

**CITY OF PARK RAPIDS
CITY COUNCIL WORKSHOP
NOVEMBER 27, 2012, 6:00 PM
Park Rapids Library-Lower Level
Park Rapids, Minnesota**

1. CALL TO ORDER/ROLL CALL: Mayor Nancy Carroll called the City Council Workshop for November 27th, 2012 to order at 6:00 p.m. Present: Mayor Nancy Carroll, Councilmembers Dave Konshok, Pat Mikesh, Sue Tomte, and Paul Utke. Absent: None. Staff Present: Administrator John McKinney, Public Works Superintendent Scott Burlingame, Public Works Employee Dean Christofferson, and Clerk Margie Vik. Others Present: Bala Vairavan, Brian Hiles, David Hume, Rod Nordberg, Dick Rutherford, Ella Burlingame, and Anna Erickson from the Enterprise.

2. BUSINESS:

A. Water Treatment Study Presented by Ulteig Engineers: Brian Hiles stated we're here to give you an update on the water treatment study so you know where we're at and what we found. We'll talk about the next steps, where we need to head, and field any questions. The project team included me, Bala Vairavan, our water specialist, Dave Pillatzke, our Principal in Charge from Ulteig, Hydrogeologist Dave Hume from LBG, Elsner Well Drilling, who drilled the test wells, and Layne Christianson Company, which completed the pilot study. We'll talk about the project development, give you an update on the hydrogeological analysis, the pilot plant results, and the project execution and updated cost estimates.

Hiles stated there were a few questions that needed to be answered, such as what aquifers are viable for a water supply. There are three different aquifers available in the city that we found, a shallow, intermediate, and deep. At the beginning of the project we had very limited information on those aquifers as far as what they'd produce, what they can handle, what they are made up of, and how fast they recharge. As we progressed through the test well and the pilot study we got more of an idea of the makeup of those aquifers. Each aquifer has its own unique characteristics and possible issues. Evaluation of treatment viability was reviewed within the scope of the pilot study.

Hiles presented a map of the primary area of focus. He stated the ideal location is on the existing wellhouse site. That's where we did the test well and pilot study. The test well produced a very high quality and quantity of water.

Hiles stated a preliminary net worth summary has already been presented to the Council in August of 2012. It included cost figures for a pressure filtration plant, versus an ultra-filtration plant, versus a conventional plant. The initial capital costs and the annual operational costs have gone down from where they were back in August based on what we have found.

Dave Hume stated we have great results to present. We did a phase one study. The preliminary assessment was wrapped up in August. Then we started phase two. We'll

present a summary of the field activities that we completed between August and November, the results, conclusions, and recommendations.

Hume stated the aquifer that we are talking about is the intermediate one. The upper confined aquifer is where the city's current wells are located. We have clay protecting layers above and also below the intermediate aquifer. Well eight is located below the clay confining layer, and the new test well is located in the intermediate aquifer. The objectives when we started phase two were to determine if there was enough water there, what's the quality, and if it's there, what kind of interference do you have outside the surrounding area where you pump, or how much will it influence your well field. The water quality data was very important to Hiles and Vairavan for treatment purposes. We wanted to look at the test well under the stress of pumping, and ultimately to meet DNR's requirements for the water appropriation permit.

Hume stated we drilled some test holes to verify the thickness of that confining unit, and also the presence of the aquifer offsite a little bit, and also the well field area. We installed the test well in the well field and we found excellent materials there as far as sand and gravel. That site was the optimum first choice. We did a few observation wells about one hundred and fifty feet away from the test well to monitor water levels during the pumping test. We conducted a step rate test. We pump the well at different rates starting with a lower rate to a higher rate to see what it will do, and then what we would pump the longer term constant rate test at.

Hume stated the observation well network that we selected for the monitoring during the constant rate test was coordinated with DNR. They were very helpful with equipment, offered access to some of their wells. City staff was helpful as well with assisting with a lot of the coordination and locating some of these offsite wells. We tried to get a good distribution there, but not overkill. We didn't want to monitor too many because it gets costly, but an amount that we could live with, and what the DNR could live with. Once that was established we got the equipment in for monitoring. We started the test on October 9th at about 1,200 gpm. We pumped for fifteen days at a constant rate with no disruptions at all which makes our life easier. Everything went very smooth. After the two week period we talked to DNR, we gave them the initial data. They said it looked good and that we could shut the test down, and then we went through an eight day recovery period where we monitored water levels as they came back up to that pre-pumping level. The other thing we looked at were some of the irrigation wells out there when they pump, which is beneficial because it's nice to see what influence they have here and what you have at your well field out there. It doesn't truly represent what happens in the heat of the summer when they are pumping a lot, but you have to make some projections based on that.

