

# UTILITIES

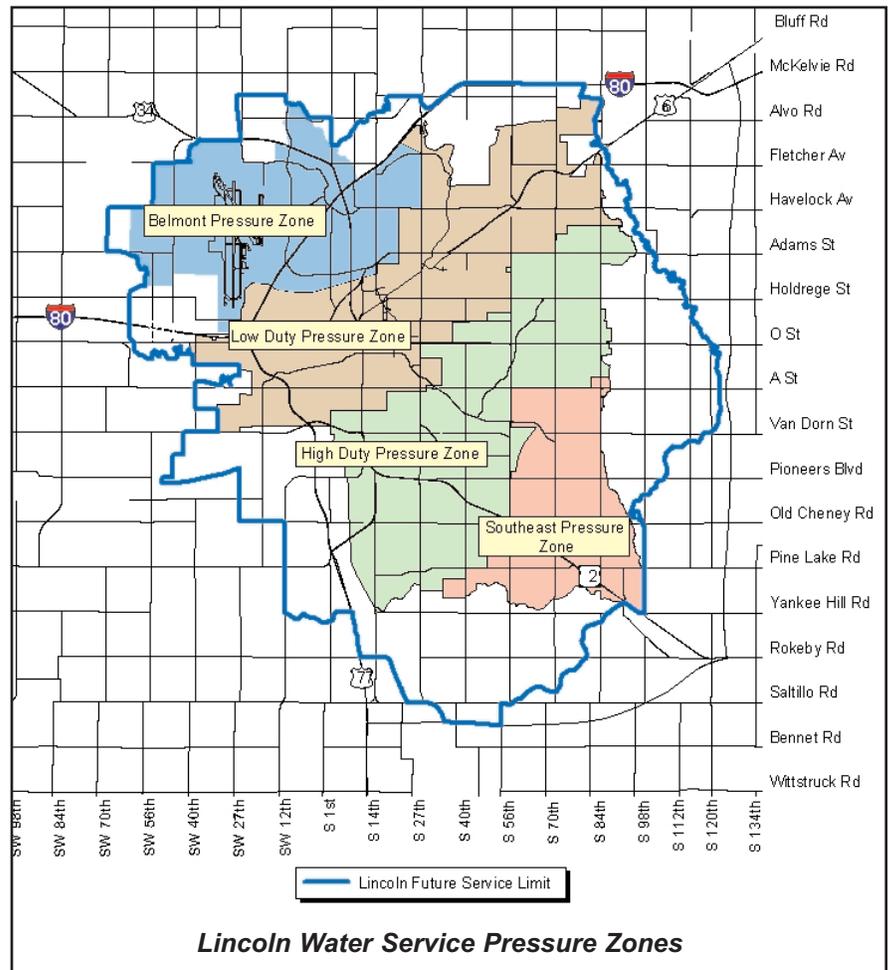
*Basic utilities are available at a variety of service levels throughout the city and county. This section examines the current status of local area utility services including water, wastewater, stormwater, solid waste, electric, street maintenance, natural gas, cable and telecommunications.*

## WATER SERVICES

### LINCOLN WATER SYSTEM

Potable water is provided to Lincoln residents and businesses by the Lincoln Water System. The System is owned by the City of Lincoln and managed by the City's Department of Public Works and Utilities under the direction of the Mayor and City Council. It is a revenue producing and self-supporting system (i.e., no tax funds are used). It is the policy of the City of Lincoln to only provide water service to properties located within the corporate limits of the city.

