BENTON UTILITIES CAPACITY, MANAGEMENT, OPERATION & MAINTENANCE MANUAL (CMOM)

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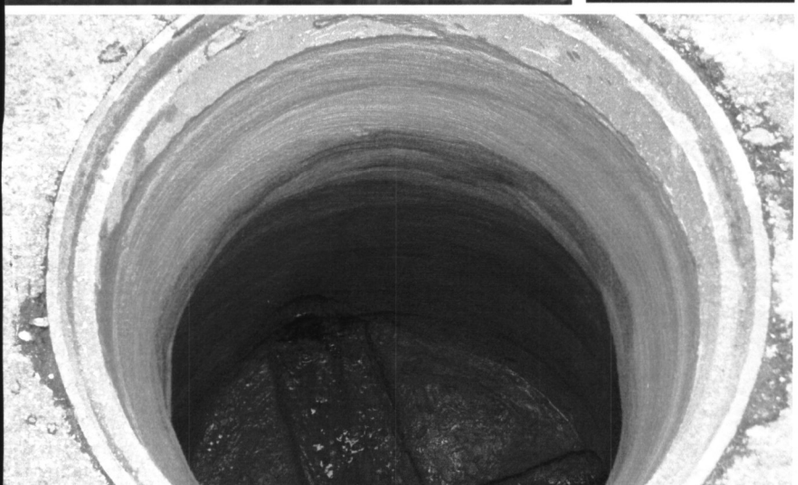

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CAPACITY, MANAGEMENT, OPERATION AND MAINTENANCE (CMOM)

BENTON PUBLIC UTILITIES COMMISSION, BENTON, ARKANSAS

May 29, 2012

TABLE OF CONTENTS

LIST OF TABLES

APPENDICES

APPENDIX NUMBER AND TITLE

1. ORGANIZATION CHART
2. JOB DESCRIPTIONS
3. ORDINANCES
4. BUDGET
5. ASSET MANAGEMENT FORMS
6. EXTERNAL RESOURCES
7. DESIGN STANDARDS
8. WORK SCHEDULES, RECORDS OF DAILY ACTIVITIES
9. MONTHLY LINE BLOCKAGES AND OVERFLOWS
10. FATS, OILS, AND GREASE BLOCKAGES
11. ROOT INTRUSION BLOCKAGES
12. SEWER LINES ALONG STREAMS
13. SEWER LINES IN ISOLATED AREAS
14. SMOKE TESTING RECORD
15. PIPE CLEANING RECORD
16. VIDEO INSPECTION RECORD
17. GRAVITY MAIN REPAIR RECORD
18. SERVICE LINE REPAIR RECORD
19. FORCE MAIN REPAIR RECORD
20. PIPE BURSTING RECORD
21. MANHOLE INSPECTION & REPAIR RECORD
22. LIFT STATIONS
23. O & M MANUAL INDEX
24. OVERFLOW RESPONSE PLAN

1.0 Introduction

Sanitary sewer collection systems have a finite capacity to carry wastewater based on the size of the system components. The size of the components is based upon an analysis of the contributory flows into the system plus a factor for growth. The analysis considers residential, commercial and industrial sources of flow plus a designed leakage rate for the system components. With time, the design basis for the system may change resulting in flows in excess of the designed flow. Changes can include population increases beyond the growth factor used in the design basis, integrity deterioration resulting in a leak rate greater than the design basis, and inappropriate storm water connections. These factors can lead to overflows of the system as the increased flows exceed the ability of the collection system or lift stations to convey the wastewater.

Likewise failing to maintain the collection system can result in overflows irrespective of any flow increases. Materials such as grease, rags, roots and other foreign objects can create blockages within the system. Regular maintenance and cleaning regimens can eliminate these occurrences particularly grease and root development.

Overflows, regardless of the cause, release untreated sewage to surface waters, at times leading to substantial negative impacts on the receiving body. The majority of impaired waters as recorded by States in their 303d lists, are impaired due to nutrients, sediment, pathogens, metals and organic enrichment. Sewage overflows contribute to these impairments and can have acute impacts such as fish kills and beach closures.

2.0 Goals

The Public Utility Commission of Benton, Arkansas has developed this Capacity, Management, Operation and Maintenance Plan to put into place the ideas, concepts and procedures to be used to prevent sewer overflows to the extent possible and practicable. The goals of the plan are to:

- Prevent overflows from the sanitary sewer to the extent possible and practicable
- Minimize inflow and infiltration
- Manage the assets of Benton Utilities Wastewater Collection Department inclusive of personnel and equipment to affect a regular maintenance program and to be able to respond to emergency overflows of the system
- Through the use of analytical and engineering methods, develop a system to assess and prioritize maintenance, rehabilitation and replacement activities for the portions of the collection system under operational control of the Benton Utilities Wastewater Department. Through effective management, develop and enforce appropriate ordinances that will help to better manage the performance of the collection system.

3.0 Collection System Management

Management of the Benton Utilities Wastewater Collection Department will be proactive so as to meet the goals of this plan as well as to provide our customers with fiscally, technically and environmentally sound operations of the system. An overview of our system along with our management approach are contained in the following sections.

3.1 Organization and System Parameters

3.1.1 System Profile

The Benton Utilities Sewer Department's sanitary sewer system consists of gravity and forced main components serving the community of Benton, Arkansas. The system is not interconnected with other sanitary collection systems. Maps of the system are maintained by the utility at 1827 Dale Street, Benton, Arkansas. The entire city is included on a digital AutoCad color map developed from aerial photos. The digital file contains several layers which can be turned on or turned off (frozen) to show a number of different things. The sewer map is divided into grids which are labeled 1 through 19 from west to east and are labeled A through U from north to south. When the map was first developed, the city covered grids 8 through 19 and A through U. The original grid was planned to allow for expansion of the city. When the service area expanded to the north AA was added to north end of the map. Individual grids can be printed out at any scale. A scale of 1" = 100' is generally used for sewer maps because it is easiest to read. Streets are outlined and labeled in RED. Manholes are shown and labeled by grid number followed by the number of the manhole in sequential order. For example, all manholes on grid J – 12 are labeled J12-1 through J12- 82. If manholes are added between adjacent manholes "A", "B", "C", etc is added to the label as required. For example a manhole added between J12-37 and J12-38, would be labeled J12-37A. Gravity and Force mains are shown in color according to the type of material in the pipe, PVC, Clay, Ductile Iron, etc. The diameter of the pipe is labeled adjacent to the line drawn between the manholes. The length of the line is also shown adjacent to the line between manholes if known. The AutoCad file also contains an attribute table attached to each manhole which can be accessed and printed out. Currently most of the attributes have not been completed. They will be completed as time permits and information is gathered. The manhole attribute table is included in Appendix 21 labeled Manhole Inspection and Repair Record. The AutoCad file also contains an attribute table attached to each pump station which can be accessed and printed out. Currently most of the attributes have not been completed. They will be completed as time permits and information is gathered. The pump stations attribute table is included Appendix 22 labeled Lift Stations. The interactive AutoCad map file also has the sewer system divided into 11 basins and contains the locations of each of the pump stations. The system profile is as follows:

Table 3-1: System Profile

Total Population Served	30,681
Population of Benton	30,681
Population of Interconnected Communities	None
Total Customers	13,080(11,630 Residential: 1,450 Commercial)
Treatment Plant Name(s)	City of Benton Wastewater Treatment
Plant Design Capacity	8.3 MGD
Average Daily Wastewater Volume	5.2 MGD
Average Daily Peak Wastewater Volume	7.4 MGD
Miles of Gravity Sewers	150
Miles of Force Mains	7
Number of Pump Stations	39
Number of Pump Station w/Backup Power	5 have generators; 8 are wired for generators; 26 are scheduled to be wired at the rate of 3 or 4 per year and completed by the year 2020
Number of Inverted Siphons	0
Number of Manholes	4500
Number of Air Relief Valves	25
Number of Employees	9

3.1.2 Critical Components

Benton Utilities may consider adding the age of known piping and future piping to the system maps for each line segment as time allows. Approximately 10 % of the gravity lines are between 51 and 75 years old. Approximately 60% of the gravity lines and 40% of the force mains are 26 to 50 years old. Approximately 30% of the gravity lines and 60% of the force mains are 0 to 25 years old. Serviceability of individual lines varies due to many factors. Age is only one factor which is monitored.

Root intrusions can contribute to sewer overflows. Wooded areas and lone trees adjacent to deteriorating lines or lines with damaged joints can lead, in time, to blockages, backups and overflows. Areas of the collection system that have had root intrusion blockages are recorded on forms when they are discovered during cleaning and videoing. Information is transferred to a three ring binder which includes a summary form for each basin. The information entered on the summary form is used to place priorities on repairs and/or replacement of pipes. A blank form for recording the root intrusion blockages for a given basin is included in Appendix 11 labeled Root Intrusion Blockages. The blockage is also recorded on a form entitled Benton Wastewater Monthly Line Blockage and Overflow which is kept on a clipboard at the office with the newest form on top. A copy of the form is included in Appendix 9 labeled Benton Wastewater Monthly Line Blockage and Overflow. Repeat blockages are added to the Monthly Preventive Maintenance Report which is also kept on a separate clipboard at the office with newest form on top. A copy of the form is included in Appendix 9 labeled Monthly Line Blockage and Overflow. If the root intrusions are significant, the line is scheduled for repair or periodic chemical treatment. Repair requirements are listed on a form entitled Benton Utilities SS Gravity Main Repair Record which is included in Appendix 17 entitled Gravity Main Repair Record. Main sewer lines requiring chemical treatment

are listed on a form entitled Benton Utilities Monthly Preventative Maintenance Report which is included in Appendix 9 and also in Appendix 15 entitled Pipe Cleaning Record.

Grease and grease like products can be significant contributors of sewer overflows. Restaurants and industrial facilities can discharge grease as part of their normal sanitary flows that can lead, in time, to blockages, backups and overflows. The discharge of fats, oils and grease (FOG) are regulated through the Benton Utilities Wastewater Collection Department FOG program, however, backups can sometimes occur. Areas of the collection system that experience overflows or blockages due to grease and oil are recorded when they are discovered by inspectors or cleaning and videoing crews. Information is transferred to a three ring binder which includes a summary form for each basin. The information entered on the summary form is used to place priorities on repairs and/or replacement of pipes. A blank form for recording the FOG blockages for a given basin is included in Appendix 10 labeled Fats, Oils, and Grease Blockages. Blockages and Overflows are also recorded on a form entitled Benton Wastewater Monthly Line Blockage and Overflow which is kept on a clipboard at the office with the newest form on top. A copy of the form is included in Appendix 9 labeled Monthly Line Blockages and Overflows. Overflows caused by grease traps are added to the Quarterly Grease Trap Report. A copy of the Quarterly Grease Trap Report form is included in Appendix 10 labeled Fats, Oils, and Grease Blockages. Inspections recorded on the Quarterly Grease Trap Report are kept in a three ring binder, with the latest inspection at the front. Overflows and their correction are recorded on forms entitled Benton Wastewater Utilities Sanitary Sewer Overflow or Pump Station Failure Report. A copy of that form is included in Appendix 8 labeled Work Schedules, Record of Daily Activities.

Gravity sewers follow the natural topography of the land which often leads to stream bottoms. Approximately 15.74 miles of collection system run along streams making them critical components requiring greater monitoring. Sewer lines along streams which require greater monitoring are listed on forms entitled Inspection of Sewer Lines Along Streams for each basin. Forms are kept in a 3 ring binder. Tabs separate basins. Frequency of inspections for various segments varies depending upon age of sewer line and results of last inspection. Latest inspection is filed in front of each tab. A copy of that form is included in Appendix 12 labeled Sewer Lines Along Streams. A form entitled Benton Wastewater Utilities Creek Crossing is also included in Appendix 12

Several areas within the system are isolated from population centers and as such an overflow could go undetected for an extended period of time. Sewer lines in isolated areas which require greater monitoring are listed on forms entitled Inspection of Sewer Lines in isolated Areas for each basin. Forms are kept in a 3 ring binder. Tabs separate basins. Frequency of inspections for various segments varies depending upon age of sewer line and results of last inspection. Latest inspection is filed in front of each tab. A copy of that form is included in Appendix 13 labeled Sewer Lines in Isolated Areas.

The system employs over 140 lift stations and grinder pump stations to move sewage from low elevation areas to higher elevation areas. Thirty nine are major lift stations that are inspected daily and 101 grinder pump stations are inspected monthly. The lift stations that are inspected monthly and contain signs of overflows or lack of maintenance are scheduled for repair. Records of the inspections are maintained in a 3 ring binder. Of the 39 major lift stations, 5 have permanent generators, 8 are wired for generators, and 26 are scheduled to be wired for generators by the year 2020. The remainder do not have automatic back up power; i.e. generators and transfer switches. Periodic loss of power may occur due to storms and electrical grid equipment failures. The lift stations have finite storage capacity and as such are subject to overflows during a power loss. Of

the 39 major lift stations, 14 are currently on SCADA and 25 are scheduled to have SCADA added by December 31, 2022. Inspection forms and other records kept on the lift stations are included in Appendix 22 entitled Lift Stations. Information on the 39 major lift stations and 101 minor lift stations is contained in the Appendix. Each of the lift stations is shown on an interactive electronic map which is updated as changes are made to the system. Each lift station has an attribute attached to it which contains pertinent information. Copies of the lift station attribute sheets are filed in order in a 3 ring binder for ready access to the data when the computer is down. Lift stations with floats are inspected and cleaned once a month on a regular schedule by pulling the floats and cleaning and vacuuming as needed. A pump station log is kept in each lift station. Maintenance workers and inspectors record each visit on the sign in sheet and record observed problems. Correction of problems is handled then or noted and taken back to the shop for preparation of a work order and scheduling of a repair.

3.1.3 Organizational Structure

The Organization Chart is contained in Appendix 1 labeled as Organization Chart.

The Public Utilities General Manager is responsible for the overall management and control of operations and property of the utility system. He assures that the Board of Utility Commissioners is provided with accurate, timely information to facilitate appropriate policy/decision making. He supervises the Water Department Manager, Electrical Department Manager, the Wastewater Collection Manager, Wastewater Treatment Manager and Contract Manager. He also coordinates the budget needs of each department with the Director of Finance and Administration.

The Wastewater Collections Manager is responsible for all facets of wastewater collection management from point of entry in the sewer system to the point where wastewater enters the wastewater treatment facility. He supervises the following personnel: Lead Person, Line Inspector, Backhoe Operator I and II, Lift Station Operator II, and 5 Lift Station Operator I's and a Records Clerk.

The Wastewater Treatment Manager is responsible for all facets of wastewater treatment management from the influent point of the collection system to the effluent point (i.e., receiving stream, creek, and/or river). He supervises the following personnel: Wastewater Chief Operator Class IV, Chief Chemist Class IV, Lead Wastewater Operator Class III, Wastewater operator Classes I-III, and Laborer.

3.2 Job Descriptions

Job descriptions lay out the foundation for the requirements and responsibilities of each person within the organizational structure. Descriptions are reviewed every two years and updated as necessary to reflect new or changing requirements. Employees are expected to comply with the elements of the job descriptions including any requirements for professional licenses and continuing education. Failure to meet the basic elements of an employee's assigned job description

may be reason for termination, demotion or other disciplinary action deemed appropriate. Job descriptions are included in Appendix 2 labeled as Job Descriptions.

3.3 Training

Each employee is required to obtain a minimum of 24 hours of professional/trades development training per two year period upon approval by an immediate supervisor. Training may be in the form of formal off-site or on-site training, on-the-job training, college/vocational course work or other appropriate venue. Twelve hours of the training must be directly relevant to the employee's duties as described in his/her job description. The other twelve hours can be indirectly related. If an employee is required to obtain continuing education units (CEUs) for his/her license, the employee is required to determine if the license granting agency/board will provide CEUs before the employee begins the course.

Required Training

Within the first three months of employment, each employee is required to attend a course in lock out/tag out and confined space entry. The Public Utilities General Manager or his/her designee will approve the course prior to attendance.

Other potential course topical areas include:

- Routine line maintenance including rodding, cabling, chemical and jet cleaning
- Traffic control
- Environmental/safety regulations
- Pump theory, operation including speed control, and maintenance
- Laboratory procedures, equipment calibration, sample collection and handling
- Electrical and instrumentation
- Public relations
- Sewer overflow response and reporting
- Collection system evaluation including smoke testing and closed circuit TV
- Pipe repair
- Collection system rehabilitation including pipe bursting, cured in place, slip lining, and trenching/shoring
- Heavy equipment operation
- Wastewater System Operations and Maintenance

The operating budget will contain a line item sufficient to provide a mix of on and off site training such that each employee can obtain a minimum of 24 hours of professional/trades development training per year inclusive of continuing education needed for license requirements. The line item funding will be inclusive of course cost, travel, lodging and meals and incidental expenses consistent with typical costs for the location. College and vocational tuition cost reimbursements will be consistent with Benton Utilities' policy for such reimbursements.

3.4 Legal Authority

Tabulated below are documents which provide Benton Utilities legal authority to control construction and operation of the sewer system. The referenced documents can be found in the Appendices labeled Ordinances and Design Standards.

Element Controlled	Document which provides the authority
Inflow and Infiltration	Ordinance 19 of 1995, Article IV, Sections 9, 11; Article V, Sections 1 & 2; Article VI, Sections 1 through 7.
Sewer Design, Installation, Testing and Inspection Standards	Ordinance 19 of 1995,Article IV, Sections 6, 7, 8, 9 & 10. Benton Subdivision Regulations pages 19 and 20 paragraph 5.2 (e), Exhibit 1, items 24, 25, 28, 45. Ordinance 5 of 2008
Flow from Satellite Systems	Ordinance 19 of 1995, Article III
Utility Access to all System Locations	Ordinance 19 of 1995, Article VIII. Benton Subdivision Regulations, Pages 16 & 17, paragraph 4.8. Exhibit 1, item 23, 29
Pretreatment Program	Ordinance 19 of 1995, Article VI, Section 7, 9, 10 and 11
Grease Controls including Grease Trap Design Standards	Ordinance 19 of 1995, Article VI, Sections 4 (b), 8

3.5 Asset Management

Asset management is a process of documentation wherein all assets, their life expectancy, condition assessment and operating information are brought together so that efficient and informed decisions regarding asset replacement may be made. The asset management process is used in conjunction with budgeting and financial reporting so that budgets can be developed with asset replacement needs in mind and so that a utilities financial stability will reflect a complete accounting of the utility's assets and their condition.

As of March 2005, Rural Utility Service (RUS) is requiring that funds be set aside for the replacement/refurbishment/repair of all short-lived assets as a contingency of receiving a loan from RUS. RUS defines short-lived assets as those with expected lives of 15 years or less. Therefore systems seeking loans from RUS after March 2005 must put together an asset management program to determine the set aside requirements for all short-lived assets. Long-lived assets should be included as well but the amount of the set aside needed for long-lived assets will depend upon local affordability and the system's desired equity level. For instance if a system wishes to maintain a 40% equity level (40% ownership, not encumbered by loans), then the system needs to set aside 100% of its short-lived asset needs as well as 40% of its long-lived needs to maintain its desired equity level. RUS accepts that funding for the replacement of long-lived assets is likely to be financed through loans and grants as a result of the cost of long-lived assets and the need to maintain reasonable customer rate structures.

In June 1999, the Governmental Accounting Standards Board (GASB) released completely revised guidelines for how state and local governments report their finances to the public. Known as Statement 34, the revised guidelines indicate that financial records should show depreciation for infrastructure costs for the entire depreciation life and not as one time entries for the year in which the asset was acquired or put into service. For example a $1 million asset with a 10 year life would be shown not once as a $1 million charge but as $100,000 each year for 10 years. An asset

management program provides the information needed to accurately account for all depreciable items.

GASB is not a regulatory agency hence adherence to GASB accounting standards is not required. However, GASB guidelines are regarded as generally accepted accounting principles (GAAP). Some states require local and state governments follow the GAAP, financial auditors assess the suitability of an agency's finances based upon adherence to GAAP, and the municipal bond market prefers government agencies follow GAAP. Therefore it is in an agency's best interest to follow GASB guidelines.

An option in the GASB guidelines allow governments that can demonstrate they maintain their infrastructure at an established level to report their expenses for maintaining and preserving infrastructure assets rather than using the depreciation approach. Using this approach, the utility must declare a condition at which it wishes to maintain its assets and then disclose publicly the evidence demonstrating their adherence to the stated condition level. The information to be disclosed includes:

- The assessed physical condition of infrastructure assets (governments must perform such assessments at least every three years, and disclose the results of at least the three most recent condition assessments).
- Descriptions of the criteria the government uses to measure and report asset condition.
- The condition level at which the government intends to maintain the assets.
- A comparison of the annual dollar amount estimated to be required to maintain and preserve the assets at the condition level established by the government with the actual expenses, for at least the last five years.

As part of the GASB rules, governments would be required to determine historical pricing for assets less than 20 years old. GASB recognized the difficulties this may pose for small entities so small government entities, those with total revenues less than $10 million (in their first fiscal year ending June 30, 1999) were exempted from reporting infrastructure information retroactively. These small governments need only report infrastructure when it is acquired, constructed or improved. Compliance with Statement 34 for small government entities is to begin with fiscal years ending after June 30, 2004.

However, the condition assessment approach may not work for all utilities in that the annual maintenance costs for the sewer collection system may not be significant resulting in an unrealistic cost of operations for most years and then periodic major annual costs for replacements. GASB 34 footnote 58 allows both methods to be used simultaneously. The depreciation method can be used for the life of the asset and the condition assessment can be shown in what is known as the Required Supplementary Documentation or RSI. Using a combination of the two methods (depreciation and condition) allows a system to show consistent depreciation of their assets while reflecting system condition. This allows the system to show an annual asset expense (depreciation) and shows rate boards and auditors the true condition of the system and when replacements will be needed.

Depreciation is an accounting practice that is necessary to comply with GAAP. The intent of depreciation is to reflect a more accurate annual cost of operations. That differs from planning for asset purchase and financial planning for new assets. Under accounting rules an asset may be straight lined depreciated for its entire expected life or it may be written off after only a portion of its life depending on a variety of factors. In planning for asset financing the goal is to establish a

useful life for a system's assets so that funds are earmarked each year in the system's budget, and conversely in the rate structure, so that assets can be replaced in a more orderly fashion as they reach their useful life. The useful life of an asset is based in part on the expected life of the asset and an assessment of its condition. This could be the same condition assessment required to meet the GASB Statement 34 RSI. The condition assessment allows the manufacturer's expected life to be adjusted upward or downward based on the assets' condition, maintenance history, energy requirements, or other factors to produce the useful life. The asset management plan then uses this useful life to determine the replacement cost and the subsequent annual budget amount needed to replace the asset at the end of it's useful life. The following example illustrates the point.

A pump in a lift station is projected by the pump manufacturer to have an expected life of 30 years. The pump is 10 years old and an assessment of it's condition including maintenance history and the fact that there are newer pumps on the market that are more energy efficient, leads the utility to believe the useful life is more accurately 20 years. Since the pump is already 10 years old then the cost to replace the pump will be spread out over the remaining 10 years of the pump's useful life. Lets assume the pump cost $25,000. The cost of the pump 10 years from now will of course be higher than today's cost so using a present value approach of increasing the cost based on an annual 4% rate of inflation for 10 years, the cost 10 years from now is expected to be $36,000, the present day value. Therefore the system's annual budget for the next 10 years, should include a funding requirement of 1/10 of $36,000 or $3,600 to replace the pump. This way in year 10, the system will have collected what is needed through their rate payers to replace the pump at the end of it's useful life.

The assets of the Benton Public Utilities Commission's sanitary sewer system include the collection system, pump stations, treatment works, emergency power generators, vehicles, office and laboratory facilities and all related appurtenances. Benton Utilities maintains a Fixed Asset register within our accounting software system. The system calculates and charges depreciation expense monthly. When a purchase or acquisition is deemed to be a fixed asset under GASB 34, we create an asset sheet that includes information such as description, cost, useful life, serial number, make, model, etc. The asset is given a number and added to our fixed asset register. The same holds true for infrastructure (such as new water or sewer line) that we capitalize either during the year or at the end of the year. Appendix 5 includes printouts from the Fixed Asset Register for Benton Utilities Equipment, for a new sewerline, and for a new pump station.

In accordance with GASB Statement 34 a cost basis for new infrastructure assets will be reported beginning with the 2005 fiscal year. While all assets will be inventoried, the cost basis for existing infrastructure 20 years old or less will not be reported unless readily known (beyond 20 years need not be reported). Depending upon the particular asset, annual depreciation will either reflect capital cost or maintenance costs consistent with GASB Statement 34. The asset inventory will be updated as new equipment is added or every three years whichever is less. As part of the triennial update, an assessment of asset condition will be documented as required by GASB Statement 34 and reported in the annual financial disclosure as Required Supplementary Information. The annual budget will reflect the required asset replacement/refurbishment costs to the extent practicable and affordable by the community and as needed to meet government loan requirements.

3.6 Condition Assessment

How to assess the condition of a utility's equipment is left to the jurisdiction of the utility. There are no required assessment methodologies by either the U.S. EPA or the GASB. Further complicating condition assessment of a sewer system is that much of the system is underground not readily visible. The condition of an asset is dependent upon a number of factors including its overall condition, maintenance requirements, whether it is over or under capacity for its intended service and how well the asset is performing the job it was designed to perform. All of these factors are subjective in nature so the condition assessment is meant to be an estimate and not an exact analysis. Following is the assessment criteria that Benton Public Utilities Commission will use to assess the condition of the utility's assets.

Gravity Sewer Lines – Type material, smoke test results, manhole inspection results, video inspection results, and overflow record.

Force Main Lines - Type material, manhole inspection results, overflow record.

Pump Station – Containment structure condition; pumps age and condition; overflow record; piping material type, age, condition; electrical controls condition.

Maintenance Equipment – Age, condition, capability, dependability.

Inspection records are used to assess the condition of the various assets and are contained in the previously discussed appendices and following appendices. Appendix 14 – Smoke Testing Record; Appendix 15 – Pipe Cleaning Record; Appendix 16 – Video Inspection Record.

4.0 Collection System Operation and Maintenance

Collection system operation and maintenance (O&M) consists of inspection, evaluation, preventative maintenance, and cleaning to maintain flow and mitigate inflow and infiltration. O&M varies by the equipment type, condition, age, and operating history with equipment identified as critical receiving maintenance at greater frequencies. Section 3.1.2 described Benton Utilities critical equipment. The following is a baseline O&M schedule. Periodic factors may necessitate a more frequent O&M schedule for individual components. Appropriate corrective actions or temporary mitigation measures are initiated based upon the findings of the routine O&M activities.

4.1 Collection System

Table 4-1: Collection System Routine Maintenance Schedule

Description	Critical (C) Non-critical (NC)	Known Problems, Issues	Every Other Week	Monthly	Quarterly	Semi-Annually	Annually	Triennial
Manholes and Grease Traps	C	Routine FOG issues	Clean lines between manholes		Inspect Grease Traps			Assess condition with video and smoke testing
Manholes With History of backups	C	History of backups		Clean lines between manholes		Assess condition with video and smoke testing if back up more than once in month		Assess condition with video and smoke testing if infrequent backups
Manholes Along Streams	C	No known problems but located along stream		Visual check for general condition and overflow evidence, inspect several manholes for surcharg-ing evidence Check lids for leakage			Clean	Assess condition with video and smoke testing
Manholes in Remote Areas	C	No known problems but located in remote area		Visual check for general condition and overflow evidence, inspect several manholes for surcharg-ing evidence				Clean

Description	Critical (C) Non-critical (NC)	Known Problems, Issues	Every Other Week	Monthly	Quarterly	Semi-Annually	Annually	Triennial
Remainder of collection system	NC						Visual check for general condition and overflow evidence, inspect several manholes for surcharging evidence	Clean and assess condition with video and smoke testing
Manholes	NC						Inspect for loose bricks/mortar evidence of I&I and surcharging	Assess condition

Record the condition of each manhole on an individual sheet. Keep sheets in order by basin, grid, and manhole number in 3 ring binder or binders.

Benton Utilities will clean the sanitary sewer per the baseline maintenance schedule with three service trucks, one 3 yard Vac Con Truck, one Mainline Video Inspection Truck, one 5 yard dump truck, one rubber tire backhoe, one mini excavator, one right-of-way tractor, two 3" bypass pumps, two 6" bypass pumps, two portable generators for small pump stations, one trailer mounted generator for large pump stations, one trailer mounted manhole restoration machine, one set of smoke blowing equipment, one trailer mounted concrete grout mixer. Additional cleaning equipment and manpower are available via contract operations with several area vendors. Twenty four hour on-call vendors include: B.T. Environmental – Myers pumps; ISI Inc. – Hydromatic pumps/ SCADA system; Heller Company Inc. – Mainline pipe bursting and sewer repairs; On-Line Construction Inc. – Sewer line repairs and heavy equipment; National Pump Rentals – Bypass pumping; and Emery Pump Service – Pumper Trucks. See Appendix 6, External Resources for Phone Numbers of on-call vendors. Benton Utilities Wastewater Collection Department does not anticipate using contract services unless the following conditions exist:

- system equipment inoperable for extended period
- manpower shortage
- unusually high cleaning demand due to unforeseen circumstances

4.2 Pump Stations

All equipment is to be maintained in accordance with the manufacturer's specifications. In addition the following maintenance activities will be conducted.

Table 4-2: Pump Station Routine Maintenance Schedule

Description	Critical (C) Non-critical (NC)	Known Problems Issues	Daily	Weekly	Monthly	Annually	Triennial
Pump stations with no backup power	C++	No back up power, history of power failures, no SCADA	Check for station problems including security	Record pump pressure and pump run times	Check and record motor amperage, check mechanical and electrical connections, pump grease from wet well as needed, remove and replace flow meter strip chart	Exercise all valves	Disassemble and clean internal pump components, check impeller, disassemble and clean check valves, assess condition
All other pump stations	NC	No known problems, has back up power and SCADA or other notification system		Check station for problems including security, record pump pressure and run time	Check and record motor amperage, check mechanical and electrical connections, pump grease from wet well as needed, remove and replace flow meter strip chart, operate backup generator, check and top off all fluids	Exercise all valves	Disassemble and clean internal pump components, check impeller, disassemble and clean check valves, assess condition

Record inspections and maintenance performed on Pump Station Log Sheet forms kept in the pump station in three ring binders. Once a month, make a copy and place it in a three ring binder or binders in Wastewater Collection Manager's Office. Use copy to update electronic records once a month. See Appendix 22 entitled Lift Stations for form.

4.3 Force Mains

Check all air relief valves for proper operation semi-annually, disassemble and clean annually. Clean force mains with a pipe pig every five years. Keep records on dates the air relief valves are checked, disassembled, and cleaned in a binder kept at the office. Keep records on the dates force mains are cleaned in a binder kept at the office. See Appendix 19, Force Main Repair Records for forms.

4.4 Repairs

Routine maintenance will identify repair needs within system components. The appropriate repair for any given problem is dependent upon the nature of the problem and cannot be prescribed in this plan. However a priority hierarchy has been established to structure what and when repairs are to be accomplished. The hierarchy is based upon identifying and repairing critical components first. Critical components are parts of the collection system which if failure occurs will result in system failure and sewer overflow. Such items may include failure of a pump, failure of a backup generator to start, or obstruction in the sewer line. Other problems identified by maintenance activities will be less acute and can be repaired on a lower priority basis. This may include loose or missing manhole bricks, broken manhole covers, lift station lighting, etc. When normal maintenance activities identify the need for component repairs or when problems are brought to the attention of the system by customers or others, the problem and corresponding repair will be assigned a priority ranking based on the following hierarchy.

The response time is a requirement for the system to complete. Not meeting the required response time will be considered a failure on the part of the system to meet the requirements of this plan. The repair time goal is a stated goal. Many factors, some out of the control of the system, will impact the ability of the system to make the necessary repairs. Not meeting the repair goals will not be considered a plan failure but will be noted in self-audits from which plan and or operational changes may be fashioned.

Table 4-3: Collection System Response and Repair Priority Hierarchy

Problem	Priority	Response Time	Action	Repair Time Goal
Active Sewer Overflow	1	Within 1 hour of receiving report	Stop overflow, return system to normal operation	Within 4 hours of arriving on site
Failure of Critical Component, Overflow/Bypass Will Occur if Not Repaired	1	Within 1 hour of receiving report or discovering problem	Repair or replace component, return system to normal operation	Within 4 hours of arriving on site
Unsafe Condition Poses Risk to Public or Employees	1	Within 1 hour of receiving report or discovering problem	Mitigate and repair to eliminate unsafe condition	Mitigate risk within 2 hours of arriving on site, repair within 8 hours if public risk, 7 days if employee risk

Problem	Priority	Response Time	Action	Repair Time Goal
Evidence of System Surcharging and Intermittent Overflow	2	Within 1 day of receiving report or discovering problem	Clean sewer line and/or check for proper downstream pump station operation and repair as needed. Re-evaluate problem following cleaning/repair. Begin I&I evaluation and corrections if not corrected.	Within 8 hours of arriving on site for cleaning and station repairs. Initiate I&I evaluation and corrective actions within 30 days
Failure of Backup Power System	2	Within 3 days of receiving report or discovering problem	Repair or replace equipment as needed	Within 10 days of response
Evidence of Surcharging, No Overflow Evidence	3	Within 1 week of receiving report or discovering problem	Clean sewer line and/or check for proper downstream pump station operation and repair as needed. Re-evaluate problem following cleaning/repair. Initiate I&I evaluation and corrections if not corrected.	Within 8 hours of arriving on site for cleaning and station repairs. I&I evaluation and corrective actions within 180 days
Failure of Monitoring or Measuring Equipment	3	Within 3 days of receiving report or discovering problem	Make repairs or replace as needed	Repairs within 7 days of response. Replacement within 30 days.
Evidence of I&I Non-surcharging	4	Complete evaluation of cause within 90 days of discovering problem.	Make corrective actions based on I&I evaluation findings	Within 360 days
Component failures non-critical and general non-routine maintenance	5	Evaluate repair/maintenance need within 180 days of discovering problem	Make repairs	Within 360 days

General items are discussed in the following paragraphs. The concept of capacity for a wastewater system has two basic elements; the capacity of the wastewater plant and the capacity of the collection system. Inflow/infiltration and growth can result in wastewater flows exceeding the design capacity of either the plant or collection system or both. Capacity design standards vary from state to state but generally involve designing to the more conservative of either flows or loadings. For collection systems it is generally flows either peak hourly flows, average flows or some multiple of one of these elements.

5.1 Treatment Plant

Evaluating the treatment plant is relatively straight forward if based upon flow. Simply compare the plant design standard to the appropriate flow value. For example if a plant design is based upon 3.0 mgd as a monthly daily average, the plant is operating under its hydraulic design capacity if monthly daily averages during the wettest period of the year are less than 3.0 mgd. Conversely if the design is based upon a peak hourly flow of 10 mgd and peak flows are recorded at 15 mgd during the wettest period of the year then the plant is operating above its designed hydraulic capacity.

The City of Benton Wastewater Treatment Plant design capacity is 8.3 MGD which is based upon average daily flow. During wet weather conditions Benton Utilities has the option to shunt water from the wastewater treatment plant to a 57 million gallon equalization basin. Then flows can be discharged from the equalization basin to the plant as flows decrease. Flow data collected from the effluent meter and chart recorders of flow through the plant which is located at the outfall area show that the plant is within its design capacity. Plant average daily flows for 2009 was 6.8 MGD, for 2010 was 4.9 MGD, and for 2011 was 5.2 MGD.

5.2 Collection System

Capacities within the collection system vary by the size of the piping making up the system. It is desirable to determine capacities within the collection system to gauge whether portions are subject to surcharging and overflows and to develop a baseline from which planning decisions regarding new connections may be made. Even if the treatment plant flows are within the design capacity, portions of the collection system could be receiving flows in excess of their design capacities. There are a number of simple ways to determine if the collection system is receiving excess flows. Where this condition is suspected or verified, more specific evaluation methods are to be used to determine the exact flows. Benton Utilities Wastewater Collection Department will assess the collection system capacity via the following methodology.

5.2.1 Collection System Evaluation

5.2.1.1 Preliminary Evaluation

Per the baseline maintenance schedule in Section 4.1, Benton Utilities Wastewater personnel will perform a visual inspection of the sanitary sewer collection system looking for evidence of overflows and surcharging. This will be accomplished by walking/driving the collection system to identify evidence of overflows on the ground surrounding manholes or at overflow discharge points in the case of combined sewers. Surcharge conditions, as evident by water lines on the inside walls of manholes, sanitary waste debris on manhole ladder rungs or on the manhole decking, will be evaluated by opening manholes and examining for these conditions. Customer complaints of backups and overflow history are also to be used as sources of information. Personnel will mark any known or suspected capacity issues on maps of the sewer system as "known" and "suspected". Personnel will also record the known or suspected capacity issues on forms kept in a three ring binder in the office. The priority for follow up evaluation and corrective action will be in accordance with Table 4-3: Collection System Response and Repair Priority Hierarchy.

5.2.1.2 Follow Up Evaluations

Debris within a manhole is indicative of surcharging within that portion of the sewer system. However surcharging may not always leave evidence. Before embarking upon the installation of flow meters and a more technical hydrologic evaluation, suspect surcharge areas will be evaluated either by chalk boards, white boards, or bottle boards. In the case of a chalk board, a chalk line is drawn vertically on a board that is placed and secured in the manhole. Maximum water elevation is determined by where water marks or removes the chalk from the board. Likewise a white board is used with maximum elevation indicated by a watermark. Bottle boards may also be used in which small bottles are attached vertically to a board at 1 foot intervals and securely placed in the manhole. The maximum depth is determined by the filled bottle(s) on the board.

Surcharges identified from these rapid means can then quickly be addressed. If surcharging occurs during wet weather then infiltration can be suspected. If surcharging is not associated with wet weather, then either there is significant inflow, downstream blockage/constriction, or the collection system is undersized for the flows it is receiving.

Blockages and constrictions will be immediately addressed via mechanical or chemical cleaning of the sewer followed by a repeat evaluation for the presence of surcharge conditions. If the surcharge condition has been abated, no further action is required. If the surcharge condition has not been entirely corrected then further evaluation is required.

5.2.2 Targeted Visual Examinations

In the event the surcharging condition has not been resolved, system personnel will begin a visual monitoring program during periods of high flow (6-9 am and 4-7 pm), periods of low flow (1 – 4 am) and wet weather periods. Personnel will note in a field log book the relative depth of flow during these conditions and if a surcharge condition is occurring. During periods of expected dry

weather low flow (early morning hours), flows should be minimal to possibly non-existent unless there are industrial/commercial sources in operation during these periods. Flows above what would otherwise be expected may be indicative of excessive groundwater infiltration. Sewer pipe design standards allow for a certain amount of infiltration usually expressed as gallons per inch of pipe diameter per mile of pipe per 24 hour period. For example a design standard of 50 gallons per inch of pipe diameter in a 12 inch pipe allows for 600 gallons of inflow per mile of pipe over a 24 hour period or 0.4 gallons per minute. This is a very nominal amount so barring excessive infiltration and commercial/industrial sources, early morning flows should be small. Surcharging during expected dry weather high flow periods (6-9 am and 4-7 pm) may be indicative of a collection system that is undersized while surcharges during wet weather periods are indicative of inflow conditions. Note that dry weather flow problems are likely to be exacerbated during wet weather.

5.2.3 Physical Testing

If inflow is suspected, the Benton Utilities Wastewater Collection Department will conduct a program of smoke testing the portions of the collection system impacted by inflow. Property owners will be required to immediately correct illegal connections consistent with the Benton Utilities ordinance banning storm and ground water connections to the sanitary sewer. In the event storm sewers are found to be connected into the sanitary sewer where a separate storm sewer exists, the Benton Utilities Wastewater Collection Department will make repairs to reconnect to the storm sewer system.

Rubber Ducks

A low cost means to determine if storm drain(s) have been inadvertently tied into the sanitary sewer system is through the use of yellow rubber ducks. Simply acquire small yellow rubber ducks, number each with an indelible marker (Sharpie®), place the ducks in storm drains, record the duck number and drain location in a log book and wait for it to rain. During the first rain event collect the ducks from the receiving surface water body and from within the sewage plant or pumping stations. The ones that made it into the sewer tell you where a storm line is tied into the sanitary sewer via the duck number. Simple and inexpensive.

In the case of suspected excess infiltration, Benton Utilities Wastewater will conduct TV surveillance of the portions of the collection system believed to be impacted by groundwater infiltration. Benton Utilities Wastewater Collection Department will make repairs based upon the findings of the TV survey.

U.S. EPA has published standards for non-excessive dry weather infiltration and wet weather inflow (Infiltration/Inflow, I/I Analysis and Project Certification, U.S. EPA, May 1985). Based on flow studies of numerous wastewater systems, EPA has established that if the highest average daily flow during a 7-14 day period is less than 120 gallons per capita per day (gpcd) during dry weather, high groundwater table periods, the system is not experiencing excessive infiltration. Industrial and commercial flows of 50,000 gpcd or more are excluded in the 120 gpcd figure otherwise all residential, commercial, industrial and infiltration is included.

Likewise EPA uses 275 gpcd and less during rainfall periods in which there is surface runoff as a figure at which inflow is considered to be non-excessive; i.e. if flows exceed 275 gpcd at any time during a storm event then inflow is excessive. Again commercial and industrial flows of 50,000 gpcd are excluded from this figure.

5.2.4 Flow Monitoring

Flow monitoring and trending either within the collection system piping or at lift stations are excellent ways to monitor capacity issues and to gauge I&I reduction efforts. Routine flow monitoring of the average daily and peak hourly flows at all lift stations and headworks will be recorded and graphed to reveal flow trends in the system. Flow meters will be added to stations without meters on a systematic basis not to exceed 3 years. Pump run times will also be graphed along with flow values. Run time trends should be consistent with flow trends. Deviations of the flow and run time may be indicative of a pump or system problem that can be identified early via data trending. Graphing and trending frequency is site dependant dependent upon whether or not problems exist but will be conducted for each station and at the plant headworks at least on an annual basis. Daily, monthly and annual average will be graphed to identify flow trends.

In portions of the collection system in which I&I or capacity issues are known or suspected, flow monitoring within the collection system at appropriate locations will be conducted in conjunction with corrective measures. The frequency and location of monitoring shall be determined by Benton Utilities Wastewater Collection Department on a case-by-case basis but will be sufficient enough to be representative of seasonal average and peak flows and sufficient to indicate if corrective measures are effective.

5.2.5 TV Surveillance

Closed circuit television analysis of the interior of sewer lines is one of the most comprehensive evaluation methods available as it allows surveying the interior conditions of a pipe. Areas of the sewer system that are experiencing frequent blockages and/or inflow/infiltration should be analyzed by TV analysis to determine the cause of the problems. Tree roots, misaligned joints, saddles, and collapses are common reasons for blockages to occur as grease and other materials begin to accumulate in these areas. Likewise cracks, joint problems and illegal connections can be identified with the aid of television inspection. TV inspection of the sewer system will be utilized in areas with known and repeat problems to diagnose the cause(s) of the problems.

5.3 Capacity Determination

Collection system capacity is a function of pipe and lift station pump size. Monitoring pump run times may tell if a station is experiencing capacity issues. If run times show frequent multiple pump operation as opposed to a lead/lag operational mode, the station is experiencing high water which may be indicative of capacities above the design for the pumps. Manufacturer's pump curves can be obtained to determine pump capacity based upon the total system head the pump is operating under. Note the capacity of multiple pumps operating simultaneously is not the summation of their individual capacities from their respective pump curves. A second pump experiences additional head from the operation of the lead pump which must be taken into consideration when determining system head. If available, as-built design and specifications should provide the station capacity. The pump curve data and pump run times can be used in conjunction with flow monitoring to determine if a station is of sufficient capacity.

Pipe capacity is dependent upon the size of the pipe, condition, and slope. Approximations of maximum pipe flow can be obtained using the Manning Equation. The following table illustrates a

conservative estimate of maximum pipe flow for various pipe sizes and slopes. The estimates are conservative in that flow was calculated for full pipe flow. Actual maximum pipe flow occurs just before full pipe conditions.

Table 5-1: Maximum Pipe Flow

Pipe Size (inches)	Pipe Slope											
	0.5%	1%	1.5%	2%	2.5%	3%	3.5%	4%	4.5%	5%	5.5%	6%
8	408	577	707	816	912	999	1079	1154	1224	1290	1353	1413
12	1203	1701	2083	2406	2690	2946	3182	3402	3609	3804	3989	4167
18	3546	5015	6142	7093	7930	8687	9383	10031	10639	11215	11762	12285
24	7638	10801	13229	15275	17078	18708	20207	21602	22913	24152	25331	26457
36	22518	31845	39002	45036	50352	55158	59577	63690	67554	71208	74684	78005

Roughness coefficient (n) = 0.012, all values in gallons per minute

Pipe flows for other pipe sizes may be calculated via the formula:

$Q = VA$ — Q = flow

where $V = (1.486/n)R^{2/3}S^{1/2}$ — V = velocity; n = roughness coefficient; S = pipe slope

$R = A/P$ — A = area of pipe; P = perimeter of pipe

Where $A = 3.14(r^2)$ — r = radius of pipe

$P = 3.14(d)$ — d = diameter of pipe

The maximum pipe flows from the table above will be compared against the projected flows based on the population served by the particular area of the sewer system. Projected flows for the service area of the collection system are calculated by multiplying the number of equivalent dwelling units (EDU) by 2.53 persons per household and 100 gallons per day per person. The projected flows are then compared against the theoretical maximum flows calculated via Manning to determine if portions of the system currently are at or below capacity. Likewise, future building impacts will be assessed in the same manner to determine if the existing collection system can handle the additional wastewater contribution. Note that each unit in a mutli-family dwelling is considered one EDU.

6.0 Monitoring, Measuring and Program Updates

This plan lays out metrics for employee training, routine maintenance, repairs and system flow monitoring. The Wastewater Collection Manager will evaluate adherence to these metrics and the goals of this program on an annual basis. At his/her discretion, the program may be modified based on the annual evaluation. The Wastewater Collection Manager is expected to require all employees to adhere to this plan in the performance of their individual duties. Should the Wastewater Collection Manager determine that the plan needs to be updated, a brief written justification must be completed and maintained as part of the system's records.

7.0 Overflow Emergency Response Plan

In order to respond effectively to a sewer overflow, a plan must be in place prior to the overflow and all personnel need to understand their role in the response and follow up. A detailed overflow response plan is included in Appendix 24 entitled Overflow Response Plan. The flow chart on the following page describes the actions that will be taken in the event of an overflow of the collection system.

