CITY OF EDEN, N. C.

A special (retreat) meeting of the City Council, City of Eden was held on Saturday, February 23, 2013 at 8:30 a.m., in the Council Chambers, 308 East Stadium Drive. Those present for the meeting were as follows:

Mayor: John E. Grogan
Mayor Pro Tem: Wayne Tuggle, Sr.
Council Members: Gene Hagood

Donna Turner
Darryl Carter
James Burnette
Jerry Epps
Jerry Ellis
Brad Corcoran

City Manager: Brad Corcoran

City Clerk: Sheralene Thompson

City Attorney: Erin Gilley

Department, Division Heads and Staff:

News Media: Latala Payne, Eden News; Roy

Sawyers, RCENO

MEETING CONVENED:

Mayor Grogan called the special meeting of the City Council to order and welcomed those in attendance.

Complete copies of all information the City Manager presented is located in the office of the City Clerk and also on the city's website.

Approval of Agreement for Payments in Lieu of Annexation and Adoption of Resolution to Approve the Execution and Performance of Agreement for Payments in Lieu of Annexation

Mayor Grogan turned the item over to City Attorney, Ms. Erin Gilley.

Ms. Gilley explained that the current agreement with Duke Energy will expire this year. They were recently able to negotiate an agreement for the next five years and the difference in the agreements is that the expiring agreement was a ten-year agreement. The recently negotiated agreement is for five-years and a flat \$200,000 annual payment.

She also explained that they needed to approve the resolution that will be sent to the General Assembly so that they can enact a local bill that gives the city the authority to receive these payments. She noted that they also had a local bill going through for the Miller-Coors agreement and this will be additional. She recommended that the agreement and resolution be approved.

Council Member Hagood questioned what the tax value or what the payment would be under the old equation.

Ms. Gilley replied that they did not know the tax value yet, that was determined by the Utility Commission. She added that it would be a large number and then you have the devaluation of the other plant but she was not sure how they make that calculation.

Council Member Hagood asked if the County would be mixed in with it.

Ms. Kelly Stultz, Director of Planning & Inspections commented that they get sent a value from Raleigh. She explained that on utilities like Duke Energy the Utilities Commission establishes the value and sends the tax value to the County.

Mayor Grogan commented that he was happy to get a nickel because really if they had chosen to do so they really did not have to pay anything. He recommended they adopt this resolution and request that the legislature approve it.

A motion was made by Council Member Tuggle seconded by Council Member Carter to approve the agreement and adopt the resolution.

Council Member Hagood asked if there was any linkage here between this and the bromide situation to which Ms. Gilley replied no not in the agreement. Council Member Hagood questioned if it was even implied or anything.

Ms. Gilley replied no and explained that they did have to state that their consideration for the agreement was for the tax payment. She pointed out that there was nothing in there that states anything about bromide.

Action on the motion was as follows: All Council Members voted in favor of this motion. This motion carried.

RESOLUTION TO ADOPT AND APPROVE THE EXECUTION AND PEFORMANCE OF AGREEMENT FOR PAYMENTS IN LIEU OF ANNEXATION

WHEREAS, Duke Energy owns Dan River Steam Station and Dan River Combined Cycle Plant in Rockingham County which facilities are located outside the corporate limits of the City of Eden; and

WHEREAS, the City and Duke Energy desire in the interest of fairness to its citizens, to pursue in lieu of annexation, alternative methods to generate revenues that are more sensitive to the present economic climate while attempting to protect the city's current economic base; and

WHEREAS, the City of Eden desires to execute and perform the terms set forth within the attached "Agreement for Payments in Lieu of Annexation" and is seeking approval and authorization from the North Carolina General Assembly in the form of a Local Act; and

NOW, THEREFORE, BE IT RESOLVED, by the City Council for the City of Eden that the execution of the "Agreement for Payments in Lieu of Annexation" is hereby adopted and approved.

BE IT FURTHER RESOLVED, by the City Council for the City of Eden that it is seeking approval and authorization of the "Agreement for Payments in Lieu of Annexation" from the North Carolina General Assembly in the form of a Local Act.

APPROVED, ADOPTED AND EFFECTIVE this 23rd day of February, 2013.

CITY OF EDEN

By: John E. Grogan, Mayor

ATTEST:

Sheralene Thompson, City Clerk

Approval of audit services contract for the FY 2012-13 audit

A memorandum explained that the Finance Director was seeking approval for the FY 12-13 Audit Contract.

I have contacted the Local Government Commission for a listing of Accounting Firms in Rockingham County who are certified in completing a Local Government Audit along with audit costs for other municipalities our size. Rouse, Rouse, Penn & Rouse, LLP is the only certified accounting firm in Rockingham County. I have attached a list of audit costs. You will see the cost we have been paying for our audit is very competitive when compared to other municipalities our size.

The Rouse's and their staff have been doing the city's audit for 32 years. Their love and compassion for the City of Eden shows in their willingness to assist in any way that they can to make sure the city's finance department operates in the most efficient and effective way to provide accurate financial information. They have always been very faithful and dedicated to the city. We call on them an average of 40-50 hours a year sometimes more for assistance with day to day questions that come up or for special projects. They never bill us for anything extra. It is very nice to know that we have someone we can call anytime, and they always have time for us. If they do not have the answer immediately, they never refer us to someone else. They always take the time to make telephone calls on the city's behalf. They look after the city's best interest in making sure that we get the answers that we need. They keep us updated on Governmental Accounting Standards Board and Internal Revenue updates. They also keep us updated on any classes/seminars that they feel would be beneficial to the finance staff. Based on their experience and dedication along with the city's long time desire to do business locally; I cannot make a better recommendation than to award the 12-13 audit contract to Rouse, Penn & Rouse.

Mayor Grogan recognized Ms. Tammie McMichael, Director of Finance.

Ms. McMichael explained they were seeking the approval for the audit contract.

Council Member Tuggle questioned the \$8,415 figure and if that was pretty consistent from year to year.

Ms. McMichael replied that it did vary and their overall cost was varied a little in percentage from year to year.

Council Member Tuggle noted two other things like the year-end bookkeeping assistance of

\$28,145 if A applied and \$30,950 if B applied. He also noticed that there were five things that city staff does each year to lower the cost as opposed to the auditors doing it and asked if that was correct to which Ms. McMichael replied in the affirmative. He added that he had also noticed that they do 40-50 hours each year of free work so to speak.

Council Member Hagood added that one of the benefits was that they did not have travel time. They were located in The Boulevard and that was a very good thing. Having said that, what sends a red flag was that the people that were going to be audited hire their own outside auditor. However, he did appreciate their local business and it seemed that it somewhat outweighed it.

Council Member Burnette commented that in his opinion, you are looking for several things such as the quality of the product, and there was no question about that. They were looking at the cost and they can see it was very competitive and also the local entity was certainly an attraction that they all like. He added that he did not think there was anything that would lead them to believe that they were anywhere near or above reproach on any item so he certainly felt very strong about continuing with them.

Council Member Epps agreed that they were an asset to the city.

A motion was made by Council Member Epps and seconded by Council Member Tuggle to award the contract to Rouse, Rouse, Penn & Rouse.

Council Member Ellis added that quality was what counts and he also noted that they give an annual \$10,000 scholarship to the high school.

Council Member Tuggle asked how many times they have had to call them and they get over here and show the staff exactly what was going on.

Ms. McMichael replied that they were available and even if they were away from their office they can call them on their cell phone.

Action on the motion was as follows: All Council Members voted in favor of this motion. This motion carried.

AUDITING COSTS:

	EDEN	REIDSVILLE	GRAHAM	LENOIR	HENDERSON	MT. AIRY	FUQUAY VARINA	BOONE
Year 2012	\$34,820.00	\$34,500.00	\$39,975.00	\$28,500.00	\$39,750.00	\$27,500.00	\$32,000.00	\$38,000.00
Year 2011	\$33,160.00	\$37,000.00	\$39,375.00	\$27,500.00	\$18,500.00	\$30,000.00	\$31,000.00	\$38,000.00
Year 2010	\$31,585.00	\$35,900.00	\$39,375.00	\$26,200.00	\$18,000.00	\$33,000.00	\$30,000.00	\$38,000.00
Year 2009	\$30,080.00	\$37,800.00	\$39,375.00	\$25,500.00	\$33,000.00	\$37,000.00	\$46,900.00	\$38,000.00
Year 2008	\$28,650.00	\$36,000.00	\$39,375.00	\$24,500.00	\$31,500.00	\$36,500.00	\$45,400.00	unavailable

Board and Commission Appointments for 2013

The following seats remain to be filled on the City boards and commissions.

Ward 1

Tree Board: Bill Moody – missed 3 out of 8 meetings (37%, unexcused)

Ward 7

Board of Adjustment: Diana Biggs - term expired 2012

A motion was made by Council Member Turner seconded by Council Member Ellis to approve Mr. Bill Moody's re-appointment to Tree Board (Ward 1) and Ms. Diana Biggs re-appointment to Board of Adjustment (Ward 7), and also Mr. Paul Ramsey to Planning Board (Ward 4). All Council Members voted in favor of this motion.

Mayor Grogan then asked Mr. Terry Shelton, Director of Environmental Services to come forward for his presentation.

Update & Discussion of Water/Sewer Infrastructure Projects, Priorities & Needs

(Terry Shelton, Director of Environmental Services, Bev O'Dell, Director of Engineering, Dena-Spencer Reid, Superintendent of Water Filtration, Melinda Ward, Superintendent of Wastewater Reclamation, Mark Bullins, Superintendent of Collection & Distribution and Brad Corcoran, City Manager)

Water and Sewer Project Updates

- The Sewer Improvement Projects
- Sewer Odor Control Measurements
- 2-inch water Line Replacement Program and Eliminating Discolored Water Complaints
- Our Way Forward to Control THMs in the Dan River
- Future Work to Comply with the EPA AO
- Rehab of the Mebane Bridge Digester System

Sewer Improvement Projects

Dry Creek Phase 2

Northern Smith River Phase 2 & 3

East Kuder Street Sewer Rehabilitation

Tanyard Branch Sewer Improvements Upper Matrimony Creek Sewer Improvements Mega Park Force Main Project

Dry Creek Phase 2

- This project is now complete and in the one year warranty period.
- The final project cost was \$1,040,020
- Principle Forgiveness was \$500,000
- Reimbursement from our loan is 99% complete. We still have some documents to submit for final close out of the funding.

Mr. Shelton presented photographs of the manhole and the line behind Mabes' Trucking and part of the right of way going toward the Railroad Pump Station.

Northern Smith River Phase 2 & 3

- This project is now about 90% complete and is waiting on delivery of a generator and power lines from Duke Energy for the Warren Avenue Pump Station.
- The project cost as of December 5, 2012 was \$1,460,810
- Principle Forgiveness is \$500,000 from the CWSRF and \$742,183 from the CWMTF. The total is \$1,242,183.
- Reimbursement from our loan is 67% complete.

Mr. Shelton explained that at the time this was built it was probably not practical to put in pump stations and they have not figured out exactly how it was built because even today it would hard to put this back on that river bank.

Council Member Tuggle questioned if they did anything like this anymore.

Mr. Shelton replied no, the State would not allow anything to be built like this that you could not get to and service.

Referring to the photograph Mayor Grogan asked if that was the canal on the left hand side.

Mr. Shelton replied that on these three pictures this was way up above the bridge on Aiken Road and they were all just shots of the Smith River.

Council Member Burnette questioned what was actually required for abandonment.

Mr. Shelton replied that they would block off and stop all flow going through this line.

He then presented a picture of pouring cement piers for the bridge that is part of the project. The cement was floated into a pumper truck and pumped down to these piers that will support the

bridge. He noted that this was some very rough terrain and in the background was Caleb Lane with nearly a 100' drop in elevation from back in this area to the bottom of the ravine. He explained that the bridge was actually there to support the sewer line that was underneath it. It would also provide access if any kind of service work has to be done on the line.

He then presented a picture looking at the end from the bridge and noted that it was about 2' wide with a very narrow walkway. He then showed looking down from Caleb Lane and the road they would use to go down to service. He stressed that they just could not do justice to how steep this was.

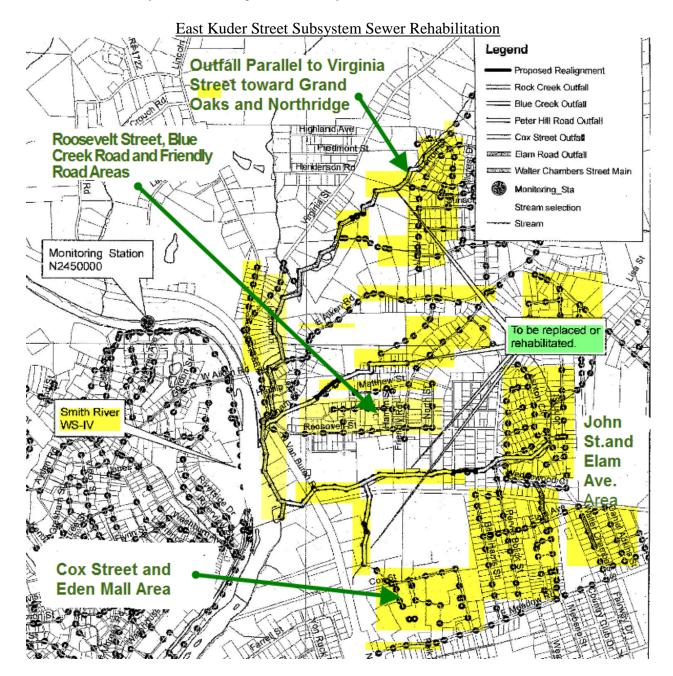
Council Member Tuggle asked if those bridges were blocked off so kids could not walk across them.

