CITY OF EDEN, N. C.

A special meeting of the City Council, City of Eden, was held on Wednesday, February 11, 2004 at 7:00 p.m. in the Council Chambers, 308 East Stadium Drive. Those present for the meeting were as follows:

Mayor: Philip K. Price

Mayor Pro Tem: Christine H. Myott Council Members: Donna Turner

Billy Vestal
Bruce Nooe

Jerry Epps C. H. Gover, Sr. Wayne Tuggle, Sr.

City Manager: Brad Corcoran
City Clerk: Kim J. Scott

Deputy City Clerk: Sheralene Thompson

Representatives from staff:

Representatives from W.K. Dickson:

MEETING CONVENED:

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

Mayor Price explained that the purpose of this meeting was for a presentation by W.K. Dickson, Inc., of their study of the city's Comprehensive Water and Wastewater Master Plan.

Mayor Price then turned the meeting over to Mr. David Pond, who proceeded to introduce Mr. Mark Fisher and Mr. Vance Brooks also of W.K. Dickson, Inc.

Mr. Pond explained that this was the first step in going through the whole process. He pointed out that W.K. Dickson did the master sewer and water study, but it was the city's study. The Council was responsible to the taxpayers of the city and it was their decision as to what to implement and not implement. He pointed out that what he wanted to do was to talk through what they did in the study, the different areas and the scope of work, and to really briefly touch on it for those who were new, hit on a summary of existing facilities. He pointed out that they had a project list, they could decide which ones to do, and which not to do, and there would be a process of picking projects. He also wanted to use examples of other cities with identical situations.

A Power Point presentation was then presented.

Comprehensive Water and Wastewater Master Plan

Scope of Work

• Community Development

Mr. Pond explained that all of that basically involved looking at population, flow demands, growth and projecting where they were going to be in the year 2020.

• Water Master Plan

This was analyzing the existing facilities, looking at the new facilities that would be needed to project outward to that 2020 year.

• Wastewater Master Plan

He stated that this plan was identical to the Water Master Plan.

• 20-Year CIP

This was a list of projects, the shopping list of projects that will be there in the next 20 years that should be looked at.

• Financial Plan

The Financial Plan was a lay-out of some sort of financing options and identifying those different sources, recognizing what was said today, a year from now, or two years from now can change.

City of Eden, N.C.

Minutes of the special February 11, 2004, meeting of the City Council, City of Eden, continued:

Water System-Existing Facilities

Current Demands:

• 11 MGD (avg.)

Mr. Pond explained that today, their current demand was around 11 million gallons a day, average.

• 16.5 MGD (max. day)

Max day was 16.5 million gallons a day, and the reason that was key, you design water plants for the max day.

Treatment Capacity:

• Robert A. Harris WTP – 21 MGD

He pointed out that their peak flow today was right at about 20-21 million gallons a day.

Storage:

- Clearwell 2-4 MG
- Elevated

Byrd	0.975 MG
Caleb	0.50 MG
Dunn	0.50 MG
Grove	0.50 MG
Hamilton	0.15 MG
Karastan	0.25 MG
Total Elevated 1.575 MG	

Mr. Pond noted that they were pretty fortunate, most cities their size were probably not as fortunate from a storage perspective.

He explained that they have almost 1.6 million gallons elevated (storage) and two clearwells with emergency standby power so thereby they could deliver water into the system. He explained that with their eight and two, they have close to 10 million gallons a day, on their demand they have more than a half days supply. He added that he thought they, as well as the staff would like to see more elevated storage, but he thought they were pretty well off and he thought they could deliver it pretty well from the storage side.

Pumping/Transmission/Distribution:

• 2 Booster Pumping Stations (Dunn Street & Grand Oaks)

Transmission: Distribution:

7,950' - 30"
160 miles
11,560' - 24"
1" - 16"

Mr. Pond explained that they had two major transmission lines and about 18,000 to 19,000 feet of 24 and 30 inch line and about 160 miles of water main in their system.

3 Pressure Zones

• Main: 795-800 HGL (Elev. <u>< 665 MSL</u>)

• Dunn: 840 HGL (Elev. > 665 MSL)

• Grand Oaks: 835-840 HGL (Elev. > 665 MSL)

He stated that they have three major pressures zones. He explained that they were basically zones set up at different pressures. He explained that for every foot, 2.13 were equal to one pound of pressure. If they take the difference of the elevation 665 and the feet upward to 800, and multiply that by .433 or divide by 2.31 same thing, that would give them their pressure, so they were operating that main pressure zone somewhere around 60 psi, at 665, anything lower than that was a higher pressure. The majority of the entire city was on that and there were two other smaller pressure zones that serve the higher elevations.

The next item Mr. Pond described was a map that showed where their two pressure zones were located, where their tanks were and where their water plant was.

Wastewater System

Current Flow:

- 7 MGD (avg.)
- 18 MGD (peak)

Mr. Pond explained that current flow on an average basis was 7 million gallons. Peak flow was 18 million gallons and that happens when it rains mainly.

Treatment Capacity:

- Mebane Bridge 13.5 MGD
- Dry Creek 0.5 MGD

He stated that the Mebane Bridge Plant was 13.5 million gallons and the Dry Creek was a half million gallons, and he knew that it was in the works for that to come off line.

Collection System:

• 158 miles of 6" – 36"

Pumping Stations:

- 18 (0.03 MGD 5.5 MGD)
- Force Main 17 miles

Mr. Pond pointed out that they have 158 miles of 6" to 36" gravity sewers, 18 pump stations and they have 17 miles of force mains. He noted that was the pressurized lines out of the pump stations.

He then presented a map that had all the locations of the pump stations and how they were spread out.

Community Development:

- Population Projections
- Review of Historical Water/Wastewater Uses
- Projection of Water Demands/Wastewater Flow
- Assessment of City's Service Area

Emphasis on ETJ

Potential Annexation Areas

- Prioritization of Future Demands
- Compilation of Data (GIS database)

Mr. Pond explained that they went through the scope and each phase of the work. Basically, there were a lot of different ways to approach flow projections. They looked at the city's and the county's population growth, historically. He noted that the biggest thing that affected them in

looking at the historical water growth was that if they lost one major industry and water demand shoots way down, it really skews your curves that you are trying to develop. He explained that they plotted two curves, one was in 1989 when they had a major loss of industry and they plotted it with that in play and not in play. They then started looking with staff and concentrated within the ETJ that was kind of the surface area they honed in on. Then they looked within the city limits and outside the city limits, what were potential annexation areas and they dealt with staff to identify those growth areas looking at trying to meet those demands and those needs through that 2020 planning period.