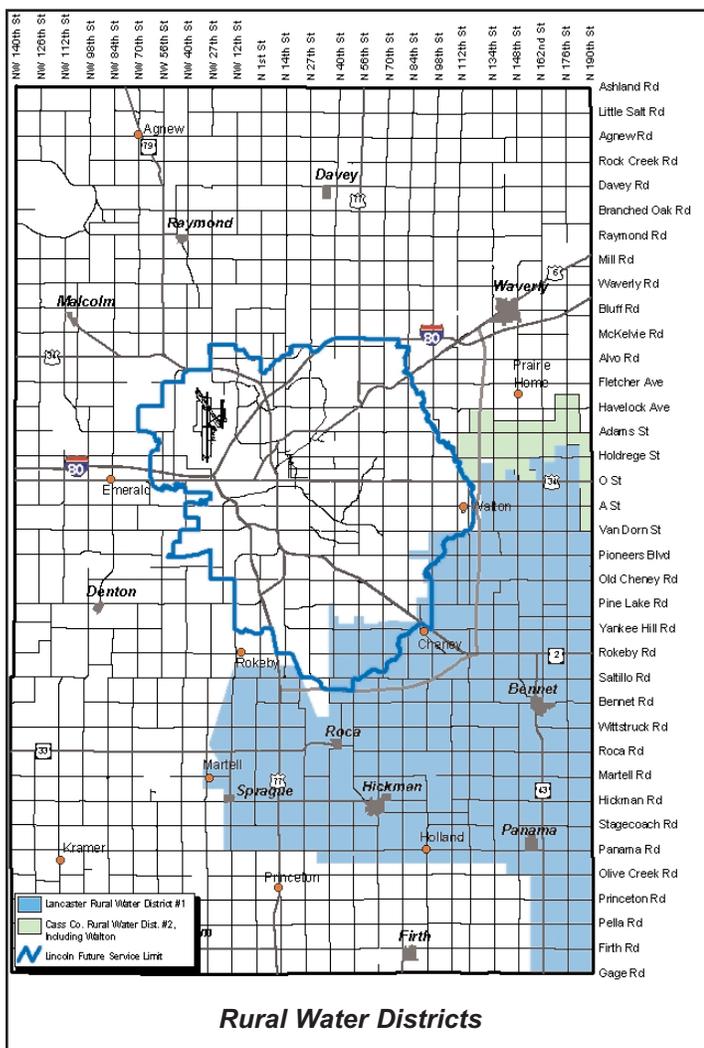
Lincoln's principal source of water is groundwater from the Platte River near Ashland, Nebraska, northeast of Lincoln. Lincoln Water System processes groundwater at the Ashland facility prior to its transmission to Lincoln for distribution. In addition, the City has supplemental wells in Antelope Park located in Lincoln. This additional groundwater source is utilized during periods of peak water consumption — typically the summer months.



The distribution system is divided into six pressure zones. Each zone has a system of storage facilities and pumping stations which keep operating pressures in the 35-100 pounds per square inch (PSI) range. Because the system operates on elevation, reservoirs and pump stations are often located outside the respective service area, and in some cases outside of the City.

The existing water system is made up of more than 1,060 miles of water mains. Pipes providing service to customers range in size from 4” to 16” in diameter and total 920 miles. There are 140 miles of transmission and transfer mains which range from 24” to 54” in diameter.

The cost of local water distribution system development is paid by the benefitting users. The distribution grid (larger mains) is subsidized by the Lincoln Water System if such improvements comply with the Comprehensive Plan and have been scheduled through the capital improvement program process.



## RURAL AND TOWN WATER SERVICES

Water service to rural Lancaster County residents is obtained through private water systems (i.e., private wells), rural water districts, or Sanitary and Improvement Districts (SIDs).

Two rural water districts supply potable water to Lancaster County residents - - Lancaster Rural Water District No. 1 and Cass County Rural Water District No. 2. These rural associations include property owners adjacent to the City limits. There are four SID's providing water services to area residents: Emerald, Pine Lake, Holland, and Walton.

Cities and villages in Lancaster County collect water from municipally owned wells. Some communities are provided water via contract from Rural Water Districts. Limited well source and poor water quality contribute to reliance on rural water districts.

## WASTEWATER SERVICES LINCOLN WASTEWATER SYSTEM

The City of Lincoln Wastewater System is a publicly owned and operated system. The system is a revenue producing and self-supporting, enterprise fund system (i.e., no tax funds are used). The Department of Public Works and Utilities Wastewater Division manages the operation of the system. It is the City of Lincoln's policy to only provide wastewater service to land located within the corporate limits.