Mr. Shelton replied that they intend to put fencing up around the ends of it but he was sure there would be temptation.

East Kuder Street Sewer Rehabilitation

- The project was delayed significantly by strict buffering requirements imposed by the Land Quality Section of DENR. This project has just received the required permits and is ready to bid in March. Bid award is expected by June. Construction will likely be complete in March 2014.
- We received a zero interest loan for this project estimated at \$2,694,021 with \$1,000,000 of principle forgiveness. Final Loan repayment will be \$1,694,021 spread over 20 years.

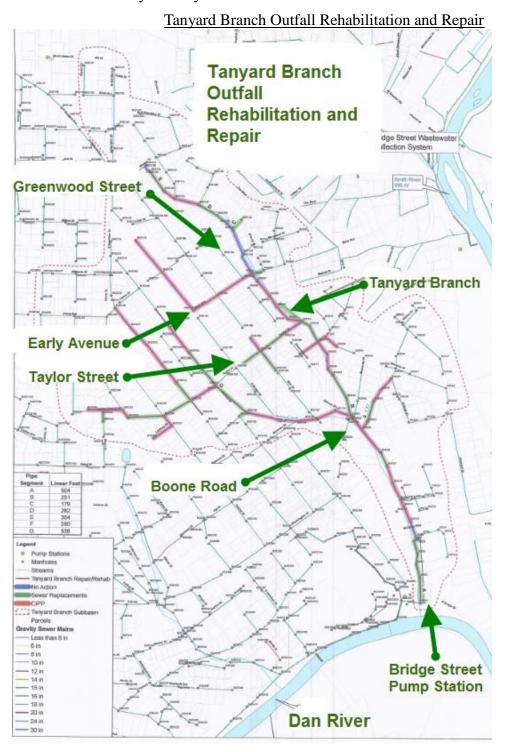
Mr. Shelton presented a map showing where the work would be done at East Kuder Street.



Tanyard Branch Sewer Improvements

- This project is still in the surveying and design stages of development. The project is expected to bid in December of 2013.
- We received a low interest loan for this project estimated at \$2,519,449 with \$1,000,000 of principle forgiveness from CWSRF and \$500,000 in principle forgiveness from CWMTF.
- Final Loan repayment will be \$1,019,449 spread over 20 years.
- This project requires upsizing of 1200 feet of 12 inch sewer line to 15 inch sewer line to remove a problem bottleneck where blockages and overflows can occur.

This replacement could not be covered by a State loan and \$620,000 must be paid for by the City at the time of construction.



Council Member Burnette asked if the additional buffering would not apply to this to which Mr. Shelton replied that it may very well, this partricualr part in Tanyard Branch was probably going to require some reerouting of the sewers because there were actually parts of the exisitng sewer that goes under buildings and houses in this particular area and they defitinetly would not want to put them back. He reminded them also that they were still in the design and surveying stage for this project.

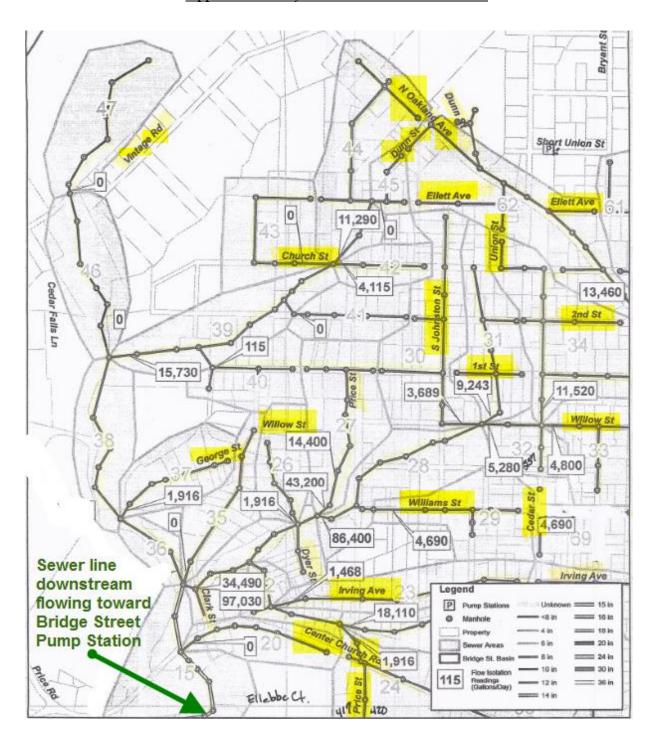


Tanyard Branch Outfall Rehabilitation and Repair

Upper Matrimony Creek Outfall Rehabilitation

- This project is awaiting the approval of the Engineering Report. This approval from DENR is expected by June 3, 2013. The Plans and Specifications must be submitted for approval by December 3, 2013.
- Bids are scheduled to be received by June 2, 2014 and construction should begin by August of 2014.
- We received a low interest loan for this project estimated at \$2,718,636 with \$1,000,000 of principle forgiveness from CWSRF.
- Loan repayment will be \$1,718,636 plus interest spread over 20 years.

Upper Matrimony Creek Outfall Rehabilitation



Mr. Shelton continued on with the Mega Park Force Main Project.

Mega Park Force Main Project

- The Mega Park Sewer Force Main Project was made possible through grant and matching funds.
- The estimated project cost is \$1,386,962
- The Golden Leaf Fund awarded the City a \$769,000 grant for this project.
- The Project Construction is currently 99% complete at this time.
- Reimbursement at this time from the GLF has been \$607,450. A number contractors and vendors completed work last month and the invoices have not been received or processed yet.

Mr. Shelton presented some photographs of the project and pointed out the laying of the line along NC Highway 770 in front of Willow Oaks Farm and also shots of the Virginia State line and where the force main actually starts.

Council Member Tuggle stated that if he was not mistaken he thought that Mr. Shelton had told him that they have spent about \$15 million on projects since 2008. He questioned how old those pipes were and what was the life span.

Mr. Shelton replied that most of their sewer force mains and stuff were now approaching about 50 years with the first organized sewer systems put in about 1967.

Council Member Tuggle explained that his point was, certainly both DENR and EPA are more stringent now. They have spent \$15 million in the last five years and he was just curious as to what the life span of what they were putting in the ground now was as opposed to what was in and he was also curious as to how long this would be, was it going to be an ongoing thing year after year, forever.

Mr. Shelton replied that the pipe going in now is either PVC plastic or ductile iron. He noted that ductile iron has a life expectancy of about 100 years but there will be recurring costs at pump stations and things like that because pumps wear out.

Council Member Tuggle stated that if they ever get to the point where they as a Council do enough to replace everything then they were talking about a 100-year life span.

Council Member Burnette asked for clarification on the projects for the Mega Park and how many of those have directly or indirectly impacted their EPA Administrative Order.

Mr. Shelton replied that he thought all of the projects that he had discussed would have impact on the EPA Administrative Order because all of them were upgrading sewer lines that needed repair or replacement because of root intrusion or whatever, lines that have cracked over time. He added that a lot of these lines were put in with clay or terracotta pipe and some of them have what is called open joints in them and that material rotted away over time so it just left cracks between the bell joints where water could get into the lines and a lot of that type of construction

was being replaced. He added that overall they should have significantly less problems with any overflows in these lines they were rehabbing now.

Council Member Burnette noted that in there he also stated that basically they have done everything report-wise and training-wise that has been asked of them up to a certain point. He asked how much was left out there, percentage-wise, was there an estimate of that.

Mr. Shelton replied that they would actually get to that later in the presentation. He then moved to the next topic which was sewer odor control.

Sewer Odor Control

Stadium Drive and Edgewood Road at Freedom Park

- What is the odor?
- Mostly hydrogen sulfide gas
- Gases from the decay of sewage
- Where is it coming from?
- An air relief valve attached to the force main coming from Railroad Pump Station designed to relieve excessive pressure on the force main. Located in front of 702 E. Stadium Drive.
- What causes the odor?
- The sewage is spending excessive time in the force main causing bacteria to use up available oxygen. In acidic conditions without oxygen in the sewer lines; the bacteria then use sulfates (SO₄) present in the sewage as a source of oxygen in the decay process.
- The above reaction releases Hydrogen Sulfide which produces a foul rotten egg odor that we smell at various times.
- What can be done about it?
- Cover the odor up
 - Perfume deodorizers
 - D-limonene, a citrus based degreaser that imparts an orange scent to the wastewater
- Filter the odor out of the air
 - Activated carbon filters
 - Other filter media developed to absorb the atmospheric hydrogen sulfide
- What can be done about it?
- Treat the source of the odor
 - Chemical treatments

- Sodium Hypochlorite to kill bacteria that produce sulfides
- Peroxides to kill bacteria and provide chemical oxygen to the wastewater
- Nitrates to feed bacteria a preferred form of chemical oxygen as opposed to sulfates
- What can be done about it?
- Treat the source of the odor
 - Chemical treatments
 - Iron salts such as ferric chloride to precipitate the sulfides out of the wastewater
 - pH buffer to raise the pH and eliminate the acidic condition
- What can be done about it?
- Introduce extra atmospheric oxygen
 - Aeration stations along the force main
 - Super Oxygenation-Pure oxygen introduced into wastewater at Railroad Pump Station and along the force main
- What have we tried?
 - Hypochlorite
 - D-limonene
 - Activated Carbon Filter
 - Ammonium Nitrate
- What has worked?
 - Of everything that has been tried, we had the most success with ammonium nitrate. It works only so far as we can feed it and we have been dumping it in by hand so it has not been fed at a constant rate so the effectiveness has been intermittent.
- What do we plan to do next?
- We intend to install a calcium nitrate liquid feed system that can feed a constant rate so as to match the flow from the pump station as much as possible. We are planning to install a tank and feed pump at Railroad Pump Station for this purpose.
- It is our belief that once we can feed a nitrate compound at a constant rate we will be able to bring this odor problem at Freedom Park under control.
- We will be installing a pump feed system at the Railroad Pump Station this spring to feed the calcium nitrate. This chemical is basically fertilizer and carries virtually no risk to the environment at the feed site. Cost for the pumping system is estimated at \$6,000. The annual cost for the calcium nitrate liquid is estimated at \$15,000 per year. Funding will come from C & D budget.

• We also intend to feed the calcium nitrate as needed at the Dan River Pump Station that already has the feed system in place. The cost for feeding the calcium nitrate at this location may be \$15,000 annually also.

Council Member Burnette asked if he did not expect any calcium build up in the line to which Mr. Shelton replied that he did not think so, at the very least it probably would play out on the surface of the piping.

Sewer Odor Control

Highway 14 near Mebane Bridge Road

- Chemicals were applied on our cake solids stored on the pad longer than a couple of weeks.
- Chemicals were added to our septage area after each new load.
- Trees were planted behind the solids' storage pad to shield the pad from wind.
- A tree planting is mapped out for the entrance near the storage pad. This should take place this Spring.

Mr. Shelton presented photographs of the solids handling area at the Mebane Bridge Plant and also the digester at the plant.

Council Member Carter stated that he had mentioned that a lot of the smell was coming from where it was not flowing through there as much.

Mr. Shelton replied that was probably part of it because the plant was now considered a domestic plant as opposed to having industrial waste in it as it did up until when National Textiles closed their operation. They went from being a predominately industrial waste to a domestic type plant and basically there was just more odor that accompanies a domestic plant. Also, another thing that happens, when that plant was first built it was laid out in the middle of nowhere.

Council Member Carter asked if they could periodically water flush through that system as a temporary fix and if that would help.

Mr. Shelton replied that it was not something that you can really make that type of an operation do. You would probably be limited to spraying a type of deodorant and they have historically done that but probably not for 25 or 30 years.

Council Member Carter questioned if just a regular water flow through there would not help to which Ms. Melinda Ward, Superintendent of Wastewater Treatment, replied that she thought he was referring to flushing and that was tried. She added that it was a large pump station and a large force main that was designed to handle up to 5 million and now it was down to not even half a million.

Mr. Shelton added that some days it only carries probably 300,000 to 400,000 gallons.

Council Member Carter asked if the vent was isolated where no one can get around it since it was emitting hydro sulfide.

Mr. Shelton replied that there really was not because it was underground in a manhole and once it comes out he would think it disperses to levels that were not a problem.

Council Member Ellis expressed concern as to what it was doing to the neighborhoods around them to which Mr. Shelton replied that the levels should drop when it gets out in open atmosphere.

2-inch Water Line Replacement Program and Eliminating Discolored Water Complaints

- The city has had an ongoing program of replacing 2-inch galvanized water lines for many years. These have been upgraded or replaced on a priority basis as customers let us know where the trouble spots are located.
- Engineering keeps a list of streets where there are known or suspected issues. Input from C&D is used to prioritize and select projects to do.
- The schedule for replacing the 2-inch galvanized water lines can be accelerated to shorten the overall time it will take for finishing this project.
- The water plant feeds a zinc phosphate corrosion inhibitor to coat our distribution piping to help control rust that can lead to red water complaints.

