

**RESOLUTION NO. 1530**

**A RESOLUTION DIRECTING THE CITY STAFF TO DISCONTINUE EXPEDITING THE PLANNING AND DEVELOPMENT OF THE TROUTDALE AQUIFER AS THE FUTURE WATER SUPPLY SOURCE FOR THE CITY OF WILSONVILLE AND TO DISCONTINUE ALL EXPENDITURES AND EFFORTS ON THIS PROJECT.**

WHEREAS, on June 29, 1998, Council approved Resolution No. 1487 directing City staff to expedite the planning and development of the Troutdale Aquifer as a future water source for the City of Wilsonville; and

WHEREAS, on August 17, 1998, Council approved a resolution authorizing the city engineer to sign Task Order Number 3 to the Professional Services Agreement dated March 3, 1998, between the City of Wilsonville and CH2M Hill for professional services to obtain access to the well sites, prepare plans and specifications to drill test wells, analyze the quality and quantity of water available based on the test hole/pilot wells and prepare a report analyzing the availability of water in terms of quality and quantity from the Troutdale Aquifer as a future water source for the City; and

WHEREAS, the ability to analyze and report on the use of the Troutdale Aquifer was premised on the reasonable availability of nine test holes/pilot wells (including one in the Miley Road right-of-way) as described in the May 1998 final report of the Troutdale Aquifer Study by CH2M Hill; and

WHEREAS, staff and CH2M Hill with the assistance of Hannah, McEldowney and Associates, made diligent and good faith efforts to obtain permission from the property owners to drill the aforementioned nine test holes/pilot wells; and at the direction of City staff, CH2M Hill further identified 13 additional potential test holes/pilot well sites; and

WHEREAS, in all but one case the property owners would not provide this permission because of concerns about impacts on present and future use of their property, potential impacts on the groundwater table for domestic, fire and agricultural purposes and perceived impacts on property values; and

WHEREAS, staff recommended developing two of the sites in the county right-of-way along Miley Road instead of in the adjacent common areas of Charbonneau given the level of

homeowner opposition bringing the total number of potential wells in the county right-of-way to three; and

WHEREAS, of the total 22 sites, 19 sites are on private property and only one property owner agreed to allow drilling of a test hole/pilot well. (Summary including Miley Road sites is enclosed at Attachment 1) and Clackamas County has denied the City's application to drill test holes in the Miley Road right-of-way (letter from Clackamas County is enclosed at Attachment 2); and

WHEREAS, the City finds that property is not reasonably available to acquire for test hole/pilot well sites, nor is condemnation a reasonable alternative to acquire a sufficient number of sites given locations outside city limits and exclusive farm use laws and lack of condemnation authority against the County; and

WHEREAS, the community development director has also estimated that it would take approximately three years and nine months from obtaining a right to drill test holes before the City would be able to use the Troutdale Aquifer for a municipal water supply; and

WHEREAS, the community development director has projected a reasonable city growth rate of 5% per year given the current growth, and that the additional water from four wells in the Troutdale Aquifer would only provide water for between 2.4 and 5.4 years of community growth, therefore the City finds that an appeal of the County denial of right-of-way access, even if successful, would not produce a timely, or sufficient water supply; and

WHEREAS, the public works director has analyzed correspondence with the Department of Water Resources and has concluded that the City would probably not obtain permits for unconditional use of wells and that any such conditions would include priority rights to senior water rights holders which could subject the City's rights to interruption and termination; the City finds this is an unreasonable basis upon which to ensure long-term growth of the City; and

WHEREAS, the City has been unable to test the water quality in different parts of the Troutdale Aquifer, due to the lack of test holes/pilot wells; and

WHEREAS, as a substitute the City has tested the water quality from the Louvonne Well which is a well owned by the Charbonneau Golf Course and located within the Troutdale Aquifer; and

WHEREAS, the water from the Louvonne Well tested to have extremely high iron and manganese content; and

WHEREAS, if the water from other Troutdale Aquifer wells had similar levels of iron and manganese, which is probable given the close proximity of the potential well sites, then a treatment plant would be required to treat Troutdale Aquifer waters; and

WHEREAS, the original cost estimate for eight wells in the Troutdale Aquifer providing a firm capacity of 5 million gallons per day was \$6,000,000; and

WHEREAS, due to increased treatment costs and increased waterline costs the estimated cost to drill wells and treat water to obtain a capacity of 2.2 million gallons per day has increased to approximately \$7,000,000, thus making treatment for less than a sufficient quantity as described above unreasonably expensive as a water source alternative; and

WHEREAS, staff also considered the concept of exchanging the City's water rights to the Willamette River for farmers' existing water rights to the Troutdale Aquifer, but such an exchange would necessitate a dual transmission system to deliver Willamette water to the farms and to deliver Troutdale Aquifer water to the City, thereby further increasing the cost of the project and further complicating the issue of wellhead protection to assure that untreated Willamette water did not seep into the aquifer; and

WHEREAS, in Resolution Number 1487 Council directed that staff to make recommendations concerning the viability and cost effectiveness of the Troutdale Aquifer as a long-term water source option; and

WHEREAS, based on the analysis to date (Attachment 3), further exploration of the Troutdale Aquifer is not warranted and staff therefore recommends termination of the City's efforts in this regard; and

WHEREAS, the Council finds the above described circumstances conclude that the Troutdale Aquifer will not serve as a reasonable alternative for a future long-term water supply source for the City of Wilsonville.