Hume stated a very important component was ground water sampling. We sampled day one during the constant test and also at the end of the test to see what kind of changes in groundwater chemistry occurred over that fifteen day period to see if maybe we're pulling water from someplace else, either from up above where the high nitrates are, or down below. We sampled the test well, the observation wells, and a couple of private wells that are located just west.

Hume stated the well field and the test well are located just west of the wellhouse and water tower, but still inside the fenced in area, which are close to well five, six, and the deep well #8. The general monitoring area surrounds the well field and is located in the northwest quadrant of the city. We have updated the geological cross sections based on

the test wells that we did, with some additional data. The cross section graph shows the upper layer is sand, which is very extensive across the area. The area underneath that is the confining clay layer. That is the protective layer. The intermediate zone is that target aquifer. There are some inter-bedded clays and things in there, but for the most part, it's very nice sands and gravels. There's a clay layer below, and under that is the deep aquifer where well eight is located.

Hume stated we did the test hole drillings, one located southwest of the well field, and one northwest. The reason for those wells was to try to determine if clay was there. That was one of the data gaps we identified back in August, and how thick it is in that location, and if it's present. We found it at about thirty feet, and in the other test hole at forty feet thick. We got the test well in, the step test, and the pre-monitoring. We measured the drawdown. It gives us some indication of how this aquifer responds. This is a very important point. The line on the graph represents a drop in water levels. The drawdown in the observation well, one hundred and forty feet away, in the lower confined aquifer. The bottom axis of the graph is time. We're plotting the drawdown, versus the time. The line represents that water level through time. We started pumping at zero time. It starts to flatten out. That's a very good sign because it indicates that your pumping rate equals the amount of recharge coming to the well. When we shut the pump off, we recovered within 99% of the pre-pumping level in about two to five days. That is a very nice thing to see. This shows sustainability. This shows the water evaluation relative to where the threshold level the DNR says you have to stay above to keep your permit at that pumping rate. The DNR's threshold elevation is at 1,390 feet below sea level. The water level before we pumped is at about 1,420 feet. Through time, the water levels off. We're nowhere near the DNR's threshold. There's about thirty feet of water above that at the end of the time. When you look at that, there's no reason for us to say that this is going to go out in another two or three years and fall off the map. We have to convince DNR that this is a very good sign. Most of the water is coming from that upper confined zone we're targeting. There might be a little water leaking through the water table, and maybe some coming from up above. What our data tells us is when you pump your deep, intermediate aquifer with the new test well or a future well you're not going to influence those wells up above in any significant manner or any other domestic wells that might be operating. The other thing we looked at is one of the irrigation wells out to the west. When they pumped, we don't see any real significance here at your well field. If they did influence we would expect to see in the graphing, but we don't. When they stop pumping we can see things ramp up.

Hume stated for the chemistry results several parameters help separate the ground water type in the two aquifers. If we're looking for different types between the water table and the confined aquifer, that's a good thing. One thing that we noticed was the manganese levels are about 150 ppm in the upper confined, and non-detect in the water table. Total alkalinity is a little different. We detected chloride in the shallow and the deep. Nitrates, the one we're most concerned about, we have high levels in the shallow water table level, about 10 ppm. But in the deep test well, it's non-detect. Some other indicators that we measured in the field, dissolved oxygen and the oxygen reduction potential, basically tells us how much dissolved oxygen is in that formation down there. We see very low values in there, not much oxygen, which is a good thing because if you have nitrates down there the bacteria that are in the aquifer will thrive on the nitrates if the oxygen levels

are low. It's something called DE nitrification. It doesn't tell us for sure that it's going on but if something were to get down there, the potential to break that down is very good.

