

CITY OF LINCOLN DEPARTMENT OF Public Works & Utilities *Operations Overview*



Fiscal Year
2011 - 2012



**DEPARTMENT OF
PUBLIC WORKS AND UTILITIES
OPERATIONS OVERVIEW F.Y. 2011-2012**

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CITY OF LINCOLN

DEPARTMENT OF

Public Works & Utilities

Operations Overview



Fiscal Year
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Business Office
Accounting
Impact Fees
Customer Service

StarTran

Wastewater & Solid Waste
Sanitary Engineering
Water Pollution Control
Wastewater Collection
Solid Waste Management



Engineering Services
Street & Traffic Operations
Design & Construction
Development Services
Comprehensive Engineering
Information Services (CEIS)

Water System

Operations & Support
Production & Treatment
Transmissions & Distributions

Special Projects
Development

Watershed Management



CITY OF LINCOLN
NEBRASKA

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February 28, 2011

Ladies and Gentlemen:

The Public Works and Utilities management team is navigating through a new era characterized by exceptional planning, program analysis and performance review. A key element of our executive planning process is the evolution of the annual operating plans and summaries which detail the services provided, how they are measured, and what contributions they make to our community.

This F.Y. 2011-2012 Operations Overview again describes the nature of operations planning and how it impacts the delivery of meaningful services to all citizens. It outlines essential standards and measures used to both guide and evaluate performance. Above all, it provides a template to answer the question, "What benefits accrue to the community from the funds invested in the variety of services provided by Public Works and Utilities?" We believe that is a fair question that should be asked annually. This annual Operations Overview provides detailed answers.

As our community grows and changes, the maintenance of existing infrastructure and requirements for new systems will challenge the City. With a commitment to fiscal accountability, the Department is providing highly effective and efficient programs and support services to meet community needs. The Department continues to seek new methods of collaboration, resource sharing, and process review to promote prudent, cost-conscious services.

We are proud to offer this new Operations Overview for your review, and we invite you to call with questions or suggestions if you see opportunities to better serve our community.

Sincerely,

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Director of Public Works and Utilities

Fran Mejer
Business Manager

Roger Figard
City Engineer

Steve Masters
Special Projects Development

Larry Worth
Transit Manager

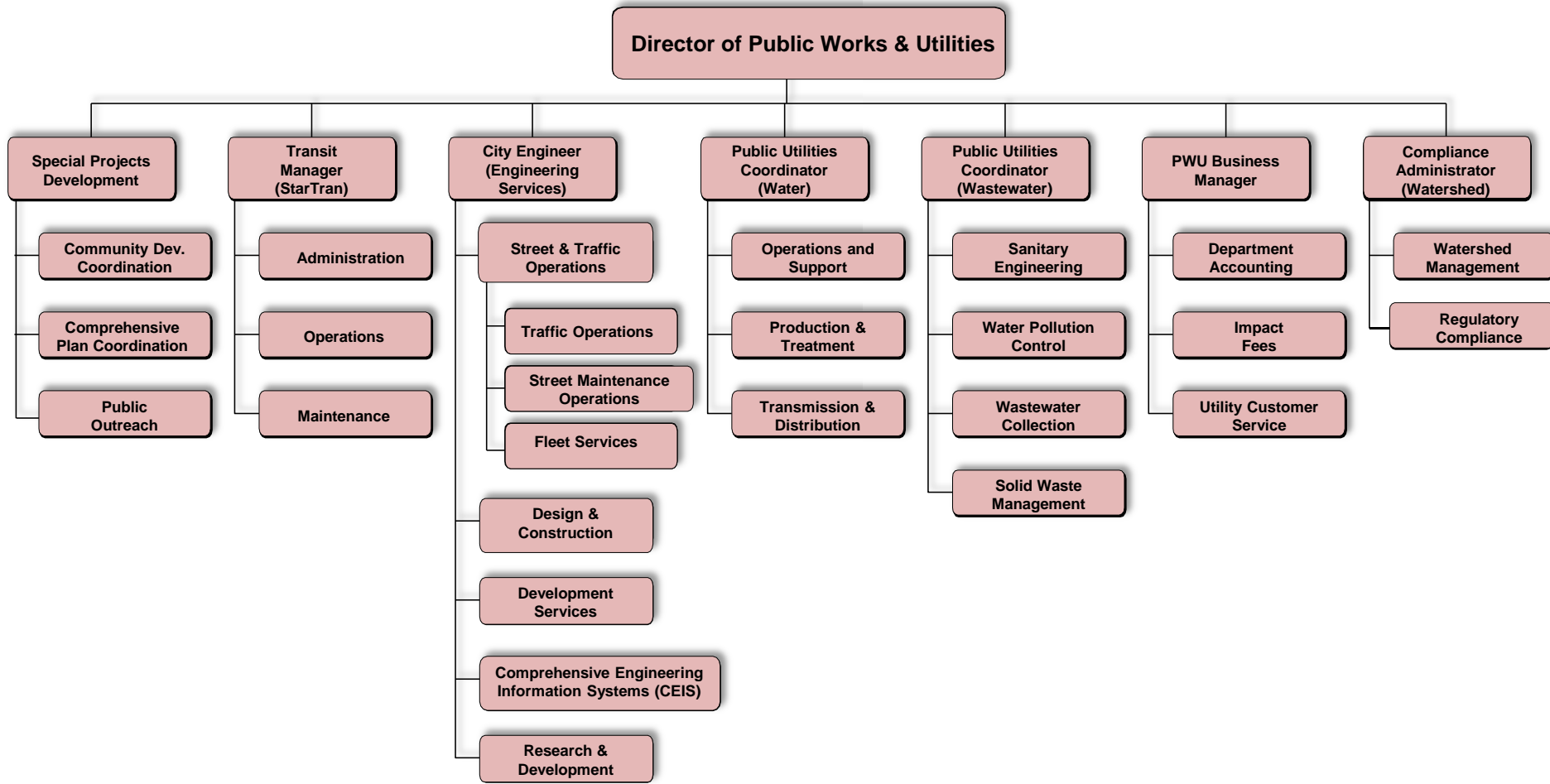
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Department of Public Works & Utilities

Fiscal Year 2011-2012





INTRODUCTION TO OPERATIONS PLANNING FISCAL YEAR 2011-2012

The Department of Public Works and Utilities believes that public agencies must commit to internal operations founded on principles of financial accountability, exceptional quality, consistent performance, and meaningful contribution to the community.

We also believe that far too few public agencies take time to develop and maintain operations plans that detail what a division or section does, what programs it is accountable for, what activities are undertaken, or what basic outcomes are expected. However, continuous progress requires that we have well-conceived operating plans that explain what services are offered to whom, what outputs are delivered, and how outcomes will be measured. Historically, there have been too few programs that link performance measures with budget allocation to create a ‘triage’ system based on what services are most essential to sustain an economically vibrant, safe, and harmonious community.

Operational planning provides clarity about what services are offered, what activities are essential, what outcomes are expected, and how performance will be measured. Value can be ascertained by comparing the magnitude of outcomes vs. program delivery costs. It is also important to calculate community well-being and quality of life and show how they are associated with key services whose value and sustainability can be factored into long-term and annual financial plans.

It seems clear that a budget is created to fund services that directly or indirectly serve the public. However, we believe that a chief executive must be able to understand what is being accomplished for the dollars spent. Public works managers understand that a proactive approach to program review and performance is much more powerful and meaningful than a reactive approach. That is, it is always better to report ahead of time what a department, division or section is doing and what it will contribute for the funds allocated. The best approach is reflected in operations planning, wherein managers report:

- ☞ What services are provided
- ☞ What outcomes or contributions accrue to the community
- ☞ Significant achievements made by the program unit
- ☞ Standards that are being maintained & why they are important
- ☞ Measurement criteria (metrics) used to assess performance
- ☞ Cost-benefit of the programs and services

Operations Plan Summaries for the Department of Public Works and Utilities include the most essential elements that define Department services.

Based on the Department’s Mission, we believe the primary questions are, ‘What work do we do here?’ and “How do we accomplish it?” Every department division has a purpose. Some are easily identified by their title, such as Street Maintenance Operations. But all divisions and sections follow operating parameters, standard procedures, and proven protocols. All of these guidelines provide the basis for the Department’s Operations Plan, which has specific elements.

ELEMENTS OF AN OPERATIONS PLAN

The overall Department plan is *a compilation of division plans with a departmental summary containing the organization's most essential services, outputs and outcomes*. These have been created from information found in division plans and showcase operational elements deemed most significant.

Division plans may contain more than the elements listed below but managers are held accountable for the following:

- Division & Section Missions
- Description of Programs & Services
- Important Outputs
- Expected Outcomes
- Performance Standards & Measures

It is important to note that an Operations Plan is more tactical than strategic. It is more about getting the work done than identifying and addressing critical issues and challenges that impact the mission or community. With an operating budget that funds these services, the question is, 'What is this Department doing with these funds and what outputs are being delivered?' Managers answer this question by describing what activities the division or section undertakes (outputs), what results (outcomes) were achieved, and what measures are used to assess performance.

While operations planning can be expanded significantly by adding more operating detail along with all operating procedures, we have chosen to summarize the most salient aspect of each division along with critical outputs and performance measures. Each division and section within divisions have presented their unique operating plans in a common format that describes what the unit does and how the work is performed.

In the future, the Department anticipates continuing to work toward detailed operations plans that will streamline the management of its overall operations, with new elements developed incrementally during 2009 operations.

OPERATIONS PLANNING GUIDELINES

Several questions are typically used to guide the Department's Operations Planning. All enhance understanding of missions, outputs, and outcomes, such as:

- ☞ What fundamental services does the division provide to the community?
(Or to other divisions if an internal support group?)
- ☞ Within those services, what activities (outputs) are done on a regular basis to achieve the division's or section's basic Mission?
- ☞ As a result of those normal standard activities, what is accomplished or achieved (outcomes)?
- ☞ What measures are used to track performance and/or delivery of the outputs and outcomes? Are they prepared at the beginning of each fiscal year? Are there standard measures that can be used annually and are they supported by reliable data?

UNDERSTANDING OUTPUTS & OUTCOMES

During 2008 and 2009, Department managers received training in both strategic and operations planning. Reviewers of this summary operations plan must understand the value of both outputs and outcomes to fully appreciate the content of division and section plans. Below are the essential definitions of outputs, outcomes and performance standards.

Output Measures - Counts of services or goods produced/delivered, such as number of people served, miles paved, pipes inspected, meters read, tons of solid waste collected, gallons treated, licenses renewed, permits processed, people trained, transactions completed, wells drilled, etc.

Outcome Measures - Assessment of actual impact of the outputs (services or actions) in measured achievements. These will relate to Goals and are in a sense ‘operating goals’ – desired outcomes that benefit the community. They are established as targets to be achieved during the current budget year. Some can be restated annually because they are norms that must be maintained. The City also has identified broad community outcomes that are longer-term achievements which all programs pursue.

Performance Standards - “An established and targeted level of performance expressed as a finite measurement against which actual achievement is compared.” In a Strategic Plan, measurements exist in well-written objectives and clear actions. In Operations Plans, performance indicators are stated in numbers or percentages; to create a standard of achievement they are expressed in a statement such as, “Eighty miles of collection pipe inspected annually.” Or “Response time maintained at < 1 hour from notification.”

Through the operations planning process, Department managers are becoming experts in strategic and tactical planning, creating clear goals and objectives, identifying outputs and outcomes, and establishing measures that define and determine annual performance.



DEVELOPING AN OPERATIONS PLAN – THE PROCESS FISCAL YEAR 2011-2012

Each division Operations Plan follows the same format and contains essential information that was compiled into this overall Departmental Operations Plan. Further detailed information will be reported in the Department's Annual Report. To expedite Operations Plan development, the following steps were followed:

- ✧ Existing Annual Reports that present divisions by section were reviewed to determine services provided to the community or to other organizational units. While some annual reports remain incomplete, it is the best place to begin. Along with the annual report, managers reviewed organization charts and listings of all sections and work units.
- ✧ By division and individual section all services were listed by topical area. For example, the Water Division is divided into several elements, each of which provides specific services. Once the sections were identified, all essential services provided in each were listed. Managers were asked to provide clear detail that could be edited or updated later.
- ✧ Once all service areas were identified, all 'sub-actions' or detailed activities were listed by service area. For example, water system maintenance might be accomplished by the maintenance section but there are many separate outputs that are carried out to 'maintain' the system. Managers were asked to identify all that are applicable. Similar to strategic plan 'fishbone diagrams,' this process identifies major services then breaks them into sub-services or primary and secondary outputs.

Another method used by managers was to consider the fundamental outcomes or results the division or section is responsible for, asking 'What is the basic purpose of the division and each section?' Planners then considered what benefits are provided to the community, or, if an internal support section, to other Departmental units. When building the Operations Plan it was also helpful to consider what is done on a daily, weekly, monthly, quarterly and annual basis. Again, what does the section DO? What services does it provide? Managers were encouraged to remember that is distills down to **What is done, How it is done, and Why it is done.** At that point, they were able to address measurement standards as noted below.

- ✧ Performance indicators or measures were identified for each output. These are metrics that determine efficiency, effectiveness, productivity, quality, and cost. For example, if meter reading is a service/ output of the division, how many meters read per day or per month constitutes good performance? What is the established productivity standard? If there are fixed outputs, answer the question, "What is the standard for expected performance?" Whether the task/ service/ activity/ output is completing forms, inspecting pipes, or repainting crosswalks, there should be a performance standard. How long should it take and how many resources are required?
- ✧ Outcomes are gauged by considering what benefits accrue from each service area and each listed output. As an example, clean & healthy water is an outcome from the basic service that provides safe drinking water to Lincoln, but also provides adequate fire protection. As with services/outputs managers must ask, 'What constitutes an acceptable standard or desired outcome?' Managers identified the most significant outcomes/ achievements that accrued

from the services delivered or activities completed by each division and section. To arrive at sensible conclusions, they asked. "If done properly, what is achieved?" For some divisions, such as Engineering Services, more analysis and discussion were required with internal and external customers to decipher the outcomes that can accrue and how they can be measured.

✧ A key point was made regarding establishing measurement criteria. Division managers were encouraged to take time to convene experienced employees and supervisors to discuss what constitutes performance, productivity and quality. If the question, "How do you know you are doing a good job?" is raised, what is your answer? What constitutes a good design? Quality performance in CEIS? Quality performance in Administrative Services? What standards have been established that will allow quarterly and annual measurement? Some typical measurements:

- Reduce expenditures or rate of increase
- Increase the number of people served
- Reduce cost per person/ transaction/ service
- Increase/decrease rates (\$, #, %)
- Reduce incidence (accidents, illness, complaints, failures, etc.)
- Decrease/increase time required to...
- Increase/decrease in usage
- Reduce the number of errors
- Maintain response times (emergency snow removal)
- Maintain service levels (such as water)
- Increase capacities (such as solid waste)

✧ For every Service/Output and anticipated/planned Outcome, managers took time to determine how they measured performance. Standard measures and benchmarks that can be used permanently were established.

KEY PROCESS POINTS:

1. *Operations Plans need measurement to evaluate performance in BOTH outputs and outcomes.* There is an unstated question regarding whether services are actually being provided, if they are efficient and cost-effective, of sufficient quality, and if the service provider is indeed productive. Every element of this question was addressed. Are there established standards? Of the services provided and outputs delivered, are they meeting performance standards? Can we prove that departmental services are efficient, cost-effective and high quality? Are the services valuable to the community and what determines that?
2. As noted earlier, operations planning for the Department entails an amount of detail sufficient to assess operating performance and value to the community. While more detailed division plans will develop over time, the initial Operations Plans will have the basic content outlined and described in the previous sections.