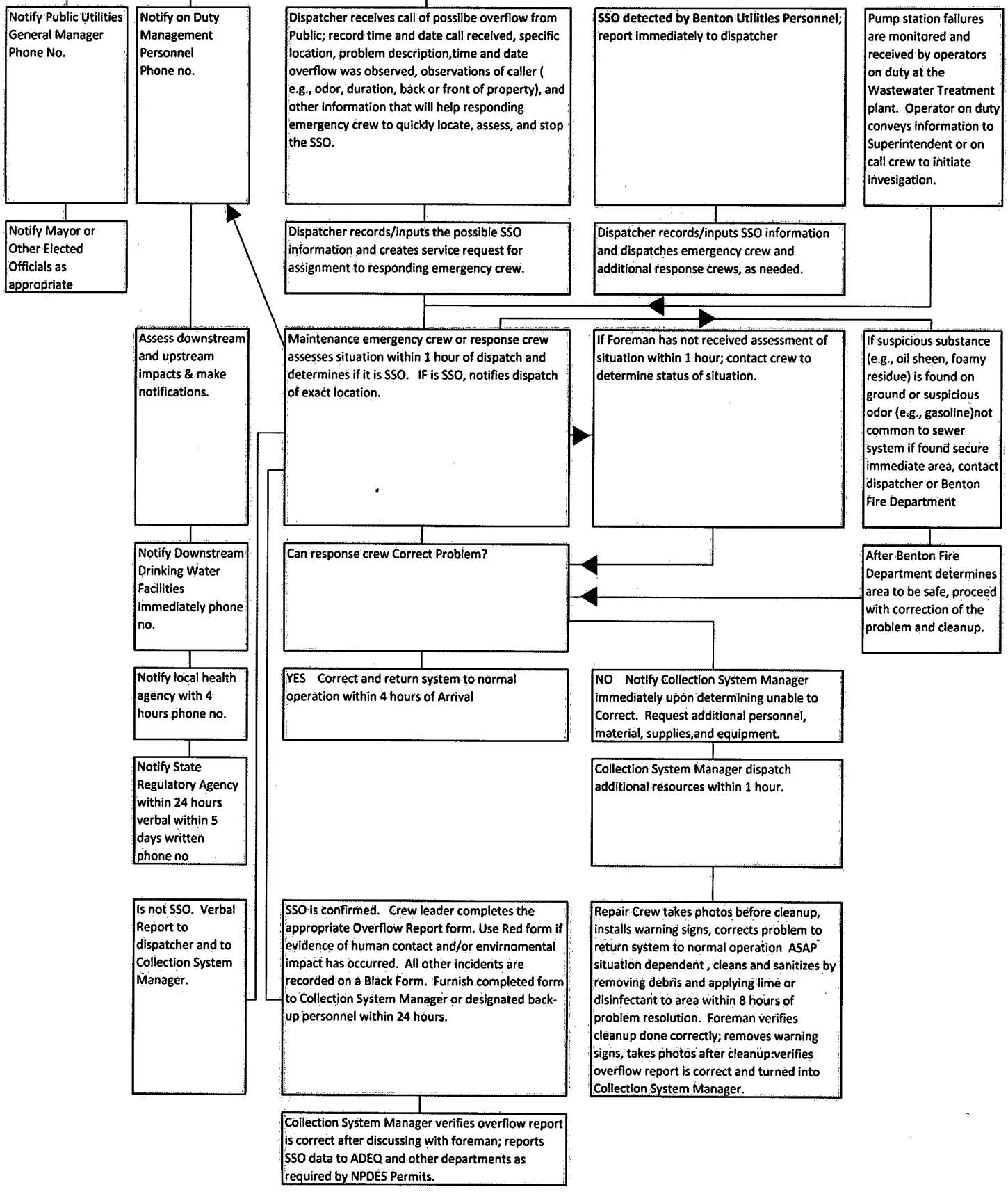
8.0 Available Resources

Benton Utilities acquired a software program entitled Maintenance Pro 5.0 Deluxe on July 29, 2010. A copy of the invoice is contained in Appendix 5, Asset Management Forms along with a table which contains a listing of the programs features. Equipment and supply purchases are added to the program at time of acquisition. Maintenance and disposal of equipment is tracked by the program. The program also tracks the reduction in supplies as they are used on a daily basis.

Internal Available Resources are contained in the Maintenance Pro 5.0 Deluxe data base. Inventory is checked manually once a year and adjustments are made to the data, if required. A typical Wastewater Collection Department Inventory list is contained in Appendix 5, entitled Asset Management Forms.

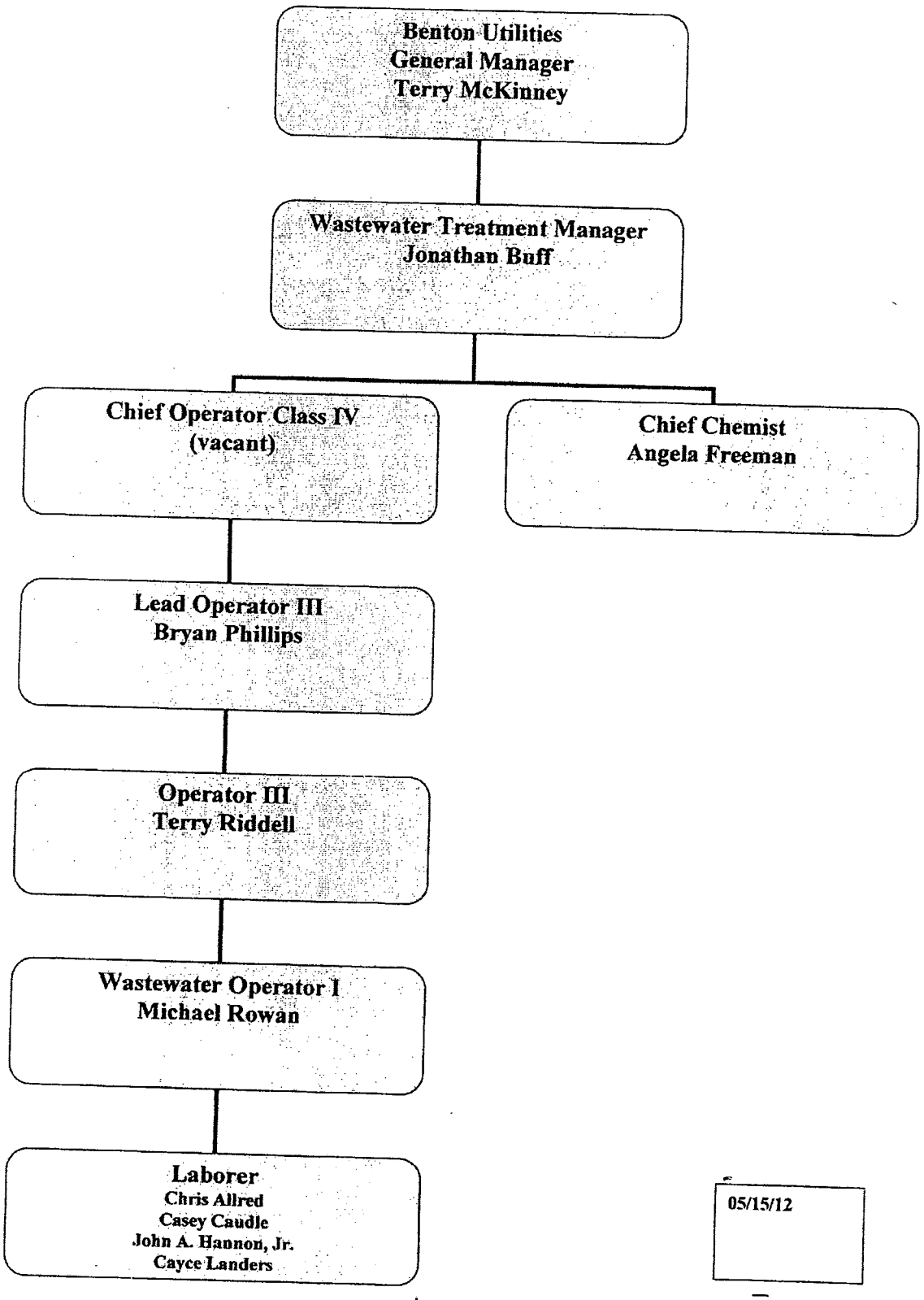
External Available Resources are contained in Appendix 6, External Resources.

EMERGENCY RESPONSE FLOW CHART

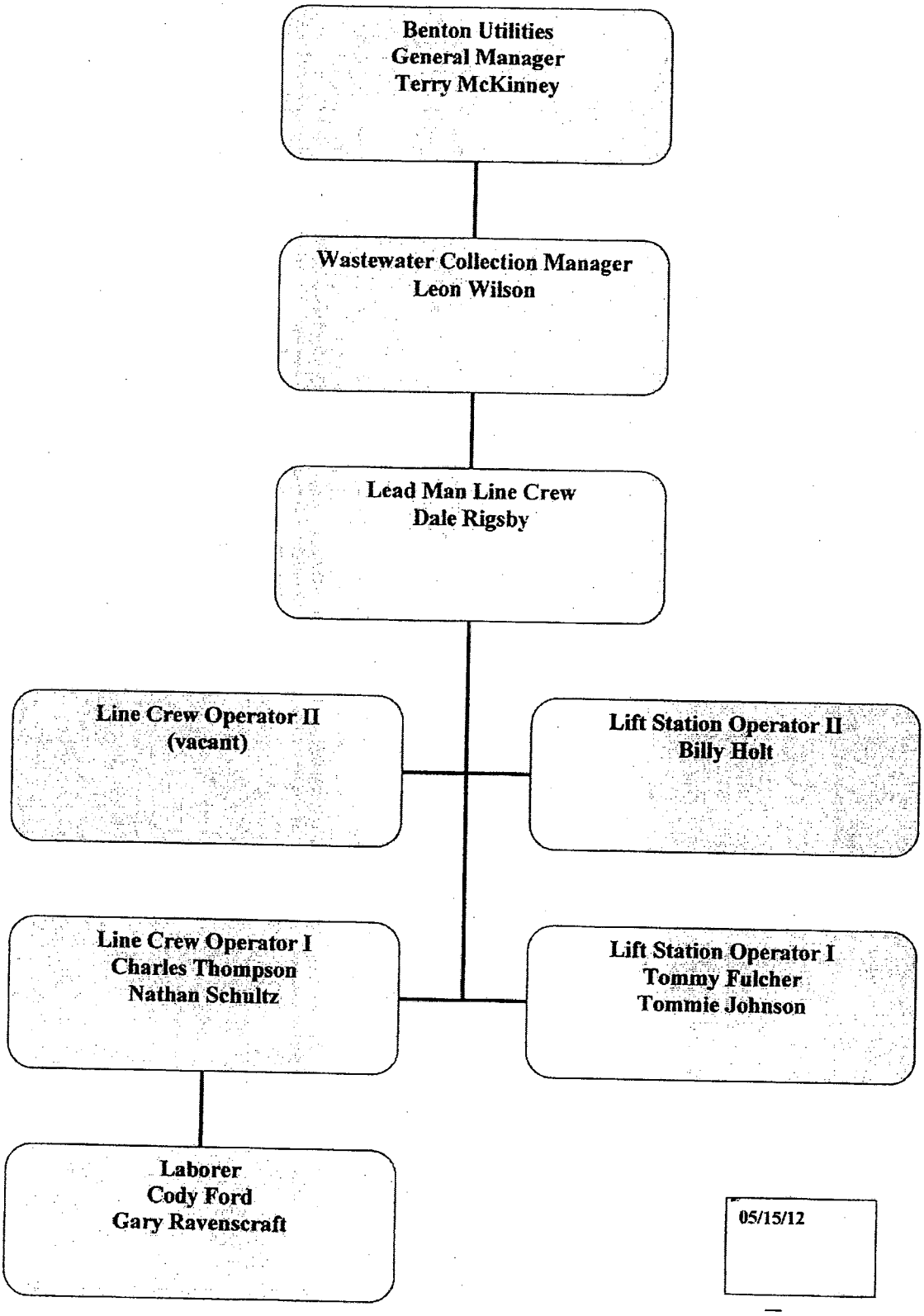


Appendix 1
Organization Chart

Table of Contents


Benton Utilities
General Manager
Terry McKinney
Wastewater Treatment Manager
Jonathan Buff
Chief Operator Class IV
(vacant)
Chief Chemist
Angela Freeman
Lead Operator III
Bryan Phillips
Operator III
Terry Riddell
Wastewater Operator I
Michael Rowan
Laborer
Chris Allred
Casey Caudle
John A. Hannon, Jr.
Cayce Landers

05/15/12


Benton Utilities
General Manager
Terry McKinney
Wastewater Collection Manager
Leon Wilson
Lead Man Line Crew
Dale Rigsby
Line Crew Operator II
(vacant)
Lift Station Operator II
Billy Holt
Line Crew Operator I
Charles Thompson
Nathan Schultz
Lift Station Operator I
Tommy Fulcher
Tommie Johnson
Laborer
Cody Ford
Gary Ravenscraft
05/15/12

Benton Wastewater Collections Department
Addresses & Phone Numbers

Name	Address	Phone
Leon Wilson	507 N. Summit - Benton AR	501-860-5975
Nathan Schultz	1888 Falcon Way-Benton AR	501-626-4635
Charles R. Thompson	813 Valley Vista- Benton AR	501-860-8174
Billy Holt	1408 Pamela Way-Alexander AR	501-847-4928/501-831-0191
Cody Ford	1002 Henry st- Benton AR	501-778-7303/501-317-2495
Tommie Lee Johnson	1100 W. Smith st APT 5-Benton AR	501-551-1572
Gary Ravenscraft	15374 Hwy 9- Benton AR	765-635-6086
Dale Rigsby	103 Alaina Ln- Malvern AR	501-317-8457/501-467-3329
Tommy Fulcher	3302 Salt Creek Rd- Benton AR	501-317-6416

Cell Phone at work:

Leon Wilson	501-317-7150
Line Crew	501-317-6306
Liftstation Crew	501-317-6524

Appendix 2
Job Descriptions

Table of Contents

CITY OF BENTON, ARKANSAS
JOB DESCRIPTION

JOB TITLE: Public Utilities General Manager	**DATE: April 21, 2005**
DEPARTMENT: General Management	**GRADE:**
DIVISION: Public Utilities	**FLSA STATUS: Exempt**
REPORTS TO: Board of Commissioners	**EEO CATEGORY: Management**

This job description should not be interpreted as all-inclusive. It is intended to identify the essential functions and minimum qualifications of this job. The incumbent(s) may be required to perform job-related responsibilities and tasks other than those stated in this job description. Nothing in this job description restricts management's right to assign or reassign job-related responsibilities and tasks to this job at any time. Certain functions are understood to be essential; these include, but are not limited to, attendance, getting along with others, working a full shift, and dealing with and working under stress. Any essential function of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.

JOB SUMMARY:

The Public Utilities General Manager, as chief executive, assumes direct charge of the business of the utilities subject to the control of the Utility Commission, in order to supply customers with adequate and reliable electric, water and sewer service at the lowest rates consistent with costs and board policy, giving due regard to the utilities' obligation to the customers, the employees and various government bodies who authorize the utilities existence and regulate its operation.

SCOPE OF WORK ENVIRONMENT:

The Public Utilities General Manager reports directly to the Board of Utility Commissioners. The position directs and administers all activities of the utility, within a general framework of approved policies, budgets and programs developed by the Board of Utility Commissioners. This classification has frequent contact with members of the utility commission, state government officials and elected city officials, contractors, consultants, utility department heads, employees and general public. The position directly supervises the department heads of the various divisions within the Benton Utilities system.

JOB RESPONSIBILITIES:

1. The Public Utilities General Manager is responsible for the overall management and control of the operations and property of the utility system.

2. Assures that the Board of Utility Commissioners is provided with accurate, timely information to facilitate appropriate policy/decision-making.

3. Leads in the acquisition of electric power and water supplies to provide sufficient and cost effective resources for Benton Utilities' customers.

4. Assist the Board of Utility Commissioners in establishing utility policies and objectives.

5. Administer policies and programs to achieve utility's objectives and coordinate utility activities between departments to maintain operating efficiency.

6. Convene and preside at staff meetings to receive, exchange, and convey information.

7. Initiate and conduct studies to forecast future utility needs, including facility and capital expenditures and use studies to support recommendations to Board of Utility Commissioners.

8. Submit annual operating budget and capital budget quarterly to the Board of Utility Commissioners, forecast five-year budget.

9. Ensure utility's power, water and sewer operations are in compliance with all city ordinances/policies and applicable Federal, State, Municipal statutes, guidelines, rules, regulations and public utility principles/practices.

10. Maintains an effective relationship with the customers and the public and represents the utility in matters of city affairs, civic affairs and state and national organizations.

11. Ensure equitable administration of wages and salaries, employee benefit plans and performance appraisals.

12. Approves or recommends the approval of appropriate resources for the utility including the selection or removal of all utility employees.

13. Develop and direct supporting organization, including establishing the duties and responsibilities for top management (department head) positions.

14. Prepare materials and agenda for Board meetings.

15. Assign work through department heads and staff to ensure timely completion of projects and priorities.

16. Review the work of department heads and staff to ensure work product adheres to established quality standards and instructions.

17. Complete ongoing projects within schedule and budget so the utility receives the benefit of the investment through financial return and reliable service.

18. Carefully monitor and verify work done by outside firms, including engineers and contractors. This may be facilitated through the use of the city engineer and/or others (department heads), etc.

19. Reviews utility's pronouncements and releases.

20. Participates in departmental activities, including work simplification programs, training groups, safety activities, employee group education and social groups.

21. Supervises every other facet of management not outlined above, where such factors are considered essential to proper management.

GUIDANCE:

The Public Utilities General Manager seeks guidance from Board of Utility Commissioners and is also guided by city ordinances and policies, as well as applicable Federal, State, Municipal statutes, rules, regulations in addition to public utility principals/practices.

CHALLENGES:

The challenges for this position are 1) to remain current and informed on public utility regulations, employment-related issues, city ordinances/policies, and related Federal, State, Municipal statutes, rules and regulations; 2) to communicate effectively both orally and in writing with internal and external customers; 3) to effectively disseminate information both internal and external; 4) to ensure utility services/operations are conducted in a professional, effective and efficient manner; 5) to prioritize and delegate duties and workflow appropriately; 6) to identify and secure necessary resources to accomplish utility goals and objectives; 7) foster a quality work environment by building employee trust and confidence.

INTERFACES:

The incumbent's principal contacts are primarily internal to include: Board of Utility Commissioners, department heads, supervisors and exempt and non-exempt employees.

The incumbent's principal customers external to the utility include: citizens, attorneys, vendors, contractors, engineers, consultants, accountants, auditors, and government agencies (to include grants).

AUTHORITY:

The Public Utilities General Manager has the authority to direct and administer the overall operation of the Benton Utilities system as designated by the Board of Utility Commissioners, within the compliance framework of city ordinances/policies, Federal, State and Municipal statutes, guidelines, rules/regulations; to delegate duties and supervise department heads, to conduct forecast and prepare long range plans; to address customer concerns and conduct appropriate problem resolution; to approve or recommend the approval of appropriate resources for the utility including the selection or removal of all utility employees; to make recommendations and take appropriate action to ensure the overall effectiveness and efficiency of the utility system.

POINTS	DESIRABLE QUALIFICATIONS:	
40	Education:	Bachelors Degree in engineering or business administration from an accredited institution required. Masters Degree in business desirable.
40	Experience:	Substantial experience in either business administration, engineering or preferably, a combination of both. Experience should include at least ten years backround in public utilities management or equivalent in either the public or private sectors.
10	Special Training:	Electric power and water utility operations.
10	Technical Skills:	Good supervisory, communicative, management, administrative skills and proficiency in use of a personal computer.
	Licenses & Certifications:	Valid Arkansas Driver's License
100	TOTAL POINTS	

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, THE FOLLOWING REPRESENTS THE PHYUSICAL/ENVIRONMENTAL DEMANDS:

This position requires a majority of time (over 50%) spent in a seated position.

Considerable amount of standing and walking is required.

Excellent sensory skills are important (sight, hearing and speech), as well as ability to communicate effectively.

No adverse working conditions.

Approver by:_____ **Date:**_____

Commission Chairman

CITY OF BENTON, ARKANSAS
JOB DESCRIPTION

JOB TITLE: Director, Finance & Admin	**DATE: 07/08**
DEPARTMENT: Finance & Administration	**GRADE: 26**
DIVISION: Benton Utilities	**FLSA STATUS: Exempt**
REPORTS TO: Utilities General Manager	**EEO CATEGORY: Officials/Admin.**

This job description should not be interpreted as all-inclusive. It is intended to identify the essential functions and minimum qualifications of this job. The incumbent(s) may be required to perform job-related responsibilities and tasks other than those stated in this job description. Nothing in this job description restricts management's right to assign or reassign job-related responsibilities and tasks to this job at any time. Certain functions are understood to be essential; these include, but are not limited to, attendance, getting along with others, working a full shift, and dealing with and working under stress. Any essential function of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.

JOB SUMMARY:

The Director of Finance and Administration has the dual role of planning, organizing, managing and directing the financial operations and services for the City of Benton General Funds under the direction of the Mayor and Benton Utilities matters under the direction of the Utilities General Manager. The incumbent serves in a managerial capacity to ensure compliance with all regulatory financial statutes/guidelines and quality of departmental services and also serves as the City's financial liaison to City Council and Council committees.

SCOPE OF WORK ENVIRONMENT

The Director of Finance and Administration reports directly to the General Manager of Utilities and indirectly to the Board of Utilities Commissioners. Under the administrative guidance and direction of the General Manager of Utilities, this position is responsible for all facets of departmental operations and services to include: direct/indirect supervision of personnel, internal/external information dissemination, financial planning and forecasting, budget preparation and reporting, accounting, and investments. The incumbent determines the formulation and execution of broad policies regarding department functions. The incumbent is responsible for compliance with City ordinances/policies and applicable Federal, State, Municipal statutes, guidelines, rules, regulations and principles/practices of public finance administration to include GAAP & Statutory reporting practices. This position directly supervises the Supervisor of Management Services (Accounting).

JOB RESPONSIBILITIES:

The incumbent's direct responsibilities include:

- Plans, directs and manages departmental operations/services, supervisory staff, training and work programs.

- Directly supervises two subordinate staff positions and indirectly supervises all exempt and non-exempt employees in the accounting area.
- Develops forecasts and long range plans for City's financial operations to include revenue growth, taxation, borrowing and capital improvement programs; coordinates planning with General Manager, Mayor, City Council, department heads, engineering consultants, etc.
- Prepares annual and multi-year revenue and expenditure estimates for use in budget preparation; develops other budget summaries and schedules; directs preparation of annual budget document.
- Ensures total General Fund budget is compiled and presented to Mayor by established deadlines; presents information/reports regarding budget requests and revenue estimates to Mayor as required.
- Confers with and advises Mayor, City Council members, Utilities General Manager, Public Utilities Commissions members, and department heads regarding fiscal operations, budget administration and fiscal aspects of contracts.
- Prepares and interprets interim financial reports, cost analysis and statistical data for Mayor and Utilities General Manager.
- Manages City's investment portfolio and debt issuance; ensures cash is adequately collateralized as required.
- Directs accounting service/operations through the subordinate position of Supervisor of Management Services.
- Serves as Treasurer for City and Utility funds; determines appropriate sums of money form each fund for investment purposes and terms of investments.
- Prepares, or coordinates preparation through vendor, monthly financial reports for Police and Fire Pension Funds; serves as voting member of Police Pension Board; serves in advisory capacity regarding financial/investment issues with Municipal Judges and Clerks Pension Fund.
- Serves as Plan Administrator and one of five (5) Trustees for the Non-Uniform Employee Pension Fund.
- Secures procurement of property/casualty insurance through bid process; manages administrative functions of all property/casualty claims; serves as voting member of the Central Arkansas Risk Management Association (managing board or self-insured property/casualty risk pool.
- Develops and implements policies/procedures for City and Utility general accounting, accounts receivable, accounts payables.
- Directs and participates in review of all financial transactions and monitors expenditures of appropriated funds; ensures compliance with standard accounting systems and fiscal procedures (internal audits).
- Maintains custody and coordinates control of land records and documents to include land warranty deed, deeds of easement and right-of-way.
- Oversees maintenance of comprehensive filing system for broad array of administrative matters to include vendor contracts, governmental agency(is) reports, internal/external correspondence and other information as necessary/required.
- Participates in studies for the purpose of establishing rates for utility services.
- Participates and provides assistance in the development and procurement of wholesale power for the City.

- Performs other duties as necessary and/or required.

GUIDANCE

The incumbent seeks direction and guidance from the General Manager of Utilities, Mayor and is also guided by City ordinances and policies, as well as applicable Federal, State, Municipal statutes, rules and regulations in addition to public administration accounting principles/practices..

CHALLENGES

The challenges for this position are: 1) to remain current and informed on financial and utility updates, City ordinances/policies and related Federal, State, Municipal statutes, rules and regulations; 2) to communicate effectively both verbally and in writing with internal and external customers; 3) to effectively disseminate information both internal and external; 4) to ensure department services/operations are conducted in a professional, effective and efficient manner; 5) to prioritize and delegate workflow appropriately; 6) to identify and secure necessary resources to accomplish departmental goals and objectives; 7) to foster a quality work environment by building employee trust and confidence.

INTERFACES

The incumbent's principal internal contacts are primarily to include: General Manager of Utilities, Utilities Board of Commissioners, Mayor, City Council members, department heads, managers, supervisors, exempt and nonexempt employees.

The incumbent's principal contacts external to the department and/or city government include: citizens, attorneys, bankers, investment groups, accountants, auditors, government agencies (to include grants), vendors, contractors, engineers, and consultants.

AUTHORITY

The Director of Finance & Administration has the authority to direct and manage departmental services/operations within the compliance framework of City ordinances/policies, Federal, State and Municipal statutes, guidelines, rules/regulations; to delegate duties and supervise department personnel; to perform financial and investment services for the City; to conduct forecasts and prepare long range plans; to address customer concerns and conduct appropriate problem resolution; to make recommendations and take appropriate action to ensure the overall effectiveness and efficiency of the department.

SUPERVISION RESPONSIBILITIES

Directly supervises five (5) non-supervisory positions within the department. Carries out supervisory responsibilities in accordance with the City's policies and applicable laws. Responsibilities include interviewing, hiring, and training employees; planning, assigning, and directing work; appraising performance, rewarding and disciplining employees; addressing complaints and resolving problems.

RESPONSIBILITY FOR FUNDS, PROPERTY & EQUIPMENT: $100,000,000 +

MINIMUM QUALIFICATIONS

EDUCATION AND EXPERIENCE

Bachelor's degree (B.A. or B.S.) from four year college or university and eight (8) years related experience; or equivalent combination of education and experience and a minimum of eight (8) years of management experience.

KNOWLEDGE, SKILLS & ABILITIES

Knowledge

- Comprehensive knowledge of principles/practices/methods of public finance administration and utility administration.
- Comprehensive knowledge of City ordinances/policies/codes and State laws governing financial administration of municipal government.
- Comprehensive knowledge of accounting principles/practices
- Comprehensive knowledge of cost/revenue projection methods/techniques.
- Comprehensive knowledge of investment options
- Comprehensive knowledge of risk management issues
- Comprehensive knowledge of property/casualty insurance
- Basic knowledge of human resources administration/practices and organizational management

Skills

- Skill in communication, information dissemination, organization, delegation, supervision
- Skill in use of personal computer/applications and data processing software/equipment
- Skill in composition of narrative and written statistical/financial reporting
- Skill in human relations management

Abilities

- Ability to ensure departmental services, operations, policies/procedures comply with applicable government and regulatory statutes and guidelines.
- Ability to work effectively with internal and external customers/contacts.
- Ability to forecast and developing range plans prepare financial reports and conduct risk management.
- Ability to understand and interpret regulations/rules regarding public sector finance/accounting and financial statements/reports.
- Ability to understand and interpret information dissemination requests and related responses.
- Ability to develop/implement policies and procedures related to effective financial and utility operations/services.
- Ability to direct/delegate/supervise activities of professional and administrative employees.

ESSENTIAL FUNCTIONS

Refer to Job Responsibilities (Page one and two)

Reasonable accommodations may be made to enable individuals with disabilities to perform essential job functions. Certain functions are understood to be essential; these include, but are not limited to, attendance, cooperation and performing under stress/stressful conditions. Any essential function will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement, as established by The Americans with Disabilities Act, (ADA).

PHYSICAL REQUIREMENTS:

The physical demands marked below are representative of those that will be required to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

	Yes	No
Lifting (lbs.)	15	
Carrying (lbs.)	15	
Stooping/Bending	X	
Kneeling/Squatting	X	
Walking	X	
Standing	X	
Sitting	X	
Climbing, Balancing (working from a ladder)		X
Use of Hands to Finger, Handle, or Feel	X	
Physical Coordination (simultaneous use of hands, arms, feet and legs	X	
Eye-Hand Coordination	X	
Close Vision (Clear at 20 inches or less)	X	
Distance Visions (clear at 20 feet or more)		X
Color Vision		X
Depth Perception		X
Hearing	X	

WORK ENVIRONMENT:

The environmental conditions marked below are common to this job.

	Yes	No
Outdoor Weather Conditions		X
Wet, Humid Conditions (non-weather)		X
Work Near Moving Mechanical Parts		X
Work in High, Precarious Places		X
Fumes or Dust		X
Toxic or Caustic Chemicals		X
Extreme Heat (non-weather over 90 degrees F.)		X
Low Noise (e.g., business office)	X	
Moderate Noise (e.g., light motorized equipment such as lawn mowers)		X
Loud Noise (e.g., jackhammer, heavy motorized equipment)		X

CITY OF BENTON, ARKANSAS
JOB DESCRIPTION

JOB TITLE: Wastewater Collection Manager	**DATE: 05/06**
DEPARTMENT: Wastewater Collection	**GRADE: 20**
DIVISION: Public Utilities	**FLSA STATUS: Exempt**
REPORTS TO: Utilities General Manager	**EEO CATEGORY: Officials/Admin.**

This job description should not be interpreted as all-inclusive. It is intended to identify the essential functions and minimum qualifications of this job. The incumbent(s) may be required to perform job-related responsibilities and tasks other than those stated in this job description. Nothing in this job description restricts management's right to assign or reassign job-related responsibilities and tasks to this job at any time. Certain functions are understood to be essential; these include, but are not limited to, attendance, getting along with others, working a full shift, and dealing with and working under stress. Any essential function of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.

JOB SUMMARY:

The Wastewater Collection Manager plans, coordinates and manages wastewater collection for the City of Benton and also supervises all departmental employees.

SCOPE OF WORK ENVIRONMENT

The Wastewater Collection Manager reports directly to the General Manager for the Utilities and indirectly to the Board of Utility Commissioners. Under the administrative direction and guidance of the General Manager, the incumbent is responsible for all facets of wastewater collection management from point of entry in the sewer system to the point where wastewater enters the wastewater treatment facility. The incumbent supervises the following personnel; Lead Person, Line Inspector, Backhoe Operator I and II, Lift Station Operator II and five (5) Lift Station Operator I's. The Wastewater Collection Manager is also responsible for compliance with City ordinances, regulatory agencies (e.g., Arkansas Department of Health; Arkansas Department of Environmental Quality), and applicable Federal, State, Municipal statutes, guidelines, rules and regulations. The incumbent works with department heads, managers, supervisors, department employees, citizens, and governmental agencies/representatives, construction company representatives, residential and commercial developers and vendors.

JOB RESPONSIBILITIES:

The incumbent's direct responsibilities include:

- Plans, schedules and managers departmental operations and services.
- Supervises department employees, work activities and training.

- Ensures mandated compliance with Federal and State regulatory agencies and City ordinances, as well as applicable Federal, State and municipal statutes, rules and regulations; implements required action(s) to stay in compliance.
- Ensures safe and reliable operation and maintenance of wastewater/sewer lines.
- Conducts on-site inspections of new construction and new developments (residential and commercial).
- Maintains sewer maps collection, department files/notebooks and record keeping related to department functions (e.g., permits issued by Community Development Services, jet rod reports).
- Maintains inventory with necessary equipment and materials.
- Ensures equipment is in good working order; supervises repairs of equipment; coordinates repairs with vendors as necessary.
- Files reports with appropriate governmental agencies as required; submits reports to the General Manager as required.
- Receives and responds to emergency situations and citizen complaints.
- Provides recommendations to the General Manager regarding improvements to operations/services.
- Prepares and submits an annual budget to General Manager; monitors expenses to remain within budget constraints.
- Attends ADEQ annual seminar.
- Attends council meetings and related committee meetings as necessary.
- Performs other duties as assigned.
- Operates a City vehicle in the performance of essential job junctions.

GUIDANCE

The incumbent seeks direction and guidance from the General Manager and is also guided by city ordinances and policies, regulatory Federal and State agencies, as well as applicable Federal and State statutes, Municipal laws, rules and regulations.

CHALLENGES

The challenges for this position are: 1) to remain current and informed and in compliance with Federal/State regulatory guidelines and updates, City ordinances/policies and related Federal, State Municipal statutes, rules and regulations; 2) to communicate effectively both orally and in writing with internal and external contacts; 3) to achieve improvements in services by focusing on effective and efficient methods of operations; 4) to prioritize and distribute workflow appropriately; 5) to foster a quality work environment by building employee trust and confidence.

INTERNAL & EXTERNAL COMMUNICATIONS:

The incumbent's principal contacts are primarily internal customers to include: the General Manager, Board of Utility Commissioners, department heads, supervisors, managers, exempt and non-exempt employees.

The incumbent's principal contacts external to the department and/or city government include: citizens, contractors, developers, plumbers, engineers, representatives from regulatory agencies and vendors.

AUTHORITY

The Wastewater Collection Manager has the authority to implement approved departmental policies and procedures in accordance with City ordinances/policies and regulatory agency(ies) requirements/mandates; to supervise departmental personnel within the compliance framework of Federal, State, Municipal statutes, rules and regulations, in addition to City ordinances/policies; to approve wastewater plans for residential construction and commercial developments; to make recommendations to increase the overall effectiveness and efficiency of the Wastewater Collection Department.

RESPONSIBILITY FOR FUNDS, PROPERTY & EQUIPMENT:

$10 million - $25 million

SUPERVISION RESPONSIBILITIES

Directly supervises ten (10) non-supervisory positions within the department. Carries out supervisory responsibilities in accordance with the City's policies and applicable laws. Responsibilities include interviewing, hiring, and training employees; planning, assigning, and directing work; appraising performance, rewarding and disciplining employees; addressing complaints and resolving problems.

MINIMUM QUALIFICATIONS

EDUCATION AND EXPERIENCE

Associate's degree, five (5) years progressively responsible experience, ADEQ Licensure as Arkansas Wastewater Operator Class IV, three (3) years supervisory experience, and valid Arkansas Commercial Driver's License for the duration of employment; or the equivalent combination of education, training and experience that provides the required knowledge, skills and abilities to satisfactorily perform the essential functions of the position.

KNOWLEDGE, SKILLS & ABILITIES

Knowledge

- Thorough knowledge of wastewater treatment principles, practices and methods.
- Thorough knowledge of sewer line installations, operation and maintenance and repairs.
- Thorough knowledge of equipment and materials used in construction, maintenance and repairs.
- Thorough knowledge of maps outlining City's sewer system.
- Thorough knowledge and application of safe, effective principles and practices applied in utilizing equipment and tools.
- Thorough knowledge of potential hazards and safety precautions of related work activities.
- Thorough knowledge of regulatory agencies and related guidelines, policies, procedures and City ordinances governing work activities and work results.
- Knowledge of Worker Comp policy/procedures.

Skills

- Skill in supervising personnel and operations/services
- Skill in orally and in writing
- Skill in organization, coordination, prioritization
- Skill in technical/regulatory/safety issues related to position functions
- Skill in operation of City vehicle/commercial vehicle(s)

Abilities

- Ability to proved effective leadership/supervision to personnel and operations/services
- Ability to plan/direct use of equipment and materials relate to operations/services
- Ability to work effectively with water treatment department head/employees
- Ability to create/maintain required records and reports

ESSENTIAL FUNCTIONS

Refer to Job Responsibilities (Page one and two)

Reasonable accommodations may be made to enable individuals with disabilities to perform essential job functions. Certain functions are understood to be essential; these include, but are not limited to, attendance, cooperation and performing under stress/stressful conditions. Any essential function will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement, as established by The Americans with Disabilities Act, (ADA).

PHYSICAL REQUIREMENTS:

The physical demands marked below are representative of those that will be required to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

	Yes	No
Lifting (80 lbs.)	X	
Carrying (80 lbs.)	X	
Stooping/Bending	X	
Kneeling/Squatting	X	
Walking	X	
Standing	X	
Sitting	X	
Climbing, Balancing (working from a ladder)	X	
Use of Hands to Finger, Handle, or Feel	X	
Physical Coordination (simultaneous use of hands, arms, feet and legs	X	
Eye-Hand Coordination	X	
Close Vision (Clear at 20 inches or less)	X	
Distance Visions (clear at 20 feet or more)	X	
Color Vision	X	
Depth Perception	X	
Hearing	X	

WORK ENVIRONMENT:

The environmental conditions marked below are common to this job.

	Yes	No
Outdoor Weather Conditions	X	
Wet, Humid Conditions (non-weather)	X	
Work Near Moving Mechanical Parts	X	
Work in High, Precarious Places	X	
Fumes or Dust	X	
Toxic or Caustic Chemicals		X
Extreme Heat (non-weather over 90 degrees F.)	X	
Low Noise (e.g., business office)	X	
Moderate Noise (e.g., light motorized equipment such as lawn mowers)	X	
Loud Noise (e.g., jackhammer, heavy motorized equipment)	X	

CITY OF BENTON, ARKANSAS
JOB DESCRIPTION

JOB TITLE: Lift Station Operator II	**DATE: 05/06**
DEPARTMENT: Wastewater Collection	**GRADE: 8**
DIVISION: Public Utilities	**FLSA STATUS: Non-exempt**
REPORTS TO: Wastewater Collection Manager	**EEO CATEGORY: Skilled Craft**

This job description should not be interpreted as all-inclusive. It is intended to identify the essential functions and minimum qualifications of this job. The incumbent(s) may be required to perform job-related responsibilities and tasks other than those stated in this job description. Nothing in this job description restricts management's right to assign or reassign job-related responsibilities and tasks to this job at any time. Certain functions are understood to be essential; these include, but are not limited to, attendance, getting along with others, working a full shift, and dealing with and working under stress. Any essential function of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.

JOB SUMMARY: To provide general repair and maintenance to ensure the proper operation of the City Wastewater Collection System.

ESSENTIAL JOB FUNCTIONS:

1. Performs daily inspections of wastewater lift stations to check for malfunctions or safety hazards.
2. Performs electrical and mechanical maintenance on lift stations.
3. Performs grounds and building maintenance, such as mowing, weedeating, spraying herbicides, painting, and cleaning.
4. Assists line crew when needed with collection line installation or repairs.
5. Monitors and repairs tight lines.
6. Checks and records meter readings.
7. Serves in rotation for on-call duty.
8. Pulls and repairs pumps; backflushes and maintains grease levels.
9. Checks and maintains backup generators.
10. Safely operates vehicles involved in daily operations, including pickup, dump truck, tanker truck, rodder, and tractor.
11. Performs monthly inspections on all lift stations.

SECONDARY DUTIES AND RESPONSIBILITIES:

1. May be required to work overtime.
2. Locates lines for contractors.
3. Inspects connections for home service lines.
4. Assists with sewer taps when necessary.
5. Answers questions from public concerning collection system.
6. Assists Line Crew if needed.

Budget Responsibility: **$ N/A Annual dollars**
Facilities and Equipment Responsibility: **$150,000 to $1,000,000**

SUPERVISION RESPONSIBILITIES
Directly supervises three (3) non-supervisory positions within the department. Carries out supervisory responsibilities in accordance with the City's policies and applicable laws. Responsibilities include interviewing, hiring, and training employees; planning, assigning, and directing work; appraising performance, rewarding and disciplining employees; addressing complaints and resolving problems.

EDUCATION AND EXPERIENCE
High school diploma or GED plus specialized training and/or additional college courses and two (2) years of related experience and/or training.

MINIMUM QUALIFICATIONS:

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Must possess and maintain a Class I Operators Wastewater License.

Must possess and maintain a Class B Commercial Drivers License.

Considerable knowledge of the operation of a wastewater collection system, including pump controls and electrical equipment.

Considerable knowledge of hazards and safety procedures in operation of collection system.

Skill in use of hand tools used for maintenance and repair.

Skill in operating a dump truck, jetrodder, tank truck and tractor

Ability to identify and remedy malfunctions at lift stations.

Ability to read schematics of sewer main map.

Ability to communicate effectively with the public.

These knowledge, skills, and abilities are usually, although not always, acquired through completion of high school, additional training under State regulated licensing program, and two (2) years experience in wastewater collection operations. Equivalent combinations of education and experience will be considered.

PHYSICAL REQUIREMENTS:

The physical activities marked below are representative of those that will be required on a regular basis to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

	Yes	No
Lifting (lbs.)	100	
Carrying (lbs.)	80	
Stooping/Bending	X	
Kneeling/Squatting	X	
Walking	X	
Standing	X	
Sitting	X	
Climbing, Balancing (working with a ladder	X	
Use of hands to finger, handle, or feel	X	
Physical Coordination (simultaneous use of hands, arms, feet and legs)	X	
Eye-Hand Coordination	X	
Close Vision (Clear at 20 inches or less)	X	
Distant Visions (Clear at 20 feet or more)	X	
Color Vision	X	
Depth Perception	X	
Hearing	X	

WORK ENVIRONMENT:

The environmental conditions marked below are common for this job.

	Yes	No
Outdoor weather conditions	X	
,Wet, Humid conditions (non-weather)	X	
Work near moving mechanical parts	X	
Work in high, precarious places	X	
Fumes or dust	X	
Toxic or caustic chemicals	X	
Extreme Heat (non-weather over 90° F)	X	
Low noise (e.g., business office)	X	
Moderate Noise (e.g., light motorized equipment such as lawn mowers)	X	
Loud noise (e.g., jackhammer, heavy motorized equipment)	X	

CITY OF BENTON, ARKANSAS
JOB DESCRIPTION

JOB TITLE: Lift Station Operator I	**DATE: 08/07**
DEPARTMENT: Wastewater Collection	**GRADE: 6**
DIVISION: Public Utilities	**FLSA STATUS: Non-exempt**
REPORTS TO: Wastewater Collection Manager	**EEO CATEGORY: Skilled Craft**

This job description should not be interpreted as all-inclusive. It is intended to identify the essential functions and minimum qualifications of this job. The incumbent(s) may be required to perform job-related responsibilities and tasks other than those stated in this job description. Nothing in this job description restricts management's right to assign or reassign job-related responsibilities and tasks to this job at any time. Certain functions are understood to be essential; these include, but are not limited to, attendance, getting along with others, working a full shift, and dealing with and working under stress. Any essential function of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.

JOB SUMMARY: To provide general repair and maintenance to ensure the proper operation of the City wastewater collection system.

ESSENTIAL JOB FUNCTIONS:

1. Performs daily inspections of wastewater lift stations to check for malfunctions or safety hazards.
2. Performs electrical and mechanical maintenance on lift stations.
3. Performs grounds and building maintenance, such as mowing, weedeating, spraying herbicides, painting, and cleaning.
4. Assist line crew when needed with collection line installation or repairs.
5. Monitors and repairs tight lines.
6. Checks and records meter readings.
7. Serves in rotation for on-call duty.
8. Pulls and repairs pumps; backflushes and maintains grease levels.
9. Checks and maintains backup generators.
10. Safely operates vehicles involved in daily operations, including pickup, dump truck, tanker truck, rodder, and tractor.

SECONDARY DUTIES AND RESPONSIBILITIES:

1. May be required to work overtime.
2. Locates lines for contractors.
3. Inspects connections for home service lines.
4. Assists with sewer taps when necessary.
5. Answers questions from public concerning collection system.
6. Assists Line Crew if needed.

Budget Responsibility: **$ N/A Annual dollars**
Facilities and Equipment Responsibility: **$5,000 to $150,000**

SUPERVISORY RESPONSIBILITIES: None

EDUCATION AND EXPERIENCE
High school diploma or GED plus specialized training and/or additional college courses and twelve (12) to eighteen (18) months of related experience and/or training. Equivalent combination of education and experience will be considered.

The knowledge, skills, and abilities on this description are usually, although not always, acquired through completion of high school, additional training under State regulated licensing program, and one (1) year experience in wastewater collection operations. Equivalent combinations of education and experience will be considered.

MINIMUM QUALIFICATIONS:

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Must possess and maintain a Class I Operators Wastewater License.

Must possess and maintain a Class B Commercial Drivers License.

Moderate knowledge of the operation of a wastewater collection system.

Moderate knowledge of hazards and safety procedures in operation of collection system.

Skill in use of hand tools used for maintenance and repair.

Skill in operating a dump truck, jetrodder, tank truck and tractor

Ability to identify and remedy malfunctions at lift stations.

Ability to read schematics of sewer main map.

Ability to communicate effectively with the public.

PHYSICAL REQUIREMENTS:

The physical activities marked below are representative of those that will be required on a regular basis to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

	Yes	No
Lifting (lbs.)	100	
Carrying (lbs.)	80	
Stooping/Bending	X	
Kneeling/Squatting	X	
Walking	X	
Standing	X	
Sitting	X	
Climbing, Balancing (working with a ladder	X	
Use of hands to finger, handle, or feel	X	
Physical Coordination (simultaneous use of hands, arms, feet and legs)	X	
Eye-Hand Coordination	X	
Close Vision (Clear at 20 inches or less)	X	
Distant Visions (Clear at 20 feet or more)	X	
Color Vision	X	
Depth Perception	X	
Hearing	X	

WORK ENVIRONMENT:

The environmental conditions marked below are common for this job.

	Yes	No
Outdoor weather conditions	X	
Wet, Humid conditions (non-weather)	X	
Work near moving mechanical parts	X	
Work in high, precarious places	X	
Fumes or dust	X	
Toxic or caustic chemicals	X	
Extreme Heat (non-weather over 90° F)	X	
Low noise (e.g., business office)	X	
Moderate Noise (e.g., light motorized equipment such as lawn mowers)	X	
Loud noise (e.g., jackhammer, heavy motorized equipment)	X	

CITY OF BENTON, ARKANSAS
JOB DESCRIPTION

JOB TITLE: Leadman Line Crew	**DATE: 05/06**
DEPARTMENT: Wastewater Collection	**GRADE: 10**
DIVISION: Public Utilities	**FLSA STATUS: Non-exempt**
REPORTS TO: Wastewater Collection Manager	**EEO CATEGORY: Skilled Craft**

This job description should not be interpreted as all-inclusive. It is intended to identify the essential functions and minimum qualifications of this job. The incumbent(s) may be required to perform job-related responsibilities and tasks other than those stated in this job description. Nothing in this job description restricts management's right to assign or reassign job-related responsibilities and tasks to this job at any time. Certain functions are understood to be essential; these include, but are not limited to, attendance, getting along with others, working a full shift, and dealing with and working under stress. Any essential function of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.

JOB SUMMARY

To assist the department manager in supervision of safe and efficient use of manpower and resources for maintenance of the wastewater collection system.

ESSENTIAL JOB FUNCTIONS

1. Checks manholes for stoppages and schedules cleaning of roots and debris from manholes.
2. Rods sewer mains.
3. Supervises safety measures of work crews and makes any necessary recommendations to department manager.
4. Answers general questions from the public concerning collection system.
5. Schedules and oversees mowing and maintenance of right of ways.
6. Oversees manhole rehab and raising.
7. Makes necessary repairs to broken sewer mains and tite lines.
8. Oversee maintenance and repair of all equipment.
9. Safely operates vehicles involved in daily operations, including pickup, jet rodder, tanker truck, dump truck, backhoe, and bushhog.
10. Serves in rotation for on-call duty.