Hume stated the upper confining clay unit is key. That's one of the key components. We now have a better understanding that that extends far out to the west. In the well field area it's thick. It appears to be laterally extensive. That unit does a good job protecting that intermediate aquifer that you're looking at compared to everything up above. The drawdown in the test well reached steady state condition and leveled off, equaling the recharge amount. Because of that we don't see a long term concern of hitting that 50% threshold level that the DNR is going to look at for appropriating. We didn't see any influence in the shallow aquifer, which is a good thing, so we don't have any concerns about interfering with domestic wells in that aquifer or your shallow pumping wells. Outside of the well field itself, we saw just a minor amount of drawdown in that particular area, but nothing to be concerned about that you're going to interfere with other wells out there. The chemistry results show a significant difference in the chemical types between the water table and the upper confined indicating they're not very well connected hydraulically even in the latter part of the test. We still showed the same type of differences. Those reducing conditions, the low oxygen down there is a good indicator that should nitrates get down there the bacteria should eat it all. The recommendations would be to submit the phase two results to the DNR. We plan to have the report completed in the next week and have a draft to Ulteig, submit that along with the appropriate permit application for the 1,200 gpm, and the water supply well permit application to the Department of Health for approval. Upon approval of that the well could be installed at that location. The DNR really questioned how much influence the irrigators have here. I don't think it's an issue, but that's one thing they will really look at. We're not seeing a lot of influence with one pumping. If there were ten or fifteen pumping we would make some projections on what kind of influence we would see. That may be the only issue DNR has. With some ongoing monitoring it should be able to resolve itself.

Carroll questioned do agricultural uses have priority over municipal? Hume stated municipal has priority over agricultural uses. Since you have the nitrate issue, and you've looked, and this is a nice aquifer that meets your needs, that's certainly going to help. But if there was some conflict, it would have to be dealt with down the road. When you look at all the irrigations wells that are pumping out there now and they don't interfere with each other, they're pumping 800 gpm, continuously for weeks, and they don't have problems. One other well in the area doesn't seem like it's going to be a huge concern.

Carroll questioned is the 1,200 gpm what we need? Hiles stated that is what is projected for twenty years out. Burlingame stated our current use is much less than that. Vairavan stated it's about half. Twenty years from now, 1,200 gpm should be sufficient for the population. When we go through the DNR appropriation we get a higher number, and then our plant will be designed for 1,050 gpm, so if growth happens faster, it's hard to project growth, then we have this appropriated.

Mikesh questioned how many feet was the drawdown before it leveled off? Hume stated we had fourteen feet of drawdown in the pumping well, and seven in the observation well that was one hundred and fifty feet away. Mikesh questioned what was the total footage of the well? Hume stated one hundred and fifty feet deep with about thirty feet of screen on it. Tomte questioned it came back to a steady state within how many minutes? Hume stated in less than one day it started to stabilize.

Vairavan stated initially we talked about two different aquifers, the shallow and the deep. When we brought Hume on board we found another aquifer that didn't have enough data on it. Hume did the hydrogeology assessment and now we have this nice set of data. It tells us there's enough water in the aquifer. It tested at what we would need for the year 2013. The next question was the quality. Nitrates were the biggest concern that we had. As far as the results that we got back between when we started and when we ended the pumping, there was minimal influence from the other aquifers. The lower DOs and ORPs indicate that for some reason, if those nitrates are to get into it they would degrade or breakdown. What it means to our project when we originally started, we started at four deep wells. The main reason was the deep well didn't have enough capacity, around 300 gpm. But now, one well can meet the city's demands. Ideally, we'd like to have two wells for safety, so we can flip back and forth so you don't overuse the pumps. We do have three existing wells, five, six, and eight, which are in the shallow and deep aquifers. For the next step we wanted to evaluate, with the pilot study, a miniature treatment plant with pressure filtration. We looked at different options when we originally started, such as buying agricultural lands, blending, several treatment types at one location, two locations on the south and north sides of the city. Finally we looked at three comparable options with treatment at one location. We went through a bidding process. We had four bidders, and Layne was the low bidder. They did the pilot study. The main goal was to evaluate retention time. The state's standard recommendation is thirty minutes after you oxidize the iron/manganese. That procedure increases the cost because you have to provide a thirty minute retention tank. One way to address that is to do a pilot study. If you do one, and are able to prove you can get the necessary treatment without retention you can ask for an exemption. The number one goal was to determine if we can get by without retention. The number two goal was to evaluate the effect of ammonia. When we started developing this project the deep well had high ammonia concerns. Ammonia does two things to the water treatment. It increases your chemical demand for chlorine. That affects your cost. When you talk about pressure filtration, we want to make sure that ammonia doesn't interfere with the treatment. Finally, we wanted to size and determine loading rates and the filter run time. Filter run time is critical. We'd like to see it between 20 to 24 hours for iron/manganese plants. The longer the filter run time means that you're using the filters optimally, so you don't backwash it often. If the number was five hours, it means you backwash it more often. That means your pumping costs, your discharge costs to the sewer system, all add up. Ideally you want it between 20 and 24 hours. The rules state that you cannot overload the filters more than three gallons per square feet. We want to make sure that we don't go over that.