Recently completed line replacements, current projects and the lines scheduled to be done next

WL Projects Completed within the Last Year

- E. Stadium Drive & Dishmon Loop
 - Completed Aug. 2012 by Shiloh Utilities (1,452 LF)
- Carter Street
 - Completed April 2012 by C&D crew (371 LF)
- Martin Street
 - Completed May 2012 by Shiloh Utilities (551 LF)
- Burton Street
 - Completed May 2012 by Shiloh Utilities (320 LF)
- Holland Street (CDBG Planning Dept.)
 - Completed May 2012 by Sam W. Smith (1,410 LF)
- E. Warren Avenue
 - Completed Sept. 2012 by Yates Construction (558 LF)
- S. Hamilton Street [lowering at DOT storm drain]
 - Completed April 2012 by Citty's P&P (30 LF)
- Irving Avenue
 - Completed Feb 2012 by Sam W. Smith (20 LF)
 - Total of these projects: 4,712 LF

Current Waterline Improvement Projects

Automatic Flushing Devices

Sam W. Smith, Inc. made 2" taps and installed 8 devices during the summer and fall of 2012. C&D crews have installed 4 devices, including two last year. Attempts to install devices at two other desired locations were aborted due to problems with the pipes found. NC DOT has not given permission to install the devices within their R/W at three other locations. Duke Energy agreed to pay for the devices that SWS installed, most of which were purchased using funds in the FY 11-12 budget. Placement of additional devices in the spring will be coordinated with the Filtration Plant and C&D to use some of the unspent funds allocated for FY 12-13.

• Water Model Calibration

The City was notified in late October 2012, that The Rural Center had approved the \$40,000 grant application prepared and submitted by Dewberry. The departure of Matt Hastings, PE, from Dewberry before Christmas required providing a revised schedule to The Rural Center. A contract being prepared by the Rural Center should be received right before or after the retreat. The project is expected to be completed by October 25, 2013, with a total cost of \$80,000. No reimbursements will be made by the Rural Center until the City has incurred and paid Dewberry at least \$40,000.

- Kallem Court
- Rose Street

These two projects will be bid together, with plans for Kallem Court needing to be finalized. A bid opening on March 7th or 11th is anticipated, with both projects to be completed this fiscal year. \$30,000 was allocated for the Rose Street project, while \$20,000 was transferred from the Coleman Street WL project to fund hiring a contractor for the Kallem Court project, at the request of C&D. A total of 1,200 LF of 2" PVC is expected to be installed for these two projects.

Price Street, Lawson Street & Coleman Street

Plans have been prepared for all three sections by consulting firm Alley, Williams, Carmen & King, but submission for PWSS approval has been delayed until a couple easements are acquired. The plans are to be revised so that 950 LF of 6" WL along Price Street and a portion of the 1,405 LF proposed along Coleman Street can be installed this fiscal year, with the remainder done at a later date. A portion of the funds allocated for Coleman Street have been transferred by budget revisions to take care of the Kallem Court project, a small portion of the E. Stadium Drive project that was not done by June 30, 2012; and other items.

Danview Lane & Dodge Street

Sam W. Smith, Inc. has been hired by C&D to install 2" PVC to replace substandard and galvanized water lines currently serving customers living just south of the Danview

cemetery. A crew was planning to start February 11th, but wet conditions have delayed the start for at least a week. Additional work is to be done by C&D crews to relocate a couple water meters as part of this project that currently has \$31,000 allocated to it.

• Front Street / Fieldcrest Road backyard WL

A short section of galvanized water main across N. Hundley Drive was replaced by a C&D crew. The new 2" PVC line is tapped off the 6" water main in N. Hundley Drive, with connections made to the existing galvanized water lines east and west of N. Hundley Drive that run in the backyards of houses with Front Street and Fieldcrest Road addresses. Additional fieldwork is needed to prepare plans for the replacement of +/- 700 LF of 2" WL water main between N. Hundley Drive and N. Byrd Street, keeping the water meters in the backyard in that block. It appears that six other houses in other blocks in this area should have new taps made off an existing 8" WL in DOT R/W, with water meters relocated. The \$60,000 allocated should allow most of this work to be done this fiscal year.

WL Projects Likely to have FY 13-14 Funding Requests

- First Street (S. Johnston St to S. Hamilton St)
 - 1,650 LF of 6" DIP and 2" PVC; est. \$125,000
- Maryland Avenue (Bay St to S. Bethel St)
 - 680 LF of 2" PVC; est. \$35,000
- Highland Drive (end of the existing 6" to Lynrock St)
 - 925 LF 6" DIP; est. \$85,000
- Lynrock Street (Highland Park Drive to Bridge St)
 - 200 LF 6" DIP; est. \$15,000

Estimated cost of these WL projects: \$260,000

2-inch Water Line Replacement Program and Eliminating Discolored Water Complaints

- The phosphate content in the distribution water is monitored to insure we keep the proper residual amount to maintain the pipe coating.
- The very aggressive flushing program we now have in place to assist with THM control will also benefit discolored water complaints.
- Our THM flushing efforts are generally concentrated on dead end lines, which are also the sources of the discolored water problems. Flushing greatly assists in controlling both of these issues.

Solutions for individual residences

- Installation of a filter on the water meter to screen the incoming water
- Identifying whether the source is the City's water line or the customer's line to the house
- Change the customer tap if galvanized is found from the tap to the meter

There will always be some acute isolated incidents of discolored water in the distribution system due to several factors. These factors include flushing activities, main breaks, vibrations from paving operations and firefighting water demands.

We do our best to control and stop chronic situations where the discolored water originates from the condition of our pipes.

Mr. Shelton then moved to Bromide/THM control.

Our Way Forward to Control Bromide/THMs

- Dilution in the Dan River was high this year because of the limited drought conditions and bromide numbers were lower than the previous year. We were able to meet our limits within the City. Our wholesale customers faired better this year, but were still in violation during the warm months of monitoring.
- Duke Energy has been working closely with us and has provided financial support for our consulting engineers and testing.



Council Member Hagood asked that when he said wholesale customers he assumed he meant Dan River to which Mr. Shelton replied Dan River, Henry County. Council Member Hagood stated that as far as the testing, they have not mailed out notices. He explained that people had asked questions, the city supplies their water, Dan River mails out notices but the city did not. He asked if we were better testers or were they testing at a different spot. He asked if Mr. Shelton could help clear that up.

Mr. Shelton explained that basically with THMs if you can keep them low at the water plant when they go out it becomes a factor of how long it is resident in the pipe. He explained that the further it was pumped the more time was available for the chorine residual that was in the water to react with the precursors that form the trihlamethanes. So basically where you see the highest numbers are ones that are at places like Wentworth, at the end of Dan River lines or at Sandy Level in Henry County. They pump it a long way up in there plus they have a big storage tank where it sits before the consumers there use it so basically because of shorter resident time within the city limits they have been able to stay under but when you look at the more distant sites, and basically the EPA and the State makes you sample at your worst case situations. When you get out that far it produces higher THM values and even the Indian Hills residents have gotten these notices from Dan River Water but if you are actually testing he did not think you would see any difference in the water that was there versus what you would have in downtown Leaksville because the distance was not there. It was just a big factor related to how far you are away from the source of production.

Council Member Tuggle pointed out that when you look on the chart you will notice that the highest is in August. He asked if that had something to do with heat.

Mr. Shelton replied yes it did. He explained that these type of reactions where these things are formed double every ten degrees centigrade so water temperatures through spring and winter is well below 60 degrees farenheit but when you get into August it can get as high as 90 degrees and that was greater than a 10 degree centigrade change.

Council Member Tuggle questioned if previous years were like that too.

Mr. Shelton replied that you actually do get a little bit of a spike in the values going up in August all the time.

Council Member Burnette asked if Duke (Energy) coming online contributed to that to which Ms. Dena Spencer-Reid, Superintendent of Water Treatment, explained that the concentration of the bromide in the river was a lot more in summer and starts ebbing out in November. Council Member Burnette asked if they were still responsible for the chlorine residual at the very end of the wholesale customer's lines.

Mr. Shelton replied to some extent because Dan River does not boost the chlorine levels out in their system nor does Henry County so literally they tell the city that they need a little bit more to keep it out there.

Council Member Burnette added that working one against the other will do that though and Mr. Shelton added that one thing becomes an acute area that you have to keep the residual to guard against bacteria and that was something you get cited for instantly as opposed to THMs. They were a chronic problem and it was something that would take 20 years to have a health effect on an individual. He stated that it was a balancing act between the needs of one thing to control the bacteria versus the THM.

Hazen and Sawyer Evaluations

- Bench-Scale Testing of WTP Optimization Strategies
 - Powdered Activated Carbon (PAC)
 - Enhanced Coagulation with Alum
 - Enhanced Coagulation with Ferric Sulfate
- Bench-Scale Testing of Chloramination
- New Treatment Technology Evaluations
 - GAC
 - MIEX
 - Ion Exchange
- Pilot testing for Granular Activated Carbon Contactors
- Evaluation of Smith River as Alternate Water Supply

DBP Control Strategies – Advanced Technologies

WTP Optimization for DBP Control						
Expected TOC/DBP Reduction						
♦ 0-10% ♦♦ 11-20% ♦♦♦ 21-30% ♦♦♦♦ 30+%						
Continuous Intermittent Regulatory Comment/Acceptance DBP Control Strategy Operation Operation by Public Water Supply						
Point of Chlorination	**	•	ОК			
KMnO ₄	N/A	N/A	OK			
PAC	•	۵	ОК			
Enhanced Coagulation	•	•	ОК			
Alternate Coagulants	**	•	OK with good Corrosion Control			
Chloramines	***	**	OK with good Corrosion Control			
MIEX®	****	****	OK with Pilot Demonstration; Hazen and Sawyer permitted the first for Johnston County, NC in 2009.			
UV or Ozone Disinfection with Chloramines after Free CL2 Virus Inactivation	****	***	Questionable: Assumes limited free chlorine contact for virus only. Hazen and Sawyer is working on this approval for Raleigh at this time.			
GAC Contactors for TOC/DBP Control	****	****	OK with Pilot demonstrations; also removes TOC and Emerging Contaminants.			

MIEX® - Overview

- Anion exchange process
 - DOC adsorbed onto media resin surface
 - Bromide removal: 25-40%
 - Regenerate resin with strong salt solution
- Uses a magnetic resin
 - 180 micron beads
 - NSF 61 certified
 - Large surface area
 - Promotes agglomeration and settling

MIEX® - Advantages and Disadvantages

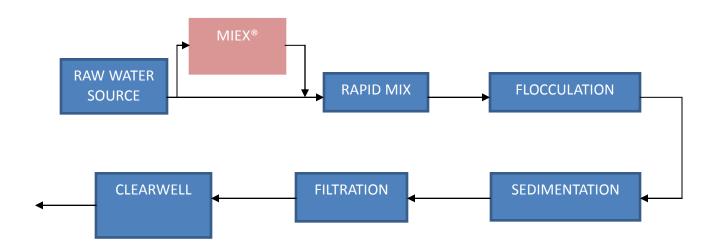
Advantages	Disadvantages
• Significant DOC and DBP reduction (40 to 60%)	Higher capital and O&M costs (resin and salt use)
 Significant taste and odor compound, color, sulfide, nitrates, arsenic removal 	 Sole-source supplier of MIEX® resin from AUS (storage only in US)
• Reduced coagulant, oxidant, polymer, and free chlorine demands (50%)	 Produces a corrosive waste regenerant solution (send to WWTP)
Reduced residuals quantities in downstream sedimentation processes	 Require testing to confirm effectiveness of DBP precursor and bromide removal at high raw water bromide levels
Smaller footprint with high-rate configuration (tubes/plates)	 Additional footprint needed for ancillary equipment (regen skid, tanks, resin storage, electrical/control room, etc.)
 Capable of handling intermittent plant operations 	 Complex process controls (automated)

Council Member Burnette questioned the lifetime on the processes to which Mr. Shelton explained that it depends on the loading, how much volume you have to put through it and the granular activating carbons. He stated that it looked like 5 months is about the max they could get with each loading that you put into the vessels that you are going to put the water through. He

added that they have seen projections that it has been 166,000 every time you changed out one of those vessels and it may take as many as 15 vessels to treat the volume of water that they could possibly have. Those things get very expensive very fast.

MIEX® - Where does it fit?

• Implement at head of plant to gain downstream benefits.