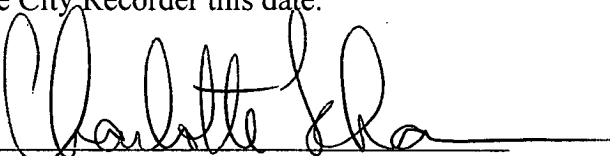
NOW, THEREFORE, THE CITY OF WILSONVILLE RESOLVES, AS FOLLOWS:

1. The Troutdale Aquifer is not a reasonable alternative to serve as a long-term water supply source for the City of Wilsonville. City staff is directed to discontinue plans

to develop test holes/pilot wells within the Troutdale Aquifer and discontinue any further efforts to analyze the Troutdale Aquifer as a viable future water supply source for the City of Wilsonville.

2. City staff is directed to instruct CH2M Hill to tabulate aquifer baseline data already collected from the monitoring of existing wells in the neighborhood of the proposed Troutdale Wellfield and to cancel remaining work on Task Order Number 3.

ADOPTED by the Wilsonville City Council at a regular meeting thereof this 21<sup>st</sup> day of December, 1998, and filed with the Wilsonville City Recorder this date.



CHARLOTTE LEHAN, Mayor

ATTEST:



Sandra C. King, CMC, City Recorder

SUMMARY of votes:

Mayor Lehan	<u>Yes</u>
Councilor Kirk	<u>Yes</u>
Councilor Luper	<u>Yes</u>
Councilor Helser	<u>Yes</u>
Councilor Barton	<u>Yes</u>

<b>STATUS REPORT</b> Wilsonville Well Sites Project December 15, 1998					
Well Site #	Tax ID	Owner Name	Well Site Location	Letter/ROE mailed	Comments
1	Near 31W 25AC 1700	Clackamas County	Charbonneau	None from HMA	City handling Charbonneau - Possible use of County R/W
1A	31W 25 100	William Miley	Miley Road	10/11/98	Possible: Owner wants approval from OSU prior to commitment; next mtg 11/13/98
2	31W 25BD 3400	Fountainlakes Homeowners Association	Charbonneau	None from HMA	City handling Charbonneau - Possible use of County R/W
3	31W 25BC 8900	Charbonneau Homeowners Association	Charbonneau	None from HMA	City handling Charbonneau - Possible use of County R/W
4 *	31W 25 804	Paul and Marie Brown	Airport Road	9/03/98	Right of Entry signed 10/1/98; forwarded to City
5	31E 30 901	Pablo and Helene Safronchik	Browndale Farm Rd	9/03/98	Owner not interested
5A	31E 30 803	Pablo and Helene Safronchik	Browndale Farm Rd	None mailed	This parcel identified as potential site. Same owner as above so they were not contacted
6	31E 30 701	Paul and Beverly Singer	Browndale Farm Rd	9/03/98	Owner not interested
7	31E 26 2500	Thomas and Eileen Berning	Boones Ferry Road	9/05/98	Owner not interested
8	31E 26 2100	Sandra Croff/Brent McKinney	Boones Ferry Road	9/03/98	Owner not interested; too many concerns
9 *	Next to 31W 26 2080	State of Oregon (ODOT R/W)	Boones Ferry Road at I-5	10/7/98	As of 11-5-98, permit is approved by ODOT District Manager subject to City posting 15,000 bond & insurance
10	R31W 26 02200	Clark and Alice Knox	Boones Ferry Rd	10/16/98	Owner not interested
11	R31W 26 02600	Robert Toon, Trustee	Butteville Road	10/16/98	Owner not interested
12	R31E 30 00802	Ken and Tana Triplett	Browndale Farm Rd	10/16/98	Owner not interested
13	R31E 30 00804	Annie Farms	Glass Road	10/16/98	Owner not interested

**STATUS REPORT**  
**Wilsonville Well Sites Project**  
**December 15, 1998**

Well Site #	Tax ID	Owner Name	Well Site Location	Letter/ROE mailed	Comments
14	R31E 30 00801	Victor and Arline Bollman	Browndale Farm Rd	10/16/98	Owner not interested
15	R31E 19 00709	Fred and Laura Flora	Becke Road	10/16/98	Owner not interested
16	R31E 19 00716	Doumit Dagber et al	Becke Road	10/16/98	Owner has not expressed enough interest to pursue further discussions
17	R31E 19 00715	Brian and Tracy Shrock	Becke Road	10/16/98	Not likely. Owner wants quid pro quo with City for permit to use test well for pond
18	R31E 19 01500	Rocky and Dianna Iriaga	Becke Road	10/16/98	Owner not interested/Opposition organizer
19	R31E 19 01800	Charles Day, Trustee	Becke Road	10/16/98	Owner not interested
20	R31E 19 01400	Sandra Thompson	Becke Road	10/16/98	Owner not interested
21	R31E 19 01300	Raymond Johnson	Becke Road	10/16/98	Owner has talked to neighbors and as of 11-5-98 is definitely not interested
22	R31E 19 01601	Stephen and Denise Bizon	Olson Road	10/16/98	Owner not interested

• Received permission to use for test well sites.

