

CITY OF POLSON

COUNCIL MEETING

Commission Chambers

April 14, 2014

6:00 p.m.

ATTENDANCE: Mayor Heather Knutson, City Commissioners: John Campbell, Todd Erickson, Dan Morrison, Ken Siler, Jill Southerland, Stephen Turner, City Manager, Mark Shrives, and City Clerk Cora Pritt.

Others present (that voluntarily signed in): DOWL/HKM Representative Kevin Johnson, City Civil Engineer Shari Johnson, Mike Lies, Merle Parise.

1. CALL TO ORDER

Mayor Knutson called the meeting to order. The pledge of allegiance was recited.

2. APPROVAL OF PROPOSED AGENDA

Commissioner Turner motioned to approve the Proposed Agenda. Commissioner Erikson seconded. Commission Discussion: None Public Discussion: **VOTE: Unanimous Motion carried**

Prior to beginning the presentation of the Waste Water Treatment Plant Options, the Mayor explained the order of the meeting. There would be an opportunity for the public to ask questions about the subject matter prior to the Commission having their discussion. There would be a final presentation provided by the team, then public comment/questions, Commission discussion and questions of the team, Commission motion, final Commission discussion, and then vote.

3. WASTE WATER TREATMENT PLANT OPTIONS AND SELECTION OF PREFERRED

ALTERNATIVE-This agenda item was presented by City Manager Mark Shrives, City Water/Sewer Superintendent Tony Porrazzo, DOWL/HKM Representative Kevin Johnson, & City Civil Engineer Shari Johnson. City Manager Mark Shrives commented on the following hand out that was posted on the website, as well as being handed out at the previous meeting.

Wastewater Treatment Plant Summary

As a summary of the information presented at the Monday night (April 7) public meeting for the wastewater treatment system improvements we wanted to provide a brief summary of the information and a reminder of the actions before the Council at the special meeting scheduled for Monday, April 14th at 6 P.M.

Summary

- The EPA has mandated the City install a disinfection process to disinfect the effluent from the facility by July of 2017.

- The existing system has limited capacity to accommodate growth. Additional flows and organic loads will further challenge the performance of the existing system and would be reasonably expected to cause more frequent violations of the discharge permit.

- Anticipated changes in the regulatory criteria for the City's discharge are expected to include low limits for nitrogen and phosphorous, requiring a mechanical treatment process with nutrient removal capabilities.
- The eventual "step down" in these numeric nutrient criteria will eventually require this biological treatment process followed by effluent filtration.
- A "phased improvements" approach to include just the equalization basin, headworks facility, and UV disinfection system while keeping the lagoons in service presents numerous risks including:
 - non-compliance with the permit values for bacteriological quality on account of the generally high suspended solids in the existing lagoon system effluent;
 - higher future costs for later improvements to the biological treatment system;
 - likely higher interest rates for money borrowed for later improvements;
 - less efficient resulting design;
 - more significant short-term problems and costs with continued operation the lagoon system.

The wastewater treatment system improvement options to resolve the short-term permit compliance directive and the anticipated nutrient standards include the following:

- Option 1 to achieve all these treatment objectives is the sequencing batch reactor (SBR) facility with the separate effluent filtration process. With 100% loan financing of this entire project, the ultimate resulting rate increase is estimated at approximately **\$59.80/month**. Added to current average overall sewer rate of approximately \$29/month, the estimated resulting average rate would be approximately **\$89/month**.
- Option 2 is the membrane bioreactor treatment (MBR) process which incorporates filtration as an integral component of the overall process. With 100% loan financing of this entire project, the ultimate resulting rate increase is estimated at approximately **\$64.80/month**. Added to the current average overall sewer rate of approximately \$29/month, the estimated resulting average rate would be approximately **\$94/mo**.

These rates are based upon zero grant funds in the funding package. Any grant funds procured will reduce these rates. Other items that may contribute to lower rates than stated include pre-selection/procurement of equipment, competitive bidding of the project, deduction of the current operations cost of the existing treatment system, and other construction efficiencies to be explored in preliminary design (i.e. one rectangular concrete tank divided in half for the solids digesters instead of two, separate and round digester tanks.)

