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TO: Kurt Hodgen, City Manager
FROM: Mike Collins, Public Utilities
DATE: March 10, 2017
RE: Water System Fluoridation Practice

Summary:

Harrisonburg Public Utilities (HPU) has authorized Wiley & Wilson to undertake a “Study” to examine alternatives for upgrading its Grand View Water Treatment Plant fluoride feed system. The study has been completed with four (4) alternatives provided; HPU has identified their preferred choice.

Background:

The City has been practicing the addition of fluoride to its potable water supply since 1973. This practice is similar to 95% of Virginia water suppliers of today. The City has used hydrofluosilicic acid since the recent plant upgrade in 2006. This practice was temporarily stopped in July of 2016.

In July, 2016, the single 5,000 gallon acid storage tank incurred a leak. At that time, the most immediate action would have been to replace the tank and to return operations to pre-existing conditions. Two key issues listed below made the repair undesirable. In response, City Council repealed Ordinance 7-2-20 such to allow for HPU to undertake a “Study” of alternatives to upgrade the fluoride feed system. Repeal of the Ordinance was necessary in that it was written with unusual burden of no provisions to accommodate the out of service conditions needed for the “study” and the follow up actions.

Key Issues:

- 1) HPU Director Collins identified concerns with employee exposure to acid and acid fumes; thus a concern for health and safety.
- 2) HPU Director Collins identified concerns with equipment exposure to acid and acid fumes; thus a concern for asset life cycle costs.

Environmental Impact:

With the implementation of Alternative #4, the two key issues listed will be minimized but not eliminated.

Fiscal Impact:

Alternative #4 as preferred by HPU will require approximately \$190,000 in capital funds (\$40,000 grant funding may be available). Although HPU intends to use cash reserves from in its CIP fund that is designated for the replacement of Water Treatment assets, capitalization of this cost over 20 years life of at 3.0% APR would be equivalent to \$13,000/yr. In addition, re-engaging this practice will add \$20,000 in chemical and maintenance expenses per year. Overall, the cost of this practice is approximately \$0.02 / 1000 gallons to the customer rate.

Prior Actions: Repeal of City Ordinance 7-2-20

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- Alternatives:**
- (a) Return to pre-existing conditions & make decision on redraft ordinance
 - (b) Implement Alternative #4 & make decision on redraft ordinance
 - (c) Terminate the practice of adding fluoride to potable water

Community Engagement:

Open for discussion at City Council to Approve "Study" Alternative

Recommendation:

Approve "Study" Alternative #4

Attachments:

Wiley & Wilson Study: "Grandview Water Treatment Plant Replacement Fluoride System PER" 3-8-17

Review:

The initiating Department Director will place in Legistar, in sequence of transmittal, the names of each department that must initial their review in order for this item to be placed on the City Council agenda. The completion of review only addresses the readiness of the issue for Council consideration. This does not address the recommendation for approval or denial of the issue.

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