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# CLACKAMAS COUNTY

Department of Transportation & Development

THOMAS J. VANDERZANDEN  
DIRECTOR

December 9, 1998

Michael A. Stone P.E.  
City Engineer  
City of Wilsonville  
30000 SW Town Center Loop  
Wilsonville, Oregon 97070

Re: Street Opening Permit Applications for Miley Road Well Sites

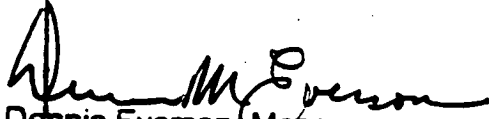
Dear Mr. Stone,

I have now had an opportunity to review and consider the City of Wilsonville's Street Opening Permit Applications, submitted by you with an explanatory letter dated November 9, 1998. I write to inform you that these applications are denied, and to provide a brief summary of the over-riding County concerns that prompted this decision.

These requests to allow the drilling of test wells in the County Road right-of-way are unlike any other Street Opening Permit Applications ever before presented to the County. They are particularly unusual because it is clear that the City's ultimate goal is to create permanent facilities for a continuing municipal water supply. This raises serious concerns for the County about the project's potential long-term implications. For example, the County cannot reasonably assume that the wells could be abandoned and relocated, as other utilities are always required to do, if it becomes necessary to widen the road or to alter the layout of the traveled portion of the road in the future. In addition, the County's continuing obligation to accommodate all existing and future utility lines and facilities within the right-of-way would likely be compromised if the test wells are converted into permanent facilities. Last, but not least, Clackamas County is sensitive to the impacts of road right-of-way projects upon the property owners whose land abuts proposed project sites. In this case, abutting property owners have expressed their opposition to any well-drilling at the project sites identified in your applications.

After carefully balancing the obligations of Clackamas County to all utility service providers who need to locate in the road right-of-way, and weighing the opposition of the property owners who abut the proposed drilling sites, Clackamas County has concluded that the three Street Opening Permit Applications for the Miley Road Well Sites submitted in November by the City of Wilsonville must be denied.

Very truly yours,



Dennis Everson, Manager  
Construction & Development

DE:de

cc: Chair Judie Hammerstad  
Commissioner Ed Lindquist  
Commissioner Bill Kennemer  
County Counsel  
Tom VanderZanden



City of


**WILSONVILLE**  
in OREGON

30000 SW Town Center Loop E  
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(503) 682-0843 TDD

MEMO FROM  
THE CITY MANAGER'S OFFICE

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: ARLENE LOBLE  
CITY MANAGER

RE: PRE-COUNCIL WORK SESSION

DATE: DECEMBER 7, 1998

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SUBJECT: TROUTDALE AQUIFER

At the last City Council meeting I promised I would have for you by your December 7, 1998, meeting:

1. An answer from the County as to whether or not we could proceed to drill wells within their right-of-way.
2. Updated information from CH2M Hill revising their cost estimates for up to four wells rather than the eight originally anticipated.
3. A revised timetable estimating what would be involved in obtaining the necessary approvals to get the Troutdale Aquifer wells on line for City use.
4. A better idea as to probability of Water Resources approval of the Troutdale Aquifer as a water source.

I regret to say that the staff response on all four issues is not encouraging.

1. Drilling wells #1,2, and 3 within the County right-of-way: The City Engineer made application through the County Public Works Department for administrative approval to drill the test wells within the right-of-way. Although wells aren't normally the type of "utilities" contemplated within a right-of-way, from a technical standpoint there is no reason why the wells could not be located there. Nonetheless, the County has made the decision (although we have yet to receive written confirmation) that the City's application will be denied. Should the City Council wish to pursue this issue further, the City Attorney is prepared to discuss with you in executive session what the City's legal options may be. But, without well sites the information contained in the rest of this report may well be moot.



However, even with the County's cooperation, this is looking more and more like an uphill battle of diminishing returns.