He stated that they then went through and prioritized where those demands were and where the growth was and trying to determine from a growth perspective. A lot of that was from staff saying they felt that this was going to occur first. He added that lastly, they were able to take a lot of the city's data and put it into a GIS layer which was great.

Future Water Demands:

Year	Average Daily	Maximum Daily	
	Demand (MGD)	Demand (MGD)	
2010	11.8	17.7	
2015	12.6	18.9	
2020	13.5	20.3	

Mr. Pond explained that basically there was a lot of information in there that really hones down to their best guess and in talking with staff. One of the issues with them on the water side was that 70% of their water demands was industrial related. Major water users were somewhere in that 70-75%. He explained that when trying to project out on 20 years what industry was going to come and what industry was not going to come that was really all they were doing. He explained that it was educated guessing with staff so they would have to make some assumptions.

He used as an example a client he had several years ago. Their waste treatment plant was way too large and they sat in with City Council and worked out projections and ended up downsizing the waste treatment plant. They went and got grants funds and it took three years to get everything in place. Suddenly the county recruited industry and the new Council came in and asked why they downsized. He explained that in the city's case, projecting water demands out 15-20 years was very tough and residential was much easier to do.

He noted that in looking at 2010 to 2015 on water, they see the average day demands go from 11.8 to 13.5. He also noted that they design water plants on a max day and when they get to the project's end, they have a water plant, a study or planning phase not starting until 2009 or 2010, based on projections they have out there. He noted that they were pretty good on their plant side from a capacity standpoint on the water side.

Future Wastewater Flow:

Year	Average Daily	Maximum Daily
	Flow (MGD)	Flow (MGD)
2010	8.7	21.8
2015	9.3	23.3
2020	9.9	24.8

He explained that the average daily flow was 8.7 to 9.9. He noted that when they start talking about wastewater plants what they have to design for is biological treatment at that average daily number. When they start talking about handling the peak flows they have to be able to send wastewater through the plant at those peak conditions and not wastewater that does not meet the limits that they have. He noted that the State used to only look at that middle column, but in the last 10 years they were starting to look at the right hand side (maximum daily flow). He noted that they would begin talking about ways they could push that out even further.

Water Master Plan:

- Assessment of Current Water System
- Projection of Future Water Needs
- Update/Calibration of City's Hydraulic Model
- WTP Capacity
- Summary of Findings
- Recommendation (CIP)

Mr. Pond stated that if they developed a community development, came up with flow projections, come up with 2010, 2015, 2020, have all those flows, and they prioritize improvements for that, now the question was, after they have the flows, what do they do with them. The first thing they did on the water system was to assess the condition of their current system. They reviewed maps, plans and talked with staff. They looked at reports, previous studies, and tried to review every study the city had previously and not reinvent the wheel. They then took those assessments along with the future projection of water demands and they started looking at capital improvements to meet those future needs. He noted that they had an existing hydraulic model but it was not calibrated. He explained that when he said calibrated on a hydraulic model what he was talking about is a computerized model of the water system where everything was in a computer and they could simulate that situation in the field. He used as an example, a fire at a fire hydrant and we turn on that fire hydrant and we read pressures. They should be able to go into the computer and put that same demand on that fire hydrant and simulate that in the computer. He pointed out that they took their existing model which they already had most of it there, added to it and went out and calibrated it so that now that was in place.

He added that they looked at their plant capacity, summarized the findings and came up with recommendations that went into that CIP phase that they would talk about at the end.

Wasterwater Master Plan:

- Assessment of Current Wastewater System
- Projection of Future Wastewater Needs
- Desktop Hydraulic Analysis
- I/I Assessment
- Inventory/Evaluation 18 WWPS's
- WWTP Capacity
- Summary of Findings
- Recommendations (CIP)

Mr. Pond explained that this was a similar process. He noted a couple of differences; they did a desktop hydraulic analysis and did not get into a full blown computerized wastewater analysis because of the limited funding. They did some I&I assessment of their systems. Since then they have done some other things. He noted that I&I was one of their big issues and they did some assessments looking at which basins were worse than others.

They went into each pump station and evaluated each one. That was important because he knew that the State had been on them about addressing some of their overflows. They looked at the condition of everything from electrical code compliance, capacity, and they did draw down tests.

They also looked at plant capacity and went through their wastewater plant and evaluated that, summarized the findings and once again made the recommendations that went into the CIP.

Capital Improvement Plan (CIP):

- Project Descriptions
- Budgetary Project Cost
- Prioritization
- 2020 Results \$92 million improvements
- Phasing: Current 2008 and 2008-2020

Mr. Pond stated at that point they took the improvements out of the two plans and created a shopping list. It was a capital improvements program of which was their list of what they saw was needed, projects now through 2020. He asked if all of them would be needed, no. Would all of them be done on the timeline that they have, no. Could they afford to do them all, no. He explained that what they did, they basically identified all those projects with descriptions, put budgetary costs on those at today's dollars and prioritized those with staff. The priorities of the projects, their priorities with staff, in reality was as they get there, they did need to sit down and do a series of working sessions and go through it and let Council participate. Ultimately they were the ones who have to vote as to how the city was going to pay for it, it was their capital improvements project, so that was why they needed to be involved in that final process of what was ultimately done.

He noted that through 2020, the shopping list that came out of the capital projects that were identified from both water and wastewater combined was based on \$92 million worth of improvements. He noted that it was broken down into two phases, from now to 2008 and from 2008 to 2020. He explained that the reason they did that, in talking with the City Manager, they have an existing bond that would be retired in 2008. They wanted to coincide with that. He added that they did not have to do that but that was the method that was chosen.