Vairavan stated there were three media configurations that were evaluated, traditional sand with an anthracite cap, catalytic greensand plus with an anthracite cap, and LayneOx MnO media. They all had a thirty inch deep column from the very bottom. Out of the three media that was tested greensand with anthracite was the best. We didn't pay for the proprietary media that they tested. It was something that they wanted to do. From our standpoint we wanted two medias tested, the greensand and the traditional sand. We didn't want to corner ourselves into proprietary stuff. Ultimately what they found was that greensand was much better. The detention and aeration was not required. They were able to inject chlorine and obtain the necessary oxidation that's required. They did a two week study. In week number one they tested the test well which had an average iron

concentration of 1.17 mg. They dropped it consistently below that as a treatment level which is 0.3 mg. The influent manganese on the test well is 0.19 mg. They were consistently below the average of 0.05 mg. They had a 97% iron removal and an 81% manganese removal. We asked them to do a 24 hour filter run time to make sure we would meet the requirements. They could have gone longer before they started backwashing. Long term these savings add up. The other good thing we found was the chlorine. They added around 1.3 mg and still obtained residual at the end of it. That means less chemical and pumping costs.

Vairavan stated they tested the deep well. The results are comparable. They had about 95% iron removal and 50% manganese removal. The reasons those manganese numbers look so drastic was you had a higher influent manganese in the test well than the deep well. Once you get close to zero it's hard to knock them off. It still meets the requirement. We had a greater than 24 hour run time. We said before we wanted to evaluate that the ammonia was not interfering with the treatment. They didn't have any effect as far as treatment goes coming out on the treated side of the water for iron and manganese. But they did have to feed higher chlorine to it.

Vairavan stated in our case we're going to go with one intermediate well that can produce 100 gpm and then we'll use five, six, and eight for emergency backup to supply your needs. During that scenario the chemical costs would go up to break down the ammonia but you'll still get sufficient high manganese treatment.

Vairavan stated once the results came in, we got proposed filter configurations from Layne, two horizontal filters, ten feet in diameter by twenty-four feet long. They were four cell design for a total of eight cells. By having two different parallel treatments, they can work on the valves on one of the cells and they can still meet the treatment perimeters. We tried to create the best value as far as backup. They can run seven cells out of the eight and meet the treatment requirements. The total yield is 97% of water that's been through the system came out clean, which is about 53,000 gallons per day.

Carroll questioned is the waste the backwash time? Vairavan stated its 684 gallons per minute and each cell washes about ten minutes. That 53,000 is eight times the 6,000 gallons. Carroll questioned is this all automated? Vairavan stated yes. They will have the controls to do it. There's one or two ways to determine when to do the backwash. They'll know when to backwash it because they'll know the runtimes. The other is head loss. Initially when you start the run your head loss is going to be less, but as soon as you start clogging it up, you're going to build head on it, that's the other way of knowing when to start backwashing. You can also look at the water quality from the start of the run to the end of the run. You'd see the iron and manganese levels spike up. You can monitor that in backwash too. When you go to the design you can give them the opportunity of multiple controls, with manual control as well.

Vairavan stated we've completed a draft preliminary site layout for the intermediate well and the water treatment plant. We did a blending report a few months ago. Once this is reviewed, we'll finalize it. This is a good starting point for them. We can accommodate moving the components around. This is based on the existing constraints that you have. For a well you have to be fifty feet away from potential contaminants, like sewer lines.

Hiles stated the next steps include touring some of the other treatment facilities in the area. Burlingame stated we have done that. Hiles stated they now have an idea of what's out there, and the options for different layouts. We'll finalize the preliminary

engineering report once we get all of the reports, the hydrogeological report and the final pilot study. The next step after that is going to project design, get the plans and specifications done. Once they're done, they'll be submitted to the Minnesota Department of Health for their review. We'll advertise for bids, accept them, award the project, and then do the construction.