2. The cost of one or four wells vs. eight: CH2M Hill's original cost estimate included the construction of eight wells for a total cost of \$6 million. The latest cost estimates (see enclosed report prepared by CH2M Hill) include estimates in excess of \$7 million for four wells. There are two reasons for the increasing cost:
  - First of all, CH2M Hill's original estimates assumed that treatment specifically for iron and manganese would not be necessary or would be a low cost sequestering option. The cost estimates now assume full treatment like the City of Woodburn has recently approved for their Troutdale Aquifer system. This would be consistent with the test results from the Lavonne well in Charbonneau. Again, without test wells in place, we don't know what the quality of the water will be and, therefore, what level of treatment will really be required. For cost estimating purposes we have assumed the worst case. Also, there may well be significant acquisition costs involved in providing a water treatment plant site or if the City-owned reservoir site is used the design would be complicated, and it would be expensive to retrofit the limited space.
  - Secondly, the original cost estimates greatly underestimated the real cost of providing the transmission lines. As you can see from the CH2M Hill report, they have done a good job of finding an alignment that doesn't require going through Charbonneau, itself, but it will be costly. The single well option is even less cost effective. Although it would provide good backup for Charbonneau, the necessity of treatment really makes it cost prohibitive. Enclosed with your packet is a memorandum prepared by Eldon Johansen, the Community Development Director, summarizing CH2M Hill's cost estimates and comparing and contrasting that cost with our existing well system and with the Willamette treatment plant option.
3. Timetable: The enclosed memorandum from Eldon Johansen also estimates using various assumptions the amount of time that it will take to bring the Troutdale Aquifer on line (nearly four years assuming there are no major appeals or lawsuits). He has also estimated how many years of growth capacity the City would have assuming we had four Troutdale wells on line. Development could continue for 2.4 to 5.4 years depending on the assumptions that are used. When you consider both the number of years it will take to have the Troutdale Aquifer wells on line and then the number of years of future capacity it would provide and compare that with the price, it doesn't appear to be a prudent investment.
4. Probability: Assuming we could, in fact, drill the test wells, and assuming that the Council decided to make the investment in the Troutdale Aquifer, and assuming that the City could overcome the land use challenges, what is the probability that Water Resources would approve the wells for City use? Enclosed is a memorandum prepared by Jeff Bauman, the Public Works Director, highlighting our City staff concerns about the conditions that could be placed on

the Troutdale Aquifer wells. Our worst fear is that the wells would be approved but so heavily conditioned as to render them useless during those periods of time (i.e., peak summer use) that we really need them. Again, without going through the process there is no way of knowing what the outcome will be. From the staff's perspective, the risk seems high and the cost out of line with the benefit received. The Troutdale Aquifer cannot serve as a real alternative to the Willamette or the Portland options, and it is of questionable value as a bridge to longer-range decision making.

al:lb



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 Wilsonville, Oregon 97070  
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COMMUNITY DEVELOPMENT  
 DEPARTMENT

Date: December 2, 1998  
 To: ↓ Arlene Loble, City Manager  
 From: Eldon R. Johansen, Community Development Director  
 Subject: *Analysis of Troutdale Aquifer*

Currently, the only well locations that we have somewhat positive indications that we will be able to drill a test hole/pilot well are well sites number 1, 2 and 3 along Miley Road adjacent to Charbonneau and well site number 4 on the Brown property.

**Troutdale Aquifer Analysis Costs**

The August estimate to analyze the Troutdale Aquifer for eight production wells was estimated at \$1,096,000. CH2M Hill has expended significantly greater than anticipated effort on analysis of 23 sites as compared to an anticipated nine sites and additional cost estimating because of probable changes in iron and manganese concentrations. We now are focusing on four possible sites and our current estimate is as follows:

<b>Costs to Complete Analysis</b>	
Task Order #3. CH2M Hill Agreement to analyze Troutdale Aquifer	\$380,000
Drilling contract for four pilot wells and two monitoring wells	\$336,000
Miscellaneous permits	\$8,000
Cost to substitute three production wells for test wells (under discussion)	\$120,000
Options and entry permits	\$10,000
Contingency at 15%	\$128,000
Community Development staff support	\$49,000
<b>Subtotal</b>	<b>\$1,031,000</b>



## System Expansion

### Costs

You requested additional background as to what the overall cost would be to the City for developing one well in the Troutdale Aquifer to provide sufficient water for Charbonneau if the waterline across the Willamette River were no longer in service. You also asked what the cost and impacts on developments would be if we develop four wells in the Troutdale Aquifer.

To develop the cost estimates and the estimate of impact on development we have used the estimated production of 500 gallons per minute per well as CH2M Hill included in the Troutdale Aquifer Study. We have also used the iron and manganese concentrations from the LaVonne Well of 1.6 milligrams per liter for iron and 0.3 milligrams per liter for manganese in developing the treatment method and the cost for treatment. Costs will change if well production or water quality changes.

Cost estimates have been prepared for two separate levels of production. One cost estimate was for one additional well and the treatment capacity to treat water from that well and the existing Charbonneau wells. Costs for this alternative varied from \$3,734,000 to \$4,164,000 depending on the location of the treatment plant site. The second alternative was for four new production wells and the capacity to treat 2,100 gallons per minute. The treatment capacity included the capacity to treat the water that could be moved to the north across the Willamette River as well as the water that would be used within Charbonneau. Costs for this option varied from \$6,788,000 to \$7,647,000. A report titled Troutdale Aquifer Wellfield Revised Cost Estimate Draft dated November 20, 1998, by CH2M Hill will be distributed separately and provides the background assumptions used to prepare the cost estimates.

### Added Development

An additional question that we considered was how long could we allow additional development to occur if we completed four Troutdale Aquifer wells and the related water treatment plant. This would allow development from 2.4 years to 5.4 years depending on the assumption that was used. The spreadsheet at Attachment I provides the calculation of the additional water that would be available for development or changes in the operating parameters and suggest four alternatives for consideration.