2004-2008 Water & Wastewater CIP

1.	Meadow Greens PS Upgrade	552,000
2.	WWTP Solids Management	2,475,000
3.	High Service Pumping Upgrade	1,072,000
4.	Railroad PS Replacement	2,200,000
5.	Telemetry Improvements	180,000
6.	New Raw Water Intake Facility	5,000,000
7.	Covenant Branch PS Upgrade	691,000*
8.	Dan River PS Upgrade	490,000*
9.	Kuder Street PS Upgrade	415,000*
10.	Junction Street PS Upgrade	341,000
11.	Bridge Street PS Upgrade	231,000
12.	Fourth Street PS Upgrade	89,000
13.	Dogwood PS Upgrade	67,000
14.	Sanitary Sewer Evaluation Study	212,000
15.	System-wide Cleaning/Inspection Program	2,830,000
16.	VCP Renewal	5,397,000
17.	RCP Replacement	1,062,000
18.	Distribution System Maintenance Program	717,000
19.	Interceptor Capacity Improvements	356,000
20.	Small Diameter (2") Water Main Replacements	3,444,000
21.	Replace 6" SS Collectors	355,000
22.	Old Water System Pipe Replacements	883,000
23.	Byrd Street Tank Demolition	55,000
24.	Water Master Plan Update	69,000
25.	Wastewater Master Plan Update	93,000
26.	WWTP Expansion Planning (PER/EA)	100,000
	Total	29,376,000
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^{*}Estimates have been updated since study, based on conceptual design.

Mr. Pond then presented the list of projects in the priority order they saw in working with staff. He noted they were both water and wastewater projects. He stated that they asked what did they see between now and 2008 that if they had the money to do it, what would they need to do. He added that those needs for 2008 when all said and done, might not stay in 2008, but push on beyond 2008. They were their highest priority projects.

He stated that they came up with \$29 million dollars worth of improvements. He pointed out that they would see a combination of several things in this list. They would see a combination of capital projects and then there was a combination that they felt was ongoing maintenance projects. He noted that one of their sources of I&I was the VCP, vitrified pipe replacement. He stated that on that, they asked if they were to do that in eight years, how much would be

budgeted should they try to accomplish between now and 2008. The intent was that they did so much a year. They could do more or less, but that was more of a maintenance type item. A lot of times by doing some of those projects and maybe doing smaller chunks on an ongoing basis that might push some of those capital projects back.

He noted that the last item of 2008 was based on the flow, based on the projects being implemented and they felt that with the timeline it takes to do planning, engineering, permitting, and land acquisition involved, that right around 2008 they would need to start their plant expansion, because that was about a 5 to 7 year process once started.

2008-2020 Water & Wastewater CIP

1. Distribution System Maintenance Program		1,500,000
2. WW System-wide Cleaning & Inspection Program		3,396,000
3. Replacement of 6" SS Collectors		355,000
4. Interceptor Capacity Improvements		438,000
5. RCP Pipe Replacement		2,465,000
6. VCP Pipe Renewal		20,314,000
7. Wastewater Master Plan Update		80,000
8. WWTP Land Acquisition & Engineering		3,175,000
9. WWTP (5 MGD) Construction		25,000,000
10. Small Diameter (2") Water Main Replacement		3,321,000
11. Water System Looping		938,000
12. Old Water System Pipe Replacement		1,614,000
13. Water Master Plan Update		80,000
14. WTP Expansion Planning (PER/EA)		70,000
	Total	62,746,000

Mr. Pond continued with the capital improvements project list for 2008 to 2020. He noted the big ticket items, and used as an example the vitrified clay removal. He stated that they recommend doing the worst sections. They might not do it all, but that was if they went into the program and were aggressive in lining, point repairs, and addressing infiltration inflow, which was rainwater getting into the system.

The other big ticket item was the waste treatment plant. If they could do some of the infiltration inflow, they might push that on back even further, but based on what they see today, it was probably going to come sooner than later and as a minimum they recommend starting that permitting process due to the timeframe and also from a funding perspective. He added that if they were going to get any type of federal grant or loans, that probably added another year or two in that process.

He noted that one of the things they would see was where they say "planning", which was basically updating those studies. He explained that one of the reasons they do that was that when the study was complete, he did not think that they would want to take this study and put it on a shelf. He suggested they make some worth of the report they have. Secondly he stated that they should best recognize about the best any of them could look out was about five years. They could make projections but that was the best they could do because things change very rapidly. He noted that if they bring in or lose one large industry that changed a lot of the variables. He recommended that about every five years they need to ask if it was time to update their plan or was it still good. He explained that they had plugged in some milestones along the way for those planning updates so he wanted them to understand why the plans were there.

He stated that the other thing was, the study had in some contingency monies, and he did not show this on the priority list, and there were a couple of projects like the vulnerability assessment already under contract.

Financial Planning

- Note Current Bond paid off 2008
- Utilize Grant Programs Where Applicable Rural Center

Clean Water Management Trust Fund Special Federal Appropriations Construction Grants and Loans Future Programs

- Fund Through Normal Budget/CIP Process
- More Aggressive Approach

Local Borrowing Revenue Bonds General Obligation Bonds COPS Design Build Approach

Summary: Needs won't go away but can be managed!

Mr. Pond explained that he wanted to give an example of a city they had worked with that had almost the identical same dollar numbers and issues and the way they had gone through and addressed them. He noted that first of all the current bond they talked about earlier would be retired in 2008. One of the things they would really advocate, they should pursue every grant or low interest loan.

He noted that the ones that were out there today included the Rural Center. They all have gotten Rural Centers and a matter of fact it paid for a good portion of this study, from a planning grant perspective. The problem was that the Rural Center grants were only today. They could get supplementals of \$400,000, so when they start talking this magnitude of dollars, it did help, they did not get money if they did not ask, but it was a small percentage.

He then mentioned the Clean Water Management Trust Fund. That was another fund out there, but it was a little harder to get. He explained that most of the time if they were coming in and were looking for a reuse option or wanted to buy buffers along the river around the intake that would be almost a sure bet project. As an example, he noted that down in Brunswick County they were doing a project there and in that case it was about a \$30 million project. They were able to get four towns coming in and were able to get each town getting \$3 million grants. They got \$26 million dollars worth of grant money for each of those towns.

He stated that they approached the Clean Water Management Trust Fund about funding a reuse system and what they did there was to run a wastewater affluent line up to an industry, put a tank and provided reuse wastewater for power protection for the plant. The Clean Water Management Trust Fund said that was great, innovative, reuse, it was taking water out of the Cape Fear River, they would fund that, with only one provision. The provision, if they would come back and look at doing a complete looped system through the entire industrial park and so the guy who came out and reviewed it said one step further, do the first leg out there and it was Phase I. The next leg was Phase II and the next leg was Phase III. They only ask for a grant for Phase I and for that first leg. Then they could come back later and ask for the grants but there was no guarantee that grant money would be there but they got funded because they looked at the whole loop even though they actually funded a piece of it. That one was a little harder to get but it was there.