SECONDARY DUTIES AND RESPONSIBILITIES:

1. Tests collection lines in new subdivisions.

2. Tests manholes in new subdivisions.

3. Performs locates.

4. Serves as supervisor when department manager is absent.

5. Assists lift station operators or inspector if needed.

Budget Responsibility: **$ N/A Annual dollars**
Facilities and Equipment Responsibility: **$ 5,000 – $150,000**

SUPERVISORY RESPONSIBILITIES
Directly supervises three (3) non-supervisory positions within the department. Carries out supervisory responsibilities in accordance with the City's policies and applicable laws. Responsibilities include interviewing, hiring, and training employees; planning, assigning, and directing work; appraising performance, rewarding and disciplining employees; addressing complaints and resolving problems.

EDUCATION AND EXPERIENCE
High school diploma or GED and three (3) years of related experience and/or training; or equivalent combination of education and experience and a minimum of six (6) months of management experience.

MINIMUM QUALIFICATIONS:

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Must possess and maintain a Class II Operator's License.

Must have and maintain a Class B Commercial Driver's License.

Advanced knowledge of wastewater collection operations.

Advanced knowledge of hazards and safety procedures in operation and repair of collection system.

Skill in operation of a backhoe, jetrodder, dump truck, and tanker truck.

Skill to communicate effectively, both orally and in writing.

Ability to train, instruct, and supervise workers as assigned.

These knowledge, skills, and abilities are usually, although not always, acquired through completion of high school, additional training under State regulated licensing program, and three (3) years of progressive experience in wastewater collection operations. Equivalent combinations of education and experience will be considered.

PHYSICAL REQUIREMENTS:

The physical activities marked below are representative of those that will be required on a regular basis to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

	Yes	No
Lifting (lbs.)	80	
Carrying (lbs.)	80	
Stooping/Bending	X	
Kneeling/Squatting	X	
Walking	X	
Standing	X	
Sitting	X	
Climbing, Balancing (working with a ladder	X	
Use of hands to finger, handle, or feel	X	
Physical Coordination (simultaneous use of hands, arms, feet and legs)	X	
Eye-Hand Coordination	X	
Close Vision (Clear at 20 inches or less)	X	
Distant Visions (Clear at 20 feet or more)	X	
Color Vision	X	
Depth Perception	X	
Hearing	X	

WORK ENVIRONMENT:

The environmental conditions marked below are common for this job.

	Yes	No
Outdoor weather conditions	X	
Wet, Humid conditions (non-weather)	X	
Work near moving mechanical parts	X	
Work in high, precarious places	X	
Fumes or dust	X	
Toxic or caustic chemicals	X	
Extreme Heat (non-weather over 90° F)	X	
Low noise (e.g., business office)	X	
Moderate Noise (e.g., light motorized equipment such as lawn mowers)	X	
Loud noise (e.g., jackhammer, heavy motorized equipment)	X	

CITY OF BENTON, ARKANSAS
JOB DESCRIPTION

JOB TITLE: Line Maintenance Crew I	**DATE: 08/07**
DEPARTMENT: Wastewater Collection	**GRADE: 6**
DIVISION: Public Utilities	**FLSA STATUS: Non-exempt**
REPORTS TO: Wastewater Collection Manager	**EEO CATEGORY: Skilled Craft**

This job description should not be interpreted as all-inclusive. It is intended to identify the essential functions and minimum qualifications of this job. The incumbent(s) may be required to perform job-related responsibilities and tasks other than those stated in this job description. Nothing in this job description restricts management's right to assign or reassign job-related responsibilities and tasks to this job at any time. Certain functions are understood to be essential; these include, but are not limited to, attendance, getting along with others, working a full shift, and dealing with and working under stress. Any essential function of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.

JOB SUMMARY: To provide general repair and maintenance to the collection lines of the City wastewater system.

ESSENTIAL JOB FUNCTIONS:

1. Checks and repairs clogged or broken collection lines.
2. Checks and repairs manholes.
3. Clears brush and debris from right-of-ways.
4. Inspects and performs maintenance on equipment and vehicles.

SECONDARY DUTIES AND RESPONSIBILITIES:

1. Assists with sewer taps.
2. Assists Lift Station Operators if needed.
3. May be required to work overtime or serve on-call.
4. Assists with locates.
5. Maintains grease trap report.
6. Answers general questions from the public concerning collection system.

SUPERVISORY RESPONSIBILITIES: None

Budget Responsibility: **$ N/A Annual dollars**
Facilities and Equipment Responsibility: **$5,000 to $150,000**

EDUCATION AND EXPERIENCE
High school diploma or GED plus specialized training and/or additional college courses and twelve (12) to eighteen (18) months of related experience and/or training.

MINIMUM QUALIFICATIONS:

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Must possess a Class I Operators Wastewater License.

Must possess and maintain a Class B Commercial Drivers License.

Moderate knowledge of collection line repair techniques.

Skill in operation of a backhoe, jet rodder, and tanker truck.

Ability to communicate effectively with the public.

These knowledge, skills, and abilities are usually, although not always, acquired through completion of high school, additional training under State regulated licensing program, and one (1) year experience in wastewater collection operations. Equivalent combinations of education and experience will be considered.

ACCEPTABLE REQUIREMENTS or ADDITIONAL TRAINING REQUIRED:

Class B Commercial Driver's License.
Equipment Operators License I.
16 hours a year training.

PHYSICAL REQUIREMENTS:

The physical activities marked below are representative of those that will be required on a regular basis to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

	Yes	No
Lifting (lbs.)	100	
Carrying (lbs.)	80	
Stooping/Bending	X	
Kneeling/Squatting	X	
Walking	X	
Standing	X	
Sitting	X	
Climbing, Balancing (working with a ladder	X	
Use of hands to finger, handle, or feel	X	
Physical Coordination (simultaneous use of hands, arms, feet and legs)	X	
Eye-Hand Coordination	X	
Close Vision (Clear at 20 inches or less)	X	
Distant Visions (Clear at 20 feet or more)	X	
Color Vision	X	
Depth Perception	X	
Hearing	X	

WORK ENVIRONMENT:

The environmental conditions marked below are common for this job.

	Yes	No
Outdoor weather conditions	X	
Wet, Humid conditions (non-weather)	X	
Work near moving mechanical parts	X	
Work in high, precarious places	X	
Fumes or dust	X	
Toxic or caustic chemicals	X	
Extreme Heat (non-weather over 90° F)	X	
Low noise (e.g., business office)	X	
Moderate Noise (e.g., light motorized equipment such as lawn mowers)	X	
Loud noise (e.g., jackhammer, heavy motorized equipment)	X	

CITY OF BENTON, ARKANSAS
JOB DESCRIPTION

JOB TITLE: Line Maintenance Crew II	**DATE: 05/06**
DEPARTMENT: Wastewater Collection	**GRADE: 8**
DIVISION: Public Utilities	**FLSA STATUS: Non-exempt**
REPORTS TO: Wastewater Collection Manager	**EEO CATEGORY: Skilled Craft**

This job description should not be interpreted as all-inclusive. It is intended to identify the essential functions and minimum qualifications of this job. The incumbent(s) may be required to perform job-related responsibilities and tasks other than those stated in this job description. Nothing in this job description restricts management's right to assign or reassign job-related responsibilities and tasks to this job at any time. Certain functions are understood to be essential; these include, but are not limited to, attendance, getting along with others, working a full shift, and dealing with and working under stress. Any essential function of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.

JOB SUMMARY: To provide general repair and maintenance to the collection lines of the City wastewater system.

ESSENTIAL JOB FUNCTIONS:

1. Checks and repairs clogged or broken collection lines.
2. Checks and repairs manholes.
3. Clears brush and debris from right-of-ways.
4. Inspects and performs maintenance on equipment and vehicles.
5. Safely operates vehicles involved in daily operations, including pickup, dump truck, jetrodder, tanker truck, backhoe, and bushhog.
6. Performs grounds and building maintenance, such as mowing, weedeating, spraying herbicides, painting, and cleaning.
7. Checks grease traps quarterly to ensure restaurants are in compliance.
8. Applies chemicals necessary to treat collection lines.

SECONDARY DUTIES AND RESPONSIBILITIES:

1. Assists with sewer taps.
2. Assists Lift Station Operators if needed.

3. May be required to work overtime or serve on-call.

4. Assists with locates.

5. Answers general questions from the public concerning collection system.

6. Assists in inspection of sewer connections.

7. Performs vacuum testing of manholes.

SUPERVISORY RESPONSIBILITIES: Supervision of one (1) to three (3) positions.

Budget Responsibility:	**$ N/A Annual dollars**
Facilities and Equipment Responsibility:	**$150,000 to $1,000,000**

EDUCATION AND EXPERIENCE
High school diploma or GED plus specialized training and/or additional college courses and two (2) years of related experience and/or training.

MINIMUM QUALIFICATIONS:

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Must possess a Class I Operators Wastewater License.

Must possess and maintain a Class B Commercial Drivers License.

Moderate knowledge of collection line repair techniques.

General knowledge of Plumbing and Health codes.

General knowledge of painting, carpentry, use of hand tools, and working with concrete.

Skill in safe operation of a backhoe, jet rodder, dump truck, and tanker truck.

Ability to communicate effectively with the public.

These knowledge, skills, and abilities are usually, although not always, acquired through completion of high school, additional training under State regulated licensing program, and two (2) years experience in wastewater collection operations. Equivalent combinations of education and experience will be considered.

PHYSICAL REQUIREMENTS:

The physical activities marked below are representative of those that will be required on a regular basis to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

	Yes	No
Lifting (lbs.)	100	
Carrying (lbs.)	80	
Stooping/Bending	X	
Kneeling/Squatting	X	
Walking	X	
Standing	X	
Sitting	X	
Climbing, Balancing (working with a ladder	X	
Use of hands to finger, handle, or feel	X	
Physical Coordination (simultaneous use of hands, arms, feet and legs)	X	
Eye-Hand Coordination	X	
Close Vision (Clear at 20 inches or less)	X	
Distant Visions (Clear at 20 feet or more)	X	
Color Vision	X	
Depth Perception	X	
Hearing	X	

WORK ENVIRONMENT:

The environmental conditions marked below are common for this job.

	Yes	No
Outdoor weather conditions	X	
Wet, Humid conditions (non-weather)	X	
Work near moving mechanical parts	X	
Work in high, precarious places	X	
Fumes or dust	X	
Toxic or caustic chemicals	X	
Extreme Heat (non-weather over 90° F)	X	
Low noise (e.g., business office)	X	
Moderate Noise (e.g., light motorized equipment such as lawn mowers)	X	
Loud noise (e.g., jackhammer, heavy motorized equipment)	X	

CITY OF BENTON, ARKANSAS
JOB DESCRIPTION

JOB TITLE: Laborer	**DATE: 07/07**
DEPARTMENT: Wastewater Collection	**GRADE: 4**
DIVISION: Benton Utilities	**FLSA STATUS: Non-exempt**
REPORTS TO: Wastewater Collection Manager	**EEO CATEGORY: Service/Maintenance**

This job description should not be interpreted as all-inclusive. It is intended to identify the essential functions and minimum qualifications of this job. The incumbent(s) may be required to perform job-related responsibilities and tasks other than those stated in this job description. Nothing in this job description restricts management's right to assign or reassign job-related responsibilities and tasks to this job at any time. Certain functions are understood to be essential; these include, but are not limited to, attendance, getting along with others, working a full shift, and dealing with and working under stress. Any essential function of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.

JOB SUMMARY

To assist in providing general repair and maintenance to wastewater collection system for the City.

ESSENTIAL JOB FUNCTIONS

1. Assists in operation of rodder to keep collection lines free of debris.
2. Applies proper treatment chemical to lines.
3. Repairs manholes.
4. Clears brush and debris from right of ways.
5. Assists in repairs to sewer mains.
6. Performs minor repairs and maintenance on equipment.
7. Assists lift station crew as needed.
8. Pumps lift station down.
9. Serves in rotation for on-call duty.
10. Assists in locates.

SECONDARY DUTIES AND RESPONSIBILITIES:

1. Performs sewer taps.

2. Assists in monthly inspections of lift stations.

3. Assists in inspections of sewer lines and connects.

SUPERVISORY RESPONSIBILITIES: None

Budget Responsibility:	**$ N/A Annual dollars**
Facilities and Equipment Responsibility:	**$ Less than 5,000 Total value**

EDUCATION AND EXPERIENCE
High school diploma or GED and seven (7) to eleven (11) months of related experience and/or training.

MINIMUM QUALIFICATIONS:

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Skill in operating of hand and power tools.

Ability to obtain a Class I Operator's License within one year.

Ability to obtain a Class B Commercial Driver's License within one year.

Ability to troubleshoot lift stations.

Ability to communicate effectively with the public.

ACCEPTABLE EXPERIENCE or TRAINING REQUIRED:

Valid Arkansas Drivers' License
16 hours a year training and classes

PHYSICAL REQUIREMENTS:

The physical activities marked below are representative of those that will be required on a regular basis to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

	Yes	No
Lifting (lbs.)	80	
Carrying (lbs.)	80	
Stooping/Bending	X	
Kneeling/Squatting	X	
Walking	X	
Standing	X	
Sitting	X	
Climbing, Balancing (working with a ladder	X	
Use of hands to finger, handle, or feel	X	
Physical Coordination (simultaneous use of hands, arms, feet and legs)	X	
Eye-Hand Coordination	X	
Close Vision (Clear at 20 inches or less)	X	
Distant Visions (Clear at 20 feet or more)	X	
Color Vision	X	
Depth Perception	X	
Hearing	X	

WORK ENVIRONMENT:

The environmental conditions marked below are common for this job.

	Yes	No
Outdoor weather conditions	X	
Wet, Humid conditions (non-weather)	X	
Work near moving mechanical parts	X	
Work in high, precarious places	X	
Fumes or dust	X	
Toxic or caustic chemicals	X	
Extreme Heat (non-weather over 90° F)	X	
Low noise (e.g., business office)	X	
Moderate Noise (e.g., light motorized equipment such as lawn mowers)	X	
Loud noise (e.g., jackhammer, heavy motorized equipment)	X	

CITY OF BENTON, ARKANSAS
JOB DESCRIPTION

JOB TITLE: Wastewater Treatment Manager	**DATE: 05/06**
DEPARTMENT: Wastewater Treatment	**GRADE:**
DIVISION: Public Utilities	**FLSA STATUS: Exempt**
REPORTS TO: Utilities General Manager	**EEO CATEGORY: Officials/Admin.**

This job description should not be interpreted as all-inclusive. It is intended to identify the essential functions and minimum qualifications of this job. The incumbent(s) may be required to perform job-related responsibilities and tasks other than those stated in this job description. Nothing in this job description restricts management's right to assign or reassign job-related responsibilities and tasks to this job at any time. Certain functions are understood to be essential; these include, but are not limited to, attendance, getting along with others, working a full shift, and dealing with and working under stress. Any essential function of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.

JOB SUMMARY:

The Wastewater Treatment Manager plans, coordinates, monitors and manages wastewater treatment services and operations for the City of Benton and also supervises departmental personnel.

SCOPE OF WORK ENVIRONMENT

The Wastewater Treatment Manager reports directly to the General Manager and reports indirectly to the Board of Utility Commissioners. Under the administrative guidance and direction of the General Manager of Utilities, the incumbent is responsible for all facets of wastewater treatment management from the influent point of the collection system to the effluent point (i.e., receiving stream, creek, and/or river). The incumbent supervises: Wastewater Chief Operator Class IV, Chief Chemist Class IV, Lead Wastewater Operator Class III, Wastewater Operator Classes I-III. The Wastewater Treatment Manager is also responsible for compliance with City ordinances, related regulatory agencies (e.g., ADEQ, EPA) and applicable Federal, State, Municipal statutes, guidelines, rules and regulations. The incumbent works with department heads, managers, supervisors, and exempt and non-exempt employees, citizens, governmental agencies/representatives, consultants and vendors.

JOB RESPONSIBILITIES:

The incumbent's direct responsibilities include:

- Plans, directs and manages wastewater treatment services and operations.
- Supervises and schedules department employees, work activities and job training
- Ensures mandated and regulatory compliance with City ordinances, with Federal, State regulatory agencies, as well as applicable Federal, State, Municipal statutes, rules and regulations; initiates and implements actions/remedies to remain in compliance

- Ensures safe and reliable operation and maintenance of wastewater treatment system, processes and equipment
- Monitors variable frequency drive equipment/control system and flow metering equipment to control measure wastewater treatment processes
- Oversees routine maintenance and repairs of system/equipment
- Contracts with external courses for major maintenance/repairs of treatment system equipment
- Monitors daily operations reports
- Recommends modifications or upgrades as needed in system processes or equipment
- Provides statistical information and data regarding trend developments to General Manager/Utilities Commission and engineering consultants for Wastewater Master Plan
- Prepares and submits required monthly; quarterly, annual reports to regulatory agencies(e.g., ADEQ, EPA) as necessary (e.g., DMR's or Discharge Monitoring Reports)
- Participates in EPA Risk Management Plan for City every five years
- Participates in annual re-permitting of generator fuel tanks located in wastewater facility
- Performs other duties as assigned or necessary
- Attends monthly City safety meetings and provides safety information to employees
- Ensures required training for licensed operators (e.g., annual short school Conference/operators are re-licensed annually)
- Prepares and submits annual budget
- Prepares and submits letters to ADEQ/EPA regarding permit violations and remedies
- Prepares or assists in preparation of bids and bid specifications
- Requisitions supplies, materials and equipment as needed
- Conducts tours of treatment facility for vendors, plumbers, schools, other wastewater treatment departments as requested
- Attends staff meetings, as well as meetings of City Council and related Council committee meetings
- Performs other duties as assigned or necessary

GUIDANCE

The incumbent seeks administrative guidance from the General Manager of Utilities and is also guided by City ordinances and policies, as well as applicable Federal and State statutes, Municipal statutes, guidelines, rules and regulations.

CHALLENGES

The challenges for this position are: 1) to remain current and informed on regulatory updates/mandates, City ordinances/policies and Federal, State, Municipal laws, rules and regulations; 2) to communicate effectively both orally and in writing with internal and external customers; 3) to ensure departmental services and operations are in compliance; 4) to conduct department services/operations in a professional, effective and efficient manner; 5) to prioritize and schedule workflow appropriately; 6) to foster a quality work environment by building employee trust and confidence.

INTERNAL & EXTERNAL COMMUNICATIONS

The incumbent's principal contacts are internal customers/contacts to include: The General Manager of Utilities, Board of Utilities Commissioners, department heads, managers, supervisors, exempt and non-exempt employees.

The incumbent's principal customer/contacts external to the department and/or city government include: citizens, regulatory agencies/representatives, consultants, and vendors.

AUTHORITY

The Wastewater Treatment Manager has the authority to implement approved and mandated departmental policies and procedures regarding services and operations; to supervise departmental personnel and operations within the compliance framework of City ordinance/policies, regulatory agencies/requirements and Federal, State, Municipal statutes, rules and regulations.

RESPONSIBILITY FOR FUNDS, EQUIPMENT & PROPERTY: $10 million to $25 million

SUPERVISORY RESPONSIBILITY

Directly supervises nine (9) non-supervisory positions within the department. Carries out supervisory responsibilities in accordance with the City's policies and applicable laws. Responsibilities include interviewing, hiring, and training employees; planning, assigning, and directing work; appraising performance, rewarding and disciplining employees, addressing complaints and resolving problems.

MINIMUM QUALIFICATIONS

EDUCATION AND EXPERIENCE

Associate degree in Engineering or related degree, five (5) years of related experience and/or training, or equivalent combination of education and experience and a minimum of three (3) years of management experience.

ADDITIONAL REQUIREMENTS

Arkansas Wastewater Operator Class IV Licensure, basic proficiency in MS Word/Excel, and an Arkansas DCL prior to and for the duration of employment; or the equivalent combination of education, training and experience that provides the required knowledge, skills and abilities to satisfactorily perform the essential functions of the position, plus ADEQ Licensure as a Wastewater Operator Class IV.

KNOWLEDGE, SKILLS & ABILITIES

Knowledge

- Comprehensive knowledge of wastewater treatment systems, processes, methods, techniques

- Comprehensive knowledge of regulatory agency(ies) mandates, requirements, updates (e.g., EPA, ADEQ)
- Comprehensive knowledge of materials, supplies and equipment related to wastewater treatment operations
- Considerable knowledge of workplace safety issues and ADEQ training requirements
- Considerable knowledge of manpower and equipment, facilities necessary for departmental operations and maintenance
- Knowledge of sewer systems
- Knowledge of management principles, practices, methods
- Knowledge of City ordinances/policies and applicable Federal, State, Municipal statutes, rules and regulations
- Knowledge of budget processes

Skills

- Skill in monitoring and supervising personnel, services and operations
- Skill in oral/written communication
- Skill in organization, coordination, prioritization, and scheduling
- Skill in technical and maintenance issues related to department functions
- Skill in budget preparation/budget oversight
- Skill in basic MS Word and Excel for report writing
- Skill in operation of City vehicle and CDL vehicle

Abilities

- Ability to provide effective leadership and supervision for personnel, services, operation
- Ability to meet related regulatory and mandated requirements plus applicable statutory laws, rules and regulations
- Ability to monitor and utilize all facility control systems/processes
- Ability to understand/interpret basic engineering principles and interpret plans, blueprints, schematics
- Ability to troubleshoot and problem solve and provide remedies
- Ability to anticipate/plan for short term and long term needs
- Ability to work in tandem with other department heads/staff in conducting problem resolution
- Ability to recommend ordinances, policies or amendments to existing ordinances/policies to improve services/operation
- Ability to obtain ADH Licensure as Wastewater Chief Operator Class IV

ESSENTIAL FUNCTIONS

Refer to Job Responsibilities (Page one and two)

Reasonable accommodations may be made to enable individuals with disabilities to perform essential job functions. Certain functions are understood to be essential; these include, but are not limited to, attendance, cooperation and performing under stress/stressful conditions. Any essential function will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement, as established by The Americans With Disabilities Act, (ADA).

PHYSICAL REQUIREMENTS:

The physical demands marked below are representative of those that will be required to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

	Yes	No
Lifting (50 lbs.)	X	
Carrying (50 lbs.)	X	
Stooping/Bending	X	
Kneeling/Squatting	X	
Walking	X	
Standing	X	
Sitting	X	
Climbing, Balancing (working from a ladder)	X	
Use of Hands to Finger, Handle, or Feel	X	
Physical Coordination (simultaneous use of hands, arms, feet and legs	X	
Eye-Hand Coordination	X	
Close Vision (Clear at 20 inches or less)	X	
Distance Visions (clear at 20 feet or more)	X	
Color Vision	X	
Depth Perception	X	
Hearing	X	

WORK ENVIRONMENT:

The environmental conditions marked below are common to this job.

	Yes	No
Outdoor Weather Conditions	X	
Wet, Humid Conditions (non-weather)	X	
Work Near Moving Mechanical Parts	X	
Work in High, Precarious Places	X	
Fumes or Dust	X	
Toxic or Caustic Chemicals	X	
Extreme Heat (non-weather over 90 degrees F.)	X	
Low Noise (e.g., business office)	X	
Moderate Noise (e.g., light motorized equipment such as lawn mowers)	X	
Loud Noise (e.g., jackhammer, heavy motorized equipment)	X	

CITY OF BENTON, ARKANSAS
JOB DESCRIPTION

JOB TITLE: Construction Manager	**DATE: 01/08**
DEPARTMENT: General Manager	**GRADE: 18**
DIVISION: Public Utilities	**FLSA STATUS: Exempt**
REPORTS TO: General Manager	**EEO CATEGORY: Skilled Craft**

This job description should not be interpreted as all-inclusive. It is intended to identify the essential functions and minimum qualifications of this job. The incumbent(s) may be required to perform job-related responsibilities and tasks other than those stated in this job description. Nothing in this job description restricts management's right to assign or reassign job-related responsibilities and tasks to this job at any time. Certain functions are understood to be essential; these include, but are not limited to, attendance, getting along with others, working a full shift, and dealing with and working under stress. Any essential function of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.

JOB SUMMARY: The incumbent is responsible for assisting the General Manager and Utility Department Heads in construction project management, planning and prioritizing future infrastructure needs, and promoting positive working relations with contractors, developers and citizens.

ESSENTIAL JOB FUNCTIONS:

1. Reviews and approves engineered drawings for utility projects.
2. Assists the General Manager and consulting engineers to determine the future needs for the water and wastewater departments.
3. Acquires data and secures easements as needed for all utility projects.
4. Attends meetings with engineers and contractors both before and during construction.
5. Monitors all construction projects for compliance on scheduling and budget conformity.
6. Reviews and forwards pay estimates for contractors.
7. Performs studies and evaluates options on various utility related projects.
8. Reviews all subdivision and commercial site plans for approval with Community Development Department.
9. Establishes and maintains construction specifications for the water and wastewater departments.
10. Prepares and presents informative programs on various topics for meetings or organizations.

11. Coordinates with Community Development and ADEQ on the SWPPP requirements for utility related projects.

12. Operates City vehicle in performing essential job functions.

SECONDARY DUTIES AND RESPONSIBILITIES:

1. Supervises the inspection of all building plot plans.

2. Supervises the approval on all privilege licenses for new businesses for the utility department.

3. Assists the wastewater department in implementing an I & I and O & M program.

4. Operates computer aided drafting (CAD) equipment to prepare drawings.

5. Maintains hydraulic modeling software for water distribution and wastewater collection infrastructure to determine available capacity for new subdivisions and commercial projects.

6. Investigates citizen complaints regarding sewer and water issues.

7. Performs other related duties as required.

SUPERVISORY RESPONSIBILITIES: Supervises Utilities Inspector.
Carries out supervisory responsibilities in accordance with Benton Utilities policies and applicable laws. Responsibilities include interviewing, hiring and training employees, planning, assigning and directing work, appraising performance, rewarding and disciplining employees, addressing complaints and resolving problems.

RESPONSIBILITY FOR FUNDS, EQUIPMENT, PROPERTY, ETC:

- $25,000,000.00 TO $50,000,000.00

MINIMUM QUALIFICATIONS:

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Good knowledge of principles and practices of civil engineering.

Good knowledge of engineering mathematics.

Good knowledge of City policies, procedures, and ordinances governing water and sewer construction.

Skill in the operation of computer aided drawing equipment.

Skill in the operation of a personal computer utilizing Autocad software.

Excellent communication skills, both oral and written.

Ability to read and interpret blueprints and schematics.

Ability to review construction plans and specifications for feasibility and compliance with City policies, procedures and ordinances.

Ability to detect discrepancies in construction work.

Ability to observe and report field conditions.

Ability to do advanced math problems.

These knowledge, skills, and abilities are usually, although not always, acquired through completion of high school, additional training under State regulated licensing program, knowledge of a specialized field equivalent to an associates degree (two years of college) or vocational technical coursework, six (6) years of progressive experience in utility and construction operations and two (2) years of supervisory experience. Equivalent combinations of education and experience will be considered.

ADDITIONAL REQUIREMENTS:

Must possess and maintain a current Arkansas Driver's License.

Must possess and maintain a State Wastewater License.

PHYSICAL REQUIREMENTS:

The physical activities marked below are representative of those that will be required on a regular basis to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

	Yes	No
Lifting (lbs.)	50 lbs.	
Carrying (lbs.)	50 lbs.	
Stooping/Bending	X	
Kneeling/Squatting	X	
Walking	X	
Standing	X	
Sitting	X	
Climbing, Balancing (working with a ladder)	X	
Use of hands to finger, handle, or feel	X	
Physical Coordination (simultaneous use of hands, arms, feet and legs)	X	
Eye-Hand Coordination	X	
Close Vision (Clear at 20 inches or less)	X	
Distant Visions (Clear at 20 feet or more)	X	
Color Vision	X	
Depth Perception	X	
Hearing	X	

Work Environment:

The environmental conditions marked below are common for this job.

	Yes	No
Outdoor weather conditions	X	
Wet, Humid conditions (non-weather)	X	
Work near moving mechanical parts	X	
Work in high, precarious places	X	
Fumes or dust	X	
Toxic or caustic chemicals	X	
Extreme Heat (non-weather over 90° F)	X	
Low noise (e.g., business office)	X	
Moderate Noise (e.g., light motorized equipment such as lawn mowers)	X	
Loud noise (e.g., jackhammer, heavy motorized equipment)	X	

Approved

Appendix 3
Ordinances

Table of Contents

ORDINANCE NO. 19 OF 1995

AN ORDINANCE REGULATING THE USE OF PUBLIC AND PRIVATE SEWERS AND DRAINS, PRIVATE WASTEWATER DISPOSAL, THE INSTALLATION AND CONNECTION OF BUILDING SEWERS, AND THE DISCHARGE OF WATERS AND WASTES INTO THE PUBLIC SEWER SYSTEM(S): AND PROVIDING PENALTIES FOR VIOLATIONS THEREOF; IN THE CITY OF BENTON, COUNTY OF SALINE, STATE OF ARKANSAS; DECLARING AN EMERGENCY; AND, FOR OTHER PURPOSES.

ARTICLE I

DEFINITIONS

Unless the context specifically indicates otherwise, the meaning of terms used in this ordinance shall be as follows:

Section 1. Biochemical oxygen demand (BOD) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory conditions in five (5) days at 20°C, expressed in milligrams per liter.

Section 2. "Building" shall mean residential and commercial structures which enclose a source of wastewater.

Section 3. "Building drain" shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning five (5) feet (1.5 meters) outside the inner face of the building wall.

Section 4. "Building sewer" shall mean the extension from the building drain to the public sewer or other place of disposal, also called house connection.

Section 5. "Easement" shall mean an acquired legal right for the specific use of land owned by others.

Section 6. "Floatable Oil" is oil, fat, or grease in a physical state such that it will separate by gravity from wastewater by treatment in an approved pretreatment facility. A wastewater shall be considered free of floatable fat if it is properly treated and the wastewater does not interfere with the collection system.

Section 7. "Garbage" shall mean the animal and vegetable waste resulting from the handling, preparation, cooking and serving of foods.

Section 8. "Industrial waste" shall mean the wastewater from industrial processes, trade, or business as distinct from domestic or sanitary wastes.

Section 9. "Natural outlet" shall mean any outlet, including storm sewers and combined sewer overflows, that discharges into a watercourse, pond, ditch, lake, or other body of surface water or groundwater.

Section 10. "May" is permissive (see "shall", Section 17).

Section 11. "pH" shall mean the logarithm of the reciprocal of the hydrogen-ion concentration. The concentration is the weight of hydrogen ions, in grams, per liter of solution. Neutral water, for example, has a pH value of 7 and a hydrogen-ion concentration of 10^{-7}.

Section 12. "Properly shredded garbage" shall mean the wastes from the preparation, cooking, and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than 1/2 inch in any dimension.

Section 13. "Public sewer" shall mean a common sewer controlled by a governmental agency or public utility.

Section 14. "Sanitary sewer" shall mean a sewer that carries liquid and water-carried wastes from residences, commercial buildings, industrial plants, and institutions together with minor quantities of ground, storm, and surface waters that are not admitted intentionally.

Section 15. "Sewage" is the spent water of a community. The preferred term is "wastewater", Section 23.

Section 16. "Sewer" shall mean a pipe or conduit that carries wastewater.

Section 17. "Shall" is mandatory (See "may", Section 10).

Section 18. "Slug" shall mean any discharge of waste or wastewater which in concentration of any given constituent or in quality of flow exceeds for fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration or flow during normal operation.

Section 19. "Storm drain" (sometimes termed "storm sewer") shall mean a drain or sewer for conveying water, groundwater, sub-surface water, or unpolluted water from any source.

Section 20. "Superintendent" shall mean the Superintendent of wastewater facilities of the City of Benton, Arkansas, or his authorized deputy, agent, or representative.

Section 21. "Suspended solids" shall mean total suspended matter that either floats on the surface of, or is in suspension in water, wastewater, or other liquids, and that is removable by laboratory filtering as prescribed in "Standard Methods for the Examination of Water and Wastewater" and referred to as nonfilterable residue.

Section 22. "Unpolluted water" is water of quality equal to or better than the effluent criteria in effect or water that would not cause violation of receiving water quality standards and would not be benefited by discharge to the sanitary sewers and wastewater treatment facilities provided.

Section 23. "Wastewater" shall mean the spent water of a community. From the standpoint of source, it may be a combination of the liquid and water-carried wastes from residences, commercial buildings, industrial plants and institutions.

Section 24. "Wastewater facilities" shall mean the structures, equipment, and processes required to collect, carry away, and treat domestic and industrial wastes and dispose of the effluent.

Section 25. "Wastewater treatment works" shall mean an arrangement of devices and structures for treating wastewater, industrial wastes, and sludge. Sometimes used as synonymous with "waste treatment plant" or "wastewater treatment plant" or "water pollution control plant".

Section 26. "Watercourse" shall mean a natural or artificial channel for the passage of water either continuously or intermittently.

ARTICLE II

USE OF PUBLIC SEWERS REQUIRED

Section 1. It shall be unlawful for any person to place, deposit, or permit to be deposited on public or private property within the City of Benton, Arkansas or in any area under the jurisdiction of said City, any human or animal excrement, garbage, or objectionable waste.

Section 2. It shall be unlawful to discharge to any natural outlet within the City of Benton, Arkansas or in any area under the jurisdiction of said City, any wastewater or other polluted waters, except where suitable treatment has been provided in accordance with subsequent provisions of this ordinance. The issuance of a valid National Pollutant Discharge Elimination System permit covering such discharges into a natural outlet shall be considered as meeting all requirements of this section.

Section 3. Except as hereinafter provided, it shall be unlawful to construct or maintain any privy, privy vault, cesspool, or other facility intended or used for the disposal of wastewater.

Section 4. The owner(s) of all houses, buildings, or properties used for human occupancy, employment, recreation, or other purposes, situated within the City and abutting on any street, alley, or right-of-way in which there is now located or may in the future be located a public sanitary sewer of the City, is hereby required at the owner(s) expense to install suitable toilet facilities therein, and to connect such facilities either through a septic tank or directly to the proper public sewer in accordance with the provisions of this ordinance, within 90 days after date of official notice to do so, provided that said public sewer is within 300 feet of the building.

Section 5. In any building in which the building drain is too low to permit gravity flow to the public sanitary sewer, sanitary sewage from such buildings shall be lifted by an approved grinder pumping station or other method as approved by the Superintendent, and discharged to the public sanitary sewer.

ARTICLE III

PRIVATE WASTEWATER DISPOSAL

Section 1. Where a public sanitary sewer is not available under the provisions of Article II, Section 4, the building sewer shall be connected to a private wastewater disposal system complying with the provisions of this article.

Section 2. Before commencement of construction of a private wastewater disposal system the owner(s) shall first obtain a written permit signed by the Superintendent. The application for such permit shall be made on a form furnished by the City, which the applicant shall supplement by any plans, specifications, and construction permits approved by the Arkansas Department of Health. The minimum lot area for a single-family residence shall be in accordance with current Arkansas Department of Health regulations.

Section 3. A permit for a private wastewater disposal system shall not become effective until the installation is completed to the satisfaction of the Superintendent. The Superintendent shall be allowed to inspect the work at any stage of construction, and in any event, the applicant for the permit shall notify the Superintendent when the work is ready for final inspection, and before any underground portions are covered. The inspection shall be made within 48 hours of the receipt of notice by the Superintendent.

Section 4. The type, capacities, location, and layout of a private wastewater disposal system shall comply with all recommendations approved by the Arkansas Department of Health. No septic tank shall be permitted to discharge to any natural outlet.

Section 5. At such time as a public sewer becomes available to a property served by a private wastewater disposal system, as provided in Article II, Section 4, a direct connection from the building, or the septic tank, shall be made to the public sewer within 90 days in compliance with this ordinance.

The requirements of this section shall not apply to owners discharging such sewage under the provisions of a valid National Pollution Discharge Elimination System permit.

Section 6. The owner(s) shall operate and maintain the private wastewater disposal facilities in a sanitary manner at all times, at no expense to the City.

Section 7. No statement contained in this article shall be construed to interfere with any additional requirements that may be imposed by the County Sanitarian.

ARTICLE IV

BUILDING SEWERS AND CONNECTIONS

Section 1. No authorized person(s) shall uncover, make any connections with or opening into, use, alter, or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the Superintendent.

Section 2. There shall be two (2) classes of building sewer permits: (a) for residential and commercial service, and (b) for service to establishments producing industrial wastes. In either case, the owner(s) or his agent shall make application on a special form furnished by the City. The permit application shall be supplemented by any plans, specifications, or other information considered pertinent in the judgement of the Superintendent. A permit and inspection fee of $75.00 dollars for residential, commercial, and industrial permits shall be paid to the City at the time the application is filed.

Section 3. All costs and expenses incidental to the installation and connection of the building sewer shall be borne by the owner(s). The owner(s) shall indemnify the City from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.

Section 4. A separate and independent building sewer shall be provided for every building; except where one building stands at the rear of another on an interior lot and no private sewer is available or can be constructed to the rear building through an adjoining alley, court, yard, or driveway, the front building sewer may be extended to the rear building and the whole considered as a one building sewer.

Section 5. Old building sewers may be used in connection with new buildings only when they are found, on examination, and tested by the Superintendent, to meet all requirements of this ordinance.

Section 6. All new sewers and related construction work must be properly designed and constructed. For all collectors, interceptors, building sewers, and septic tanks the size, slope, alignment, materials of construction of a building sewer and septic tank, and the methods to be used in excavating, placing of the pipe and septic tank, jointing, testing, and backfilling the trench, shall all conform to the requirements of the building and plumbing code or other applicable rules and regulations of the City and the State of Arkansas. In the absence of code provisions or in amplification thereof, the

materials and procedures set forth in appropriate specifications of the American Society of Testing Materials (ASTM) and Water Pollution Control Federation (WPCF) Manual of Practice No. 9 shall apply.

Section 7. Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, sanitary sewer carried by such building drain shall be lifted by an approved means and discharged to the building sewer.

Section 8. No person(s) shall make connections of roof down-spouts, foundation drains, area drains, or other sources of surface runoff or groundwater to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer.

Section 9. The connection of the building sewer into the public sewer shall conform to the requirements of the building and plumbing code or other applicable rules and regulations of the City, or in the procedures set forth in appropriate specifications of the ASTM and the WPCF Manual of Practice No. 9. All such connections shall be made gastight and watertight and shall be verified by proper testing. All connections of building sewers to the public sewer shall be made by the wastewater department of the City of Benton or their designated representatives.

Section 10. The applicant for the building sewer permit shall notify the Superintendent when the building sewer (and septic tank if applicable) is ready for inspection and connection to the public sewer. The connection and testing shall be made under the supervision of the Superintendent or his representative. No work shall be covered until the inspection and tests have been made and written approval given.

Section 11. All excavations for building sewer installation shall be adequately guarded with barricades and warning lights so as to protect the public from hazard. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the City.

Section 12. Any person responsible for discharges through a building sewer carrying industrial waste shall, at his own expense:

(a) install an accessible and safely located control manhole;

(b) install meters and other appurtenances to facilitate observation, sampling, and measurement of the waste; and,

(c) maintain the equipment and facilities.

Such control manhole, meters, and other monitoring appurtenances shall be lockable, and accessible by the City.

ARTICLE V

DISCONNECTING SEWERS

Section 1. Before any dwelling or other building having a connection to the Benton Sanitary Sewer System is moved or demolished, the building sanitary sewer shall be disconnected at the adjacent property line. The remaining portion of the building sanitary sewer leading into the public sanitary sewer shall be sealed and made watertight.

Section 2. Prior to the disconnection of any such building sanitary sewer, a permit shall be obtained from the Superintendent. A permit and inspection fee shall be paid at the time the application is filed.

After the disconnection seal is made and before the work is covered, the Superintendent shall be notified. No work shall be covered until the inspection has been made and the work approved. Written notice of approval will be given.

ARTICLE VI

USE OF THE PUBLIC SEWERS

Section 1. No person(s) shall discharge or cause to be discharged any unpolluted waters such as stormwater, groundwater, roof runoff, subsurface drainage, or cooling water to any sanitary sewer.

Section 2. Stormwater and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers or to a natural outlet approved by the City.

Section 3. No person(s) shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers:

(a) Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid or gas.

(b) Any waters containing toxic or poisonous solids, liquids, or gases in sufficient quantity either singly or by interaction with other wastes, which injure or interfere with any waste treatment process, constitute a hazard to humans or animals, create a public nuisance, or create any hazard in the receiving waters of the wastewater treatment plant.

(c) Any waters or wastes having a pH lower than 6.0 or in excess of 9.0, or having any other corrosive property capable of causing damage or hazard to structures, equipment, and personnel of the wastewater works.

(d) Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the wastewater facilities such as, but not limited to, ashes, bones, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, whole blood, paunch manure, hair and fleshings, entrails and paper dishes, cups, milk containers, egg shells, etc., either whole or ground by garbage grinders.

(e) No substance will be added which would preclude the selection of the most cost effective alternative for wastewater treatment and sludge disposal.

Section 4. The following described substances, materials, waters, or waste shall be limited to discharges to municipal systems to concentrations or quantities which will not harm either the sewers, wastewater treatment process or equipment, will not have an adverse effect on the receiving stream, or will not otherwise endanger lives, limb, public

property, or constitute a nuisance. The Superintendent may set limitations more stringent than the limitations established in the regulations below if in his opinion such more severe limitations are necessary to meet the above objectives. In forming his opinion as to the acceptability, the Superintendent will give consideration to such factors as the quantity of subject waste in relation to flows and velocities in the sewers, materials of construction of the sewers, the wastewater treatment process employed, capacity of the wastewater treatment plant, and other pertinent factors. The following limitations or restrictions on materials or characteristics of waste or wastewaters discharged to the sanitary sewer which shall not be violated without approval of the Superintendent:

(a) any liquid or vapor having a temperature higher than one hundred fifty (150) degrees F (65°C);

(b) any water or waste containing fats, wax, grease or oils, in excess of fifty (50) mg/l or containing substances which may solidify or become viscous at temperatures between thirty-two (32) and one hundred fifty (150) degrees F. (0° and 65°C);

(c) any garbage that has not been properly shredded. The installation and operation of any garbage grinder equipped with a motor of three-fourths (3/4) horsepower (0.56 kW) or greater shall be subject to the review and approval of the City.

(d) any waters or wastes containing strong acid iron pickling wastes or concentrated plating solutions, whether neutralized or not, which are capable of causing any damage or corrosion in the sewers or the sewage treatment plant interfering with the sewage treatment process.

(e) any waters or wastes exerting any excessive chlorine requirement, to such a degree that any such material received in the composite sewage at the sewage treatment works exceeds the limits established by the City for such materials.

(f) any waters or wastes containing phenols or other taste or odor producing substances, in such concentrations exceeding limits which may be established by the City as necessary, after treatment of the composite sewage, to meet the requirements of the State, Federal or other public agencies of jurisdiction for such discharge to the receiving waters.

(g) any radioactive wastes or isotopes of which exhibit a half-life or concentration that may exceed limits established by the City in compliance with applicable State or Federal regulations.

(h) materials which exert or cause:

(1) unusual concentrations of inert suspended solids (such as, but not limited to, diatomaceous earth, lime slurries, and lime residues) or of dissolved solids (such as, but not limited to, sodium chloride and sodium sulfate).

(2) excessive discoloration (such as, but not limited to, paint, dye wastes, and vegetable tanning solutions).

(3) unusual volume of flow or concentration of wastes constituting "slugs" as defined herein.

(i) any waters or wastes containing concentrations of materials, elements and/or compounds, soluble or insoluble, that may be harmful to the wastewater treatment facilities, the receiving stream and/or the environment.

(j) waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed or are amendable to treatment only to such degree that the sewage treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters.

(k) specific toxic materials and heavy metals which constitute an immediate or cumulative hazard to humans, animals and aquatic life. Dilution of such materials in lieu of treatment (removal) is not an acceptable policy.

Section 5. No person shall discharge or cause to be discharged materials which exert or cause BOD in excess of 250 mg/l, suspended solids in excess of 250 mg/l, or oil and grease in excess of 50 mg/l, without prior approval of the superintendent and without paying a surcharge for the additional strength of the wastes.

Section 6. The storage of any material in areas draining into the City sewer which, may create a hazard to the sewage works or treatment processes, or constitute a hazard to human beings or animals, or the receiving stream shall be subject to review by the Superintendent. He may require reasonable safeguards to prevent discharge or leakage of such materials into the sewers.

Section 7. If any waters or wastes contain the substances or possess the characteristics enumerated in Section 4 of this Article, and which in the judgment of the Superintendent may have a deleterious effect upon the sewage works, processes, equipment, or receiving water, or which otherwise may create a hazard to life or

constitute a public nuisance are discharged, or are proposed to be discharged, to the public sewers, the City may:

(a) reject the wastes;

(b) require pretreatment to an acceptable condition for discharge to the public sewers in accordance with an approved implementation schedule; and/or

(c) require control over the quantities and rates of discharge. If the City permits the pretreatment or equalization of waste flows, the design and installation of the plants and equipment shall be subject to requirements of all applicable codes, ordinances and laws, and U. S. Environmental Protection Agency guidelines for pretreatment; and/or

(d) require that a wastewater effluent retention basin be provided of adequate volume to insure that slugs of concentrated pollutants are not discharged into the public sewer. If the City requires the retention of wastewater effluent, the design and installation of the retention basin shall be subject to the review and approval of the City.

Section 8. Grease, oil and sand interceptors shall be provided when, in the opinion of the Superintendent, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the Superintendent and shall be readily and easily accessible for cleaning and inspection. The Owner shall be responsible for installation, operation and maintenance of grease, oil and sand traps.

Section 9. Where preliminary treatment or flow-equalizing facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at his own expense.

Section 10. When directed to do so by the City, the owner of any property discharging industrial wastes shall, have a qualified testing laboratory collect a representative sample of the industrial wastewater and have the appropriate physical, chemical, and biological tests performed on this sample. Qualified testing laboratories selected by the owner shall be acceptable to the City. The purpose of such tests shall be

to determine the conformance of the wastewater characteristics to this ordinance. A report shall be made in writing to the City by the laboratory stating the results of the tests. Required sampling and testing shall be performed in accordance with the provisions of Section II of this Article.

Section 11. All measurements, tests and analyses of the characteristics of waters and wastes to which reference is made in this ordinance shall be determined in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater", published by the American Public Health Association. The sample shall be taken at the control manhole, and sampling shall be carried out by customarily accepted methods to reflect the effect of constituents upon the sewage works and to determine the existence of hazards of life, limb and property.

ARTICLE VII

PROTECTION FROM DAMAGE

Section 1. No person(s) shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance or equipment which is apart of the wastewater facilities.

Section 2. No unauthorized person shall cover any manhole on a public sewer with earth or paving, or otherwise render it inaccessible.

Section 3. No unauthorized person shall remove the earth cover from a public sewer so that less than two (2) feet of earth cover remains over the pipe bells. Approval to remove subsequent cover shall require written consent from the Superintendent.