Our earlier projections that were completed for the development of eight wells would have allowed the City to go to a more conservative basis for determining capacity available for development by allowing up to 20% of the wells to be offline for repair or for modification because of dropping water levels. The calculations also assume that we would reduce our very stringent dependence on water conservation to allow system capacity to meet maximum day demands. Using these assumptions, the four wells would provide capacity for an additional 2.4 years of development with a 5% annual growth rate. If we do not implement the firm capacity concept, but still reduce water conservation to 15% from 19% we would be able to support growth for an additional 4 ½ years at 5% per annum. If we decided that we would maintain our current water conservation rates and made no effort to go to a firm capacity basis of determining available water, the four wells would provide additional growth for 5.4 years.

Staff's recommendation would depend on whether the four well alternatives were being implemented as a measure by itself or as an initial interim solution that is strongly tied to a longer range solution. If this is a solution that must stand on its own, staff would recommend that we allow for the largest well out of service and reduce the conservation to 15%, thereby allowing growth for an additional 2.4 years. On the other hand, if this were being implemented along with either a Portland alternative or a Willamette River alternative it would be feasible to continue operations at a level with very little margin for error and to allow the entire amount for growth at an additional 5% per annum for a total of 5.4 years.

**Project Completion**

The timeframe to actually have Troutdale Aquifer wells in place has slipped severely since we last completed the schedule to solve the water moratorium. At that time, we were projecting that by May of 2000 we would be able to have water from the first three wells available and that we would be able to end the moratorium in January of 2000. The current requirements for time to complete wells is projected as follows:

Complete test holes/pilot wells and the analysis of the Troutdale Aquifer	4 months
Obtain County land use approval for development of wells in county	4 months
Obtain Department of Water Resources approval assuming contested case procedures	17 months
Design and property acquisition	8 months
Construction of wells, water lines and treatment plant	12 months
<b>Total</b>	<b>3 years, 9 months</b>

The above schedule allows no time for appeals of the County land use approvals to the Land Use Board of Appeals and allows for no law suits. It defers design until after Department of Water Resources approval is obtained to minimize a very significant expenditure of design funds with the high degree of uncertainty as to whether the Department of Water Resources permit.

**Cost Comparisons**

Order of magnitude comparison of costs for the Troutdale Aquifer to other water production projects is as follows:

Source of Water	Capacity	Total Cost	Cost Per Gallon
Boeckman Well	720 gallons per day	\$700,000	\$0.97
10 MGD capacity in a subregional Willamette water treatment plant	10 MGD per day	\$25,000,000	\$2.50
One well with 800 gallon per minute treatment capacity and 400 gallon per minute supply	576,000 gallons per day	\$2,630,000	\$4.56
4 Troutdale Aquifer wells	2,448,000 gallons per day	\$6,813,000	\$2.78

December 2, 1998  
Arlene Loble  
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The cost of the one well and the 4-well options on the Troutdale Aquifer are based on Option A. The cost of treatment of the water from the existing wells have been removed from the table for consistency in comparison with other alternatives.

### Continuing Concerns

**Perceived neighborhood impact.** Although the initial push for consideration of the Troutdale Aquifer came from Charbonneau residents, they did not speak for all Charbonneau residents. A number of the residents are concerned about impacts on their property and lifestyle. At this stage it is questionable as to whether any public information program can correct the perception of an adverse impact on property values or lifestyle.

**Department of Water Resources permit.** We would be seeking permits for four wells which would be junior to the existing well permits and would be seeking permission to operate wells with a significant increase in approved withdrawals from the Charbonneau vicinity. Our ability to obtain a permit that is sufficiently free of conditions to allow pumping during the summer particularly during dry periods is of serious concern. We could take up to two years to find out that the permit does not allow for a viable increase in water production. Although the groundwater model that is used by CH2M Hill should clearly show our impact on adjacent wells it would be difficult to convince adjacent property owners, and to some extent Department of Water Resources that the model is reliable.

**Water quality.** The basic tenet of wellhead protection is that the program is voluntary. Our ability to obtain voluntary cooperation from neighbors that oppose our use of the wells could be difficult. We could construct a water system that provides potable water now only to have to subsequently construct expensive modifications to treat water that becomes contaminated because of our inability to enforce wellhead protection.

**Overall risk.** We can continue to fund Troutdale Aquifer expenditures of over \$1,000,000 and then wait for 25 months before finding out whether the expenditure bought us anything. This only makes sense if there is no other alternative.

Eldon R. Johansen  
Community Development Director

ERJ:bgs

Cc: File

## MEMORANDUM

**DATE:** DECEMBER 3, 1998

**TO:** ARLENE LOBLE

**FROM:** JEFF BAUMAN

**RE:** TROUTDALE AQUIFER ISSUES

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While some members of the community continue to be ardent advocates for the City's development of the Troutdale Aquifer, it has become clear in recent months that many other people (for various reasons) are opposed to this project. I think we can reasonably expect such opponents to protest the City's application for water rights to the Troutdale Aquifer. We have met periodically with staff from the Oregon Water Resources Department (OWRD) to keep them apprised of our intentions and to seek their input regarding Department policies and procedures for allocating the State's water resources. This memo discusses the issues that are likely to be factors in OWRD's review of an application by the City to use the Troutdale Aquifer. (Note: My comments here assume we are successful in obtaining data from test wells and monitoring of nearby wells. Such data will be needed as a basis to support the City's application for water rights.)

