

**VILLAGE OF BALTIMORE
COUNCIL MEETING
November 10, 2014
7:30 PM**

Mayor Kalish opened the meeting at 7:30pm with The Lord's Prayer and the Pledge of Allegiance repeated by all present.

ROLL CALL: Members of Council present, Hankison, Keller, Hochradel, Hamilton, Mohler and House. Also present were Village Solicitor J. Feyko, Chief M. Tussey, Village Administrator S. Brown and Fiscal Officer F. Welker.

CORRECTION OR ADDITIONS TO MINUTES: Minutes from October 27, 2014 will stand as written.

APPROVAL OF AGENDA: Keller moved to amend the agenda to add Ordinance 2014-40 and to approve the agenda as amended for November 10, 2014. Second was made by House Roll call results were 6 yeas, 0 nays. Motion carried.

VISITORS: J. Swartz, and Michael Uhl a member of the Boy Scouts.

VILLAGE ADMINISTRATOR'S REPORT:

VA Report to Council
11/10/14

The Village engineer and I met with a land developer last week to discuss a parcel of property with the potential for multi unit general business development. Currently, this property is not annexed in the Village of Baltimore. If the property is purchased by the developer, the property is eligible for expedited annexation and this is the intension of the developer.

I met with the owner of Green Gourmet Foods. The company is steadily increasing production and has a goal of producing 1 million pounds of potatoes a month. Green Gourmet Foods plans to continue to increase their number of full time employees as the total pounds of production continues to increase.

I met with Sakas Industries several times last month. The company has agreed to become a Village of Baltimore sewer customer. All of the necessary equipment has been ordered and the Village will connect the company to the Village of Baltimore's sanitary sewer this month.

The Village of Baltimore's Street Supervisor has located a plow truck that will fulfill the Village needs. The Fiscal officer and I have made the necessary arrangements with the lender. The new to the Village of Baltimore plow truck will be delivered on Tuesday November 11, 2014. A separate hand out is provide with my report with all the plow truck information. The net cost to the Village of Baltimore is \$40,000.00. The old truck that was traded in was 17,500 GVW, this truck is 33,000 GVW. Consequently, the Village bought a truck that is twice as heavy duty for half of what a new 17,500 GVW truck costs.

The Village administrator provided council with a memo regarding LED lights at the police station.

The Village administrator provided a memo to council regarding current legislation for water shutoffs. This legislation previously was not getting carried out by the water department. This has since been rectified.

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History

- A brief history of the Village of Baltimore's water plant

2009 Water Plant

1. New Plant
- 2.
3. New Well Field
4. New raw water line
5. New access road
6. Cost of new plant in 2009 and 2015
7. Engineering \$\$\$ % of plant

2015 Water Plant upgrade

1. To date, 18 months of planning and operating
2. List of Defects
3. New well field pumps, motors, electric and plumbing
4. New raw water line
5. New building addition
6. New type of treatment
7. Elimination of 2 pumps/motors
8. VFD install
9. Maintain existing well field
10. Demolition of exterior antiquated tanks
11. Highest efficient lighting available
12. AEP reimbursement
13. Cost of water plant upgrade
14. Engineering \$\$\$

Finance

1. Total water Debt Revenue
2. Total water Debt owed
3. Additional estimated debt owed
4. Source of additional debt revenue

Project Time line

1. Separate hand out

History

The Village of Baltimore's water treatment plant was first put into operation in 1937. The plant consisted of one water well, a clarifier and lime softening. In 1954 the Village of Baltimore eliminated the original clarifier, constructed a new clarifier, built an addition onto the plant and installed pressure filters which eliminated the softening of water. In 1974, the Village of Baltimore upgraded the plant. The Village eliminated the pressure filters, installed an aerolater to remove the Iron and Manganese and installed two new softener units. To date this is the last upgrade made to the water treatment plant.

Water Treatment Plant 2009

In 2009 the Village of Baltimore's administration commissioned WilburSmith engineering to provide a general plan with preliminary engineering for a new water treatment plant.

Don Morrison was employed by WilburSmith at the time this design was commissioned. Don Morrison was the engineer who was appointed by WilburSmith to design the new water treatment plant.

The Village of Baltimore paid \$30,000.00 for this preliminary design.

The new water treatment plant design consisted of the following:

- Building a brand new water plant on the North West quadrant of the existing well field.
- Building a new water well field at Alt Park
- Constructing a new raw water line from Alt Park to the new water plant
- Building a new access road from Romulus into the new water plant
- Demolishing the old water plant
- Abandoning the old water wells

Under current OEPA standards the Village of Baltimore's well field does not meet the minimum isolation radius distances. However, because the well field is tied into a water plant that is actively permitted the well field is by default permitted. If the Village of Baltimore builds a new water plant the well field would no longer have an active permit. Consequently, the Village of Baltimore would have to abandon the well field and construct a new well field.