In addition to the financial criteria, these alternatives are also evaluated for qualitative pros and cons as reflected in the following table. Note, the evaluation criteria and relative scoring are subjective and come with various caveats best addressed through further discussion. In some cases, such tables can expose very important differences. The maximum number available in the "Score" column of the table is 5. The score is divided by 5 and multiplied by the "Criterion Weight" to get to the respective category "Points". (i.e. 4/5 x 20 = 16 points)

Criterion	Criterion Weight	SBR w/ Filtration		MBR	
		Score	Points	Score	Points
Treatment Process Performance, Stability	20	4.0	16.0	5.0	20.0
Regulatory Issues (current/future)	20	4.5	18.0	5.0	20.0
Overall Facility Footprint & Rqrd. Unit Processes	20	3.5	14.0	5.0	20.0
Mechanical Complexity (Equipment, instrumentation)	15	5.0	15.0	4.5	13.5
Operations & Maintenance/(Operator Attention/Skill)	15	4.0	12.0	5.0	15.0
Construction Phasing Opportunity	10	2.5	5.0	0.0	0.0
Total Score	100		80.0		88.5

End of Summary

At the April 14 meeting, the City Council will need to provide direction to DOWL HKM and Nittany Grant Works in regards to which alternative to include as the “Preferred Alternative” in the Preliminary Engineering Report and grant applications. The Preferred Alternative becomes the basis for the costs included in the grant and loan funding applications.

Mr. Johnson will provide additional information this evening.

Water/Sewer Superintendent Tony Porrazzo briefly explained the history of how the City has arrived at this point. The Environmental Protection Agency is mandating higher regulations than the City of Polson can accomplish with the Lagoon system. The information has been provided at several meetings. There are basically 3 options on the list. We need to provide the best quality of water that we will be discharging into the river. The Commission has the task of deciding which system will be built. City Manager Mark Shrives commented that the meeting this evening was to select the treatment plant this will then help Kevin Johnson in completing the grant applications that will need to be submitted very quickly. There will not be setting the rates, this is just picking the treatment plant. City Civil Engineer Shari Johnson commented that she was going to turn the remaining presentation over to Kevin Johnson. If there are any questions, please ask. DOWL/HKM Representative Kevin Johnson began his presentation by answering emails that he has received

Q. If we do not do a major upgrade of the water system, what options do we have to improve the current system?

A. The head works and UV phase could be done. This would need to be functional by the end of 2017. That component has to be in the ground by 2017. The challenge with this is that the Lagoons are already having performance issues. It would be low cost of benefit and will do nothing for the pending regulations.

Q. What would the cost be for Phase 1? How many more years of life would we be able to get out of it?

A. The longer the system is perpetuated the more problems it will have in trying to operate that way.

Q. Based on the current options on the table, what do you recommend and why?

A. The key issue that is trying to be resolved is trying to see the pending regulations and how stringent the numeric nutrient criteria will be. What we have to determine is what kind of risk are we willing to take in selecting one of these options. Based on the State criteria, we have the SBR option, the SBR w/Filtration, and the MBR. The SBR process would eventually get the City to the criteria. The EPA recognizes the Tribe as a State. All states will have to adopt the regulations. The MBR, as presented, would be able to treat to the lowest levels as required within the criteria. In the meantime, it would also be putting out a higher level of effluent than the other options. In selecting the SBR, the challenge will be trying to project how far and how fast are all the limits going to come down to where another process has to be added on to that to get below the levels.

Commissioner Southerland asked Mr. Johnson if there were any other systems that would work? A member of the public had asked her this question. Mr. Johnson stated that yes, there are a lot of other options, but MBR has the separation and filtration process all in one. Economically there wouldn't be a better choice. If another option was chosen, then it means pouring more concrete which increases the cost. Commissioner Campbell asked if the nutrient levels between Flathead River and Flathead Lake were changing to where they will be treated the same? Mr. Johnson answered that the numbers are fairly site specific. It's broken out by eco-region. The lake and the river are going to be very similar. Shari Johnson commented that it will be looked at as a whole unit process. The levels will not be any more relaxed for the river than they are for the lake. It will not matter if you are looking at the lake or the river. They are looking at the end of pike calculations. Mr. Porrazzo informed the Council that the City of Polson is now a public recreation area so the numbers are higher for us.

Commissioner Morrison asked about the difference between the SBR & MBR with the solids handling. Kevin commented that at this level of analysis the biggest difference is that with the MBR there is a little over 1% less of solids. It's almost 4 times as high with the SBR in the biological tanks.

Q. The difference between the two options, SBR w/Filtration & the MBR is about 2.6 million. The point has been made the regulations will continue to increase and the higher priced option accounts for this. Whereas with the lower priced option we will need to do upgrades. Will these upgrades be more than 2.6 million?

A. To get the same quality of effluent, those will generate the same water quality. The MBR has a membrane filter with an extremely small hole. The SBR w/Filtration has a different filter. There could be upsets in the SBR filter system. In the MBR no upset can travel through the membrane.