The next one was Special Federal Appropriations. He explained that they did not hear of many. They would basically go to their congressman and present the major needs and ask what they could do to help. He noted that there had been a situation three years ago, the town of Rosman, up in the mountains, went to their congressman. They got \$1.8 million grant, one of three entities in the State of North Carolina. He added that in talking with people in construction grants and loans, they say people just did not go and ask for the money, but if they go and ask their congressman, there was appropriations there and they could get those appropriations. He added that his point was that they leave no stones unturned.

Mr. Pond continued with the Construction Grants and Loans. That was the traditional funding program. He explained that currently, the problem was they have a little bit of grant money marked, but a lot of people were going after them. He mentioned the State Grant

program, then they could go through the federal grant program, which was low interest loans, but they could probably get about 2% or 3% money. The problem was, by going through that they have to jump through a well of hoops and a project that was a normal 2 year project could be a 3 or 4 year project. He added if that was the way they would fund them that was okay. He stated that it was a good program to use for low money, but it was cheaper to look at other loan alternatives if they were going to borrow money because the interest rates now were favorable and that was a way to look at it.

For future programs, most of them probably know that several years ago the State of North Carolina passed a billion dollar bond program. Basically there was grant money out there and it was a very successful program. Every city either got a piece or tried to get a piece of that money. It funded a lot of projects.

Mr. Pond noted that the legislature would be bringing up another program but the problem was the program, before even though they committed the funds, they have not spent it so the legislature was sitting back and saying, "well you haven't spent your money so therefore we don't need to appropriate it more." So there was a lot of pressure that the needs were there so there was a lot of talk in legislature of having another bond referendum of that magnitude. He added that he thought the needs were there and he thought that would happen, but as of today, they were not there, but future programs, he thought there was something in the legislature this time, what it was, they did not know.

He stated that another way they could fund it was through their normal budget CIP process. He explained that they would go through and prepare their budget. They have some capital projects; it was what was called pay as you go. There were different ways to do that, they knew the amount, the aggressiveness that they use with that program was depending on rates. They could use whatever they wanted to bite off and chew. Now, if they wanted to take a more aggressive approach, they could borrow money, different mechanisms. Local borrowing through a local bank, but they would be limited in what they could borrow. He added that he was guessing that they have probably checked on that and interest rates and had checked with the LGC.

He continued on with Revenue Bonds and explained that they could float a revenue bond and go out, the amount that they could do, go and meet with the LGC and they would tell them that based on current borrowing capacity they could borrow "X" million dollars. That was how they function; they would walk them through it. He added that he was sure they had all had bonds before so they knew the process.

Mr. Pond moved on to General Obligation Bonds and noted that today revenue bonds were more popular, mainly because interest rates have gotten closer together. He explained that it used to be the General Obligation was significantly cheaper. The other problem with General Obligation was it involved voter approval. With Revenue Bonds they were pledging to pay those back with rates. General Obligation they could go rates or pay it back through normal tax base. Today, he saw very few GO bond referendums because one, most Councils were saying interest rates were so close, why go out to the public with this because in a lot of cases they did not totally understand the need as well as being informed. He added that another problem with GO bonds was with voter turn out. The only ones that turn out were the ones that were against it, but that was not every case.

To explain Certificates of Participation, those were usually high interest rates. Normally he saw those in a situation where a city was basically leveraged to the hilt and that would be their last source of borrowing.

He mentioned that something new that had come on the horizon, but still had not taken hold much in North Carolina was Design Build. He explained that they were seeing a little of that but not much because current State Statutes did not allow for Design Build. There were provisions for it to be done but most cases required special legislation. He noted that they had a client they were working with, the City of Atlantic Beach, and they had some major needs. They went out and got proposals for Design Build about five or six years ago and they were still in the planning process. The problem with that was they were requiring them to provide permits. They did one this past year on a big stormwater process in Hilton Head,

because the permitting was not issued, they did all the permitting before and in South Carolina they could do that kind of stuff. So far, North Carolina, legislatively has not taken hold. He thought they need to keep their ears open and listen, but not jump down that path and put all their eggs in that basket.

Mr. Pond explained that in summary, he wanted to go back and talk about projects and the needs on that list would not go away but they could be managed.

He used as an example the City of Kings Mountain. About ten years ago, they had a system that was very textile and industry dependent, they had a lot of growth from the spillover from Charlotte and for years they had had some bond referendums and they had been using grant monies, but they had depended on their growth and their infrastructure on grant funds. He explained that for different reasons they had not looked and done a whole lot of planning. What happened was, a very visionary City Council came into place and they wanted to get progressive. They did a study and came back and the number was about \$40 million for water and wastewater improvements and that was the list they absolutely had to have done. He noted that they had consent orders, plant capacities at max, overflows in their system, a concrete spillway that was cracked, and lots of other issues. They came back and said okay they have this shopping list and knew they could not afford it. They first went and met with LGC and figured out the max they could borrow, if they had to do it. Then they came back and said that was the max, then struggled with the decision to do it. They asked themselves that if this was the max they had to borrow the most and this was what they could probably feel comfortable justifying going out with rates and then they had two numbers there. Then they took the projects to staff and Council for a series of three or four meetings, they would go through and looked at the projects and decided whether it was a "must do project" or ones that they could probably postpone. An example of that would be their dam expansion. They decided that the State had not told them they had to do it, so they pushed the dam out and spent \$50,000 more monitoring a year. They also did some trade offs and traded back and forth and moved from one list to the other. They were able to come back and get it down to about \$10.8 million and they then went out with a GO bond referendum at that time because that was what they could sell, and likewise they went out and identified some projects that they thought would be high grant potential and they went and pursed some grant money for a couple of them and they were able to do about \$15 or \$16 million worth of work. He pointed out that was the kind of approach he saw in Eden.

Mr. Pond explained that he did not think they would go out and spend \$30 million between now and 2008. He thought they would first have to determine the priority list, the must dos and the ones that were maybe not must dos, and then at that point then ask where the cutoff line was on what they have to get done and what they could afford.