Process Overview – A Summation

Each division and section was asked to follow the steps below:

1. Within each Division, list major elements (sections) per the organization chart.
2. Within each section, identify each major work unit if present.
3. Describe each section clearly and concisely.
Use data if available to show magnitude/impact/value.
4. For each section or work unit, list major **outputs** (services provided).
5. For each section or work unit, list service **outcomes** with clear, measurable metrics.
6. Identify all essential standards & benchmarks and the sources used to measure performance.
7. Summarize primary and secondary outcomes for the entire Division in one summary section.
8. List any community outcomes that are influenced by operational services.

The process used to compile operations plans and summaries parallels strategic planning and therefore utilized similar information prepared during that planning phase. Operations planning is an annual exercise but is expedited each year by using historic data, standards, and service listings. The Operations planning process will be an integral part of the Department's planning, program analysis, and performance review from this point forward.



DEPARTMENTAL SUMMARY

OPERATIONS OVERVIEWS BY DIVISION

FISCAL YEAR 2011-2012

The following provides an overview of each division's mission and primary operational areas. Reviews indicate breadth, scope and magnitude of Departmental services and the impact those diverse services have on the Lincoln community. Divisions are presented in alphabetical order. Emphasis is on mission-driven operations rather than intra-division support, management or administrative operations.

BUSINESS OFFICE

OPERATIONS OVERVIEW

Mission

To provide sound accounting, customer service, and financial management and planning services to support Public Works and Utilities projects and programs.

PRIMARY SERVICE AREAS

DEPARTMENT ACCOUNTING

The accounting section provides services for the Department's \$147.5 million annual budget and capital financing program. The work of this section results in timely, accurate and meaningful financial information to support management decision-making and demonstrate fiscal responsibility and accountability to the citizens of Lincoln. The accounting section promotes the efficient use and stewardship of City resources and compliance with regulations and reporting requirements through technical financial and analytical skills and expertise in accounting knowledge. This section is in charge of project accounting, billing and collections, maintenance of accounting/reporting system, vendor payments, and accounting support for a department of 560 people.

IMPACT FEES

Impact Fees play a key role in the financing required for new infrastructure construction. Of the greater than \$321 million in new streets, water and wastewater construction costs identified in the six-year 09/10 Capital Improvement Program; Impact Fees represent 12% of the overall funding (over \$39 million).

Additionally, Impact Fees provide developer reimbursements for new infrastructure construction costs through the Directed Impact Fee policy. These commitments, over the next 12-year period, equate to over \$71 million in new infrastructure construction commitments. As of August 2009, 13,386 Impact Fee applications have generated \$28 million in revenue with only a 2% overhead cost. The Directed Impact Fee policy is currently under review.

CUSTOMER SERVICE

This Section, staffed by 17 employees, provides exceptional customer service by serving approximately 12,000 walk-in customers and 54,700 phone customers each year. The Section also fosters public

awareness by making contact with water/wastewater customers through billing inserts and water conservation inserts over 472,000 times per year. This Section receives payments, performs collections, issues permits for new and replacement water and sewer taps, obtains over 485,000 water meter readings per year, efficiently produces accurate billings on schedule, processes final billings, and is the central team fielding customer questions and complaint resolution. Further the Section is responsible for commercial building and fire suppression plan utility review and approval.

ENGINEERING SERVICES OPERATIONS OVERVIEW

Mission

This diverse division helps build and maintain the infrastructure foundation of the City to ensure that future growth is facilitated and sustainable.

PRIMARY SERVICE AREAS

ADMINISTRATION

The Administration Section is the primary contact for most customers, receiving and tracking complaints and requests for services, greeting customers and helping them quickly and efficiently receive assistance. 21,000 messages are taken on phone contacts and 3,000 letters are mailed and over 1,400 meetings are scheduled to support the Division annually. In addition, the section processes 500 executive and directorial orders, over 1,000 invoices, 500 formal requests for information and 1,491 complaints each year. Assistance is also provided to other sections within Engineering Services, such as tracking payments and bidding documents for Design and Construction, working with permits and the sidewalk program, releasing bonding requirements for Executive Orders, and handling personnel paperwork.

DESIGN AND CONSTRUCTION

The Design and Construction section is responsible for ensuring that capital improvement projects are delivered on-time and on-budget. The section creates and tracks the funding for the annual Capital Improvement Program for transportation, as well as providing design and construction observation services for projects by other sections and departments.

COMPREHENSIVE ENGINEERING INFORMATION SERVICES (CEIS)

CEIS supports the mission of the Department through the delivery of innovative cost-efficient technology and asset management solutions. It oversees the installation and maintenance of computers, communication systems, software programs, and custom applications for over 290 end users. Continuity of services is provided through data backup and service restoration. Staff identifies opportunities for new technologies, develops implementation plans, acquires, installs and maintains technology systems critical to the Department; delivers technology services and maintains standards that efficiently and cost effectively meet and improve the needs of Engineering Services and other Public Works Divisions. CEIS provides asset management services including records management for Water, Traffic Communication, Sanitary Sewer, Paving and Markings. The Asset Management component addresses the City limits, compliance with State record retention schedules and some subdivision/construction drawing review.

STREET & TRAFFIC OPERATIONS

The Street and Traffic Operations section provides professional street maintenance and operations expertise services to the community. Goals include efficiently and responsibly preserving existing streets, sidewalks, drainage and traffic control systems, monitoring and coordinating all activities taking place within all public street rights-of-way and operating the transportation network to provide for safe and efficient movement of traffic. This section is responsible for traffic signals, traffic signage, pavement markings, street/sidewalk/drainage maintenance, snow removal and traffic studies. The section maintains a staff with diverse technical skills, education and talents who care very deeply about their community and who have devoted their careers to reaching these goals.

DEVELOPMENT SERVICES

Development Services is responsible for providing review comments for the Public Works and Utilities Department for the subdivision and zoning applications made to the City through the Planning Department. In 2010 it provided 273 planning application reviews, 213 building plan reviews, and 5 EOs written and plans reviewed. Development Services initiates and provides review and coordination of construction plans for Executive Orders, authorizing private construction of public infrastructure. This section also establishes surety amount and initiates surety releases (\$8.6 million released) for various sureties required in the subdivision and Executive Order process that guarantee the construction of various Public Works and Utilities infrastructure improvements.

SPECIAL PROJECTS DEVELOPMENT (COMMUNITY DEVELOPMENT COORDINATION) OPERATIONS OVERVIEW

Mission

Special Projects Development facilitates harmonious and efficient community growth through project planning and implementation, prudent financial planning and collaborative project oversight that maximizes value to citizens through strategic alliances and broad based interagency cooperation.

PRIMARY SERVICE AREAS

LIAISON SERVICES

Through project facilitation efforts, the “liaison” function provides the benefit of early Department involvement in community projects to ensure accurate analysis, prudent financing, timely design, shared project management and rapid issue resolution. Responsibilities also focus upon fiscal monitoring within the Department and public information.

ENTITLEMENTS

The development community has not historically had clear, process-driven policies to guide expectations regarding what developers can expect the City to pay for in a new development, such as water, sewer, streets, signage, etc. This service area is being enhanced and will fully clarify what standards the City

follows regarding its contributions and obligations and what obligations & entitlements developers have. An area of future emphasis is to better clarify the timelines and obligations of developers.

PUBLIC OUTREACH

This service area addresses the need for meaningful, easily-understood information for the community regarding public works and utility projects that demonstrates why they are essential to the City's prosperity, economic vitality and overall well-being. Proper outreach will provide additional clarity about capital construction projects, maintenance and other key services provided by the department that profoundly impact citizens and business. Further, briefing the Mayor and City Council on key topics in a timely manner provides opportunities that can be expanded through the media to a larger public.

STARTRAN OPERATIONS OVERVIEW

Mission

To provide the citizens of Lincoln a convenient, reliable, comfortable, safe and affordable public mass transit system.

PRIMARY SERVICE AREAS

ADMINISTRATION

Management is responsible for overall administrative and supervisory work coordinating the direction of the entire transit system, including all Sections of StarTran. This section has responsibility for development of service information in an expanding community, including, marketing services to the public and businesses, managing public information, media, public relations and program development. It also is responsible for all financial oversight of accounting records and fiscal records, budgeting, and maintenance of personnel records. Financial services are conducted in accordance with local and federal financial regulations and internal audit controls.

OPERATIONS

The Operations Section is responsible for the oversight of Bus Operators and Dispatchers/Field Supervisors for fixed route service and Handi-Van service. This section oversaw 1,753,777 bus trips and 55,769 special service trips in 2010 and is responsible for organizing operations, bus operator scheduling, vehicle scheduling, vehicle dispatching and accident/incident investigation to ensure service quality and on-time performance. The section also manages the Drug & Alcohol Program and interpretation of bus operator union contract.

MAINTENANCE

The Maintenance Section is responsible for inventory management and control, revenue vehicle and non-revenue vehicle maintenance, and facilities maintenance. This section also coordinates the StarTran Safety Program, and manages building and capital projects.

WASTEWATER AND SOLID WASTE OPERATIONS OVERVIEW

Mission

The Wastewater and Solid Waste Division's mission is to provide vital wastewater and solid waste services to all citizens, ensuring the highest possible levels of public health, economic growth, environmental quality, and fiscal responsibility for the community.

PRIMARY SERVICE AREAS

WASTEWATER COLLECTION

The Wastewater Collection Section provides continuous and reliable sanitary sewer service to the public through a comprehensive maintenance program and expansion of the sanitary sewer collection system as needed, and provides sufficient capacity for existing and future development. It also manages a capital improvement program to increase capacity and to rehabilitate sanitary sewer pipes and manholes.

SANITARY ENGINEERING

The Sanitary Engineering Section responsibility is to manage and operate the Industrial Pretreatment Program for the City of Lincoln and provide technical and environmental services for the Wastewater and Solid waste operations. This includes metering and sampling for wastewater flow, laboratory analysis, and environmental design services. Sanitary Engineering also provides operating and CIP budget support to the other sections of Wastewater. This includes budget development, preparation, submittal and tracking of the budgets. Cash flows and projected expenditures are created on a 6 month basis for Capital Improvement Projects.

WATER POLLUTION CONTROL

Wastewater Treatment Operations and Maintenance is responsible for treating all residential, industrial, and commercial wastewater generated within the City of Lincoln. Staff maintains and operates two (2) wastewater treatment facilities and fifteen (15) remote pumping stations that meet all local, state, and federal regulations while providing services in a cost effective manner to all customers. Staff also develops budget plans for capital improvements and process equipment replacement/acquisition.

SOLID WASTE

Solid Waste Operations provides responsible and economical management of all solid wastes generated within Lincoln and Lancaster County to protect human health and the environment. Solid Waste Operations provides effective waste reduction, waste diversion, material reuse and recycling programs, and efficient waste transfer and waste disposal operations that comply with local, state and federal regulations and the Lincoln – Lancaster County Integrated Solid Waste Management Plan.

LINCOLN WATER SYSTEM OPERATIONS OVERVIEW

Mission

The Lincoln Water System mission is to efficiently pump, treat, and distribute a safe and adequate supply of water to its customers for the health, growth, safety, and economy of the community.

PRIMARY SERVICE AREAS

WATER DISTRIBUTION

The Distribution Section maintains, repairs, meters, and evaluates Lincoln's water distribution system so that high quality, safe water is delivered to customers in a cost effective manner. Distribution staff works daily to ensure the system remains in proper working condition and is adequately expanded to accommodate future growth so constant and reliable water service is provided to customers. The section maintains over 1,000 miles of water mains, 23,000 valves, and 10,500 fire hydrants, and is accountable for water service to over 80,000 customers including meter replacement and maintenance, cross connection control, and inspecting water services. The section is also responsible for locating water mains under the State's one call system. The section reviews system expansion plans, and implements and manages replacement water main construction projects.

WATER OPERATIONS SUPPORT

The Water Operations Support Section provides appropriate information and tools for LWS employees and managers to complete work in a timely and efficient manner, and provides management of the Capital Improvements Program (CIP) so customers receive maximum value for dollars invested. These CIP projects replace or rehab existing infrastructure or provide for system growth. This includes maps and records, one-call ticket management, safety and training, computerized maintenance management system, capital improvement program development, system modeling, and benchmarking

WATER PRODUCTION AND TREATMENT

Water Production is comprised of two sections - the Ashland Section and the Lincoln Section. Ashland staff is responsible for the pumping, treatment and delivery of a safe, adequate and reliable supply of water to Lincoln in an efficient and cost effective manner. Ashland maintenance staff maintains 42 wells with 46 pumps and motors, 1600 acres of well field property, 12 high pressure pumps and motors which deliver water to Lincoln, and numerous buildings for the treatment of water. Ashland operators, on duty 24 hours per day, 7 days per week, 365 days per year, are responsible for pumping, treating and delivering water to Lincoln, and monitoring and controlling water pressures, flows and reservoir levels in and around Lincoln. Lincoln staff maintains 15 pumping stations with 52 pumps and motors, 100 acres of property at 15 locations and 11 reservoir sites with 106.5 million gallons of storage capacity. Water Production employees ensure that all equipment is in proper mechanical and electrical working order and buildings and grounds are maintained. Water Production employees collect and analyze water samples throughout the treatment process and in the distribution system to ensure compliance with State and Federal Safe Drinking Water Act standards. Water Production and Treatment also employs a Security Manager position responsible for CIP planning and implementation of security measures throughout the water system.

WATERSHED MANAGEMENT OPERATIONS OVERVIEW

Mission

To improve water quality, manage stormwater, reduce flood hazards, and insure that the City meets Federal requirements for clean water in streams and lakes.

PRIMARY SERVICE AREAS

DELIVER STORMWATER ENGINEERING AND PROJECTS

Within Lincoln's 3-mile jurisdiction there are 247 square miles of watershed areas consisting of 12 major drainage basins with 309 linear miles of mapped floodplains. Water quality, flood management, and stream stability are specific issues that impact the public in each of these basins. The division creates watershed master plans for individual basins to be used as planning tools for reference in conjunction with proposed development and used as a guide in the preparation of future capital improvement projects. Six master plans have been completed which recommend implementation of a total of over 45 remaining flood management, stream stability, and water quality projects. A seventh master plan is currently underway.

Lincoln has also experienced repeated localized flooding issues and failing infrastructure related to local drainage in the urban area. The division has completed preliminary engineering for approximately 137 of 581 miles (24 percent) of the storm drainage system within Lincoln's urban area, which represents the area of greatest stormwater system deficiencies. This preliminary engineering has identified a minimum of over 40 projects to correct drainage deficiencies which the department has projected completing over the next several years.

This service area also entails Geographic Information System mapping and modeling to develop the best available information and analysis regarding flood management, drainage areas, and water quality improvements.

MANAGE LINCOLN'S CLEAN WATER PROGRAM

Locally, seven out of eighteen streams and lakes in the Lincoln area (39% of all waterbodies tested in and adjacent to the Lincoln City limits) are categorized on the State of Nebraska's formal list of polluted waters indicating that they are unsuitable for their listed uses. Pollutants listed include copper, pH, conductivity, selenium, E-Coli, ammonia, dissolved oxygen, chlorides and atrazine.

The State issued a stormwater permit to the City authorizing it to discharge stormwater from the urban drainage system into streams and lakes, but mandates the City must meet Federal Clean Water Act requirements by implementing specific program elements designed to address water pollution issues in those discharges. Managing Lincoln's Clean Water Program is a time-intensive service involving numerous projects and programs and a broad range of expertise. There are over 50 activities under eight major program component outputs associated with implementing this plan.

DEVELOPMENT REVIEW SERVICES

Review plans for land development and infrastructure projects to ensure city standards are followed and departments coordinate project development. This process reduces the likelihood that post construction conditions will adversely impact properties adjacent to proposed projects and that established City standards for floodplains and stormwater will be followed. Also included in this process is the review and updating of the City's Design Standards and the Drainage Criteria Manual.