ARTICLE VIII

POWERS AND AUTHORITY OF INSPECTORS

Section 1. The Superintendent and authorized employees bearing proper credentials shall be permitted to enter all properties for the purpose of inspection, observation, measurement, sampling and testing in accordance with the provisions of this ordinance. The Superintendent or his representatives shall have no authority to inquire into any processes, including metallurgical, chemical, oil, refining, ceramic, paper, or other industries beyond that point having a direct bearing on the kind and source of discharge.

Section 2. While performing the necessary work on private properties referred to in Article VIII, Section 1 above, the Superintendent or authorized employees shall observe all safety rules applicable to the premises established by the company. The company shall be held harmless for injury or death to the City employees. The City shall indemnify the company against loss or damage to its property by City employees and against liability claims and demands for personal injury or property damage asserted against the company and growing out of the gauging and sampling operation, except as such may be caused by negligence or failure of the company to maintain safe conditions as required in Article VI, Section 10. Nothing in this section shall be interpreted to impose on the City any obligation not otherwise imposed by Arkansas State Law. The City does not hereby waive any immunity from tort liability or immunity from suit afforded it pursuant to State Law.

Section 3. The Superintendent and authorized employees bearing proper credentials shall be permitted to enter all private properties through which the City holds a negotiated easement for the propose of, but not limited to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the sewage works lying within said easement. All entry and subsequent work, if any, on said easement, shall be done if full accordance with the terms of the duly negotiated easement pertaining to the private property involved.

ARTICLE IX

PENALTIES

Section 1. Any person found to be violating any provision of this Ordinance except Article VII shall be served by the City with written notice stating the nature of the violation and providing a reasonable time limit not to exceed two (2) days for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease all violations. If correction is not made in this length of time, water service may be discontinued. Any person violating any of the provisions of this Ordinance is liable to the City for any expense, loss or damage.

Section 2. Any person who shall continue any violation beyond the time limit provided for in Section 1 of this Article and/or any person who shall be found to be violating the provisions of Article VII of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in an amount not more than $500.00 for each violation, or double that sum for each repetition of such offense or violation, and if the act is continuous in nature, in any sum not more than $500.00 for each day that the same shall be unlawfully continued. Said penalties shall be added to expenses, loss or damage incurred as a result of the violation.

Section 3. Any person violating any of the provisions of this Ordinance shall become liable to the City for any expense, loss, or damage occasioned the City by reason of such violation.

Section 4. In cases of repeated violations, the City may revoke the permission for discharge of wastes into the sewer system and effect the discontinuation of water service, sewer service, or both.

ARTICLE X

VALIDITY

Section 1. All Ordinances and parts of Ordinances in conflict with this Ordinance are hereby repealed.

Section 2. Should any portion of this Ordinance be unconstitutional or invalid and so declared by a court of competent jurisdiction, then the remainder of this Ordinance, and any remaining application of this Ordinance, shall not be affected by such partial unconstitutionality or invalidity.

Section 3. This ordinance shall be in full force and effect from and after its passage, approval and publication.

PASSED AND APPROVED this 14th day of August, 1995.

Mitch McDonald

Mitch McDonald, Mayor

ATTEST:

Margaret Ramsey

Margaret Ramsey, City Clerk

T.M.

In Mail Box 12-22-04

ORDINANCE NO. 46 0f 2004

AN ORDINANCE CREATING A PUBLIC UTILITY COMMISSION FOR THE CITY OF BENTON, ARKANSAS FOR THE PURPOSE OF OPERATING AND CONTROLLING THE ELECTRIC, WATER AND SEWER SYSTEM OWNED BY THE CITY; AND PRESCRIBING OTHER MATTERS RELATING THERETO.

WHEREAS, the City of Benton, Arkansas (the "City") owns and operates electric, water and sewer utilities as a single, integrated undertaking (collectively, the "System"); and

WHEREAS, the City Council desires to provide low cost and reliable utilities to the citizens of the City; and

WHEREAS, the City Council has determined the need for (a) studies regarding the City's short and long term needs regarding the System, (b) continuous upgrading of the System for future growth, and (c) other utility related services as may benefit the citizens of the City; and

WHEREAS, the City Council of the City has determined that the System can be most efficiently and economically operated under a commission form of management, and

WHEREAS, the City Council by resolution will delineate certain matters, such as allocation of employees, planning, financial reporting, personnel policies, assessment charges, provision of services to the City and such other matters as the City Council may deem appropriate; and

WHEREAS, Title 14, Chapter 201, Subchapter 2 of the Arkansas Code Annotated (1998 Repl.) (the "Authorizing Legislation") provides for the formation of a commission for the purpose of directing, controlling, operating and managing the water, sewer and electric utilities of a city of the first class;

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Benton, Arkansas:

Section 1. That, pursuant to the Authorizing Legislation, there is hereby created a commission to be designated as the "Public Utility Commission of the City of Benton, Arkansas" (the "Commission").

Section 2. That, in conformity with the requirements of the Authorizing Legislation, the Commission shall initially be composed of five residents of the City having the following terms: Charles Mazander, whose term will expire 12-31, 2005, Charles Best, whose term will expire 12-31, 2006, Rita Edwards, whose term will expire 12-31, 2007, Lamont Cornwell, whose term will expire 12-31, 2008, and James Martin, whose term will expire 12-31, 2009.

All commissioners shall at all times be residents of the City. Successor commissioners shall be nominated by the Commission and submitted to the City Council for ratification and confirmation by a majority vote of all members of the City Council for a term of five (5) years. All vacancies by death, resignation or inability to serve shall be filled by the same procedure as successor commissioners.

In addition to the five commissioners, the Mayor and one alderman to be appointed by the City Council from time to time shall serve an ex-officio members of the Commission with no voting authority. Ex-officio members shall not count in determining a quorum for meetings of the Commission.

In the event that any members of the Commission shall attempt to exercise the power of the Commission or his power as a Commissioner in a harmful or unlawful manner, the City Council shall have the right to conduct a hearing and if it finds the charges to be true, it may remove such commissioner by a two-thirds (2/3) vote of the members of the City Council. The vacancy shall be filled by the same procedure for successor commissioners.

Section 3. That the Commission is hereby granted full power to manage, operate, control, supervise, improve, extend, maintain and contract concerning the System subject to the Authorizing Legislation and certain conditions set from time to time by the City Council.

Section 4. That the Commission is hereby granted full power to employ or remove any and all assistants and employees and to fix, regulate, and pay their salaries, subject to the Authorizing Legislation and certain conditions set from time to time by the City Council.

Section 5. That, subject to the Authorizing Legislation and certain conditions set from time to time by the City Council, the Commission is empowered to acquire, construct and equip any and all facilities, consisting of real property, personal property or mixed property of any and every kind, which are necessary or useful as a part of or in connection with the System.

Section 6. That the City Council shall continue to approve bonds for the System. The Commission shall not have the power to issue bonds. However, the Commission shall from time to time make recommendations to the City Council regarding the need for bonds to be issued. The City Council shall not approve the issuance of bonds for the System without first seeking the advice of the Commission, which advice shall be nonbinding.

Section 7. That the members of the Commission shall serve without compensation. In the event any member of the Commission incurs any expense in the performance of his duties as a commissioner, such expense may be allowed by the Commission as a part of the cost of the operation and paid out of the revenues of the System.

Section 8. That the Commission shall report to the City Council on each calendar quarter of the year on the state of operations and financial affairs of the Commission and the System.

Section 9. That at the end of each fiscal year, the Commission shall cause an audit to be made of the financial affairs of the Commission by a certified public accountant. Five (5) copies of such report shall be retained in the office of the Commission, and there shall be made available a copy to the Mayor of the City and the City Council.

Section 10. That the Commission shall adopt such rules and regulations as it deems necessary and proper for the operation, supervision, control and management of the System. The Commission is hereby empowered to change the rules and regulations at any time the Commission desires to do so.

Section 11. That the Commission shall manage, operate, control and supervise the System and handle, invest, collect and deposit revenues of the System in compliance with all ordinances authorizing outstanding bonds of the City payable from System revenues (the "System Bonds") and all ordinances incorporated therein by reference (the "Bond Ordinances").

Section 12. That the City Council shall continue to be empowered to set and approve the rates for the System. The Commission shall not have rate-making authority. However, the Commission shall from time to time make recommendations to the City Council as to rate adjustments. Except rate increases necessary to comply with the requirements of the Bond Ordinances, the City Council will not revise rates without first seeking the advice of the Commission, which advice shall be nonbinding.

Section 13. That so long as the Commission is collecting revenues of the System and making the deposits and payments required by the Bond Ordinances, there shall be no charge to properties owned by the City for services of the System. Otherwise, the Commission shall not provide any free, reduced charge or donated service to any entity nor shall it donate any of its equipment, material, labor or funds without the express approval of the City Council.

Section 14. That the Commission and the City may enter into agreements to provide non-utility related services to each other and shall charge each other the cost of such services.

Section 15. That in the event the City Council should choose to dissolve the Commission, it shall require a two-thirds (2/3) majority of the total membership of the City Council to pass an ordinance or resolution to that effect.

Section 16. That the provisions of this Ordinance are separable and if a section, phrase or provision shall be declared invalid, such declaration shall not affect the validity of the remainder of this Ordinance.

Section 17. That this Ordinance shall not take effect until February 1, 2005.

PASSED: December 13, 2004

APPROVED:

Rick Hall
Mayor

ATTEST:

Cindy Stracener
City Clerk

(SEAL)

VIDEO

ORDINANCE NO. 5 OF 2008

AN ORDINANCE REQUIRING NEW SUBDIVISIONS TO CONDUCT VIDEO INSPECTIONS OF SEWER LINES; ESTABLISHING A RATE CHARGED BY THE CITY OF BENTON FOR CONDUCTING VIDEO INSPECTIONS OF SEWER MAINS; DECLARING AN EMERGENCY; AND FOR OTHER PURPOSES

WHEREAS, the City Council of the City of Benton, Arkansas passed Ordinance 46 of 2004 creating a Public Utility Commission (PUC) for the City of Benton; and

WHEREAS, the PUC operates and maintains the city sewer system; and

WHEREAS, Ordinance 46 of 2004 provides that the City Council shall retain the authority to set the rates charged by the Commission; and

WHEREAS, the PUC has requested that the City Council require that all new subdivisions have a video inspection of the sewer lines prior to final plat approval; and

WHEREAS, the PUC has acquired equipment for conducting video inspections of sewer mains; and.

WHEREAS, the PUC has requested that the City Council set the rate for providing this service as well as provide for the terms of use.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BENTON, ARKANSAS:

SECTION 1: As of the effective date of this Ordinance, all new subdivisions in the City shall have a video inspection of the sewer lines prior to final plat approval. New subdivisions shall include those for which preliminary plat approval has been given by the City, but not those in which final plat approval has been given.

SECTION 2: In conducting the video inspection, the developer may use any contractor who provides this service who has been approved by the PUC or its designated representative.

SECTION 3: The City shall be given at least ten (10) days to review the video inspection report prior to final plat approval.

SECTION 4: If the developer elects to contract with the City to perform the video inspection service, the rate shall be $1.00 per foot.

SECTION 5: The City shall conduct a second video inspection at no charge for all sewer lines prior to the acceptance of the sewer lines by the City for maintenance.

SECTION 6: It is hereby found and determined that there is an immediate need to establish a requirement for conducting video inspections of sewer mains in new subdivisions as well as establish a rate to be charged by the PUC for conducting the service. Therefore, an emergency exists, and this ordinance is necessary for the preservation of the public peace, health and safety. It shall be in full force and effect immediately from and after its passage and approval.

PASSED AND APPROVED this the 14 day of January, 2008.

Rick Holland, Mayor

Cindy Stracener, City Clerk

STATE OF ARKANSAS
County of Saline } ss

I, Regina Bixler do solemnly swear that I am Legal Advertising Clerk of The Benton Courier, a daily newspaper printed in said county and that I was such at the date of publication hereinafter stated, and that said newspaper had a bona fide circulation in such county at said dates, and has been regularly published in said county for a period of 132 years next before the date of the first publications of the advertisement hereto annexed, and that said advertisement was published in said newspaper 1 times for 1 issues, the first insertion therein having been made on 1/22/08, and the last insertion on 1/22/08.

BR
Legal Advertising Clerk

Sworn to and subscribed before me on
2/1/08

Mary E. Bloomquist
Notary Public

My commission expires 8/22/16

MARY E. BLOOMQUIST NOTARY PUBLIC SALINE CO., ARKANSAS My Commission Expires Aug. 22, 2016

FEE FOR PRINTING
$ 185.00
Cost of Proof $ 2.50
Total $ 187.50

Received payment

THE BENTON COURIER

By

ORDINANCE NO. 5 OF 2008

AN ORDINANCE REQUIRING NEW SUBDIVISIONS TO CONDUCT VIDEO INSPECTIONS OF SEWER LINES; ESTABLISHING A RATE CHARGED BY THE CITY OF BENTON FOR CONDUCTING VIDEO INSPECTIONS OF SEWER MAINS; DECLARING AN EMERGENCY; AND FOR OTHER PURPOSES

WHEREAS, the City Council of the City of Benton, Arkansas passed Ordinance 46 of 2004 creating a Public Utility Commission (PUC) for the City of Benton; and

WHEREAS, the PUC operates and maintains the city sewer systems; and

WHEREAS, Ordinance 46 of 2004 provides that the City Council shall retain the authority to set the rates charged by the Commission; and

WHEREAS, the PUC has requested that the City Council require that all new subdivisions have a video inspection of the sewer lines prior to final plat approval; and

WHEREAS, the PUC has acquired equipment for conducting video inspections of sewer mains; and

WHEREAS, the PUC has requested that the City Council set the rate for providing this service as well as provide for the terms of use.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BENTON, ARKANSAS:

SECTION 1: As of the effective date of this Ordinance, all new subdivisions in the City shall have a video inspection of the sewer lines prior to final plat approval. New subdivisions shall include those for which preliminary plat approval has been given by the City, but not those in which final plat approval has been given.

SECTION 2: In conducting the video inspection, the developer may use any contractor who provides this service who has been approved by the PUC or its designated representative.

SECTION 3: The City shall be given at least ten (10) days to review the video inspection report prior to final plat approval.

SECTION 4: If the developer elects to contract with the City to perform the video inspection service, the rate shall be $1.00 per foot.

SECTION 5: The City shall conduct a second video inspection at no charge for all sewer lines prior to the acceptance of the sewer lines by the City for maintenance.

SECTION 6: It is hereby found and determined that there is an immediate need to establish a requirement for conducting video inspections of sewer mains in new subdivisions as well as establish a rate to be charged by the PUC for conducting the service. Therefore, an emergency exists, and this ordinance is necessary for the preservation of [illegible] health and safety. It shall

lines prior to the acceptance of the sewer lines by the City for maintenance.

SECTION 6: It is hereby found and determined that there is an immediate need to establish a requirement for conducting video inspections of sewer mains in new subdivisions as well as establish a rate to be charged by the PUC for conducting the service. Therefore, an emergency exists, and this ordinance is necessary for the preservation of the public peace, health and safety. It shall be in full force and effect immediately from and after its passage and approval.

PASSED and APPROVED this 14th day of January, 2008.

/s/ Rick Holland, Mayor
Cindy Stracener, City Clerk

RATES

ORDINANCE NO. 14 OF 2007

AN ORDINANCE ESTABLISHING CUSTOMER SERVICE RULES, REGULATIONS AND FEES OF THE CITY OF BENTON UTILITIES DEPARTMENT AND REPEALING CUSTOMER SERVICE RULES, REGULATIONS, AND FEES ADOPTED BY THE CITY IN ORDINANCE NO. 66 OF 2005; DECLARING AN EMERGENCY; AND FOR OTHER PURPOSES

WHEREAS, the City of Benton, Arkansas, owns and operates the city electric, water and sewer utilities systems; and,

WHEREAS, the City of Benton, Arkansas, has the power and authority vested within it to establish rules, regulations, and fees for customers of the city utilities systems; and,

WHEREAS, certain customer service rules, regulations and fees are necessary for providing efficient services and for the preservation of valuable revenues due the utilities system: and,

WHEREAS, a study performed by the Benton Public Utilities Commission has determined certain revisions to the existing customer service rules, regulations, and fees are necessary for the continued efficient operations of the utilities system;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BENTON, ARKANSAS:

SECTION 1: The revised customer service rules, regulations, and fees of the City of Benton, Arkansas utilities system attached hereto and marked Exhibit "A" is included by reference here in this section, as if such customer service rules, regulations, and fees were set forth line-for-line and word-for-word, and same are hereby adopted.

SECTION 2: The City Clerk shall cause a copy of such rules, regulations, and fees to be published in a newspaper of general circulation in Saline County, Arkansas, along with this ordinance.

SECTION 3: That Ordinance 66 of 2005 is hereby repealed. All other ordinances or parts of ordinances in conflict with this ordinance are hereby repealed to the extent of such conflict.

SECTION 4: If any section, sentence, clause, or phrase of this ordinance is for any reason held to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 5: That the customer service rules, regulations and fees established by this ordinance shall apply to bills and fees rendered on or after March 1, 2007.

SECTION 6: It has been determined that it is necessary to adjust the customer service rules, regulations and fees for the City to continue to provide adequate services. Now therefore, an emergency is declared to exist and this Ordinance being necessary for the preservation of the

public peace, health and safety shall be in full force and effect from and after its passage and approval.

PASSED AND APPROVED this 22 day of January, 2007.

Mayor

ATTEST

City Clerk

EXHIBIT "A"

CUSTOMER SERVICE RULES, REGULATIONS
AND FEES OF THE BENTON UTILITIES

I. NEW CUSTOMERS

1. New customers applying for utilities service must make application and sign a contract at the Benton Utilities Business Office prior to utilities service connection. The new customer must comply with all departmental policies with regard to utilities service. The new customer must provide proper identification and other required information at the time that application and contract are requested, or service will not be furnished.

   Commercial Accounts require Personal Indemnity agreements on all accounts not opened in name of person signing the agreement with exception of National Corporations such as Home Depot and Office Depot.

2. Refusal to Serve an Applicant for Service

   (a) Reasons for Refusal to Provide Service:

   (1) Failure to pay a delinquent account for the same kind of service previously rendered by the Utility to the applicant, or any other person that is or will be a resident of the service location, or family member which also has an ownership interest at the service location, or any business in which the applicant was owner, co-owner, partner, executive officer of a Corporation, or business in which applicant had financial ownership interest. Accounts will not be opened in name of person not living or operating a business at the service location, however owner's of properties may open an account to provide services to the property for the owner's own use when a tenant is not in the unit.

   (2) Failure to comply with the terms and conditions of a settlement agreement, delayed payment agreement, with respect to service previously rendered by the Utility to the applicant.

   (3) Failure to post the required deposit for service.

   (4) Misrepresentation of identity or facts for the purpose of obtaining the service or failure to provide a minimum of two (2) acceptable items of identification upon request by the Utility.

(5) Unauthorized or fraudulent use or procurement of service or tampering with wires, transformers, meters, pipes or other Utility equipment within the previous three (3) years. (See Section 2, Item 5)

(6) Violation of federal, state or local laws or regulations through previous use of service

(7) Violation of the rules and regulations of the Utility.

(8) Inability of the Utility, due to inadequate facilities, to provide the service requested.

(9) Potential adverse effect of the service requested on service to other customers of the Utility.

(10) Hazards associated with the requested installation or equipment of the applicant.

(11) Causing injury, or threatening to cause injury, to an employee of the City of Benton, the family of an employee or the property of the Utility.

(12) Lack of safe and convenient access to the meter location for maintenance or reading of the meter, including danger, real or perceived to Utility personnel assigned to maintenance or reading by reason of an unrestrained animal.

II. METER DEPOSITS

1. The meter deposits for the indicated services shall be as shown below:

(a) WATER:

(1)	¾"by 5/8" METER	$ 50.00
(2)	1" METER	$ 75.00
(3)	1 ¼"	$100.00
(4)	1 ½"	$120.00
(5)	2"	$160.00
(6)	3"	$300.00
(7)	4"	$500.00
(8)	6"	$1,200.00

(b) ELECTRIC:

(1) RESIDENTIAL:

New Applicant	$100.00
Applicant with Adverse Credit History.	$200.00

(a) "Adverse Credit History" is defined as the applicant's past credit history with the Benton Utilities system only.

(b) Homeowners and renters shall be required to pay meter deposits at the Residential Rates shown above. Deposits will be applied to the account of all residential customers, with the exception of fraudulent users and violators of the Utility's Rules and Regulations, who have not been delinquent on payment of the preceding twelve (12) billing periods. Delinquent is defined as not paying the monthly utility bill on or before the due date printed on the aforesaid monthly utility bill. Deposits are to be reinstated if customers billing reflects three or more consecutive months of late payments.

(2) SINGLE METERED MULTIPLE UNIT DWELLING:

2-UNIT COMPLEX	$200.00
3-UNIT COMPLEX	$300.00
4-UNIT COMPLEX	$400.00
5-UNIT COMPLEX	$500.00
6-UNIT COMPLEX	$600.00
7 OR MORE UNITS:	Must be individually metered

(3) COMMERCIAL AND INDUSTRIAL: A cash deposit amount not to exceed two estimated maximum monthly Utility bills is to be obtained prior to furnishing service to a commercial or industrial customer. Deposit of less than 2 months may be granted upon approval by Public Utilities Commission of Benton if no Adverse Credit History with the City of Benton. As an alternative to a cash deposit, if the amount required exceeds three hundred dollars ($300.00), the customer may furnish a surety bond, a certificate of deposit made jointly to the customer and Benton Utilities, or an irrevocable letter of credit from a local bank.

(4) The Billing Services Manager, or his/her designee, shall review all commercial and industrial deposits semi-annually to determine if the amount of deposit or surety bond on file is adequate in view of the then-current credit experience with the customer. A record of such review is to be noted on customer account history.

(5) Deposits will be applied to the account of all Commercial and Industrial customers, with the exception of fraudulent users and violators of the Utility's Rules and Regulations, who have not been delinquent on payment of their utility bill during the preceding twenty-four (24) billing periods. Surety Bonds will be relinquished and Letters of Credit will be cancelled after twenty-four (24) months of non delinquent payments. Delinquent is defined as not paying the monthly utility bill on or before the due date printed on the aforesaid monthly utility bill.

2. ADDITIONAL DEPOSITS:

(a) For existing customers, and as a condition for continuation of utilities service, the deposit amount may be increased if any of the following conditions occurred during the last twelve (12) months:

1) Service has been discontinued for failure to pay a past due billing; or

2) Two (2) insufficient funds checks have been returned from the bank to Benton Utilities; or

3) The customer has failed to pay his Utility bill by the due date three (3) consecutive months or six (6) or more times in past twelve (12) months; or

4) The customer has misrepresented himself for the purpose of obtaining service; or

5) The customer has engaged in unauthorized or fraudulent use, such as tampering with meters or other Benton Utilities property in an attempt to deprive Benton Utilities of utilities service revenue. If fraudulent use exists, Benton Utilities shall request an additional deposit, plus a non-refundable payment for damage, equal to three (3) times the highest monthly billing during the preceding twelve (12) months, plus proof of payment of all fees or fines assessed by the enforcement authorities.

(b) Residential Customers

Double normal deposit if Adverse Credit History includes a disconnect for non-payment of billing due or three (3) or more consecutive late payments or prior Deferred Payment Account in good standing in past 3 years.

(c) Commercial or Industrial customer deposits will be increased to three times (3) times the estimated maximum bill. The methodology for computing any additional deposit shall be to subtract from the sum determined by twice the highest bill for any one billing period the deposit on file, and rounding up to the nearest multiple of five dollars ($5.00). For Example:

Twice the highest month's bill ($99.08 X 2)	=$198.16
Less current deposit	- $50.00
	$148.10
Additional required deposit	$150.00

(d) An additional deposit will not be required from a customer based on income, geographical location of service, family relationship, race, color, creed, religion, sex, marital status, age, public assistance, or other arbitrary criteria.

(e) The City of Benton pays no interest on any customer deposits.

(f) In all cases, deposits will be refunded when service is terminated and the final billing is paid in full. At the time of termination the customer may request that his/her deposit be applied to the final billing. If a credit balance remains it will be refunded at the time of the final billing.

(g) Failure to post the required deposit (or additional deposit) for service shall be a good and sufficient reason for refusing utilities service to a new applicant or to discontinue service to an existing customer.

3. ADDITIONAL DEPOSIT REQUIRED – RE-ORGANIZING OR BANKRUPT CUSTOMER

Customers filing proceedings pursuant to the Bankruptcy Reform Act of 1978 under either Chapter 11 or Chapter 13 will be treated in accordance with Section 366 of this act which provides:

> (a) Except as provided in subsection (b) of this section, a Utility may not alter, refuse, or discontinue service to, or discriminate against, the trustee or the debtor solely on the basis that a debt owed by the debtor to such Utility for service rendered before the order for relief.
>
> (b) Such Utility may alter, refuse, or discontinue service if neither the trustee nor the debtor, within 20 days after the order for relief, furnishes adequate assurance of payment, in the form of a deposit or other security, for service after such date. On request of a party in interest and after notice and a hearing, the court may order reasonable modification of the amount of the deposit or other security necessary to provide assurance of payment.

III. BILLING

(1) Rendering, Form of Bills and Payments

Bills to customers shall be rendered regularly at intervals of approximately one month and shall show the meter readings and dates for the period covered by the bill, the quantity consumed, the gross and net amount of the bill, the designation of the type of service and applicable rate schedule, and other facts essential to the bill. Payment can be made in person at the Utility Customer Service Office or by mail in the form of check or money order. Credit Cards are not accepted. Payments received after 5 p.m. will not be posted until the next regularly scheduled business day.

(2) Budget Billing

Budget Billing is defined as a twelve (12) month average with the settle up month being the April of each year. Budget Billing will be considered for residents of the City who have not been delinquent within the previous twelve (12) month period of billing history. Failure to pay the bill in full by the due date will result in termination of the billing status. Any balance owed or credited will be reflected on April's billing.

(3) Estimated Meter Readings

Normally, all meters shall be read each month. However, there may be occasions, primarily due to bad weather, when it becomes impossible to read meters. When this occurs, meter readings will be estimated based upon the customer's previous use, adjusted for weather conditions. Bills for which the consumption has been estimated will clearly state that the consumption has been estimated by the use of a code on the face of the bill. Customers receiving estimated bills will

then have the option of verifying the accuracy of the estimation and requesting reread and adjustment, if the estimated reading is in error to such an extent that a hardship is placed upon the customer to pay the bill.

(4) Separate Billing for Each Point of Delivery

Service at separate locations or addresses will not be combined for billing. At each point of delivery, service shall be metered and billed separately for each customer served. Whenever for any reason the Utility furnishes service to a single customer at two or more points of metering, each point of metering shall be considered a separate point of delivery and shall be covered by a separate agreement for service.

(5) Unauthorized Use of Utility Service

If Utilities service has been suspended, or the agreement for utilities service terminated, because of unauthorized use of such service by the customer, the Utility shall be entitled to collect from the customer at the appropriate rate for any service not properly recorded on the meter (the amount of which may be estimated by the Utility from the best available data) including all expenses incurred by the Utility on account of such unauthorized act or acts.

(6) Disconnects

Customers who fail to pay the billed utilities charges by the due date will be mailed a SHUT-OFF notice to pay the total charges with a 10% penalty added to the bill not to exceed $25.00 maximum penalty charged. If the bill is still unpaid as of the specified SHUT-OFF date shown on the SHUT-OFF notice, the delinquent customer's utilities service is to be discontinued as soon as the departmental work schedule permits, allowing that no service shall be discontinued on a day after which no Utility personnel will be available to reconnect the service, or on a day when the outside temperature is 32° Fahrenheit or below as officially reported by the National Weather Service at 10:00 A.M. by the North Little Rock branch station. Failure of the Utility department to act at any time after rendering SHUT-OFF notice shall not affect any of the department's rights hereunder or constitute a waiver of any remedy or defense afforded by law.

In addition to non-payment of bills by due date, utilities service will be discontinued for the following reasons:

(a) Failure to post the required deposit for service.

(b) Misrepresentation of identity or facts for the purpose of obtaining service.

(c) Fraudulent use of service by tampering with meter or other Utility property.

(d) Refusal to allow City of Benton employees on the property for inspection, maintenance, replacement, or reading of the Utility equipment located on the customer's premises; or maintaining any obstruction that would deny access for these purposes.

(e) Violation of the Utility's rules designed to prevent interference with the use of service by other customers, provided the customer first has been notified and given a reasonable opportunity to comply with these rules.

(f) Violation of the Utility's rules pertaining to the operation of non-standard equipment or unauthorized attachments provided the customer has first been notified and given a reasonable opportunity to comply with such rules.

(g) Violation of federal, state, or local laws through the use of utilities service.

(h) Abandonment of the premises served.

(i) Causing injury, or threatening to cause injury to an employee of the City of Benton or to the family of the employee.

(7) DELAY OF TERMINATION ON GROUNDS OF SERIOUS ILLNESS

(a) The Utilities Department shall postpone termination of service to a residential customer, for a reasonable time for up to 6 weeks if the customer presents a certificate from a physician stating that it is likely that termination of service will either aggravate a serious illness or give rise to a substantial risk of death or a grave impairment of the health of a customer, or a member of the customer's family or of another permanent resident of the premises where service is rendered. The certificate shall identify the medical emergency, specify the effect of termination of service, and specify the time during which termination of service will aggravate the illness.

A customer's physician providing health care services must notify the Utility of a serious illness in writing.

(b) The Utility Department will consider further extensions after careful review and consideration has been given and physician has notified the Utility Department in writing of continued illness or impairment.

(c) Continuation or re-connection of service under this rule shall not in any way relieve the customer of liability incurred for utility services.

(8) PROVISION FOR HARDSHIP CASES

The City of Benton governing officials recognize the fact that customers are sometimes unable to pay their bills because of circumstances beyond their control. Benton Utilities will work with the bona fide hardship cases when referred by social organizations recognized by the City of Benton, such as; Churches Joint Council on Human Needs (CJOHN), Central Arkansas Development Council (CADC), Arkansas Department of Social Services, etc. in arranging for payment, Benton Utilities will consider ability to pay, amount of the unpaid account, previous payment record, and the length of time and reasons the account has not been paid. This procedure will require the customer to disclose information and furnish documents necessary to determine income level and ability to pay, if the customer provides false information or fails to comply with the terms of the

payment agreement; Benton Utilities may discontinue service and is not under obligation to enter into a second payment agreement.

(9) METER ERRORS – CORRECTIONS TO BILLS

(a) Conditions of bill correction:

A correction to a customer's account shall be made for meter error only when a customer's meter is tested by the Utilities Department and is found to be in error exceeding the tolerances allowed by these regulations. Provided, that if the error results in under billing, the Utilities Department may forgo the correction if, in its judgment, it would be economical or convenient to do so. When a customer requests a meter test and the meter is tested and found to be registering one hundred percent (100%) accuracy or slower, the customer will be billed the cost of such meter test.

(b) Meter Tolerances

(1) Electric Meters

(a) Watt-hour Meter

	TEST EQUIPMENT	POWER FACTOR	ACCURACY
Heavy Load	100% Test Amps	1.0	+/-2%
	100% Test Amps	0.5	+/-2%
Light Load	10% Test Amps	1.0	+/-2%

(b) Demand Meter

The error of the demand register shall not exceed 4% of full scale value when tested between 25% and 100% of full scale value.

(2) Water Meters

The error of the service water meter shall not exceed +/- 3% when registering water at, stream flow equivalent to approximately one-tenth (1/10), one-half (1/2), and full normal rating under average service pressure.

(c) Computation of billing correction

(1) If the date the meter first became inaccurate can be definitely ascertained, the correction shall be for the amount charged since that date over or below that which the billing would have been had the meter registered with one hundred percent (100%) accuracy.

(2) If the date the meter first became inaccurate cannot be definitely ascertained, the correction shall be based upon the customer's metered consumption for a period of two (2) months in cases of back billing, or six (6) months in cases of refunds. The rates effective

during said period shall be applied to this adjusted consumption and the difference between the amount so obtained and the actual billing shall be credited or charged to the customer.

(d) Correction of previous over or under billing repayment

(1) Over-billing - Refund to customer where the Utilities Department has over-billed a customer, the Utilities Department shall make at the discretion of the Billing Department Manager a lump sum payment or credit the account within thirty (30) days of discovering and computing the amount of over-billing.

(2) Under-billing - Back-bill charge to customer when the Utilities Department bills the customer an amount correcting a previous under-billing, the customer shall be permitted to pay such an amount pursuant to a delayed payment agreement that provides for repayment over a period at least equal to the period during which the under-billing occurred. If the previous under-billing was the fault of the Utilities Department or it is impossible to determine whether the under-billing was the fault of the Utilities Department shall impose no finance charge on such delayed payment.

The Utilities Department is not required to enter into a delayed pay nent agreement to pay an amount to correct a previous under-billing if the under-billing was caused by unauthorized or fraudulent use or procurement of service or tampering with wires, pipes, meters, or other Utility equipment.

IV. GENERAL FEES AND CHARGES (GENERAL CUSTOMER ACTIVITY)

The following fees and charges will be made by the Utilities Department for the General Customer Activity indicated:

1. Reconnect Fee

(a)	During regular working hours	$30.00
(b)	Outside regular working hours	$80.00

2. Service Charge (Connect or Disconnect) $15.00

(a) Charged on all new and final bills to cover the cost of dispatching servicemen for special trip to read meter and set up and special handling of account by officer personnel.

3. Credit Reference Letter Fee $ 5.00

(a) Charged to customers who request credit reference when moving to location served by another utility which requires credit reference in lieu of arterial or full deposit with service application. Covers cost of researching customer history and preparation of correspondence.

4. Returned Check Charge $30.00

(a) Utilities personnel shall not accept checks for payment of accounts that have been disconnected for reason of bad checks tendered in payment of bills Before service can be turned on, payment must be paid in full by cash, cashier's check or money order.

(b) Service personnel dispatched to disconnect service for non-payment are allowed to accept cash or checks in payment of account. Note: A Customer who is disconnected for an insufficient check will be required to pay cash, cashier's check or money order.

(c) Customers who have three (3) insufficient checks returned from the bank to the Utilities Department in a six (6) month period shall be mailed a notice informing them that their checks will no longer be accepted in payment of their account and payment must be made by cash, cashiers check or money order.

5. New Utility Service Connection Fees for Residential Customers

(a) Electric Service	$200.00
(b) Water Service	
(1) 3/4" X 5/8" Meter	$200.00
(2) 1" Meter	$300.00
(3) 1 ½" Meter or above	Actual Cost + $200
(c) Wastewater Service	$1,000.00

(1) Multi Family Units (apartments, condos, duplexes, triplexes etc.) $1,000 for the first unit and $500 for each additional unit per building for sewer connection

(d) Connection fees are to be used only for utility infrastructure improvements.

6. New Utility Service Connection Fees for Commercial and Industrial Customers

(a) Electric Service connection fees shall be $350 + actual cost of Electrical Infrastructure to be negotiated with Benton Utility on an individual basis. The cost of service to the Industrial/Commercial business must be paid before installation.

(b) The cost to install primary electrical infrastructure in subdiv sions will be at $4.00 per foot. The cost to extend primary electric service to the subdivis on shall be at Benton Utilities actual cost and must be paid for before installation.

* Developer will be responsible for opening and closing of ditch per Benton Utilities Specifications.

(c) Water Service	Actual Cost + $200

* Developer/Owner will be required to extend water infrastructure to the point of service at his expense

(d) Wastewater/Sewer

Motels/Hotels	$125 per unit/room - $1,000 min.
Institutional Care Facilities	$150 per unit/room - $1,000 min.
Educational Institution	$15 per student based on designed occupancy $1,000 min.
Daycare Centers	$1,500
Strip Malls and/or Multi Unit Commercial Buildings	$1,000 for the first unit and $500 for each additional unit per building.

All Other – Connection Fee's for sewer will be based on the size of the water meter and to be negotiated with Benton Utility on an individual basis and installed as determined by Benton Utility Department.

* Developer/Owner will be required to extend wastewater infrastructure to the point of service at his expense

(7) Fees, Royalties and Bonds

Any fees assessed to the City or assessed by City will be assessed to the individual customer affected on each monthly billing.

(8) Meter Test Fee (Electric & Water) $ 40.00

(a) Fee will be waived if test reveals meters are not within tolerances allowed in Sect. III (8) (b) (1) & (2).

Appendix 4
Budget

Table of Contents

CITY OF BENTON, ARKANSAS
BUDGET REQUEST DETAIL
2012

WASTEWATER COLLECTION

2006 actual	$98,015
2007 actual	$97,227
2008 actual	$105,541
2009 actual	$84,178
2010 actual	$109,000
2011 Original	$120,000

Chart of Accounts Number: 740.47.46.30

Request: $145,000 ✓

Account Title: R & M - Lift Station

Explanation:

Cover items such as:

The lift station crew checks 38 major lift stations daily, 80 stations on monthly basis and total upkeep of 140 + stations and we are getting more daily stations. We have an ongoing program of rebuilding pump check valves and railing systems for pumps and pump motors. We have to keep spare parts and pumps on hand for repair and replacement.

This is also $20,000 to install 2 to 3 lift station on SCADA that the CAO has us to do.

This is also $20,000 to install up to 3 to 4 pump station in 2012 on portable backup generators

mdc

Initialed: LW Date: 08/24/11

AUG 2 5 2011

1

CITY OF BENTON, ARKANSAS
BUDGET REQUEST DETAIL
2012

WASTEWATER COLLECTION

2006 actual	$537,108
2007 actual	$74,856
2008 actual	$209,753
2009 actual	$580,175
2010 actual	$390,955
2011 Original	$320,600

Chart of Accounts Number: 740.45.46.30

Request: $320,000

Account Title: Repairs & Maintenance-Collection Systems

Explanation:

Covers items such as:

This request is for the repairs to the main sewer system and other maintenance related to the collections. Such as: SB-2 rep/rap, street cuts, manhole rings. Covers and risers for manhole rings, fernco couplings of all sizes, concrete bags, cement bricks, root control and to keep up our maintenance program on pipe bursting of our old line. And for rehab of old manholes in the system

Initialed: LW Date: 08/24/11

AUG 2 5 2011

Appendix 5
Asset Management Forms

Table of Contents

INVOICE

Innovative Maintenance Systems
P.O. Box 142
Lyndora, PA 16045
U.S.A

Web: www.mtcpro.com
E-mail: sales@mtcpro.com
Phone: 724-282-3557
Fax: 724-283-7450

WWC

Invoice No.	28322
Invoice Date	7/29/2010
Customer No.	13424

Bill To:

City of Benton Purchasing Department
Linda McAdoo
1314 Venturi
Benton, AR 72019

Ship To:

Benton Utilities
[redacted]
616 West Hazel
Benton, AR 72018

Purchase Order #: 71451

Salesman	Shipped Via	Terms	FOB
IMS	USPS	NET 30	IMS

Qty. Ordered	Qty. Shipped	Description	Unit	Amount
1	1	Maintenance Pro 5.0 Deluxe - (Single User)	$679.00	$679.00

Shipping & Handling: $0.00

Please pay this amount (U.S. Funds) >>>>>>> $679.00

Please make all checks payable to Innovative Maintenance Systems.
Thank you for your patronage!

received
MW8-3

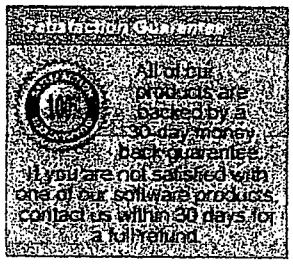
Maintenance Pro 5.0 Feature Comparison Chart

Standard, Deluxe, and Professional Editions

Which edition of Maintenance Pro best fits your needs?
See our feature comparison chart to help you decide, or call us at **1-888-449-2405**

Feature	Standard	Deluxe	Professional
Track an unlimited number of pieces of equipment.	✓	✓	✓
Tracks equipment information and provides over 25 user-definable fields for equipment facts.	✓	✓	✓
Organize your equipment into categories (tree structure) for better management and reporting.	✓	✓	✓
Tracks preventive maintenance (PM) and repairs.	✓	✓	✓
Automatically calculates and informs when maintenance is due by highlighting (in color) equipment due for service.	✓	✓	✓
Unlimited user-definable PM schedules and services.	✓	✓	✓
Generates a maintenance history detailing all PM, repairs, and costs.	✓	✓	✓
Schedule and monitor unexpected repairs for breakdowns or general problems.	✓	✓	✓
Detailed cost analysis and statistics for preventive maintenance, repairs, parts, and labor.	✓	✓	✓
Specify detailed filter, search, and sorting criteria for your reports.	✓	✓	✓
Export to numerous formats (ASCII, Excel, PDF, and more).	✓	✓	✓
Built-in report design editor to modify existing report layouts.	✓	✓	✓
Meter replacement support.	✓	✓	✓
Track and record general expenses.	✓	✓	✓
Track and monitor equipment usage.	✓	✓	✓
Track employee and operator information, licensing, renewals, and certifications.	✓	✓	✓
Track and monitor equipment fluid usage.	✓	✓	✓
Vendor database.	✓	✓	✓
Built-in data backup and restore capability.	✓	✓	✓
Network version support available.	✓	✓	✓
Free technical support e-mail and telephone support. See our "Technical Support Policy" for additional options.	✓	✓	✓
Custom Report Designer - for creating new reports.	**(optional)**	**(optional)**	**(optional)**
Security Module Add-on - define users and screen level permissions.	**(optional)**	**(optional)**	**(optional)**
Barcoding Add-on - track parts by scanning UPC symbols and other barcodes.		**(optional)**	**(optional)**
Define your own date-based expirations for each piece of equipment.		✓	✓
Store photos of your equipment, parts, employees, and more.		✓	✓
Itemize parts used when recording maintenance performed.		✓	✓
Parts database provides storage for commonly used parts for ease of selection when recording maintenance performed.		✓	✓
Additional parts usage, overview, and summary reports.		✓	✓
Graphing - analyze your equipment costs in bar, line, and pie charts.		✓	✓
In addition to interval based maintenance, assign fixed date and/or meter expirations for your PM services.		✓	✓

- Description
- Feature Comparison
- Download Trial
- Pricing
- Update
- FAQ's
- Support



Define a seasonal period for any of your PM services to disable tracking during that period.	✓	✓
Assign advanced notification on a per-service basis.	✓	✓
MP Notifier - System tray utility that alerts you when maintenance is due - even if the program is not running.	✓	✓
Over 15 additional equipment cost analysis reports.	✓	✓
Assignment log for equipment.	✓	✓
Virtual meter feature to automatically estimate and update meter readings.	✓	✓
Built-in work order management system to track and monitor status of work orders.		✓
Automatic work order generation based on PM and scheduled repairs due.		✓
Associate parts, costs, and/or special instructions with each PM service to be automatically populated on your work orders when the required service is due.		✓
Printed work orders contain itemized checklists, parts required, labor sections, and technician notes.		✓
Detail labor charges by rates and times.		✓
Separate area to record and track outside vendor services.		✓
Apply discounts to your work orders.		✓
Built-in parts inventory system with complete stock tracking.		✓
Parts inventory reorder notification, usage, and reporting.		✓
Assign percentage markup for parts.		✓
Charge parts to work orders.		✓
Built-in purchase requisition system for purchasing parts from vendors.		✓
Parts received module for receiving parts by purchase order or for making manual adjustments.		✓
Built-in invoicing and payment tracking.		✓

Top ▲

Read more about our facility maintenance software!

Which product is right for me? View our product comparison chart.

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English - Deutsch - Português - Français - Español

WASTEWATER COLLECTION DEPARTMENT INVENTORY

Warehouse

REPLACMENT PUMPS:

6 - 2 HP Meyers 230 Volt 1 Ph.

2 - 2 HP Hydromatic 230 Volt 1 Ph.

3 - 3 HP Meyers 230 Volt 1 Ph.

2 - 3 HP Hydromatic 230 Volt 1 Ph.

2 - 5 HP Meyers 230 Volt 1 Ph.

1 - 5 HP Meyers 460 Volt 3 Ph.

1 - 30 HP Reliance 230/460 Volt 3 Ph.