Hiles stated regarding the schedule, installing the test well, the pumping test, and the pilot study have already been done. The final preliminary report will be done in December. The design phase will be done in December through February. The plan approvals will be in February through March. The bidding will be in March or April, with the construction in May to September of 2013. It will depend on the lead time for some of the equipment. If we proceed on as intended we'll be ready for operation this fall.

Hiles stated the current cost estimate is \$2,457,550.00. The number presented in August was \$2.6 million. We've been able to do some cost saving with some of the work that we've done to date, as far as the well cost, removal of some of the detention items. Vairavan stated Burlingame may look at this number and think that it's still too high based on some of the things that we talked about like the wells that we took out, and not having detention. The reason this number is a little high is it's based on an estimate from one manufacturer. We haven't had competitive bids yet. That number will scale back during the bidding process. For the configurations for the preliminary layouts we had two filters figured in, which is a nice want, but you can always scale it back to one filter. You'd still have the redundancy where you can backwash the cell and then you can operate the rest of the cells, but it's not as nice as having two cells. What's priced in right now are top of the line valves, and you have different options there. The high end of the valves is \$6,300.00, the low end is \$2,300.00. There's a happy medium, and we can scale it back. Once we go through the bidding process that's one of the things that can be scaled back. That number is high, but it will come down.

Hiles stated the reason to do that at this point is for the funding. Once you give them a number it's really hard to get them to move it up. It's easy for them to bring it down, but it's almost impossible to get them to give you more money once you've already gone in. We like to start high, go in for the funding, and then scale it back as we go along.

Hiles stated the Public Facilities Authority (PFA) application has been completed. The city is on the Drinking Water Revolving Fund Intended Use Plan. You are rated number one on the priority list, by scoring the highest number of points for any other project in the state. With the PFA it's a low interest loan. They do have some principle forgiveness loans. We're working with the administrative staff as far as getting the information to PFA that they need in order to determine if you qualify for any of the principle forgiveness. The low interest loan money is there. The interest rate is about 3% right now.

Hiles stated additionally, we, on behalf of the city, applied for a Small Cities Development Program Grant through DEED. That application went in early November. Through that program we requested the maximum allowed per project of \$600,000.00 in funding. It's a competitive process. They're in the process of reviewing the pre-applications now. Once they determine how many projects they are going to fund, and an idea of which ones, then they'll come back in February and let those cities know that they qualified, and then you have to finalize your grant application process with them.

Konshok questioned is there coordination between the two programs? The fact that we're number one with the PFA does that help? Hiles answered yes. They do take that into consideration. Most of their funding cycles start now. USDA, Rural Development, PFA, DEED, all get together in early December to decide what they'll fund, and they work out a package that way.

Rod Nordberg questioned is the assumption that we would fund all of it between those two sources? Hiles answered yes. If nothing else, you will have that low interest loan money available. Nordberg questioned there's a loan, a grant, and then another loan source? Hiles stated there's a loan, a principle forgiveness loan, and then a possible grant. Konshok questioned any idea on the range of how much that is for the principle forgiveness loan? Hiles stated I believe they have 20% to 30% of their budget, \$15 to \$20 million available for principle forgiveness loans. But it is a competitive process based on your affordability rates. That's a calculation that we go through with the city. They take into account your debt load, debt service, operation and maintenance, and then how much more is going to be added through this project. They look at an affordability level for the average person. Usually that comes out to about \$30.00 to \$35.00 a month for water service. Anything above that would qualify for the availability for the principle forgiveness loan.

Hiles stated based on the test pumping and the pilot plant, we're looking at constructing one well in the intermediate aquifer capable of producing up to 1,200 gallons per minute. In conjunction with that, constructing a water treatment plant utilizing pressure filters with no detention necessary, and doing that at the existing well field site. Then keeping wells five, six, and eight active for additional capacity and backup to the new well. By doing that we don't have to construct a second new well. The last step is for the Council to authorize Ulteig to prepare construction plans and specifications based on the results of the preliminary work completed to date.

McKinney questioned how does the approval of the site and all of the work that you've done coordinate with starting the design. There's no point starting if it isn't going to get approved. Do you start design on the assumption that all approvals are going to be received? Hiles stated we've had preliminary discussions with the Department of Health and the DNR as far as well location. They've been involved in this process from the very beginning. DNR has worked with us on the monitoring. They are well aware of the project, and are familiar with the area that we are looking at. We would contact them and have them come out and do a site visit for preliminarily approving the well location. They won't give you the final until they get the exact design and location, but they'll do a preliminary evaluation and let you know. As long as you meet the Department of Health's setbacks and the ten state standards for treatment, they review the plans once you submit them, but they won't really do much before that. They know where things are at with the city's situation. They've been real good to work with so far. They volunteered to take the city employees to some of the other cities and show them around. Vairavan stated for some of the testing they lent us some of their equipment to save the city some money. The Department of Health helped us sample for a full compliance scan on the test well. That was a big dollar amount. We've tried to coordinate and have them involved and they've been easy to work with.