Anion Exchange – Overview

- Definition: removing undesirable ions from water through a chemical reaction with an ion exchange resin
- Ions are removed through a substitution reaction
 - Undesirable ions are captured on reactive sites of resin
 - Ion initially attached to resin are released into treated water
 - Reversible reaction is more useful (recharge the resin)
- Applications: softening, organics removal, Bromide removal, color removal
- Anionic resins used for the exchange of negative ions; charge with hydroxide of chloride ions

Anion Exchange – Advantages and Disadvantages

Advantages	Disadvantages
 Selectively remove specific constituents (bromide) 	Bromide-selective resin is expensive
Simple operation	 Could require frequent regeneration depending on bromide concentrations
Independent from other treatment processes	 Using only a bromide-selective resin will not prevent the formation of chlorinated DBPs
 Could be used in conjunction with a DOC-selective resin 	 Reduced exchange capacity if other competing anions are present in the water
	 Could require dechlorination before ion exchange process

GAC – Overview

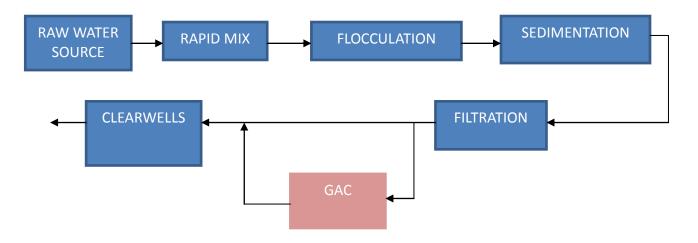
- Organic compounds are "adsorbed" onto the pore surfaces
- Manufactured from coal, peat, wood, or coconut shells
 - Coal is crushed, sized and "activated" at high temperatures generating media porosity
- Bituminous coal used frequently in water treatment
 - High adsorption surface area (900 to 1,050 m²/g)
 - Pore volume (0.7 to 0.8 mL/g)
 - GAC bulk density (0.45 to 0.50 g/cc)

GAC – Advantages and Disadvantages

Advantages	Disadvantages
Significant DOC and DBP reduction	 Higher capital and O&M costs (frequent GAC exhaustion)
 Significant taste and odor compounds, emerging contaminants (EDCs, PPCPs, etc.), pesticides, and herbicides removal 	 Fouling potential when located at head of plant; typically requires intermediate pumping in a post-filter application
 Reduces chlorine demands/doses downstream 	 Cannot be used as a filter cap if conventional filters are used for Mn removal and insufficient EBCT
 Simplistic operation; low backwash water consumption 	 Larger systems require an extensive footprint
 Used widely across the US; multiple GAC media suppliers (Calgon, Norit) 	

GAC – Applicability to Harris WTP

• Available application – post-filter contactors



Chloramines as a Residual Disinfectant

- Chloramines are a residual disinfectant used in lieu of free chlorine to control THM formation. It is proven technology that chloramines halts the formation of THMs and provides protection against bacteria in the distribution system.
- Chloramines are formed by the reaction of ammonia (NH₃) with aqueous chlorine (HOCl)
- There are pros and cons to using chloramines as with any other treatment method

<u>Chloramines – Advantages and Disadvantages</u>

Advantages	Disadvantages
Minimize TTHM and HAA5	Weak oxidant and disinfectant
Persistent and stable residual	May cause nitrification
No "chlorine" taste and odor	 Loss of chlorine residual and drop in pH
 Controls microbial regrowth by penetrating the biofilm 	 May cause other taste and odor problems if chemical feeds are not carefully controlled
 Easy to use, operationally simple, long history (Durham, Raleigh & Greensboro) 	 Public education of this technology will be needed to insure customer satisfaction with this change
 Low relative cost to control formation of THMs and HAAs 	 Possible impacts on special water users where nitrates could be a health issue (Hospitals and Kidney Dialysis Clinics)

Council Member Ellis asked Mr. Shelton to explain the health issue.

Mr. Shelton explained that the reason it was a possible impact was if you were feeding chloramines you can have nitrates in the water and if they are introduced freely into the bloodstream there can be some detrimental effects on the body and something like kidney dialysis they have to use a special filter to take the chloramine out as they are going through the process of dialysis and also in a hospital when they are using bags of saline or whatever, you

would have to be careful about filtering the water before it went into any type of application where it could be introduced directly into the bloodstream.

Council Member Ellis asked about the fluoride and would it change the fluoride that was added to which Mr. Shelton replied no.

Council Member Burnette stated that he thought that Greensboro already uses chloramine.

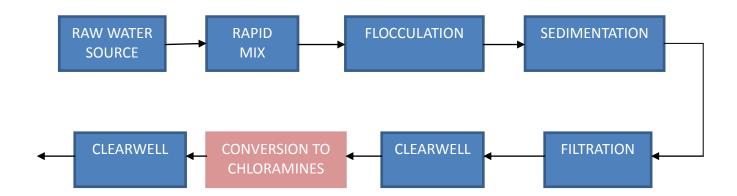
Mr. Shelton replied that actually Greensboro, Reidsville, Burlington, and High Point are all interconnected. He explained that everybody has to go with the same treatment because you can get into problems with taste and odors if chlorine and chloramines meet in the water at the same time.

Council Member Burnette asked if they had to do that earlier because of the Jordan Lake to which Mr. Shelton replied that he thought they had to do it basically for the same reason they were looking at doing something, they had high THMs and they had to find something to be able to hold them down with a limit.

Mayor Grogan left the meeting at approximately 10:00 a.m.

Chloramines – Applicability to Harris Water Treatment Plant

• Free chlorine through first CW, dose ammonia between two CWs

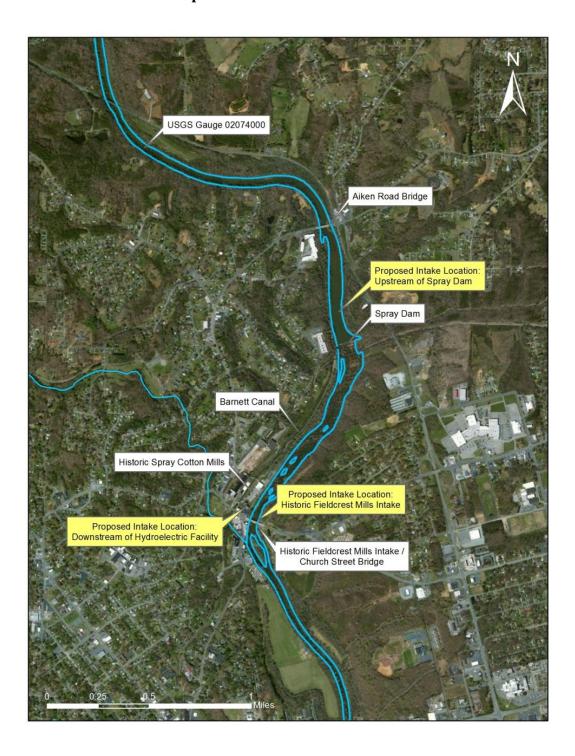


Smith River Raw Water Intake

- Determine if the Smith River is viable as an alternative water supply
- Scope:
- Review flow records to assess hydrology and potential yield
- Discuss permitting concerns with NCDENR
- Develop a raw water quality monitoring program the City has initiated this process

- Prepare conceptual design and cost estimate for an intake, pump station, and raw water transmission
- Perform bench-scale jar testing and SDS tests to evaluate DBP formation potential and treatability

Smith River Overview Map



Smith River Preliminary Water Quality Data

Constituent	Dan River	Smith River
Bromide (ug/L)	139 – 433	9.4 – 16.2
Chloride (mg/L)	27 – 43	ND – 8.8
TOC (mg/L)	1.6 – 2.0	1.6 – 2.6
Alkalinity (mg/L as CaCO ₃)	25 – 30	24 – 31.9
Color	13 – 71	15 – 46
Total Coliforms (# per 100 mL)*	20 – 1400	241.5 ->2419.6
рН	6.9 – 7.3	7.1 – 8.9

^{*} Higher coliform counts in the Smith River can be attributed to the primarily agricultural/farmland watershed.

• The City has started Stage 2 monitoring and 41 inorganic constituents are now being monitored in the Smith River – no samples above SDWA MCLs

A new raw intake on the Smith River has a number of hurdles to overcome to be a viable solution.

- Finding a suitable location with depth and flow
- Sediments in the river may harbor heavy metals that have accumulated over time.
- The permitting process for the new intake may be challenging. The time required may be three years.
- Possible conflicts with hydroelectric operation nearby.

Council Member Hagood asked if the water below the hydro plant tests different.

Mr. Shelton explained that if you get any further down than the where the raw water intake was the classification of the river downgrades beyond that point and that was probably partly because they have sewer lift stations that are further down but that was the furthest you can go down the river and still be able to draw out of that WS4 Classification.

^{**}Upstream water systems have been Bin 1 classified for source water *Cryptosporidium* levels.

PAX- THM Removal System (TRS) for Clearwells and Water Tanks

- Our engineering consultants, Hazen and Sawyer, have not evaluated the PAX Water Technologies for effectiveness due to the fact this system is being installed and tested in Madison.
- Preliminary results have shown promising results in the THM removal since October, but the water temperatures have been cold compared to what we face in August heat.

PAX - TRS

- We will continue to study the TRS results in Madison as temperatures warm this spring to make decisions as to the system's effectiveness and adaptability to our tanks and clearwells.
- We have PAX mixers in our Tanks and will only need to install the aeration system of the TRS if it proves to be effective.
- We can complete installation of this system in our five elevated tanks for \$818,000.

The aeration system uses fine droplet spray heads to allow air stripping to gas off volatile components of THMs through the tank vents aided by a fan.

Council Member Burnette asked if he thought that with the work that Madison has done with the PAX system they would be able to determine results to make a decision this year.

Mr. Shelton replied that it would just depend on how effective the numbers start looking as they get closer into having warm water and the temperature starts going up. They were seeing probably as much as 30 to 40% removal now; but this system operates basically as the water becomes warmer it can produce more and they think the system is more effective in removing it.

Council Member Burnette asked if not linear to which Mr. Shelton replied not totally linear in the amount it can remove so it was hard to make a judgment call at this point on the performance that they have seen so far. He added that they generally guarantee a certain level of removal out of it. They model these systems before they make a promise and they usually are very conservative. They might promise you 30% removal and it might actually be 40 or 50%.

What we have done to date.

We have tried other coagulants, enhanced coagulation, potassium permanganate, varied chlorine dosage rates and feed locations, started a very aggressive water line flushing program, found guidance from State agencies, used two consulting engineering firms to seek solutions, installed PAX mixers in elevated tanks, pilot tested GAC, and used in-house research and testing to improve our treatment technique within the plant to reduce our THMS produced.

Summary of Various Technologies

- There is no Silver Bullet to completely address this THM problem.
- It appears more each day that we will need to use multiple techniques to reduce and maintain our THMs at an acceptable level to maintain compliance with EPA regulations.
- The most promising technologies we have looked at approaching a confirmed 50% removal rate.
- Their ability to remove THMs will have to be balanced with cost, short and long term.
- Most of the available best technologies have significant drawbacks or high costs to install and/or maintain.

What do we do next?

- We must carefully weigh the economics, any long term health consequences, the acceptability of these changes to our consumers, and the fact that our decision will set the treatment process we use for the next 25 years or more.
- This will be the first significant change in a proven treatment process that has served our City well since 1922.
- We do not want to spend up to 15 million dollars or more on technology that may ONLY be needed five years and be obsolete.
- Whatever decision is made, we must consider the fact that Duke Energy will likely remove the bromide discharge themselves within five years.
- The technologies that have been shown range in cost from \$800,000 to \$24,000,000 in Capital Outlay Costs.
- We must select a technology to move forward at the latest by July 1, 2013
- The regulation starts for us October 1, 2013. We will request a two year extension to design, construct, and implement the selected technology for us to achieve compliance with the new THM regulations.
- The final technology choices will be greatly influenced by Duke's willingness to provide financial support for our decision.
- This is a major decision in terms of cost, time, and customer satisfaction.
- When the engineering consultant has completed their report on the various technologies, they will submit their recommendations. The staff will review this information and bring our recommendation to the Council for consideration in a presentation.

Council Member Burnette asked when they can expect a decision.

Mr. Shelton replied that they would hopefully have their final by the first of May as they would need to move ahead with this. He added that some of it could be constructed within a year's time frame and the alternate water supply could take 3 years. Also, with other things you could require by the time you would get the permits by the State and designed you are looking at that whole 2 year period to construct.

Future Work to Comply with EPA AO

- All work required by the EPA AO is completed as required up through March 1, 2013.
- City staff has developed and submitted all programs required by the Order that could be completed in-house.
- Our engineering consultants, WK Dickson, are now working on the CMOM (Capacity, Management, Operations and Maintenance Program). CMOM is linked with Capacity Assessment, Sewer System Evaluation Survey report that is due in September 2013.
- Based on the finding in the Capacity Assessment Report, WK Dickson will develop a Wastewater Collection Transport System (WCTS) Remediation Plan with specifics of how the City will eliminate all Sewer System Overflows.
- The WCTS Remediation Plan will define and specify any additional work that needs to be done beyond what is underway or already done.
- In addition to the rehabilitation project work completed, underway, scheduled on the Dry Creek, Northern Smith River, Kuder Street Sewer Subsystem, Tanyard Branch Outfall and Upper Matrimony Creek Outfall preliminary indications are that additional work will be required in the Junction Pump Station Basin.
- The work required in the Bridge Street Pump Station Basin could be still over \$3,000,000 to complete problems that are still surfacing with smoke testing and line cleaning and video work.
- The work required in the Junction Pump Station Basin could be a minimum of \$3,000,000 additional dollars. The Smith River Siphon is beginning to show signs of corrosion and may be a potential sight of failure.
- Sewer line from the Siphon paralleling the Smith River, up the Greenway and the Taft Street Outfall are expected to need significant repairs or replacement.
- We will apply for additional grant funding in the fall of 2013 in the next round of grant funding. We will likely apply for a third project in the Bridge Street Pump Station Basin, as our survey, cleaning and camera work has revealed numerous lines that are in need of repair or replacement.
- It appears that the Covenant Branch and the Meadow Greens basins can be addressed with more cost effective solutions.
- Results from our smoke testing and sewer survey has and is finding more defects (leaks for inflow and infiltration) on public and private property that will need to be fixed.
- Work to complete the Administrative Order could easily run through December of 2016. This would be consistent with the five years, EPA staff told us initially in August of 2011.