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OPERATIONS PLANNING

DIVISION SUMMARIES

Fiscal Year 2011-2012

The following sections contain operating plan summaries from each division. The organization chart on page 3 helps to clarify where the division and principal sections reside within the overall Department structure. To promote clarity and ease of review, all summaries follow the same format based on the following:

Division Mission - Each division provides a summary of its primary mission along with any additional information deemed important for understanding the scope and purpose of its services.

Description of Key Sections – A brief review of each operating section is provided to include its purpose and responsibilities. Due to the variety of sub-sections found in the Department, only the major sections in each division were asked to report. However, information from smaller subsections has been rolled into the overall summary.

Listing of Services – Since each division has presented its program services by section, each has listed and described all services provided to the public and to other private, city, county, state or federal agencies.

Outputs & Performance Measures – Each section has analyzed and presented all essential service outputs provided to the greater Lincoln community along with critical standards and measures used to evaluate performance and progress. Department divisions and sections have completed strategic plans and operational studies to determine the most important means of determining achievements toward long-term goals and annual objectives.

Standards or Benchmarks – The Department follows a wide variety of established standards or benchmarks to maintain quality, consistency and reliability. Many outputs and performance measures have standards mandated by federal or state agencies and many have been established by technical authorities such as the American Water Works Association, American Public Works Association, or American Society of Civil Engineers. Hundreds of standards exist for virtually every element of Public Works and Utilities. Similarly, over many decades the Department has developed many standards specifically for the City of Lincoln through collaboration with the Mayor’s Office, City Council, and local professional organizations.

Anticipated Community Outcomes – The Mayor has established a set of desired community outcomes that all programs and services must contribute toward. Each section’s operational review lists and briefly describes the primary and any secondary community outcomes impacted by each service area.

Each division and section is dedicated to providing clear data that indicates service breadth and scope, value, and contribution to the community. The Department has many operating sections within its six principal divisions. All are committed to efficient and relevant public service. The following division operations summaries indicate the magnitude and importance of the many services being provided to the citizens of Lincoln by the Public Works and Utilities Department.

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Watershed Management



BUSINESS OFFICE DIVISION

F.Y. 2011-2012 OPERATIONS OVERVIEW

Mission

To provide sound accounting, customer service, financial management and planning services to support Public Works and Utilities projects and programs.

SECTION: ACCOUNTING

The accounting section provides accounting for the Department's \$160.9 million annual budget and capital financing program. The section's work results in timely, accurate and meaningful financial information to support management decision-making and demonstrate fiscal responsibility and accountability to the citizens of Lincoln. The accounting section promotes the efficient use and stewardship of City resources and compliance with regulations and reporting requirements through technical financial and analytical skills and expertise in accounting. This section is in charge of project accounting, billing and collections, maintenance of accounting/reporting system, vendor payments, and accounting support for a department of 560 people.

1. Service – Project Accounting

Accurately set up construction projects and identify and compile project costs for approximately 1,200 projects throughout the department. Maintain precise job costs for management decision-making and maximize cash flow.

Outputs & Performance Measures:

- Create and compile on demand job cost reports - 100% accurate
- Evaluate and maintain cash flow requirements - 100% accurate
- Invoice reimbursable projects accurately and timely - On-time; zero backlog

Standards or Benchmarks:

- Maintain minimum cash balances by fund – Maintained 100% of time
- Provide cash flow projections monthly – 100% on-time; 100% accurate
- Provide project reports on demand – Response within 3 work days
- Provide job cost detail at a level management can use

Mayor's Community Outcome: Support services not specifically addressed
Additional Outcomes: Accountable Government

2. Service – Billing and Collections

Develop and implement billing and collections policies for the Public Works and Utilities Department to facilitate efficient billing and collections procedures that maximize revenues required to operate the Public Works/Utilities Division. The Division's billing and collection activities center around three major groups: (1) individuals, (2) businesses, and (3) Federal/State agencies.

Outputs & Performance Measures:

- Bill timely and accurate invoices to customers on a monthly basis Zero late bills
- Process timely and accurate deposits daily 100% accuracy

- Produce timely and accurate statements to customers 100% accuracy on a monthly basis
- Maintain excellent working relations with customers <1 % complaints

Standards or Benchmarks:

- Start tracking and reduce number of customers inquires – reduced by 10%
- Customer deposits are processed within two days
- Reduce days to collections (from billing to payment) by 10%
- Mail statements to customers within 5 working days from start of month

Mayor’s Community Outcome: Support services not specifically addressed
Additional Outcomes: Accountable Government

3. Service – Maintenance of Accounting/Reporting System

Maintain accounting system integrity and reporting capability. Stay current on accounting needs and system updates. Continue developing financial system capabilities and further enhance system efficiency and effectiveness.

Outputs & Performance Measures:

- Produce and maintain reliable, quality and accurate financial information Zero errors
- Educate/train 3 staff on Excel software & migrate all Lotus files to Excel 100%
- Educate users on proper use of financial system 75% of users

Standards or Benchmarks:

- Maintain updated accounting software as needs are identified
- Offer training to users on an as needed basis

Mayor’s Community Outcome: Support services not specifically addressed
Additional Outcomes: Accountable Government

4. Service – Accounts Payable

Timely and accurately process over 24,300 payment vouchers yearly to vendors providing goods and services to the Department. Processing these payments involves not only timely and accurate payments, but verifies that proper procedures have been followed (i.e. utilizing City contracts when appropriate). This ensures the efficient use and stewardship of taxpayer/ratepayer monies.

Outputs & Performance Measures:

- Three clerks process 2,000 payment vouchers every month
- Reduce items not purchased on City contracts by 5%

Standards or Benchmarks:

- Vendor payment documents are processed within two days
- Vendor inquiries are processed and resolved within 24 hours
- Reduce processing errors by 10%

Mayor’s Community Outcome: Support services not specifically addressed
Additional Outcomes: Accountable Government

5. Service – Accounting Support to Management and Staff

Provide accounting support to management and staff with timely, accurate, and meaningful information that supports management decision-making. A key effort is to educate and assist staff on how to use and obtain information from the accounting system, which saves time and builds efficiency throughout the Department.

Outputs & Performance Measures:

- Educate staff on the functionality of JDE 75% capable
- Educate staff to use JDE so they are more proficient 75% proficient

Standards or Benchmarks:

- Inquiries and reports are available on demand 100% of time
- New reports are generated within two days of request
- Staff better able to perform basic inquiries and run reports in the financial system without assistance from business office – 100% of staff highly capable in use of financial system

Mayor’s Community Outcome: Support services not specifically addressed

Additional Outcomes: Accountable Government

SECTION: CUSTOMER SERVICE

This Section, staffed by 17 employees, provides exceptional customer service by serving approximately 12,000 walk-in customers and 54,700 phone customers each year. The Section also fosters public awareness by making contact with water/wastewater customers through billing inserts and water conservation inserts over 472,000 times per year. This section receives payments, performs collections, issues permits for new and replacement water and sewer taps, obtains over 485,000 water meter readings per year, efficiently produces accurate billings on schedule, processes final billings, and is the central team fielding customer questions and complaint resolution. Further, the Section is responsible for commercial building and fire suppression plan utility review and approval.

6. Service – Water Meter Reading Unit

This unit has one meter reader that efficiently obtains 40,492 water meter readings for five bi-monthly cycles and one monthly cycle each month. Maintaining a precise read date schedule of 30 and 60 days is a priority to providing accurate, consistent data to our customers.

Outputs & Performance Measures:

- Obtain water meter readings electronically 80,983 every 2 months

Standards or Benchmarks:

- Read and bill 5 cycles and 1 monthly cycle per month to maintain revenue flow (Lincoln standard calculated from historic cost and time studies and subsequent results from new process implementation)
- Reduction in time, cost and effort required to maintain water billing benchmarks and billing system operations

Mayor’s Community Outcome: Support services not specifically addressed

Additional Outcomes: Accountable Government

7. Service – Billing Unit

The billing unit, consisting of four employees, is responsible for reviewing the data compiled from the 40,492 water meter readings for six billing cycles per month. The unit produces accurate billings by investigating and researching accounts with abnormally high or low usage and produces bills for 140

monthly/industrial accounts (equaling 395 meters). From these industrial accounts, a total of 12 are manually hand billed for sewer surcharges.

Outputs & Performance Measures:

- Number of water/wastewater accounts billed 39,370/ month

Standards or Benchmarks:

- Bill 5 cycles and 1 monthly cycle per month in order to maintain revenue flow (Lincoln standard calculated from historic cost and time studies and subsequent results from new process implementation)
- Reduction in time, cost and effort required to maintain water billing benchmarks and billing system operations. Accuracy maintained at > 98%.

Mayor's Community Outcome: Support services not specifically addressed

Additional Outcomes: Accountable Government

8. Service – Collections Unit

One employee staffs this unit and is responsible for sending delinquent account notices and courtesy one-day shut off notices to customers in arrears. Makes critical decisions in determining when a customer's water/wastewater service must be turned off. This employee answers over 1,000 incoming telephone calls per month.

Outputs & Performance Measures:

- Answer telephone calls relating to account analysis, problem solving, customer service (direct public interface) over 50 calls per day
- Administrative activities that result in efficient collections of account receivables; maintain zero backlog & zero response delays
- Crisis intervention and planning for various financial and social responses to anticipated delinquent accounts. Response within 4 hours from notice.

Standards or Benchmarks:

- Maintain collection of account receivables and reduction of 180 day past due arrears (Lincoln standard calculated from internal annual credit list report, compiled from mainframe)
- Reduction in time, cost and effort to maintain collection benchmarks and collection operations (standards established over past ten years of internal business analysis). Response, backlog, and accuracy standards maintained.

Mayor's Community Outcome: Support services not specifically addressed

Additional Outcomes: Accountable Government

9. Service – Call Center Unit

This unit, staffed by four employees, maintains quality customer service by answering over 3,200 incoming customer telephone calls per month. The Call Center is responsible for change of service requests, producing final billing orders, entering journal entries, handling billing questions, and answering general customer questions pertaining to their water/wastewater accounts.

Outputs & Performance Measures:

- Answer telephone calls from water/wastewater customers 38,766/ year
- Produce final billing orders 7,739/ year

Standards or Benchmarks:

- Efficiently answer over 38,700 customer calls per year to maintain quality customer service (Lincoln standard calculated from historic benchmarks generated by utilizing the Automatic Call Distribution (ACD) system)
- Reduction in time, cost and effort required to maintain customer service levels and customer service operations. Response time, backlog, and accuracy are used as benchmarks and are tracked internally against historic records.
- Increase call center customer service levels 2% by reducing the average customer wait time from 31.4 seconds to under 30.8 seconds

Mayor's Community Outcome: Support services not specifically addressed

Additional Outcomes: Accountable Government

10. Service – Cashiering Unit

The cashiering unit processes payments received for water/wastewater bills and water/wastewater tapping permits. This unit, staffed by two cashiers, manually processes an average of 1,062 payments per day. Payments are received through the mail, walk-in customers and via electronic methods. This unit maintains effective and efficient revenue flow by processing a combined total of over 472,000 payments per year (with annual growth) – a total of 236,000 per FTE annually.

Outputs & Performance Measures:

- Process payments 39,333 transactions/ month

Standards or Benchmarks:

- Process over 39,000 payments per month to maintain revenue flow (Lincoln standard of 750 payments per FTE per day calculated from historic internal reports); zero backlog and 99% accuracy
- Increase customer enrollment in e-billing by 10% from 4,840 to 5,324

Mayor's Community Outcome: Support services not specifically addressed

Additional Outcomes: Accountable Government

11. Service – Permits Unit

One employee staffs this unit and issues permits for new and replacement water/wastewater taps (841), ensuring that plan review is approved and comments are followed; responsible for maintaining 78,740 water and wastewater tap records and permits.

Outputs & Performance Measures:

- Issue water/wastewater tapping permits 841 permits F.Y. 2010
- 100 percent of plan reviews are conducted and approved before service
- 100 percent of transactions recorded/maintained

Standards or Benchmarks:

- Issue water/wastewater tapping permits to maintain revenue flow at \$336,613.00 annually (Lincoln standard calculated from historic permit applications). Lincoln Municipal Code Title 17 standards followed.

Mayor's Community Outcome: Support services not specifically addressed
Additional Outcomes: Accountable Government

SECTION: IMPACT FEES

Impact Fees play a key role in the financing required for new infrastructure construction. Of the greater than \$323 million in streets, water and wastewater construction identified in the 6-year 10/11 Capital Improvement Program, \$82 million is known as new or additional service capacity construction. Impact fees represent 50% (\$41 million) of the funding for the new or additional service area construction costs. Additionally, Impact Fees supply a portion of the funding for developer reimbursements for new infrastructure construction costs through the Direct Impact Fee Policy. These developer commitments, over the next 12-year period, equate to over \$72 million in new infrastructure construction commitments. As of August 2010, 14,670 Impact Fee applications have generated \$31 million in revenue with only a 2% overhead cost.

12. Service – Provide Correct Calculations and Accurate Determinations in a Timely and Cost Effective Manner

Outputs & Performance Measures:

- Pre-application consultation on projects as requested by applicants via phone, email or in person. Response within 8 hours.
- Research each application providing credit where applicable. Research initiated within 2 working days.
- Provide analysis and application of appropriate fees for declared use with less than 24-hour turn-around approval time

Standards and Benchmarks:

- Less than 24-hour turnaround on applications
- Perform calculations with 100% accuracy
- 2 or less formal appeals filed annually

Mayor's Community Outcome: Support services not specifically addressed
Additional Outcomes: Accountable Government

13. Service – Provide Accurate Accounting of Impact Fee Collections and Expenditures

Outputs & Performance Measures:

- Allocation of collected funds into respective district infrastructure accounts within 2 days of deposit
- Accurate and efficient monthly reporting; Zero errors
- Timely and accurate monthly reconciliation; Zero errors

Standards and Benchmarks:

- Responsiveness and accuracy; full accountability for fees and expenditures

Mayor's Community Outcome: Support services not specifically addressed
Additional Outcomes: Accountable Government

14. Service – Administration of the Developer Agreement Directed Impact Fee Process

Outputs & Performance Measures:

- Participate in meetings and annexation agreement negotiations. 95% participation.
- Manage the directed impact fee dollars by monitoring revenue generated, payments made, and requests for payment when due; 100% accuracy
- Provide oversight on the request for payment eligibility by reviewing supporting documents submitted for payment. Reviews completed within 2 days.
- Provide DIF reconciliation; 12 reconciliation reports per year

Standards and Benchmarks:

- 100% accuracy of collections and payments based on agreements
- 100% timeliness of quarterly payments

Mayor’s Community Outcome: Support services not specifically addressed

Additional Outcomes: Accountable Government

15. Service – Update Impact Fee Model every 3 Years

Outputs & Performance Measures:

- Work with Water, Wastewater, Engineering Services, and PWU accounting staff to capture relevant data; 100% participation
- Apply updated data to the model; 100% currency; no backlog

Standards and Benchmarks:

- The Impact Fee model reflects the projected costs required to provide new services

Mayor’s Community Outcome: Support services not specifically addressed

Additional Outcomes: Accountable Government

16. Service – Low to Moderate Income Affordable Housing Relief

Outputs & Performance Measures:

- Conduct meetings, phone calls, consultation and communications with applicants and mortgage companies; 100% response
- Determine applicant(s) eligibility and prepare response within 2 work days
- Provide documentation and processing for check issuance within one week of closing date

Standards and Benchmarks:

- 100% response to applicants
- Zero backlog past one week; and response time within 2 work days

Mayor’s Community Outcome: Support services not specifically addressed

Anticipated Outcomes: Livable Neighborhoods

17. Service – Economic Development Incentive for Primary Employers

Outputs & Performance Measures:

- Conduct pre-application meetings, phone calls and pre-project consultation to determine eligibility. Completed within 2 weeks of requests.
- Determine eligibility, provide process requirements, and timeline for the incentive responses within one work week
- Follow up on each eligible application per the timeline, within 3 workdays

Standards and Benchmarks:

- Timely response for all requests
- Follow up within 3 workdays and postings within a workweek

Mayor's Community Outcome: Support services not specifically addressed

Additional Outcomes: Economic Opportunity

CITY OF LINCOLN DEPARTMENT OF Public Works & Utilities *Operations Overview*



Fiscal Year
2011 - 2012



Business Office
Engineering Services
Special Projects Development
StarTran
Wastewater & Solid Waste
Water System
Watershed Management



ENGINEERING SERVICES DIVISION

F.Y. 2011-2012 OPERATIONS OVERVIEW

Mission

Helping to build and maintain the foundation of the City to ensure that future growth is facilitated and is sustainable.