## Collection System

In general, the wastewater collection system is a gravity fed system that is designed to accommodate urbanization of drainage basins. The existing system includes 14 lift stations to assist in pumping and conveying the wastewater in the collection system. The collection system currently serves 11 major drainage basins, with more than 870 miles of sanitary sewer pipes ranging in size from 8” to 90” in diameter. This system encourages orderly growth within the natural drainage basin boundaries.

## Treatment Facilities

There are two treatment facilities in operation: Theresa Street and Northeast Wastewater Treatment Facilities.

The Theresa Street facility is located at 2400 Theresa St., near N. 27<sup>th</sup> Street and Cornhusker Highway, and currently serves approximately 70 percent of the City. The Northeast facility is located at 7000 N. 70<sup>th</sup> Street, near N. 70<sup>th</sup> and Salt Creek and serves the remaining 30 percent of the City.

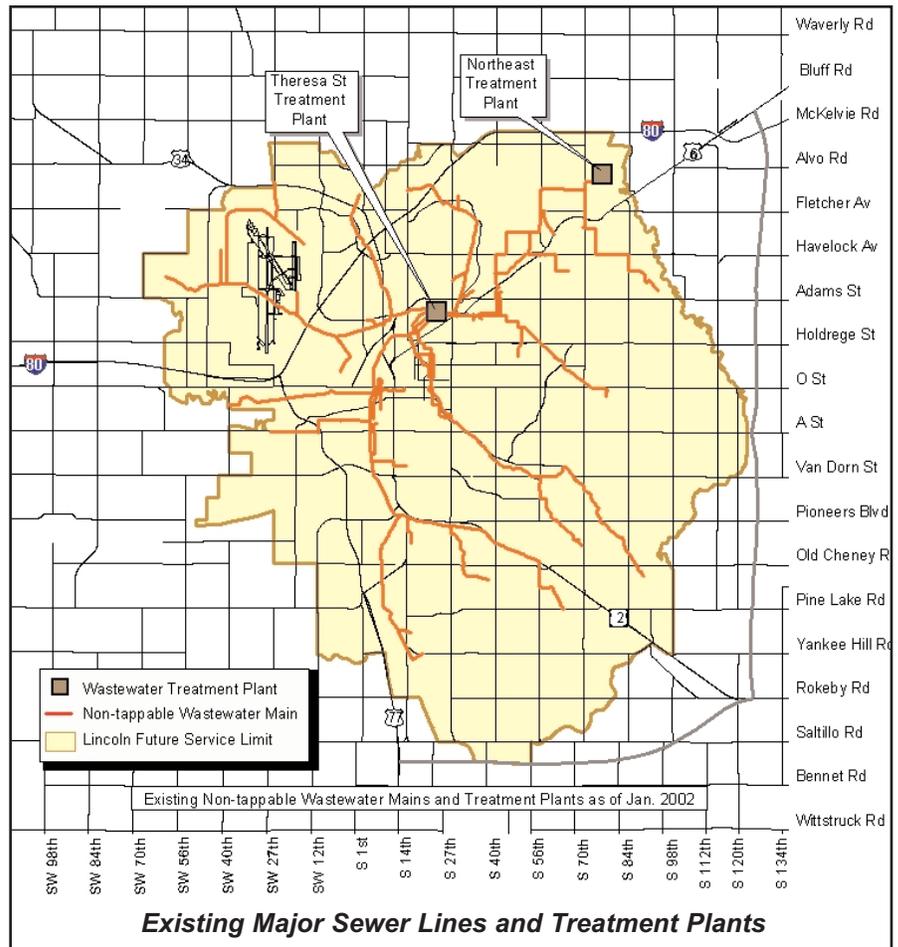
The Theresa St. facility also receives liquid wastes from liquid waste haulers providing services to Lincoln and Lancaster County businesses and residents. Treated effluent from both facilities is discharged into Salt Creek. Treated biosolids produced by the treatment plants are spread on croplands within the county through a program operated jointly by the City’s Wastewater and Solid Waste System, the University of Nebraska, and the Lancaster County Cooperative Extension Office.