FITTINGS & PIPE:

5 – 2" Full circle clamps

1 – 6" Full circle clamps

3 – 10" Full circle clamps

2 – 30" Full circle clamps

6 – 2" Hi max clamps

4 – 3" Hi max clamps

6 – 4" Hi max clamps

4 – 6" Hi max clamps

4 – 10" Hi max clamps

6 – 12" Hi max clamps

11 – 4" Tapping saddles

2 – 4" Furnco pvc – pvc

16 – 4" Furnco pvc – concrete

17 – 6" Furnco pvc – pvc

3 – 6" Furnco pvc – concrete

FITTINGS & PIPE:

7 – 6" Furnco pvc – clay

6 – 8" Furnco pvc – concrete

4 – 10" Furnco pvc – clay

10 – 12" Furnco pvc – concrete

2 – 12" Furnco pvc – pvc

2 – 16" Furnco pvc – concrete

2 – 2" pvc pipe joints

4 – 6" pvc pipe joints

5 – 8" pvc pipe joints

15 – 12" pvc pipe joints

1 – 16" pvc pipe joints

1 – 24" pvc pipe joints

1 – 26" pvc pipe joints

1 – 30" pvc pipe joints

1 – 36" pvc pipe joints

MANHOLE ITEMS:

9 – Rings

29 – Lids

10 – 1-½" Riser

6 – 2" Riser

8 – 3" Riser

5 – 4" Riser

2 – 6" Riser

1 – 3" Concrete donut

1 – 6" Concrete donut

MISCELLANEOUS EQUIPMENT:

qty		description	
1-	3 yard Vac Con Truck	2005 Sterling Jet/Vac 6T	S-53
1-	Mainline video inspection truck	2007 Aries Camera Truck Ford F450	S-52
1-	5 yard dump truck	2002 Ford F750	
1-	Rubber tire backhoe	2006 Case 580 M	
1-	Mini Excavator		
2-	Right of way tractor	Massey Ferguson MF1547 - Ford F3930	
2-	3" Bypass pump		
2-	6" Bypass pump		
2-	Portable generators for small pump station	Miller - Wacker	
1-	Trailer mounted generator for Lg pump station	Baldor TS45	
1-	Trailer mounted manhole restoration machine	Spraymaster	
2-	Smoke blowing equipment	Briggs & Stratton 5.5 hp	
1-	Trailer mounted concrete grout mixer	Whiteman	
1-	utility vehicle	2010 GMC sierra C1500	S-65B
1-	utility vehicle	2000 Jeep Cherokee	S-65A
1-	utility vehicle	2006 Chev. Silverado	S-55
1-	utility vehicle	2004 Chev. Silverado	S-57
1-	utility vehicle	2008 Ford F 150	S-54B
1-	pump truck	STP tank truck	

1995 GMC 1500 Service Truck S-54

QTY	PART
1-	roll aqua seal
1-	can solvent cement
1-	can white paint
2-	can green paint
2-	Mercury floats
4-	5 hp kits
6-	K64 elements heater
3-	K24 elements heater
5-	K68 elements heater
1-	25' airline plumbing kit
2-	3/5 hp run
1-	5 hp run
6-	5 hp start
1-	C16 contactor
1-	193 E1 overload
1-	3 phase power monitor
1-	pressure switch 30/50
1-	10 A @ 240 VAC alternating relay
1-	5 hp relay
1-	2 hp relay
7-	assorted ice cube relays

2001 Dodge Ram 2500 Service Truck S-68

QTY	Part
1-	low head kit for MG-200
1-	Seal for MG_200
1-	tote bag of tools
6-	floats 25 foot
1-	set of gaskets heritage farms
1-	electrical box
100-	10-12 butt connectors
200-	14-16 butt connectors
100-	#18 butt connectors
1-	193 EA1EB
1-	193 ED1EB
1-	193EEFD
7-	193ED1EB
2-	193EEDB
4-	193EEFD Overloads
5-	100C23010
3-	100C16D10
3-	100C23D400
5-	100C43D10
1-	contactor for River Oaks
2-	alternating relay
1-	3-5 relay motors
8-	2 hp relays
4-	5hp start comp
1-	3-5 run comp
7-	2 hp start comp
7-	2 hp run comp
5-	3-5 hp run comp
3-	high water alarm horns

2001 Dodge Ram 2500 Service Truck S-68

Qty	Part
2-	high water horns
1-	contactor pilot
1-	impeller grinder high head meyer 2 hp 1 grinder ring
1-	box assorted connectors
1-	30 amp single pole square D breaker
1-	tin cleave for torch
1-	60 amp square D double pole breaker
1-	60 amp cutler hauch double pole breaker
1-	brasing tip
1-	3 phase power monitor
1-	15 amp two pole E-1
1-	single pole E-1 breaker E-1
1-	spare belt for blower cold water
1-	3 phase monitor dogwood lake
1-	cutler hammer contactor for willow street
6-	heater for the Oaks
2-	braking rods
4-	alternators "120 volts"
3-	safety vest
1-	hard hat
11-	rolls electrical tape
1-	volt meter
1-	Clamp meter
1-	hole cut kit metal
1-	die & tap set
1-	6 1/2 foot lifting strap
1-	bag cutting & grinding wheels
1-	4 1/2 inch grinder
1-	1/2 inch drill
1-	1/2 impact
1-	saw - all
20 ft-	1/2 shrink tubing
500ft-	1/4 inch shrink tubing

Benton Utilities
Wastewater
Vehicle Inspection Form

Date (month/year)

Vehicle Type		Department
Vehicle ID#		

KEEP TRUCKS CLEAN IN & OUT

Daily Inspection Items	Weekly Inspection Items
• Housekeeping (Interoir/Exterior)	• Battery (fluidlevel/hold-down secure/cleanliness
• Tires (damage/abnormalities/wear/correct air pressure)	• Drive Belts (check for fraying or cracking)
• Fluid Leaks (fuel/oil/coolant/undercarriage)	• Air Brakes (drain/grease vehicle)
• Engine oil/Brake fluid/Trans fluid (following each refueling or as needed)	• Trailer Hitch (check for security and connections)
	Monthly Inspection Items
• Lights (proper operation)	• Fire Extinguisher
• Safety Devices (seatbelts/headrests/warning lights)	• First Aid Kit
• Instruments/Horn/Windshield Wipers	• Proof of Insurance
• Parking Brake/Service Brake/Sterring/Clutch	• Vehicle Registration
• Tools/Load Stored Properly	• MSDS Information for Materials on Board

Operator's Initial and Mileage Signifies Inspection

Mileage	Initial	Mileage	Initial	Mileage	Initial
02/01/12 - Wed.		02/11/12 - Sat.		02/21/12 - Tue.	
02/02/12 - Thu.		02/12/12 - Sun.		02/22/12 - Wed.	
02/03/12 - Fri.		02/13/12 - Mon.		02/23/12 - Thu.	
02/04/12 - Sat.		02/14/12 - Tue.		02/24/12 - Fri.	
02/05/12 - Sun.		02/15/12 - Wed.		02/25/12 - Sat.	
02/06/12 - Mon.		02/16/12 - Thu.		02/26/12 - Sun.	
02/07/12 - Tue.		02/17/12 - Fri.		02/27/12 - Mon.	
02/08/12 - Wed.		02/18/12 - Sat.		02/28/12 - Tue.	
02/09/12 - Thu.		02/19/12 - Sun.		02/29/12 - Wed.	
02/10/12 - Fri.		02/20/12 - Mon.			
Reviewed By:		**Date**			

Comments:

Action		GL#		Asset #	Description/Serial Number	Date	Amount	Department
add	850.10	43	00					Util Dir
add	850.10							0.00
[redacted]	850.20	43	00					Util Dir
[redacted]	850.20							0.00
		Gen Mgr				**0.00**		
add	850.10	41	38					Billg Serv
add	850.10							0.00
add	850.20	41	38					Billg Serv
add	850.20							0.00
del	178.20	41	38					Billg Serv
del	178.20							0.00
		Billg Serv				**0.00**		
add	178.10	42	00					Purch Serv
add	178.10							0.00
add	850.20	42	00					Purch Serv
add	850.20							0.00
del	178.20	42	00					Purch Serv
del	178.20							0.00
		Purch Serv				**0.00**		
[redacted]	176.10	44	30					E Dist **CWIP**
add	176.30	44	30					**CWIP**
add	176.40	44	30					**CWIP**
add	850.10	44	30					E Dist
add	850.10							0.00
del	178.10	44	30					E Dist
del	178.10							0.00
add	850.20	44	30	604403	2011 Dodge Ram 3500 ST/SLT 4x4 1T 3D6WZ4E	06/28/2011	56,236.95	E Dist
add	850.20			BJ1898	2012 Freightliner M2106/Altec/Terex 1FVACXBS4	11/30/2011	164,593.00	E Dist
add	850.20							220,829.95
del	178.20	44	30					E Dist
del	178.20							0.00
del	178.30	44	30					E Dist
del	178.30							0.00
add	850.30	44	30					E Dist
add	850.30							0.00
add	850.40	44	30					E Dist
[redacted]	850.40							0.00
add	850.50	44	30	110701	2011 distribution system additions	07/01/2011	371,727.21	E Dist
add	850.50							371,727.21
add	850.60	44	30					E Dist

Action		GL#		Asset #	Description/Serial Number	Date	Amount	Department	
add	850.60								0.00
add	178.50	44	30					E Dist	
d…	…78.20							E Dist	
del	178.20							E Dist	
del	178.20							E Dist	
del	178.20								0.00
del	178.30	44	30					E Dist	
del	178.30								0.00
add	180.00	44	30					E Dist	
add	180.00								0.00
				Elec Dist	**592,557.16**				
add	176.20	45	20					W Purif **CWIP**	
add	850.10	45	20					W Purif	
add	850.10								0.00
add	850.20	45	20					W Purif	
add	850.20								0.00
del	178.20	45	20					W Purif	
del	178.20								0.00
add	850.30	45	20					W Purif	
a…	…50.30								0.00
add	178.40	45	20					W Purif	
add	178.40								0.00
add	850.40	45	20					W Purif	
add	850.40								0.00
add	850.70	45	20					W Purif	
add	850.70								0.00
del	178.30	45	20					W Purif	
del	178.30								0.00
add	178.40	45	20	216A57	J216-A57-Water Reservoir Remediation 2003-200	12/31/2008	360,616.49	W Purif	
add	178.40							W Purif	
add	178.40								360,616.49
del	178.40	45	20					W Purif	
del	178.40								0.00
del	178.60	45	20					W Purif	
del	178.60								0.00
				Wtr Purif	**360,616.49**				
del	176.10	45	30					W Dist **CWIP**	
del	176.10	45	30					**CWIP**	
add	850.10	45	30					W Dist	

Action		GL#		Asset #	Description/Serial Number	Date	Amount	Department
add	850.10							0.00
del	178.10	45	30					W Dist
[redacted]	178.10							0.00
add	850.20	45	30	194472	2011 Chevrolet Silverado C3500 1T flatbed truck	05/03/2011	28,861.18	W Dist
add	850.20							W Dist
add	850.20							28,861.18
					sold at auction 10/19/2011			
del	178.20	45	30	429399	1995 Ford 575D Backhoe A429399	04/19/1995	(35,488.52)	W Dist
del	178.20			213365	1999 Dodge Ram 1500 .5 T PU 3B7HC12Y6XG2	06/22/1999	(15,859.04)	W Dist
del	178.20			577011	1999 Dodge Ram 2500 .75 T PU 3B7KC26Z4XM	07/01/1999	(18,796.82)	(70,144.38)
del	178.30	45	30					W Dist
del	178.30							0.00
add	850.30	45	30	110701	2011 distribution system additions	07/01/2011	305,697.20	W Dist
add	850.30							305,697.20
add	850.50	45	30					W Dist
add	850.50	45	30					W Dist
add	850.50							0.00
add	850.60	45	30					W Dist
add	850.60							0.00
add	178.50	45	30	105753	jb#10-5753-Scott-Salem-waterline	04/20/2011	344,469.87	W Dist
add	178.50	45	30					W Dist
[redacted]	178.50	45	30					W Dist
[redacted]	178.50	45	30	095796	Military Road-redesign-water line relocation-AHTD	09/12/2011	1,233,427.49	W Dist
add	178.50	45	30					W Dist
add	178.50	45	30					W Dist
add	178.50	45	30		GASB 34 - 2011 Infrastructure Additions-Water Distribution System			W Dist
add	178.50	45	30	111231	Quail Valley Ph4-1,255' of 6"/1,789' of 12" water li	12/31/2011	85,205.00	W Dist
add	178.50	45	30					W Dist
add	178.50	45	30					W Dist
add	178.50	45	30					W Dist
add	178.50	45	30					W Dist
add	178.50	45	30					W Dist
add	178.50							1,663,102.36
add	178.20	45	30					W Dist
del	178.20							W Dist
del	178.20							0.00
add	180.00	45	30					W Dist
add	180.00							0.00
		Wtr	**Dist**		**1,927,516.36**			
add	176.10	46	20					WW Trmt **CWIP**
del	176.10	46	20	105734	Hazel St Plant-process washwater pump station	12/01/2011	(28,930.50)	**CWIP**
[redacted]	178.10	46	20					WW Trmt
del	178.10							0.00
del	178.20	46	20					WW Trmt
del	178.20							0.00

Action		GL#		Asset #	Description/Serial Number	Date	Amount	Department
add	850.20	46	20					WW Trmt
add	850.20							0.00
add	850.30	46	20					WW Trmt
add	850.30							0.00
del	178.20	46	20	105734	Hazel St plant-process washwater pump station	12/01/2011	479,357.79	WW Trmt
del	178.20							479,357.79
add	178.40	46	20					WW Trmt
add	178.40		20					0.00
del	178.30	46	20					WW Trmt
del	178.30							0.00
del	178.30	46	20					WW Trmt
del	178.30							0.00
del	178.40	46	20					WW Trmt
del	178.40							0.00
add	850.70	46	20					WW Trmt
add	850.70							0.00
add	180.00	46	20					WW Trmt
add	180.00							0.00
		WW	**Trmt**		**479,357.79**			
del	176.10	46	30					**CWIP**
del	176.10	46	30					**CWIP**
del	176.10	46	30					**CWIP**
del	176.10	46	30					**CWIP**
del	176.10	46	30					**CWIP**
del	176.10	46	30					**CWIP**
add	850.10	46	30					WW Coll
add	850.10							0.00
del	178.10	46	30					WW Coll
del	178.10							0.00
add	850.20	46	30					WW Coll
add	850.20							0.00
del	178.20	46	30					WW Coll
del	178.20							0.00
add	178.30	46	30					WW Coll
add	178.30							0.00
add	850.30	46	30					WW Coll
add	850.30							0.00
add	850.50	46	30					WW Coll
add	850.50	46	30					WW Coll
add	850.50							0.00
add	850.60	46	30					WW Coll

Action		GL#		Asset #	Description/Serial Number	Date	Amount	Department
add	850.60							0.00
add	178.50	46	30					WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30	095796	Military Road-redesign-wastewater line relocation-	09/12/2011	808,590.99	WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30		GASB 34 - 2011 Infrastructure Additions-Waste Water Collection System			WW Coll
add	178.50	46	30	111231	Quail Valley Ph4-2,893' gravity sewer lines	12/31/2011	144,650.00	WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30					WW Coll
add	178.50	46	30					WW Coll
add	178.50							953,240.99
		WW Coll			**953,240.99**			
177		**Total Change**			**4,313,288.79**		4,284,358.29	4,313,288.79
							(28,930.50)	**CWIP**

Appendix 6
External Resources

Table of Contents

Benton Utilities Twenty four hour on-call vendors:

1. **B.T Environmental Inc Hot Springs, Ar 501-624-3837-** Myers pumps.

2. **Instrument & Supply Inc Hot Springs, Ar 501-262-3282-** Hydromatic pumps/ SCADA system.

3. **Heller Company Inc. Hot Springs, Ar 501-623-7241-** Mainline pipe bursting and sewer repairs.

4. **On Line Construction Inc. Hot Springs, Ar 501-620-4133-** Sewer line repairs and heavy equipment.

5. **National Pump & Compressor Conway, Ar 501-336-8884-** Bypass pumping.

6. **Emery Pump Service Benton, Ar 501-316-0505-**Pumper trucks.

Appendix 7
Design Standards

Table of Contents

Section 1.0
GENERAL INFORMATION

1.1 Purpose

The purpose of these subdivision regulations is to help implement the vision, goals, and objectives of the City of Benton Comprehensive Development Plan and, in particular, the Master Street Plan for the Benton Planning Area.

These rules and regulations are also intended to serve the following purposes:

To guide, direct, and control the future growth and development within Benton and its planning area;

To assist orderly, economic, efficient, and coordinated development within Benton and its planning area;

To promote the health, safety, morals and general welfare of the residents of Benton and its planning area;

To ensure conformance of subdivision plans with the public improvement plans of Benton;

To secure equitable handling of all subdivision plans by providing uniform procedures and standards for observance both by Subdividers and the Planning Commission.

1.2 Subdividers Shall Submit Plats and Plans

Any Subdivider within the Benton Planning Area shall submit to the Planning Commission plats of the subdivision and plans for indicated improvements according to these regulations. In considering the approval of a plat the Planning Commission shall observe and enforce the requirements and procedures set forth herein. In the case of a plat constituting a replat of land into two or more lots, all of which will be served by an existing street or streets, the Planning Commission shall have the power to vary the said requirements so that substantial justice may be done and the public interest served.

1.3 Certificates of Approval and Bill of Assurance Required

No Subdivider proposing to make or have made a subdivision within the territorial jurisdiction shall proceed with any construction work on the proposed subdivision, including grading, before obtaining a Certificate of Preliminary Plat Approval, and shall not convey title to any lot or lots before obtaining from the Planning Commission a Certificate of Final Plat Approval and acceptance of the plat.

No Subdivider shall record the plat of a Subdivision or Bill of Assurance or any part thereof before obtaining from the Commission a certificate of final plat approval and acceptance of the plat.

A **Bill of Assurance** shall accompany each final plat submitted to the Planning Commission.

1.4 Suitability of the Land

Land within the 100 year flood plain shall not be platted for residential occupancy, nor shall such land be platted for any other uses as may continue such conditions or increase danger to health, safety, life, or property unless approved steps are taken to diminish the above-mentioned hazards in accordance with the current flood plain ordinance and other applicable ordinances and statutes.

Such land within a proposed subdivision not detrimental to the development of the subdivision shall be set aside for uses as set out by the Planning Commission.

1.5 Access

Every subdivision shall be served by a publicly dedicated street or streets.

1.6 Conformance to the Comprehensive Development Plan

All proposed subdivisions shall conform to the objectives of the Comprehensive Plan in effect at the time of submission to the Planning Commission.

1.7 Conformance with Other Applicable Ordinances

These regulations are intended to clarify or to supersede in the case of conflict with existing ordinances.

1.8 Street and Subdivision Names

The Director of Communications or other Mayor's designee shall have authority to determine the street names and subdivision names and to require changes in any proposed names. Streets will be named in accordance with County 911 standards. Additionally, street names shall conform to the following guidelines:

(a) Any proposed street that is collinear with or an extension of an existing street shall have the same name and suffix as the existing street.

(b) Each street shall have a unique and different name. Streets with the same name but different suffixes are not considered to have unique and different names; therefore, different suffixes do not constitute unique and different names.

(c) Street names, not including suffixes and cardinal direction prefixes, shall not exceed 14 characters in length, including spaces.

The Director of Communications or other Mayor's designee will provide **street numbers** to the lots after final plat approval is given for each phase. For corner lots or irregularly shaped lots, the front door of the residence or other building must be on the street used as the address. The match between the address and the front door will be confirmed by Community Development when the plot plan is approved. Changes to the approved plot plan may not be made without the appropriate change in addressing confirmed by the Director of Communications.

1.9 Large tracts or parcels

When land is subdivided into larger parcels than ordinary building lots, such parcels shall be arranged and designed to allow for the opening of future streets and to provide access to those areas not presently served by streets.

1.10 Large scale developments

A large scale development including the construction of two (2) or more buildings together with the necessary drives and ways of access, which is not subdivided into customary lots, blocs, and streets, may be approved by the Planning Commission if, in the opinion of the Planning Commission, a departure from these rules and regulations can be made consistent with the intent of these rules and regulations. Plans for all such private and public developments shall be submitted to and approved by the Commission whether or not such plat is to be recorded; and no building permits shall be issued until such approval has been given. See **Exhibit 1** for Site Plan requirements.

1. 11 Modification

Modification of the provisions set forth in these rules and regulations may be authorized by the Planning Commission.

Application for any of the aforementioned modifications shall be supplied in writing to the Planning Commission, along with necessary supporting documents by the subdivider simultaneously with the preliminary plat. The supplied documents shall explain in detail the reasons and facts supporting the application.

Section 2.0
DEFINITIONS

General Definitions

As used in these rules and regulations, words in the present tense include the future; words in the singular include the plural number, and words in the plural include the singular; the word "building" includes the word "structure"" and the word "shall" is mandatory and not directory.

Certain words in these regulations are defined for the purpose hereof as follows:

Alley – a minor permanent public serviceway which is used primarily for vehicular service access to the back or the side of properties otherwise abutting on a street.

Arterial, Minor – A Class IV[1] street or roadway with limited access. Provides connections to and through the large centers of population within the state.

Arterial, Principal – A Class III[1] street or roadway with limited access. Serves trans-state travel to and through principal cities. Provides a system for the major traffic generators within a city.

Bill of Assurance – A legal document specifying the covenants and restrictive conditions applicable to a particular property.

Boulevard – The unpaved area between the street and sidewalk. Also known as a tree lawn, planting strip, amenity strip, buffer, or utility strip.

Building Setback Line – A line across a lot establishing the minimum open space to be provided between the building and structures and property line. This measurement shall be to the nearest point of the building or other structures, including eaves, overhangs, porches, and steps. If the property line lies within the street right-of-way, then it shall be measured from the back of the right-of-way.

City – The City of Benton, Arkansas.

City Engineer – The City Engineer or the representative designated by the City of Benton, Arkansas to fulfill the engineering function.

Comprehensive Plan – The officially adopted guide to the orderly, coordinated development of the City, i.e., the City of Benton, AR, Comprehensive Plan.

Cul-de-sac – A short dead-end street having one end open to traffic and being permanently terminated within the plat by a vehicular turnaround. A type of cul-de-sac known as a hammerhead is not allowed in the City of Benton, Arkansas.

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[1] Arkansas Functional Classification System, established by Act 308 of 1973

Developer--Any person or group that prepares land for residential, commercial, or institutional use within the City of Benton.

Easement – A grant by the property owner to the public, a corporation, or persons for the use of a strip of land for specific purposes.

Engineer – An engineer licensed by the State of Arkansas.

Expressway – A Class II[1] roadway with partial control of access. Provides a high level of interstate and intrastate service. Connects major generators of internal city traffic.

Family Divisions – Divisions of property involving transfers between a father and mother and their descendants and brother and sisters and their descendants shall be treated as any other subdivision.

Final Plat – A finished drawing showing completely and accurately all legal and engineering information and certification necessary for recording.

Freeway – A Class II[1] roadway with full control of access. Provides a high level of interstate and intrastate service. Connects major generators of internal city traffic.

Frontage Road – (Sometimes referred to as access road) A street, parallel to and adjacent to a major highway or thoroughfare, which provides access to abutting properties.

Hammerhead – (See cul-de-sac) A type of cul-de-sac known as a hammerheads, or t-shaped turnarounds, will not be allowed in the City of Benton.

Health Dept – The Arkansas Department of Health. The State of Arkansas Health Department

Interstate Freeway – A Class I[1] roadway with full control of access. Provides basic Interstate service. Links major cities.

Large Scale Development – A form of land subdivision which involves the development of any residential, office, commercial, industrial, or manufactured home development which proposes to contain more than one principal structure or use on a lot.

Letter of Credit – a bank-issued guarantee of performance in a form approved by the City Attorney.

Lot – A portion of a subdivision, or any other parcel of land, intended as a unit for transfer of ownership or for development.

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[1] Arkansas Functional Classification System, established by Act 308 of 1973

Lot, Corner – A lot abutting upon two or more streets at their intersection.

Lot, Flag – Any lot that, due to its configuration, a primary structure cannot be built at the front building line of the lot. Also commonly referred to as a "pipe-stem lot." Flag or pipe-stem lots shall not be allowed, unless the stem is a minimum of 30 feet wide across the front.

Lot, Through – A lot other than a corner lot abutting upon two or more streets. The setbacks of a through lot shall match the front setbacks of the adjoining lots.

Maintenance bond – A bond or letter of credit furnished by the developer to the City, for a specific time period, to cover the cost of repairs resulting from defects in materials and workmanship of public improvements installed by the developer or his contractor.

Master Street Plan – the official street plan for the City denoting street classifications, alignments and their design standards as defined in the street specifications regulations as may now or hereafter be adopted by the Benton City Council.

Performance and payment bond – A bond or letter of credit posted by the developer to the City to guarantee completion of the proposed improvements within a subdivision, and to guarantee payment of all charges for labor, material, equipment and all other items and services used or utilized in the project.

Planned Unit Development or PUD – Parcel or parcels of land proposed for development as a single entity and which may include dwelling units, commercial, office, industrial uses or any combination thereof under provisions of the PUD and Zoning Ordinances.

Planning Area – (See Territorial Jurisdiction) The designated portion of Benton's Territorial Jurisdiction within which these Subdivision Regulations shall be enforced. A map and description of the boundaries of the Benton Planning Area shall be maintained by the Commission and filed for record with the City Clerk and Saline County Recorder.

Planning Commission or Commission – The Planning Commission of the City of Benton, Arkansas, unless otherwise stated.

Plat – A map or chart indicating the subdivision or re-subdivision of land, intended to be filed for record.

Preliminary Plat – A drawing which shows that proposed layout of a subdivision in sufficient detail to indicate unquestionably its workability in all aspects, but is not in final form for recording, and the details are not completely computed.

Primary Structure – A structure that services the primary function of the lot.

Replat – A plat that has undergone the process of changing the configuration of lot lines within an approved plat of record to increase, decrease, or change the shape and size of lots.

Right-of-Way – A parcel or strip of land, whether dedicated to the public, and accepted by state, city or county government, and intended for use as a street, walkway, railroad, utility or other public use, or belonging to the public by prescriptive right of use.

Setback – (See Building Setback Line) The perpendicular distance between the lot line and the nearest portion of a building on a lot, including eaves, overhangs, porches and steps; however, at no time should any part of the structure, including eaves, overhangs, porches and steps, extend into an easement. No driveway may be closer than five (5) feet to an electrical transformer.

Sketch Plan – A preliminary drawing or map for pre-application consideration of a proposed subdivision showing its general layout.

Staff – The employees of the City of Benton, and/or those contracted by the City.

State – State of Arkansas.

Street – A right-of-way used or intended for use by vehicular traffic and either dedicated for public use or used by prescriptive right whether or not accepted for maintenance by the City or Saline County.

Street, Collector – A Class V street[1] or roadway that provides inter-county service. It serves the economic and state park areas not serviced by a higher system; collects and distributes traffic to and from major streets; provides intra-county service to and into population centers and other recreational and industrial areas.

Street, Local— A Class VI street[1] or roadway that provides access to residential areas, subdivisions and neighborhoods within cities; provides direct access to adjacent properties in rural areas and within cities.

Street, Private – Any street or roadway not accepted by the State, City or Saline County nor recognized as a public street by the Benton City Council and/or the Saline County Judge on the effective date of these subdivision regulations; also, any street specifically allowed as a private street by the planning commission.

Street, Public – A street or roadway owned and maintained by the State, City or Saline County, or as otherwise provided by State statute.

Stub Street – (Also known as a stub-out). A dead-end street intended to be extended in the future.

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[1] Arkansas Functional Classification System, established by Act 308 of 1973

Subdivider – Any person, individual, firm, partnership, association, corporation, estate, or trust, or any other group or combination acting as a unit, dividing or proposing to divide land so as to constitute a subdivision as herein defined, and includes any agent of the subdivider. The term subdivider may be used interchangeably with the term developer.

Subdivision – The division by platted lots or metes and bounds of any lot, tract, or parcel of land situated within the territorial jurisdiction of the City, into 2 or more lots or sites for the immediate or future purpose of sale or development, or for laying out residential, commercial, or industrial lots, or any lots, and streets, alley, or other portions intended for public use or the use of purchasers or owners of lots fronting thereon or adjacent thereto. It also includes resubdivision or replatting of the land, lots or tracts.

Subdivision, Minor – Any subdivision of three lots or less that does not result in or necessitate modifications to the existing infrastructure or the dedication of rights-of-way.

Territorial Jurisdiction – (See Planning Area) All land lying within the Benton City Limits and all land lying within five (5) miles of the City Limits. Where the corporate limits of Benton and neighboring municipalities are less than ten (miles) apart, their respective territorial jurisdictions shall be a line equidistant between them, or as agreed on by the respective municipalities. Also known as extraterritorial jurisdiction.

Zero lot-line development – A residential development concept eliminating the normal side yard requirement on one side of a lot and providing for more usable open space for the other side yard. Final plats involving this concept shall reflect a buildable area on each lot so as to provide for proper placement of the units and assurance that no lot will be adversely affected by placement of adjoining units.

Section 3.0
PROCEDURAL REQUIREMENTS

3.1 Pre-application Consideration.

Whenever any subdivision of a tract of land is proposed to be made, the Subdivider or his/her agent shall submit to the Staff **sketch plans** and data concerning existing conditions within the site and in its vicinity, and which shall convey the intentions of the subdividers as to the proposed layout and type of development. The subdivider or his agent should contact the Community Development Department to set up an appointment with City and Benton Utilities staff to go over initial plans for the proposed development.

No fees shall be collected for pre-application consideration, the purpose being to acquaint the subdividers with plans, policies and ordinances that would be applicable to the proposed subdivision, as well as the capacities and availability of utilities to the development.

3.2 Site Plan Requirements for Commercial Developments

A **site plan** meeting the requirements of **Exhibit 1** shall be provided for any commercial development, or for any development that provides utility loadings greater than single family residential dwellings.

As-built plans in quantities specified by the Community Development Department will be provided to the City and Benton Utilities before a Certificate of Occupancy is issued. The As-built plans will be both in hard copy and digital format and will show all applicable easements and rights of way. Digital format will be AutoCAD® compatible.

3.3 Application for Certificate of Preliminary Plat Approval.

Any development in which preliminary plat approval has been given and construction has started prior to the effective date of these regulations will be subject to Ordinance 6 of 1998.

(**Minor subdivisions** are exempt from this section)

Whenever any subdivision of a tract of land is proposed to be made, the subdivider shall first submit to the Staff an application for a Certificate of Preliminary Plat Approval which shall consist of the following procedural requirements:

(a) A letter of request stating the name, address, email and phone number of the developer, and his/her engineer's name, address, email, and phone number. If the developer intends for the engineer to manage all details of the subdivision, and does not wish to be notified of all decisions regarding the subdivision, he/she must sign a release to that effect. See **Exhibit 2.**

(b) Plats, plans and data as specified in **Exhibit 3** concerning existing conditions within the site and its vicinity and which shall convey the intentions of the subdividers as to the proposed layout and type of development. (4)

(c) Plat certificates as specified in **Exhibit 4.**

(d) A filing fee as specified in Section 6 of the subdivision rules and regulations or by the most current fee ordinance.

(e) Notice to adjoining and other affected property owners by the posting of a sign in a conspicuous place and the placing of a legal notice in a newspaper authorized to publish such notices at least 20 days prior to acting on the Preliminary Plat. The sign and notice shall read as follows:

"This property proposed for subdivision or large scale development. Preliminary plat will be considered at the Planning Commission Meeting on _____. For information, call [developer's phone number]."

The Commission may, prior to acting on a Preliminary Plat, hold a hearing thereon at such time and upon such notice as the Commission may designate.

The deadline for submission for preliminary plat approval may be changed as necessary by the Community Development Department.

3.4 Approval of the Preliminary Plat.

(Minor Subdivisions are exempted from this section)

Upon receipt of an application for a Certificate of Preliminary Approval, the Staff shall check the application for conformance to these rules and regulations and shall also consider letters or certificates of approval or disapproval from City, County, and State Agencies, as well as from the utility companies.

The Staff shall report to the Planning Commission at its regular meetings on all applications for preliminary plat approval.

In considering a submittal, the Staff may introduce such changes as necessary to meet the intent of these rules and regulations and to serve the best interests and the needs of the community.

If in its opinion a submittal warrants such action, the Staff may cause an application to be reviewed by the Planning Commission at its regular monthly meeting.

A Preliminary Plat not approved by the Staff for submission may be re-submitted after the changes have been made as suggested.

The Staff shall initiate action on an application within seven (7) business days of submission. When Staff approves, the application package is placed on the Planning Commission agenda for the next available meeting. Special Planning Commission meetings for Preliminary Plat approval may be arranged if the Planning Commission deems it appropriate.

One signed copy of the approved Preliminary Plat shall be retained in the Community Development Department files, and one signed copy shall be returned to the subdivider.

Approval of the Preliminary Plat shall be governed by the following qualifications:

(a) Approval of the Preliminary Plat is only tentative pending submission of the Final Plat.

(b) Approval of the Preliminary Plat shall be effective and binding upon the Commission for one year, and thereafter as long as work is actively progressing on installation of required improvements.

(c) Receipt by the subdivider of the executed Certificate of Preliminary Plat Approval is authorization to proceed with:

- The preparation of any necessary plans and specifications and the installation of any improvements required, subject to the approval of agencies having authority, including Benton Utilities.

- The preparation of the Final Plat or part thereof as specified in Section 3.6.

(d) All developments shall provide ingress/egress appropriate to the development proposed, consistent with Master Street Plan access management provisions applicable to arterials and collectors and any adopted access management plans, ordinances or regulations.

In order to assist the City and Benton Utilities in planning, for **multi-phase** developments, an **overall schematic** showing the general locations of lots, utilities, streets and drainage shall be provided with each phase of the preliminary plat. However, construction plans will be presented, reviewed and approved separately for each phase.

The Community Development should be notified in writing of any changes in ownership (with contact information) after preliminary plat approval is given.

3.5 Construction Plan Approval

Preliminary plat approval gives the right to do **clearing and grading.** Prior to installation of any utilities, streets, and drainage, construction plans shall be approved by the Community Development Department and Benton Utilities. Construction plan requirements are detailed in **Exhibit 5.**

No utilities, streets or drainage shall be installed prior to approval of the construction plans. Plans must be reviewed by Community Development and Benton Utilities staff, and written comments provided to the Developer, no later than 10 business days after submission. Appeal of decisions regarding approval of the construction plans may be to the Benton Planning Commission or the Benton Utilities Commission, whichever is applicable.

3.6 Application for Final Plat Approval

Whenever the provisions of these rules and regulations have been complied with, and while the Certificate of Preliminary Plat Approval is in effect, the subdivider may submit to the Planning Commission an application for review and approval of the Final plat, which shall consist of:

(a) A letter of application requesting review and Final Plat Approval.

(b) The Final Plat and other documents as specified in **Exhibit 6**

(c) Final Plat certificates as specified in **Exhibit 7**

(d) A filing fee as specified in Section 6 of the subdivision rules and regulations or the most current fee ordinance.

Whenever a Final Plat has been submitted for a Minor Subdivision, the Department of Community Development may consider and take action on the plat without the advice and consent of the Planning Commission.

3.7 Approval of the Final Plat

Whenever a Final Plat has been submitted to the Planning Commission that is in conformance with an approved Preliminary Plat and the provisions of Section 3.6, the Planning Commission shall consider and take action on the plat.

City Staff and Benton Utilities staff shall review the Final Plat for correctness. The developer may be charged an additional review fee if the plat is found to be in substantial error.

Before Final Plat Approval is given, electronic and hard copy **as-builts** of the streets, drainage and utilities shall be provided by a Registered Professional Engineer to the Community Development Department and Benton Utilities in quantities specified by the Community Development Department. For **multi-phase projects**, as-builts shall be provided for each phase, and shall include an update of all previous phases.

Application for Final Plat Approval shall be filed with the Community Development Department at least 20 calendar days prior to the regular meeting date of the Planning Commission in order to be considered at said meeting. The Planning Commission will not take action on any applications received less than 20 working days before its meeting. Staff will provide **notice of deficiencies** if any, to the developer or his/her designated agent no less than 10 calendar days prior to the Planning Commission meeting. Staff will need a minimum of 5 calendar days to review corrections. Deficiencies shall be corrected by 8:00 a.m. on the business day prior to the Planning Commission meeting.

Prior to Final Plat Approval, sewer lines will be inspected by video in accordance with Ordinance 5 of 2008.

Any applicant contesting notice of alleged deficiencies may be placed on the Planning Commission agenda.

Failure of the Planning Commission to act within 60 days from receipt of the application shall be deemed approval of the Final Plat and waives all further plat requirements of these rules and regulations. (5)

If the Final Plat is disapproved, the applicant shall be so notified in writing and the reasons therefore shall be enumerated.

The Chair of the Planning Commission shall sign the final plat once approval is given by the Planning Commission. If the plat is approved by the Planning Commission with conditions, the plat will not be signed until such conditions are satisfied. The Planning Commission may develop a protocol by which City Staff, in prescribed situations, may execute a Certificate of Final Plat approval.

The Community Development Department should be notified in writing of any **changes in ownership** (with contact information) after final plat approval is given.

3.8 Acceptance of Streets, Drainage and Utilities

Approval of the Final Plat by the Planning Commission is not acceptance of the streets, rights-of-way, drainage or utilities for maintenance. The acceptance procedure is as follows:

(a) No later than the day of the Planning Commission meeting, the developer shall provide a **letter of credit** or bond to the Community Development Department in an amount equal to 50% of the total construction cost of the streets. The City Engineer or other engineer designated by the City shall keep a database of street costs for all subdivisions. If the construction costs provided by the Developer are substantially lower than those of other developments during the same 12 month period, the Planning Commission, on the advice of the City Engineer, may require the letter of credit to be increased to match the average cost per foot of the other developments. The expiration of the letter of credit shall be 1 year from the date of Final Plat Approval.

(See **Exhibit 8** for Approved Letter of Credit language)

(b) Ten months from the date of Final Plat Approval, the City Engineer, Manager of the Street Department, and Benton Utilities designee shall inspect the streets, drainage, rights-of way, and utilities. Any deficiencies noted shall be communicated in writing to the Developer or his/her designated agent. The Developer has until 7 days prior to the expiration of the letter of credit to correct the deficiencies. If deficiencies are not corrected 7 days prior to the expiration of the letter of credit, the City of Benton shall

draw on the letter of credit up to two times the amount estimated by the City Engineer as necessary to make corrections. The draft proceeds shall be placed in a separate City account until all deficiencies are corrected; any remaining funds shall be returned to the Developer within 10 days after the City has approved and paid for all corrections.

(c) When the 12 month warranty period has expired, and all deficiencies are corrected, the Community Development staff will submit an ordinance to the Council for acceptance of the streets, drainage and utilities for maintenance. Once Council approval is given, the City will assume maintenance for the subdivision improvements. The Community Development Department will send a copy of the approved ordinance to the Developer.

(See **Exhibit 9** for Acceptance Ordinance language)

Section 4.0
DESIGN REQUIREMENTS (6)

4.1 Streets Design and Construction

Unless otherwise stated here, the current ordinance regulating the design and construction of streets will apply.

The location and width of all highways, thoroughfares, and streets and roads shall conform to the most recent Master Street Plan, except that the narrow street option is eliminated in these subdivision rules and regulations.

Right-of-way dedications and pavement width for expressways, freeways, and interstate freeways shall conform to Arkansas State Highway and Transportation Department standards or the Master Street Plan, whichever is greater.

4.2 Half-Street Improvements

When a development abuts a public street as shown on the Master Street Plan, the developer shall be required to dedicate the necessary Right-of-Way as shown on the Master Street Plan.

Any developer building on one side of an existing street shall be required to make half-street improvements to standards as required by the Master Street Plan or **in lieu of constructed improvements**, the developer shall contribute to the City a cash payment equal to 100% of a registered professional engineer's estimate of the cost of construction, as approved by the City Engineer, minus any temporary construction for site access or drainage that may be incorporated in future permanent construction. The in-lieu-of payments may be used on-site or off-site to improve access, drainage or other significant improvements to the development, such as traffic control signals.

Waivers from this requirement may be granted by the Planning Commission.

4.3 Private Streets

The Planning Commission shall have the authority to approve subdivision plats with private streets, provided that the private streets shall meet the same construction specifications and right-of-way requirements as public streets. Private streets shall provide signage designating them as such.

4.4 General Street Information

The proposed street system shall extend existing streets or projections at the same or greater width, but in no case less than the required minimum width.

When a tract fronts on streets other than minor streets or collector streets, the Planning Commission may require affected lots fronting on such major streets to be provided with **frontage roads.**

Curb cuts (driveways) are prohibited within 40 feet of the back of curb with an intersection with a roadway with a classification of collector or higher. (This sentence is intended to clarify a previous conflict with Ordinance 5 of 1997, p. 3)

Cul-de-sac streets or courts designed to have one end permanently closed shall be no more than 1,200 feet long. Dead end streets in excess of 500 feet shall be provided with a turnaround having a minimum right-of-way diameter of at least 100 feet. No islands, medians, or obstructions of any type shall be placed in a turnaround of a cul-de-sac unless the radius is enlarged to allow for appropriate fire protection.

Alleys may be allowed in subdivisions where they shall function as the exclusive vehicle access to residential driveways and garages. The final plat shall designate whether the alley will be an easement and maintained by the Developer/Property Owner's Association, or dedicated right-of-way and maintained by the City.

Where **narrow residential streets** currently exist, parking shall be prohibited on one side. Signage shall be provided to indicate that parking is only on one side.

Right-of-way for **stub-outs** will be dedicated to the City by the first developer for connection by later developments, and left in their natural state by the first developer. The second developer shall be responsible for all improvements to said right-of-way, including paving. Stub-outs will not be required for adjacent acreage of less than 10 acres.

4.5 Blocks

Residential blocks shall not be more than 1,320 feet in length.

Residential blocks shall be wide enough to provide two tiers of lots of minimum depth, except where fronting Freeways, Expressways or Principal Arterials, or prevented by topographic conditions, zoning restrictions, or size of the property, in which case the Planning Commission may approve a single tier of lots of minimum depth.

4.6 Lots

Insofar as practical, **side lot lines** shall be perpendicular or radial to street lines. Each lot shall abut upon a public street or road.

The size, shape, and orientation of every lot shall be as the Planning Commission deems appropriate for the type of development and use contemplated. No lot should be more than 4 times as deep as it is wide nor should any lot average less than 100 feet deep.

Pipe-stem or **flag lots** shall not be allowed unless the stem is a minimum of 30 feet wide at the street.

For residential **lots not served by a public or community sanitary sewer system,** lot sizes shall be determined by Arkansas Health Department standards.

Lots fronting two streets, other than corner lots, shall not be platted except under exceptional circumstances, in which case equal building setback lines shall be established on both frontages. The Planning Commission may additionally require a 10 feet wide buffer strip for screening, vegetative or otherwise. Across the buffer strip there shall be no right of vehicular access.

The size, shape, and arrangements of **commercial and industrial lots,** where platted, shall be subject to the approval of the Planning Commission, provided that approval is not granted under the provisions of the Large Scale Development (reference a # when document is set) portion of these rules and regulations.

4.7 Building Setback Lines

Building setback lines for commercial and industrial lots shall be at least 40 feet from each street property line or as required by the current zoning ordinance.

Residential lots may have a 15 foot building setback line at any point they abut a street.

4.8 Easements

Easements not less ten 10 feet wide shall be provided for drainage and utility lines on the exterior boundaries on all subdivision plats. Easements of five (5) feet in width for utilities and drainage shall be provided on each lot and adjacent to each interior lot

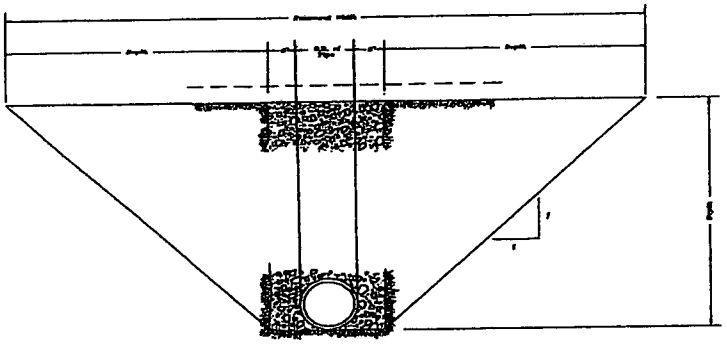
line, for a total easement width of 10 feet within the subdivision. Zero lot line subdivisions shall have a 10 foot easement on one side only. A 10 foot utility easement shall be provided on the front and rear of all lots.

Easements may be required to vary with the depth of utility lines, according to the following:

(a) Deep Utility Easements

Easements across lots, fronts, or centered on rear or side lot lines shall be provided for utilities where necessary and shall be at least ten (10) feet in total width, unless a wider easement is deemed necessary by the City Engineer or Benton Utilities Commission. Said easement may encroach on the ROW to the back of the sidewalk. The width of a utility easement containing an underground pipe or facility may not be less than that calculated by the following formula unless approved by the Benton Utilities Commission (for utilities) and/or City Engineer (for storm drainage):

Minimum Easement Width = (2) X (Depth of Pipe) + (Pipe Diameter +2')



(b) Drainage easements. Where a subdivision is traversed by a watercourse, drainageway, channel, pipe, or stream, there shall be provided a stormwater easement or drainage right-of-way conforming substantially with the lines of such watercourse, drainageway, channel, pipe, or stream, and such further width or construction or both as will be adequate for the purpose of, including, without limitation, required maintenance activities. Parallel streets or parkways may be required along the easement. In no case shall the width of a drainage easement containing an underground pipe or facility be less than that calculated by the following formula:

Minimum Easement Width = (2) X (Depth of Pipe) + (Pipe Diameter + 2')

(c) Multiple utility and/or drainage pipes. If an easement has multiple pipes traversing it, a cross section is to be sketched and the above descriptions used to accommodate the required easement width.

Section 5.0
IMPROVEMENTS

5.1 State Fire Code Requirements

All improvements shall meet the requirements set forth in the most current edition of the Arkansas Fire Prevention Code.

5.2 Required Improvements

Every subdivider shall be required to install, at his or her own expense, or to have installed by the appropriate public utility, the following improvements:

(a) Street Grading

(1) All streets shall be cleared and graded as approved by the City Engineer.

(2) Finished grades shall be at levels approved by the City Engineer.

(b) Street Paving

(1) Street paving widths shall be in conformance with standards set forth in the Master Street Plan.

(2) Street pavements shall be installed according to the current "Standards for Street Design and Construction" and other applicable ordinances.

(c) Curbs and Gutters

Curbs and gutters shall be required on all streets of all new subdivisions brought into the City of Benton at the expense of the contractor or developer. Said curbs and gutters shall be in accordance with the City's specifications as adopted by the City and approved by the Planning Commission.

(d) Sidewalks

(1) Sidewalks shall be installed according to Americans with Disabilities Act standards.

(2) Sidewalks shall be installed on one side of all streets unless the Planning Commission makes a specific finding at the time of Preliminary Plat approval that sidewalks are not feasible. A sidewalk plan shall be submitted with the Preliminary Plat documents to ensure that appropriate connections are made. The requirement of sidewalks shall be noted on the Final Plat.

Sidewalks are not required outside the City Limits unless said property is subject to a pre-annexation agreement.

(e) Utility Lines

The installation of all utility lines shall be in accordance with Benton Utility specifications.

(1) Minimum Cover for Water, Sewer, Electrical Lines

The amount of cut and fill on lots shall be kept to a minimum. The following minimum cover shall be maintained over all utility lines:

Water main	30 inches
Gravity Sewer Mains	
PVC	30 inches
Ductile Iron	24 inches
Sewer Force Mains	30 inches
Primary Electric Lines	48 inches

All measurements are from the top of the pipe.

The lot owner shall be required to maintain these minimums. When the removal of material causes utility lines to have less than the minimum, the lot owner shall be responsible for the costs associated with relocating the lines.

(2) Water Supply

(a) Where a public water supply is within a reasonable distance, the subdivider shall install or have installed a system of water mains and connect to such supply. The Benton Utilities Commission will determine what is a reasonable distance and which system will supply the water.

Water mains shall be sized and looped.

A connection to each lot shall be installed prior to the paving of the street. All service lines crossing the street shall be encased in 2"schedule 40 PVC.

(b) Where a public water supply is not available, the subdivider shall furnish the Planning Commission satisfactory evidence that a sufficient quantity of water of a quality approved by the Arkansas Health Department is available to each individual lot.

(c) Unless the Benton Utilities Commission makes a finding that such is not feasible, water mains should be looped to maintain fire flow for all phases of a development.

(3) Sanitary Sewage Disposal

(a) Where a public sanitary sewer is within a reasonable distance of any point of a subdivision, the subdivider shall connect with such sewer and provide a connection to each lot. The Benton Utilities Commission will determine what is a reasonable distance.

(b) Such sanitary sewage system shall be installed prior to the installation of the street pavement. All service lines crossing the street shall be 4" schedule 40 PVC.

(c) All commercial developments under control of one owner requiring lift stations and force mains shall be responsible for the operation and maintenance of said equipment.

(d) Where a public sanitary sewer is not accessible, an alternate method of sewage disposal for each lot, or a community sewage disposal system may be used when in compliance with the standards of the Arkansas Health Department.

(e) All lift station and/or force mains shall be constructed per Benton Utilities Commission specifications.

(f) For a period of one year from the date of Final Plat Approval, the developer shall be responsible for repairs and maintenance, plus operation of water and sewer infrastructure, including mains, force mains and lift stations.

(f) Storm Drainage

All storm drainage shall be designed and installed per the current City of Benton Drainage Ordinance. All storm drainage plans must be stamped and signed by an Engineer registered in the State of Arkansas.

If a detention pond is warranted by the storm drainage plan, the Bill of Assurance shall state that the Property Owner's Association shall maintain the detention pond and drainage structures as they were designed to function.

If the Property Owner's Association fails to maintain the drainage structures appropriately, the City (or Saline County, if an unincorporated area) may assess a fee to the property owners to reimburse the City (or Saline County, if in an unincorporated area) for all expenditures necessary for maintenance.