He reminded them that it was their study, their projects and their city. He pointed out that presenting the study was the first step. Their next step was to decide how to implement what was here and doing what was required and the responsible thing for the citizens and spending the money wisely. He then turned the meeting over to the Mayor and Council for questions.

Mayor Price commented that it was an excellent report. He questioned how they would determine the borrowing capacity in Revenue Bonds.

Mr. Pond replied that the way he had always gone through this was the Local Government Commission. He explained that they have ratios that the city has to maintain certain fund balances and they look at what the city's risk of borrowing was and they would tell them that based on their current tax base, based on what the city had indebtedness, based on their revenue component coming in, and based on their rating, this was the max they would feel comfortable with.

Mr. Corcoran added that in addition to giving them a maximum borrowing capacity based on their current rates they could also look and give them figures if they came in with different scenarios on possible rate increases, so if they were to go in and, say if the city implemented "x" percentage of an increase which generated "x" amount of revenue and so they could give them a bunch of different scenarios as to a maximum level. He explained that what they have told them, one of the things they have already looked at was the local borrowing going

through a bank and basically establishing a line of credit. He explained that once you go past \$10 million there was all sorts of legal hoops and requirements that you have to go through. As far as if the Council were interested in doing something similar to what they did with Freedom Park, they could go to a local bank here in the community and borrow up to \$10 million and set that up as a line of credit at the bank and they would draw down on that money as it was needed and that would be the maximum that they could do per year. It may be that once they get into looking at it doing an entire 2004-2008 if they decide to do it through the local borrowing that they may look at it in two year or three year increments and then revisit it later.

Mr. Pond added that on the Revenue Bonds they could go higher. Typically what they would do, go back to them, arbitrarily they came back and came up with \$20 million. They could go in and they would tell them to look at another funding option and they would help identify funding options. He asked if they specifically asked about Revenue Bonds on going above the ten.

Mr. Corcoran replied that they had. They had looked at Revenue Bonds but he thought that there had been, in terms of discussion amongst the Council and during the election, he thought that there was some hesitancy towards doing Revenue Bonds versus the GO Bonds. He added that he thought time was of the essence that if they were not doing Revenue Bonds they did not have time to do the GO bonds that was why he was leaning toward more of recommending the local borrowing.

Mr. Pond added that what they were doing right here was the type of exchange he was talking about. He stated that Mr. Corcoran was exactly right. There were different approaches. If they were going to do a GO bond, he wanted to make sure the citizens sign onto this program because they were the ones that were going to pay the bill. Other people say due to the time, the best they were going to do on the GO bond if they start today and say they want to do a GO bond referendum they were going to look at 4 months or ninety days if everything matched up. Revenues could go much quicker and you borrow the money for about 20-25 years, they use all the factors, current tax base and they would come up with that number.

Mayor Price asked how long do they go out for those bonds.

Mr. Pond replied that he had seen up to 25. He explained that what they do is they look at the city's financial picture. Typically the ones he had seen were somewhere in the 20-22 years. Most of their GO and Revenues were twenty year bonds. The only ones that were most time in much longer than that was the USDA, but they would not qualify for USDA because of their population size.

Mayor Price asked if they had discussed Revenue Bonds.

Mr. Corcoran replied that in several different presentations in the past they were brought up. Back in 2001 when they did that budget and this whole plan was laid out, the second step of that plan was to do Revenue Bonds. There has been a lot of discussion and he had seen things in the paper and heard different comments about the hesitancy to do Revenue Bonds because the people did not actually vote on the Revenue Bonds.

Council Member Nooe asked how that compared to borrowing money from the bank, what was the difference.

Mr. Corcoran explained that if they look at that list, items number 1, 2, 4, 6, and 9 were already under way and there was no money to do any of them.

Mr. Pond added that the impression he got, the local borrowing was more or less to get through that first gap. At that point, he suggested that the best structure to do the next thing, rather than biting it off in one big chunk, would be to go back to that "must do" list. He added that if some of those were already under way, for instance taking the treatment plant off line and the Railroad Pump Station, he knew they had started a design on that, that was a perfect example of one, so some of those were underway so they could use that local funding,

but they were exactly right, whether it was Revenue Bonds or local borrowing in either case they were making the decision, not the citizens.

Council Member Epps asked that if they get the bank loan that current bond ended in 2008 and was it renewable.

Mr. Corcoran replied that once their current bond issues finishes or concludes they would then be in a position to go and look at another bond at that time. Obviously the money that they were spending on that, he thought the current budget has about \$1.6 million in the debt service payment. One of the recommendations that was going to be included in the upcoming budget was that although that principal and interest payment would be reduced next year, they as a staff feel that they should continue to allocate \$1.6 million a year. He added that what they could do in the interim period was start putting it into another sinking fund for another bond issue at a later time. The problem was, if they did not do that and that \$1.6 goes down to \$1.4 or \$1.2, absorb that into their operational budget then when 2008 or 9 get here and they need that money then it was not there. The other reason they looked at the \$10 million locally was because it was also expressed that there was hesitancy towards raising rates. So they have done an internal analysis toward raising the rates so they have done an internal analysis of the monies that were available without raising water and sewer rates that could then be spent to pay the debt service on a note and they felt relatively confident that they could go borrow, depending upon the rates, they were looking at a 15 year and a 20 year pay back, but they felt relatively confident that they could go borrow up to this \$10 million and not raise water and sewer rates. The problem was that if they start totaling up some of those projects, again number 1, 2, 4, 6, and 9 were underway. That was more than \$10 million right there.

He also noted that this ties in with the bigger issue, although that was not the purpose tonight. The \$10 million was total borrowing capacity; it was not Water and Sewer Fund. So if the Council decides that it needed to do things on the General Fund side, whether it be garbage trucks or a fire truck or backhoes or police cruisers or industrial development type efforts, all of those go into the \$10 million.

Council Member Nooe stated that it was obvious they were going to need some money if those projects were underway, but asked if they could use that temporarily as they go through the process and go through and try to get General Obligation Bonds and then use that to either fund or pay back the borrowing.