Future Work to Comply with EPA AO

- Costs in additional to what has been spent to date may be \$20,667,570 over the next five years. The following is an estimated breakdown of cost.
- CMOM Planning/Evaluation \$1,003,000 2012-14
- I & I repairs Kuder, Junction, Bridge, Meadow Greens and Covenant Basins correcting defects found \$2,222,500 2013-16
- Junction and Bridge Pump Station rehabilitation \$2,600,000 2014-18

•	Bridge Street Sewer Line Rehabilitation	\$7,500,000	2015-18
•	Rerouting Karastan Sewer Line	\$ 280,000	2015-18
•	Junction Sewer Line Replacement/Rehabilitation	\$4,200,000	2015-18
•	Meadow Greens Equalization Basin	\$ 490,000	2014-15
•	Covenant Branch Meadow Greens Force Main Ch	anges to provid	e increased pumping
	capacity RR Force Main	\$ 403,200	2014-15
•	Contingency Estimated at 10% for this work	<u>\$1,878,870</u>	
		\$20,667,570	

Mayor Pro Tem Tuggle commented that those were realistic numbers as far as what the engineer's study said that it costs over \$20 million and they were spending an average of \$2 million a year now and that would be over \$4 million so that was an increase of over \$1 million what they were spending now.

Council Member Hagood referred to their response to the Administrative Order and asked if they were attempting to put in enough capacity to handle all the storm-related events.

Mr. Shelton replied that they were really not increasing their capacity. He explained that essentially most of the reason they run into problems was because their lines take on rainwater in rain and snow events. That causes them to exceed their capacity of pumping, even when you get to the wastewater treatment plant. If you can tighten up all of your lines and plug holes in them, and this was anywhere that there are cracks in them, you can close those points. He added that there was also a tremendous amount of water on private property with just caps being left off of cleanouts for sewer lines and lines going to people's houses that are cracked. There was a tremendous amount of inflow that comes with rain events that settles in people's yards and gets into stuff so part of the smoke testing was to mark those spots. Then they would have a program where they would come back and try to get the public to patch and fix these holes because it was costing everybody to pay all of this money to fix it.

Mayor Pro Tem Tuggle questioned that they could not force anybody with private property to fix their pipes.

Mr. Shelton replied that he thought they could work through the Planning Department (Code Enforcement) and treat it as a nuisance to compel individuals to go in and fix these things if it was something beyond where they can go to do it.

<u>Digester Project</u>

New and Rehab of Old Unit

- In 2003, the Wastewater Master Plan showed that our current digester was not large enough to handle the current and projected solids produced in the plant.
- Our current digester is original to the plant and is in poor condition. The walls are thin in many spots and are expected of having many voids underneath. It has already experienced a wall failure and all signs point to another potential failure in the future.
- This project has been in the 5 year plan for many years, but has been shifted based on our economic downturn.

- Our plan is to build a new digester to temporarily replace the old unit until it can be redone and then use them both for redundancy. If our flows increase from the Mega Park, the extra capacity would allow us to better handle new solids loadings.
- The first phase in this budget year will be engineered drawings and plans for the new digester and pump house.
- The second phase for the next budget year will be building the new digester and pump house.
- The third phase will be installing equipment and beginning plans to rebuild the old digester.
- The fourth phase would be the rebuilding of the old unit.

Digester Project

New and Rehab of Old Unit

• Estimated Costs for this project are.

•	FY 2013-14	\$ 240,000
•	FY 2014-15	\$2,361,500
•	FY 2015-16	\$ 950,000
•	FY 2016-17	\$1,571,000
•	FY 2017-18	\$ 500,000
•	Total Project Estimate	\$5,622,500

Backflow Prevention Program

- The City needs to develop a backflow prevention program. This is necessary to protect public health.
- We will need to develop an amendment to our water and sewer ordinance to include this program. This program would be phased in during the 2013-14 Budget Year.
- We will need to develop inspection and enforcement through the Planning and Inspections Department and the Collection & Distribution Division.
- We have found an on-line service vendor that assists with record keeping and will assist in the device inspection and maintenance.
- Cost for the Management and Record Keeping functions of the on-line services would be \$3,980 per year for the devices we currently have.
- Testing the devices will be an additional cost to be borne by individual water customers with the backflow devices. Local certified testers can be used or our on-line service vendor can supply the testers if needed, at additional cost.

Council Member Burnette asked if that backflow was to be installed on each tap, private and...to which Mr. Shelton explained that eventually that would be the ultimate goal but he thought to start with they would be looking at irrigation systems, primarily large complexes such as the hospital and factories and things that already have these devices in place that are not monitored in any way. Council Member Burnette questioned the driver to which Mr. Shelton replied that it

was actually a State requirement and they were just now getting to the point where they want to be involved with it and get a program started here.

Mayor Pro Tem Tuggle suggested a 15 minute break at this time.

BREAK

Update & Discussion of Economic Development, Tourism and Planning/Inspections Initiatives (Mike Dougherty, Director of Economic Development, Kelly Stultz, Director of Planning & Inspections, Cindy Adams, Coordinator of Tourism and Special Events and Brad Corcoran, City Manager)

Mayor Pro Tem Tuggle asked Mr. Mike Dougherty, Director of Economic Development to come forward.

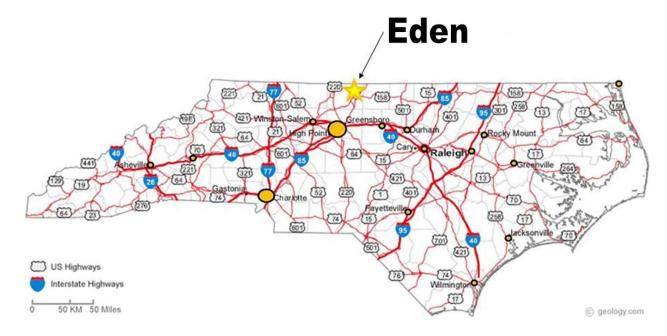
Mr. Dougherty began his presentation.

Rural North Carolina

- Only 40 of 100 NC counties are in Metropolitan Statistical Areas, but account for:
 - 71% of the state's population
 - 76% of its jobs
- Currently.....50% of Americans live in urban areas
- 2030.......75% of Americans projected to live in urban areas.
- Former State Legislator Gene Arnold: "NC east of I-95 looks like a third world country."



• 75% of NC jobs are now located in 15 urban areas



North Carolina Employment

Top 10 Private Sector Employers

Wal-Mart	(retail)	Top employer since 2002
Duke University	(medical)	
Delhaize Group	(Food Lion-gro	cery)
McDonald's	(fast food)	
Wells-Fargo	(banking)	
Lowe's Company	(retail)	
Novant Health	(medical)	
Bank of America	(banking)	
Harris-Teeter	(grocery)	
	Duke University Delhaize Group McDonald's	Duke University (medical) Delhaize Group (Food Lion-group) McDonald's (fast food) Wells-Fargo (banking) Lowe's Company (retail) Novant Health (medical) Bank of America (banking)

- Duke Energy (energy)Wake Forest Baptist Health (medical)
 - 50% are retailers or a fast food restaurant
 - 1977----4 of top ten were textile companies
 - 1991----4 of top ten were manufacturers

Rockingham County

• Top 10 Private Sector Employers

•	Morehead Memorial Hospital	(medical)	1,000
•	Wal-Mart	(retail)	807
•	Unifi, Inc.	(manufacturing)	798
•	MillerCoors	(manufacturing)	600
•	Moses Cone Health System	(medical)	600

•	Frontier Spinning Mills		(manufacturing)	515
•	Keystone Foods		(manufacturing)	423
•	Gildan Activewear		(distribution)	300
•	Remington Arms Company		(corporate)	260
•	Commonwealth Brands		(manufacturing)	253
	 Manufacturing 	46.5%		
	 Medical 	28.7%		
	 Retail 	14.5%		

Rockingham County Employers-Public and Private Sectors

•	Rockingham County S	Schools	(education)	2,071
•	Morehead Memorial I	Hospital	(medical)	1,000
•	Wal-Mart Associates,	Inc.	(retail)	807
•	Unifi, Inc.		(manufacturing)	798
•	Rockingham County		(government)	626
•	MillerCoors		(manufacturing)	600
•	Moses Cone Health S	ystem	(medical)	600
•	Frontier Spinning Mil	ls	(manufacturing)	515
•	Keystone Foods		(manufacturing)	423
•	RCC		(education)	420
	•	31.6 % Education	29.7% Manufacturi	ng
	•	20.3% Medical	10.2% Retail	

NC Manufacturing vs. Retail

- 23% of NC GDP comes from manufacturing
 - 13% in U.S.
 - 2001-2011
 - Retail employment fell 2.5%
 - Manufacturing fell 42.7%
 - Wage Rates
 - All NC Workers +31.5%
 Retail Trade +16.1%

Economic Reality

- Rockingham County status is better than most rural counties due to significant number of higher-paying manufacturing jobs..
- Unemployment (December of 2012)
 - Rockingham County
 - 59% of state counties have lower rates
 - 41% of state counties have the same or higher

- Unemployment rate dropped 2% in 2012
- Rockingham County has a better balance of education, medical and manufacturing employment than many NC counties.
- Eden is fortunate to be located in close proximity to the urban areas of the Piedmont Triad.
- Majority of Eden manufacturers have expanded within the last three years.
- Eden is pro-actively seeking innovative economic development opportunities

NC Secretary of Commerce-Sharon Decker

- Economic Development Strategies:
 - Access to healthcare
 - Medical care, but also wellness programs, greenways, etc.
 - Education
 - K-12, but also community colleges and traditional 4-year colleges
 - Economic Development
 - Industrial recruitment, but also small business development and growth.
 - Arts, Culture and Tourism
 - Cultural resources and commerce should be closely linked. Tourism is a top priority.
 - Quality of Life and Environment
 - "We like it here"—response from companies she has spoken to about why they moved here. She believes quality of life is critical to attracting more companies to the state.

Eden Status/Initiatives

- Healthcare
 - #1 employer—Morehead Memorial Hospital
 - Greenway and Freedom Park—encourage wellness
- Education
 - Eden Community Resource Center
 - Distillation and Fermentation Program
 - Supporting RCC marketing efforts
 - Rockingham Manufacturer's Association
- Economic Development
 - Existing Industry contacts
 - Target industry consultants
 - Collaboration with Virginia economic development ventures
 - Small Business Support
- Arts, Culture and Tourism
 - NC Main Street Community
 - Eden Tourism Development Authority

- Piedmont Pottery Festival
- 10th Annual Eden RiverFest
- Smaller downtown events to promote tourism/commerce
- Public art projects proposed downtown and at city hall
- Freedom Park events
- Ouality of Life and Environment
 - Community Appearance Team
 - Keep America Beautiful Affiliate
 - River promotion
 - Dan River Basin Association

Industrial Recruitment

- Locating industry is a sophisticated process.
- Companies use site selection consultants to help them find the most desirable locations. Secretive Operations.
- Site consultants are "risk aversive"....meaning they want to avoid a career killing mistake.
 - They try to eliminate you from the competition and find the best location out of the 37,000 possible ones in the U.S. alone.
- Sheetz Real Estate Department was contacted when they were seeking a location and we were told they had site consultants facilitating the project.
- Relationships are nurtured with existing industry to encourage expansions and to attract complementary companies.
 - 75% of new jobs come from these companies.

John Geib-Director of Economic Development-Duke Energy

- Duke has a 15% "win" rate and they are a monopoly.
- Team of development staff –with an unlimited budget-- who struggle to get prospects to consider the Duke Energy region, let alone a community.
 - Concentrate on site selection consultants
- Rural counties have a handicap competing with urban areas.
 - Even Charlotte and Raleigh economic developers struggle to get people interested in them.
- Rockingham County has large tracts of inexpensive land, a good workforce and strong utility infrastructure.
- Areas must have ready to go sites and good product
 - Existing buildings must have high ceilings and be energy efficient

Workable Strategy

- Cultivate site consultants in target industries
 - Austin Consulting—Food industry
 - MOHR Partners--Call centers

- Duke Energy-Data centers
- NC Department of Commerce
- Piedmont Triad Partnership

Mega Park Update

- 230 acre pad is to be cleared, but Army Corp of Engineers and EPA have delayed the process. Best case scenario is end of 2013.
 - When cleared, this will be the largest parcel in the Commonwealth of Virginia with such robust utilities.
 - It has the attention of the Virginia Department of Commerce
- Master Plan is being completed
- Eden has completed sewer line to the Virginia State line.
- Application being submitted to VA. Tobacco Commission to extend sewer line from NC state line to beyond RR tracks on Berry Hill Road.
- Dewberry and Davis will submit a phase I water estimate for our review.
 - Current water capacity is between 500,000 and 1 million gallons per day.
 - It is recommended for Eden to begin researching costs and potential funding sources to run water to park.