(g) Other Utilities

Other utilities are required by Ordinance 18 of 1977 to obtain a permit from the City before installation. Prior to construction plan approval, the developer is encouraged to schedule a meeting with the City, Benton Utilities, and appropriate non-City utilities to coordinate the installation process.

Other utilities shall be located in the grass plot outside the curb lines. If stubs to the property lines are not installed, then connections between the lots and the utility lines shall be made without breaking into the wearing surface of the street, if possible. Jacking operations are recommended.

(h) Monuments

Monuments shall be set on all outside lines of the subdivision at angle points and points of curb. Monuments shall be of concrete at least 4 inches in diameter or square, 3 feet deep, with a flat top. The top of the monument shall have an indented cross or metal pin to identify properly the location of the point. Monuments shall conform to the standards used by Registered Land Surveyors in the State of Arkansas.

All lot corners shall be marked with metal pins not less than ½ inch diameter and 24 inches long and driven so as to be flush with the finished grade.

All subdivisions shall be tied to 2 section quarters and 2 State Plane Coordinates.

(i) Street Signs

All street signs shall conform to the latest edition of the Manual on Uniform Traffic Control Devices. The signs should be ordered from the Benton Street Department within one (1) week of Final Plat approval. Other requirements should be followed per the current "Standards for Street Design and Construction."

Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles. Signs shall be of an approved size, weather resistant and maintained until replaced by permanent signs.

All **private streets** shall have a sign erected at the entrance of the street indicating that it is a private street.

(j) Street Lights

Street lights shall be placed per the current "Standards for Street Design and Construction." (Note: 1997 "Standards for Street Design and Construction" was amended by the Street Light Ordinance, Ordinance of 66 of 2006)

5.3 Exceptions to Required Improvements

By request from the developer, the Planning Commission may permit special exceptions to be made to the improvements required by these rules and regulations when the Planning Commission makes a specific finding that such exceptions are in keeping with the intent of these rules and regulations, and when exceptions will provide for a conformance with the general neighborhood of the proposed subdivision. The subdivider may be required to furnish special information in order to aid the Planning Commission in its determination.

These special exceptions shall be permitted only if the following conditions are met:

(1) Each lot in the subdivision is larger than 20,000 square feet, and

(2) Each lot in the subdivision is at least 90 feet wide at the building line, and

(3) Existing platting in the neighborhood of the proposed subdivision generally meets the requirements of the conditions set forth in (1) and (2) above.

Section 6.0
FEES

Fees for subdivision review and approval shall be per the current fee ordinance.

Section 7.0
PENALTY

Any violation of these rules and regulations or amendment hereto shall be a misdemeanor under the laws of the State of Arkansas and the offender upon conviction shall be punished as for a misdemeanor, and any court having jurisdiction of misdemeanor cases shall have jurisdiction to try such offenders and upon conviction to fine them not less than $100.00 nor more than $250.00 for each days offense; and each day that any violation of these rules and regulations is in effect shall constitute a separate offense.

EXHIBITS

Exhibit 1
Site Plan Submission Requirements

Site Plan shall include the following:

1	Payment in full of applicable fees for processing the application	
2	A digital and hardcopy of the Site Plan drawing with all information in AutoCAD format.	
3	Names, addresses, zoning and property lines of all property owners adjacent to the exterior boundaries of the project (including individual lots across streets and right-of-way) shall be located on the plat at the correct location.	
4	Name(s), address(es) and telephone numbers of owner(s) of record, developer and project representative.	
5	North arrow, scale (graphic and written), date of preparation, zoning classification and proposed use.	
6	Title block located in the lower right hand corner indicating the name and type of project, scale, firm or individual preparing drawing, date and revisions.	
7	Provide a complete and accurate legend.	
8	A vicinity map of the project with a radius of 1.5 miles from the project. This shall include any General Plan streets as well as the 100-year flood plain boundary.	
9	Street right-of-way lines clearly labeled. The drawing shall depict any future R.O.W. needs as determined by AHTD or the Benton Master Street Plan. Future R.O.W as well as existing R.O.W and centerlines should be shown and dimensioned.	
10	The location of all existing structures.	
11	Site coverage note indicating the percentage of site that is covered by both building and surfaced area.	
12	Written legal description including area in square feet or acres that read clockwise.	
13	Boundary survey of the property shown on the plat. The surveyor shall seal, sign, and date the survey. The survey shall be tied to the state plane coordinates.	
14	Point-of-beginning from a permanent well-defined reference point.	
15	Curve data for any street which forms a project boundary.	
16	Show 100-year floodplain and/or floodway and base flood elevations. Reference the FIRM panel number and effective date.	
17	Note regarding wetlands, if applicable. Note if Army Corp of Engineers determination is in progress.	
18	Existing and proposed topographic information noted. Show: a. Two-foot contour interval for ground slope between level and ten percent. b. Five-foot contour interval for ground slope exceeding ten percent.	
19	Spot elevation at grade breaks, existing road centerlines, gutter lines and top of curbs of pavement.	
20	Contours of adjacent land within 50 feet of the project shall be shown.	
21	Landscape proposals for parking lots shall include proposed plants and size. State the method for irrigating and plant material on the plan.	
22	Show on the drawing all known on-site and off-site existing utilities and easement.	
23	Existing easements shall show the name of the easement holder, purpose of the easement, and the book and page number of the easement.	
24	Show all storm sewer structures, sanitary sewer structures and drainage structures: a. Provide structures / locations and types. b. Provide pipe types and sizes.	
25	Sanitary sewer systems: a. Provide pipe locations, sizes, and types. b. Manhole locations of rim and invert elevations.	

26	If a septic system is to be utilized, provide a table of acreage and percolation rates, along with a letter from Arkansas Department of Health approving the septic system and size of lot.	
27	Water system on or near the site	
28	Underground or surface utility transmission lines:	
29	State the width, location and purpose of all proposed easements or right of way for utilities, drainage, sewers, flood control, ingress/egress or other public purpose within and adjacent to the project.	
30	The location, widths, grades and names of all existing and proposed streets, alleys, paths, and other right-of-ways, whether public or private....	
31	The location of all existing and proposed street lights.	
32	Provide a note of any known existing erosion problems on-site or within 300' downstream of the property.	
33	The location of known existing or abandoned water wells, sumps, cesspools, springs, water impoundments, and underground structures within the project.	
34	The location of known existing or proposed ground leases or access agreements, if known.	
35	The location and size of existing and proposed signs, if any.	
36	Location and width of curb cuts and driveways. Dimension all driveways and curb cuts from side property line and surrounding intersections.	
37	Draft of covenants, conditions and restrictions, if any.	
38	A written description of requested waivers from any City requirements.	
39	Show required building setbacks. Provide a note on the plat of the current setback requirements for the subdivision. A variance is necessary from the Board of Adjustments for proposed setbacks less than those set forth in the zoning district.	
40	Preliminary grading and drainage plans and reports as required in the City Engineer's office.	
41	Placement of fire hydrants	
42	Any other data or reports as deemed necessary for project review by the City Planner, City Engineer or Planning Commission.	
43	Provide sidewalks along streets as required.	
44	Are there any variances being requested?	
45	As-Built Plans will be provided to the City and Benton Utilities before a Certificate of Occupancy will be issued. The As-Built plans will be both in hardcopy and digital formats and will show all applicable easements and rights of way. Digital format will be AutoCAD compatible.	

EXHIBIT 2

Permission for City of Benton to Communicate with Engineer Only

I, _____, the developer of _____ Subdivision, do hereby authorize my engineer _____ to be the point of contact for all communications regarding the development.

_____

Signature Date

Witnessed by Notary Public:

My Commission Expires _____

Exhibit 3
Preliminary Plat Requirements

Preliminary Plat shall include the following:

1	Proposed name of subdivision	
2	Name and address of owner(s) of record	
3	Source of title giving deed record book and page number number.	
4	Name and address of subdivider.	
5	Date of survey, north arrow and graphic scale.	
6	Preliminary Surveying Certificate	
7	Preliminary Engineering Certificate	
8	Location of the tract by legal description giving acreage.	
6	Centerline profiles of streets.	
7	Vicinity map locating streets and highways, section lines, railroads, schools, parks, and other significant features within one-half (1/2) mile of the proposed subdivision.	
8	Exact boundary lines of the tract indicated by a heavy line giving dimensions, angles, and at least one bearing.	
9	Contour intervals to sea level datum of not more than two (2) feet when the slope is less than four (4) percent, and not more than five (5) feet when the slope is greater than four (4) percent.	
10	Natural features within and surrounding the proposed subdivision including drainage channels, bodies of water, wooded areas and other significant features. On all water courses leaving the tract the direction of the flow shall be indicated, and for all water courses entering the tract the drainage area above point of entry shall be noted.	
11	Cultural features within and surrounding the proposed subdivision including existing and platted streets, bridges, culverts, utility lines, pipeline, power transmission lines, all easements, park areas, structures, political boundaries, land subdivision boundaries, (including, but not limited to, quarter-section, section, township, and range lines), and other significant information.	
12	Names of recorded subdivisions abutting the proposed subdivision, with plat book and page.	
13	Names of owners of unsubdivided property abutting the proposed subdivision.	
14	Zoning districts, if applicable.	
15	Proposed layout including lot lines with rough dimensions, lot numbers, block numbers, street names, right-of-way widths, sites reserved for parks, playgrounds, schools, etc., sites for commercial, non-residential, non-public uses, and building lines with dimensions.	
16	*Current State and County regulations will be followed for the installation and use of septic tanks.*	
17	*Average size of lots and minimum lot size.*	
18	*Number of lots and lots per gross acre.*	

Preliminary Plat shall be accompanied by the following information:

19	A summary of the proposal giving information as to the overall development plan, giving type, number of dwellings units, type of business(es), and industry so that the effects of the development can be determined by the Commission and Staff.	
20	Source of water supply.	
21	Provisions for sewage disposal, drainage, and flood control.	
22	Letters or certificates of approval or disapproval from the City, County, or State agencies, as well as from the utility companies that are applicable. Such material should be obtained and submitted by the subdivider.	

23	Typical cross sections of all streets.	
24	Copies of the approved SWPPP and permit prior to start of clearing and grading.	
25	Such other information as the subdivider wishes to bring to the attention of the Commission.	
26	Community FIRM panel number, date and flood zone(s) of site.	
27	Floodplain analysis by the engineer of record. Show proximity to any identified floodplain and/or floodway. Also identify any areas of known flooding. Development in an identified floodplain is prohibited by Benton Subdivision Regulations unless removed from the Special Flood Hazard Area.	
28	Minimum building setback lines	
29	Preliminary storm drainage plan showing proposed easements.	
30	Water supply location and name of provider.	
31	Show sanitary sewer location and name of system provider.	
32	Name of electrical provider	
33	Water flows and residual pressures will be provided.	
34	Center line locations of all streets abutting proposed subdivision.	

Engineering Analysis.

35	Typical street cross sections and profiles	
36	Show sidewalks and locations along streets as required.	
37	Are there any variances being requested?	
38	An Engineering study of proposed and/or existing sanitary sewer capacities may be required by Benton Utilities.	

Plat Certificates.

39	Certificate of Preliminary Surveying Accuracy.	
40	Certificate of Preliminary Engineering Accuracy	
41	Certificate of Preliminary Plat Approval.	

Exhibit 4
Preliminary Plat Certificates

Each Preliminary Plat submitted to the Commission shall carry the following certificate thereon:

CERTIFICATE OF PRELIMINARY SURVEYING ACCURACY

I, _____, hereby certify that this plat correctly represents a boundary survey made by me or under my supervision; that all monuments shown hereon actually exist and their location, size, type, and material are correctly shown; and that all interior lot lines are accurately described in terms of length and direction of the property sides.

Signed _____
Registered Land Surveyor
No. _____, Arkansas

CERTIFICATE OF PRELIMINARY ENGINEERING ACCURACY

I, _____ hereby certify that I am the engineer of record for this subdivision and that I, or those under my supervision, will design and cause to be constructed the improvements required in accord with the City of Benton Subdivision Rules and Regulations.

Signed _____
Registered Engineer
No. _____, Arkansas

CERTIFICATE OF PRELIMINARY PLAT APPROVAL

All requirements of the City of Benton Subdivision Regulations relative to the preparation and submittal of a Preliminary Plat having been fulfilled, approval of this plat is hereby granted, subject of further provisions of said Rules and Regulations. This Certificate shall expire _____.

_____
Date of Execution

(signed) _____
Chairman
Benton Planning Commission

Exhibit 5
Construction Plan Requirements

Construction Plan shall include the following:

1	Name of subdivision	
2	Name and address of owner(s) of record. Contact information should be updated when changed.	
3	Name, address, seal and signature of Engineer of Record.	
4	Name and address of subdivider	
5	Date of plat, north point and graphic scale	
6	Vicinity map.	
7	Index where more than one sheet is required to present plans.	
8	Street and alley and other right-of-way lines with location and width, with street names indicated.	
9	Street center lines showing angles of deflection or bearing, angles of intersection, radii, length of tangents and arcs, and degree of curvature with basis of curve data.	
10	Lot lines with dimensions to the nearest one-tenth (1/10) of a foot, necessary internal angles, arcs, and chords, and radii of rounded corners. When lots are located on a curve or when sidelines are at angles other than ninety (90) degrees, the lot width at the building line shall be shown when required by the Commission.	
11	Lot and block numbers	
12	Easements and public service or utility rights-of-way lines giving dimensions, locations and purpose.	
13	Contour intervals to sea level datum of not more than two (2) feet when the slope is less than four (4) percent, and not more than five (5) feet when the slope is greater than four (4) percent.	

Streets:

14	Typical street cross section.	
15	Profile with the Plan view. Can be in sections, but will require one overall map with references.	
16	A soils geotechnical report showing soil types, strata, water table, sufficient to show how streets were designed.	
17	Show street slopes and vertical curve data.	
18	Show contours of the land and proposed street grades.	

Storm Drainage:

19	Show all structures and curb inlets in plan and profile.	
20	Show all pipe sizes, slopes, quantity and material types.	
21	All design and construction shall be per current Benton Stormwater Ordinances.	

Sanitary Sewer:

22	Line sizes, material type, slopes and lengths.	
23	Plan and profiles. Show at least one overall with water, storm drainage, sanitary sewer and streets.	
24	Show all manhole locations, depths and lid types.	
25	Show flowline elevations in and out at manholes. Show finished manhole rim elevations.	
26	Show all service line locations.	

EXHIBIT 6
FINAL PLAT REQUIREMENTS

Final Plat shall include the following:

1	Name of subdivision	
2	Name and address of owner(s) of record. Contact information must be updated when changed	
3	Source of title giving deed record book and page number.	
4	Name and address of subdivider	
5	Date of plat, north point and graphic scale	
6	Location of tract by legal description giving acreage.	
7	Vicinity map.	
8	Key map where more than one sheet is required to present map.	
9	True courses and distances to the two (2) nearest established section corners or bench marks or other recognized permanent monuments which shall accurately describe the location of the plat. State Plane Coordinates will be provided for the section corners.	
10	Exact boundary lines of the tract indicated by a heavy line, or other acceptable control traverse, giving dimensions to the nearest one-tenth (1/10) foot and angles to the nearest minute, which shall be balalnced and closed with an error closure not to exceed one (1) to five thousand (5,000).	
11	Municipal, county, or section lines accurately tied to the lines of the subdivision by distances and angles.	
12	Street and alley and other right-of-way lines with location and width, with street names indicated.	
13	Street center lines showing angles of deflection or bearing, angles of intersection, radii, length of tangents and arcs, and degree of curvature with basis of curve data.	
14	Lot lines with dimensions to the nearest one-tenth (1/10) of a foot, necessary internal angles, arcs, and chords, and radii of rounded corners. When lots are located on a curve or when sidelines are at angles other than ninety (90) degrees, the lot width at the building line shall be shown when required by the Commission.	
15	Lot areas in square feet shall be shown when septic tanks are to be used. Lot areas of other lots shall be furnished when required by the Commission.	
16	Building setback lines with dimensions.	
17	Lot and block numbers	
18	Easements and public service or utility rights-of-way lines giving dimensions, locations and purpose.	
19	Accurate outlines and description of any areas to be dedicated or reserved for public use or acquisition with the purpose indicated thereon and of any areas to be reserved by deed covenant for common uses of all property owners.	
20	Accurate locations and description of all monuments.	
21	Certificate of engineering accuracy certifying built to plans & specs.	

22	Certificate of Owner	
23	Certificate of Final Plat approval	
24	Certificate of Surveying Accuracy	
25	Certificate of Recording	
26	As-built plans of all the submitted and approved Construction Plans.	

Final Plat shall be accompanied by the following information and documents unless shown on the plat itself:

27	(a) Bill of Assurance including, but not limited to, the following provisions: offering dedications of streets and alleys, parks and other public lands; establishing easements, setting forth privileges and conditions pertaining thereto, and setting forth the restrictions and covenants of the subdivisions; stating compliance of the subdivision and the Bill of Assurance itself with all pertinent ordinances of the City of Benton; setting forth procedures by which amendments to the conditions of the Bill of Assurance can be made. Said Bill of Assurance shall contain reference to the Approval of the Final Plat.	
28	(b) The Subdivider shall obtain approval of the Bill of Assurance by the Commission before filing it with the subdivision.	
29	(c) Certification of approval of water supply and sanitary sewage disposal by the appropriate agency, when not connected to the municipal system.	
30	(d) All calculations and field notes when required by the Commission.	

31	Streets and alleys within and abutting the subdivision, with street names indicated and showing the source of dedication when required. Sidewalks should also be included here.	
32	Any area or lot known to flood shall have the lowest allowable finished floor elevation indicated on the final plat.....	
33	Note: No changes in the plat are permitted without approval of the Benton Planning Commission.	
34	Error of closure calculations shall be submitted when requested...	
35	Engineer's certification that all was installed per the approved Plans & Specifications.	
36	Are any variances being requested?	
37	A digital and hardcopy of the Final Plat and As-Built drawings with all information in AutoCAD format.	

Exhibit 7
Final Plat Certificates

Each Final Plat submitted to the Commission shall carry the following certificate thereon:

CERTIFICATE OF OWNER

We, the undersigned, owners of the real estate shown and described herein do hereby certify that we have laid off, platted and subdivided, and do hereby lay off, plat and subdivide said real estate in accordance with the plat.

_____ _____
Date of Execution (signed)
Name
Address

Source of Title D.R. _____ page_____

CERTIFICATE OF RECORDING

This document, number _____ filed for record _____, _____, in Plat Book _____, Page _____.

_____
(signed)

_____
(Name) Clerk

For Bill of Assurance see Deed Record Book _____, page _____.

CERTIFICATE OF SURVEYING ACCURACY

I, _____, hereby certify that this plat correctly represents a survey made by me or under my supervision; that all monuments shown hereon actually exist and their location, size, type, and material are correctly shown; and that all interior lot lines have been adjusted to "as-built conditions" and are accurately described on the plat and identified on the ground in terms of length and direction of the property sides as required in accordance with the City of Benton Subdivision Rules and Regulations.

_____
(signed) Name

Registered Land Surveyor, No., _____,
Arkansas

CERTIFICATE OF ENGINEERING ACCURACY

I, _____, hereby certify that this plat correctly represents a plat made by me, and that the engineering requirements of the City of Benton Subdivision Rules and Regulations have been followed.

_____ (signed)_____
Date of Execution Name
Registered Professional Engineer,
No. _____, Arkansas

CERTIFICATE OF FINAL PLAT APPROVAL

Pursuant to the City of Benton Subdivision Rules and Regulations, this document was given approval by the Benton Planning Commission at a meeting held _____, _____. All of the conditions of approval having been completed, this document is hereby accepted, and this certificate executed under the authority of said rules and regulations.

_____ (signed)_____
Date of Execution Name
Chairman
Benton Planning Commission

Approval of the final plat shall become null and void unless said plat is filed for record within 120 days from the date of execution of this certificate.

Exhibit 8
Approved Letter of Credit

Irrevocable Standby Letter of Credit No. ___

Beneficiary:
City of Benton, AR
P.O. Box 607
Benton, AR 72018

Applicant/Subdivider

Amount: _____

Expiration _____

We hereby establish our Irrevocable Standby Letter of Credit in your favor available by your draft(s) at Sight drawn on the _____ Bank, payable to the order of the City of Benton for a sum not to exceed _____. The amount of any draft under this credit must, concurrently with negotiation, be endorsed on the reverse side by the City's Attorney, or City Attorney's designee, and the presentment of any such draft will be a warranty by the negotiating bank that such endorsement was endorsed and that documents have been forwarded as herein requested.

Any drawings under this Letter of Credit are to be accompanied by your signed statement or affidavit executed and signed by the City's Attorney or the City Attorney's designee, that drawing is due to default or failure to perform by _____ with respect to construction of improvements in _____ Subdivision, a subdivision of the City of Benton in Saline County, AR.

Special conditions:

1. Partial drawings are allowed;
2. The City will notify _____ Bank if at any time the improvements have been timely completed and the warranty period has terminated and that the credit may be released;
3. This Letter of Credit is not transferable or assignable by the Beneficiary. Letter of Credit issued as a replacement or substitution for this Letter of Credit will be issued by us without your prior consent.

All drafts drawn under this Letter of Credit must bear the clause "Drawn Under the _____ Bank Letter of Credit No _____ dated _____."

We hereby engage with you that drafts drawn under and in compliance with the terms of the credit will be duly honored upon presentation and deliver of the documents as specified, no later than three (3) days after such presentment, if negotiated on or before _____ as the same may be extended from time to time.

This Letter of Credit is subject to the International Standby Practices 1998.

The original of this Letter of Credit and any amendments thereto must be presented with any drawing.

_____ Signature of Bank Official

Exhibit 9
Street/Utilities Acceptance Ordinance

Ordinance _____ of _____

Accepting Streets, Drainage and Utilities for Maintenance
_____ Subdivision

WHEREAS, _____, Ph ___ was dedicated to the City of Benton, Arkansas on the _____ day of _____, 2XXX and is recorded in the deed records of Saline County, Arkansas, document No. _____. Streets were constructed as specified by the City, and more than one (1) year has expired since the construction of the streets, water lines, sewer lines, and storm drains in the said Addition, and

WHEREAS, the City of Benton, Arkansas now desires to accept said streets, water lines, sewer lines, and storm drains for maintenance.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Benton, Arkansas, that the streets, water lines, sewer lines and storm drains of _____, Ph ____, an Addition to the City of Benton, Arkansas, be and are herby accepted for maintenance by the City of Benton, Arkansas.

Passed and Approved this ____ day of _____, 2XXX.

_____
Mayor

ATTEST

_____
City Clerk

Appendix 8
Work Schedules and
Record of Daily Activities
Table of Contents

Safety Meeting Sign – Up Sheet

Date of Class: ________ Instructor ________________________

Safety Topic ____

Printed Name	Department	Signature

Date ___/___/____
Shift _____
Names _____/_____
_____/_____

Benton Utilities Log

ON Call Crews
Electric ____-_____/____-_____
Water ____-_____/____-_____
Waste Water ____-_____/____-_____
Street ____-_____/____-_____

Received	Dispatch	Finish	Unit	Complainant	Address	Phone Number	Problem / Comment

2

Benton Wastewater Utilities Sanitary Sewer Overflow Or Pump Station Failure Report...

Date_____ Location_____

Time Reported_____ Date Reported_____

Time Crew Arrived_____ Date Crew arrived_____

Time Worked Completed_____ Date Worked Completed_____

Description of problem:

____Line Blockage _____Line Break ____Manhole Overflow _____PumpStation Failure

____Other

Explain What Blockage Material Was_____

# of feet Rodded_____

Explain What Caused Manhole Overflow:_____

Explain What Caused Line Break:_____

Explain Pump Station Failure:_____

Other: / Notes:_____

_____

Explain Steps or Repair Action to Correct, Reduce, Eliminate, And or Prevent Recurrence:_____

_____

_____

Where Did Overflow Go? _____Yard _____Ditch _____Building _____Storm Drain

_____Other what type of stream / Water way_____

_____

Explain what steps were used for Environmental Clean up:_____

Employee's on Job_____

Cost of Parts for job:_____

Benton Wastewater Collections Daily Work Report...

Date_____ Location_____

Time Reported_____ Date Reported_____

Time Crew Arrived_____ Date Crew Arrived_____

Time Worked Completed_____ Date Worked Completed_____

Description Of Job:

_____

_____

_____

_____

_____

_____

_____

Jet Vac: Line Size_____ Number of Feet_____

What was found in Line:_____

_____

Cost of parts for Job_____

Employee's on Job_____

Employee Work Schedule: Benton Wastewater

Date:_____ Employee_____

Project:	Time	Comment/ Work Done
Supervisor's Signature_____		

Benton Wastewater Work Order

616 W. Hazel Benton, Ar 72015

501-776-5955

Job Address:	Time start:
Customer:	
Date Start: Date Finished:	Time Finished:
Employee's on Job:	

Description of Work Performed:	Recommendations:
Materials Used: And any p.o # and amount for job:	
Supervisor's Signature	

Appendix 9
Monthly Line Blockages and Overflows

Table of Contents

Benton Wastewater Monthly Line Blockage And Overflow:

Basin Number	Grid Number	Address of Blockage	From M.H	To M.H	Date:

BENTON UTILITIES MONTHLY PREVENTATIVE MAINTENANCE REPORT

Date	Personnell

STREET	MH Nos.	FOOTAGE	REMARKS	DATE
South Street				
Whispering Pines				
Edgemoor & Spur Line				
911 Brookview				
Harmon				
Harmon & Rosewood				
Rosewood & Fernwood				
Edgehill & Fernwood				
305 S. Border				
Chris Drive Back to Woods				
Shadow Lane - by Creek				
Smithers Drive				
Crest Drive				
Kyle & Longview				
1700 Block - Lynwood				
SMH Line at McNeil				
Summit Road End of Line				

BENTON UTILITIES MONTHLY PREVENTATIVE MAINTENANCE REPORT

Date	Personnell

STREET	MH Nos.	FOOTAGE	REMARKS	DATE
Timbermist from Derby Rd. to Beyond				
2918 Pamela				
3010 Pamela				
Tommy's Hair Care				
North Street				
Cox St. & Columbia to Revis				
Cox Street From MH before one that Comes from Hiland to North				
Check Periodically 805 West Maple Mrs. Hogue				
Check Border St Line from School to Edison				
Columbia & Fourth				
Brookview 1409 (Rod)				
310 S. Shandy Ln Road east				
Adult Center				
Hobbs Add. at end				
Clark				
914 Thelma from Jackmon				

BENTON UTILITIES MONTHLY PREVENTATIVE MAINTENANCE REPORT

Date	Personnell

STREET	MH Nos.	FOOTAGE	REMARKS	DATE
1109 Senic Way				
315 North St				
Dogwood off Hwy 5				
1409 Dixie				
1501 Chris Dr.				
Jill Dr. to Grace on Alcoa Vac up all rags				
Bookwood to 29 Carwin to the Manhole				
417 S. Richard				
1801 S. Richard				
1004 Shangri-La				
Hwy 35 at Apachie Dr.				
1031 Spangle				
1115 Smithers				
Lanore-Pinewood Dr				
End of Melrose				

Appendix 10
Fats, Oils, And Grease Blockages

Table of Contents

Grease and grease like products can be significant contributors of sewer overflows. Restaurants and industrial facilities can discharge grease as part of their normal sanitary flows that can lead, in time, to blockages, backups and overflows. Areas of the collection system that have had fats, oils, and grease blockages are listed in the table below:

Fats, Oils, and Grease Blockages

Basin Number	Grid Number	Business Name and Address or Manhole Number	Date Blockage Discovered	Date Blockage Cleared

QUARTERLY GREASE TRAP REPORT

CITY ORDINANCE 19 OF 1995 STATE PLUMBING CODE CHAPTER SIX

BUSINESS	ADDRESS	PHONE	VISUAL INSPECTION DATE & QUARTER				NAME OF PUMP & CLEANING SERVICE	GREASE TRAP PHYSICAL APPEARANCE	RE-INSPECTION DATE	REPORT TO CEO	
			1st QTR	2nd QTR	3rd QTR	4th QTR					
ABE'S OLE FEEDHOUSE	Hwy 5										
APPLEBEE'S	Hwy I-30										
ARBY'S	900 Military Rd	776-0909									
BACKYARD BURGERS	1420 Military Hwy	315-4542									
Dan's Dinner	17018 Hwy I-30										
BO'S BBQ	16925 Hwy I-30	315-2431									
BROWN'S COUNTRY STORE	18718 Hwy I-30	778-5033									
BUFFET CITY	Military										
BURGER KING #2925	1918 Congo Rd	778-1095									
Patro'n	17324 Hwy I-30										
CAPTAIN D'S	1419 Military	778-7909									
CHILI'S	20702 I-30										
Jimmy's Diner	821 Edison										
COLTON'S STEAKHOUSE	1925 Landers Dr	778-6100									
DALE'S DONUTS	919 Military	776-2710									
DARLIN'S BAKERY & CAFÉ	Market St	778-3700						Closed			
DAYLIGHT DONUTS	2202 Military Rd	778-1147									
Hog Heaven dinner	16732 Hwy I-30	315-9367									
DENTON'S TROTLINE	2150 Congo Rd	315-1717									

QUARTERLY GREASE TRAP REPORT

CITY ORDINANCE 19 OF 1995 STATE PLUMBING CODE CHAPTER SIX

BUSINESS	ADDRESS	PHONE	VISUAL INSPECTION DATE & QUARTER				NAME OF PUMP & CLEANING SERVICE	GREASE TRAP PHYSICAL APPEARANCE	RE-INSPECTION DATE	REPORT TO CEO	
			1st QTR	2nd QTR	3rd QTR	4th QTR					
DINNER'S READY	1305 Hwy 5	315-4430									
DIXIE CAFÉ	17306 Hwy I-30	315-6200									
La Valentina	1217 Ferguson Dr	776-3004									
ED & KAY'S	15228 Hwy I-30	3153663									
Enerprise Lanes STRIKE ZONE GRILL	1515 Military Rd	776-8300									
GARY'S DRIVE-IN	619 Cox Edison Ave & Cox	315-9555 776-1150									
Sullivan's Dinner	Lillion & North										
HUNAN PLACE TEA GARDEN	15904 Hwy I-30	315-9068									
I-HOP	Landers Dr										
JULIANNE'S CATERING	I-30	315-0114 650-5580						Closed			
KFC	609 Military Rd	778-4343									
LA HACIENDA	17401 Hwy I-30	776-9959									
LA PLACITA	South Plaza							closed			
LITTLE CEASAR'S	1225 Military Rd	776-2434									
LUNCH BOX DINER	15630 Hwy I-30	315-3234						Closed			
Nannas Cake	2202 Military Rd	778-8551									
MAZZIO'S	1400 Military Rd	860-6400									
MCDONALD'S	1023 Military Rd	315-1140									
MCDONALD'S	20726 I-30										
MIMI'S CAKES	18034 Hwy I-30	778-2253						closed			
BOSS BBQ	1023 W. South	315-3196									

QUARTERLY GREASE TRAP REPORT

CITY ORDINANCE 19 OF 1995 STATE PLUMBING CODE CHAPTER SIX

BUSINESS	ADDRESS	PHONE	VISUAL INSPECTION DATE & QUARTER				NAME OF PUMP & CLEANING SERVICE	GREASE TRAP PHYSICAL APPEARANCE	RE-INSPECTION DATE	REPORT TO CEO	
			1st QTR	2nd QTR	3rd QTR	4th QTR					
PASTA JACK'S ITALIAN	1314 Green	315-6800									
PIZZA HUT	1209 Hot Springs Rd	776-3661									
POPEYES CHICKEN	2010 Congo Rd	860-7049									
QUIZNO'S SUBS	Military Rd	860-7037						CLOSED			
RIB CRIB BBQ	1600 Military Rd	778-9600									
RICO'S MEXICAN CUISINE	15604 Hwy I-30	776-3855						Closed			
Home Cookin	104 W South										
SHIPLEY'S DONUTS	Military										
SIN SIN RESTAURANT	622 Gertrude	778-5541									
SMOKEY JOE'S	824 Military Rd	315-8333									
SONIC DRIVE_IN	1815 Hwy 5 N.	316-2441									
SONIC DRIVE_IN	1703 Military Rd	778-5111									
SUBWAY & SALADS	1300 Military Rd	778-7827									
TACO BELL	1704 Military	315-4826									
Taco Bueno	20724 I-30										
WAFFLE HOUSE	1215 Hot Springs Rd	776-1431									
WENDY'S	1706 Military	776-2077									
Touchdown Sally's	17332 Hwy I-30	776-0880									
WESTERN SIZZLIN	1920 Congo Rd	778-9656									

QUARTERLY GREASE TRAP REPORT

CITY ORDINANCE 19 OF 1995 STATE PLUMBING CODE CHAPTER SIX

BUSINESS	ADDRESS	PHONE	VISUAL INSPECTION DATE & QUARTER				NAME OF PUMP & CLEANING SERVICE	GREASE TRAP PHYSICAL APPEARANCE	RE-INSPECTION DATE	REPORT TO CEO	
			1st QTR	2nd QTR	3rd QTR	4th QTR					
			CHURCH'S								
FIRST ASSEMBLY OF GOD	1801 Hot Springs Rd (Benton)	778-7597									
FIRST BAPTIST (SOUTH)	211 S Market	315-2270									
FIRST BAPTIST (WEST)	211 S Market	315-2270									
FIRST PRESBYTERIAN	501 N East	315-7737									
FIRST UNITED METHODIST	200 N Market	778-3601									
HOLLAND CHAPEL BAPTIST	15523 Hwy I-30	778-4546									
NORTHSIDE CHURCH OF CHRIST	917 N East	315-1128									
OUR LADY OF FATIMA	900 W Cross	315-5186									
PARKVIEW UNITED METHODIST	500 N Border	778-2145									
SPRING CREEK BAPTIST	I-30 & Deer Dr	315-4569									
SHARRON BAPTIST	Sharron Rd										
HWY CHURCH OF CHRIST	I-30										
		HOSPITALS & NURSING HOMES & REHABS									
KENWOOD HEALTH & REHAB.	809 Kenwood Rd	778-7417						Closed			
RIVENDELL BEHAVOIR Hlth Svc	100 Rivendell Dr	794-1499									
SALINE MEMORIAL HOSPITAL	# 1 Medical Park Dr	776-6000									
BENTON NURSING CENTER	19701 Hwy I-30	778-8200									
MT CARMEL RETIREMENT CENTER	Boone Rd										
STONEYBROOK REHAB.	3300 Military Rd	778-8282									
Ridgewood	Alcoa										

QUARTERLY GREASE TRAP REPORT

CITY ORDINANCE 19 OF 1995 STATE PLUMBING CODE CHAPTER SIX

BUSINESS	ADDRESS	PHONE	VISUAL INSPECTION DATE & QUARTER				NAME OF PUMP & CLEANING SERVICE	GREASE TRAP PHYSICAL APPEARANCE	RE-INSPECTION DATE	REPORT TO CEO	
			1st QTR	2nd QTR	3rd QTR	4th QTR					
BIG RED #129	620 Military Rd	860-6068									
BIG RED #127	2908 Congo Rd	315-3500									
BIG RED MCDONALDS	Exit 114										
BJ'S Military 66	1415 Military	315-0176									
BP FOOD MART	1612 W. South	778-4865									
BULLOCK'S SUPERSTOP	15536 Hwy I-30	315-3898									
BREITWEISER MEAT MARKET	1113 W. South	776-0391									
CORNER MARKET CITGO	6650 Alcoa Rd	315-2001									
EZ-GO CITGO	Hwy 5 N.	316-2220									
G & Y SUPERSTOP	1507 Hwy 5 (Benton)	778-2812									
HARPS	Hwy 5										
HARVEST FOODS	403 N Main	776-2259						Closed			
JIMMY'S SUPERSTOP	901 Edison Ave	776-2110									
KROGER	1410 Military Rd	776-0301									
LANCE'S CONVENIENCE STORE	Edison										
MURPHY USA	17305 Hwy I-30	860-7830									
ONE-STOP CITGO	1005 W. South	776-2737									
PILOT TRAVEL CENTER # 118	7801 Alcoa Rd	794-5900									
SAVE-A-LOT	1316 Edison Ave	315-7141									
MACS MINNOWS & MORE	15920 Hwy I-30	315-6169									
WALMART (1)	17309 Hwy I-30	860-6135									
WALMART (2)	17309 Hwy I-30	860-6135									

QUARTERLY GREASE TRAP REPORT

CITY ORDINANCE 19 OF 1995 STATE PLUMBING CODE CHAPTER SIX

BUSINESS	ADDRESS	PHONE	VISUAL INSPECTION DATE & QUARTER				NAME OF PUMP & CLEANING SERVICE	GREASE TRAP PHYSICAL APPEARANCE	RE-INSPECTION DATE	REPORT TO CEO	
			1st QTR	2nd QTR	3rd QTR	4th QTR					
SCHOOLS AND OTHERS											
GRANT ELEM.	Hoover St	778-3300									
BENTON MIDDLE SCHOOL	204 Cox	776-5740									
BENTON HIGH SCHOOL	Border St	778-3288									
CALDWELL ELEM.	W Sevier St	778-4444									
HOWARD PERRIN ELEM.	Smithers Dr	778-7411									
RINGOLD ELEM.	River St	778-3500									
BRYANT ELEMENTARY	Alcoa Rd										
ARMY NAT' GUARD CENTER	721 Fairfield Rd	778-8373									
BIRCH TREE COMMUNI-CATIONS	Mary Kay Blvd										
CIVITAN SERVICE CENTER	121 Cox	776-0691									
HOLLAND BALLPARK											
I-30 PLAZA (Precision Brake)											
I-30 PLAZA (Kids Source)	17706 Hwy I-30	315-4414									
SALINE COUNTY FAIR GROUNDS	406 Fairfield Rd	860-6585									
SENIOR ADULT CENTER	210 Jefferson	776-0255									
TINSELTOWN	17314 Hey I-30	776-2222									
HARBOR ISL. ADVENTURE GOLF											
SUPERIOR FOOD EQUIPMENT	Samsway	860-7565									

Appendix 11
Root Intrusion Blockages

Table of Contents

Root intrusions can contribute to sewer overflows. Wooded areas and lone trees adjacent to deteriorating lines or lines with damaged joints can lead, in time, to blockages, backups and overflows. Areas of the collection system that have had repeated root intrusion blockages are listed in table below:

Root Intrusion Blockages

Basin Number	Grid Number	Dates Blockages Cleared	From Manhole	To Manhole

Appendix 12
Sewer Lines Along Streams

Table of Contents

Gravity sewers follow the natural topography of the land which often leads to stream bottoms. Approximately 15.74 miles of collection system run along streams making them critical components requiring greater monitoring. Sewer lines along streams which require greater monitoring are listed in the table below:

Inspection of Sewer Lines Along Streams

Basin No.	Grid Number	Stream Name	From Manhole	To Manhole	Length Feet	Inspection Remarks	Date
11	F-17	Hurricane Creek	F17-20	F17-34A	1,707		
11	F-17	Hurricane Creek	F17-17	F17-35	1,536		
11	G-17	Hurricane Creek	G17-1	G17-7	1,165		
11	G-15	Alcoa Creek	G15-26	G15-28	521		
11	G-15	Alcoa Creek	G15-41	G15-43	373		
2	F-13	Salt Creek	F13-1	F13-3	568		
2	G-12, G-13	Salt Creek	G12-2	G13-9	2,666		
2	G-12, G-13	Salt Creek	G12-46	G12-47	120		
2 &1	L-10, K-11, J-11, I-11, H-12	Salt Creek	L10-69	H12-7	13,512		
1	H-10, I-10	Taylor Creek	H10-11	I10-8	2,900		
1	H-10	Taylor Creek	H10-30	H10-31	112		
2	G-12	Salt Creek	G12-24	G12-29	516		
2	G-12	Salt Creek	G12-33	G12-35	667		
2	J-11	Salt Creek	J11-30	J11-34	124		
2	K-12, J-12, J-11	McNeal Creek	K12-33B	J11-6D	3,106		
3	L-12, K-12, K-13, J-13, I-13	McNeal Creek	L12-40	I13-5	6,654		
2	K-12	McNeal Creek	K12-22	K12-33	727		
3	M-12	McNeal Creek	M12-29	M12-40A	1003		
3	M-11, M-12	McNeal Creek	M12-M1B	M11-64	1,188		
3	N-11	McNeal Creek	N11-42A	N11-60	234		
3	N-11	McNeal Creek	N11-42B	N11-42A	185		
2	M-10, M-11	McNeal Creek	M10-21A	M11-31A	3,926		
3	N-10, N-11	McNeal Creek	N11-43A	N10-64	4,138		
3	N-10, N-11	McNeal Creek	N11-15A	N10-54	844		
3	N-11	McNeal Creek	N11-21	N11-43	752		

Gravity sewers follow the natural topography of the land which often leads to stream bottoms. Approximately 15.74 miles of collection system run along streams making them critical components requiring greater monitoring. Sewer lines along streams which require greater monitoring are listed in the table below:

Inspection of Sewer Lines Along Streams

Basin No.	Grid Number	Stream Name	From Manhole	To Manhole	Length Feet	Inspection Remarks	Date
4	P-10	Depot Creek	P10-53	P10-60	225		
11	J-16	Alcoa Creek	J16-11	J16-18	306		
11	J-17	Alcoa Creek	J17-16	J17-19	730		
10	J-15, K-14	Depot Creek	J15-70	K14-34A	4,217		
10	K-14	Depot Creek	K14-57A	K14-24	921		
10	K-14	Depot Creek	K14-81	K14-25	922		
10	K-15	Depot Creek	K15-38	K15-50	1,176		
10	L-13, M-13, M-14	Depot Creek	L13-36	M14-22B	1,910		
10	L-14	Depot Creek	L14-60	L14-59	159		
10	L-14, M-14	Depot Creek	L14-68	M14-64	2,150		
10	M-14	Depot Creek	M14-51A	M14-51C	359		
10	M-14	Depot Creek	M14-14(NF)	M14-13	157		
10	M-14, N-14	Depot Creek	M14-4	N14-39A	485		
10	N-14	Depot Creek	N14-28	N14-33	497		
10	N-13, O-13, O-14	Depot Creek	N13-60	O14-4	1,497		
8	O-16	Depot Creek	O16-12	O16-2	942		
10	N-14	Depot Creek	N14-9A	N14-9	185		
4	O-11	Depot Creek	O11-36	O11-29	262		
4	O-10, O-11	Depot Creek	O11-33	O10-28	1,114		
4	O-10, O-11	Depot Creek	O10-40A	O10-40B	178		
5	P-11, Q-11	Depot Creek	P11-14	Q11-30	1,928		
5	M-12, M-13, N-12	Depot Creek	M13-26	M12-51	2,390		
5	M-13	Depot Creek	M13-3A	M13-9A	168		
5	M-12	Depot Creek	M12-14	M12-14A	46		
5	N-12, O-13	Depot Creek	N12-62	O13-16	2,048		

Gravity sewers follow the natural topography of the land which often leads to stream bottoms. Approximately 15.74 miles of collection system run along streams making them critical components requiring greater monitoring. Sewer lines along streams which require greater monitoring are listed in the table below:

Inspection of Sewer Lines Along Streams

Basin No.	Grid Number	Stream Name	From Manhole	To Manhole	Length Feet	Inspection Remarks	Date
5	O-13, P-12, P-13	Depot Creek	O13-2A	P13-6	2,227		
10	M-13, N-13	Depot Creek	M13-17	N16-63	500		
10	N-13	Depot Creek	N13-46	N13-52	323		
8	O-15	Depot Creek	O15-51	O15-48	439		
8	O-15	Depot Creek	O15-63	O15-64	91		
8	P-15	Depot Creek	P15-50	P15-51	201		
8	P-14	Depot Creek	P14-31A	P14-15	1,596		
7	S-14	Depot Creek	S14-25A	S14-26	170		
7	S-14	Depot Creek	S14-22	S14-12	1,783		
6	R-12, R-13	Depot Creek	R12-48A	R13-10	1,558		
				Total	83,104		

Benton Wastewater Utilities Creek Crossing

Date:_____ Time:_____ Address-Cross Street_____

Creek Crossing_____Number_____

Bank Stability:

____Sandy _____Gravel ____Imbedded In Concrete _____Clay _____Other

Any Hazards That May come in Contact with Pipe:

_____

_____

Measure at Normal water Level:_____

Debris against Pipe:_____

Pipe Submerged or above water Level:_____

Type of Pipe:_____ Condition of Pipe:_____

Distance of Pipe across Creek-From end to end:_____

% of Erosion:_____ Deteriation of Pillars:_____

Deterioration of Manhole and Condition of Manhole:

_____

_____

Type of Manhole:_____ Foundation Of Manhole: _____

Manhole # TO Manhole #_____

Priority of Repair:_____

Employee's on Job_____

Any other Notes or
Concerns_____

_____

Appendix 13
Sewer Lines In Isolated Areas

Table of Contents

Several areas within the system are isolated from population centers and as such an overflow could go undetected for an extended period of time. Sewer lines in isolated areas to be monitored are listed in the table below:

Inspection of Sewer Lines in Isolated Areas

Basin No.	Grid Number	Nearest Location	From Manhole	To Manhole	Length Feet	Inspection Remarks	Date
4	S 11	Latimer Dr & W. Hillside	S 11-1	R 11-3	603		
5	R 11	S. Market & W. Woodlawn	R 11-14	R 12-17	1,630		
6	Q 14	Silica Heights & Baylock St	Q 14-33	P 14-15	2,006		
11	I 15	I-30 Service Rd & Military	I 15-5	I 15-10	1,310		
4	P 9	Henry & Fairfield	P 9-20	P 9-25	1,015		
3	O 9	King Rd & I-30 Service Rd	O 9-19	O 9-20	437		
3	N 9	End of Brent Ford Rd	N 9-25	M 10-1	2,987		
2	J 11	Salt Creek & Shenandoah	J 11-34	J-12-51	1,610		
				Total	11,598		

Appendix 14
Smoke Testing Record

Table of Contents

ICM
IMPROVED CONSTRUCTION METHODS

Sales Order

AR134362CM

40 N. Redmond Rd , Jacksonville, AR 72076 501-982-7715

Acct #	3814	Order Date:	5/31/2011	Ship To: (city,st,zip)	616 west hazel BENTON, AR 72015
Customer Name & Mailing Address				Job Name:	
CITY OF BENTON WASTE WATER ATTN: PURCHASING DEPT. BENTON, AR 72015				Owner's/GC Name:	
Phone Number:	(501) 776-5955 Ext. 0000			Bonding Co.:	
Contact Name:	leon				

Delivery Date:	Ship Via:	Customer PO #:	Terms :	Salesman #	113
6/1/2011	direct	74654	Net 30	Chris McFadden	

Quantity	Part No.	Item Description	Unit Price	Ext Amount
48	034368	dozen 3 minute single wick smoke bombs(cherne)	$81.50	$3,912.00
1	034368	dozen 3 minute single wick smoke bombs(ok city)	$81.50	$81.50
1	034378	dozen 3 minute dual wick smoke bombs (ok city)	$86.50	$86.50
3		bundles flor.green 21" wire flags	$7.00	$21.00
1	014722	cherne smoke blower fan blade	$164.00	$164.00

Special Instruction:	Subtotal	$4,265.00
	Freight	add ups red
	Sales Tax %	
	9.000%	#VALUE!
	TOTAL	#VALUE!