SECTION: ADMINISTRATION

The Administration Section is the primary contact for most customers. The section receives and tracks complaints and requests for services. Assistance is provided to other sections within Engineering Services, such as tracking payments and bidding documents for Design and Construction, working with permits and the sidewalk program, releasing bonding requirements for Executive Orders, and handling personnel paperwork.

1. Service – Customer Service

Administrative Services staff provides support for all sections of Engineering Services, as well as Watershed Management operations. Receive communication, greet customers and help them quickly and efficiently receive the help they need. Take messages and schedule meetings to facilitate communication with other Divisions, Departments and outside agencies. Provide written and oral correspondence; provide meeting minutes; process personnel paperwork; process payment vouchers; prepare and process Executive Orders (EO's), Directorial Orders (DO's), construction agreements, maintain and enter information into various databases for City wide use.

Outputs & Performance Measures: (F.Y. 2010-2011)

▪ Incoming/Outgoing Phone Contacts	40,596
▪ Meetings Scheduled	1,156
▪ Over-Dimensional Permits Processed	635
▪ Sidewalk Permits Processed	230
▪ Invoices Processed	6,542
▪ EO's/DO's Processed	454
▪ Correspondence Prepared	1,926
▪ ACTION/RFI's Processed	473
▪ Sidewalk/Traffic Complaints Processed	2,584
▪ Curb Cuts and Utility/Plumber Excavations permits	894
▪ Roadway repair requests	8,057
▪ Daily data entry of employee leave usage/overtime	12,225
▪ Payroll and personnel actions	≈180 employees
▪ Employee evaluations processed	176
▪ Personnel action forms processed	131
▪ Permits Plus curb cut entries	400

Standards or Benchmarks:

- To provide quality customer service to internal and external customers/citizens.
- Answer 100% of all incoming calls and ensure they are directed to the proper section.
- Process 90% of submitted permits within one business day.
- Process all invoices within 5 business days.
- Process all requested correspondence requests within one business day.

Mayor's Community Outcome: Support services not specifically addressed.

Additional Outcomes: Accountable Government

SECTION: COMPREHENSIVE ENGINEERING INFORMATION SERVICES (CEIS)

CEIS supports the mission of the Department of Public Works through the delivery of innovative cost efficient technology and asset management solutions. This section oversees the installation and maintenance of computers, communication systems, software programs, and custom applications for over 290 end users. Continuity of services is provided through data backup and restoration services.

CEIS identifies opportunities for new technologies, develops implementation plans, acquires, installs and maintains technology systems critical to the Department. The section delivers technology services and maintains standards that efficiently and cost effectively meet and improve the needs of Engineering Services and other Public Works divisions.

Asset Management services include records management for Water, Traffic Communication, Sanitary Sewer, Paving and Markings. Asset Management is also responsible for the city limits, compliance with State record retention schedules and some subdivision/construction drawing review.

2. Service – Technology

Representing the Department, CEIS works in partnership with the Lincoln/Lancaster County Information Services (IS) section of the Finance Department, to provide leadership and support in the computer/technology arena. CEIS provides leadership and support of 32 Public Works specific applications, 15 unique custom database applications, 291 users and a variety of special equipment. The most notable recent achievement of the section has been enabling 24 users to interact with their data systems via cellular modems while out of the office, reducing the need for redundant record keeping.

Outputs & Performance Measures: (F.Y. 2010-2011)

▪ Number of personal computers maintained	313
▪ Number of Public Works specific programs supported	34
▪ Number of custom application and databases	16
▪ Number of users supported	291
▪ Number of annual service requests	2,316
▪ Number of hardware/software orders	47

Standards or Benchmarks:

- Maintain at 85% the amount of support issues resolved on first contact
- Maintain at 90% the amount of support issues resolved in 4 hours or less
- Maintain or reduce below 12% the amount of support issues resolved in more than 4 hours but less than 24 hours.
- Satisfactory performance of all service measurement matrices defined in all CEIS Service Level Agreements.

Mayor's Community Outcome: Support services not specifically addressed.

Additional Outcomes: N/A

3. Service – Asset Management

Maintain accurate records documenting community investment in public infrastructure through the implementation of advanced technologies. Until recently, the emphasis in this area was to document the location of assets to reduce outages through the "One Call Program" and to provide a common information

base for all parties involved in the development process and to meet or exceed the document retention schedules on file with the Nebraska Secretary of State.

Recent responsibilities are expanding to include the development of a comprehensive asset management program to ensure that the level of funding needed to maintain the public infrastructure can be calculated.

Outputs & Performance Measures: (F.Y. 2010-2011)

▪ Right of Way changes by deed	106
▪ Street or alley vacations	10
▪ Annexations	4
▪ New additions	53
▪ Address plats updated	66
▪ Final storm EO/Projects entered into records	41
▪ Final paving EO/Projects entered into records	43
▪ Final water EO/Projects entered into records	41
▪ Final sewer EO/Projects entered into records	25
▪ Final traffic EO/Projects entered into records	6
▪ Number of new drawing numbers issued	134
▪ Number of drawing sets scanned and microfilmed	314

Standards or Benchmarks:

- Satisfactory performance of all service measurement matrices defined in all CEIS Service Level Agreements.

Mayor's Community Outcome: Support services not specifically addressed.

Additional Outcomes: Accountable Government, Economic Opportunity, Livable Neighborhoods, Healthy People, Effective Transportation

SECTION: DESIGN AND CONSTRUCTION

The Design and Construction section is responsible for ensuring that capital improvement projects are delivered on-time and on-budget. The section creates and tracks the funding for the annual Capital Improvement Program for transportation, as well as providing design, construction observation and materials testing services for all types of projects including roadways, signals, storm drainage, water and wastewater.

4. Service - Program Delivery

Create the Capital Improvement Program for transportation improvement projects. Provide project management services for all aspects of a project from conceptual design to final design through construction and then final records and accounting.

Outputs & Performance Measures: (F.Y. 2010-2011)

▪ Number of Projects prepared for bidding	50
▪ Number of Projects completed including Private Const Agreements	150
▪ Planning and Programming Documentation (Streets and Highways CIP, Railroad Transportation Safety District, CIP, TIP, State's one and six year program)	
▪ Pavement Management – Maintain computer records system covering 2,677 lane miles, managing over \$1 million in residential rehab, and \$9 million in arterial rehabilitation for Fiscal Year 2010.	
▪ Bridge Management – Maintain computer records system	

Standards or Benchmarks:

- 1 full-time inspector per \$8 to \$10 million dollars of construction work (Tom Jacobs – Consultant Study recommendation).
- 1 project manager per \$20 million dollars in projects
- \$13 million per year for pavement rehab (Pavement Management Software calculation).

Mayor’s Community Outcome: Economic Opportunity

Additional Outcomes: Effective Transportation, Environmental Quality

SECTION: DEVELOPMENT SERVICES

Development Services is responsible for providing review comments for the Public Works and Utilities Department for the subdivision and zoning applications made to the City through the Planning Department. Development Services also provides review comments to the Building and Safety Department for review and approval of commercial building permits. Development Services initiates and provides review and coordination of construction plans for Executive Orders, authorizing private construction of public infrastructure. This section also establishes surety amount and initiates releases for various sureties required in the subdivision and Executive Order process that guarantee the construction of various Public Works and Utilities infrastructure improvements.

5. Service – Development Assistance

Meet with developers and their consultants to review and give advice on development proposals. Provide information on existing and needed infrastructure for project completion. Facilitate the development process assisting with approvals and Executive Order paperwork and processing.

Outputs & Performance Measures: (F.Y. 2010-2011)

▪ Number of Planning Application Reviews	373
▪ Meetings with Developers/Consultants	230
▪ Number of Building Plan Reviews	136
▪ Number of Private Construction EO’s Initiated	63
▪ Number of EO Plans Reviewed	63
▪ Dollar Value of Sureties Released	\$12,164,705

Standards or Benchmarks:

- Perform building plan reviews to meet Building & Safety’s 10 day review turnaround benchmark.
- Submit 100% of the requested reviews to Planning Department to meet scheduling timelines prescribed in the Lincoln Municipal Code.
- Prepare and review plans for private construction EO’s in a timely manner to meet the development community’s needs for timely construction of infrastructure by completing 90% of the review submittals in 10 working days.

Mayor’s Community Outcomes: Economic Opportunity

SECTION: STREET & TRAFFIC OPERATIONS

The Street and Traffic Operations section provides professional maintenance and operations expertise services to the community. Section goals are to efficiently and responsibly preserve the existing approximately 2700 lane miles of streets, approximately 1800 miles of sidewalks, the drainage and traffic control systems, and also to monitor and coordinate all activities taking place within all public street rights-of-way and to operate the transportation network providing for safe and efficient movement of traffic. The

section maintains a staff with diverse technical skills, education and talents who care very deeply about their community and who have devoted their careers to reaching these goals.

Mission

Serve the community by providing safe and efficient traffic flow, reliable and environmentally friendly drainage systems and well maintained street rights-of-way.

6. Service – Traffic Signal Operation & Maintenance

Traffic signal operation and maintenance encompasses all aspects of traffic signals. Community growth, construction detours, special events and incidents change the dynamic of traffic flow. Staff routinely makes adjustments and monitors signal timing and traffic flow throughout the City to adjust for these changes. Major travel corridors are evaluated for major timing changes every three years. The signal shop's responsibilities include all items related to maintenance of the traffic signal and intelligent transportation systems. Over 390 intersections are inspected annually. Inspection of new signals is also completed by staff to ensure work meets City Standards.

Outputs & Performance Measures: (F.Y. 2010-2011)

- Evaluate 75% of the existing traffic signals to adjust for growth and changing traffic volumes.
- Study approximately 45 miles of arterial street corridors to optimize traffic signal timing and coordination between signals.
- Respond to approximately 100 after hour calls for service regarding traffic signal operations.
- Respond to approximately 2,100 calls for service related to traffic signals.
- Install 1,000 light emitting diodes (LED's)
- Respond to approximately 2,900 requests for underground locates of traffic signal and/or communication lines.
- Respond to approximately 500 traffic-signal related complaints from citizens and elected officials.
- Conduct approximately 100 inspections for new traffic signal installations.

Standards or Benchmarks:

- Evaluation of existing signal timing has resulted in 92% of all traffic signalized locations experiencing an average peak hour delay of less than 35 seconds (level-of-service C) in the AM Peak and 90% in the PM Peak. AASHTO Green Book states that agencies in an urban setting should strive to achieve level-of-service C or better on arterials and level-of-service D or better on collectors.
- The MUTCD states that "Traffic control signals within 800 m (0.5 mi) of one another along a major route or in a network of intersection major routes should be coordinated, preferably with interconnected controller units."
- The use of light emitting diodes (LEDs) reduces the electricity bill by an average of \$50 per month per intersection. The service life is approximately 10 years compared to 3 years on an incandescent bulb.
- Compliance with Title 10 of the Lincoln Municipal Code.

Mayor's Community Outcome: Safety & Security, Economic Opportunity

Additional Outcomes: Healthy People, Effective Transportation, Environmental Quality, Accountable Government

7. Service – Traffic Signing and Pavement Marking Installation & Maintenance

Traffic signing and pavement marking are critical elements associated with way-finding/guidance for motorists, as well as for contributing to overall traffic safety on City streets. Annual maintenance programs focus on maintaining the visibility of both signs and pavement markings and are regulated by Federal Standards and supported by State and Local laws.

Outputs & Performance Measures: (F.Y. 2010-2011)

- Installation/replacement/adjustment of approximately 500 miles of durable centerline pavement markings on all streets.
- Installation/replacement/removal of durable markings at approximately 2,100 marked crosswalk and stop bar locations.
- Installation/replacement/removal of durable markings at approximately 700 arrow and 70 “only” locations.
- Installation/replacement/removal of durable markings at approximately 80 dual turn locations.
- Installation of durable markings along approximately 14 new segments of roadway that need markings.
- Installation/replacement/removal/adjustment of pavement markings for parking stalls in all of the CBD and 25 locations outside of the CBD.
- Replacement of 2,000 traffic signs with a goal of replacement of all traffic signs every 10 years.
- Investigate and respond to 200-350 requests for changes and improvements for traffic signs and pavement markings from the Citizens, Mayor, Council Members and other government entities (City Departments, Schools, County, State and Federal).
- Installation of 200 new signs because of the above requests and new development.
- Review approximately 50 proposed project plans for signing and marking to ensure they conform to all City, State and Federal standards.
- Installation of approximately 150 miles of water borne paint for pavement markings.

Standards or Benchmarks:

- Meet requirements of the Manual on Uniform Traffic Control Devices (MUTCD). Requires that all traffic signing and pavement markings meet minimum retro-reflectivity standards. The Manual allows the use of replacement programs as a best practice to attempt to achieve these standards.
- State Statute 60-6.121 requires that all “Local Authorities” within the State of Nebraska must install and maintain all traffic control devices in conformance with the MUTCD.
- *A Policy on Geometric Design of Highways and Streets* by the American Association of State Highway and Transportation Officials (AASHTO), commonly referred to as the “Green Book”, requires specific standards for the layout of pavement markings and geometrics for streets.
- Compliance with Title 10 of the Lincoln Municipal Code.

Mayor’s Community Outcome: Safety & Security

Additional Outcomes: Economic Opportunity, Healthy People, Effective Transportation, Accountable Government

8. Service – Street and Right-of-Way Maintenance

This service involves the maintenance of paved and unpaved streets and alleys and associated improvements to the level required by the City of Lincoln’s Standard Specifications for Municipal Construction: patching surface and base failures on scheduled and as-requested basis; replacing deteriorated curb and gutter on a scheduled and as-requested basis; repairing shoulders along paved streets; mowing right-of-ways to control

vegetation growth; grading and clearing culverts on unpaved streets and alleys; installing and maintaining barricades, guardrail and other improvements associated with streets; and performing miscellaneous reimbursable services as required by ordinance or agreement (cutting/removing curb for driveway access, backfilling/base and surface replacement for utility excavations, maintaining County and State roads per interlocal agreements).

Outputs & Performance Measures: (F.Y. 2010-2011)

- Remove and replace approximately 4,000 tons of hot/cold mix asphalt and crack or rubber seal an average of 1,200 lane blocks on 2,500+ lane miles on City streets.
- Respond to 2,500+ citizen's requests for service to repair defective conditions on City streets.
- Remove and replace approximately 1,850 cubic yards of concrete base and paving and 7,500 lineal feet of curb and gutter.
- Grade and repair approximately 1,800 blocks of unpaved streets and alleys, 800 blocks of unpaved shoulders and place material on approximately 250 blocks of unpaved streets.
- Provide vegetation control on approximately 600 acres of City property and State highway right-of-way.
- Maintain approximately 750 permanent barricades and 42,000 feet of guardrail.
- Place temporary traffic control for street operations activities and special events.
- Grind or remove approximately 24,000 lineal feet of curb for residential and commercial driveway openings; backfill, tamp and replace paving for utility cuts at approximately 225 locations on City streets and alleys.