First of all, the application/approval procedure can be complicated (and lengthy) if protests are filed. The attached flow chart illustrates the process and time frames. In discussions with OWRD staff, it is their expectation a Wilsonville water right application would become a complex contested case. Procedurally, this could take approximately a year and a half from the time the permit application is received to the issuance of a final order.

An early step in the water rights application process requires submittal of a "land use compatibility statement." For sites within the Wilsonville city limit, such a statement would be provided by the City's Planning Department in consideration of applicable land use plans and policies. For sites outside the Wilsonville city limit, such a statement must come from the County's Planning Department. It is not clear whether or not Clackamas County considers municipal wells a compatible land use in this case, nor do we know what process or time frame the County would use in making such a determination. A water rights application is not complete (i.e., the OWRD clock does not start) unless the application is accompanied by the required land use compatibility statement.





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Given the fact that Wilsonville has already been granted water rights to the Willamette River, and given the fact that our most recent permit for the Canyon Creek and Boeckman wells states "the City of Wilsonville understands that reliance on ground water for a long-term water supply is unacceptable," we have asked OWRD staff whether Wilsonville has any reasonable hope of being granted water rights to the Troutdale Aquifer. OWRD staff has been ambivalent on this point. Essentially they have said we will have to go through the application process before they will have enough information to make such a determination. They have made it clear, however, that if Wilsonville is permitted to use the Troutdale Aquifer there will likely be conditions attached to such a permit.

On the one hand, OWRD has been somewhat encouraging with regard to Wilsonville's use of the Troutdale Aquifer. Recent correspondence from OWRD staff states:

"... administrative limitations in your current basalt aquifer well fields ... are in the Sherwood-Dammasch-Wilsonville Groundwater Limited Area as outlined in OAR 690-502-0160 the Willamette Basin Program. Further ... under the Willamette Basin Program, this portion of the Troutdale Aquifer is not classified to prevent the City from applying for a permit for municipal use."

"The current effort to incorporate the Troutdale Aquifer being responsive to your concerned public and to diversify the number of the City's sources has merit."

On the other hand, the same correspondence states:

"Other issues such as access, county land-use approvals and the relationship to other utilities such as sewer lines may be more important factors [than OWRD's permitting procedures]. It is interesting to note that some of the water quality issues the public has raised about contaminants in the surface water of the Willamette have not been raised about the groundwater from the Troutdale Aquifer. . . It also may be of some interest to point out that the location of these proposed wells are near the discharge point of a 303d listed stream (the Pudding River)."

"Several general concerns which they [surrounding landowners] have expressed are:

- "Interference with continued use of their sources as related to supply, including short term and long term interruptions. Many of the types of agricultural users cannot sustain a short term interruption. These would include such uses as poultry, container nurseries, dairies and green houses.
- "Interference with domestic wells. Individual homeowners may not be able to afford deepening their wells to develop their wells to the point that the Water Resources Department could protect their priority date.

December 3, 1998

Page 3

- "Some users may be concerned that a wellhead protection program would somehow interfere with current or future uses of chemicals or other media for agricultural purposes. Some also may be concerned that a city well field would increase the need for implementation of costly waste management practices.
- "The cost of treatment for this groundwater to acceptable taste would be as high as treating Willamette River water.
- "Any interference with the Pudding River would not be acceptable to DEQ because of the limitations on surface water quality."

It is my opinion that Wilsonville could probably obtain municipal water rights to the Troutdale Aquifer. However, it would take nearly two years from today to obtain such rights. And they would be heavily conditioned. In light of the meetings, discussions, correspondence, and past practices with OWRD staff, I anticipate such conditions would include things like:

an extensive, ongoing groundwater monitoring program for this portion of the Troutdale Aquifer, with pre-established thresholds of concern when changes in the water table are detected;

a presumption that any future lowering of the water table is attributable to operation of the City's wells, regardless of the pumping rates of nearby agricultural and residential wells (Note: even though municipalities are required to monitor and report their pumping rates, agricultural and residential users are not required to do so - - and in fact are often reluctant to provide this information);

a presumption that a decline in the productivity of surrounding landowners' wells is attributable to operation of the City's wells, with a commitment by the City to pay a portion of the cost (or perhaps the entire cost) of deepening nearby agricultural and residential wells if/when they report declines in productivity;

an immediate cessation of pumping at City wells whenever the water table in nearby wells drops below a pre-established level and/or summertime flow in the Pudding River falls below a pre-established level;

an agreement that the City would pay a portion of the cost (or perhaps the entire cost) for wellhead protection measures taken by impacted parties;

OWRD staff has made it clear that they would like us to address these kinds of issues in our permit application. And it is possible additional issues may arise during the application process itself. OWRD staff does not want to be in the position of having to