I am an authorized representative of the above named company to approve rentals or sales. If these purchases are denied by the above named company because I did not have full authorization to approve the rental or sale, then I will be personally responsible in making sure that the debt incurred is paid in full.

Buyer's Signature: Date:

REQUIRED

Transfer From cherne

Ordered From cherne

Buyer's Name & Title (Printed) REQUIRED

SERVING CONTRACTORS AND MUNICIPALITIES SINCE 1970

THIS ORDER IS SUBJECT TO THE TERMS AND CONDITIONS APPEARING HEREON AND ON THE REVERSE SIDE HEREOF, AND BUYER AGREES TO BE BOUND THEREBY

Public Notice, The Wastewater Department of the Benton Utilities will be conducting smoke testing of the sanitary sewer in or near the following areas of the city: Shady Grove Subdivision. The testing will take place between February 8 , 2006 and February 15, 2006. Homeowners with defective or leaking sewer connections may encounter smoke inside their home. The smoke is non toxic and dissipates in a short period of time. The purpose of the testing is to assist in finding leaks in the sewer system. Thank you for your co-operation.

Leon Wilson
Wastewater Collections Manager

Door Hanger

BENTON UTILITIES

An Employee was here from the

BENTON UTILITIES
WASTE WATER COLLECTION

776-5955

Date _____

Time _____

Reason for Call: _____

_____

_____

_____

Benton Utilities

City of Benton: Smoke test: Photographic Evidence sheet

Basin #
Grid #
Photo #

Date:
Downstream manhole#
Upstream Manhole#

W:/2011/11-5724 Benton Utilities-CMOM Preparation/Project Documentation/Summary Smoke Test Record.xlsx

SUMMARY OF BENTON UTILITIES SMOKE TESTING FOR PERIOD OF TO

Item	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11
Total Basin Pipe Length, Ft											
Length Smoke Tested, Ft											
Number of Clean Out Leaks											
Clean Out Leaks fixed by Benton Utilities											
Clean Out Leaks Fixed by Others											
Number of Service Line leaks											
Service Line Leaks Fixed by Benton Utilities											
Service Line Leaks Fixed by Others											
Number of Main Line Leaks											
Main Line Leaks fixed by Benton Utilities											
Main Line Leaks fixed by Others											

4

Appendix 15
Pipe Cleaning Record

Table of Contents

W:/2011/11-5724 Benton Utilities-CMOM Preparation/Project Documentation/Pipe Cleaning Record.xlsx

SUMMARY OF BENTON UTILITIES PIPE CLEANING FOR PERIOD OF TO

STREET NAME	Basin No.	From Manhole Number	To Manhole Number	Diameter	Cleaned Length Ft	Noted Problems	Date

BENTON UTILITIES MONTHLY PREVENTATIVE MAINTENANCE REPORT

Date

Personnell

STREET	MH Nos.	FOOTAGE	REMARKS	DATE
South Street				
Whispering Pines				
Edgemoor & Spur Line				
911 Brookview				
Harmon				
Harmon & Rosewood				
Rosewood & Fernwood				
Edgehill & Fernwood				
305 S. Border				
Chris Drive Back to Woods				
Shadow Lane - by Creek				
Smithers Drive				
Crest Drive				
Kyle & Longview				
1700 Block - Lynwood				
SMH Line at McNeil				
mmit Road End of Line				

BENTON UTILITIES MONTHLY PREVENTATIVE MAINTENANCE REPORT

Date

Personnell

STREET	MH Nos.	FOOTAGE	REMARKS	DATE
Timbermist from Derby Rd. to Beyond				
2918 Pamela				
3010 Pamela				
Tommy's Hair Care				
North Street				
Cox St. & Columbia to Revis				
Cox Street From MH before one that Comes from Hiland to North				
Check Periodically 805 West Maple Mrs. Hogue				
Check Border St Line from School to Edison				
Columbia & Fourth				
Brookview 1409 (Rod)				
310 S. Shandy Ln Road east				
Adult Center				
Hobbs Add. at end				
Clark				
914 Thelma from Jackmon				

BENTON UTILITIES MONTHLY PREVENTATIVE MAINTENANCE REPORT

Date

Personnell

STREET	MH Nos.	FOOTAGE	REMARKS	DATE
1109 Senic Way				
315 North St				
Dogwood off Hwy 5				
1409 Dixie				
1501 Chris Dr.				
Jill Dr. to Grace on Alcoa Vac up all rags				
Bookwood to 29 Carwin to the Manhole				
417 S. Richard				
1801 S. Richard				
1004 Shangri-La				
Hwy 35 at Apachie Dr.				
1031 Spangle				
1115 Smithers				
Lanore-Pinewood Dr				
End of Melrose				

4
5 CONTINUES TABLE

BENTON UTILITIES
STANDARD OPERATING PROCEDURES
SEWER CLEANING

ORIGINAL RELEASE DATE: _____

AUTHORIZATION: _____

APRIL 2012

9

STANDARD OPERATING PROCEDURES
SEWER CLEANING

Location	Task	Steps
At the Shop	1. Perform CDL check of the vactor:	a. Employee must properly perform the CDL check of the vehicle and complete the CDL check sheet, turning in the white copy, and keeping the yellow copy on the truck with them for the duration of the shift, or use of the vehicle for the day. Employee should also check the truck equipment (tubes, clamps, water gun, sewer hooks, nozzles, etc.) for damages or missing parts. b. If the vactor needs to be backed out, the helper is to ground guide the driver as he is backing out. The helper is to ground guide the operator in all backing procedures.

Location	Task	Steps
At Job Site (See diagram on page 13)	1. Drive vactor to job site:	a. Upon arrival on site the crew will need to fill the vactor with water. After pulling up to the water hydrant the crew will need to turn on the arrow board to direct/notify traffic of their status. Afterwards the crew will need to flush the hydrant to remove any sediment before filling the water tanks. After the tanks are filled the crew can now set up to begin cleaning the sewer lines. b. To begin set up the helper will pull the manhole lid, making sure that it is not in the way of the operator when the truck is moved for alignment. The helper will guide the operator to the proper alignment with the manhole by signaling the operator as needed. c. The crew must now set up the safety area. The crew will need to set up cones to the rear of the truck, with at least 15 – 20 feet of space from the rear of the truck, to the farthest cone. When placing cones, always make sure that the two cones closest to the truck are used to reduce and close the lane off to traffic. This should help to reduce rear end collisions and help keep the crew safe. The crew must also use cones on the side of the truck nearest to traffic. Proper cone spacing should be enough room to move safely along the side nearest traffic between the cones and the truck. Cones should be extended at least four feet beyond the front of the truck, making sure that the farthest cones reduce the lane. The crew needs to make sure that all warning lights and the arrowboard are operating properly and the arrow flashing to send traffic towards the open lane. d. When using the vactor in a continuous fill

Location	Task	Steps
		mode, safety precautions must be taken so that the hose is not placed in high traffic areas where vehicles are running over the water supply hose.

Location	Task	Steps
At Job Site	1. Sewer Cleaning – Choosing the proper nozzle	a. Choose the right nozzle for the job. This decision is based on several different factors such as amount of flow, pipe type, pipe size, and condition of the lines. The operator must also pick the appropriate fins to mount the nozzle onto. The operator, or helper, will drop down enough rodder hose slack to be able to place the nozzle in the mouth of the pipe with the tiger tail at the top of the pipe to keep from tearing the rodder hose. Turn the water pressure on efficient enough to shoot the nozzle in until the end of the leader hose is showing in the mouth of the pipe. At this time clear the footage counter and set it to zero so the footage can be measured properly. 1. In general, a 15 degree nozzle is used for high grade, long lines and when penetrating blockages. 2. A 30 degree nozzle is best for cleaning due to the jets of water hitting the wall more directly and closer to the nozzle. 3. Some common nozzles are: (a) Sanitary nozzles, used for cleaning 4" – 12" lines and for loosening debris in larger lines. (b) Penetrator nozzles, used for cleaning 4" – 18" lines with sand, dirt, grease and other accumulations on the walls and bottoms of pipes. (c) 3" general-purpose nozzle used for cleaning 10" and larger lines. (d) #10 nozzle, also used for cleaning 10" and larger lines. (e) Culvert nozzles used for 15" to 48"

Location	Task	Steps
		lines. Nozzle guides are used to prevent reversal of nozzle in lines which allows an unrestrained nozzle to accelerate uncontrolled. Nozzle guides also help center the nozzle in the pipe for more complete cleaning. They help reduce nozzle body wear and leader hose wear. Finally, nozzle guides prevent nozzles from turning into lateral. They typically come in 4" and 6" diameters. 4. Nozzle guides are used to prevent reversal of nozzle in lines which allows an unrestrained nozzle to accelerate uncontrolled. Length of guide should be greater than the diameter of sewer. Nozzle guides also help center the nozzle in the pipe for more complete cleaning. They help reduce nozzle body wear and leader hose wear. Finally, nozzle guides prevent nozzles from turning into lateral. They typically come in 4" and 6" diameters.
	2. Opening the manhole lid	a. At this time the manhole jack is placed across the manhole and the tiger tail is secured to the jack to keep the rodder hose from being cut. Now the manhole lid is placed onto the jack to secure it from moving while the hose is traveling through the sewer line.
	3. Prepare for jet rodding	a. Prepare truck for jet rodding: 1. Push in Directional Flow Valve to operate hydraulic motor on power reel. 2. Open large upper valve on front of reel frame, turn to vertical position.

21

Location	Task	Steps
		3. Close smaller gun valve, turn to horizontal position. 4. Thread rodder hose through tiger tail guide hose. Make sure a rope is connected to the tiger tail. b. Start rodding operation: 1. Turn rodder pump ball valve to the on position. 2. Turn the rodder pump toggle switch to on position (remember the hydraulic pump must be engaged.) 3. Adjust pressure using the throttle control on reel frame. Amount of pressure depends on depth of manhole, nozzle used and nature of the work being done. Shallow lines require less pressure than deep lines. Backups may require more pressure to break through the blockage. Some nozzles require more pressure than others do. 4. Allow hose to feed itself through the line at moderate pace. It may be best to feed hose about 30 feet and return, then 50 feet and return and 25 feet and return till end of run, if line is tightly packed. 5. Continue to jet the line until nothing but clear water comes through the line while bringing the nozzle back to the starting position. 6. The laborer should measure the distance between manholes with a measuring wheel to assure measurement accuracy. 7. The laborer should also lift the up stream manhole and communicate with the operator when the nozzle has reached it. c. Lines filled with heavy debris may require the

Location	Task	Steps
		operator to vac out the manhole while jet rodding at the same time. 1. Attach tubes together using the clamps and place tubes into the hole. 2. Attach tubes to the boom and start the auxiliary engine. 3. To start the auxiliary engine turn on the ignition switch and push starter until engine starts. Do not hold for more than 15 seconds. 4. Increase engine speed by turning the vernier throttle control until engine Rpm's reach approximately 1500. 5. Push in clutch to engage the motor. Once engaged, advance throttle to full open position. 6. The boom can be controlled using either the pendant control or by using the control on the front panel. 7. The vactor tube should be positioned as to partially block the downstream segment to prevent debris from flowing into the next segment, but to allow water to continue to flow. 8. Remember that the end of the main tube cannot be totally submerged in material, it will not vac properly if this happens. 9. Continue to vac out the hole until no more debris comes back with the return of the cleaning nozzle. d. End Cleaning Operation: 1. When the end of the run is reached, pull hose back by reversing direction control

Location	Task	Steps
		valve lever. This should be done with running water. 2. If the line is clean, minimum water pressure is needed. 3. When nozzle returns to manhole, lower pressure completely by reducing engine RPM using the throttle control on reel frame. 4. Disengage the auxiliary motor and return the tubes to the racks and place the boom back into transport position.
	4. Job Site Clean-up	a. Now that the line and the manhole have been cleaned the crew can should now clean up any debris from the job functions. After securing the manhole lid back into the proper place (the manhole ring) and returning the hole jack to it's proper place, the crew can begin to pick the cones up in reverse. Pick up the cones in front of the truck first, then the cones on the side of the truck. Finally, pick up the cones to the rear of the truck. The cone that is farthest away is the last cone to be picked up. The rear cones are to be stacked on the last cone and the operator will back the vactor up to the stack as the helper guides him. After the cones are load onto the truck and secured, the crew can move to the next location.

SEWER CLEANIN SPECIAL NOTES

Location	Task	Steps
At Job Site	Special Notes	1. The intent of sewer cleaning is to remove foreign materials from the lines and restore the sewer to a minimum of 95% of the original carrying capacity, or as required. It is recognized that there are some conditions such as broken or damaged pipe, and major blockages that prevent cleaning from being accomplished or where additional damage would result if cleaning were attempted or continued. Should such conditions occur, the operator will contact management personnel immediately and advise them of the situation. 2. If the helper is pulling the manhole lid in the street they will need to put safety cones around themselves and the manhole for safety reasons. Upon completion of the assignment, close the manhole and then remove the cones. 3. Material removal: sludge, dirt, sand, rocks, grease, and other solid, or semi-solid, material resulting from the cleaning process shall be removed at the downstream manhole to the section being cleaned. Passing materials from manhole to manhole, which could cause back-ups or damage to the equipment downstream, is not acceptable.

SEWER CLEANING: [redacted]ERATING PRESSURE

Location	Task	Steps
At Job Site	Operating Pressure Pre-cautions	1. During sewer cleaning operations, satisfactory precautions shall be taken in the use of cleaning equipment. When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard the flow in the sewer line are used, pre-cautions shall be taken to insure that the water pressure created does not damage or cause flooding of public or private property being served by the sewer. 2. Selection of the equipment used shall be based on the conditions of the lines at the time the work commences. It is virtually impossible to set a standard water pressure to clean lines. Liability and unknown factors are two of the reasons the industry does not have a set standard for water pressure. Example: using a #3 nozzle: 1000 pounds of pressure in an 8" line, 15 feet deep and 30 feet away from a house is okay. 1000 pounds of pressure in an 8" line, 4 feet deep and 5 feet from the same house in not okay. 3. Purged plumbing, or "blown toilets," are the

Location	Task	Steps
		result of a combination of pressure, nozzle angle, and the system conditions. A nozzle moving up a pipe will pull air from upstream. If the pipe is clogged with roots or grease, sufficient air cannot be pulled easily through the pipe. Instead, the air will be pulled from house vents, which in turn can pull down water in all of the plumbing P traps and the toilets. When the nozzle returns downstream, the air will be pushed upstream toward the stoppage and can exit through these same vents with sometimes dramatic results of pushing water out ahead of the air. The best way to avoid purged plumbing situations is to use a more steeply angled nozzle at a minimum pressure when moving the nozzle up the pipe. The longer the cone of spray from the nozzle is in the pipe, the more air it will pull. A 15 degree nozzle will pull more air from upstream than will a 35 degree nozzle. In areas where there are known purged plumbing problems, use low operating pressure of around 1000 to 1200 psi to help reduce the air movement in the pipe. Cleaning will not be affected much by the reduced pressure, and this approach will help relieve some of the problem. If a problem continues with a higher degree nozzle and lower pressure, a closed-circuit television inspection camera should be called in to see if there is any root or grease buildup that can be removed to help increase the diameter of the pipe and thereby allow increased air flow.

Appendix 16
Video Inspection Record

Table of Contents

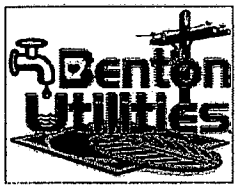
W:/2011/11-5724 Benton Utilities-CMOM Preparation/Project Documentation/VideoInspectionRecord.xlsx

SUMMARY OF BENTON UTILITIES VIDEO INSPECTIONS FOR PERIOD OF TO

STREET NAME	Basin No.	From Manhole Number	To Manhole Number	Diameter	Inspected Length Ft	Noted Problems	Date

Appendix 17
Gravity Main Repair Record

Table of Contents



Benton Wastewater Utilities Sewer Pipe Replacement- Repair.

Date_____ Address_____

Time on Job:_____ Time off Job:_____

Date Crew arrived_____ Date worked Completed:_____

Description of Pipe Replaced:

_____Cast Iron _____Clay _____PVC Other_____

Description of Pipe Broken:

_____Cast Iron _____Clay _____PVC Other_____

Description of Work Done:

_____

_____

_____

Explain Pipe Failure / Cause:_____

_____

Other: / Notes:_____

Manhole work done:_____

Parts used for Job:_____

_____

Employee's on Job:_____

BENTON UTILITIES SS GRAVITY MAIN REPAIR RECORD

Page of

STREET ADDRESS	Basin No.	Grid No.	Date Smoke Tested	Leak at Manhole Number	Gravity Main Leaks	Date Cleaned & Videod Inspected	Date Repair Requirements Determined	Date Repair Completed

W:/2011/11-5724 Benton Utilities-CMOM Preparation/Project Documentation/
SSGravityMainRepair RecordFilled.xlsx

BENTON UTILITIES SS GRAVITY MAIN REPAIR RECORD

Page of

STREET ADDRESS	Basin No.	Grid No.	Date Smoke Tested	Leak at Manhole Number	Gravity Main Leaks	Date Cleaned & Videod Inspected	Date Repair Requirements Determined	Date Repair Completed
West Brook/ River	5	P11	6/28/2011	P11-23(BR)			6/28/2011	7/15/2011
River	5	P11	6/27/2011		P11-18 to P11-?	7/3/2011	7/5/2011	7/23/2011
S Richards	5	P11	6/27/2011		to P11-64	7/3/2011	7/5/2011	7/27/2011
905 Schley	5	P13	6/23/2011	P13-22			6/23/2011	7/15/2011
Border/ Edison	5	P13	6/22/2011		to P13-27	7/5/2011	7/7/2011	9/23/2011
Talbert/ Algood	5	P13	6/22/2011	P13-37	? To ?	7/5/2011	7/7/2011	7/15/2011
Palm	5	Q12	7/13/2011	Q12-23	? To ?	7/16/2011	7/18/2011	8/1/2011

Appendix 18
Service Line Repair Record

Table of Contents

Benton Utilities Wastewater Service Line Repair Inspection Record:

Customer Name:_____ Address:_____ Phone:_____

Inspector's Name:_____ Basin #:_____Grid #:_____Date:_____

Sewer Usage: Residential Commercial (circle) Pipe Size:_____ Material:_____

☐ Clean out-Broken, Leak:

What steps were done to repair Problem:_____

_____

☐ Service Line-Broken, Leak:

What steps were done to repair Problem:_____

_____

_____

I certify that all information, recommended repairs have been made. And Complies with all requirements set forth by Benton Utilities.

Inspector signature:_____ Date:_____

BENTON UTILITIES SERVICE LINE REPAIR RECORD

Page of

STREET ADDRESS	Basin No.	Grid No.	Date Smoke Tested	Clean Out Leaks	Service Line Leaks	Date Owner Notified Repair Required	Date Repair Inspected Still Not Acceptable	Date Repair Inspected & Accepted

BENTON UTILITIES SERVICE LINE REPAIR RECORD

STREET ADDRESS	Basin No.	Grid No.	Date Smoke Tested	Clean Out Leaks	Service Line Leaks	Date Owner Notified Repair Required	Date Repair Inspected Still Not Acceptable	Date Repair Inspected & Accepted
618 West Brook	5	P11	6/28/2011	x		6/30/2011	7/5/2011	7/7/2011
619 Pearl	5	P11	6/28/2011	x				6/28/2011
406 S. Market	5	P11	7/7/2011	x		7/8/2011		7/15/2011
410 S. Market	5	P11	7/7/2011	x		7/8/2011	7/15/2011	7/17/2011
706 W. Hazel	5	P11	7/7/2011	x		7/8/2011		7/15/2011
717 W. Hazel	5	P11	7/7/2011	x		7/8/2011		7/15/2011
105 W. Hazel	5	P11	7/7/2011	x		7/8/2011	7/15/2011	7/17/2011
719 #2 Elm/S. Market	5	P11	7/7/2011	x		7/8/2011		7/15/2011
810 Guant	5	P11	7/7/2011	x		7/8/2011		7/15/2011
715 Pearl	5	P11	6/28/2011	x	x	6/29/2011	7/15/2011	7/21/2011
721 Market	5	P11	6/28/2011	x	x	6/29/2011		7/15/2011
620 West Brook	5	P11	6/27/2011		x	6/28/2011		7/6/2011
309 Pine	5	P11	6/27/2011		x	6/28/2011		7/6/2011
803 Pearl	5	P11	6/28/2011		x	6/29/2011		7/7/2011
724 Pearl	5	P11	6/28/2011		x	6/29/2011		7/7/2011
523 W Walnut	5	P11	6/27/2011		x	6/28/2011		7/5/2011
305 Pine	5	P11	6/27/2011		x	6/28/2011		7/5/2011
301 Pine	5	P11	6/27/2011		x	6/28/2011	7/5/2011	7/25/2011
619 Richards	5	P11	6/27/2011		x	6/28/2011		7/5/2011

Appendix 19
Force Main Repair Record

Table of Contents

W:/2011/11-5724 Benton Utilities-CMOM Preparation/Project Documentation/
ForceMainRepair Record.xlsx

BENTON UTILITIES FORCE MAIN REPAIR RECORD

STREET ADDRESS	Basin No.	Grid No.	Date Smoke Tested	Date Seepage Noted at Surface	Date Cleaned & Video Inspected	Date Repair Requirements Determined	Date Repair Completed

W:/2011/11-5724 Benton Utilities-CMOM Preparation/Project Documentation/AirReliefValveCleaningRecord.xlsx

SUMMARY OF BENTON UTILITIES AIR RELIEF VALVE SEMI-ANNUAL CLEANING

FORCE MAIN NUMBER OR NEAREST STREET	Basin No.	From Manhole Number	To Manhole Number	Distance from Beginning	Noted Problems	Date

12

Appendix 20
Pipe Bursting Record

Table of Contents

Summary Of Benton Wastewater Collections Pipe Bursting

Street Name And Address	Basin No.	From Manhole Number	To Manhole Number	Original Diameter		Length Burst	

Appendix 21
Manhole Repair Record

Table of Contents

W:/2011/11-5724 Benton Utilities-CMOM Preparation/Project Documentation/
ManholeRepairRecord.xlsx

BENTON UTILITIES MANHOLE REPAIR RECORD

STREET ADDRESS	Basin No.	Grid No.	Manhole No.	Date Visually Inspected	Infiltration Noted	Date Repair Scheduled	Date Cement Lining Applied	Date Repair Completed	Stoppage Evidence	Date Remove Stop-page	Overflow Evidence	Date Eliminate Over-flow

W:/2011/11-5724 Benton Utilities-CMOM Preparation/Project Documentation/
ManholeRepairRecord.xlsx

BENTON UTILITIES MANHOLE REPAIR RECORD

PRIORITY 1

STREET ADDRESS	Basin No.	Grid No.	Manhole No.	Date Visually Inspected	Infiltration Noted	Date Repair Scheduled	Date Cement Lining Applied	Date Repair Completed	Stoppage Evidence	Date Remove Stop-page	Overflow Evidence	Date Elliminate Over-flow
4003 Congo Rd	10	H14	H14-19	07/27/11	Broke Conc	07/27/11		07/28/11				

W:/2011/11-5724 Benton Utilities-CMOM Preparation/Project Documentation/
ManholeRepairRecord.xlsx

BENTON UTILITIES MANHOLE REPAIR RECORD — PRIORITY 2

STREET ADDRESS	Basin No.	Grid No.	Manhole No.	Date Visually Inspected	Infiltration Noted	Date Repair Scheduled	Date Cement Lining Applied	Date Repair Completed	Stoppage Evidence	Date Remove Stop-page	Overflow Evidence	Date Eliminate Over-flow
Glenda Cove	10	H14	H14-6	07/27/11	No Access	07/28/11		Opened 8/5/11				
Michael Ave	10	H14	H14-15	07/16/11	Walls	07/17/11	08/01/11	08/01/11				
Empty Lot between Michael and Ginger	10	H14	H14-16	07/27/12	No Access	07/28/11		Opened 8/5/11				
Congo Rd	10	H14	H14-18	07/27/11	Walls	07/28/11	08/01/11	08/01/11				
Ginger Dr	10	H14	H14-22	07/27/11	Paved Over	07/28/11		Uncov 8/5/11				
R-O-W between Ginger and Mink Rd	10	H14	H14-29	07/27/11	Can't Find	TV Sched 7/28/2011		Found 8/7/11				
Stockton	10	I14	I14-2B	08/16/11	Can't Find	TV Sched 8/17/2011		Found 8/27/11				
Troy	10	I14	I14-3	08/16/11	Can't Find	TV Sched 8/17/2011		Found 8/27/11				
Troy Circle	10	I14	I14-4	08/16/11	walls	08/17/11	08/18/11	08/18/11				
Troy Circle	10	I14	I14-4	08/16/11	Paved Over.	08/17/11		Uncov 8/19/11				
Troy/Diane	10	I14	I14-7	08/16/11	Walls	08/17/11	08/18/11	08/18/11				
Pelton Rd	10	I14	I14-11	08/17/11	Can't Find	TV Sched 8/18/2011		Found 8/28/11				
Pincroft Dr	10	I14	I14-14	08/16/11	Paved Over	08/17/11		Uncov 8/19/11				
Fox Trail	10	I14	I14-19	08/15/11	at service	08/16/11		08/19/11				

W:/2011/11-5724 Benton Utilities-CMOM Preparation/Project Documentation/
ManholeRepairRecord.xlsx

BENTON UTILITIES MANHOLE REPAIR RECORD

REGULAR MAINTENANCE

Page of

STREET ADDRESS	Basin No.	Grid No.	Manhole No.	Date Visually Inspected	Infiltration Noted	Date Repair Scheduled	Date Cement Lining Applied	Date Repair Completed	Stoppage Evidence	Date Remove Stop-page	Overflow Evidence	Date Eliminate Over-flow
Glenda Ln/Sondra	10	H14	H14-1	07/15/11	Below Rim	07/16/11						
Glenda Lane	10	H14	H14-3	07/15/11	Below Rim	07/16/11						
Glenda Lane	10	H14	H14-4	07/15/11	Below Rim	07/16/11						
Glenda Lane	10	H14	H14-5	07/15/11	Below Rim	07/16/11						
Glenda Lane	10	H14	H14-7	07/15/11	Below Rim	07/16/11						
Angela	10	H14	H14-8	07/06/11	Below Rim	07/07/11						
Glenda Lane	10	H14	H14-9	07/15/11	Below Rim	07/16/11						
4227 Ginger Dr	10	H14	H14-10	07/27/12	Below Rim	07/28/11						
4219 Ginger Dr	10	H14	H14-10A	07/27/11	Below Rim	07/28/11						
Ginger Dr	10	H14	H14-11	07/27/11	Below Rim	07/28/11						
Glenda Lane	10	H14	H14-12	07/15/11	Below Rim	07/16/11						
Michael Ave	10	H14	H14-13	07/06/11	Below Rim	07/07/11						
Michael Ave	10	H14	H14-14	07/06/11	Below Rim	07/07/11						
Sandra	10	H14	H14-17	07/15/11	Below Rim	07/16/11						

City of Benton Sanitary Sewer Manhole Inspection Form

Main or Lateral Number _____ Manhole No. _____ Diameter _____

Street Name _____ Basin No. _____ Grid No. _____

Surface Asphalt ☐ Concrete ☐ Sidewalk ☐ Gravel ☐ Grassed Yard ☐ Open Field ☐ Wooded ☐

Top of Manhole Flush with Surface Dist. Above Surface _____ Dist. Below Surface _____

Manhole Interior Material Block ☐ Pre Cast Concrete ☐ Poured in Place Concrete ☐ Other _____

Structural Inspection Cover_____ Rim_____ Rim Extension_____ Cone Section_____ Steps_____
Inner Walls of Barrel_____ Bench_____ Trough_____
(G – Good, F – Fair, P - Poor, N – None)

Roots: _____

Other Debris or Sediment _____

_____

Pipes Entering and Leaving Manhole

Pipe	Diameter	Depth	Material
A			
B			
C			
D			
E			

Disk # _____
Photo # _____

Infiltration Seepage _____

Evidence of Overflow _____

Evidence of Stoppage _____

Flow Characteristics Steady ☐ Pulsing ☐ Turbulent ☐ Surcharged ☐ Sluggish ☐

Clarity of Water Turbid Sewage ☐ Clear Water ☐

Need for Repair None Needed ☐ 1st Priority ☐ 2nd Priority ☐ Regular Maintenance ☐

Describe Recommended Repair _____

_____

_____

Inspected By: _____ Date: _____

BENTON UTILITIES

City Of Benton
Manhole Inspections

Benton Utilities: Manhole Inspections

Basin #							
Photographer:							
Photo #				**Date:**			
Manhole #							

Basin #							
Photographer:							
Photo #				**Date:**			
Manhole #							

BENTON UTILITIES

City Of Benton

Manhole Inspections

BENTON UTILITIES MANHOLE PRESSURE WASHING AND REPAIR RECORD

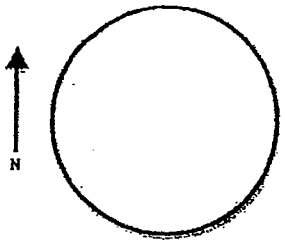
MANHOLE LOCATION

STREET_____ MANHOLE NUMBER_____

ADDRESS_____

LOCATION:

- ☐ FRONT YARD
- ☐ BACK YARD
- ☐ SIDE YARD
- ☐ DRIVEWAY
- ☐ SIDEWALK
- ☐ CURB
- ☐ PARKING LOT
- ☐ ALLEY
- ☐ IN STREET
- ☐ INTERSECTION
- ☐ EASEMENT
- ☐ OTHER:_____



SKETCH INVERT CONFIGURATION
NOTE FLOW DIRECTION WITH ARROW

GENERAL

MANHOLE DIMENSIONS: DEPTH IN FT._____ IN._____ DIAMETER_____

STRUCTURE TYPE: ☐ BRICK ☐ BLOCK ☐ PRECAST

GROUNDWATER INFILTRATION:
SEVERE ☐5 ☐4 ☐3 ☐2 ☐1 NONE

SULFIDE INDUCED CORROSION:
SEVERE ☐5 ☐4 ☐3 ☐2 ☐1 NONE

MANHOLE PREPARATION

DATE WASHED:_____

WATER PRESSURE (PSI)_____

INVERT REPAIR: ☐ YES METHOD USED_____ ☐ NO

BENCH REBUILD: ☐ YES METHOD USED_____ ☐ NO

INFILTRATION CONTROL:
- ☐ MINOR PATCHING (HYDRAULIC CEMENT)
- ☐ MAJOR PATCHING (HYDRAULIC CEMENT)
- ☐ MINOR PATCHING (CHEMICAL GROUT)
- ☐ MAJOR PATCHING (CHEMICAL GROUT)

MANHOLE LINING

DATE SPRAYED:_____

LINER THICKNESS:
- 0.5 in ☐
- 1.0 in ☐
- 1.5 in ☐
- 2.0 in ☐

LINER MATERIAL USED:_____

NUMBER OF BAGS USED:_____

TROWEL FINISH ☐ YES ☐ NO

BRUSH FINISH ☐ YES ☐ NO

4 MIL PLASTIC PLACED BETWEEN FRAME AND COVER ☐ YES ☐ NO

QA/QC

COMPRESSIVE STRENGTH MATERIAL SPECIMEN: ☐ YES ☐ NO NUMBER OF SPECIMEN CAST_____

MANHOLE VACUUM TESTING: ☐ YES ☐ NO PASSED TESTING: ☐ YES ☐ NO

Benton Public Utility Commission

BID PROCUREMENT
TECHNICAL SPECIFICATIONS

FOR

CEMENTITIOUS MANHOLE RESTORATION MACHINE

CITY OF BENTON PUBLIC UTILITIES
1827 DALE
BENTON, AR 72015

CITY OF BENTON PUBLIC UTILITIES
1827 Dale
Benton, AR 72015

Technical Specifications
Manhole Restoration Machine

The following minimum specifications are for the delivery of (1) Cementitious Manhole Restoration Machine.

The technical criteria included in this specification are intended to establish a minimum guideline for the manufacture and supply of this equipment. Any deviation from this specification will only be considered acceptable if it exceeds the technical specification requirements. Any bid falling below these minimum specification requirements must be clearly marked and identified as an alternate bid.

Reference to any manufacturer's name brand as a specified model means that said product or system has been demonstrated and received prior approval for use by the City of Benton Wastewater Collection Department. Any deviation from the specification will only be considered Acceptable if it exceeds the technical guidelines specified herein.

Any proposed alternation or substitute to the following specification must be formally submitted, in writing, to the City of Benton Wastewater Collection Department at least ten (10) calendar days prior to the date set for receipt of bids. To ensure fair consideration for all bidders, the City of Benton Wastewater Collection Department prohibits communication to or with any department, division, or employee, during the written submission process. Only the appropriate City of Benton Wastewater Collection Department official will initiate any communication between bidders and/or product manufacturers and the City of Benton Wastewater Collection Department in order to obtain information or clarification needed to develop a proper and accurate evaluation of the product submittal.

Pending the City of Benton Wastewater Collection Department's initial technical approval of any written alternative submittal, the bidder and/or equipment manufacturer providing the submittal will be required to provide a mandatory field demonstration of the proposed alternative equipment within the jurisdiction of the City of Benton wastewater collection system. A date and time for this mandatory demonstration, at least five (5) days prior to the date set for receipt of bids, will be scheduled at the discretion of the City of Benton Wastewater Collection Department. Failure of the bidder and/or equipment manufacturer to provide the mandatory field demonstration will be considered grounds for rejection of the alternative equipment submittal.

Any approval of a proposed alternative item of equipment will be expressed in the form of an addendum conveyed to all prospective bidders no later than three (3) days before the date set for receipt of bids.

Any bid involving the proposed use of an alternate or substitute item of equipment that has not received written approval from the City of Benton Wastewater Collection Department, prior to the date set for receipt of bids, will be considered non-responsive, and returned to the bidder.

STANDARD EQUIPMENT COMPONENTS

The technical criteria included in this specification are intended to establish a minimum guideline for the manufacture and supply of this equipment. Any deviation from this specification will only be considered acceptable if it exceeds the technical specification requirements contained herein. Any bid falling below these minimum specification requirements will be rejected on the grounds of non-compliance.

A. MIXER

1. A minimum 45-gallon capacity, variable speed, reversible mixer, with heavy-duty vertical axis mixing shaft. Mixer shall be hydraulically powered, and capable of properly mixing a 5-bag batch of mortar.
2. Body of mixer shall be all steel construction.
3. Mixer shall have a removable splash guard designed to contain any splashing of the cementitious materials during the mixing process.
4. Mixer shall have slide gate to allow for discharge of materials into holding hopper without tilting.
5. Mixer control system to be non-electric, lever operated, hydraulic valve type controls that allow for instantaneous variable speed operation in both forward and reverse.
6. Mixer/Pump hopper design must allow for simultaneous mixing and pumping of mortar material.
7. Mixer shall be specially equipped with a safety lockout mechanism for the mixer grate. Mechanism shall be designed to independently disengage and/or lockout the operation of the mixing paddles when the mixer grate is opened and/or removed without interrupting operation of the engine and all other system components.

B. MATERIAL PUMP

1. A minimum 3-stage design, hydraulically powered progressive cavity pump with a minimum 15-gallon material holding hopper.
2. Pump control system to be non-electric, lever operated, hydraulic valve type controls that allow for instantaneous variable speed operation in both forward and reverse.
3. Pump to have discharge rate variable from 0-7 GPM.

C. AIR SYSTEM

1. An on board air compression system belt driven by the engine. Air system must be capable of generating a minimum 20 CFM of free air at 100 psi.
2. System shall be complete with air reservoir, filter, unloader valve, pressure gauge, and connecting airline to transfer air to spray nozzle.

D. POWER TRAIN

1. A minimum 24 HP, electric start, liquid-cooled, diesel engine.
2. A protective shield shall be mounted over the engine assembly to keep water off the engine, air compressor, fuel tank, and hydraulic pump. The protective shield shall be all steel construction, and shall have hinged panels to allow for access to all power train components.
3. Machine shall have a minimum fuel storage capacity of 20 gallons.

E. WATER SYSTEM

1. A minimum 250-gallon capacity poly-lined water storage reservoir.
2. Storage reservoir shall be an intergral part of the machine design. The poly-lined reservoir shall be engineered to be self-contained within the steel framework of the trailer, and centered directly over the trailer axles. Storage reservoir shall be designed for filling from fire hydrant and shall include all necessary hose and adapters for connection to fire hydrant, complete with provisions for backflow prevention.
3. Water system shall include a hydraulically powered water transfer pump for delivery of water to mixer and high-pressure washer.
4. System shall have a manual on/off flow valve, one-inch, flow through, direct reading, manually operated and reset water meter capable of registering in one-tenth gallon increments.
5. System shall include a water manifold for uniform dispersion of water into the mixer.

F. TRAILER

1. Tandem axle trailer with a minimum 7,500 pound capacity on each axle.
2. Trailer to be complete with tandem electric brakes, and emergency breakaway switch.
3. Running lights and clearance light complete with six-way light socket/brake connections and electrical pigtail.
4. Trailer to come complete with 700-15 tires with spare tire and wheel mounted on trailer.
5. Trailer to be complete with safety chains, and manual jack system for raising and lowering machine off towing vehicle.
6. Trailer equipped with ball type hitch with height adjustment.
7. Trailer to be designed with material platform area for transport of (1) pallet of material.
8. Trailer dimensions shall be 72 inches wide, 13 feet long, and height from ground to the top of mixer shall be 75 inches.

G. PAINT FINISH

1. Machine to be painted with a rust inhibiting polyurethane coat and finish color shall be standard company specification.

H. CONTROL SYSTEM

1. Complete with non-electric, lever type, hydraulic valve controls capable of providing instantaneous on/off and variable speed control of each component in both forward and reverse.
2. Hydraulic system to allow for independent variable speed control of both mixer and pump without adjustment to hydraulic pump.
3. Hydraulic system designed in such a manner as to allow for varying of material Pump speed without affecting mixer speed.
4. System to include all necessary safety valves and controls for safe operation of system.

I. ACCESSORIES

1. Machine shall be delivered complete with all of the following:
    a. One (1) 25-foot section of 1-inch plaster hose with accompanying air line.
    b. One (1) 50 foot section of 1-inch plaster hose with accompanying air line
    c. Two (2) standard aluminum body low-velocity cement spray nozzles.

J. MACHINE SAFETY GUARDS

1. Machine shall be delivered complete with all necessary guards and warning to comply with OSHA regulations.

K. TRAINING

1. The successful bidder and/or manufacturer of the equipment shall supply to the City of Benton Wastewater Collection Department with a minimum of 3-days of on-site training in the use of the delivered equipment.
2. The manufacturer shall provide a factory technician to be on-site for a minimum of 5-days of follow-up training within the first year of operation. Training to be scheduled at the discretion of the City of Benton Wastewater Collection Department.

L. WARRANTY

1. All bidders shall furnish the manufacturer's standard, nationally published equipment warranty with bid proposal.

M. DELIVERY REQUIREMENTS:

1. Delivery shall be made to: City of Benton, AR Public Utilities
   Wastewater Collection Department
   616 West Hazel Street
   Benton, AR 72015
2. The unit of equipment at delivery must have been safety inspected, make-ready Serviced and fully prepared for immediate full utilization in its intended use.
3. The unit of equipment must be delivered to the City of Benton Wastewater Collection Department within 30 days after the successful bidder had been notified, in writing, of the award of bid.
4. Price shall include all required taxes and delivery charges.

CITY OF BENTON PUBLIC UTILITIES
WASTEWATER COLLECTION DEPARTMENT

616 West Hazel Street
Benton, AR 72015

VENDOR BID COMPLIANCE CERTIFICATION

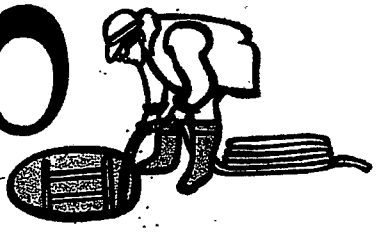
Bidders are hereby advised that the specifications included in this solicitation document are intended to establish **minimum** requirements for the purchase of said equipment. The bidder must indicate **any** exceptions to the specifications. It will be assumed that the bidder will fully comply with the minimum specifications if no exceptions are listed. Failure to comply with this provision could be cause for rejection of the bid.

