for these systems has already been fully appropriated, however through conservation and reuse, previously allocated industrial water can be redistributed to other municipal uses.

Based on the above, I have determined the right conveyed by the original water right will not be enlarged.

Potential for impairment of other rights

As referenced in the investigation section of this report, there are no nearby right holders located down-gradient of the proposed additional point of withdrawal (the Kneuman Road Wellfield). The points of withdrawal/diversion for up-gradient right holders are so distant, and the quantities are so small, they will not be affected. And, no additional water will be withdrawn from the source (the Sumas aquifer). Therefore, no impairment of other rights is anticipated.

Beneficial use

One of the requests is to change the main purpose of use from industrial supply to municipal supply. This is allowable. Municipal supply is considered a beneficial use in accordance with RCW 90.54.020.

Availability of water

Water is physically available from the May Road and Kneuman Road Wellfields. No new impacts to Johnson Creek are anticipated therefore, water is also legally available. In addition, the existing mitigation requirement must remain intact.

No detriment to the public interest

No potential for detriment to the public interest was identified during the investigation of this application.

Protest

This application was protested by the Lummi Indian Business Council. Their letter of protest expressed concern about impacts on tribal rights. This concern is understandable, but the subject water right is an existing right that is legally eligible for change. No additional withdrawals over and above the currently authorized quantities will be allowed.

In addition, the following will be included in the provisions section of this report and any subsequent documents issued under this water right:

This authorization to make use of public waters of the state is subject to existing rights, including any existing rights held by the United States for the benefit of Tribes under treaty or settlement. If impairment does occur, the City will be required to diminish or cease pumping, or mitigate for this impairment.

CONCLUSIONS

In accordance with chapters 90.03 and 90.44 RCW, I conclude water right G1-26398 is valid and is eligible for change, the additional point of withdrawal is within the same body of public groundwater as the original point of withdrawal, the original right will not be enlarged, there will be no impairment of existing rights, the proposed purpose of use will be beneficial, water is physically and legally available, and there will be no detriment to the public interest.

RECOMMENDATIONS

Based on the above investigation, determinations, and conclusions, I recommend the request for change be approved in the amounts and within the limitations listed below and subject to the provisions on page 2.

Authorized quantities and purpose of use

The amount of water recommended is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial:

- 860 gallons per minute
- 1376.0 acre-feet per year
- Municipal supply and mitigation - continuously

Points of withdrawal

SW 1/4 SW 1/4, Section 33, Township 41 North, Range 4 East, W.M. (May Road Wellfield)
Government Lot 1, Section 33, Township 41 North, Range 4 East, W.M. (Kneuman Road Wellfield)

Place of use

The place of use of this water right is the service area described in the latest Water System Plan approved by the Washington State Department of Health. RCW 90.03.386 may have the effect of revising the place of use of this water right if the criteria in RCW 90.03.386(2) are met.

Report by: Buck Smith
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February 12, 2010
Date



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Attachment 2 – May Road Wellfield

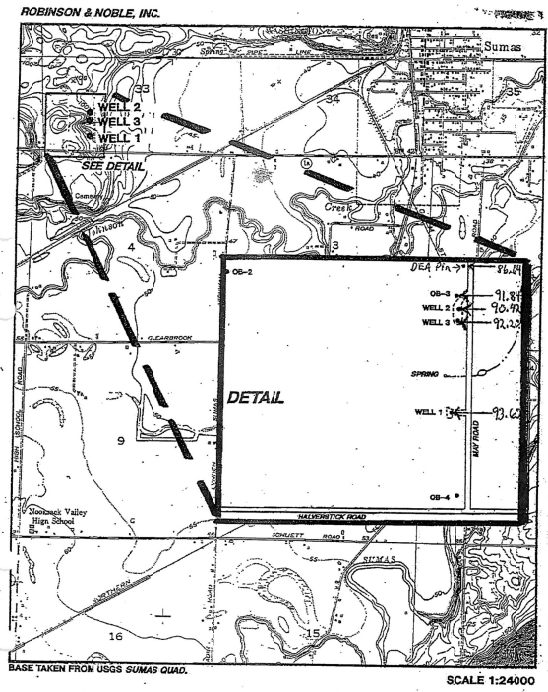
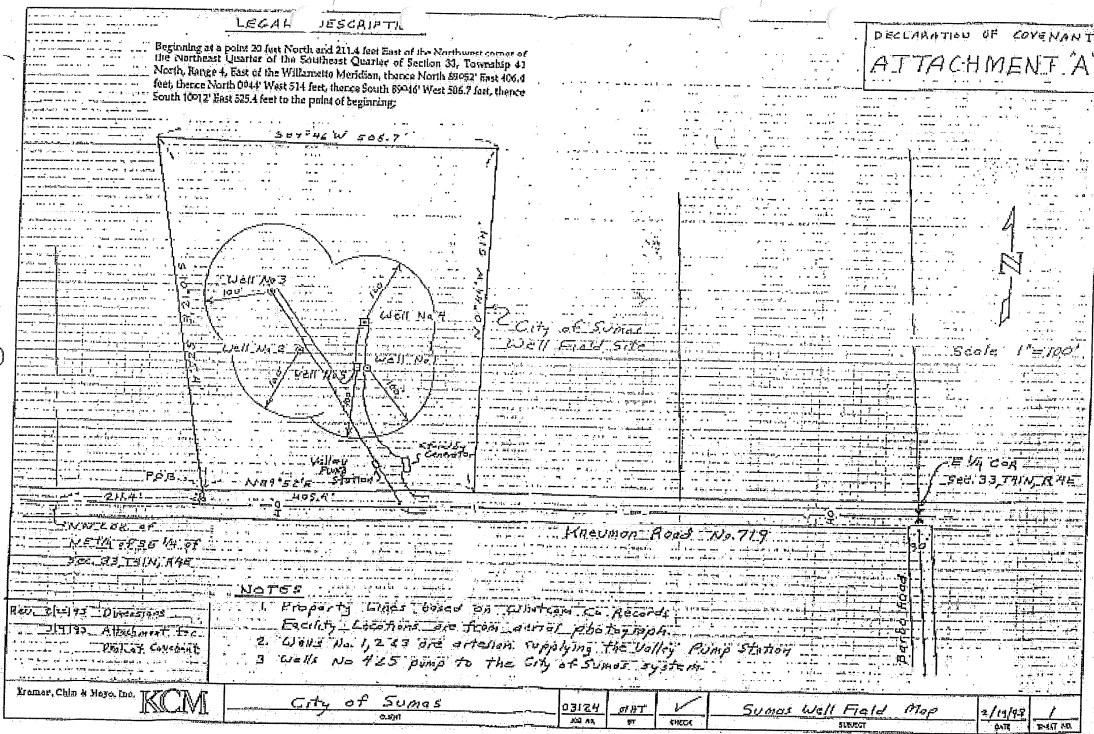


Figure 8
**CITY OF SUMAS
MAY ROAD WELL SITE
LOCATION MAP**



Attachment 3 - Kneuman Road Wellfield