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## CITY OF EDEN – MEMORANDUM

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**To:** BRAD CORCORAN, CITY MANAGER

**FROM:** TERRY SHELTON, DIRECTOR OF PUBLIC UTILITIES

**DATE:** NOVEMBER 5, 2015

**SUBJECT:** REQUEST TO COUNCIL TO SET A RATE FOR LANDFILL LEACHATE

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City staff met with Duke Energy personnel in October to discuss Duke Energy's needs for the coal ash landfill that they were building. Duke Energy requested of the water utilities that we provide a rate for treating leachate, provide viability and information for a tie in of a small leachate force main to the Railroad force main near Edgewood Road, and evaluate the feasibility of our plant to accept the coal ash leachate and treat it. This evaluation and resolution of their request has taken six months to put together.

The force main tie in would be made in a Duke Energy right-of-way and Duke Energy Engineers are working to see if that is a feasible option. Terry Shelton has been in contact with WK Dickson concerning the tie-in point for the Railroad Force Main. The only issues with this tie-in are to be sure that our pumping capacity in the Railroad Force Main is not compromised in any way and the point of connection does not interfere with the footprint of our Covenant Branch Force Main Relief project that will be starting in about 12 months.

Melinda Ward has carefully examined the analysis information on the coal ash leachate and believes that based on the information provided, we can treat it in our wastewater plant without pretreatment, if concentrations of constituents in the leachate don't go significantly higher than stated in the available information. The State will require an Industrial Pretreatment Permit be issued to Duke Energy for the Leachate Discharge into our collection system by the City for compliance monitoring, control of what is discharged to us, and to protect the integrity of our Wastewater Treatment Plant and the Dan River to which we discharge treated water.

The last part of their request is to develop a leachate treatment rate. Currently, our rate with the County for landfill leachate is \$19.43 per 1000 gallons. The County leachate is a generally composed of known common components from domestic and industrial sources. The leachate from coal ash landfills is a relatively new type of leachate to treat although information on the constituents in the coal ash leachate is growing rapidly. I spoke with the Public Utilities Director for the City of Sanford, Victor Czar, regarding their charges for treating coal ash leachate. Their rate is \$130.00 per 1000 gallons. This charge is based on an existing charge they had in their approved ordinances. The rate is what they have charged for 1000 gallons of industrial septage that is conveyed to the wastewater plant.

In Sanford, they have agreed to accept leachate generated from the landfill operations in Chatham and Lee Counties that will eventually be pumped to Sanford via a force main that is yet to be built. Duke Energy has a company named Charah Inc., as their

contractor to handle all of this work. Charah is contracting with Sanford to handle the leachate treatment. Public Utilities Director Czar said that the \$130 per 1000 gallons rate had been offered to Charah and that they had accepted the rate.

Our staff is inclined to recommend that our rate will need to be increased above the County rate for several reasons. A higher rate is warranted because, the current leachate rate with the County was developed as a government rate to provide for community betterment at a reasonable cost; and the risk associated with treating the coal ash leachate could have unexpected impacts on our treatment plant. In addition to the factors noted in the previous sentence with treatment of the coal ash leachate, there will possibly be a public outcry about treating the coal ash leachate in our facilities. Each of these factors must be considered in accepting and treating the leachate as City Council sets a rate to charge for this service. The City Staff recommends that the City Council set a rate of \$50.00 per 1000 gallons of leachate that is treated.

Sanford limited flow rates to 200 gallons per minute or 288,000 gallons per day. We will also likely establish a flow rate limit of around 200 gallons per minute. We will be expecting anywhere between 5,000 and 288,000 gallons per day based on activity in the landfill cells and rainfall during construction. This is expected to continue for up to five years until the landfill is closed. After the landfill is completed and sealed, the residual flows will likely be less than a 1000 gallons per day and ultimately may stop in a few more years. Revenue from this project for example could be \$112,500 per month based on 75,000 gallons per day at \$50 per 1000 gallons. We have attached a spreadsheet of possible charges and the revenues that would be generated. The spreadsheet anticipated possible revenues for daily, monthly, and annual revenue that might be expected for various rates that could be charged for the shown amounts of flow in thousands of gallons.