

## **City of Lebanon Authority Offices**

### **Administration and Finance**

The Administration and Finance Department, headed by the Administration and Finance Director, provides fiscal management and operational support services for all Authority departments. The department includes Utility Billing, Accounting, Human Resources, and Information Technology.

#### **Utility Billing**

The Utility Billing Office manages over 20,000 utility service accounts. Residential services comprise the majority, with approximately 19,000 accounts. The office processes over 80,000 bills and payments on an annual basis. The office also works closely with the Meter Department and coordinates water meter service requests such as: high/low consumptions, stopped and/or frozen meter complaints, meter tests, and service terminations for non-payment. Please see the Utility Billing tab for more information.

#### **Accounting**

The accounting department processes accounts payable, monitors the Authority's cash flow, coordinates the annual audit, and oversees Authority debt service management. The department also prepares and monitors the Authority's annual operating and capital budgets. Revenue and expense projections are made based on historical data and economic conditions. The department constantly analyzes ways to minimize costs and provide the most efficient, cost effective service delivery to Authority customers.

#### **Human Resources**

Human Resources provides all administrative support services to Authority employees for personnel matters. This includes overseeing compensation information, health, dental, vision, life, and worker's compensation insurances, and payroll processing. Human Resources is also heavily involved in labor relations and negotiations with the Authority's AFSCME bargaining unit.

#### **Information Technologies**

Information Technologies provides technology support to all Authority operations. This includes overseeing network infrastructure, application services and software programs, and miscellaneous troubleshooting and support services with end users.

### **Planning and Engineering**

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Planning and Engineering oversees capital construction projects, reviews subdivision and land development plans for the Authority as well as determining water and sewer service availability.

#### **GIS**

The City of Lebanon Authority uses its geographic information system (GIS), a digital mapping and analysis tool to support and enhance daily operations, problem solving and decision-making. Since 1996, water and wastewater asset data has been collected and converted from paper maps into a digital GIS format. Attribution describing the asset, such as pipe diameter, material, age and maintenance history stored in an asset management program are linked to the GIS feature. Information formerly stored on paper index cards was scanned and attached to its corresponding asset. GIS is used in the office by management staff for planning and data analysis. Data that was previously only available in the office is now used by field

crews through online mapping applications. Online GIS applications and maps include: collection and distribution system maps, hydrant flushing, FOG (fats, oils and grease), leak detection, jetting, manhole data collection and a utility billing parcel viewer.

## **Water Systems**

### **Water Maintenance and Water Shop**

The Water Maintenance and Water Meter Shop is located at 2200 Chestnut St in Lebanon. This facility is fully equipped to handle most if not all emergencies and routine duties to keep the water system running with minimal down time for repairs. We are responsible to maintain the water system and all its appurtenances, which requires us to be available 24/7. We are fully equipped to install, read and repair the water meters in our system. We have a leak detection program which is able to find leaks in the system with minimal manual effort.

### **Water Treatment Plant**

The history of the water system dates back to 1872, when water was first piped to the City of Lebanon from the newly constructed Rextmont Supply Dams. Our present day system utilizes surface water supplied by two sources. One is a 1.2 billion gallon impound reservoir. The other source is a narrow river that flows through Lebanon County. The treatment facility services three separate distribution systems.

## **Wastewater System**

### **Wastewater Treatment Plant**

The Lebanon Wastewater Treatment Plant, 2321 Ridgeview Road, Lebanon, PA 17042, is an advanced wastewater treatment facility serving all of the greater Lebanon area. It is owned and operated by the City of Lebanon Authority, 2311 Ridgeview Road, Lebanon, PA 17042. The Plant, originally constructed in 1961-1962, provided two steps of treatment, Primary & Secondary. Additional construction in 1977-1979 expanded capacity and provided a third step in the treatment process (Tertiary Treatment). The 1996 expansion added UV disinfection and Biosolids de-watering using a Belt Filter Press. In 2014, the plant upgraded its electrical systems, added an emergency generator capable of providing enough electricity to operate the entire plant. In addition, added the capability to denitrify to lower the total nitrogen footprint on the Chesapeake Bay and upgraded the Biosolids Recycling program to produce a "Class A Exceptional Quality Biosolids". The plant is rated to treat 8 million gallons of wastewater per day. Treatment is completed by conditioning through screening and settling to remove rags, plastics, grit, stones, etc., and are removed to a garbage dumpster for disposal at the Greater Lebanon Refuse Authority Landfill. Primary Clarification where settleable solids and floatables are removed and pumped to an anaerobic digester for stabilization. With some of the flow from the Primary Clarifiers being bypassed to the anoxic zone of the Bioreactors for initial denitrification. The rest of the water continues to Trickling Filters where BOD & CBOD are removed microbiologically. Intermediate Clarification then allow settleable sloughings to be pumped to the anaerobic digester. The wastewater then continues to the second stage of biological treatment in the Bioreactors where Nitrates are converted to Nitrogen Gas by denitrifying bacteria and then Ammonia is converted to nitrates by nitrifying bacteria which have been introduced into the water. A portion of the nitrates are returned back to the front end to repeat the denitrification process again. Phosphates are combined with poly aluminum chloride and the water continues to the Secondary Clarifiers where solids consisting of microorganisms are returned to nitrification basins or wasted to the digesters. Water continues to the Denitrification Filters where by adding Methanol, the denitrifying

bacteria reduce nitrates to nitrogen gas inside the sand filters. Backwashed solids are pumped to the anaerobic digester and the water continues to UV disinfection where pathogenic bacteria viability is reduced by UV disinfection. Plant effluent is discharged to the Quittapahilla creek or pumped to the Ironwood filter building for further treatment and then pumped 6 + miles to the Ironwood co-generation electric plant. All solids collected in the WWTP are treated by anaerobic digestion in the mesophilic range, then pumped to Centrifuges for dewatering and a dryer for production of a "Class A Exceptional Quality Biosolids". These solids are stored in a silo and then picked up by local farmers or others for land application as a fertilizer. The Plants construction and operation are permitted by the Pennsylvania Department of Environmental Protection. (WQM Permit #3876402) and by the United States Environmental Protection Agency (NPDES Permit #0027316).

### **Sanitary Sewer Collection System**

The City of Lebanon's Sanitary Sewer System consists of approximately 60 miles of sewer pipes and manholes that flow and convey sewage to the Wastewater Treatment Plant. This is a sanitary sewer system only. This system is not combined with storm water. It is not designed to convey storm water or additional hydraulic loads. Although we collect and treat sewage from eight contributing townships, we only maintain the Collection System that serves the residents of Lebanon city. Lebanon's first pipes were installed in the early 1900's, and most of the original pipes are still in service today. In order to utilize the full hydraulic capacity of the system, and achieve the goal of eliminating backups/overflows and associated public health hazards, regular maintenance is performed. A continuous, comprehensive maintenance program, ensures that the collection system reliably transports wastewater to the treatment plant. Routine cleaning and inspections of the system are performed to assess the health of the system and locate any issues that need addressed. There are many things each resident can do to help maintain the health of the sanitary sewer system and prevent backups and overflows. This starts with how each of us takes care of our own sewer system in the home.