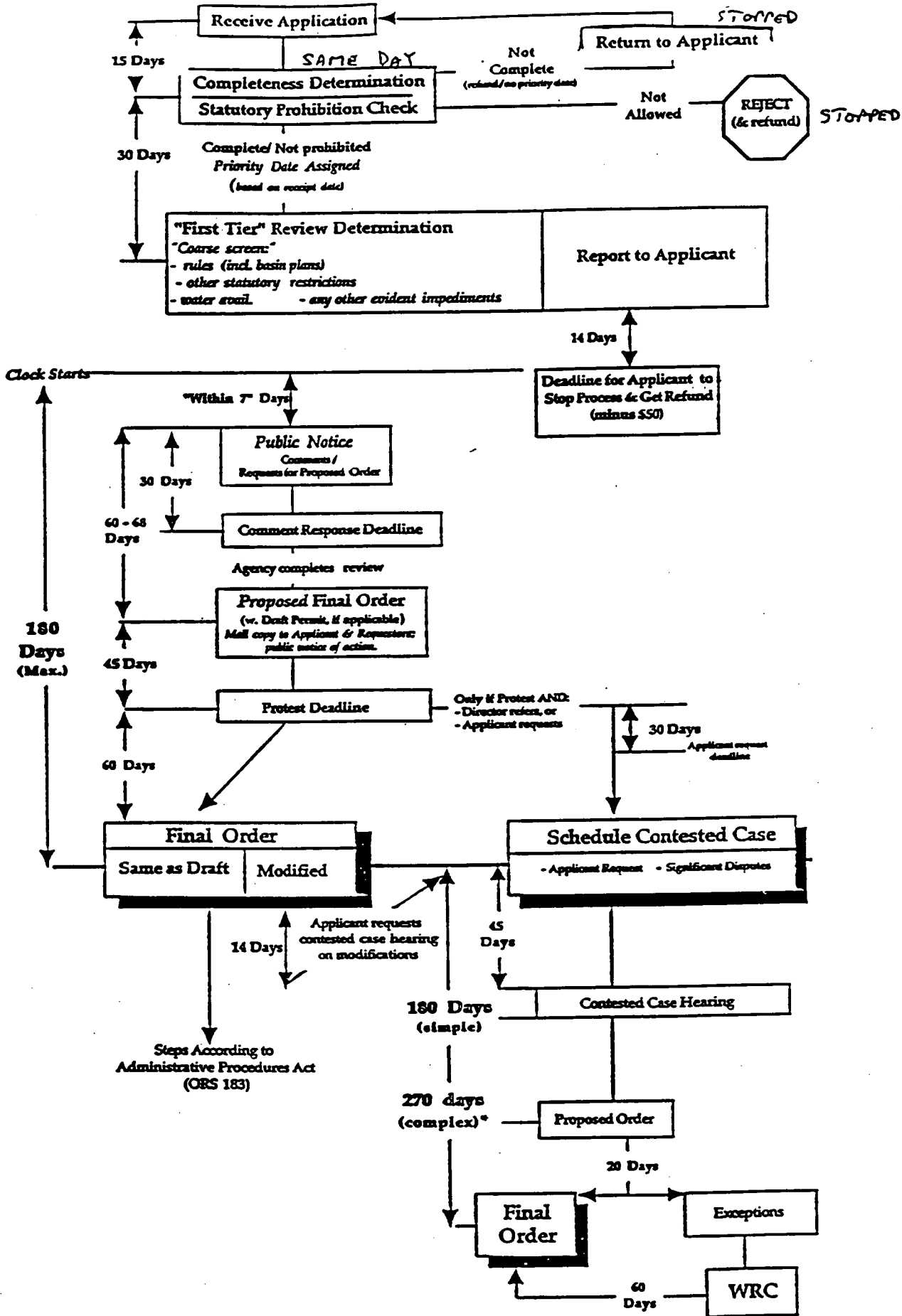
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make these kinds of judgment calls after-the-fact if/when surrounding landowners claim they have been impacted by operation of City wells permitted by OWRD. We can also anticipate that over time surrounding landowners may seek compensation from the City for whatever losses they claim to have suffered due to actual (or perceived) interference/interruption of their groundwater supply.

In short, development of the Troutdale Aquifer will not be as timely or as plentiful as was anticipated last June when the Council directed staff to pursue this option. Unless the Council is willing to condemn private property, it appears to me we will be able to develop no more than four well sites - - and these would be heavily conditioned in some yet-to-be-determined way. From a technical and hydrologic standpoint, the Troutdale Aquifer may still be a viable (if limited) source for Wilsonville's future water supply. But circumstances have changed from last June when it appeared the Troutdale Aquifer could double our water supply. If in fact we are now limited to a maximum of four wells it begs the broader policy question: is it worth the additional time, cost, uncertainty, and constraints in order to secure water that may be restricted during the peak season when we need it the most? I remain dedicated to develop this source to the best of my ability if it is the Council's desire to do so. At the same time, I feel a responsibility to keep you and the Council apprised of the issues we are likely to face.