## RURAL AND TOWN WASTEWATER SERVICES

Each incorporated city and village in the county operates a municipally-owned wastewater collection and treatment facility. In addition, on-site septic treatment systems are permitted within their planning and zoning jurisdictions.

Residents in unincorporated areas employ on-site septic and/or lagoon treatment systems.

There are a number of subdivision developments in Lancaster County that utilize shared infrastructure systems. These systems are typically for sewer collection and treatment within the development and provide no connections or services to outside development or communities.

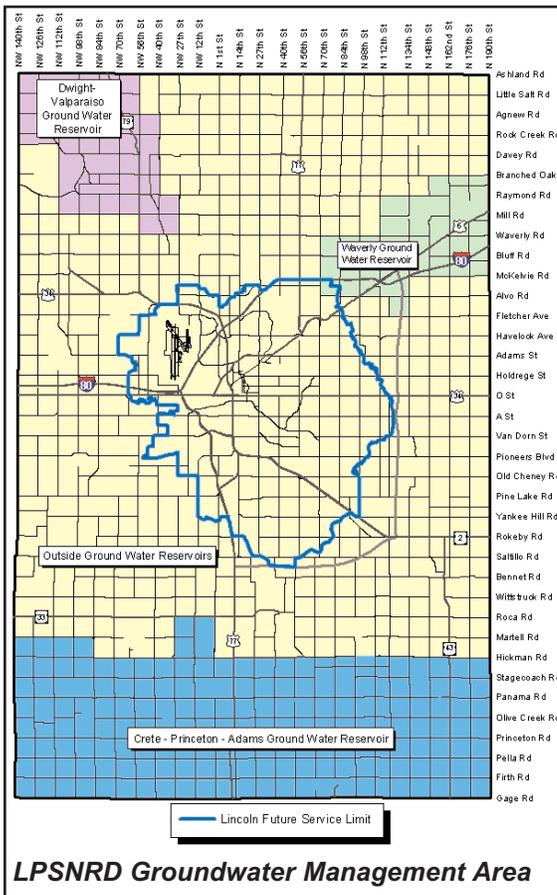


## Sanitary and Improvement Districts (SID)

Four Sanitary and Improvement Districts provide sanitary sewer to local residents: Cheney (lagoon), Holland (lagoon), Emerald (lagoon), and Pine Lake (plant treatment).

## Groundwater Management Plan

In April 1995, the Lower Platte South Natural Resources District (LPSNRD) adopted a “Groundwater Management Plan.” This Plan describes steps for managing the area’s ground water to protect its future quality and quantity. The Plan has led to the designation by the LPSNRD of a Groundwater Management Area. This designation provides the District with the authority to regulate nonpoint sources in the urban and rural areas that might affect groundwater quality and quantity.



## WATERSHED MANAGEMENT OVERVIEW

Lincoln and the majority of Lancaster County fall within the Salt Creek Watershed. Salt Creek generally flows to the north and northeast where it ultimately drains into the Platte River near Ashland in Saunders County. Eleven creeks converge with Salt Creek in the vicinity of Lincoln: Little Salt Creek, Lynn Creek, Elk Creek, Oak Creek, Middle Creek, Haines Branch, Cardwell Branch, Stevens Creek, Deadmans Run, Antelope Creek, and Beal Slough. Over 1,000 square miles of land contribute runoff to Salt Creek.

Since Lincoln’s founding in 1867, flooding along Salt Creek has been a major infrastructure concern. Over 100 floods were recorded in Lincoln during the twentieth century, with the floods of 1908 and 1950 the two worst in terms of damage. Flood loss potential has been reduced through the construction of levees along Salt Creek and dams along creek tributaries, as well as the creation of Wilderness Park. Channelization of Salt Creek, however, has increased the stream’s water velocity, thus aggravating stormwater management efforts.