Southern VA Regional Alliance

- Initially a two-year position
- Will be extended as Virginia begins to establish regional economic development entities, much like North Carolina.

Mega Park Update

- We have proposed a meeting between Senate Pro-Tem Phil Berger and VA officials to gain support for the project.
- Also we will seek a meeting with federal elected officials for the same purpose.

Existing Industry

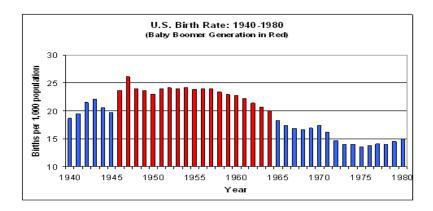
- Source of most job growth
 - Gildan-2 expansion in two years in 2012
 - Mabe Trucking-Added 65 employees in two years
 - 4 current industries have discussed potential expansions

Eden Initiative

Elder Care

- 10,000 Baby Boomers will reach retirement age every day for the next 19 years starting on January 1, 2011.
- Need for elder care will not diminish for years.

• Attracting retirees to Eden will support its largest employer and local business community.



Certified Retirement Community

- NC Department of Commerce Designation
- Establish a marketing plan to attract retirees
- Participate in state retiree marketing
- Attend AARP conventions
- Join other NC CRC communities
 - Lumberton MarionSanford Asheboro
- Application recommended to be submitted in July of 2013.

Shell Building

- Will get you looks—most companies want existing buildings.
- Eden does not currently have many buildings with adequate ceiling heights—more than 24 feet.
- HUD- Shell Building Revolving Loan Program:
 - There is money in the program
 - Program will loan 50% of cost City and County are responsible for 50%
 - 2% interest loan 5 year term with first two years interest only
 - \$30-\$35/ SF
- Industrial developers are not building spec space now because of the risk and glut of prime space throughout the Triad.
- Cost of carrying the building needs to be considered.
 - Madison shell building
 - 8 years vacant
 - Stoneville shell building
 - 7 years vacant

Council Member Turner questioned the reasoning for the ceiling heights to which Mr. Dougherty replied that they were stacking things higher and more efficient.

New County Economic Development Organization

- Partnership for Economic Development and Business and Technology Center are
 proposed to go under one roof with the Rockingham County Tourism Development
 Authority. Tourism VP reports directly to County Manager.
- Each entity has its own separate Board of Directors.
 - It appears that all will function the same.
 - Eden interacts with Partnership and Business Tech Center on a regular basis.
- Eden is working with the Chamber Alliance on a web portal similar to one created in Charlotte Mecklenburg
 - Living here
 - Opening a business here
 - Enjoy recreation here

Eden Community Resource Center

- In first 16 months of operation....
 - 2,276 patrons assisted
 - 336 have reported job placements
- Gildan interviewed 100 applicants at Center in January of 2013.
- Goodwill is evaluating whether to continue the ECRC at its current location or seek an alternative Eden site.
- City's contribution ends in October of 2013.
- RCC reports the ECRC is doing better than others.

Small Business Assistance

- Work with all prospects on
 - Business planning
 - How to Start a Small Business
 - RCC and Business and Technology Center
 - Finding space
 - Liberty Tax Service
 - Feathers and Fur pet store
 - Downtown businesses
 - Marketing
 - Initial ribbon cuttings
 - On-going publicity via newspaper columns, Explore Eden Facebook page and Chamber of Commerce email blasts

- Downtown Businesses
 - Cindy coordinates annual events with merchants
 - These events draw patrons downtown
- RiverFest
 - Most of the Historic Leaksville merchants reported excellent sales
- Shaggin' on Fieldcrest
 - Shagging/car show event designed to give Draper Village a signature event.
- NC Main Street Conference
 - Marketing information shared with all merchants
 - RCC seminars—Visual Merchandising

Business Recruitment

- Working with all shopping centers on recruitment of national businesses
- Will attend the Charlotte ICSC Idea Exchange in March
- Seeking a Wal-Mart Express store for the western part of the city.
- Chick-fil-A internet/letter writing campaign has begun
- Other targets:

Roses Beal'sFamily Dollar Starbucks

• Target and Kohl's require much larger population than exists in Eden. Target mandates 100,000 population within 5 minute drive of stores.

Skat Transportation System

- The SKAT team continuously receives calls on stops, eligibility and times.
- If everyone that has called will get on and ride, they would have a full bus at every stop. The drivers continue to pass out route maps/guides and they continue to try to promote the service.
- City will continue to publicize via columns, Facebook and Code Red.

Council Member Ellis questioned the stops and the places for people to sit to get out of the rain.

Mr. Dougherty replied that they were doing fundraising through sponsorships. He explained that each shelter costs about \$14,000.

Council Member Burnette stated that he had mentioned ceiling heights earlier. He asked what buildings they already had that met that requirement.

Mr. Dougherty replied that one part of MGM and also the Karastan Service Center, however he was not quite sure of the height on that but it was probably close. Also, buildings such as HanesBrands, it was just added onto year after year and there was no flow there.

Mr. Dougherty concluded his portion of the presentation and Ms. Cindy Adams, Tourism & Events Coordinator began here.

Shop Local

- 2011 Campaign will be repeated.
- Eden Drug has presented a great model for individual business conducting a shop local campaign.
- Cash Mobs promote local merchants

RiverFest

- 2011 Top 20 Event in Southeastern U.S. for September
- Estimated crowds at 15,000-20,000
- Generating more motel rooms since vendors are coming from across the southeastern U.S. to participate.
- Festival costs approximately \$44,000 to fund
- 3 day would require at least \$15,000 in additional costs and manpower.
- Only 19 of 147 major NC festivals last 3 days (12.9%)
- Reidsville tried a 3-day festival and quickly reverted to the current RiverFest schedule.
 - Possible river event for Friday afternoon if DRBA and Three Rivers Outfitters would orchestrate.

Seeking Tourism Opportunities

- Upland Manager of Willow Oaks wants to bring the United Field Trialers Association to Eden.
- National Competition happens each February
- Opportunity to draw 600-700 participants here
- Excellent showcase for the city and plantation
- Competition held from February 18th-24th in Town Creek, Alabama.
- Decision normally made on next year's event the week of the current competition

Reaction and Next Steps....

- UFTA Chairman: "The most professional presentation they had ever seen."
- Eden is still the "buzz" at the current competition
- UFTA will make a site inspection on Willow Oaks
- We should be advised within a month if they will come here.

Public Art Project #1-Central Hotel Coca-Cola Mural Restoration

Ms. Adams explained that Coca-Cola was very excited about this project and would come up and inspect the building. It could also be done with a Coco-Cola grant however the city would need to do some residual work.

Public Art Project #2

Karastan Rug Scavenger Hunt along with Gala that includes Art Auction

Ms. Adams explained that they would commission 10 artists to do 10 paintings of 10 different rug patterns. The public would come in and name 8 out of 10 patterns. Their name would go into a hat for a free rug. There would be a big gala at Pace Stone and the paintings would be auctioned off to fund the project and the rug would be given away.

Council Member Ellis suggested they could maybe name the gala after Pace's daughter Alicia who recently passed away.

Public Art Project #3

- City Hall Lawn
 - Adding several public art pieces over an extended period of time along with walking paths, kiosks, and additional parking for easy access.
 - The end result would be a public gathering place along with becoming a field trip destination.

Council Member Burnette asked if there was any feedback from the Stihl Chainsaw competition.

Ms. Adams replied that they have not made any decision but it was any day, they have not made a decision and we are actually still in the running for that.

Ms. Adams concluded her presentation and turned the program over to Ms. Kelly Stultz for a presentation on signage, beautification projects, and other issues.

Community Appearance and Code Enforcement Issues

Ms. Stultz began with the entrance signs.

Entrance Signs

- Numerous signs at all entrances into the City creates sign clutter
- Many signs inconsistent, obsolete, redundant and in poor repair

Highway 14 North Highway 14 South Oakland Avenue

West Washington Street Highway 700 East Highway 770 East

Illegal and Obsolete Signs

Sign Recommendations

- Welcome to Eden Signs Remove existing pole signs (not necessary with new stone welcome signs)
- Consistent signs at all entrances (traffic signs, welcome signs, directional signs, AAC, etc.)
- Sports Recognition Signs Remove existing road signs; utilize "Wall of Champions" at Freedom Park or erect championship sign at high school
 - Clean & Green Signs Replace with new Keep Eden Beautiful logo signs
 - No Littering Signs Do not seem to be working; remove?
 - Adopt-a-Street Signs Remove inactive signs; replace old signs with new logo signs
 - Tree City USA Signs Combine with Keep Eden Beautiful signs

Cook Block Streetscape

- Met with NCDOT on 2-11-13
- Advertisement for bids on April 1, 2013
- Award contract May 2013
- Begin construction June 2013
- NCDOT is funding the entire project

Code Enforcement

Ms. Stultz presented an example of a code enforcement issue with a photo of 838 Holland Street.

- Planning & Inspections Department handles all types of code enforcement issues
- Try to respond in a timely manner and to be as cost effective as possible
- Many complaints are resolved with just a notice; others require action by the department
- Larger cases may require Council authorization before action can be taken (i.e., demolition, large cleanup)
- The ability to enforce existing ordinances depends largely on available funding and manpower
- The CAT Team has been very beneficial in dealing with code enforcement issues as well as with litter abatement
- More community focus on all types of appearance issues

- We recommend increased funding for the CAT Team and for contracted services where necessary
- Must be willing to follow through on cases that require Council approval
- Must weigh the cost of enforcement versus the benefit or detriment to the neighborhood and the community

Downtown Appearance Issues

- Unsightly/Dilapidated Storefronts
 - Some buildings have code violations and some are just unattractive
 - Must have an actual code violation before an enforcement action can be taken
 - Enforcement actions in downtown areas are often complicated (as in common wall buildings) and can be very expensive to enforce and/or abate

Façade Grants and Historic Renovations

Ms. Stultz presented a couple of photos of new business owners fixing buildings.

Downtown Appearance Issues

Ms. Stultz presented a photograph of 622 Washington Street with an estimate to demolish \$34,900. She also presented photographs of other unsightly or dilapidated storefronts with estimates to demolish at 216 The Boulevard - \$73,000 and 233 The Boulevard - \$69,000.

- Recommendations
 - Enforce existing ordinances; no new ordinances needed
 - Be willing to follow through with enforcement actions
 - Create a fund with money added each year for larger, more expensive actions
 - Realize that all expenditures for these actions may not be recouped. Must weigh the cost of enforcement vs. the benefit to the neighborhood.

Mayor Pro Tem Tuggle pointed out that you get into situations where people like this, you cannot get them to tear it down or either they do not have the money and it becomes a safety and health issue. He asked what the liability was for all of that even though it was private property.

Ms. Stultz replied that they did not have any actual liability with this building to which Mayor Pro Tem Tuggle stated that there were some safety issues like if somebody gets killed or something, somebody has to have some responsibility for it.

Ms. Gilley commented that the majority of that would be on the owner because the city did not own it.

Ms. Stultz added that they have had conversations with the Department of Insurance because they were at risk if they brought it to the Council that this kind of thing exists and they ignored it.

Ms. Gilley agreed and clarified that while she said that for liability, the city was not the owner, there was possibly some liability where they knew it but did not act.

Mayor Pro Tem Tuggle suggested that they need some type of fund to put aside periodically to take out some of these eyesores.

Ms. Stultz explained that their Chief Inspector believes that of all the ones that they have at the moment, these were the most critical. She added that in the last few weeks she had been reported to the Department of Insurance by a property owner on The Boulevard. He was outraged because there were buildings out there that need to come down and she did not disagree with him but the budget was constrained.

She pointed to one of The Boulevard properties and noted that the roof was out of it and when it rains the water runs out into the street. There were some serious issues with some of these buildings. Referring to the old Balamar Theater in the Draper Village area, she noted that it was beginning to have some issues. It was one of the very first air conditioned theaters on the East Coast. There have been funding possibilities in the past to rehabilitate some of these buildings. The person who owns this building was a very responsible landlord but the longer it sits there unused the worse it is going to get and it was pretty unsightly.

Council Member Hagood asked if she had a slide on the Nantucket.

Ms. Stultz replied no but she could talk about it. The Nantucket Mill was a part of a former Fieldcrest grouping of factories. They have a grant at the moment that would facilitate the purchase, not by the City of Eden however, there was a developer that was highly interested in it, and he was trying to negotiate with the bank. She explained that it was owed a lot more money than the two appraisals they have had funded through the grant say it was worth. She stated that she worked on this all the time and they were trying to get there, then someone else would be responsible but it was sort of a double edged sword. If they use the money they get the building bought and in someone's hands at that point and they use the rest of the grant money to stabilize it that protects the city for that much longer without having to take it down. She added that obviously all of them with a sense of history in this community would love to see those buildings preserved and love to see them used in such a fashion that they were productive in the community again.