<b>Alternate Impacts on Development of Four Troutdale Aquifer Wells</b>	
11/30/98	Supply in MGD
<b>Supply capacity for maximum day demand</b>	
<b>Present capacity</b>	
<b>Present production</b>	5.44
<b>Use of existing reservoirs to meet maximum day requirement</b>	0.20
<b>20% of new reservoir capacity</b>	0.40
<b>Conservation (19.5%)</b>	1.46
<b>Total present capacity</b>	7.50
<b>Changes in Capacity</b>	
<b>Four Troutdale wells- Capacity limited by capacity of waterline over Willamette River</b>	2.16
<b>Conservation applied to added capacity</b>	0.52
<b>Reduce for decreased basalt aquifer production</b>	0.22
<b>Reduce for reduction in reservoir storage availability for max day requirement</b>	0.20
<b>Net increase</b>	2.26
<b>Total available capacity with four added wells</b>	9.76
<b>Previous approvals with estimated maximum day demand</b>	7.50
<b>Available for added development or changes in operating parameters</b>	2.26
<b>Alternatives for consideration</b>	<b>Added Development in years</b>
Allow for largest well out of service of 0.9 MGD, reduce conservation to 15% by allowing .44 MGD for less conservation and 0.92 MGD for growth at 5% growth per annum	2.40
Allow for largest well out of service of .9 MGD and 1.36 MGD for growth at 5% growth per annum	3.40
Reduce conservation to 15% by allowing .44 MGD for less conservation and 1.82 MGD for growth at 5% growth per annum	4.50
Allow entire amount for growth or 2.26 MGD at 5% per annum	5.40



DECEMBER 11, 1998



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**TO:** INTERESTED PARTIES

**FROM:** DAVE KANNER, PUBLIC AFFAIRS DIRECTOR

**RE:** PUBLIC HEARING ON WATER MORATORIUM

On Monday, December 21, the Wilsonville City Council will hold a public hearing on a staff recommendation to extend a moratorium on new development approvals in the city for another six months. As you are no doubt aware, this moratorium was imposed in January of this year when it was determined that the city's existing water supply would not allow for any more growth beyond that which had already been approved.

When the Council extended the moratorium last June, the Council also adopted a statutorily required "plan of correction" that called for aggressively pursuing the drilling of test wells in the Troutdale Aquifer. It was our hope at the time that the Troutdale Aquifer would at the very least be a bridge to a long-term water solution, if not the long-term solution itself, and that we would be able to develop wells in the Troutdale Aquifer quickly enough to get us out of the moratorium.

It is now clear that this is not the case. After having spent more than \$200,000 to date in our effort to develop the Troutdale Aquifer, we have no test wells and only one property owner who is even willing to let us drill a test well. Staff will now recommend that the city abandon this effort. This recommendation is grounded in the following:

- Strong opposition to the Troutdale Aquifer has surfaced both inside and outside of the city. Because of this, a challenge to a water rights application is virtually certain. A "contested case" application could take two years (or more) to resolve, with no guarantee of success. Even if we could get the permits, staff at the Water Resources Department has indicated that the permits would be heavily conditioned and possibly not allow us to pump the wells during the summer months, when we need the water the most.
- Because there are no willing property owners, the city has the choice of drilling test wells only in Clackamas County rights of way or condemning private property to obtain sites for test wells. However, Clackamas County staff has made it plain that they will not approve a city application for permits to drill wells in the right of way. A challenge to that denial could take years to resolve, with no guarantee of success. Similarly, challenges to a city condemnation action (for land that we might not even need in the long-term) could be expensive and lengthy, with no guarantee of success.
- Finally, the water from the Troutdale Aquifer would require a much more expensive form of treatment than earlier anticipated. As a result, it appears that the Troutdale Aquifer would actually be *less* cost-effective than other options available to the city.



In addition, by the end of next week, the City should receive a report from the City of Portland detailing how much water they can sell us, at what price, for how long and what kind of cooperation we would need from other jurisdictions. We do not expect that we will have had a chance to read, much less analyze this report prior to the meeting of the 21<sup>st</sup>. We also expect a final report from the engineering firm of Murray-Smith on the costs and feasibility of a Willamette River treatment plant. As with the Portland report, we do not expect that we will have had a chance to analyze this report prior to the Council meeting. We will also not have had a chance to talk to other jurisdictions whose cooperation would be necessary or desirable in making either of these options work.

The Council will not be selecting a long-term water supply at its meeting of the 21<sup>st</sup> and the public hearing will be on the question of whether the City should extend the moratorium for another six months. However, if the Council adopts the staff recommendation to abandon the Troutdale Aquifer option, it will narrow our choices of long-term water supply to two: the City of Portland and the Willamette River.

Again, the above is a staff recommendation and I know the Council would be interested in hearing from you on this most important issue. The December 21 Council meeting will begin at 7 p.m. at the Community Development Annex, 8445 SW Elligsen Road. You can also submit written comments (and we encourage you to do so) at 30000 SW Town Center Loop E., Wilsonville, OR 97070.

If you have any questions about the above, please don't hesitate to call me at 570-1505, or Jeff Bauman, public works director, at 570-1542.