Significant industrial, commercial, and residential development exists in Lincoln’s floodplain. This is especially the case in the older areas of the city. Much of this development occurred before the hazards from constructing in the floodplain were fully understood.

## FLOODPLAIN AND STORMWATER MANAGEMENT

Local floodplain and stormwater management responsibility is shared by the City of Lincoln and the Lower Platte South Natural Resources District (LPSNRD). The LPSNRD has responsibility for maintaining the main stream channels while the City assumes care of the tributaries and storm drainage system. Both the City of Lincoln and Lancaster County also participate in the National Flood Insurance Program administered by the Federal Emergency Management Agency (FEMA).

Water quality from stormwater is managed under the Federal Clean Water Act. The National Pollutant Discharge Elimination System (NPDES) program addresses non-agricultural sources of stormwater discharge. A permit system is used to control the release of harmful pollutants into local water bodies. This program is administered in Nebraska by the State Department of Environmental Quality (NDEQ). The City's municipal stormwater system is regulated under this program, and a permit is likely to be issued in early 2002. This permit will stipulate discharge limits, as well as monitoring and reporting requirements concerning water quality. A similar element of the program for smaller municipal systems will affect Lancaster County. The County will be required to apply for NPDES permit coverage by March of 2003.

Updated erosion and sediment control standards were adopted by the City of Lincoln in the year 2000. Plans must be submitted and approved for any land disturbance proposed for areas greater than two acres. Even with these new standards in place, the City continues to experience severe problems with erosion and sediment control, most notably on sites under two acres. The absence of proper "best management practices" on construction sites has caused mud on sidewalks and streets, sedimentation in streams, water quality impacts, and stream stability problems.



## **S**SOLID WASTE

The City of Lincoln has entered into interlocal agreements with Lancaster County and all the villages and cities in Lancaster County, with the exception of Hallam, to serve as the lead agency for solid waste management in the County. The Public Works and Utilities Department, Solid Waste Operations in conjunction with the Lincoln-Lancaster County Health Department Environmental Division manages the City and County's solid waste management programs.

### **COLLECTION**

The City of Lincoln does not have a mandatory residential waste collection policy. A number of independent private companies are licensed to provide waste collection services to area residents. Residents may also haul their waste to a small vehicle transfer station located at 5101 North 48th Street.

Three villages in the county — Bennet, Davey and Panama — operate solid waste transfer stations. Residents transport their waste to these facilities. All other communities in the county offer residential waste collection.

### **DISPOSAL**

The City of Lincoln's primary solid waste sanitary landfill is located at Nebraska Highway 77 and Bluff Road, just north of I-80. This facility began operating in the late 1980's. It accepts approximately 800 tons of waste each day. The facility is projected to reach capacity near the year 2025.

The City also operates a landfill for construction and demolition debris at 5101 North 48th Street. This facility is located on the site of the County's previous solid waste landfill. The construction and demolition debris landfill is projected to have capacity through the year 2019. This location also hosts the small vehicle transfer station for the general public.

A portion of Lincoln's and Lancaster County's waste is being exported outside Lancaster County. This is the result of the acquisition of local waste collection firms and a landfill in Milford, Nebraska, by a national waste management firm.