Standards or Benchmarks:

- Maintain safe driving conditions to minimize instances of reported damage/vehicle crashes that result from street failures.
- Prolong the life and preserve near the original condition of the City streets to promote effective transportation by maintaining an OCI of 75 on arterial streets and 70 on residential streets.
- Satisfy 100+ citizen's requests for service to replace defective curb and gutter.
- Satisfy between 200 and 300 citizen's requests for service to maintain unpaved roads and alleys.
- Compliance with L.M.C. 8.46 and State of Nebraska Noxious Weed Laws.
- Compliance with the City of Lincoln Traffic Control Guidelines and the MUTCD.
- Advise/alert the public to changing driving conditions weekly, daily or hourly depending on the circumstances.
- Provide quality control of work done in the public R.O.W. by ensuring that 97% of the work is done without failure.
- Compliance with statutes in L.M.C. 14.70 and 14.75 regarding excavations in the public right-of-way and driveway approaches.

Mayor's Community Outcome: Effective Transportation

Additional Outcomes: Safety & Security, Economic Opportunity, Healthy People, Accountable Government

9. Service – Drainage

Maintain the stormwater drainage system in the City of Lincoln to remove pollutants and prevent flooding that occurs as a result of stoppages or flow restrictions by inspecting and cleaning inlets, pipes, manholes and open ditches; repair structural failures or damage to the drainage system; and correct health and safety hazards in accordance with local, State and Federal regulations (City Ordinances, NDEQ and EPA).

Outputs & Performance Measures: (F.Y. 2010-2011)

- Inspect and clean approximately 15,000 inlets, 750 manholes and 350,000 lineal feet of pipe.
- Inspect approximately 150,000 feet of ditches, dredge to remove 1,500 cubic yards of silt, mow 156 acres and correct 10 stagnant water locations.
- Replace approximately 50 inlet tops and repair inlets/pipes at 1,000 locations.

Standards or Benchmarks:

- Reduction of potential flood risk by 60%.
- Drainage activities and standards identified by Lincoln's State-issued stormwater permit.
- Community Rating System (CRS) program standards for drainage maintenance to maintain Lincoln's rating at a Class 6 (as of October 2009) to continue to hold down flood insurance rates.
- Remove 985+ tons of pollutants to improve environmental quality in streams.
- Provide 100% erosion control and bank stabilization on six open ditches annually.
- Reduce breeding areas for mosquitoes and the potential for the spread of West Nile Virus by treating 100% of known locations annually.

Mayor's Community Outcome: Safety & Security

Additional Outcomes: Economic Opportunity, Environmental Quality, Accountable Government

10. Service – Sanitation

Maintain a street cleaning and disposal program to keep the City streets free of dirt, debris and litter by sweeping arterial, residential and business district streets, flushing raised paved medians and manually removing dirt, debris and litter in locations inaccessible to mechanical sweepers.

Outputs & Performance Measures: (F.Y. 2010-2011)

- Sweep approximately 19,000 curb miles of arterial streets, residential streets and business districts annually
- Hand clean approximately 400 locations

Standards or Benchmarks:

- Sweep arterial streets once every 15 days
- Sweep business districts once every 4 days
- Sweep residential streets 3 times per year
- Reduce pollutants and improve environmental quality by removing 4700 tons of debris from City streets.
- Compliance with NPDES stormwater permit minimum requirements for pollution prevention.

Mayor's Community Outcomes: Safety & Security, Effective Transportation

Additional Outcomes: Economic Opportunity, Environmental Quality, Accountable Government

11. Service – Snow and Ice Removal

Maintain a snow and ice removal program on all City streets that involves the installation of snow fence in locations where drifting is known to occur, the application of anti-icing material as a preventative measure, spreading deicing material, snow plowing and complete snow removal where on-site storage is not adequate or possible.

Outputs & Performance Measures: (F.Y. 2010-2011)

- Plow and continuously spread material on 560 lane miles of Emergency Snow Routes and 500+ lane miles of arterial streets and bus routes

- Open 1,600 lane miles of residential streets per storm
- Remove snow from 2,000 lane miles of business districts and arterial streets.
- Apply liquid anti-icing material on 948+ lane miles of arterial streets
- Install 24,000 lineal feet of snow fence prior to the winter season.

Standards or Benchmarks:

- Keep Emergency Snow Routes open throughout the duration of the storm and the remaining arterial streets and bus routes within 14 hours after the storm.
- When the storm requires, open residential streets within 24 to 36 hours after the storm ends.
- Apply 48,000 gallons of liquid anti-icing material on arterial streets and bridges bi-weekly
- Provide storage for additional snow accumulation on 100% of locations where on site storage is inadequate.
- Prevent bonding of snow and ice accumulation on 100% of arterial roadways

Mayor's Community Outcomes: Safety & Security

Additional Outcomes: Effective Transportation, Economic Opportunity, Accountable Government, Healthy People

12. Service – Fleet Services

Fleet Services is responsible for overall vehicle/equipment management, cost accounting, maintenance, specification development, disposal and fuel management for a large portion of the City's fleet. The financial structure of Fleet Services is an internal revolving fund that generally recovers expenditures through either an equipment rental rate system or on a direct charge basis.

Outputs & Performance Measures: (F.Y. 2010-2011)

- Perform a minimum of 650 preventive maintenance inspections per year.
- Provide adequate fuel inventory and fueling services to distribute 500,000 gallons of quality fuel per year.
- Monitor overall shop operations on a monthly basis to ensure the most efficient and effective management techniques are being utilized.

Standards or Benchmarks:

- Control vehicle/equipment disruptions to customer agencies by maintaining downtime to no more than 25 hours per repair.
- Control vehicle costs to customer agencies by maintaining vehicle operating and maintenance cost at no more than \$1.50 per mile.
- Control equipment costs to customer agencies by maintaining equipment operating and maintenance cost at no more than \$25.00 per hour.
- Meet 100% of manufacturers' service recommendations and warranty requirements.
- Maintain at 0 insurance claims as a result of improper service, repair or documentation.
- Control vehicle/equipment disruptions to customer agencies by maintaining road call cost at no more than 2.5% of total maintenance costs.
- Maintain an acceptable number of fueling locations and capacity, to limit travel distances required for fueling and to ensure adequate product availability.
 - Current Number of Sites = 8 each
 - Current Inventory Capacity = 225,368 gallons
- Maintain at no less than \$0.05 per gallon internal fuel cost under average retail costs.
- Reduce to 0 the number of fuel related disruptions due to inadequate cold weather operation additives.
- Maintain direct mechanics labor at no less than 73% of total paid hours.

- Maintain major repair area (heavy truck and construction equipment repair) labor rate at no less than \$5.00 per hour under local commercial average labor rates.
- Maintain minor repair area (small turf and maintenance equipment repair) labor rate at no less than \$5.00 per hour under local commercial average labor rates.
- Maintain scheduled repairs at no less than 40% of total maintenance costs.

Mayor's Community Outcome: Support services not specifically addressed.

Additional Outcomes: Safety & Security, Environmental Quality, Accountable Government

13. Service – Traffic Studies and Evaluations

The basis behind all installation of traffic control and the foundation for all traffic safety projects is the “traffic study.” Each year, Street & Traffic Operations staff evaluates various locations within Lincoln for the installation and/or removal of traffic signals, various traffic signs, pedestrian and school crosswalks, as well as studies to assist in the determination for the need to implement various traffic safety countermeasures as traffic crashes occur. Studies are also conducted to provide traffic count information used to verify or modify existing traffic signal timing plans.

Outputs & Performance Measures: (F.Y. 2010-2011)

- Evaluate up to 25 locations for installation or removal of traffic signals.
- Conduct approximately 110 intersection “turning movement counts” at traffic signalized intersections.
- Evaluate up to 70 “high crash” locations for determination of safety countermeasures.
- Evaluate and update “School Traffic and School Recommended Walking Route Plans” for all public and parochial elementary and middle schools.
- Conduct approximately 100 24-hour mechanical vehicle counts on City streets.
- Gather and input data associated with approximately 8,000 motor vehicle crashes which will occur on the public streets of Lincoln.

Standards or Benchmarks:

- City-wide “Crash Rate” continues its 30 year decline.
- Existing traffic signal timing reviewed based upon updated traffic counts at approximately 1/3 of the traffic signalized intersections.
- Crashes involving vehicles and children walking to schools continue to be at a rate where 9 of 10 elementary and middle schools will not have experienced a single “car/pedestrian” crash during the school year.

Mayor's Community Outcome: Safety & Security

Additional Outcomes: Healthy People, Effective Transportation, Environmental Quality, Accountable Government

14. Service – “Transportation System Planning”

Street and Traffic Operations staff utilizes existing traffic count data, as well as current and proposed land use information, to develop a Long Range Transportation Plan for Lincoln and Lancaster County. The development of this plan includes a significant public process and identifies a 20+ year plan for future transportation network improvements, street corridors which may require more detailed study and cost estimates to construct the improvements or to study identified corridors.

Outputs & Performance Measures: (F.Y. 2010-2011)

- Evaluate the urban area street system network “level of service” transportation model run on an annual basis to ensure that 85% of the signalized intersections operate as LOS C or better in the PM peak hour.

- Provide “level of service” visualization maps by January of each year for transportation staff and decision makers to recommend congestion management enhancement strategies to improve the mobility of people and goods within Lincoln’s metropolitan area.
- Develop the Urban Area Street System roadway listing for committed and proposed roadway projects and studies on an annual basis.
- Evaluate and produce model run alternatives every five years for subareas and corridors using the future 25 year land use plan. As a minimum, maintain the existing network “level of service” or enhance the “level of service” to achieve a more desirable level of traffic congestion.
- Provide data for the Congestion Management Process by August of each year. This shall consist of counting traffic on one-third of all street segments, maintaining the crash records system and providing level of service information for all signalized intersections.

Standards or Benchmarks:

- The Lincoln/Lancaster County M.P.O. will be compliant with the Federal Surface Transportation Program for Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) or subsequent Federal funding plans. Transportation system planning must meet or exceed these requirements as determined by the FHWA’s quadrennial review of the Lincoln Metropolitan Planning Organization activities.
- The transportation model shall be updated annually, with a major update every five years. The model calibration shall be in conformance with the *Travel Model Improvement Program*, as required by the Federal Highway Administration
- The annual Capital Improvement Plan (CIP) and Transportation Improvement Plan (TIP) shall be in conformance with the requirements of the City and State, respectively. The CIP and TIP contain a database of roadway improvement projects and costs.
- The annual Congestion Management Process (CMP), a requirement of SAFETEA-LU, identifies enhancements to improve roadways to an acceptable “level of service” and serves as a tool for implementing capacity projects, Intelligent Transportation Systems (ITS), emergency preparedness, multi-modal transportation and goods & freight movement planning.

Mayor’s Community Outcomes: Safety & Security, Effective Transportation

Additional Outcomes: Economic Opportunity, Livable Neighborhoods, Healthy People, Environmental Quality, Accountable Government

15. Service – Sidewalk Program & Right-of-Way Management

Street and Traffic Operations staff is charged with the oversight of the street right-of-way. Private property owners are primarily responsible for maintaining the public rights-of-way between the street curb and the property line. Staff is charged with enforcing City codes related to any type of obstruction which might occur, as well as overseeing any activities (i.e. special events, use of public right-of-way for private construction, etc.) which might take place within these rights-of-way. Staff is also responsible for initiating sidewalk repair projects and leading the process for installation of new sidewalks.

Outputs & Performance Measures: (F.Y. 2010-2011)

- Investigate and resolve approximately 300 right-of-way obstruction complaints annually. These complaints include vegetation obstructions, other types of right-of-way obstructions, intersection and driveway sight obstructions and other miscellaneous obstructions.
- Investigate approximately 900 sidewalk snow and ice complaints.
- Investigate approximately 600 sidewalk complaints.
- Initiate projects which will repair approximately 100,000 square feet of sidewalk.
- Initiate projects which will add approximately 100 new sidewalk curb ramps.

- Conduct inspections on 8 to 10 miles of new sidewalk related to new home and new commercial construction, as well as sidewalks ordered to be constructed within the built environment.
- Complete inventory of existing sidewalk curb ramps.
- Process approximately 100 Street Use permits.
- Process approximately 30 Parade permits.
- Process approximately 100 Special Event permits.
- Process approximately 100 Block Party permits.
- Process approximately 700 Over-Dimensional Vehicle permits.
- Process approximately 20 House Move permits.

Standards or Benchmarks:

- *A Policy on Geometric Design of Highways and Streets* by the American Association of State Highway and Transportation Officials (AASHTO), commonly referred to as the “Green Book”, requires specific standards for the required sight distance for roadway intersections.
- Compliance with Titles 14, 26 and 27 of the Lincoln Municipal Code.
- Compliance with Americans with Disabilities Act (ADA) standards.

Mayor’s Community Outcomes: Livable Neighborhoods, Healthy People

Additional Outcomes: Economic Opportunity, Effective Transportation, Accountable Government

CITY OF LINCOLN DEPARTMENT OF Public Works & Utilities *Operations Overview*



Fiscal Year
2011 - 2012



Business Office
Engineering Services
Special Projects Development
StarTran
Wastewater & Solid Waste
Water System
Watershed Management



SPECIAL PROJECTS DEVELOPMENT F.Y. 2011-2012 OPERATIONS OVERVIEW

Mission

Community Development Coordination facilitates harmonious and efficient community growth through project planning and implementation, and collaborative project oversight that maximizes value to citizens through strategic alliances and broad based interagency cooperation.

1. Service - Departmental Liaison

Through project facilitation efforts, the “liaison” function ensures early Department involvement in community projects. Emphasis is on design analysis, timely design, shared project management and rapid issue resolution. Responsibilities also focus on fiscal monitoring within the Department and public information and outreach.

Outputs & Performance Measures:

- | | |
|---|--------|
| ▪ Timeline milestones for private sector projects | 8 |
| ▪ Facilitate issue resolution for projects -six functional areas(# of projects) | 2 |
| ▪ Reports prepared in coordination with the Airport Authority & UNL based upon MOU’s | 2 |
| ▪ Respond to infrastructure screening information requests from the Economic Development Coordinator and economic development Organizations | 3 days |

Standards or Benchmarks

A true Coordination benchmark has yet to be established. Key metrics relate to overall community and stakeholder service levels, presence of positive relationships, program and project productivity and efficiency and absence of issues associated with City or Department performance.

- | | |
|--|---|
| ▪ Create estimates for Redevelopment EO. Inspection | 2 |
| ▪ Critique completed projects | 2 |
| ▪ Summarize previous year results and projected projects in January- Building & Safety, Urban Development, Public Works & Planning | 1 |

Mayor’s Community Outcome: Economic Opportunity

Additional Outcomes: Accountable Government

2. Service – Entitlements

The development community has not historically had clear, process-driven policies to guide expectations regarding what developers can expect the City to pay for in a new development, such as water, sewer, streets, signage, etc. This service area will clarify guidelines the City follows regarding public and private contributions and obligations for development. So far, we have:

- Coordinated a focused review of issues and challenges that can aid in advancing public and private projects within the community
- Critiqued the Annexation and Redevelopment Agreements with Urban Development, Planning & Economic Development
- Summarized funding methods of select communities
- Coordinated the development of policy framework for entitlements

Outputs and Performance Measures

- Implement development policy for entitlements 1
- Develop and implement a standardized reporting process 1

Standards or Benchmarks

Standards will be based on the policy framework for entitlements and the formal process and guidelines outlining obligations of the City and developers. Responsiveness, reduction of procedural issues, absence of legal issues, and efficiency/ productivity gains will be established as general standards.

Mayor's Community Outcome: Economic Opportunity

Additional Outcomes: Accountable Government

3. Service – Public Information & Outreach

This service area addresses the lack of viable information and understanding in the community regarding public works and utility projects and why they are essential to the City's prosperity, economic vitality and overall well-being. Proper outreach will provide additional clarity about capital construction projects, maintenance and other key services provided by the department that profoundly impact citizens and business.

