

MINUTES  
UTILITIES COMMISSION MEETING  
JANUARY 18, 2000

Mayor Margo G. Bailey called the meeting to order at 7:30 p.m. In attendance were Councilmembers Harrison C. Bristoll, Jr., W. Whaland Clark, Mabel Mumford-Pautz and J. Brian Kirby, Medford Capel, Utilities Commission Manager, W. S. Ingersoll, Town Manager, and guests.

Mayor Bailey asked if there were any additions or corrections to the minutes of the previous meeting. Mr. Kirby moved that the minutes be accepted as presented, was seconded by Mrs. Mumford-Pautz and carried unanimously.

Mayor Bailey announced that the Utilities Commission has cash on hand and in banks on January 18, 2000 of \$373,932.87.

Mayor Bailey called on Mr. Capel for his report. Mr. Capel said they have had few problems from cold weather so far. He said there were a couple of water main breaks, a 4" main and a 6" main and they have been repaired. He said there was a problem at Heron Point when they cut the wire to the lift station. He said he had the "honey dipper" there and they stayed there all night to keep the sewer line pumped out until the repair to the electric line could be made. He said Heron Point would pay for all the work and there are no other problems.

Mayor Bailey said Mr. Gruber had asked to address the Council. Mr. Gruber said he had written a formal letter in response to tests that he asked be done on the water. He read his letter into the record, which recommended that the Town cover the existing reservoir and build a second covered reservoir. This redundancy would allow water to settle more and be clearer.

Mayor Bailey asked Mr. Capel if he had any reply to Mr. Gruber's statements. Mr. Capel said he wanted to think them over before he made any reply. Mayor Bailey said the reservoir was something that the Council has discussed. She said one of the main issues was finding the money as this would be very expensive. She asked Mr. Ingersoll what the cost of that would be. Mr. Ingersoll said it would be \$1.2 million and there was no grant money available for it. He said there was money available for sewer projects but not water. He said there were low interest loans. Mr. Bristoll said this was part of the long range correction plan and everyone was well aware of the need for a second reservoir and they were waiting for funds. He said they have taken several steps toward the completion of the long range plan.

Mr. Gruber said he was confident that Mr. Capel would be able to shop and find ways to cut the costs. Mr. Ingersoll agreed that the plans were done and there were probably some things that could be split out and bid out the second well separately, etc. He said Mr. Capel was looking for innovative coverings. Mayor Bailey thanked Mr. Gruber for his report.

Mayor Bailey asked if there was anything further. Mr. Ingersoll said the BOD report from last year. He said the State was going to fine us \$5,000 for the two different occasions which

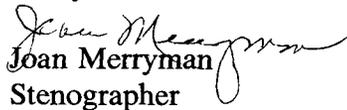
he did not think would occur again. He said MDE would impose a consent order which was a period of time that we would have to correct the problem and during that time we are immune from any further fines. He said with the permission of the Council he would respond to MDE saying we intend to comply and give them an idea of a time table. He said we can utilize the half a million grant we have for BNR reduction for some of the steps for correcting it. Mayor Bailey said there are many other towns that have the same problems because of the weather. Mr. Ingersoll said MDE does not honor that because they say the first time it happens it is an act of nature, but the second time you should be aware that an act of nature could occur. He said Mr. Capel does not know how to stop it except to do additions or do spray irrigation. He said the time to talk about spray irrigation would be during a drought. He said at other times no one would want to talk about recycling the water but those are things that could cure the problem and help the bay.

Mayor Bailey asked for a motion to authorize a letter to MDE. Mrs. Mumford-Pautz moved that the Town Manager be authorized to write the letter to MDE as discussed, was seconded by Mr. Bristoll and carried unanimously.

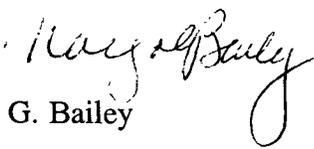
Mayor Bailey said since there were no further comments, she would take a motion to pay the bills. Mr. Bristoll moved that the bills be paid as presented, was seconded by Mr. Clark and carried unanimously.

Mrs. Mumford-Pautz moved that the motion be adjourned at 7:40 p.m., was seconded by Mr. Kirby and carried unanimously.

Submitted by:

  
Joan Merryman  
Stenographer

Approved by:

  
Margo G. Bailey  
Mayor

231 Richard Drive  
Chestertown, MD 21620  
January 13, 2000

Mayor & Council  
Town of Chestertown  
Cross Street  
Chestertown, MD 21620

Re: Analysis of Solids in Chestertown Water

Dear Mayor Bailey and Council Members,

On July 19, 1999, at a Utilities Meeting I brought to the attention of Mr. Capel two questions dealing with Chestertown water:

1. For approximately three weeks there had been a regular surging in the water pressure of the town system which was experienced all over town.

2. Hard solid particles were settling out of the town water in faucets and toilet valves causing them to clog and fail even though the water had been filtered. This problem had persisted for approximately 20 years. Samples of the solids were supplied.

After discussion, Mr. Capel acknowledged the surging problem and stated that it would be corrected in 3 or 4 days when he received some parts. After the parts were received and installed the severe pulsing stopped but slight regular pressure pulsing continues to this day.

The Mayor and Council agreed that Mr. Capel and I could obtain the necessary samples and the Town would have them tested to see if the nature of the solids problem could be determined. It was agreed that a metallurgical analysis of the hard solids would be run at the same time a water sample would be taken, a total dissolved solids test be run on this sample and then a metallurgical analysis on the solids from the water to compare with the hard particles.