## ENVIRONMENTAL SERVICES

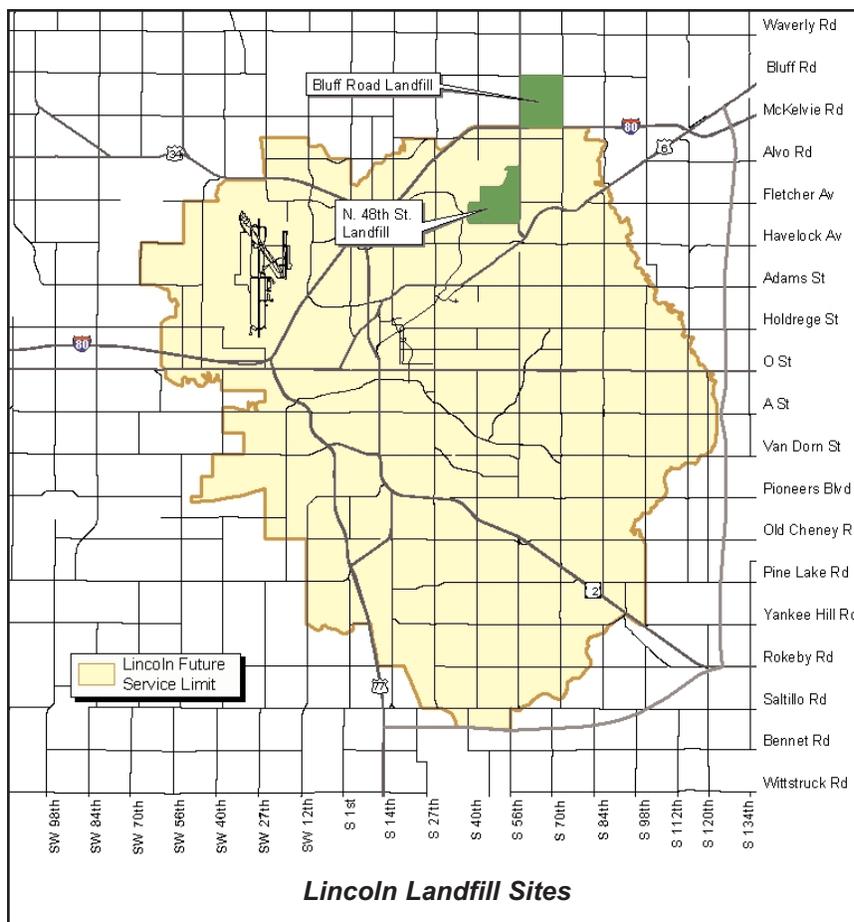
Lincoln's Solid Waste Operations and the Lincoln-Lancaster Health Department (Environmental Health Division) provide a wide assortment of integrated solid waste management services. These range from source reduction and pollution prevention to recycling and disposal. Many of these services are voluntary — that is, they are not specifically required by any federal and state regulations.

The City considers these services to be like any other utility. The City recommends that recycling drop-off sites be convenient to every resident in the community. Estimates are that the bio-solids, recycling, yard waste composting, and recycling drop-off programs, monitored from 1991 through 2001, have extended the life span of the city landfill by three years. If these current recycling programs were eliminated, the remaining life of the landfill would be shortened by an additional five years - closing in 2020 instead of the projected year of 2025.

Several of the programs, while not mandated, serve the purposes of helping achieve a mandate (i.e. special waste permitting), limiting the city's and county's potential long-term liability, or reducing future costs (i.e. household hazardous waste collections, pollution prevention consultation to businesses). This integrated program is financed through waste disposal fees, special waste permit fees, grants and to a very small degree city and county funds.

The City manages 26 recycling drop-off sites in the city and county. Twenty one sites are located in the City of Lincoln, of which 16 are multi-material sites accepting newspapers, cardboard, mixed paper (junk mail, magazines), glass bottles, plastic bottles, tin cans and aluminum cans. All five sites outside of Lincoln are for multi-material collection. They are located in Bennet, Davey, Hickman, Panama and Waverly.

The City also operates a Yard Waste Composting/ Wood Processing Facility and Wastewater Biosolids short-term storage area located next to the Bluff Road Landfill.



# ELECTRIC SERVICE

The Lincoln Electric System (LES) is owned by the City of Lincoln. It is operated under the direction of an administrative board appointed by the Mayor and City Council. LES is revenue producing and self-supporting (i.e., no tax funds are used by the system).