Outputs and Performance Measures

- Provide Mayor and City Council with information in key areas 3
- Summarize Department Construction Project highlights 3
- Maintain list of maintenance and construction projects Ongoing
- Use of customer satisfaction cards in major areas of operations and construction. Number of areas: 3

Standards or Benchmarks

- Number of issues related to lack of information Zero

Mayor's Community Outcome: Not specifically addressed for the Department

Additional Outcomes: Accountable Government

4. Service – Comprehensive Planning

Energy efficiency and resource management are central to the Department's operations and construction programs. A major update to the Comprehensive Plan is underway. Active participation by Public Works and Utilities in the process is essential.

Outputs and Performance Measures

- Active participation in District Energy Meetings 3
- Coordinate Department involvement in one key area: Comprehensive Plan and Sustainability 2

Standards or Benchmarks

Being formulated 2011-2012

Mayor's Community Outcome: Environmental Quality

Additional Outcomes: Economic Opportunity

CITY OF LINCOLN DEPARTMENT OF Public Works & Utilities *Operations Overview*



Fiscal Year
2011 - 2012



Business Office
Engineering Services
Special Projects Development
StarTran
Wastewater & Solid Waste
Water System
Watershed Management



STARTRAN DIVISION

F.Y. 2011-2012 OPERATIONS OVERVIEW

Mission

To provide the citizens of Lincoln a convenient, reliable, comfortable, safe and affordable public mass transit system.

SECTION: ADMINISTRATION

Management is responsible for all administrative and supervisory activities related to directing the planning, operation, coordination and direction of all StarTran Sections. This section has responsibility for development of service information in an expanding community, including, marketing services to the public and businesses, managing public information, media, public relations and program development. It also is responsible for all financial oversight of accounting and fiscal records, budgeting, and maintenance of personnel records. Financial services are conducted in accordance with local and federal financial regulations and internal audit controls.

1. Service: Manage Drug & Alcohol Program

Manage FTA required Drug & Alcohol Program. This program ensures that personnel follow all provisions of the Drug & Alcohol Program, which provides the community with safe public transportation.

Outputs & Performance Measures (2009-2010):

- Number of Pre-Employment tests 6
- Number of Random Testing 27
- Number of Post-Accident Testing 2
- Number of Reasonable Suspicion Tests 1
- Number of Return to Duty Tests 1
- Number of Follow-Up Tests 4

Standards or Benchmarks:

- FTA requires that testing is done at a random rate of 25% for drugs and 10% for alcohol. The other categories are required testing by the FTA.

Mayor's Community Outcome: Not specifically addressed

Additional Outcomes: Accountable Government

2. Service: Manage and Interpret Labor Contract

Work with Personnel for contract negotiations in order to deliver the most efficient and effective contract for the city that meets City Policy and State Labor Laws.

Outputs & Performance Measures (2009-2010):

- Number of labor contracts negotiated 1
- Time spent with City Personnel & ATU for Labor Negotiations 3 days
- Number of hours of internal preparation developing labor contract 160 hours
- Number of Union Management meetings for the year 12

Standards or Benchmarks:

- Internal guideline for completion of labor contract is that it should be completed before the end of current contract in place. Currently a two year contract.

Mayor’s Community Outcome: Not specifically addressed
Additional Outcomes: Accountable Government

3. Service: Marketing to General Public and Businesses

Market StarTran services to the public and businesses. This program promotes the various services provided by StarTran to the community.

Outputs & Performance Measures (2009-2010):

- Number of businesses participating in Employee Pass Program 11
- Number of businesses targeted for participation in EPP 10
- Number of school open houses attended for year 3
- Number of daily bus riders reached 5,000
- Amount generated from Bus Advertising Program \$125,000
- Number of “StarPass” summer youth bus passes sold 736
- Number of “Big Red Express” Season Tickets sold 452

Standards or Benchmarks:

- Goal is to maximize ridership and awareness through continued marketing efforts

Mayor’s Community Outcome: Not specifically addressed
Additional Outcomes: Destination Lincoln

4. Service: Manage Public Information

Manage various public information areas such as printed route and schedule information, telephone information, website and process public complaints. This program also has responsibility for distribution and selling of fare devices to the public and outlets.

Outputs & Performance Measures (2009-2010):

- Number of daily telephone calls answered 135
- Number of monthly website hits 50,542
- Number of complaints processed per month 6
- Number of daily e-mail requests processed 2
- Average number of daily walk-ins 18
- Number of fare sales outlets to administer 52
- Number of low-income sites for fare distribution 19
- Number of monthly deliveries of schedules to outlets 50

Standards or Benchmarks:

- Complaints processed within one week
- 100% of telephone calls answered or returned
- E-mail requests processed within one week
- Deliveries based on request from outlets

Mayor's Community Outcome: Not specifically addressed
Additional Outcomes: Accountable Government

5. Service: Media and Public Relations

Maintain media and public relations for promoting StarTran services. This program involves meeting with media outlets for special promotional efforts and giving presentations to the public on StarTran services.

Outputs & Performance Measures (2009-2010):

- Number of media outlets (radio, TV, print) contacted 17
- Number of presentations to public 8
- Number of promotional media methods used 30
- Number of public tours of StarTran given 3

Standards or Benchmarks:

- Various promotional methods are explored that highlight StarTran awareness and are cost effective are utilized

Mayor's Community Outcome: Not specifically addressed
Additional Outcomes: Destination Lincoln

6. Service: Program Development & Administration

Develop programs to promote StarTran services. This program seeks to attract new users to the system through new and innovative programs and administers current programs to ensure they are operating effectively.

Outputs & Performance Measures (2009-2010):

- Number of current programs managed 10
- Number of sponsors obtained for "StarPass" Program 20
- Number of special events supervised per year 5

Standards or Benchmarks:

- Various promotional methods are explored that highlight StarTran awareness and are cost effective are utilized

Mayor's Community Outcome: Not specifically addressed
Additional Outcomes: Destination Lincoln

7. Service: Financial Oversight

Provides oversight of all financial records and transactions to ensure compliance with local, state and federal policies. This section oversees all expenditures, billings, employee payroll and funding sources.

Outputs & Performance Measures (2009-2010):

- Number of invoices/expenditures processed 3,300
- Number of billings 1,000
- Number of different funding sources to process 8
- Number of active grants currently managed 14
- Number of federal grant reports submitted 140
- Number of deposits 1,000

Standards or Benchmarks:

- Internal controls for invoices, billings and deposits are processed within 5 days. Active grants are managed till fully expended. Federal Grant reports are due on a quarterly basis within a year.

Mayor’s Community Outcome: Not specifically addressed

Additional Outcomes: Accountable Government

8. Service: Budgeting

Budgeting is responsible for preparing the annual StarTran budget and addressing issues/information requests through Mayor’s office and City Council reviews. In particular, this section has responsibility for analyzing cost of programs and activities for promoting economical operations.

Outputs & Performance Measures (2009-2010):

- | | |
|--------------------------------------|--------------|
| ▪ Amount of operating budget | \$ 9,838,454 |
| ▪ Amount of capital budget | \$ 1,947,500 |
| ▪ Time spent compiling yearly budget | 75 hours |
| ▪ Number of budget meetings attended | 15 |

Standards or Benchmarks:

- Standard for budgeting is derived from city budget direction, typically 97%, of prior year approved budget

Mayor’s Community Outcome: Not specifically addressed

Additional Outcomes: Accountable Government

9. Service: Maintenance of Personnel Records

This service is responsible for maintaining accurate employee payroll and benefits to ensure availability of records.

Outputs & Performance Measures (2009-2010):

- | | |
|--|--------|
| ▪ Number of employee time sheets processed | 24,255 |
| ▪ Number of Personnel Action Forms processed | 150 |
| ▪ Number of Annual Evaluations processed | 110 |
| ▪ Number of leave requests processed | 2,600 |

Standards or Benchmarks:

- Records are processed to meet weekly payroll deadlines
- Union Contract dictates how employee work is distributed

Mayor’s Community Outcome: Not specifically addressed

Additional Outcomes: Accountable Government

10. Service: Transit Reporting

This service prepares monthly and annual reports of transit activity, to include ridership of bus and Handi-Van services and fare analysis and reporting. Such reporting is essential for FTA reporting and compliance.

Outputs & Performance Measures (2009-2010):

- | | |
|--|-----|
| ▪ Number of ridership reports prepared | 120 |
|--|-----|

▪ Number of cost and revenue reports prepared	12
▪ Fleet cost per hour	\$70.69
▪ Fleet cost per passenger trip	\$4.27
▪ Fleet passenger revenue per hour	\$11.31
▪ Fleet revenue per fleet expense	16.0%
▪ Handi-Van cost per passenger trip	\$41.30
▪ Handi-Van revenue per expense	3.74%

Standards or Benchmarks:

▪ FTA requires reports are due by the 15 th of following month	
▪ According to FTA 2008 National Profile Comparison:	
○ Fleet cost per hour	\$115.00
○ Fleet cost per passenger trip	\$3.30
○ Fleet passenger revenue per hour	\$30.22
○ Fleet revenue per fleet expense	26%
○ ADA cost per passenger trip	\$30.00
○ ADA revenue per expense	7.4%

Mayor's Community Outcome: Not specifically addressed

Additional Outcomes: Accountable Government

11. Service: Preparation of FTA & State Required Documentation

Provides required preparation of various FTA and State documentation to maintain compliance with Federal Transit Administration regulations and State regulations in order to obtain federal and state funding.

Outputs & Performance Measures (2009-2010):

▪ Number of FTA & State reports submitted/year	15
▪ Number of FTA regulations that require conformance	24
▪ Number of ARRA reports submitted	21

Standards or Benchmarks:

- Federal and State require submission of reports on a quarterly basis within a year

Mayor's Community Outcome: Not specifically addressed

Additional Outcomes: Accountable Government

12. Service: Carryout Transit Related Plans and Studies

Develop short and long-range transit related plans, studies and programs. The development of such plans affords staff and decision makers a systematic means for evaluating transit services and for estimating results of any potential service changes.

Outputs & Performance Measures (2009-2010):

▪ Time spent developing annual standards plan	16 hours
▪ Number of planning sessions for TIP development	4
▪ Number of planning sessions for bike rack program	10
▪ Number of meetings for Long Range Transportation Plan	8

Standards or Benchmarks:

- The StarTran Advisory Board requires the annual standards report to be submitted after the fiscal year

Mayor's Community Outcome: Not specifically addressed

Additional Outcomes: Accountable Government

13. Service: Administrative Activities

Conduct various administrative activities such as assisting with operational analysis, monitor passenger counting program, policy review and responding to proposal requests from public and city staff.

Outputs & Performance Measures (2009-2010):

- Number of Metropolitan Planning Organization Meetings attended 8
- Number of civic and city meetings attended 20
- Number of public & city requests responded 30
- Number of department strategic plans submitted 4
- Number of route adjustments to passenger counting program 6
- Time spent preparing for federal Triennial Review 2 months

Standards or Benchmarks:

- 100% attendance at scheduled MPO meetings
- Department Executive Plans due in October, November & December
- 100% response to public and city requests

Mayor's Community Outcome: Not specifically addressed

Additional Outcomes: Accountable Government

SECTION: OPERATIONS

The Operations Section is responsible for the oversight of Bus Operators and Dispatchers/Field Supervisors for fixed route and Handi-Van services. This section is responsible for organizing operations, bus operator scheduling, vehicle scheduling, vehicle dispatching and accident/incident investigation to ensure service quality and on-time performance. It also manages the Drug & Alcohol Program and interpretation of bus operator union contract.

14. Service: Oversee Bus Operators & Dispatchers/Field Supervisors

Provides oversight for 75 Bus Operators and 5 Dispatchers/Field Supervisors. Such oversight assures provision of quality service to the public.

Outputs & Performance Measures (2009-2010):

- Accidents per 100,000 miles 4
- Number of Bus trips (Ridership) 1,753,777
- Number of Handi-Van trips 34,722
- Number of bus operators trained 8

Standards or Benchmarks:

- The Transit Development Plan conducted a peer analysis of 10 transit agencies, comparing StarTran to similar transit systems. StarTran was found to be in the mid-range of the peer group for annual ridership.

Mayor's Community Outcome: Effective Transportation

Additional Outcomes: None

15. Service: Monitor Bus Routes & Handi-Van Operations

Monitor current bus routes and Handi-Van service to ensure StarTran is providing efficient and effective service to the community.

Outputs & Performance Measures (2009-2010):

▪ Bus on-time performance	96%
▪ Percent of population is near bus route	81.9%
▪ Transfer rate	20%
▪ Amount of daily service provided	14 hours
▪ Number of bus shelters provided	60
▪ Farebox recovery rate	16.0%
▪ Passengers per mile	1.2
▪ Average operating speed	15.1 MPH

Standards or Benchmarks:

Transit Development Plan has standards for:

- On-time performance: 95%
- Service coverage: High density areas should be ¼ mile of a bus route
- Transfer rate: 25% Maximum
- Bus shelters provided where 25 or more daily boardings generated
- Farebox recovery – alter routes less than 60% of average
- Productivity – alter routes less than 60% of average
- Operating speed for regular service not to exceed 15 MPH

Mayor's Community Outcome: Effective Transportation

Additional Outcomes: None

SECTION: MAINTENANCE

The Maintenance Section is responsible for inventory management and control, revenue vehicle and non-revenue vehicle maintenance, and facilities maintenance. This section also coordinates the StarTran Safety Program and manages building and capital projects.

16. Service: Inventory Management

Manage the inventory of maintenance section to ensure all parts and supplies are accounted for and have adequate parts in storage, which ensures vehicles are mechanically sound and are operating at peak capacity.

Outputs & Performance Measures (2009-2010):

▪ Number of maintenance parts & supplies	20,841
▪ Number of parts processed per average day	25
▪ Approximate amount of inventory in stock	\$336,400

Standards or Benchmarks:

- Internal inventory goal is to maintain inventory stock under \$300,000

Mayor's Community Outcome: Not specifically addressed
Additional Outcomes: Accountable Government

17. Service: Vehicle and Facilities Maintenance

Repair and maintain StarTran vehicles, computers and facilities. Proper vehicle maintenance avoids breakdowns, maintains equipment and reduces costs at the least amount of interference to operations.

Outputs & Performance Measures (2009-2010):

▪ Number of maintenance repairs	3,000
▪ Number of mechanical road calls	179
▪ Miles between mechanical breakdowns	9,276
▪ Number of computer software upgrades	4
▪ Maintenance cost per mile	.65

Standards or Benchmarks:

- Transit Development Plan standard for miles between road call: 4,000 – 6,000

Mayor's Community Outcome: Effective Transportation
Additional Outcomes: None

18. Service: Coordinate the StarTran Safety Program

Coordinate the StarTran Safety Program that provides training on a variety of safety related issues to reduce vehicle accidents and employee injuries and keeps employees informed of important local and national safety and security issues.

Outputs & Performance Measures (2009-2010):

▪ Number of Safety Meetings held every year	2
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Standards or Benchmarks:

- ATU contract specifies 2 safety meetings/year

Mayor's Community Outcome: Not specifically addressed
Additional Outcomes: Safety and Security

19. Service: Manage Building & Capital Projects

Manage building and capital projects for StarTran. Such management ensures projects are delivered to the community on time and on budget.

Outputs & Performance Measures (2009-2010):

▪ Number of StarTran building projects managed	2
▪ Number of StarTran capital projects managed	4

Standards or Benchmarks:

- Completion and delivery of projects is agreed upon in the contract

Mayor's Community Outcome: Not specifically addressed
Additional Outcomes: Accountable Government

CITY OF LINCOLN

DEPARTMENT OF

Public Works & Utilities

Operations Overview



Fiscal Year
2011 - 2012



Business Office
Engineering Services
Special Projects Development
StarTran
Wastewater & Solid Waste
Water System
Watershed Management



WASTEWATER AND SOLID WASTE DIVISION

F.Y. 2011-2012 OPERATIONS OVERVIEW

Mission

The Division's mission is to provide vital wastewater and solid waste services to all citizens, ensuring the highest possible levels of public health, economic growth, environmental quality, and fiscal responsibility for the community.