Unfortunately, for whatever reason after the first sampling, only an analysis of the hard particles was performed. An analysis of the dissolved solids was not run.

A table of test results is attached which attempts to show a comparison of all tests run. The analysis of the hard particles is shown in Column A.

After a second sampling an analysis was performed which was a water analysis only and this is shown in Column C. These results do not relate well to the first results. Once again no analysis was run on dissolved solids.

A third analysis was requested on the water sample used for Column C results. A total dissolved solids test was run and an metallurgical analysis of the solids was made. These are listed in Column B. Unfortunately a third and different test method was used which again does not correlate with either of the test methods used previously and listed in Columns A and C.

All of the above has taken approximately five months. Rather than spend more time to get a correct analysis for comparison with Column A, I decided to make a table to compare all the various results. Because each method may include tests for different elements than the others, correlation is impossible. However, I do believe some comparisons can be made.

In all test methods a considerable amount of calcium shows up. Sodium, sulphur, silicon, phosphorus, chlorine and iron show up in two of the three test methods. It is very probable that the source of the calcium, sodium, chlorine, silicon and phosphorus are chemicals used for treatment for purification and clarification of the water. Mr. Capel has confirmed that these additives are used in the water. Only calcium shows up on all three tests.

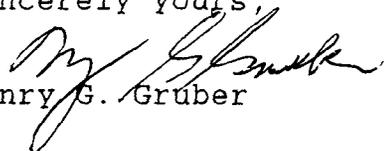
According to Mr. Capel the calcium is contained in the lime which is used to neutralize the acidity and help clarify the water. After the lime is added to the water it is pumped into a large 350,000 gallon holding reservoir where most of the lime settles out. The lime and impurities settle out as sludge in the bottom. Because 60% of the time the calcium treated water is being pumped into the reservoir at the same time as water is being pumped from the reservoir into the town water mains, there is a constant agitation which prevents the efficient settling of the lime solids. In times of higher water pumping and use there will be less settling than at others and lime solids will be pumped through the town mains. Lime solids are very heavy and relatively insoluble. If undisturbed they settle rapidly leaving very clear water.

One of the recommendations made over the last ten years is the installation of a second large storage reservoir similar to the one currently in use. If this installation was made, the two reservoirs could be used on an alternating basis so that while one was being used for settling, the other clarified pond could be used for supplying the water mains. This would allow hours of unagitated settling after one reservoir is filled while using clarified water from the other. It is very probable that this would greatly reduce the solids being pumped through the town mains and virtually eliminate the deposits that are showing up in bath and kitchen faucets and toilet valves.

Therefore, it is recommended that the Mayor and Council Members in consultation with Mr. Capel, consider installing a second reservoir and at the same time have both reservoirs covered. Covering has been a recommendation for over ten years. The second reservoir would greatly add to the availability of water supply in the event of a catastrophic fire requirement. Covering both reservoirs would reduce the atmospheric pollution as well as the fecal matter introduced by the visiting ducks, geese and sea gulls. It should be emphasized that there is no treatment of this water as it leaves the reservoir and is used by the town citizens.

I would like to thank all of you for your patience in listening to this report and also for having the tests run. I hope this information is helpful and will contribute to your decisions in trying to improve the water quality.

Sincerely yours,

  
Henry G. Gruber

# COMPARISONS OF ANALYSES OF PARTICLES, RESIDUES AND WATER (CHESTERTOWN)

DATE - APPROX SAMPLE IDENT ANALYSIS RUN	AUG 26 1999									OCT 14-99 TEST-11/29		OCT 14-99		1998		
	RIDGEVIEW PARTICLES A=4.10% B=1.10% C=10.700%									RIDGEVIEW WATER RESIDUES WGT %		WATER ANALYSES mg/L		CHESTERTOWN 1998 DRINKING WATER PPM QUALITY REPORT		
	1	2	3	4	5	6	7	8	9	CR 10	CR CH	WTP	RIDGEVIEW			
TOTAL DISSOLVED SOLIDS													781	205		
ALUMINUM	B	B	B	B	A	B	A	B								
CARBON	C	B	C	B	B	C	B	B								
CALCIUM	B		B	B		C	A	A			53.99	83.11	290	30.8		
CHLORINE	A					A					28.54	9.04	87.5	82.0		
COPPER	A		B	B	B		B	B							0.06	
CHROMIUM							B	A								
IRON	B	B	B	A	B	B	B	C					0.131	0.164		
LEAD	B		B		B	B	A								3	
MAGNESIUM	A				A	A					-	0.76	5.55	5.59		
MANGANESE			A		A		A									
NICKEL	B				A	A										
OXYGEN	C	C	B	B	B	B	B	B								
PHOSPHOROUS	A		B	A	A		A	A			0.8	1.09				
POTASSIUM		B									1.92	1.56	4.93	4.71		
SILICON	B	C	B	B	B	B	B	A			2.85	2.1				
SODIUM											10.54	1.27	32.8	34.4		
SULFUR								A			1.36	1.06	167	145		
TIN	A		A		B	A										
TITANIUM	B				B	A										
ZINC	B	B	B	B	B	B	A	C								
NITRATES													2.48	2.86	4.4	
TURBIDITY													0.2	0.2		
BARIUM															0.12	
FLUORIDE															0.92	

COMPILED BY  
H. G. GRUBER  
12/1/99