Mr. Corcoran replied that it was his feeling that they could probably maintain their current rate structure and go on and continue on the projects they have already started and that would buy them a couple of years. During that couple of years they could continue to search to see if there were any additional monies. He stated that he liked the comments about the special appropriation, it certainly did not hurt. They could certainly make an appointment with their congressman to see if that was possible, but during the next couple of years they could do some other things to see what money may become available. Again, there were so many unknown factors. It was like the Railroad Pump Station, it was a very large investment and it was needed for a specific reason, however, if there was a change in industry, then that need was not quite significant. A lot of this was up in the air, but what he had heard in talking with different members here, one on one, over time was that there was a general consensus to try and not raise rates and there was a general consensus to keep the borrowing as minimal as possible yet moving forward and so that was why they have zeroed in what was the maximum amount of the LGC they could borrow that they could afford with the money that they already have on hand on an annual basis. As they were making their decision, it ties in with the overall picture. He used as an example, a menu of buffet items at a restaurant and several items on that list were water and sewer related, but they may have items on that list that were General Fund related and depending upon what they decide as far as an industrial development effort would also take a piece of that pie. So there was a whole lot more on the menu that they could afford.

Mr. Pond pointed out that regarding grants and/or loan monies, the Clean Water Management Trust Fund, a project that might be enticing to them would be the Railroad Pump Station project. The reason being, they were taking a treatment plant and removing a discharge.

Their pump station overflows, they did not fund those typically, but they have seen some funded. The other grant from the Federal Appropriation was their raw water intake. He was not sure they would get it, but that would be one to definitely push.

Council Member Nooe asked that with all the pump stations on there was it because of I&I problems causing the overflow or were they all old outdated equipment that needed to be replaced, or would it be a good thing to do renewal on the VCP and have those pump station upgrades done sometime down the road. They could do the gravity lines.

Mr. Pond replied that pump stations were high priority, regardless.

Mr. Fisher added that there were several factors regulatory in overflows, and then they have capacity. It did not seem to be an issue in terms of just handling the wastewater flow that occurred in dry weather. They had talked about their wastewater flow during rainfall, and then the other pump stations they had some concerns and those factors right there was what they could consider in terms of pump stations...

Mr. Pond added that he did not think they could probably spend enough money and do enough rehab to not do the pump station upgrades, the ones that were listed, which were not all of them. He stated that they would basically decide on I&I, they either remove it or pump it and treat it. They get down to measuring those and what they do was put a balance of removal over time because you cannot afford to spend all that money once and to basically do a little bit of both, so they were going to continue to treat it, and do both, so to answer the question, yes the pump stations have to be done, yes, they were older equipment that have to be updated to capacity and some they were replacing entirely, putting larger pumps and in others they were replacing old and worn out equipment.

Council Member Nooe asked if they were still going to be pumping...

Mr. Pond replied that they were still pumping and that was not a good thing, he could tell them that no city the age of the City of Eden was not pumping rain water. His philosophy on I&I was it was something they would be with forever and ever, and the best way to do this was to have an ongoing program that they were, year after year after year, prioritizing their improvements and attacking it at a bit of time, their worse pieces first, and trying to take care of their worst problems, and a lot of that they could just visual inspection as they knew where their overflows were.

Council Member Gover asked that when they looked at the Railroad Pump Station, if they took into consideration how far the \$2 million would take them in operation. He asked what the operation cost versus the pump station on the Dry Creek Station was.

Mr. Fisher replied, for clarification, what was the cost of running the Dry Creek wastewater treatment plant versus maximizing the Railroad to handle the flow going to the Dry Creek plant and what they have found was that the long run, that was the way to go.

Mr. Pond added that it was more economical to abandon the plant than it was to continue the plant in operation.

Council Member Gover stated that even though anticipating growth in industrial areas down there, of course they have one main plant there that utilized quite a bit, and if something happened to the pump, they have most of the east side of Eden going into that. He asked how they would handle a breakdown of the pump station.

Mr. Pond replied that hopefully they were putting a new pump station in; they maintain that pump station and put redundancy in that pump station. He added that was a very good point.

Council Member Gover stated that they were having so many overflows today because they did not adequately have the pump station handle the inflow coming in so he asked if they were asking for trouble when they did those things even though it was down the road. He then brought up another point with the new water intake, \$5 million. He pointed out that

when they went through that study some time back, during the dry spell, it was not \$5 million, it was somewhere in the range of \$2.5 or \$3 million.

Mr. Fisher replied that the \$5 million was based on building an intake. (This part was inaudible due to the fact that Mr. Fisher was not at a microphone.)

Council Member Gover replied that the 42 million was just the design of the pump station itself, that they could go in there and do that, it was not that they had to spend that kind of money at this time or at the time they put the intake in. He noted that the 42 million, yes it was put in there, but it was just to say that they could go in there and utilize 42 million gallons, knowing that they really did not need that it would be years and years before they need it.

Mr. Pond asked if the question was, could you phase that in. He stated that he thought the answer was yes. Once again they have what they call study cost here, those were not design numbers. He added that he would, during their design phase, that would hopefully be looked at and saying they could phase this out that was a possibility.

Council Member Epps commented that even though they would want to phase that in, the figure now would be more impressive for this grant.

Mr. Pond suggested that they do as the Town of Rosman did, sit down with their congressman. They asked what the congressman could do for them and he replied that he did not know if they could do "that", but he could do "y". He pointed out that Council Member Gover had a very good point in that it was a possibility they could phase it. They have a lot of projects out there identified for like renewal projects and they did not have to do all of that at once.

Council Member Gover stated that he could not believe the grid and intake would be as much as the whole pumping station when they were going through this previous study. The 42 million gallons a day was figured in there on the \$2.5 or \$3 million dollars. He stated that was what confused him.

Mr. Pond offered to take that number and go back and take a look and give them a breakdown of how that number was arrived at.

Council Member Gover explained that the reason he was pushing this raw water intake, it was very important that they get their image back. He explained that back in that dry spell they lost their image and the city did have the water and it was just a matter of mechanics to get the water out of there and they want to assure the people that they could do it, it was not that they could not get that water out.

Mr. Pond stated that from an industrial recruitment standpoint, he agreed 100%. He thought that was very important, but still in looking at the big scope, they should go back and look at the overall balance. It was their decision. It was funny, when everybody was in a drought, at that time, that was very important and it was still important from an industrial standpoint. He pointed out that if they had never had that drought and they started talking about this everyone would think they were ludicrous. It was a balancing act. He thought the only staggering point, he was right, there was \$5 million sitting there and they were talking about 10 and that was half of it. If someone moved in new today, they were going to sit back and ask why they were spending \$5 million, but from an industrial recruitment standpoint, that was real, and it had to be addressed. He added that the Council had to decide if that was a priority. There might be on the flip side, could they manage that again by doing something different, by emergency pumping, temporary, it was not ideal, but it did not address their image issue.

