

## LCBPU Policies and Procedures Manual

**Subject:** Water System Expansion

**Area:** Construction Policies

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### BACKGROUND AND PURPOSE

This policy is for water system expansion that must be built or improved to serve new areas or increased demand required for development. The purpose of this policy is to determine the requirements for expanding the water distribution system and who will carry the burden of the cost to serve the new areas.

The policy may be applied to new piping, upsized piping, pump stations, storage tanks, water plants and other required infrastructure that may be required by new development and increased population on the water system.

### PUBLIC NOTICE

A copy of this policy shall be available in the business office of the utility for customer and public inspection during regular business hours or official meetings of the utility. This policy may also be viewed on our web site at [lincolncountybopu.com](http://lincolncountybopu.com)

### POLICY:

Areas that require new water mains to be extended or existing system improvements shall first be reviewed by the Superintendent and final decisions and approvals shall be made by the LCBPU Board of Directors. New areas to be served shall be considered for their size, scope, priority, available water system capacity and cost versus benefit.

Water main extensions shall require hydraulic analysis. All extensions shall meet the system design and standard criteria applicable at the time. However, unforeseen circumstances may require additional improvements at the expense of the individual or developer seeking the main extension. Examples of this may include rock removal, pump station upgrades, line size or capacity improvements upstream or downstream of the project, etc.

Minimum pipe size in the water system is 2" PVC SDR 13.5 and it will only be allowed for extension situations determined by the Superintendent, system Engineer and Board to not require fire flow and where further extension is not expected. Examples would be short dead end runs of pipe where limited demand is expected, such as last house on a road or where a pressure zone ends on a hill, etc. Other pipe sizes above 2" shall be 6", 8" and up in 2" increments. Although 3" and 4" pipe can be found in the existing water system, those sizes shall no longer be used. All pipe above 2" in size shall be minimum of class 350 ductile iron pipe with cement lining from an approved manufacturer. With the exception of 2" pipe segments, all system expansion shall be designed for fire flow.

Individuals requiring a water main extension to serve a single residence shall pay an estimated cost per linear foot of the cost to extend the line plus the Tap and Capacity Fees plus any rock removal or unforeseen costs. The Lincoln County Board of Public Utilities shall provide the required engineering, permits and approvals at cost to the Individual requiring the extension. The utility shall also determine the appropriate water main size, hydrant and valve spacing which satisfies the hydraulic, fire flow and water quality requirements of the water system. As an alternative, the Individual may hire an approved contractor to complete the extension and service(s) complete with meter box(es) and setter(s). In this case the individual will cover all construction costs plus Capacity Fee, Set Meter Fee, service charge and applicable deposit, upon activation of service. The main will be constructed by either a contractor with a current State of Tennessee Municipal Utility Contracting License MU-B or Building Construction Contracting License BC or BC-B or the work may be done by LCBPU. Construction inspection, pressure testing, disinfection and bacteriological testing shall be overseen by a LCBPU employee. Any operation of water system infrastructure, such as valves or pump stations shall be done by LCBPU employees. The LCBPU field inspector, Superintendent, or

Engineer shall have the authority to issue a work stoppage, at their discretion, if the work or materials are found to be unacceptable.

The LCBPU, at its sole discretion, shall determine if any project or portion of a project is beyond the capability or capacity of the LCBPU. In this case the Individual will be responsible for hiring an appropriate approved contractor to complete the project or the portion of the project as required.

### **EXAMPLE CALCULATION**

Where Individual chooses to pay estimated cost / foot & LCBPU completes the extension.

Example assumptions; 300 Linear Foot Main Extension and ¾" meter, assuming estimated cost is \$13/ FT  
300 LF x \$13 / FT + \$1550 Tap Fee + \$500 Cap Fee + \$50 Service Charge = \$6,000 + Applicable Deposit

Developers that are planning a major subdivision, as defined by the Subdivision Regulations for Lincoln County or plan to subdivide a parcel for major commercial or industrial use, shall first meet with or have their engineer meet with the LCBPU Superintendent. Developments must meet or exceed the minimum requirements of the Subdivision Regulations for Lincoln County, TN. The Lincoln County Board of Public Utilities may, in the interest of improving and operating a water system licensed by the State of Tennessee, require additional requirements or higher standards. An engineering report shall be required detailing fire flow potential, water system capacity requirements and pressure calculations for the site and for any areas of the water system upstream or downstream of the site that may be impacted by the development. The engineering report shall be provided to LCBPU for review by the water system Superintendent, Engineer and Board of Directors.

Depending on the hydraulic analysis the developer shall use 6" or larger Class 350 ductile iron pipe or better, 350 psi rated valves and 250 psi, or higher, rated three-way fire hydrants that are approved brands. The minimum pipe size for these pipe extensions shall be determined by hydraulic analysis by the Engineers and approved by the Superintendent and the Board. LCBPU may require a larger main or mains than what is determined by the approved engineering report. If an upsized main is required, a determination shall be made by LCBPU as to whether or not a cost share will be provided. Major subdivision developments will be required to upgrade existing water mains serving the development that are less than 6" diameter, especially in the case where fire hydrants or fill stations are to be installed.

Upon approval, the developer will be responsible for required engineering, permits and approvals. The main will be constructed by either a contractor with a current State of Tennessee Municipal Utility Contracting License MU-B or Building Construction Contracting License BC or BC-B or, at LCBPU's discretion, the work may be done by LCBPU. Construction inspection, pressure testing, disinfection and bacteriological testing shall be overseen by a LCBPU employee. The pressure test must be observed and approved by the LCBPU Inspector or a LCBPU employee designated by the LCBPU Superintendent. Any operation of water system infrastructure, such as valves or pump stations shall be done by LCBPU employees. The LCBPU field inspector, Superintendent, or Engineer shall have the authority to issue a work stoppage at their discretion if the work or materials are found to be unacceptable.

Developments requiring a water main extension or capacity improvement to serve residential, commercial or industrial properties shall bear all costs associated with the project.

### **TURNING OVER INFRASTRUCTURE**

Upon completion of a project, the ownership of the piping and system improvements shall be transferred to the Lincoln County Board of Public Utilities by means of a letter which indicates the value of the asset. Receipts should accompany the letter as confirmation of the asset value for purposes of auditing. Any infrastructure improvements shall be marked up on as-built drawings that are to be turned over to the LCBPU. Any infrastructure must be accepted by the Lincoln County Board of Public Utilities to complete the transfer of ownership.

System expansion or improvement projects that exceed \$5,000 shall be warranted by the individual or the developer that contracted the construction. The warranty period shall be 12 months from the date that the system infrastructure was turned over to LCBPU for ownership and operation. The warranty shall cover materials and workmanship up to 15% of the total project cost in the form of a maintenance bond or via a letter-of-credit from an acceptable banking institution.

#### **REVIEW BY MANAGER AND STAFF**

The Board of Utilities is the sole policy making body for the utility. The Board authorizes the manager to handle routine determinations in the application of this policy. The manager may designate appropriate office personnel to handle routine determinations. Any unusual issues shall be referred to the Board.

#### **REVIEW BY THE BOARD**

When a customer or other complaining party appears at a Board meeting regarding this policy without previously submitting the facts regarding the issue to the manager or office staff, the Board may delay hearing or ruling on the case until the next regular meeting to allow the Manager, staff, attorney or others to locate and prepare materials concerning the issue.

#### **OMISSIONS**

In the absence of specific rules or policies, the determinations in conducting this policy shall be made by the Board of Utilities in accordance with its usual and customary practices.