SECTION: COLLECTION

The Section is responsible to provide continuous and reliable wastewater service to the public through a comprehensive maintenance program and expansion of the wastewater collection system as needed, thereby providing sufficient capacity for existing and future development.

1. Service – Maintenance and Repair

Maintain and repair 1025+ miles of pipeline, 16,850+ manholes, 15 lift stations, and other various components to protect critical infrastructure components from degradation, prevent wastewater stoppages/backups, and ensure reliability.

Outputs & Performance Measures:

- Televising and recording data of approximately **100 miles** of wastewater collection pipelines yearly, to evaluate and determine a conditional rating of pipe sections and ensure correct installation for newly constructed lines
- Pipeline Maintenance Jetting of approximately **550 miles** of wastewater collection pipelines yearly, to clean and remove buildup of grease, grit and other debris
- Root control in approximately **75 miles** of wastewater collection pipelines yearly, to remove and chemically treat tree root intrusion
- Repair approximately **150 incidences** of broken wastewater collection pipelines and **50 manholes** yearly to correct deficiencies

Standards or Benchmarks:

- As defined by Qualserve Performance Indicators Water and Wastewater Utilities Survey Benchmarking Summary of Dec 2007, the median number for stoppages per 100 miles of pipe is 3.0. Wastewater has averaged 2.0 over the past ten years.

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

2. Service – Capital Improvement Projects (CIP)

Develop and manage the Wastewater Collection CIP to upgrade and protect existing wastewater infrastructure and to provide sufficient capacity for existing and future development.

Outputs & Performance Measures:

- Develop a CIP that matches the existing wastewater system needs and comprehensive plan growth. **Updated and published annually.**
- Continue to maintain the wastewater treatment facilities and continue a planned increase in capacity to meet the growth and needs of the service area. **Standards maintained** as growth occurs.

- Rehabilitate approximately **7,500 lineal feet** of wastewater collection system sewer pipelines and **50 manholes** yearly, to upgrade the quality to like new condition.
- Manage the CIP to design and construct projects as outlined.

Standards or Benchmarks:

National and state standards require the development of Comprehensive Plans that detail capital improvements aligned with projected community growth & development. Rehabilitation and maintenance standards have been developed over the past 20 years in Lincoln according to national EPA guidelines, accepted industry and regional municipal protocols, and professional standards established by NASSCO and others.

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

SECTION: SANITARY ENGINEERING

The Section operates and manages the Industrial Pretreatment Program for the City and provides technical and environmental services for the Wastewater and Solid waste operations.

3. Service –Engineering & Technical Services

Provide engineering and technical services to include metering and sampling services for industrial and collection system flow quantity and quality, laboratory analysis of industrial discharges, treatment plant discharges and analysis for treatment plant operations. Also provide engineering and environmental design analysis for collection, treatment and solid waste operations, coordinate information and IT services and hardware with division requirements.

Outputs & Performance Measures:

- Collect 800 industrial wastewater samples per year from all applicable industries to meet NDEQ Industrial Pretreatment Program for monitoring industrial wastewater discharges
- Collect 6,500 station days per year of hydraulic data on the 1,000 plus miles of pipelines in the wastewater collection system
- Collect 2,800 station days per year of gas monitoring and pH conditions in the collection system
- Provide 8,000 laboratory determinations on collected samples from industrial discharges
- Provide a minimum of 6,300 laboratory determinations on Theresa Street and the Northeast Treatment plant facilities discharges and processes
- Provide approximately 4,500 laboratory determinations on liquid waste loads received at the Theresa St. Liquid waste dump-station
- Complete a review of 4 industrial discharge permits per year
- Analyze development requests for new trunk sewer requirements on an as needed basis averaging 5 major extensions per year and 8 development areas
- Complete an Industrial audit per the memo of understanding with NDEQ on the Industrial Pretreatment Program
- Develop and publish 12-year Capital Improvement Program for the wastewater system on an annual basis
- Annually complete an accurate cash flow projection for the Wastewater CIP program with updates as required by wastewater business operations and City Finance Department personnel
- Annually complete the Division Annual Operating budget on schedule

Standards or Benchmarks:

- Meet Industrial Pretreatment Program requirements as defined by the memorandum of understanding with Nebraska Department of Environmental Quality
- Meet the requirements of the Nebraska Department of Environmental Quality NPDES permit, by supporting the Treatment and Collection operations of the Wastewater and Solid Waste Division

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

SECTION: TREATMENT OPERATIONS AND MAINTENANCE

Wastewater Treatment Operations and Maintenance is responsible for treating all wastewater received from residential, industrial, commercial customers and liquid waste generators within Lincoln and Lancaster County. Staff maintains and operates two (2) wastewater treatment facilities, and fifteen (15) remote pumping stations that meet all local, state, and federal regulations while providing services in a cost effective manner to all customers. Staff also assists developing annual plans for capital improvements, operational budgets, and process equipment replacement/acquisition. Specific work units along with service outputs and anticipated outcomes and benchmarks are listed below.

4. Service - Treatment and Operations

Operate and maintain two major wastewater treatment facilities and 15 remote pumping stations. This service ensures reliable wastewater treatment while protecting the aquatic environment and health of the public.

Outputs & Performance Measures:

- | | |
|--|----------|
| ▪ Days of Regulatory Compliance during the year | 365 |
| ▪ Average millions of gallons wastewater treated per day | 25.54 |
| ▪ Maintaining and/or reducing cost of treatment (\$/MG) | \$630.82 |
| ▪ Maintaining Scheduled Maintenance percentage above 80% | 81.57% |
| ▪ Maintain or increase percentage of facility power requirements generated through co-generation of digester gas | 34.2% |
| ▪ Millions of kilowatt hours electricity produced per year | 4.94 |
| ▪ Recycle and utilize produced bio-solids through agricultural land application program (dry tons per year) | 6,852 |
| ▪ Maintain or increase wastewater reuse (MG per Year) | 450 |
| ▪ Maintain low incidence of odor complaints per year | 2 |

Standards or Benchmarks:

- State and Federal wastewater effluent Discharge Permit Limits and Requirements (NPDES Permits) for treated wastewater effluents
- U.S. EPA Part 503 Regulations and permits for the application of biosolids on agricultural land
- Class II Clean Air Act Quality Permit Regulations

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

SECTION: SOLID WASTE OPERATIONS

Solid Waste Operations provides responsible and economical management of all solid wastes generated within Lincoln and Lancaster County in order to ensure the protection of human health and the environment.

5. Service - Bluff Road Landfill

The operation provides disposal for municipal solid wastes generated in Lincoln and Lancaster County. Approximately 289,000 tons of municipal solid wastes from the service area are disposed of annually in the Bluff Road Landfill. The facility processes residential, commercial, industrial, institutional and permitted special wastes for 9.5 hours per day, 7 days per week and 362 days per year. The Bluff Road Landfill ensures protection of the environment through compliance with Federal and State environmental regulations through permits issued by the Nebraska Department of Environmental Quality (NDEQ) and the Lincoln-Lancaster County Health Department (LLCHD). Regulatory programs focus on 1) controlling odor, fire, litter, and vectors; 2) groundwater, leachate, stormwater and air quality monitoring; and 3) hazardous waste exclusion and special waste permitting. The operation optimizes disposal capacity by maximizing the compacted density of the wastes, minimizing soil use in daily operations, and reducing the amount of waste generated and disposed of from within the service area. Properly managed leachate and stormwater systems reduce the potential for environmental contamination.

Outputs & Performance Measures:

▪ Average tons of solid waste (including special wastes) processed per day	753
▪ Average tons of permitted special waste processed per day	32
▪ Average number of special waste permits processed per day	7.7
▪ Number of days asbestos containing materials accepted for disposal	31
▪ Gallons of leachate re-circulated annually	216,750
▪ Gallons of leachate disposed of at the wastewater treatment plant	2,226,457
▪ Cubic yards of soil excavated per day of operation	312
▪ Number of days alternative daily cover utilized	122
▪ Random and suspicious load inspections annually	187
▪ Person hours spent collecting wind blown litter	7,000 (est)
▪ Analytical tests conducted (groundwater/leachate/stormwater)	1,786
▪ Landfill gas readings collected	177
▪ Groundwater levels collected	140
▪ Number of days water applied for dust control	30
▪ Number of gallons of water applied for dust control	110,770

Standards or Benchmarks:

- NDEQ Title 132 – Integrated Solid Waste Management Regulations
- Permit to Operate a Municipal Solid Waste Disposal Facility
- Permit to Operate an Air Contaminant Source (major)
- National Pollutant Discharge Elimination System (NPDES) Permit – Industrial Category (general)

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

6. Service - Composting Operation (at Bluff Road and North 48th Street facilities)

The operation provides for the disposal of grass, leaves and wood wastes generated in Lincoln and Lancaster County. Approximately 20,000 tons of grass, leaves and wood wastes are processed annually. The facility accepts materials for disposal and distributes products for 9.5 hours per day, 7 days per week and 362 days per year. These materials are banned from disposal in the landfill from April 1st through November 30th. Annually, the facility produces approximately 12,000 cubic yards of finished (screened)

compost for wholesale and retail distribution or use internal to the Solid Waste Operations. Retail customers may also purchase wood chips from the operation.

Outputs & Performance Measures:

▪ Average tons per day of yard wastes accepted	43
▪ Average tons per day of wood wastes accepted	4.4
▪ Tons of yard wastes transferred to Bluff Road annually	1,073
▪ Total cubic yards of compost produced annually	12,000 (est)

Standards or Benchmarks:

- NDEQ Title 132 – Integrated Solid Waste Management Regulations
- Internal Operating Procedures
- Programs/standards identified by Lincoln’s State-issued stormwater permit for pollution prevention

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

7. Service - North 48th Street Transfer Station

The Transfer Station provides for disposal of wastes from small vehicles. Approximately 7,200 tons of municipal solid wastes from Lincoln and Lancaster County are accepted at this facility and transferred to the Bluff Road Landfill. The facility operates 9.5 hours per day, 7 days per week and 359 days per year. The Transfer Station is offered as a convenience to residential and business customers who do not use a refuse hauling company. Disposal of wastes hauled by small vehicles (one ton or less, or trailers less than 60 square feet) through the Transfer Station is safer, and more efficient for both the customer and the Solid Waste Operations.

Outputs & Performance Measures:

▪ Average tons of solid waste transferred daily	24.8
▪ Operating hours for transfer equipment(s)	850 (est)

Standards or Benchmarks:

- NDEQ Title 132 – Integrated Solid Waste Management Regulations
- Internal Operating Procedures

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

8. Service – North 48th Street Construction and Demolition Landfill

The operation provides for the disposal of construction and demolition debris from Lincoln and Lancaster County. The facility operates 9.5 hours per day (standard time period) and 11 hours per day (daylight saving time), 7 days per week and 359 days per year. Approximately 72,000 tons of waste materials generated from construction and demolition activities are processed at this landfill. The North 48th Street Construction and Demolition Landfill operates in accordance with permits issued by the Nebraska Department of Environmental Quality (NDEQ) and the Lincoln-Lancaster County Health Department (LLCHD). Regulatory programs focus on stormwater discharges and air quality. The facility exists for two primary reasons: 1) to limit the unnecessary consumption of valuable capacity at the Bluff Road Landfill with “beneficial fill” materials and 2) to create topographical relief at the now closed North 48th Street Solid Waste Landfill in order to minimize the infiltration of stormwater into the old wastes.

Outputs & Performance Measures:

- Average tons of waste handled daily 228

Standards or Benchmarks:

- NDEQ Title 132 – Integrated Solid Waste Management Regulations
- Permit to Operate a Construction and Demolition Waste Disposal Facility
- Permit to Operate an Air Contaminate Source (major)

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

9. Service - “On-Site” Recycling (at Bluff Road and North 48th Street facilities)

The operation provides for the recycling of batteries, tires, used oils and de-manufacturing of appliances at both the Bluff Road Landfill facility and the North 48th Street Transfer Station facility. Spent lead acid batteries, scrap tires, used oils and discarded household appliances are banned from landfill disposal. These materials are accepted from refuse haulers and residential/business customers who are also disposing of municipal solid wastes. The Solid Waste Operation provides these recycling services for a fee and as a convenience to residents and businesses, and as an alternative to services provided by others in the service area.

Outputs & Performance Measures:

- Number of freon-containing appliances processed 1,107
- Number of other appliances processed 1,700
- Tons of scrap metal recycled 510
- Loads of materials transported to scrap metal processing facility 165
- Gallons of used oil recycled 7,500 (est)
- Tons of scrap tires recycled 50 (est)
- Operating hours for skid steer loader 250 (est)

Standards or Benchmarks:

- Internal Operating Procedures
- Programs/standards identified by Lincoln’s State-issued stormwater permit for pollution prevention

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

10. Service – Recycling (including waste reduction, waste diversion and material reuse)

The operation provides for 27 drop-off locations in the city of Lincoln and Lancaster County. Of those, 26 locations are multi-material, 5 are newspaper only, and all but 2 are available to residents in the service area 24 hours a day, 7 days per week, 365 days per year. Recycling is not mandatory within the service areas, therefore residents who elect to recycle at the curbside must pay for subscription based services. The recycling drop-off locations offer convenient recycling opportunities at no cost to individual residents. The Recycling program also provides extensive educational materials and outreach programs related to waste reduction and material reuse to the residents in the service area. The successful efforts of the Recycling program result in air space savings at the Bluff Road Landfill

Outputs & Performance Measures:

- Number of multi-material drop-off locations in the City 23
- Number of newspaper only drop-off locations in the City 4

▪ Number of multi-material drop-off locations in the County	8
▪ Number of residents served per drop-off location	9,227
▪ Tons of office material recycled at City / County offices	348
▪ Tons of newspaper recycled through drop-off program	2,155
▪ Tons of plastic recycled through drop-off program	413
▪ Tons of old corrugated cardboard recycled through drop-off program	1,210
▪ Tons of aluminum recycled through drop-off program	68
▪ Tons of glass recycled through drop-off program	978
▪ Number of students participating in garbology program	3,876
▪ Tons of bio-solids land applied (disposal in landfill avoided)	34,870
▪ Tons of material diverted from disposal by commercial businesses (WasteCap Commercial Waste Reduction and Recycling Program)	15,000
▪ Tons of organic wastes (wood / yard waste) diverted from disposal	20,134

Standards or Benchmarks:

- Internal Operating Procedures
- Programs/standards identified by Lincoln’s State-issued stormwater permit for pollution prevention

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

11. Service – Gatehouse (at Bluff Road and North 48th Street facilities)

The gatehouse staff provides initial screening of incoming wastes and processes waste receipt transactions, documentation of the disposal of permitted special wastes and asbestos containing materials, approves business charge accounts, and maintains a complete listing of hauler owned assets for business transactions. The staff also provides administrative support throughout the Solid Waste Operation, primarily in processing payment vouchers. Staff answers questions from residents and businesses in the service area related to waste disposal, recycling, and material purchases.

Outputs & Performance Measures: (All Annual)

▪ Number of transactions processed at the Bluff Road facility	85,000 (est)
▪ Number of transactions processed at the N. 48 th Street facility	48,000 (est)
▪ Number of active charge accounts managed	450 (est)
▪ Number of special waste permits processed	2,785
▪ Number of waste shipment records processed	97

Standards or Benchmarks:

- Internal Operating Procedures

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

12. Service – North 48th Street Landfill

The North 48th Street Landfill encompasses approximately 700 acres. Wastes were landfilled using the trench method from approximately 1956 to 1989. The now closed landfill requires on-going environmental monitoring, mitigation of environmental impacts, and compliance with regulations related to stormwater, landfill gas, groundwater and air quality.