Mayor Price questioned the 300 year drought.

Mr. Pond replied that he had heard all kinds of reports. They were redoing flood maps and everybody says they will never see another one of those in 15 years, and as sure as they were born, they were sitting there and could have another one tomorrow. He stated that he thought

the one thing it did was it made the citizens across the southeast really understand the importance of water when they did not have it and also understand the importance of utilities and what it cost. There were a lot of appropriations that went out for improvements and there were a lot of cities doing huge regional projects because of the drought, which should have been done anyway, but it took that for people to understand the importance.

Council Member Nooe asked how far along the permitting was to get that volume out of the river.

Mr. Corcoran commented that was a different engineering firm that was handling that.

Council Member Nooe asked how that worked if someone else was applying the volume and they were...

Mr. Pond replied that they were currently doing that with the City of Spartanburg and Broad River Water, North Carolina. They were doing a huge regional system and they have been going through meetings with the State on drawing about 30-40 million gallons a day out of the Broad River and basically it was going to serve two county regions. The drought created that. He added that the City of Shelby, very same situation as Eden, had a lot of negotiating going on and what the State was doing, they were encouraging if you were close by regionally looking at where you were pulling the water out and from a time perspective you have the environmental permitting that you have to go through and hopefully you did not have interbasin transfer, if you have interbasin transfer, the City of Concord was going through that right now trying to get water from Albemarle. They had hired them (Dixon) to do the design and they have been on standby for a huge waterline for the last year and a half waiting for that permit to come through so it was probably a couple year process to answer the question.

Council Member Gover moved on to number 7, Covenant Branch. They have \$691,000. They had said most of that area down there was gravity fed. He asked if they had considered that \$691,000 to divert some of that other sewer that was going to the Dry Creek back into that pumping station. A smaller pump would relieve that other pump there at the Railroad.

Mr. Pond replied, for clarification, could they have diverted some of the flow from the Railroad Pump Station into that pump station and therefore reduce the cost they were spending on the Railroad.

Council Member Gover continued, and catch some of it with a smaller pump, bring it back into the Covenant Branch. All the eastern part of that section was a gravity fed system and that was if something happened to the pump at the Railroad then it would not affect this smaller pump, pumping back into the Covenant Branch. He asked if that was in the \$691,000 to which Mr. Pond replied, no.

Mr. Fisher added that the \$691,000 was to increase the pump station and eliminate some other problems to convey the current (the rest was inaudible).

Council Member Gover stated that they had an easement across this farm that was given to the city in 1938, free and it did not cost anything. There was an 18" line across the dairy farm at that time and that took the water back into the river from this Dry Creek station. He asked that if they abandoned that station, would they lose that 18" right of way.

Mr. Pond replied that he would have to look at how their easement was written, that was probably more of a legal question. He explained that this was a reason some people did not take plants off line. The minute you take the plant offline, you lose that discharge. They weigh that versus ongoing improvement maintenance cost.

Council Member Gover stated that he had that in mind when asking that question. That farm has changed hands and he was sure the owners today would prefer that the city did not have it across there but still they had it. He stressed that they really needed to look at that 18" line.

Mr. Pond added that it could have some type of wording, for as long as it stays in service this easement is there, should it ever abandon it reverse back to the property owner. He stated that he had seen easements like that; it just depends on who wrote it at the time. He added that a lot of times people were real knowledgeable on the utility side and were going to protect the city.

Mayor Price commented that by going back to this raw water intake, they mentioned that Federal Appropriation would be the best shot at getting some money. He asked what would be the second shot.

Mr. Pond replied that he did not want them to take what he was saying and go get Federal Appropriation as a slam dunk. He stated that even as a consultant they have not gone after much federal money. He explained that he had asked why more people did not do this and they just did not take the time. He stated that they needed to go out and pursue everything out there, you did not know if you did not ask. He added that in knowing what they look for from a federal perspective that was probably as good a project. He stated that he would go in there with a smorgasbord and pick two or three of the critical projects and really saying this was one that was a killer. The point they made was a great point to make with their congressman. That was what he was saying, assume that project, they go to their congressman and he says he could not (help). Then they need to ask what their next best shot was. From a grant point, not much as the Clean Water Management Trust Fund, it did not meet their mission. Public water supply, everybody went through the drought and they applied for emergency money and some got some. He asked if the city applied for some and if they were not successful.

Mr. Dennis Asbury, Public Utilities Director, replied that they received some.

Mr. Pond replied that some got big chunks of money and some did not get any and he just did not understand the rationale behind that. He suggested that probably from a borrowing perspective to that magnitude if they could not do it, he would say either the GO or Revenue Bonds.

Mr. Corcoran added that he thought that they were going to have a lot better chance of getting grant funds if they were for their sewer system overflows. That was a situation already being mandated upon them and it was something that was existing. He added that he would think they would have a difficult time getting grant funds on an image type basis. They were going to look at the city's capacity or average flow and the first thing they were going to say was that they did not need additional water right now and their own comprehensive plan says they would not need this type of water for many years. The second thing they would look at was the frequency that the drought occurs and they were going to say the odds of that happening again in the very near future were remote and even if it did happen they could go to emergency pumping so his guess was they would have a very difficult time convincing any grant agency to give them grant funds for that project.

Mr. Pond added that he thought that at the time right after the drought there were grant funds available because people saw how real the problem was. If they approach that situation again they would probably have a chance. He pointed out that North Carolina grant programs reward violations. He explained that if they were a city and everything was great and they wanted to get a grant to rehab their systems so they would not violate, they were going to say "no, we won't fund that." But, if they go to them and say they have an overflow, they get grant money. He stated that he never understood the system. That was the problem. He agreed with Mr. Corcoran from a funding perspective. Their pump station overflows was their best chance of getting grant funds. The point he stated that he would make if an industry was going to look here tomorrow they would look back historically at water and if they were water dependent, they would look at that and it would hurt Eden. It was a need and it was a concern, but that was a decision that they had to decide.