Council Member Hagood asked if part of that was cherry picked for salvage.

Ms. Stultz replied that some of the buildings were salvaged and then the parts that were coming down, it was donated to Piedmont Folk Legacies and yes it kind of was. Then, the worst thing was when they did the salvage operation and whatever, a lot of the debris that was in there was put into the Nantucket and things that will have to be disposed can be expensive.

Council Member Turner referred back to the old theater in Draper Village and stated that at some point in time they had some plan for a children's art center, so that was just one of their hopes in development plans for the downtown areas.

Ms. Stultz replied that the gentleman who owns it keeps it stable and told her that if she could find something somewhere, some money to help do it, then he would certainly be amenable to that. It was just a matter of those kinds of funding sources dry up and in the current climate in Raleigh and D.C. she was not very optimistic about grant money at all.

Mr. Dougherty added that the Main Street Solution Grant was going to require the owner to put some cash into this as they were not going to come in and rehabilitate, they may fill the gap, but it could be a couple hundred thousand dollars on his (the owner's) part.

Council Member Turner stated that in downtown Raleigh she saw a lot of buildings that did not look any better than this and she referred to one particular building in Raleigh. She noted that there was a lot of potential there and they have turned it into a place for local bands. It was very low key and it was not very nice from the inside but they have done a lot from the exterior and it really did look good on that street.

Ms. Stultz agreed that was a good possibility.

Other Appearance Issues

• Tractor Trailers Used for Storage

Beautification Projects

- Kings Highway Street Trees
 - Proposal to plant street trees similar to Highway 14
 - Pursuing grant funding from Keep America Beautiful
 - Lowe's/KAB Grants \$5,000 and \$20,000
 - UPS/KAB Grant \$5,000
 - If Council supports this project, the department will request that funds be budgeted in case grant funding cannot be obtained
- Small Planting Areas
 - Past projects include Draper Village traffic island, (NC DOT), Pierce Street roundabout (UPS/KAB grant) and Cook Block traffic island (Lowe's/KAB grant)
 - Plan to pursue grant funding as funds are available

Downtown Areas

Crosswalks-Draper Village

- Contractor is waiting for weather to be more consistently warm to complete the job.
- Coordinating crosswalk work with NCDOT resurfacing of Fieldcrest Road.

Downtown Clock

- Home Savings Bank
- MillerCoors
- Shaw Power Group
- Olde Leaksville Tax District
- Roger Hair

Historic Leaksville-Proposed Sign #1 and Proposed Sign #2

Ms. Stultz also presented photos of bump outs on downtown streets and also aerial views of the downtown areas.

Street Trees

Ms. Stultz also presented photos of trees along NC Highway 14 and noted that there were plans for trees along Kings Highway.

As there was no further discussion or questions Mayor Pro Tem Tuggle asked that they break for lunch.

LUNCH BREAK

Council Members Ellis and Hagood left the meeting during Lunch Break.

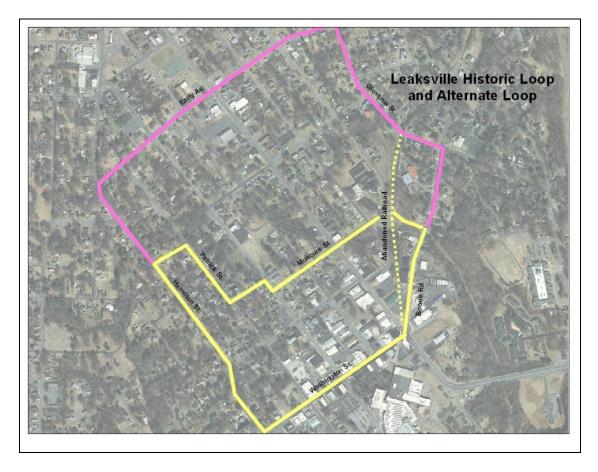
Update & Discussion of Eden Greenway Program & Sidewalks (Kelly Stultz, Director of Planning & Inspections, Johnny Farmer, Director of Parks, Recreation & Facility Maintenance, Darren Gatewood, Superintendent of Streets and Brad Corcoran, City Manager)

Mayor Pro Tem Tuggle called the meeting back to order and asked Ms. Kelly Stultz, Director of Planning & Inspections, to come forward and give her presentation.

Greenways, Trails and Sidewalks

Sidewalks

- Deteriorated Sidewalk Replacement
 - 1,439 feet completed
 - Plan to install Reeves Street then continue with other deteriorated areas
- Reeves Street Leaksville Historic Loop
- Leaksville Historic Loop
 - Crosswalks completed
 - Identification markers to be installed spring 2013



Council Member Burnette mentioned the old rail track and asked if there will be access on any of that.

Ms. Stultz explained that it was hard to be able to access that but they have it sort of planned in there.

Council Member Burnette stated that he knew that it was in part of the original plan.

Ms. Stultz explained that the railroad did not own it anymore, it had been abandoned.

Mr. Farmer commented that the Reidsville Area Foundation funded a trails program that was developed in Rockingham County and one of the things they talked about with Eden was try to make it connect and go through. They have come up with an entire study on the whole county and so he was hoping there will be some additional dollars there that will help support the development of some of these rails.

Greenway/Trails Extension

- Schools to Freedom Park
 - Connect Holmes Middle School, Morehead High School and Central Elementary School to existing nature trail at Freedom Park

- Utilizes existing sidewalks, school property and right-of-way
- 10 ft. wide granite screenings trail
- New section of sidewalk at Panther Lane and Country Club Drive
- New crosswalks at Panther Lane and Country Club Dr.
- Work can begin as soon as spring 2013 (pending approval of schools to use school property)
- Costs will come out of \$80,000 allocated in 2012-13 budget
- Schools to Freedom Park



Ms. Stultz then presented photos of various trails to Freedom Park.

Council Member Turner stated that it was a gorgeous trail and underutilized and under advertised.

Ms. Stultz explained that she had already mentioned it to NCDOT and if they could negotiate with the school system, it would be a lot better and safer to do it along the school property.

Council Member Turner pointed out that with the current safety and security issues there were going to be people literally on the edge of the campus without being checked in and...to which Ms. Stultz stated that they could all walk there now.

Eden Police Chief Reece Pyrtle added that the school system was in the process of revitalizing their whole safety plan and one of the things, they had a greenway that bordered school property

that was going to be utilized by citizens, not just students and they will not be able to regulate the time it was being utilized.

Ms. Stultz replied that at any rate they would like to connect with the school, of course the sidewalk could also be a problem on Stadium Drive to which Council Member Turner noted that they had a fence there. Ms. Stultz stated that one of the things the school needed to realize was that up by the softball field and baseball, there was a public right of way back there and they cannot block it.

Mr. Josh Woodall, Codes Inspector, also noted that nothing was stopping them from going there now whether they put a walkway there or not.

Council Member Turner stated that she was just thinking that somebody was going to end up spending money on fencing, to fence the greenway off from school property.

Ms. Stultz also noted that over the course of greenways across the state there was so little incident of crime that the greenways contributed to, in fact generally if you have more eyes on the street...to which Mayor Pro Tem Tuggle agreed that was his thinking, if you have more people walking there was less chance of somebody to hang around doing something they are not supposed to be doing. Ms. Stultz stated that it was something they need to look at.

• Matrimony Creek – Phase I (North)

- Washington Street to Price Road
- 10 ft. wide granite screenings trail
- Utilizes existing sewer outfall
- Access from Washington St. at Hampton Heights Baptist Church, Price Road at bridge and Norman Drive
- Work can proceed as soon as funds are allocated for 2013-14 budget (summer 2013)

Quantity	Unit	Description	Unit Cost	Total Cost
2	EA	Landscaping and special pavement at trailhead	\$17,500	\$35,000
2	EA	Lighting at trailhead	\$7500	\$15,000
2	EA	Kiosk at trailhead	\$1000	\$2000
5	EA	Benches	\$400	\$2000
5	EA	Trash Receptacle	\$200	\$1000
2	EA	Safety Phone	\$5000	\$10,000
5000	LF	Landscaping and Erosion control	\$6	\$30,000
3	EA	Drainage culvert/ Pipe	\$3500	\$10,500
650	CUYD	Screening Material for trail surface	\$19	\$12,350

February 23, 2013

500	CUYD	#57 Stone	\$14	\$7000
2	EA	Drinking Fountains	\$4000	\$8000
2	EA	Parking lot 62x50 10 spaces each	\$10,000	\$20,000
1	EA	Restroom Facility	\$75,000	\$75,000
		Contingency @ 10%		\$15,645
		Engineering Documents		\$30,000
		Contracted services (Grading, etc.)		\$100,000
		Easement & Legal Fees		\$20,000
				\$393,495.00

• <u>Matrimony Creek – Phase II (South)</u>

Quantity	Unit	Description	Unit Cost	Total Cost
1	EA	Landscaping and special pavement at trailhead	\$17,500	\$17,500
1	EA	Lighting at trailhead	\$7500	\$7500
1	EA	Kiosk at trailhead	\$1000	\$1000
5	EA	Benches	\$400	\$2000
5	EA	Trash Receptacle	\$200	\$1000
1	EA	Safety Phone	\$5000	\$5,000
7500	LF	Landscaping and Erosion control	\$6	\$45,000
3	EA	Drainage culvert/ Pipe	\$3500	\$10,500
800	CUYD	Screening Material for trail surface	\$19	\$15,200
650	CUYD	#57 Stone	\$14	\$9,100
1	EA	Drinking Fountains	\$4000	\$4000
1	EA	Parking lot 62x50 10 spaces each	\$10,000	\$10,000
1	EA	Restroom Facility	\$75,000	\$75,000
980	LF	10' Wide Boardwalk in sensitive areas	@\$25 SQFT	\$245,000
		Contingency @ 10%		\$44,780
		Engineering Documents		\$45,000
		Contracted services (Grading, etc.)		\$150,000

Easement & Legal Fees	\$35,000
	<mark>\$722,580.00</mark>

Council Member Carter referred back to the greenway and asked if there was not a plan to put another emergency phone down there somewhere.

Ms. Stultz replied yes, but it was going to cost in excess of \$10,000 to which Council Member Carter asked if there were not phone lines already run down there. Ms. Stultz explained that was not the point, they have had the structure and the equipment and everything so it will go straight to dispatch, that thing costs \$10,000; however, they could take a look at it.

Council Member Carter explained that somebody had asked about it, in case somebody had a heart attack halfway down the trail. He also asked where they were on doing the work on the river and if that was on the opposite side.

Ms. Stultz replied yes and one of the reasons it was not suggested was because it would be about four million dollars.

Council Member Carter asked if there was a way to re-route it to the other side using some existing stuff.

Ms. Stultz replied that when you get to that, at the time it was a matter of property owners and terrain but they can certainly look at that.

Council Member Burnette commented that one of the things he questioned was if they could do this in a five-year plan and he thought that for mobilization costs it would make more sense to fund it and then when the time comes to try to do it piece meal unless they could find some partners. He suggested another thing they should consider, he had talked with Fletcher Wade who was on the board of DRBA and he was talking about how in Virginia they have partnered with the cities and the counties to build trails. That was another aspect they should look at. They were looking at greenways so maybe in terms of money they should look at trails, which were much less expensive.

Ms. Stultz replied that they were. She did not anticipate that everything they got done would look like the one along the Smith River right now. They did go to Virginia and looked at some of those trails. As far as doing Matrimony Creek or whatever it makes sense that they have enough to do the first phase and then start it and then enough to do the second phase and then start that. She added that her understanding was there was a lot of work that city staff can do but there will still be grading and things that will have to be hired out. She thought they would see some great improvement for the things they have budgeted and they would also try to find grant money wherever it is available.

Council Member Burnette asked that if they were able to complete another section, did she think the utilization would be as great as two separate pieces rather than connecting pieces.

Ms. Stultz replied that she thought that they would give some opportunity. They were a great economic development tool and one of the things that companies expect.

Council Member Epps questioned if there were plans for any sidewalks along the way where the old city hall was located, past the rescue squad to which Ms. Stultz replied that they have plans and have submitted an encroachment agreement to have the sidewalks from the bridge to the current greenway and as part of that big loop, seven mile loop. Of course they can always look into getting costs on any sidewalks Council wants to see there but the truth about doing that was if they started there and get up to Highway 14 and Stadium, then you really would not accomplish much if you did not cross the road and come on down. They could do it in phases and spend a lot of money. Council Member Epps stated that he was thinking from Kennedy where they could go to the YMCA, something like that.

Ms. Stultz agreed and they could then catch back up to the sidewalk.

Council Member Turner asked if there was any more bike trail money out there to which Ms. Stultz replied that she was on the mailing list and they try and because they were in a Tier 1 County if they can have their hand out, they stick it out. She added that there were some things that require a match and they come to the Council. Council Member Turner asked if there were any plans for some kind of pedestrian crossing at 14 and Kings Highway. She knew that was all NCDOT but they have got to have a way to cross over.