Vairavan stated everyone is excited about this project. Tomte questioned why? Vairavan stated because you are addressing the nitrate problem. There are not a whole lot

of aquifers that we've looked at that are as good as this. Generally speaking this is a very good aquifer. Hiles stated you have a pretty incredible well water source available to you.

Tomte questioned the 1,200 gallons, times the fifteen days you pumped, where did all that water go? Burlingame stated down the storm sewer drain. Hume stated I've seen 2,400 gpm go into a drainage ditch for thirty days from an aquifer that's nothing like this one. Vairavan stated we did advertise in the paper what we were going to do and how much we were going to discharge. We were not required to advertise, but we did it to keep people informed.

Nordberg questioned if the water from the new aquifer is so good why does it also need filtration? Vairavan stated it still has iron and manganese in it. Nordberg questioned why not just filter well eight's water? Vairavan stated well eight has a high concentration of ammonia in it, which is not present in the intermediate aquifer. We could still do that, but with ammonia your treatment cost is going to go up. Nordberg questioned more than a new well? Hiles stated for long term, yes. Hiles stated well eight only has a maximum capacity of 300 gpm pumping rate. When the nitrate levels in five and six get high enough that you can't use them anymore, if you want to stay in the deep aquifer, you're going to have to drill three more wells to equal what you'll get out of this one new one. That's the structure of that deep aquifer. It's a lot harder to get the water through it.

Konshok questioned does this do anything for the nitrates in five and six? Vairavan answered no. Hiles stated nitrate treatment is a whole different animal and it's a whole lot more costly. Konshok stated so we'll use those as backup but that's also contingent on nitrate levels in those wells. Hiles answered yes. Burlingame stated with this plant we'll have the capability of blending. The new well will put out 1,000 gpm. If the nitrates in the shallow wells go over 10 ppm, we can knock that down a lot by mixing them.

Nordberg questioned how thick are the clay layers, top and bottom, and also do you have any idea where the recharge from the aquifer comes from? Hume stated the upper confined unit is about fifty feet thick at the well field. As you go west it's anywhere from twenty to thirty feet thick. It appears to be extensive. The recharge, it's a very extensive aquifer that is connected to a lot of things. It could be connected to something several miles away that we don't know about, possibly the lakes that connects to feed that type of confined situation. There might be some leakage from above and below. That's very possible. But the percentage that is can't be much because we're not seeing changes in chemistry. It could be from a variety of sources.

Nordberg questioned if it's from the lakes, are there any biological things that would show that? Hume stated yes. When they go into the wellhead protection plan, which they will do after the new wells are installed, there will be some tests that the MDH typically does to determine if you're getting surface water. Hiles stated as part of the DOH testing, one is aging of the water in the intermediate aquifer so we'll have an idea of how long it's been down there. Hume stated we have one perimeter that we have not gotten back yet. The tritium will tell us if the recharge from the water was pre-1950 or post-1950. It was released in the atmosphere when they did the nuclear testing. If it's present the water is younger than 1953. If it's in your well then as part of your wellhead protection plan the DOH will say your well is vulnerable to contamination. That doesn't mean surface contamination, like nitrates. It means maybe you have recharge that's ten miles away where the atmospheric water has gotten into that aquifer and it's traveled that far. It will give some indication of how recent the recharge is.

Nordberg questioned beside the test for nitrates is there a test for pesticides? Hume stated we have not sampled for pesticides. Vairavan stated MDH is doing a full compliance scan. Nordberg questioned how wide, like for Hubbard County? Vairavan stated they check this particular well water to see if there's pesticides. The compliance scan includes all the perimeters for organic compounds to see if there is anything about the recommended levels to make sure it's good water.

3. ADJOURNMENT: A motion was made by Tomte, seconded by Mikesh, and unanimously carried to adjourn the special meeting at 7:08 p.m.

[seal]

Mayor Nancy J. Carroll

ATTEST:

Margie M. Vik
City Clerk