The options, how comfortable are we, in taking the risk in the life of a 20 year loan, that you won't have to add any subsequent process to it. The SBR process alone will get you to the

standards that the State has established in their implementation plan without adding any subsequent process. It won't generate the same quality effluent. It will ultimately provide the nutrient levels based on the variance criteria and meeting the disinfection standards. Certain amount of risk. Any subsequent process added later, more cost later. MBR is taking it to the limits of wastewater treatment technology that is available to this point, adding a drinking water plant later on to go to any higher level of treatment. The cost is an extra \$5.00 per month to go to MBR. Commissioner Turned asked Mr. Johnson which of the three options would be easiest to add on to in the future? Kevin answered that in adding to capacity, any of them could readily expand. To expand the SBR would be additional costs. Commissioner Erikson asked about the cost of the membranes. Kevin answered the costs were calculated into the overall cost quoted. The membranes last approximately 10 years, and then will need to be replaced. The cost to replace the membranes is going down. Commissioner Morrison asked about the Operation & Maintenance of the options. Kevin answered that there is 1 ½ additional and it is equal in all 3 options for the estimates. In the day to day operations the MBR will be easier to run. The SBR will have a sludge bulking. With the SBR w/Filtration this will challenge the filtration process.

The Mayor asked for any questions or comments from the Public. Public Comment: "Karen Sargeant, Ward 2. I am a citizen of Polson and I have my citizen hat on this evening. I think it's really important to go with the best technology to give us end result that we are going to be looking for in the future. The Parks Director here has had to deal with getting with, dealing with the situations where the cheapest method was adopted and put into place and I am trying to rectify a lot of that. At the time it was the thing to do, but now I am having to backtrack, the Parks Director is having to backtrack and re-do a lot of things so that they become more efficient and effective. As a citizen of Polson, in all of my travels across the United States, and I've done a lot of it, one thing that I've noticed is that people pay for service. If you want good service then you should expect to pay for service. So it doesn't bother me to pay a higher rate for good wastewater treatment, or good water treatment, or good storm drainage. In the long run you are going to end up with the best quality and most efficiently run systems that you can have. I don't want my sewage backing up on me. I don't want to see the City spend my tax dollars on fines because their effluent is not up to par with the EPA Standards. As a citizen of Polson I urge you to go with the best, highest technology that you can. Thank You."

Commissioner Siler asked if the discharge could be used for irrigation if the MBR is chosen. Kevin answered that you get into the water reuse standards. It would depend on what you would use the water for and who is going to come into contact with it. MBR would be Class A effluent and would be unrestricted. It could be put on parks. Same would apply with the SBR w/Filtration component added on.

Seeing no further comments or questions from the public, the Mayor opens the discussion to the Commission. Commissioner Erikson asked about the impact on businesses in the downtown area. Kevin replied that the businesses would be looking at quantifying their liabilities. Commissioner Morrison commented that he doesn't like either rate increase but the \$5.00 difference is minimal to get the best in technology. Shari Johnson commented that showing the businesses that we could accommodate more demand on the system are very important. Mayor Knutson commented that having quality system is what the people want. In the Heart & Soul

value statement, stewardship of the Lake was one of their values. This is important to the community.

Commissioner Campbell commented about the rate increase and the necessity of coming up with ideas to help people to be able to pay the rate increase. Tony Porrazzo commented that there is a program in place that can assist. Mayor Knutson asked about phasing in the rate increase. Kevin commented that the City has until 2016 to have the rates in place. City Manager Mark Shrives stated that there will be a small rate structure increase put into place.

Commissioner Morrison moved to select MBR as the preferred alternative treatment process that will be submitted in the (PER) Preliminary Engineering Report to all funding agencies. Commissioner Erikson second. Commission Discussion: none Public Discussion: none **VOTE: Unanimous Motion carried.**

PUBLIC COMMENT ON SIGNIFICANT MATTERS TO THE PUBLIC NOT ON THE AGENDA-Karen Sargeant informed the Commission that N.I.M.S. Training for May will be on May 14th and May 21st, 6:00 – 8:00 p.m. There will be a worksheet, a test will be taken by each Commissioner. The certification will be kept of file in the City Clerk’s office. This certification is required if the City would ever need to file for F.E.M.A. funding.

Mayor Knutson asked for a motion to adjourn. Commissioner Erikson motioned to adjourn. Commissioner Morrison second. VOTE: Unanimous Motion carried.

ADJOURN: 7:10 P.M.

Mayor Heather Knutson

ATTEST:

Cora E. Pritt, City Clerk