A New Water Treatment Plant would cost \$5,687,605.00

Additionally, the design and construction **engineering** for this project would cost about 21% of the total cost or \$776,000.00.

Water Plant Upgrade 2015

Starting in 2013 the Village administrator and Don Morrison began working on how to upgrade the water plant. The Village administrator is also the operator of record for the water treatment plant. After 12 months of operating the water plant the Village administrator determined the following defects with the existing plant:

- The SCADA system was not a large enough program to operate the new water tower and transmission water line installed in 2008
- The emergency call out system is almost 30 years.
- The Aerolater that removes the Iron and Manganese is failing and currently only 75% of the system is operational.
- The softener units are operated by a flow meter that is 40 years old. The control panel for the softener is operated by a series of push pins.
- The softeners are not controlled by the SCADA system and there are no electronic controls for the softeners.
- The brine system that regenerates the water softeners is flow actuated with a manual valve and there is no flow meter. Consequently, the operator has to guess how much brine to feed the softeners for regeneration. This results in too little salt used which produces hard water or too much salt used which wastes salt.
- The water is pumped into the plant by the well pumps. Once the water enters the plant a second set of pumps forces the water through the softeners and out into the water system. This is redundant and extremely energy wasteful.
- There are 3 water wells in the Village well field. Currently, only 2 wells are operational. Only one well produces enough water to supply adequate water to the water system.

Consequently, the Village of Baltimore has one well.

- The well heads had wooden buildings with no insulation and were in complete structural failure. Additionally, the OEPA had placed the Village on a report for non compliance as a result of these well head buildings. These building have already been replaced and the OEPA has since removed the Village of Baltimore from the above mentioned list.
- The electrical panel for the water plant is original which date back to 1937.
- The brine pump which supplies the brine to the softeners fails regularly and discharges brine all over the water plant.
- The high service pumps inside the water plant leak and currently, one pump is out of service. These pumps are responsible for supplying water from the water plant to the water distribution system. **Consequently, the Village has one pump to supply water to the system and this pump is failing.**

Upgrades

- The Village commissioned a well field study by hydro geologist Herb Eagon.
- Based off this study the Village engineer has designed 3 new well pumps and motors for the well field
- All new electric lines will be installed in the well field
- VFD motors will be used. This allows the motors to slowly start up and find the most efficient operating speed.
- All 3 wells will produce enough water to supply water to the distribution system. The Village will have three functioning wells instead of just one.
- All new raw water line will be installed in the well field. Additionally, the new water line will be significantly larger to allow more water to be pumped into the treatment plant.
- The aerolater will be dismantled.
- The existing softener units will be removed.
- A 1700 square foot addition will be added to the water plant.
- A 3 cell high pressure sand filter will be used to remove the Iron and Manganese.
- 2 new softeners will be installed.
- The new treatment will be fully automated through the SCADA system making the process more efficient and allow the operator to provide better water quality.
- New actuators will be installed on the valves allowing the operator to directional flow treated water within the distribution system.
- A new chlorine system will be installed.
- Dehumidifiers will be installed to protect all the new equipment. Currently, these do not exist.
- LED lighting throughout the water plant.
- Eliminate both high service pumps. The new well pumps will supply water through the plant and into the distribution system. This allows the Village to operate 3 pumps and motors instead of 5. This saves energy and maintenance.
- All new high efficient electrical panels and wiring.
- AEP has agreed to perform a pre construction and post construction energy audit of the new plant and reimburse the Village for the total number of KW reduced by upgrading to a more efficient water plant.

Cost

The cost estimate for the water plant upgrade: **\$1,490,000.00**
Total third party engineering: **\$100,000.00 or 6.7%**

The cost estimate to build a previously proposed new water plant: **\$5,687,000.00**
Total third party engineering: **\$776,000.00 or 21%**

The cost saving to the Village of Baltimore by upgrading the water plant V.S.
building a new water plant is:

$$\mathbf{\$5,687,000.00 - \$1,490,000.00 = \underline{\underline{\$4,197,000.00}}}$$

The engineering savings to the Village of Baltimore by upgrading the water plant
V.S. building a new plant is:

$$\mathbf{\$776,000.00 - \$100,000.00 = \underline{\underline{\$676,000.00}}}$$

The Current Administration has worked towards:

A Total Saving to the Village of Baltimore: \$4,873,000.00

Finance

Total annual water debt service collected: \$163,440.00
Current total annual water debt service paid: \$97,000.00
Annual debt service surplus: \$66,000.00

Total project cost: \$1,490,000.00
Projected annual debt service for upgrade: \$1,490,000.00 @ 3.75% / 20 years = \$106,000.00
\$106,000.00 additional debt service - \$66,000.00 Debt surplus = \$40,000.00 debt deficit