Ms. Stultz agreed and they did not have a plan but she had asked several years in a row for them to take a look at a crossing there. She explained that would also mean that they would have to do some serious work to connect the sidewalk, there was a ravine there and beyond all of that they have way too many driveway cuts on 14 between the intersection of McDonalds and the river and it creates a horribly unsafe situation and she asked for that every year. She explained that what should happen was, and everybody hates them, but a service road through there to stop all the driveway cuts. For many years driveway cuts came through and they got signed. She thought there was a lot more of attention being paid to what kind of issues that involved. They have a business that wants to go on an outparcel over at the mall. Where they want to go was way close to entrances so they have been having lots of discussions with the developer, Mr. Dougherty, and NCDOT about how to do that without creating a safety hazard.

Council Member Carter asked who took care of existing sidewalks to which Ms. Stultz referred to Mr. Darren Gatewood.

Mr. Gatewood replied that they have done a little over 1,400 feet and were still in the process of doing more along with other projects they tie into that.

Mr. Dougherty commented that he was curious about that phone (at the greenway). He pointed out that so many people have cell phones and they do not even have phone banks anymore.

Council Member Carter asked Chief Pyrtle if he was aware of anyone using that phone at the greenway to which Chief Pyrtle replied that he was not aware of it.

Mr. Dougherty pointed out that if no one uses it the thought of adding another one may be obsolete

Before closing Ms. Stultz added that Mr. Gatewood and his crew also use as a guide the pedestrian plan, they mark off what they have fixed, marked off what has gotten worse, and that has been going on for years. She added that it has also helped as far as their transportation plan so they know where they have sidewalks and where they don't.

Brainstorming/Idea Generation/Open Discussion - Free Time For Mayor & Members Of City Council To Select Additional Topics For Discussion From The Priority Topics Previously Submitted By Either The Mayor Or Members Of Council.

Mayor Pro Tem Tuggle commented that at this point in time they were open for discussion. He then referred to a letter he had received from the Eden Preservation Society president noting that their maintenance cost was approximately \$3,620.00 per year for electricity, trash pickup, and insurance. They were asking for assistance by the city to help pay for the maintenance of the Morehead Park. He asked the Council for their opinion.

Council Member Turner asked if that was privately owned to which Ms. Stultz replied that that particular property was where a mill stood and it was one of those things that Council Members never wanted to take ownership of, so the Preservation Society which was not a city commission assumed ownership.

Mayor Pro Tem Tuggle noted that the letter said that under the leadership of the late Bud Stickels, the EPS took a risk and purchased the eyesore which was once the location of the area's first textile mill the Governor Morehead Cotton and Woolen Mill. Their budget was very meager and the industrial wasteland was a real challenge with trash and debris and weeds overtaking it however they took on the project with the assistance of prison labor and cleared the site and landscaped it to a better condition. The project was costly to the members of the EPS but with time and labor today the Morehead Park has a stage and landscaping and gives the visitors access to the waterfall and canal built by James Barnett in the early 1800s. The park is visited daily and used for photography with the stone foundation walls as a backdrop, with picnics and leisure walks. The maintenance of the park has become a major expense. They were respectfully asking for the city's help with the maintenance cost so they may keep this park open for the enjoyment of Eden's citizens. With the city's help they would be able to concentrate on other projects which will equally serve the city's tourism business and growth process in the future. The letter was signed by David S. Clay, II, president.

Council Member Epps stated that Ms. Aiken had phoned him about a week ago and sent a similar letter. She said they simply just did not have the income to maintain that park and she said she would be happy to get anything.

Mayor Pro Tem Tuggle stated that if they looked through the budget they have done these things in the past. He asked the City Manager how many different things they contribute to which Mr. Corcoran replied, several.

Council Member Burnette pointed out that they already make some support to the museum.

Ms. Stultz commented that the museum has its own board and was an offshoot of the Eden Preservation Society.

Mayor Pro Tem Tuggle stated that it would be a mess down there if somebody did not half way take care of it to which Council Member Epps agreed.

Council Member Turner questioned if it was something they need to consider purchasing because at some point in time, if you purchase it, it comes under your mowing and whoever takes care of that, it puts sort of a sword into your budget because it stretches everything very thin.

Ms. Stultz stated that the trick was going to be in negotiating with them. She stated that she was certain they would like for them to take on the mowing and trash and those kinds of things but the line would be drawn in her opinion, who had control over what happens and were they (the city) at their beck and call and there would have to be some legal stuff done.

Ms. Adams added that one thing about buying that property was they have real issues with that wall. She explained that a lot of water was seeping through that rock and it was deteriorating and people sit in the windows and she knew they had researched the price of capping that and it was quite expensive.

Mr. Dougherty also added that they should consider the people who would be doing that work because that was a tough site to mow.

Mayor Pro Tem Tuggle pointed out that they were asking for the maintenance cost, they were not asking for maintenance. He suggested \$1,000 or so to help with costs.

Mr. Farmer added that they have called him every year to see if the city would help cut it.

Mayor Pro Tem Tuggle suggested that they not get into the maintenance but take a look at if they could help them out somewhat. They certainly do help as far as the community and they do something that was worthwhile.

Council Member Burnette commented that he thought that was appropriate but he just did not want it to continue to grow. He stated that each time they do one more, one more comes along. He stated that he thought some of the discussion that had been held before, they look at it probably in terms of how much it contributes back to the community and was it worth \$1,000 to keep that area clean.

Mayor Pro Tem Tuggle stated that it was a beautiful area and there were some historical things associated with their heritage and personally he thought \$1,000 was not such a bad deal to which Council Member Epps added that they have a lot of tourists that come here during the week of the Charlie Poole Festival.

Council Member Turner pointed out that the Civil War marker was there also.

It was the consensus of Council to recommend that the City Manager take a look at it and see if the city could budget \$1,000 to the Eden Preservation Society. After the City Manager has presented the budget they would let them know one way or the other.

Mayor Pro Tem Tuggle asked if there was anything else the Council would like to discuss.

Council Member Burnette stated that he was not sure where they left access and he asked if it would make more sense to go down Stadium Drive to which Ms. Stultz replied that it would just cost more and Council Member Burnette replied that he understood.

Council Member Turner stated that would be another connection to parts of Eden with the sidewalk to which Ms. Stultz explained that was correct and when you build sidewalks in NCDOT right of way you have to have enough space as they want to do so many feet of green space and then build it and she could not say they have enough room there.

Mayor Pro Tem Tuggle asked if regarding the city lawn development, was there any idea at this point. He stated that it would be absolutely gorgeous to have that out front and tie that in with the greenway. He asked if that was something they were going to pursue.

Ms. Adams replied that they were.

Council Member Turner stated that had really struck with them as it would be such a great piece with a great impact. Add a little Wi-Fi out there and they would be ready to roll.

Mr. Kevin Taylor, IT Manager, stated that he could actually address that as he had anticipated the question. He stated that he had maybe 5 slides to show them.

PUBLIC WI-FI FEASIBILITY

CHANGES IN TECHNOLOGY

- New Manufacturers
- New Connectivity Methods
 New Locations with City Purchased Internet

Manufacturers

Ubiquiti Networks

High Speed Point to Point Radio Communications Low Cost (Sub \$200) Equipment

Meraki

Robust Multi-Network Outdoor Wi-Fi Access Points Low Cost (Sub \$200) Equipment

CONNECTIVITY

5gHz, 2.4gHz, 900mHz Radio options for connecting AP's to Internet

Offers 5 miles line of sight, 2 miles near line of sight (some trees), and ½ mile non line of sight (heavy trees) options.

CITY PURCHASED INTERNET

- Fire Stations 100, 200, and 300 all now have internet access
- Stations strategically located for downtown Wi-Fi buildouts
- Speed Increases would be required; however, ongoing cost for increases would only be \$2,880 per year.

COSTS

- \$2,880 additionally per year to increase Internet speeds at FS 100, 200, and 300
- Approximately \$7,500 in equipment
- Approximately 50 man hours for city crews to mount access points
 Approximately 40 man hours for the IT Department to configure and deploy the network connections.

Mr. Taylor explained that the other option was if their downtown businesses really want this to happen, they could give the city space on their roof.

Council Member Turner asked if there was a monthly charge because they were paying the provider.

Mr. Taylor replied that the \$2,880 was yearly for the increase to the city. They were piggybacking off the internet that they already have and were providing to the fire stations.

Council Member Burnette commented that he did not know what Duke (Energy) was doing now but at one time they were charging for that access on their pole rentals.

Mr. Taylor replied that might increase costs there but he was not sure to which Council Member Epps asked about the water towers. Mr. Taylor explained that they could put a radio on the towers but they were not going to get enough coverage around that tower to cover the whole downtown area but it would make the neighborhood around the tower very happy.

He also noted that in the City of Newton if the signal was adequate inside the business and the business wanted to use that free WI-FI to run their business, then the city was fine with that. So that would be another benefit. Also if they want to bring that internet inside, some businesses in Newton were hosting an access point inside the building. The problem they have run into though is that double pane windows are very hard to get signal to those.

Council Member Turner asked about the scenario out there (regarding the art park on City Hall lawn mentioned earlier).

Mr. Taylor replied that was easy because they have a tower on the building that already has cable running up to it.

Mr. Dougherty added that with Main Street, people want to gather and they were going to want internet access and that was almost a given if you put a park here or downtown and this process of going and getting something approved from Duke Energy for poles, it takes forever. He explained that it took a year to get approval to put attachments for the flags but he could guarantee them that most of the property owners will let them put it on the building and that works just as well.

Mr. Taylor explained that the way those access points work, it was fed off of the ubiquiti radio here, you pair a ubiquiti radio with one of the access points so really all you need at these locations is power. You do not have to run any internet cable or anything like that. It sets the network up just by the radio signal.

Council Member Turner noted that they would have more WI-FI access in the community and that was a huge need.

Mr. Taylor added that they could go a step further than that because these radios support two separate networks. There was a public network and a secured city network that employees, patrol cars, and police officers tag off of.

In response to a question as to how that was secured Mr. Taylor explained that it depends upon how they set up the network. Each one of these locations has a VPN tunnel and they could feed their internet access to here and out through their content filter to filter it or they could place small content filters at each one of those locations. Content filters meaning that they do category filters blocking pornography sites, gambling sites, hate speech that kind of thing. That would increase the cost but not a lot. If they do the access points at those locations, Meraki makes a security device that has the content filtering and you are looking at about \$500 for the equipment and that would increase yearly cost because of the advanced security so they would be looking at about an additional \$1,000 for a 3-year license per site. He added that it would probably take 40 man hours to get the network together and get it in place.

Council Member Carter asked if there was any way to do some testing on that to see if it works.

Mr. Taylor replied absolutely, the devices were relatively inexpensive compared to what they had been looking at.

Mayor Pro Tem Tuggle suggested that he just put something together and make a presentation for Council to vote on.

OTHER DISCUSSION

Mayor Pro Tem Tuggle asked if there were any other questions or concerns.

Council Member Epps asked about the swimming pools.

Mr. Farmer replied that they were in compliance with Federal regulations and would be open again for the coming year. He could not tell them how long it will be open because the more mandates they require at some point in time it will probably be cost prohibitive.

Ms. Tammy Amos, Engineering Projects Manager, commented that she wanted to give a quick update on street resurfacing. First she thanked the Council for the additional money that they put in the General Fund for this year as it made a tremendous difference. She explained that with the contract that she had coming out in April with the additional 18 streets that they have been paving they will have everything probably by May that was paved prior to 1997 resurfaced. They have had street sections over 25-28 years old so that means that they will not have anything older than 16 years. That will be 60 street sections left that were resurfaced in 1997 and she was going to address those in the next budget year and they would be able to get some of them but not all of them but the additional money made a big difference.

Mayor Pro Tem Tuggle stated that he assumed the price of asphalt has dropped down.

Ms. Amos replied no, it was still going up but the one thing that they all need to keep in mind for budgeting and she had already talked with the City Manager; she was going to be requesting additional funding again this year. They have to do 94,000 square yards of roadway each year to stay on this schedule. Fifteen years was long enough for a street to lay if you keep it longer than that then you have additional cost for maintenance. To do 94,000 square yards it will take right at \$850,000 for each year to do that. Their current Powell Bill is \$480,000 so it means that they still need about \$300,000 to \$350,000 each year just to do the minimum that is needed to be done. The Powell Bill fund will do right at 58,000 square yards.

Council Member Turner questioned the warranty as she knew that in her neighborhood it had not been paved very long and there were an awful lot of cracks already.

Ms. Amos agreed and stated that she had addressed that last year in her budget summary. She thought a lot of that was coming from where they had to do so much maintenance work with the crack sealing which was actually contributing to it. Last year she spent the extra money and everything that had crack sealing on it she had them to BST (Bituminous Surface Treatment) it before it was overlaid. They look great but they have to spend extra money to do that. The other thing that contributes to that was that in the past they have always put down one inch and now with the asphalt, it has less rock in it and it was not as strong and it cracks so the streets that she did not BST last year she put an inch and a quarter down.

As the meeting was closing Council Member Turner commented that she wanted to thank the staff because they do a great job each year and Mayor Pro Tem Tuggle agreed. He thanked each of them for everything they do.

As there were no other comments or questions Mayor Pro Tem Tuggle asked for a motion to adjourn.

ADJOURNMENT:

A motion was made by Council Member Epps seconded by Council Member Tuggle to adjourn. All Council Members present voted in favor of this motion. This motion carried.

Respectfully submitted,
Sheralene S. Thompson City Clerk