	ITEM	VENDOR COMPLIANCE (check one)	NOTE DEVIATION
A.	MIXER	( ) As Specified ( ) Alternate	_____
B.	MATERIAL PUMP	( ) As Specified ( ) Alternate	_____
C.	AIR SYSTEM	( ) As Specified ( ) Alternate	_____
D.	POWER TRAIN	( ) As Specified ( ) Alternate	_____
E.	WATER SYSTEM	( ) As Specified ( ) Alternate	_____
F.	TRAILER	( ) As Specified ( ) Alternate	_____
G.	PAINT FINISH	( ) As Specified ( ) Alternate	_____
H.	CONTROL SYSTEM	( ) As Specified ( ) Alternate	_____
I.	CENTRIFUGAL MANHOLE LINING MECHANISM	( ) As Specified ( ) Alternate	_____
J.	ACCESSORIES	( ) As Specified ( ) Alternate	_____
K.	MACHINE SAFETY GUARDS	( ) As Specified ( ) Alternate	_____
L.	TRAINING	( ) As Specified ( ) Alternate	_____
M.	WARRANTY	( ) As Specified ( ) Alternate	_____
N.	DELIVERY REQUIREMENTS	( ) As Specified ( ) Alternate	_____

VENDOR COMPANY NAME	AUTHORIZED SIGNATURE

QUEST

INFERNO



MUNICIPAL SEWER COMPOUND

LIMPIADOR DE DRENAJE MUNICIPAL

- **Contains Highly Visible Tracer**
- **Attacks: Roots, Paper, Oil, Grease**

NET WEIGHT: 50 POUNDS

DANGER POISON
HARMFUL IF SWALLOWED
CAUSES EYE & SKIN IRRITATION
KEEP OUT OF REACH
OF CHILDREN
SEE ADDITIONAL CAUTIONS ABOVE

PELIGRO VENENO
DAÑINO SI ES INGERIDO.
CAUSA IRRITACIÓN DE OJOS Y PIEL
NO SE DEJE AL ALCANCE
DE LOS NIÑOS.
VEA PRECAUCIONES ADICIONALES

QUEST CHEMICAL CORPORATION
HOUSTON, TEXAS 77041

W:/2011/11-5724 Benton Utilities-CMOM Preparation/Project Documentation/
BU ManholeChemicalTreatmentRecord.xlsx

BENTON UTILITIES MANHOLE CHEMICAL TREATMENT RECORD

LIST 1

STREET ADDRESS	Manhole Numbers	Date and Time Treated	Remarks	Name of Chemical Used	Amount of Chemical Used
I-30 & Trout					
319 Crouch					
Pinewood Cir					
Thomas Rd					
Oak Forest Park					
Mountain Ln					
McCurdy Rd					
N. Olive					
Rivercrest					
2020 Misty					
410 Dogwood Pl					
1700 Cedarhurst					
2100 Lynwood					
Scenic Way					
1620 Brookview					
Alcoa Rd					
1025 Griffey (Alcoa)					
1004 Shangri-la					

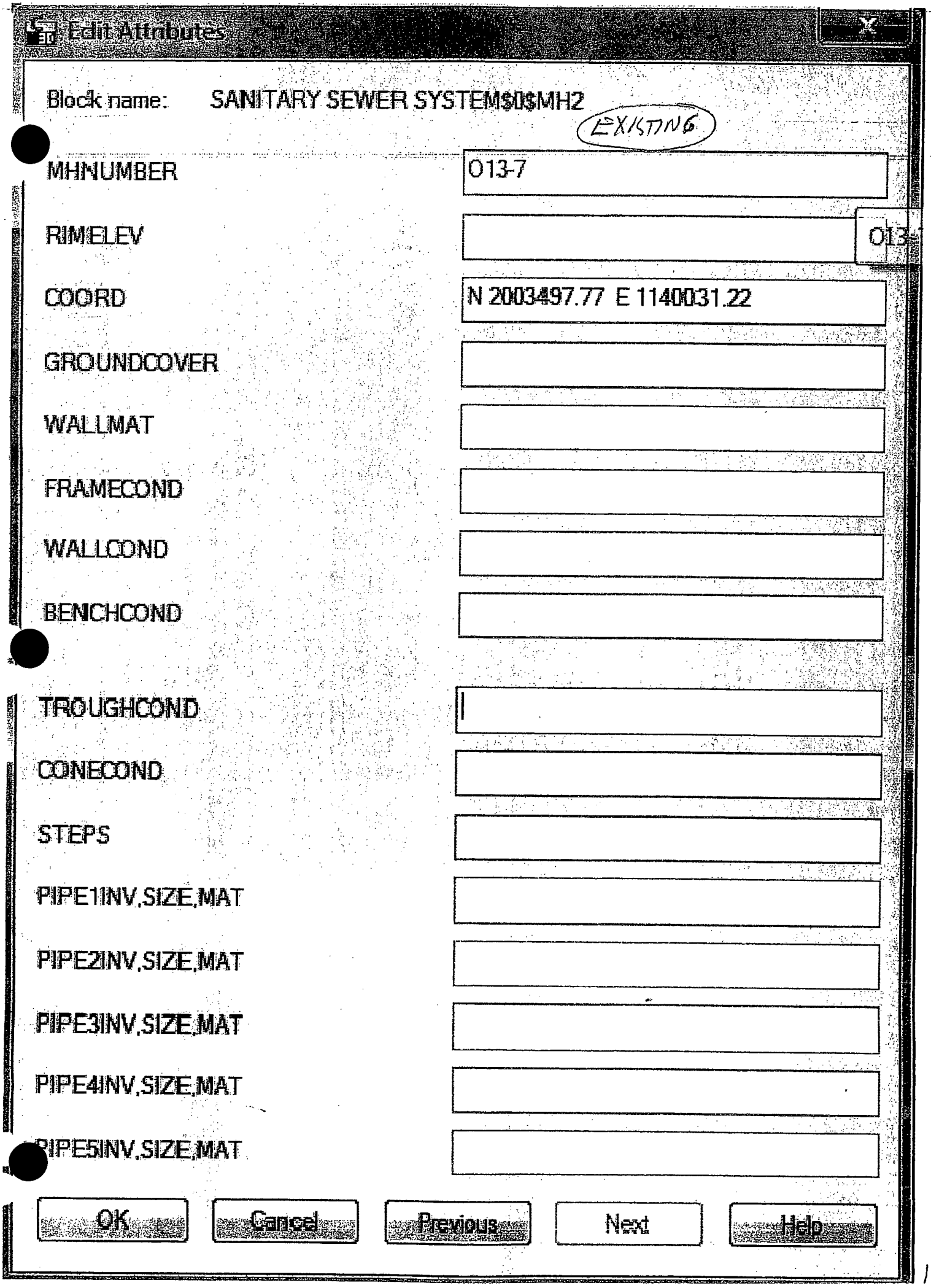
Employees _____

BENTON UTILITIES MANHOLE CHEMICAL TREATMENT RECORD

LIST 2

STREET ADDRESS	Manhole Numbers	Date and Time Treated	Remarks	Name of Chemical Used	Amount of Chemical Used
Landers Rd					
Kyle & Longview					
1828 Sagecrest					
1115 Smithers (Clean-Out)					
1301 Brookview					
1918 W. Lakeview					
2918 Pamela					
Janet Dr					
Hiland					
417 Newcomb					
Pearson St					
Longview					
Hospital Ln from Main St to Market St					
Jefferson & Smith					
River St					
Dixie St					
Faye Cir					
515 Woodlane					

Employees _____


Edit Attributes
Block name: SANITARY SEWER SYSTEM0MH2
EXISTING
MHNUMBER
013-7
RIMELEV
013-
COORD
N 2003497.77 E 1140031.22
GROUNDCOVER
WALLMAT
FRAMECOND
WALLCOND
BENCHCOND
TROUGHCOND
CONECOND
STEPS
PIPE1INV,SIZE,MAT
PIPE2INV,SIZE,MAT
PIPE3INV,SIZE,MAT
PIPE4INV,SIZE,MAT
PIPE5INV,SIZE,MAT
OK
Cancel
Previous
Next
Help

Appendix 22
Lift Stations

Table of Contents

PUMP TION LOG

DATE	TIME IN	TIME OUT	NAME	REMARKS

LR11-5724 Benton Utilities CMOM Preparation\Project Documentation\Reports\
Major Lift Stations by Basin.xlsx

BENTON UTILITIES MAJOR LIFT STATIONS

No.	Basin No.	Grid No.	Pump Station Name	Street Address	* Horse-Power	** Electric Source	RPM	Switch	On SCADA	Wired for Generator	Permanent Generator	To Be Wired by Priority	Future SCADA by Priority
1	0		Coldwater Creek	2804 Coldwater Dr.	2-60	FEC			1			13	
2	0		Exit 114	Highway 67 East	2-20	BU			1	1			
3	2	F-14	The Oaks	1664 White Oak Circle	2-5	FEC						2	9
4	1	I-10	Pucket - Hwy 5	3521 Highway 5 South	2-60	BU			1			21	
5	1	J-10	River Oaks No. 2	1203 River Oak2519	2-5	BU						17	19
6	1	K-10	River Oaks No. 4	2519 Volcanic	2-5	BU						18	20
7	2	I-12	Sterling Oaks	515 Clayton Oaks Dr	2-5	BU						9	11
8	3	N-10	Caldwell	611 Brents Ford Rd	2-30, 1-40	BU	1180, 1165	AB	1		1		
9	3	N-9	Thomas Pasture	End of Brents Ford Rd	2-50, 1-30	BU	1750	AB	1		1		
10	3	0-9	King Road	2421 W. South St	2-5	BU		MF				12	15
11	4	P-9	Fairfield Road	900 Blk. Fairfield Rd.	2-20	BU	1760	AB	1			22	
12	4	R-10	River Street	2105 River St.	2-15	BU	1765	AB	1			23	
13	5	0-13	New Town Village -Windstar	1410 Hoover	2-3	BU						25	18
14	5	O-11	Willow Street No. 1	606 W. Willow	3-40	BU	1170	AB	1		1		
15	5	0-11	Willow Street No. 2 Auxiliary	606 W. Willow	2-60	BU					1		
16	5	R-11	South Richards	1923 South Richards	2-15	ENT	1170	AB				4	14
17	5	S-11	Morning Star	2788 Morning Star Dr	2-2	ENT							
18	6	S-10	Lilac Circle	839 Christy Lane/Lilac	5-Feb	ENT							
19	6	R-12	Neeley Street	1906 Neeley St	2-25	BU	1760	AB				8	12
20	6	T-14	Bennett Road	2711 Bennett Rd	2-30	ENT	1760	AB	1			24	
21	7	Q-15	Overview	1320 Rivercrest	2-7.5	BU		MF				14	17
22	7	R-16	Summit Road	1408 Summit Rd	2-40	BU	1765	AB	1			20	
23	7	R-14	Chatfield Rd	1830 Chatfield Rd	2-30	BU, ENT	1760	AB				5	2
24	7	T-15	Highway 35	2541 Highway 35	2-20	BU	1755	AB				7	10
25	9	M-15	Coats Road	3314 Coats Road	2-10	BU	1730	AB				6	13
26	10	K-15	North Shore Drive	3109 North Shore Dr.	2-7.5	BU		MF				11	16
27	11	D-18	Hurricane Lake East No. 1	6807 Kensington	2-25	BU		MF		1			4
28	11	D-18	Hurricane Lake East No. 2	7011 Worth Ave.	2-25	BU		MF		1			5
29	11	D-18	Hurricane Lake East No. 3	7315 Worth Ave.	2-25	BI		MF		1			6
30	11	C-16	West Shore No. 1	End of Worth Ave	2-10	FEC						3	8
31	11	E-16	Hurricane Lake West	6205 Westminster	2-25	FEC		MF		1			7
32	11	F-17	Hurricane Lake	4700 Blk Boardwalk	2-60	BU		MF	1		1		
33	11	F-17	Rivendale	Rivendale Drive	2-5	FEC		MF				19	22
34	11	G-17	Dogwood Lakes	Dogwood Lakes Apts	2-30	FEC		MF	1	1			
35	11	G-17	Pilot	2405 Highway 5	2-7.5	FEC		MF				1	1
36	11	G-15	Longhills Village	4716 Shoal Creek	2-25	BU		MF	1	1			
37	11	H-14	Ashley Place	4415 Michael	2-5	FEC						16	21
38	11	J-16	Heritage Farm	3400 Hazelwood	2-25	FEC		MF	1			15	
39	11	J-17	Chapel Ridge	6101 Alcoa Rd	2-20	FEC		MF				10	3
			Total						14	7	5		

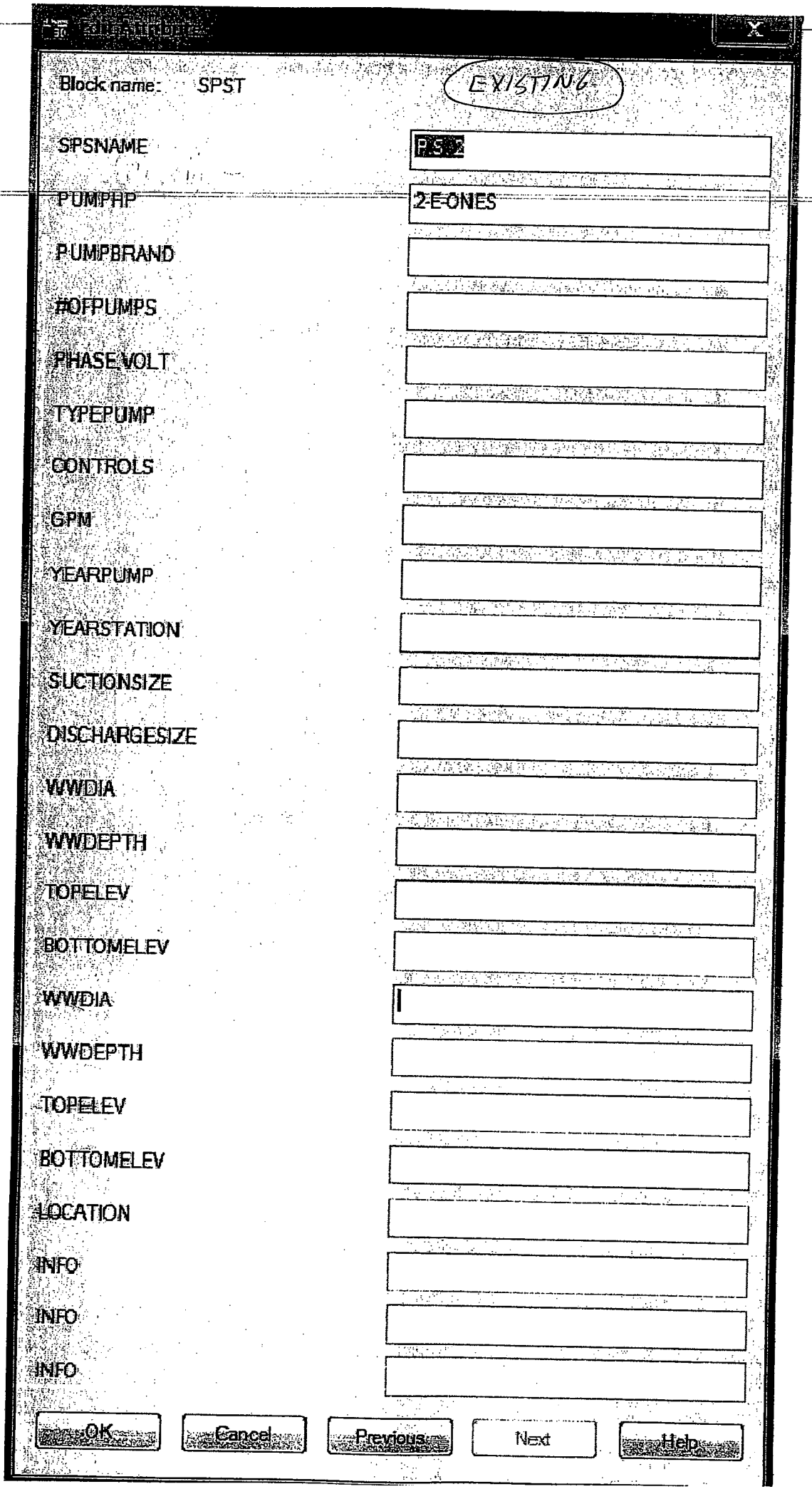
*
Number of Pumps - HP of pump

**
BU = Benton Utilities
FEC = First Electric Cooperative
ENT = Entergy

***
AB = Air Bubbler
MF = Mercury Float

Liftstation Monthly Cleaning and Maintenance

Liftstation	Notes: and Maintenance performed:	Date:
Chapel Ridge:		
Dogwood:		
Longhills:		
Overview:		
River Oaks:		
Pilot:		
Northshore:		
Oak Forrest:		
Oaks:		
Summit:		
Pucket Lane:		
Hurricane West:		
Hurricane East:		
Hurricane Main:		
Hurricane-Palm Bch:		
Hurricane Trl Park:		
Ashley Place:		
Christy Acres-Both:		
Gattinwood:		
Waverley Heights:		
** Pull Floats At ALL TIMES!! and clean and vac as needed **		
Employee's Signature_____		
Lead Person Signature_____		
These pump stations are cleaned on a monthly basis due to higher than normal grease		
causing floats to hang"		


Block name: SPST
EXISTING
SPSNAME
PUMPHP
2-E-ONES
PUMPBRAND
#OFPUMPS
PHASE VOLT
TYPEPUMP
CONTROLS
GPM
YEARPUMP
YEARSTATION
SUCTIONSIZE
DISCHARGESIZE
WWDIA
WWDEPTH
TOPELEV
BOTTOMELEV
WWDIA
WWDEPTH
TOPELEV
BOTTOMELEV
LOCATION
INFO
INFO
INFO
OK
Cancel
Previous
Next
Help

Berlon Utilities Grinder Pump Monthly Inspection - SOUTHSIDE			
Holland Spch Ther.-1307 Airlan rd			
#1 Martin Marieta-1900 Dale st			
#2 Martin Marieta-1900 Dale av			
Electric Dept (Southfork)-1827 Dale av			
Holland Ballpark-1207 ball prk rd			
Cement Yard (Airlane)-1900 Dale Av			
Holland Gravel 1107 Airlane dr			
Cabintry Gravel 1107 Airlane dr			
2011 S. Market			
2017 S. Market			
839 Christy lane			
2788 Morning Star Dr			
307 Grove St			
507 South Hillside Dr			
1708 Oak street			

	Benton Grinder Pump Monthly Inspection	South	
2118 Sorrel Rd			
2419 Bennet Rd			
2504 Bennet Rd			
S Chatfield			
2120 Social Hill			
825 Coral Cove			
1209 Church St			
1209 Silica Heights			
3763 Silica Heights			
211 Merril Dr			
3108 Michelle dr			
3523 Fernwood			
4215 Edison			
4209 Edison			
AR Face Veneer(720 Normandy St)			
1421 Hoover			
118 Winstone			

	Benton Grinder Pump Monthly Inspection	South	
Benbrook Apts-525 Benbrook ct			
1112 Alcoa (St Matthew Episcol)			
1717 Durwood			
416 Watson			
Log Cabin 18311 I-30 Service Rd			
114 Liftstation			
1100 Military-Dizzy's			
Waverly Heights-3400 Alcoa rd			

Benton Utilities Grinder Pump Monthly Inspection — Northside

Grinder Pump NAME	NOTES	DATE	INSPECTOR
Landers-Dodge-7800 Alcoa rd			
Parker Industries-20138 I-30			
Hilbilt-20036 I-30			
500 Randall			
415 Randall			
2508 West South St			
2500 West South St			
2418 West South St			
2316 West South St			
418 King			
Coldwater-2804 Coldwater dr			
3313 Hwy 5			
3311 Hwy 5			
3301 Hwy 5			
3101 Hwy 5			
2929 Hwy 5			

	Benton Grinder pump Liftstation Monthly Inspection	North	
2003 Hwy 5			
3505 Duncan			
3610 Partridge			
River Oaks # 2-1203 River oaks			
River Oaks # 3-1110 River Oaks			
River Oaks# 4-2519 Volcanic			
River Oaks # 5-2610 Volcanic			
3003 Misty Dr			
1305 Kenwood			
1514 Drennon			
814 Denver St			
2218 Sharon Rd			
Sharron Missionary Baptist			
3323 Sharon Rd			
620 Berwick			
3204 Frendall			

	Benton Grinder pump Liftstation Monthly Inspection	North	
3412 Frendall			
2407 Elaine St			
706 Elaine St			
708 Elaine St			
Stering Oaks-515 Clayton Oaks dr			
2907 Congo (Oak Grove Church)			
2615 Congo (Seventh Day Adven)			
Lakeside Terrace Apt-3141 Congo			
2211 Hwy 5 North (Rivendall)			
Hurricane East #2 (7011 Worth AVE)			
Hurricane East #3 (7315 Worth Ave)			
Hurricane East #4 (7527 Palm Beach)			
Hurricane East #5 (7216 Palm Beach)			
Hurricane Lake Trailer Park-3025 Hwy 5 N			
West Shores-6559 Westminster			
The Oaks-1664 White Oak Cir			

Appendix 23
O & M Manual

Table of Contents

NOTE: MANUAL IS IN ANOTHER FILE

BENTON UTILITIES

Wastewater Treatment & Collection System O&M Manual

I. Introduction and Facility Information
   A. General
   B. Operational & Management Responsibilities
   C. Treatment history, type, and requirements

II. Glossary
   A. Definitions & Terminology

III. Permits & Standards
   A. General
   B. Water Quality Standards

IV. Description, Operation and Control of Treatment Facilities
   A. General
   B. Bar Screens
   C. Grit Removal Facilities
   D. Raw Sewage Pumping Stations
   E. Caustic Soda Feeders
   F. Activated Sludge-Oxidation Ditch
   G. Final Clarifiers
   H. Post Aeration Facilities
   I. U.V. Disinfection
   J. Water Reclamation Station
   K. Flow Measuring Equipment
   L. Equalization Basin

V. Description, Operation and Control of Sludge Handling Facilities
   A. General
   B. Sludge Pumping Equipment
   C. Aerobic Digesters
   D. Decant Clarifiers
   E. Ashbrook Filter Press

F. Fenton Dryer

~~G. Drying Beds~~

H. Land Application of Sludge

I. Certification Statements & Notice & Necessary Information

J. Sludge Sampling

K. Sludge DMR'S -6

VI. Description, Operation, and Control of Collection System and Pumping Facilities

A. General

B. Gravity Sewer Collection System

C. Pressure Sewers

D. Pumping Stations

E. Jet/Vac

F. CCTV

G. Quadex

H. Manhole Repairs & Inspection

I. Smoke ~~Training~~ Testing

J. Tracking SSO's & SSORP

K. Generators

VII. Personnel

A. Staffing and Manpower Requirements

B. Qualification Requirements (job descript)

C. Certification Program

D. License Renewal

E. Organizational Chart

VIII. Laboratory and Testing

A. General

B. Sampling

C. Description and Application of Laboratory Tests

IX. Records & Reports

A. General

~~B. Daily Operating Log~~

C. Monthly Operating Report

D. Annual Report

E. Pump Station Operating Report

F. Equipment Record Cards

G. Discharge Monitoring Report (DMR's)

H. Operating Expense Records

I. Report on Operation and Maintenance of WWTP

J. Record of Emergency Condition

X. Maintenance

A. General

B. Equipment Record System

C. Planning & Scheduling

D. Storeroom and Inventory

E. Costs and Budgets for Maintenance Operations

F. Housekeeping

G. Special Tools and Equipment

H. Lubrication

I. General Maintenance of Major Equipment

J. Maintenance of Pump Stations

K. Emergency Maintenance Procedures

L. Warranty Provisions

M. List of Specialty Contractors

XI. Emergency Response and Operating Plans

A. General

B. Objectives

C. Records

D. Vulnerability Analysis

E. Methods of Reducing System Vulnerability

(5) Sludge Permit-EPA

C. Exhibits

(1) WWTP Flow Schematic Diagram & (Educ. Flow Chart)

(2) Arkansas Water Quality Standards

(3) Design Criteria

(4) Management Plan for Biosolids Generation

(a) Land application site

(b) Certification Statement & Notice and Necessary Information

(c) EPA-Sludge DMR-(6)

(5) Rules & Regulations Governing the Certification of Wastewater Personnel

(6) Application for Examination WWTP Operations and (NTK) Need TO Know Information

(7) Daily Operating Data

(8) Monthly Operations Report

(9) Pump Station Log

(10) Equipment Record Cards

(11) DMR Handbook Instructions

(12) Record of Emergency Condition

(13) Photo Graphic Evidence Sheet

(14) Maintenance Requests Form

(15) Work Order & Service Call Forms

(16) Spare Parts Inventory-(Critical Inventory)

(17) Tools & Equipment List

(18) Lubrication Schedule

(19) Suggested Maintenance Schedule

(20) Maintenance & Report

(21) Suggested Routing Maintenance Schedule

(22) Painting List & Protective Coatings

(23) All of 12 thru 22 incorporated into a Work Order Computer

Based Software

(24) Sample Mutual-Aid Agreement

(25) Emergency Response Card

(26) Emergency Inventory Sheet

(27) Reporting Procedures for Spills

(28) Vulnerability Analysis Worksheet

D. Manufacturer Manuals
(Separate Manual)

E. City Sewer Regulation-Ordinances

F. EPA Form 7500-5
(Report on O&M Program of WWT & Collection Facilities)

G. Equipment Suppliers

H. Collection System Schematic-Pumping Station & Force Mains to WWTP

Appendix 24
Overflow Response Plan

Table of Contents

Benton Public Utility
SANITARY SEWER OVERFLOW RESPONSE PLAN

I. AUTHORITY

A. National Pollutant Discharge Elimination System ("NPDES")
NPDES Permit # AR0036498
Issued by Arkansas Department of Environmental Quality ("ADEQ")

II. GENERAL

The Sanitary Sewer Overflow Response Plan ("SSORP") is designed to ensure that every report of a confirmed sewage overflow is immediately dispatched to the appropriate crew so that the effects of the overflow can be minimized with respect to impacts to public health, beneficial use, quality of surface waters, and customer service. The SSORP further includes provisions to ensure safety pursuant to the directions provided by the ADEQ and that notification and reporting is made to the appropriate local, state, and federal authorities. For purposes of this SSORP, "confirmed sewage spill" is also sometimes referred to as "sewer overflow," "overflow," or "SSO" sanitary sewer overflow.

A. Objectives

The primary objectives of the SSORP are to protect public health and the environment, satisfy regulatory agencies and waste discharge permit conditions, which addresses procedures for managing SSOs and minimize risk of enforcement actions action Benton Public Utility ("BPU").

Additional objectives of the SSORP are as follows:

- Provide appropriate customer service;
- Protect wastewater treatment plant and collection system personnel;
- Protect the collection system, wastewater treatment facilities, and all appurtenances; and
- Protect private and public property beyond the collection and treatment facilities.

B. Organization of Plan

The key elements of the SSORP are addressed individually as follows:

Section III	Overflow Response Procedure
Section IV	Public Advisory Procedure
Section V	Regulatory Agency Notification Plan
Section VI	Media Notification Procedure
Section VII	Distribution and Maintenance of SSORP

III. OVERFLOW RESPONSE PROCEDURE

The Overflow Response Procedure presents a strategy for BPU to mobilize labor, materials, tools, an equipment to correct or repair any condition which may cause or contribute to an unpermitted discharge. The plan considers a wide range of potential system failures that could create an overflow to surface waters, land, or buildings.

A. Receipt of Information Regarding an SSO

A SSO may be detected by Utility employees or by others. The Dispatcher is primarily responsible for receiving phone calls from the public of possible SSOs along with other departments, dispatch, then forwards service requests to the Wastewater Collection Department.

Generally, Dispatchers receive telephone calls from the public reporting possible SSOs. The emergency phone line is staffed 24 hours per day, every day of the year.

1. The Dispatcher obtains all relevant information available regarding The possible overflow including:

    a. Time and date call was received;

    b. Specific location;

    c. Description of problem;

    d. Time and date overflow was observed;

    e. Caller's name and phone number;

    f. Observations of the caller (e.g., odor, duration, back or Front of property); and

    g. Other relevant information that will enable the responding Emergency crews to quickly locate, assess and stop the SSO.

    The Dispatcher then records/inputs the possible SSO information and creates a service request for assignment to the Responding crew.

2. Pump station failures are monitored and received by operators on duty at the Wastewater Treatment Plant. The operator on duty immediately conveys all information regarding alarms to the Superintendent or the on call crew to initiate the investigation. Investigating crew determines if failure resulted in an overflow and reports if SSO has occurred. A completed overflow form shall be sent, via e-mail or interoffice mail to the Collection System Manager for documentation.

3. SSOs detected by any personnel in the course of their normal duties are reported immediately to the Dispatcher who records all relevant SSO information and dispatches an Emergency crew and additional response crews, as needed.

4. Maintenance emergency crew or response crew confirms the SSO. Until verified, the report of a possible spill will not be referred to as a "sewer overflow."

If an overflow has occurred, the crew leader completes the appropriate Overflow Report form. Overflow forms are completed on Red Forms if evidence

of human contact and/or environmental impact has occurred. All other incidents are recorded on a Black Form. Within 24 hours of the sewer investigator's confirmation, overflow report information is forwarded to the Collection System Manager, or designated back-up personnel. The Manager is responsible for complying with all ADEQ notification reporting requirements.

Benton Wastewater Utilities Sanitary Sewer Overflow Or Pump Station Failure Report...

Date_____ Location_____

Time Reported_____ Date Reported_____

Time Crew Arrived_____ Date Crew arrived_____

Time Worked Completed_____ Date Worked Completed_____

Description of problem:

____Line Blockage _____Line Break ____Manhole Overflow _____PumpStation Failure

____Other

Explain What Blockage Material Was_____

# of feet Rodded_____

Explain What Caused Manhole Overflow:_____

Explain What Caused Line Break:_____

Explain Pump Station Failure:_____

Other: / Notes:_____

_____

Explain Steps or Repair Action to Correct, Reduce, Eliminate, And or Prevent Recurrence:_____

_____

_____

Where Did Overflow Go? _____Yard _____Ditch _____Building _____Storm Drain

_____Other what type of stream / Water way_____

_____

Explain what steps were used for Environmental Clean up:_____

_____

Employee's on Job_____

Cost of Parts for job:_____

TABLE III-1. SSO RESPONSE TRACKING PROTOCOL

1. Crew that locates overflow fills out overflow report (NOTE: Red Forms indicate Human contact and/or environmental impact was observed.)
2. Crew that locates overflow notifies Dispatch.
3. Crew cleans and sanitizes
4. Crew installs warning signs
5. Foreman and Manager verifies overflow report is correct
6. Crew takes photographs before cleanup
7. Foreman verifies cleanup is done correctly
8. Foreman removes warning signs
9. Foreman takes photographs after cleanup
10. Foreman verifies overflow reports and turned into Collection System Manager
11. Collection Manager reports SSO data to ADEQ and other departments as required By NPDES Permits

B. Dispatch of Appropriate Crews to Site of Sewer Overflow

Failure of any element within the wastewater collection system that threatens to cause or causes an SSO triggers an immediate response to isolate and correct the problem. Crews and equipment are available to respond to any SSO location 24-hours a day. Additional maintenance personnel are designated "on call" in the event extra crews are needed. Appendix A summarizes the SSO Action Plan.

1. Dispatching Crews

   - Dispatchers receive notification of possible SSOs as Outlined in Section III.A "Receipt of Information Regarding an SSO" and dispatch an Emergency crew or the appropriate crews and resources as required.

   - Dispatchers notify the appropriate Supervisor, or Foreman by phone or radio regarding SSOs and field crew locations.

2. Crew Instructions and Work Orders

   - Dispatch responding crews by phone or radio. Dispatcher receives instructions from Responding crews or their supervisors regarding appropriate crews, materials, supplies, and equipment needed.

   - Dispatchers verify that the entire message has been received and acknowledged by the crews who were dispatched. Follow all standard communications procedures. All employees being dispatched to the site of a SSO proceed immediately to the site of the overflow. Report any delays or conflicts in assignments immediately to the Supervisor for resolution.

   - In all cases response crews report their findings, including possible damage to private and public property to Foreman immediately upon making their investigation. If Foreman has not received findings from the field crew within 1 hour, Foreman contacts the response crew to determine the status of the investigation.

3. Additional Resources

   - Foreman receives and conveys to appropriate parties requests for additional personnel, material, supplies, and equipment from crews working at the site of a SSO.

4. Preliminary Assessment of Damage to Private and Public Property

   - The focus is to resolve the problem. The response crews use discretion in assisting the property owner/occupant as

reasonably as they can. Be aware that BPU could face increased liability for any further damages inflicted to private property during such assistance. In the event the SSO occurs inside a structure, the Wastewater Collection Manager shall be notified. The Wastewater Collection Manager shall personally access and document all damages as well as notify Supervisor of event. The response crew shall enter private property for purposes of assessing damage. Crew shall notify Foreman to take appropriate still photographs, if possible, of the area of the SSO and impacted area in order to thoroughly document the nature and extent of impact.

5. Field Supervision and Inspection

   - The Foreman of the Responding Crew or who confirmed the SSO, visits the site of the SSO, if possible, takes photos and installs warning sign to ensure that provisions of the overflow response plan and other directives are met.

6. Coordination with Hazardous Material Response

   - Upon arrival at the scene of a SSO, should a suspicious substance (e.g., oil sheen, foamy residue) be found on the ground surface, or should a suspicious order (e.g., gasoline) not common to the sewer system be detected, the responding crew should secure the immediate area; then, contact Dispatcher or the Benton Fire Department. **Remember that any vehicle engine, portable pump or open flame (e.g., cigarette lighter) can provide the ignition for an explosion or fire should flammable fluids or vapors be present. Keep a safe distance and observe caution until assistance arrives.**

   - Only when the Benton Fire Department determines is safe and appropriate for personnel to resume activities can they then proceed under the SSORP with the containment, clean-up activities and correction.

C. Overflow Correction, Containment, and Clean-Up

SSOs of various volumes occur from time to time in spite of concerted prevention efforts. Spills may result from blocked sewer lines, pipe failures, or mechanical malfunctions among other natural or man-made causes. BPU is constantly on alert and ready to respond upon notification and confirmation of an overflow.

The objectives of these actions are:

- To protect public health, environment and property from sewage overflows and restore surrounding area back to normal as soon as possible;
- To promptly notify the regulatory agency's communication center of Preliminary overflow information and potential impacts;
- To contain the SSO to the maximum extent possible including preventing the discharge of sewage into surface waters; and
- To minimize the BPU exposure to any regulatory agency penalties and fines.

Under most circumstances, BPU handles all response actions with its own maintenance forces. They have the skills and experience to respond rapidly and in the most appropriate manner. An important issue with respect to an emergency response is to ensure that the temporary actions necessary to divert flows and repair the problem do not produce a problem elsewhere in the system. For example, repair of a force main could require the temporary shutdown of the pump station and diversion of the flow at an upstream location. If the closure is not handled properly, sewage system backups may create other overflows.

Circumstances may arise when the BPU could benefit from the support of private-sector construction assistance. This may be true in the case of large diameter pipes buried to depths requiring sheet piling and dewatering should excavation be required. BPU may also choose to use private contractors for open excavation operations that might exceed one day to complete.

1. Responsibilities of Response Crew Upon Arrival

It is the responsibility of the first personnel who arrive at the site of a SSO to protect the health and safety of the public by mitigating the impact of the SSO to the extent possible. Should the SSO not be the responsibility of BPU, BPU shall notify Benton Code Enforcement of the incident.

Upon arrival at an SSO, the response crew:

- Determines the cause of the overflow, e.g. sewer line blockage, pump station mechanical or electrical failure, sewer line break, etc.;

- Identifies and requests, if necessary, assistance or additional resources to correct the overflow or to assist in the determination of its cause;

- Takes immediate steps to stop the overflow, e.g. relieves pipeline blockage, manually operates pump station controls, repairs pipe, etc. Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off of private property into the public right-of-way); and

- Requests additional personnel, materials, supplies, or equipment that will expedite and minimize the impact of the SSO

2. Initial Measures for Containment

Initiate measures to contain and/or recover the overflowing sewage in order to minimize the impact to public health or the environment.

- Determine the immediate destination of the SSO, e.g. storm drain, street curb gutter, body of water, creek bed, etc.;

- Identify and request the necessary materials and equipment to contain or isolate the overflow, if not readily available; and

- Take immediate steps to contain the overflow, e.g., block or bag storm drains, recover through vacuum truck, divert into downstream manhole, etc. if conditions allow us determined by BPU Wastewater Department.

3. Additional Measures Under Potentially Prolonged Overflow Conditions

In the event of a prolonged sewer line blockage or a sewer line collapse, set up a portable bypass pumping operation around the obstruction.

- Take appropriate measures to determine the proper size and Number of pumps required to effectively handle the sewage flow.

- Implement continuous or periodic monitoring of the bypass pumping operation as required.

- Address regulatory agency issues in conjunction with emergency repairs.

4. Cleanup

SSO sites are to be thoroughly cleaned after an overflow. No readily identified residue (e.g., sewage solids, papers, rags, plastics, rubber products) is to remain.

- Where practical, thoroughly flush the area and clean of any sewage or wash-down water. Solids and debris are to be flushed, swept, raked, picked-up, and transported for proper disposal.

- Secure the overflow to prevent contact by members of the public until the site has been thoroughly cleaned. If posting is required, refer to Section IV.

- Where appropriate, disinfect and deodorize the overflow site.

- Where sewage has resulted in ponding, pump the pond dry and dispose of the residue in accordance with applicable regulations and policies.

- If a ponded area contains sewage which cannot be pumped dry, it may be treated with bleach. If sewage has discharged into a body of water that may contain fish or other aquatic life do not use bleach or other appropriate disinfectant and contact the Arkansas Game & Fish Commission for specific instruction.

- Use of portable aerators may be required where complete recovery of sewage is not practical and where severe oxygen depletion in existing surface water is expected.

D. Overflow Report

Emergency crew or response crew completes an Overflow Report Form. Emergency crew or response crew promptly notifies Dispatcher when the SSO is eliminated. Information regarding the SSO includes the following:

- Indication that the SSO reached surface waters, i.e., all SSO where sewage was observed running to surface waters, or there was obvious indication (e.g. sewage residue) that sewage flowed to surface waters.

- Indication that the SSO reached and discharged without containment into a storm drain, ditch, drip inlet, or catch basin.

- . Indication that the SSO has not reached surface waters. Guidance in characterizing these overflows to include:
  a. SSO to covered storm drains (with no public access) where personnel verify, by inspection, that the entire volume is contained in a sump or impoundment and where complete clean up occurs leaving no residue.
  b. Preplanned or emergency maintenance jobs involving bypass pumping if access by the public to a bypass channel is restricted and subsequent complete clean up occurs leaving no residue. Any preplanned bypass under these circumstances will not be considered any overflow; and
  c. SSOs where observation or on-site evidence clearly indicates all sewage was retained on land and did not reach a surface water and where complete cleanup occurs leaving no residue.

- Determine the start time of the SSO by one of the following methods:
  a. Date and time information received and/or reported to have begun and later substantiated by the Emergency crew or response crew:
  b. Visual observation; or
  c. Pump station and lift station flow charts and other recorded data.

- Determine of the stop time of the SSO by one of the following methods:
  a. When the blockage is cleared or flow is controlled or contained; or

  b. The arrival time of the Emergency crew or response crew, if the SSO stopped between the time it was reported and the time of arrival.

- Visual observations

  An estimation of the rate of SSO in gallons per minute (GPM) by one of the following criteria

a. Direct observation of the overflow. See Appendix C for guidance on estimating sewer overflow rates.

b. Measurement of actual overflow from the sewer main.

- Determination of the volume of the SSO:

  a. When the rate of overflow is known, multiply the duration of the overflow by the overflow rate; or

  b. When the rate of overflow is not known, investigate the surrounding area for evidence of ponding or other indications of overflow volume.

- Photographs of the event, before and after cleanup, when possible.

- Assessment of any damage to the exterior areas of public/private property. Personnel shall enter private property for purposes of estimating damage to structures, floor and wall coverings, and personal property.

IV. PUBLIC ADVISORY PROCEDURE

This section describes the actions BPU takes, in cooperation with ADEQ and the Arkansas Department of Health to limit public access to areas potentially impacted by unpermitted discharges of pollutants to surface water bodies from the wastewater collection system. Temporary and permanent public notice will be provided as indicated below. A sample of both notices is provided in Appendix D.

A. Temporary Public Notice

BPU has primary responsibility for determining when to post notices of polluted surface water bodies or ground surfaces that result from uncontrolled wastewater discharges from its facilities. The postings do not necessarily prohibit use of recreational areas, unless posted otherwise, but provide a warning of potential public health risks due to sewage contamination.

Table IV-1 outlines the decision process to recommend to the Manager that posting of a confirmed SSO be undertaken or that there is reasonable potential for an SSO to occur thus the need to post in advance. If posting is deemed necessary and the ADEQ shall be notified.

B. Permanent Public Notice

BPU shall place a permanent notice at manholes located on City owned property that may experience SSO's more than once in any twelve-month period. A list of applicable manholes has been provided in Appendix A, Table A-1.

Table IV-1
Decision Process to Post Temporary Signage

Category	Step	Event
Reported Overflow	1	Wastewater Collection Manager or Response Crew confirms SSO that is not posted has resulted in ponded wastewater (ground surface or ditch ponding), or direct discharge to body-contact recreational waters.
	2	Wastewater Collection Manager notifies General Manager and provides relevant SSO information. a) SSO Location b) Remedial action being taken
	3	Wastewater Collection Manager and General Manager determines the need and extend of posting.
	4	Warning sign(s) is/are posted by Wastewater Collection Manager.
Potential Overflow	1	Reasonable potential for SSO that will result in ponded waste-water (ground surface or ditch ponding), or direct discharge to body-contact recreational waters.
	2	Wastewater Collection Manager identifying potential SSO consults with General Manager for final decision on posting.
	3	General Manager directs Wastewater Collection Manager to post warning signs and notifies Communication Specialist of intent to post and location.

C. Other Public Notification

If the Manager determines additional public notification is needed, the Administration will make said notifications under the Manager's direction.

V. REGULATORY AGENCY NOTIFICATION PLAN

The Regulatory Agency Notification Plan establishes procedures that BPU follows to provide formal notice to the ADEQ as necessary in the event of SSOs. The reporting criteria below explains to whom various forms of notification should be made, and lists agencies/individuals to be contacted.

Agency notifications will be performed in parallel with other internal notifications. The procedures for providing notification to the media of an SSO is presented in Section VI – Media Notification Procedure. Internal notification and mobilization of personnel are detailed in Section III – Overflow Response Procedure.

A. Immediate Notification

The Wastewater Collection Manager notifies and reports the SSO to ADEQ in compliance with BPU Wastewater Plant NPDES Permit. For convenience, the applicable NPDES Permit reporting requirements are reprinted below:

> "The permittee shall report all overflows with the Discharge Monitoring Report (DMR) submittal. These reports shall be summarized and reported in tabular format. The summaries shall include: The date, time, duration, location, estimated volume, and cause of overflow; observed environmental impacts from the overflow; action taken to address the overflow; and ultimate discharge location if not contained (e.g. storm sewer system, ditch, tributary). Overflows, which endanger health or the environment, shall be orally reported to this department (Enforcement Section of Water Division) within 24 hours from the time the permittee becomes aware of the circumstance. A written report of overflows which endanger health or the environment, shall be provided within 5 days of the time the permittee becomes aware of the circumstance."

The Operations Secretary is responsible for meeting the 24-hour oral or fax notification requirement. The name, mailing address, e-mail address, telephone and fax number for the primary ADEQ contact is provided below:

~~**Ms. Lorraine Stewart**~~
Arkansas Department of Environmental Quality
P. O. Box 8913
Little Rock, Arkansas 72219-8913
Telephone: **501.682.~~0633~~** 0088 (0744) alt
Facsimile: **501.682.~~0910~~** 0880

WATER DIVISION Enforcement Br.
5301 Northshore Dr
NLR, AR 72118-5317
www.adeq.state.ar.us
water div - enforcement

B. Secondary Notifications

After those parties identified in Section A. Immediate Notification have been contacted, the General Manager will notify other federal, state, and local agencies, as well as other interested and possibly impacted parties as directed by the Manager.

VI. MEDIA NOTIFICATION PROCEDURE

When a SSO has been confirmed and is a threat to public health, take the following actions, if necessary to notify the media:

A. Sewer investigator or response crew verifies overflow and reports back to the Dispatcher.

B. The Dispatcher informs the General Manager. The primary contact should be the General Manager. Table VI-1 provides contact names and numbers for the General Manager.

C. After hours and weekend SSOs should also be reported to the General Manager at the numbers listed in Table VI-1.

D. All media requests received should be referred to the General Manager office.

E. The following personnel are authorized to be interviewed by the media and are the designated spokesperson:

Terry McKinney, General Manager

Table VI-1

Benton Public Utility Media Contact

Contact	Contact Name	Office	Mobile
Primary	Terry McKinney	501.776.5984	501.317.1223

VII. DISTRIBUTION AND MAINTENANCE OF SSORP

Annual updates to the SSORP reflect all changes in policies and procedures as may be required to achieve its objectives.

A. Submittal and Availability of SSORP

Distribute copies of the SSORP and any amendments to the following departments and functional positions:

Departments	Functional positions
Administration	General Manager
Engineering	Director

Familiarize all other personnel who may become incidentally involved in responding to overflows with the SSORP.

B. Review and Update of SSORP

Review the SSORP annually and amend as appropriate. BPU should:

- Update the SSORP with the issuance of a revised or new NPDES permit or state waste discharge permit:
- Conduct annual training sessions with appropriate personnel; and
- Review and update, as needed, the various contact person lists included in the SSORP.

C. Practical Resources

There will be small laminated pocket guides printed and furnished to all employees that are involved with the SSO Response Plan, which will provide an overview of the procedures as well as essential phone numbers. There will also be a quick reference for estimating sewer overflow volumes.

D. Training

Each division will be responsible for training their own personnel. The training should consist of any employee involved in or possible involvement in the SSO process is furnished a copy of the SSO Response Plan and said plan gone over in depth with them. This training should take place annually or when revisions occur, so that all personnel are brought up to date of any changes that may occur. Each division should also review their response efforts at these annual-training sessions and take suggestions to revise procedures. These suggestions will then be submitted to all divisions for review to determine if revisions are required.

APPENDIX A. SSO ACTION PLAN

Dispatching Crews

Dispatchers receive notification of possible SSOs from two sources public and internal crews.

Notification during working hours

Dispatchers receive notification of a possible SSO from public at which time they collect all relevant information as outlined in Section III A, which at this point they dispatch one of our Maintenance Crews to the site to verify if an SSO has occurred. Crew will report findings back to Dispatcher.

Responding Crew determines if SSO has occurred and attempts to resolve problem, then contacts the Area Foreman within 1-hour of being notified by dispatcher. The area Foreman goes to site takes photographs before clean-up is started and places warning sign at site as well as adjacent homes if required. Foreman also verifies that emergency crew has filled out SSO report and required information is on form.

Crews at this point start cleanup and sanitize site, which when complete, crew is to contact Area Foreman. Area Foreman is to go back to site and verify cleanup is completed, take photographs and remove warning signs.

Notification after hours

Emergency crews receive notification of possible SSO from public at which time they collect all relevant information as outlined in Section III. A. and proceed to location. (Emergency crew mans emergency phone after hours)

Emergency crew determines if SSO has occurred and attempts to resolve problem then takes photographs before cleanup and places warning signs at site as well as adjacent homes if required. Crew is to fill out SSO report and turn in with their paper work at the beginning of the next workday.

Emergency crew then starts clean-up and sanitize site, which when completed crew is to take photographs and remove warning signs.

If the SSO occurred within a structure the Area Foreman is to verify cleanup has been completed and all policies followed. Site visit is to be performed the first work day after the overflow occurrence.

APPENDIX A. SSO ACTION PLAN (continued)

Internal Notification

Personnel in the field find a SSO are to contact the Dispatcher and give him the relevant information as outlined in Section III. A. The same procedure as shown for public notification under working hours will be used.

During heavy rain events our crews will investigate possible recurring SSO sites to verify if any overflow has occurred. These crews will visit sites which has been determined as being locations that have potential to overflow. The Crew will follow the same procedure as outlined under public notification during working hours. After crews have gone through their list, then they will start clean-up at each site.

Crews will walk lines and open manholes to check for any blockage or surcharged lines before an SSO exist. The crew will address all stoppages immediately to restore service. Crew will fill out a hand written work orders for additional follow-up investigation and will be turned in the following workday. A cleaning and TV work is required on ALL main line sections where stoppages are found and where the work has not been performed during the initial investigation. If the crews find a SSO, then they follow the same procedure as shown in public notification during working hours.

Main line blockages will be cleaned within three (3) working days and follow-up TV work order to be completed within an additional two (2) working days. After TV work has been completed the Maintenance Coordinator will review the TV video to determine any subsequent appropriate action to prevent re-occurrence.

APPENDIX B DETECTING POTENTIAL EXPLOSIVE OR TOXIC CONDITIONS

Purpose:

To ensure that all affected BPU employees are notified of potential health or safety hazards in the BPU collection system.

Procedures:

The following procedures must be followed when detecting potential health or safety hazards in the BPU collection system:

Step 1

The BPU employee(s) or crew discovering the potential health or safety hazard must notify dispatch (via Radio or 776-5958) or the General Manager Department (776-5984) to report the potential problem.

A. Information included in the report:

1. Name of the employee making the report
2. Street address or location or potential hazard
3. Manhole number (if known)
4. Brief description of findings (see attached form)

B. If the health or safety hazard was reported to dispatch: dispatch should contact the General Manager and Benton Fire Department and report the above information.

Step 2

General Manager and Benton Fire Department will then investigate the report.

Step 3

If Safety confirms the report, Safety will notify dispatch to ALERT all affected field crews via RADIO that the reported area is "Off Limits" until further notified. Safety will notify ALL other affected BPU department supervisors of the reported area.

Step 4

Dispatch will draft a notice with the location of the ALERTED areas and place a copy on all Safety News Bulletin Boards and Backdoors at our Complex. Dispatch will also forward a copy of the notice to Safety for placement on other Safety News BB's throughout the utility.

Step 5

If the investigation suspects a Natural Gas Leak, Safety will contact Centerpoint Energy to report the situation.

Step 6

Dispatch will keep ALL affected BPU departments informed of the situation and monitor their (Centerpoint Energy) findings.

Step 7

Once the health or safety hazard has been corrected, crews will perform a follow-up investigation and when NO HAZARDOUS conditions exist, crews will remove the Safety ALERT and notify all affected departments.

Step 8

If gasoline, solvents, paint, or other foreign material is suspected and the hazardous area is located in an Industrial/Commercial Area, Dispatch will contact the Benton Fire Department and transfer the report for further action. 776-5960.

After Hours Reporting

If a hazardous atmosphere is detected after normal working hours, the employee must report the area the next working day prior to his/her normal working hours. After this report is made the process will begin with step one.

APPENDIX C SSO FLOW AND VOLUME DETERMINATION

As indicated previously in this SSORP, each SSO actively discharging during the investigation phase of this response plan's tasks shall be evaluated for flow and ultimately total volume discharged, each of which is to be included as part of the reporting requirements. The Engineering Department has defined a three tired flow estimating system that is derived from the reaction of the manhole lid in relation to the flow existing the collection system. This system is easily field estimated without the need for measuring devices, which is most instances, would fail to achieve a proper signal due to the lack of sufficient depth of flow.

It has been determined that the majority of actively discharging SSOs reported by a response crew would be non-capacity related. Therefore criteria for determining flow should concentrate on these conditions for gravity sewer collection systems. The three-category rating system is outlined below:

0 – 10 gpm(gallons per minute)
This rate covers the light discharge experienced in the upper reaches of the collection system, usually with a small number of residential connections. The visual indicator would be a light flow (about the rate of a standard faucet) from around the manhole lid with no visible release of debris or solids, and no movement or lifting of the lid itself.

10 – 100 gpm
This rate covers the moderate discharge experienced in the lower reaches of the collection system, usually along the larger collector or outfall type sewer mains (typically 10" and larger mains) and in some capacity related SSOs. The visual indicator would be a noticeable flow from around the manhole lid, slight debris or solids release, and a rocking or slight lifting of the manhole lid.

- **100** (greater than 100 gpm)

This rate covers the heavy discharge experienced along the major outfall sewers and larger capacity related SSOs. The visual indicator is the definite release of debris or solids, and the complete lifting or displacement of the manhole lid.

SSO volumes are derived from the above category multiplied by the duration of discharge. If the exact length of discharge is unknown, criteria for determining an estimated time has been established in the Section III.D, Overflow Report.

APPENDIX D
SIGNAGE FOR OVERFLOWS

The following language shall be used on signs located on existing SSO sites during cleanup and on notices attached to homes adjacent to SSO sites:

NOTICE OF
SANITARY SEWER OVERFLOW

Please avoid contact with this
sanitary sewer facility due to
the possibility of adverse health effects
until cleanup can be completed

For Additional Information
Contact 776-5955

The following language shall be used on signs located on potential SSO sites that occur more than once in a twelve-month period:

NOTICE OF
SANITARY SEWER OVERFLOWS
WHICH MAY OCCUR
AT THIS LOCATION

Please avoid contact with this
sanitary sewer facility during an
Overflow condition due to the
possibility of adverse health effects
until cleanup can be completed

For Additional Information
Contact 776-5955

MAP(S)/PLAN(S) SCANNED IN SEPARATE FILE

ADEQ

ARKANSAS
Department of Environmental Quality

Hand Delivered Mail Receipt

Date	5/8/2012
Division	Water
Sender	City of Benton
Received By	Miles Johnson Water Enforcement