Annual bulk water sales: (Not including Thurston)
48,000,000 gallons / 1000 gallons = 48,000 (1000 gallon) units
\$40,000 debt deficit / 48,000 bulk units = \$0.84 per unit

Current bulk water rate: \$4.65 per 1000 gallons or 1 unit
New bulk water rate for the upgrade: \$5.49 per 1000 gallons or 1 unit
Equals: **18%** bulk rate increase

If a New water plant was build instead of an upgrade the bulk water rate would be:

\$10.29 per 1000 gallons or 1 unit
Equals: 221% bulk rate increase

UPGRADE EQUALS ZERO IMPACT ON M

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To: Mayor and Council
From: Village Administrator
Subject: LED
Date: October 31, 2014

During the Month of October 2014 Village crew members replaced 57 lights at the Police station. The lights at the police station were T12 bulbs with magnetic ballasts. These bulbs used 60 watts of electricity. The replacement bulbs installed were LED bulbs which use 19 watts of electricity.

I contacted AEP to discuss their energy reimbursement program. I met with Scot Thrapp on October 28, 2014.

AEP will give the Village of Baltimore a reimbursement of \$.40 per watt reduced as a result of installing LED lights.

The Village replaced 57 bulbs at the police station. Each bulb resulted in a 41 watt reduction. $41 \text{ watts} \times \$0.40 \times 57 = \$934.80$.

By law AEP can only reimburse the Village a maximum of 50% of the total cost. The Village paid \$1297. AEP will reimburse the Village of Baltimore \$648.50.

Additionally, the Village pays \$.08 per KWH. The lights at the police station are on approximately 5000 hours a year. $41 \text{ watts} \times 5000 = 205,000 \text{ watts} / 1000 = 205 \text{ KW} * \$0.08 = \$16.50$ annual savings per bulb. $\$16.50 \times 57 = \934.80 is less electric spent at the police station in one year.

The LED light bulbs cost \$24.99 per bulb. AEP will reimburse \$12.50 per bulb. The bulb will use \$16.50 less electricity.

$\$12.50 + \$16.50 = \$29$

The Cost of the Bulbs are $\$24.99 / \$29 = \text{ROI } 10.3 \text{ months}$

The LED bulbs have an estimated life of at least 10 years. The Baltimore Police Station will save \$8464.50 in electricity over the next 10 years based on current rates.

FINANCE COMMITTEE: The next meeting will be November 18, 2014, at 7:00pm.

SERVICE COMMITTEE: The next meeting will be November 18, 2014, at 6:00pm.

SAFETY COMMITTEE: The next meeting will be November 10, 2014 at 6:30pm. The Noise Ordinance was taken off of the agenda. The minutes will be out soon.

RULES COMMITTEE: Minutes from the November 5, 2014 are out. The next meeting as needed.

FIRE BOARD REPORT: The minutes from the meeting of September 18, 2014 are out. The next meeting will be November 20, 2014

PLANNING COMMISSION REPORT: The next meeting of Planning and Zoning will be November 13, 2014 at 7:30pm. The Sign Ordinance will be finished so it can go to Service.

SOLICITOR: The Solicitor stated that there was 1 new piece of legislation on the agenda and he would like to have an executive session to discuss pending litigation.

POLICE: The Chief went over the Police Report with Council.

MAYOR: Mayors report is out.

FISCAL OFFICER: None

MOTIONS: Motion was made by Mohler to move into executive session at the end of the regular session of Council to discuss possible litigation with all of Council attending. Second was made by Mohler. Roll call results were 6 yeas, 0 nays. Motion carried.

ORDINANCES AND RESOLUTIONS

1st READINGS:

ORDINANCE 2014-40: An Ordinance to accept Agreements for Extraterritorial Water and/or Sewer services and consent to Annexation and the declaration of an emergency. Sponsor – Keller

Motion was made by Keller to Bi-Pass committee on Ordinance 2014-40. Second was made by Hochradel. Roll call results were 6 yeas, 0 nays. Motion carried.

Motion was made by Keller to suspend the three reading rule on Ordinance 2014-40. Second was made by Hochradel. Roll call results were 6 yeas, 0 nays. Motion carried.

Motion was made by Keller to adopt Ordinance 2014-40. Second was made by Hochradel. Roll call results were 6 yeas, 0 nays. Ordinance adopted and effective 11-10-14.

2nd READINGS

RESOLUTION 2014-35: A Resolution Updating The District Solid Waste Management Plan. Sponsor – Hankison

Second reading was held.

ORDINANCE 2014-39: The 2015 Annual Appropriation Ordinance. Sponsor – Keller

Second reading held.

Old Business None

New Business: None

Council moved into executive session at 8:30pm.

Motion to reconvene was made by House at 8:54PM. Second was made by Keller. Roll call results were 6 yeas, 0 nays. Motion carried.

With no further business to come before Council meeting was adjourned at 8:55pm.