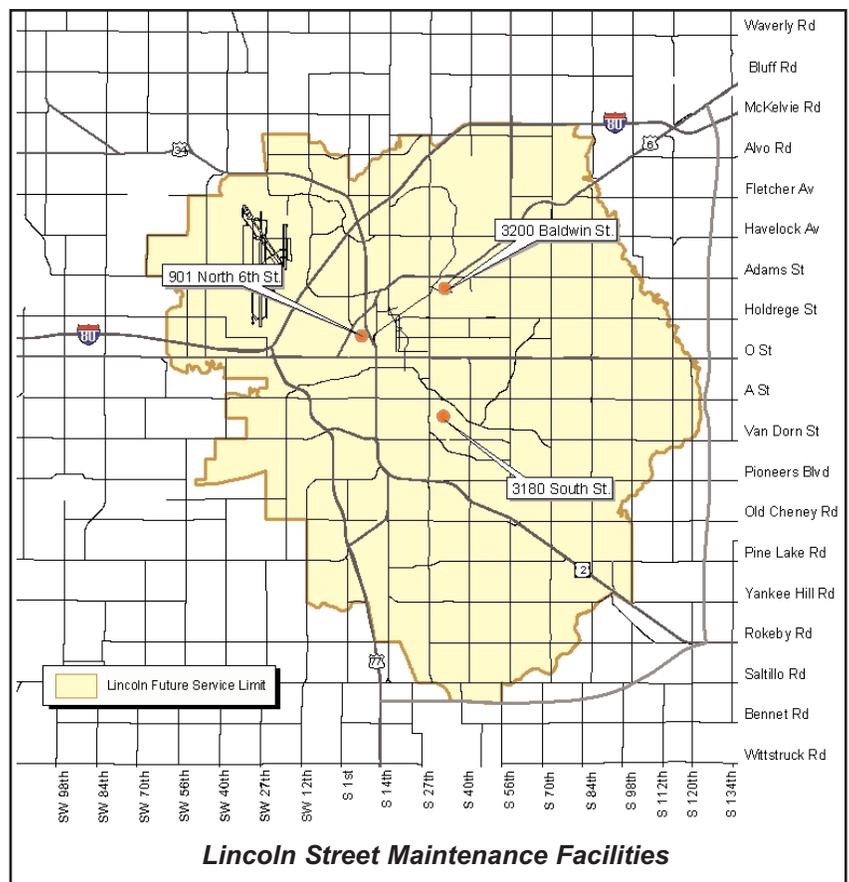
LES provides electric service to the City of Lincoln and most of the surrounding area within Lincoln's three-mile planning zone. The LES service area includes the City of Waverly and the unincorporated villages of Cheney, Walton, Prairie Home, and Emerald.

The balance of Lancaster County, including cities and villages, are served by the Norris Public Power District.

# STREET MAINTENANCE

The maintenance of city streets is the responsibility of the Lincoln Public Works and Utilities, Maintenance Division. The principal mission is to maintain the street and highway system within the corporate limits of the City in a safe, operable condition at a reasonable cost. Maintenance responsibilities include but are not limited to ice and snow control, paved and unpaved street and highway maintenance, storm sewer, open drainage and detention cell maintenance and right-of-way vegetation control.

The road system outside the corporate limits of Lincoln, not maintained by the State or Federal governments, is the responsibility of the County Engineer. Expansion of maintenance services provided will be in direct relationship to expansion of the corporate City limits and associated transportation network.



The City has three maintenance districts with operations centers located at 901 North 6th Street, 3180 South Street, and 3200 Baldwin Avenue.

The County Engineer has four districts with operations centers located in Lincoln, Waverly, Roca and Sprague. The County Engineer maintains a facility in each of the incorporated towns of the county.

Funding for maintenance services is provided through the City's General Fund and Street Construction funds.

# CABLE FRANCHISE

The City of Lincoln has a cable franchise agreement with Time Warner Cable. Time Warner provides cable television and high speed internet access to residential and business customers in the city. The franchise agreement provides Lincoln with a local public access channel called Lincoln Community Cable (LCC-TV) which broadcasts locally produced shows. Lincoln residential and business customers are also provided services by a number of private satellite companies offering television broadcast channels.