Mr. Corcoran also added that their rate structure, relative to other communities was one of the lowest in the State and when they go before these funding agencies they have the opinion that they were not going to give them grant monies when their money was as low as they were. They were going to reward those communities that were financially strapped and with

high rates and if they were one of the lowest rate communities in the State they have no chance.

Mr. Pond used as an example Farmer's Home Program, for which Eden did not qualify for, USDA or a Farmer's Home Program, what they do, they ask what was the median household, what was the normal rate in the State, both water and sewer and they add those together and they would only allocate grant money for funding above that to get down. Depending on the locality, they typically look at about \$20 for water and \$20 for sewer. He noted that he thought Eden's average was about \$30. He thought that was probably the toughest thing. Rates were a tough decision. They were sitting on one hand saying "I've got needs" and they were sitting on another hand saying "I've got citizens on fixed incomes and industries, I'm trying to compete with other folks." That was a tough decision and he did not envy them.

Council Member Epps stated that he thought the loan approach was the best and they would not have to worry about rates for a year or two and this would kind of get them ready to set up for the bond thing at a future date and they would not have to clash with their citizens on a rate increase.

Council Member Gover stated that he had looked at this Meadow Green pumping station, \$552,000. They just put money in that station hoping that they would alleviate this overflow problem and come to find out they were not there yet so they were coming up with \$552,00 for upgrades. He asked that since their elevations were not where they were gravitating to the east, would it be feasible to set up a grid to where they could send like they anticipate or upgrade the Meadow Greens to where they could send it to another pumping station to the gravity flow side and let that other pump pick up what this pump could not.

Mr. Pond replied, to divert a portion. He asked them to keep one thing in mind. They did a global study. With that, they paid them "x" dollars to do a study through a grant. They did not look at every feasible option that was in there. He explained that they try to look at the option, staff would give input, but he could tell them there were probably options out there that might be more cost effective, or might be cheaper, but this gives them some budget numbers to work in. He suggested that the first thing he would do, when they go and pick any project up, a part of any design contract they do was to look and see if there were any other potential cost saving options that might be a little more of an economical alternative. He stated that with everything that they did in the study, they could not unturn everyone of those stones and those were all great points and he thought they should be looked at. He stated that from his perspective it sounded like they have a really good understanding of the system. That input would be very valuable in going through the report to maybe carve and reduce those numbers down. He stated that his point was they could not look at every option out there and some of those they probably did not consider.

Mr. Fisher added that as far as Meadow Greens being the most effective means, it already pumps to a system and then it was re-pumped to the plant. It was unfortunate that their plant was further upstream the Dan River than downstream, and so in some cases the only way was to continue pumping...

Mr. Pond added that Mr. Fisher was talking about taking a collection system that was going into a pump station and when they look at a topographic map, could they divert a portion of the collection system into another pump station and maybe not have to spend as much on one as they would another. Those were the types of options, due to the scope of what they were doing, the magnitude of what that would entail; they did not get to that degree unless they were obvious things that staff had pointed out.

Council Member Gover commented that he did not think the State would be that gracious in the future because they were coming down on these overflows. With the penalties and fines (they) would probably run a gravity line to another pump or something in that fashion to keep from making them look bad, dumping sewer in their own drinking water. He stressed that they needed to show that they were a positive city. They were looking to alleviate these overflows. The quicker they could come up with some way to alleviate some of these overflows, just keep throwing money at it; they were not getting the results that they need. That was why he had been looking at different options there and what would happen if they

went back to the Railroad Pump Station and put all their eggs in one basket and they have a massive overflow. He pointed out that if they have about a 2 million gallon a day, what they call Cascade Creek down there and once this overflows into that, from that pump station, if the 18" line was not taken, and then they were going to be in trouble with that creek down there. Their discharge line from the outfall of the Dry Creek Station dumps into the mouth of this Cascade Creek in the Dan River and so that was one of his big concerns when they start abandoning treatment centers.

Mr. Pond replied that one of the problems with the treatment plant though, when they were looking at they have a .5 million gallon facility and a 13.5 million gallon a day facility, the constant upkeep, maintenance, the staffing, when they start factoring all that in, they could put a lot of redundancy in a pump station and he thought that was the thinking behind taking that treatment plant offline. He agreed with everything he said. He stated that he would like to think that they could design a pump station that was not going to have overflows. He could not guarantee it; nobody could guarantee that it was ever going to happen. He agreed with Council Member Nooe in that if money was no object, that was the solution. The solution was to attack I&I and go in and do a lot of those aggressive projects and to attack that rather than pointing the money in the pump station. The problem was the magnitude of the issues was so large that they have to just make the decision it was cheaper to upgrade a pump station than to pump it. The problem was when you pump it, where were you pumping it to. You have to pump it and treat it. There was a combination, they need to ongoingly start minimizing that I&I so that hopefully that treatment plant could be pushed out further.

Council Member Gover continued to emphasize that the farm had been sold.

Mr. Pond stated that he highly recommended that the City Attorney review that easement.

Council Member Gover also emphasized that if they have a big overflow in that Dry Creek, he was not talking about the fall out at this time, if something happened and they abandon the station down there and there was a big overflow it was going to go directly across his pond.

Mr. Pond stated that they had a situation in the Town of Highlands where they built a new treatment plant. He explained that they took their old plant and used it for an equalization basin and they did that for about 5 or 10 years and the upkeep was so great they did away with it. He stated that that may be something they may use as another option. Could it be used in equalization as a bypass in case of an overflow at the pump station. He did not know if that was even feasible.

He explained that all they did was identify and they took all the data, the needs, and got them on a chart and prioritized them. They needed to start picking away at them and the types of things they were talking about, the back and forths that would have to take place on what they could and could not live with. He suggested that one thing to keep in mind, sometimes the cheapest alternative in construction was not the cheapest alternative and they would pay for it many times over so they try to look out in that present worth analysis and bring in that operation of maintenance, what was the cheapest alternative.

Mayor Price thanked the representatives from W.K. Dickson very much for their time and assistance.

Mr. Pond offered and stated that they would love to, as the Council was going through and making those decisions, if they would like for them to participate in any way, they would love to. He stated that they just offered their best advice and they did not have to take any of it. He then thanked them very much.

ADJOURNMENT:

A motion was made by Council Member Vestal seconded by Council Member Myott to adjourn. All Council Members voted in favor of this motion.

	Respectfully submitted,
	Kim J. Scott City Clerk
ATTEST:	
Philip K. Price Mayor	