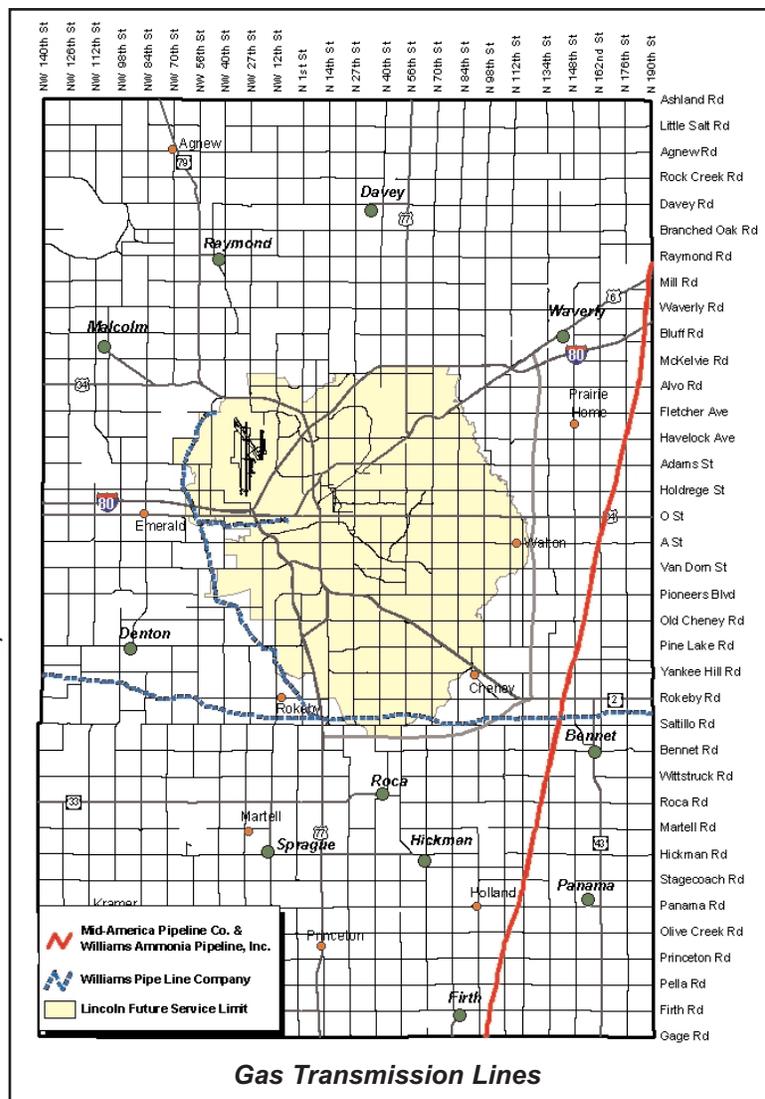
Rural areas, towns and villages in Lancaster County are provided service by a number of private cable and satellite companies offering television broadcast channels.

# NATURAL GAS SERVICE

Aquila (formerly known as Peoples Natural Gas) owns and operates natural gas and distribution systems in Lincoln and 10 other incorporated and unincorporated communities in Lancaster County. The company serves about 86,000 residential, commercial and industrial customers in Lincoln and another 4,000 in Waverly, Walton, Cheney, Bennett, Eagle, Firth, Panama, Hickman, Holland, and Woodland Hills.

Aquila transports natural gas to area customers through two major interstate pipeline systems which traverse the county - Northern Natural and Kinder-Morgan. Aquila is the only provider of natural gas services in the county.

Liquified propane is the other major fuel used in Lancaster County. Several propane distributors serve town and rural customers throughout the county.



# T ELECOMMUNICATIONS

The primary provider of general residential and business telecommunication within the city and county is Alltel Communications. Cellular telephone, personal communication services (PCS), specialized mobile radio, and paging are serviced by multiple carriers. These carriers are in various stages of system development.

Lincoln and Lancaster County are interconnected with fiber optic networks throughout Lincoln and the county. This system inter-exchanges with international carriers who have fiber optics throughout the county. In addition, Lincoln is served by eleven local and several national internet access providers.

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