Outputs & Performance Measures:

▪ Number of groundwater level readings	226
▪ Number of analytical tests on groundwater	5868
▪ Number of landfill gas readings	713

Standards or Benchmarks:

- National Pollutant Discharge Elimination System (NPDES) Permit – Industrial Category
- Internal Operating Procedures

Community Outcomes: Economic Opportunity, Environmental Quality, Accountable Government, Identity Lincoln

CITY OF LINCOLN DEPARTMENT OF Public Works & Utilities *Operations Overview*



Fiscal Year
2011 - 2012



Business Office
Engineering Services
Special Projects Development
StarTran
Wastewater & Solid Waste
Water System
Watershed Management



LINCOLN WATER SYSTEM

F.Y. 2011-2012 OPERATIONS OVERVIEW

Mission

The mission of the Lincoln Water System is to efficiently pump, treat, and distribute a safe and adequate supply of water to its customers for the health, growth, and economy of the community.

SECTION: WATER DISTRIBUTION

The Distribution Section maintains, repairs, meters, and evaluates Lincoln’s water distribution system so that high quality and safe water is delivered to customers in a cost effective manner. Distribution staff works daily to ensure the system remains in proper working condition and is adequately expanded to accommodate future growth so constant and reliable water service is provided to customers. The section maintains over 1,240 miles of water mains 24,800 valves, and 10,500 fire hydrants. It is accountable for water service to over 80,000 customers including meter replacement and maintenance, cross connection control, and inspecting and locating water services. The section is also responsible for locating water mains under the State’s one call system. It reviews system expansion plans, and implements and co-manages replacement water main construction projects. Specific work units along with service outputs and anticipated outcomes and benchmarks are listed below.

1. Service – Cross Connection Control

Provide for the protection of the public water supply by conducting a cross connection control program in accordance with State requirements. This program includes inspecting premises for cross connections with potential contaminate sources, requiring adequate backflow protection and ensuring backflow devices are tested.

Outputs & Performance Measures

▪ Backflow devices tested annually	8,121
▪ Commercial premise surveys conducted	327
▪ Residential premise surveys mailed	0
▪ Potential cross connections follow-ups	200

Standards or Benchmarks:

- Program is mandated by the Nebraska Department of Health and Human Services with standards of practice recommended by the American Water Works Association and University of Southern California. Uniform Plumbing Code as adopted by the Lincoln Building and Safety Department also require adequate backflow protection where necessary.
- Premise surveys (plumbing inspections) are required to be conducted every 5 years by State regulations
- Backflow devices are required to be tested annually by State regulation with the City of Lincoln being accountable for ensuring annual testing and maintenance is performed and records are maintained

Mayor’s Community Outcome: Environmental Quality

Additional Outcomes: Healthy and Productive People

2. Service – Meter Maintenance

Provide for accurate metering of water use by testing and repairing meters on a scheduled basis, replacing defective meters and ensuring incidental water use is metered and annual revenues of approximately \$24.5 million are collected.

Outputs & Performance Measures

▪ Large meters (3” – 10”) tested and repaired annually	365 / 113
▪ Defective small meters (3/4” – 2”) replaced annually	689
▪ Defective large meters (3” – 10”) replaced annually	14
▪ Hydrant meter permits issued	196

Standards or Benchmarks:

- Meter replacement is a function of battery life and mechanical life of meter components. Generally, system replacement of small meters is anticipated to begin again in F.Y. 2011-2012 with an anticipated annual expenditure of \$1.5 million during a ten (10) year period.
- American Water Works Association Manual M6 recommends an ongoing meter testing program be conducted by water utilities. While LWS performs testing of its large meters, the frequency of testing using existing resources is considered below standard.
- Several performance indicators referenced in the QualServe Benchmarking Program conducted by the American Water Works Association and Water Environment Federation require accurate water meter reading including distribution system water loss (leakage), residential cost of water and sewer service, and billing accuracy.
- Public Service Commission does not currently regulate water meters in Nebraska. In states where the PSC regulates the water industry, meter replacement is mandated by a specified interval such as 10 years.

Mayor’s Community Outcome: Environmental Quality

Additional Outcomes: Accountable Government

3. Service – Customer Service

Provide necessary resources for timely customer service response in both emergency and non-emergency situations involving water quality complaints, pressure complaints, no service complaints, high water use complaints, defective metering, etc.

Outputs & Performance Measures

▪ Water quality complaints responded to	55
▪ Service calls made for meters, inspections, etc.	7,575
▪ Average number of days to repair water service leaks	10
▪ Emergency calls and responses	521

Standards or Benchmarks:

Several performance indicators referenced in the QualServe Benchmarking Program conducted by the American Water Works Association and Water Environment Federation measure customer service functions within water utilities including customer service complaints, customer service cost per account and disruptions of water service.

Mayor’s Community Outcome: Environmental Quality

Additional Outcomes: Accountable Government, Healthy and Productive People

4. Service – Water Service and Water Main Locating

Provide necessary resources for timely and accurate utility locating for compliance to the *state mandated* one call system including locating private water services.

Outputs & Performance Measures

- Annual field locations requested and worked 21,269

Standards or Benchmarks:

- Nebraska state law requires utility operators to provide locating services within forty eight (48) hours of a request by an excavator
- Even though water services are privately owned in Lincoln, the Public Works and Utilities Departments elects to maintain location records and perform locates, potential public health implications of damaged water services and customer service issues that would occur when water services are damaged

Mayor’s Community Outcome: Economic Opportunity, Environmental Quality

Additional Outcomes: Accountable Government

5. Service – Distribution System Expansion

Provide timely plan review, project inspection, and contractor assistance to build new water mains to accommodate new development. Expand the water distribution system to accommodate new development and customers; due to community growth; the system has expanded by 50% over the past 10 years.

Outputs & Performance Measures

- Private Development agreements , inspected and placed into service 16
- Additional miles of water mains added to system 9
- New 3/4” – 2” connections (taps) made to system 537
- New 3” – 10” connections (taps) made to system 86

Standards or Benchmarks:

The Lincoln Comprehensive Plan, and various annexation and developer agreements obligate the Lincoln Water System to provide water service to these new development areas.

Mayor’s Community Outcome: Economic Opportunity, Environmental Quality

Additional Outcomes: Accountable Government

6. Service – Repair and Maintenance

Repair and maintain the water distribution system. This process avoids significant system deterioration, reduces outages, preserves infrastructure and avoids costs associated with major system decline.

Outputs & Performance Measures

- Number of broken water mains repaired 90
- Average time to repair broken water main 3 hours
- Hydrants inspected vs. total hydrants in the system 10,131 / 10,557
- Valves inspected vs. total valves in the system 4,890 / 24,779
- Total miles of water main in system 1,240

Standards or Benchmarks:

- Several performance indicators referenced in the QualServe Benchmarking Program conducted by the American Water Works Association and Water Environment Federation measure the impact of asset repair and maintenance including disruption of water service, system renewal/replacement rate, and water distribution system integrity
- The American Water Works Association publishes manuals of practice for recommended maintained procedures and frequencies for valves and hydrants. Examples are hydrants to be inspected/operated at least once per year and distribution valves inspected and operated every one to five years depending on size and criticality.
- The American Water Works Association has established a suggested standard of 25 water main breaks per 100 miles of water mains
- The Insurance Services Office monitors and rates fire protection services including water supply and distribution. Ratings are partially based on the level of maintenance performed on the water distribution system.

***Mayor’s Community Outcome: Environmental Quality, Economic Opportunity
Additional Outcomes: Healthy and Productive People***

7. Service – Water Main Replacement

Replace water mains that are either deteriorated to the point of failure causing disruption of service to residential, business and industrial customers, causing damage to public and private property, or are under capacity with respect to fire protection.

Outputs & Performance Measures

- | | |
|---|-----|
| ▪ Water main replacement projects completed | 2 |
| ▪ Miles of old water mains replaced | 2.4 |

Standards or Benchmarks:

- Several performance indicators referenced in the QualServe Benchmarking Program conducted by the American Water Works Association and Water Environment measure the impact of asset condition and replacement including disruption of water service, system renewal/replacement rate, and water distribution system integrity
- The American Water Works Association has established a suggested standard of 25 water main breaks per 100 mile of water mains

***Mayor’s Community Outcome: Environmental Quality
Additional Outcomes: Healthy and Productive People, Economic Opportunity, Accountable Government***

SECTION: WATER OPERATIONS SUPPORT

Lincoln Water System - The Operations Support Section provides appropriate information and tools for LWS employees and managers to complete work in a timely and efficient manner, and provides management of the Capital Improvements Program (CIP) so customers receive maximum value for dollars invested in projects that maintain the existing infrastructure and provide for community growth.

8. Service – Maps and Records

Record additions and changes to the water system for reference by system operators, designers, builders and one call locaters. Manage water project records by scanning documents for easy user retrieval,

storing documents to meet State requirements and updating water system records in GIS system. Design and update existing system records by reviewing available as-built project records in order to enter data into water system GIS database. Manage water distribution system hydraulic model by running model for “what if” scenarios for development proposals and emergency management.

Outputs & Performance Measures

- Number of new projects recorded annually 27 each
- As built data recorded – sections complete/sections 91 / 91 sections
- Hydraulic model run scenarios 3 times/yr

Standards or Benchmarks:

Updated records of water distribution system available for field workers to use within one month of project construction.

Mayor’s Community Outcome: Environmental Quality

Additional Outcomes: Healthy People

9. Service – One Call Ticket Management

Receive 30,000 to 35,000 tickets from Digger’s Hotline for the PW/U Department. Clear as many as possible from system maps and send staff to locate those that cannot be cleared from the office. Manage tickets received from Diggers Hotline by clearing tickets based on GIS or Microstation map info of Water, Wastewater, Storm Sewer, Traffic Signal, and Computer Network cables. Tickets are either cleared and customer notified or remainder is located within required 48 hours after request. Manage emergency One-Call tickets by clearing or dispatching staff to mark location within required 2 hour response time, 24 hours per day, 7 days per week, 365 days per year. This results in reliable water, wastewater, storm water and traffic signals systems.

Outputs & Performance Measures

- Number of One Call Tickets managed annually 24.400
- Percent of tickets called or cleared with 48 hours 100%
- Percent of ticket cleared from maps 89.5%
- Number of Emergency Tickets managed annual 969

Standards or Benchmarks:

- State Law requiring response within 48 hours of request
- Department standard to clear as many tickets as possible for approximately \$2 per ticket to save on the cost to locate for \$15 to \$25 per ticket

Mayor’s Community Outcome: Environmental Quality

Additional Outcomes: Healthy People

10. Service – Safety and Training Coordination

Provide safety awareness and training to employees regarding work place hazards and the need for personal protective equipment. To be proactive in accident reduction and use a continuous improvement model for employee safety.

Outputs & Performance Measures (includes Safety Coordinators work w/ Wastewater)

- Safety and other training sessions per year W-25 WW-28
- Safety and other training hours per year W-300 WW-160
- First-Aid / CPR / AED training sessions per year W & WW - 7

- First-Aid / CPR / AED training hours per year W-150 WW-150 Work place
- injury rate for recordable accidents W-2.4 WW-10.1

Standards or Benchmarks:

Compare accident rates, incidence rates and accident free productive hours worked with other Nebraska utilities.

Mayor’s Community Outcome: Safety and training coordination is not specifically addressed

Additional Outcomes: Healthy People

11. Service – Computerized Maintenance Management System

Provide a computerized maintenance management system (CMMS) to track infrastructure condition process work orders and respond to Customer Service Requests. Maintain workstation and laptop network for connectivity of employees to this essential tool.

Outputs & Performance Measures

- Provide training for users of CMMS, staff/year 10
- Maintain network of workstations, printer and laptops for users 120

Standards or Benchmarks:

Integration of GIS systems with CMMS has become the standard of the utility industry in developing an advanced asset management system.

Mayor’s Community Outcome: CMMS is not specifically addressed

Additional Outcomes: Accountable Government

12. Service – Capital Improvement Program

Coordinate the update of the Facilities Master Plan with the community’s Comprehensive Plan. Develop a Capital Improvements Program that balances growth needs with those of replacing deteriorating infrastructure in the existing built environment. Develop a business plan in conjunction with the PW/U Business Office that supports the financial requirements of both the Operating Budget and the Capital Improvements Program. Negotiate with developers regarding the need for and timing of infrastructure improvements with respect to annexation and redevelopment agreements.

Outputs & Performance Measures

- Number of projects initiated per year 4
- Dollar value of projects constructed per year (millions) \$2.0

Standards or Benchmarks:

Several performance indicators referenced in the QualServe Benchmarking Program conducted by the American Water Works Association and Water Environment Federation measure investment in capital projects and renewal of system infrastructure.

Mayor’s Community Outcome: Environmental Quality

Additional Outcomes: Accountable Government

13. Service – Benchmarking

Lincoln Water System participated in the AWWA’s Water (and Wastewater) Utility Performance Indicator Survey a few years ago. A total of 22 indicators were addressed 166 water utilities participated in the survey allowing LWS to compare results with results from utilities across the country.

Results of the survey divided the results in to 4 equal quarters, and then indicate which of those groups LWS falls into. Discussion below identifies which of the 4 groups LWS is in for selected categories, and a brief description of that indicator.

Outputs & Performance Measures - Standards or Benchmarks:

- Employee Health and Safety Severity Rate – LWS is in second to the best group (low injury rate).
- LWS has improved safety awareness in recent years with a more comprehensive safety program.
- Training Hours per Employee – LWS is just above the median in this category, which includes safety and technical training
- Customer Accounts per Employee – LWS falls just into second group, but very near the top group , indicating that
- LWS operates an efficient organization and has very task oriented staff
- Million Gallons per Day (MGD) Water Delivered (per day) per Employee – LWS in ranks on the line between the top and second group another indication of efficient operations.
- Residential Cost of Water Service (Monthly) in dollars - LWS has some of the lower rates locally and in the region compared with similar sized utilities. LWS rates are in the lowest cost group for 10 units of water per month, and falling just into the second group based on the average monthly residential bill.

Mayor’s Community Outcome: Benchmarking is not specifically addressed
Additional Outcomes: Accountable Government

SECTION: WATER PRODUCTION

Water Production is comprised of two sections - the Ashland Section and the Lincoln Section. The Ashland Section is responsible for the pumping, treatment and delivery of a safe, adequate and reliable supply of water to Lincoln in an efficient and cost effective manner. In addition, Ashland operators are responsible for monitoring and controlling water system pressures, flows and reservoir levels in and around Lincoln. Water Production maintenance staff, whether in Lincoln or Ashland, work daily to ensure all equipment is in good mechanical and electrical working order; buildings are maintained and grounds are manicured to blend in with surrounding neighborhoods. The staff is also responsible for locating water mains under the State’s one call system. Water Production Electrical/Control maintenance staff ensure that the hundreds of control and monitoring devices are in proper working order and calibrated to applicable standards so that Water Plant Operators receive the most up-to-date and accurate information through the SCADA system to make appropriate water quality and quantity decisions. Water Production Laboratory staff collect and analyze water samples throughout the treatment process and in the distribution system to ensure compliance with Federal and State Safe Drinking Water Act standards.

Ashland Water Production Maintenance staff maintains:

- 42 wells with 46 pumps and motors;
- 1,600 acres of land in 4 well fields;
- 17 acres on the treatment plant campus;
- 2 treatment plants and 4 supporting buildings for treatment and transmission;
- 10 high pressure pumps and electric motors for delivery of water to Lincoln;
- 2 high pressure pumps and diesel engines for delivery of water to Lincoln;
- 11 underground basins and 2 wash water tanks;
- 8 miles of fence;
- 11 miles of streets and roads;
- Over 20 miles of raw water transmission mains; and,

- Performs water main locates under the State’s One-Call system.

Lincoln Water Production Maintenance staff maintains:

- 42 wells with 46 pumps and motors in Ashland;
- 100+ acres of land at 15 Lincoln locations;
- 15 pump stations with 52 pumps and motors and 2 supporting buildings;
- 13 underground reservoirs and 7 above ground reservoirs with 106.5 million gallons of storage capacity;
- Over 75 miles of finished water transmission mains between Ashland and Lincoln; and,
- Performs locates on large diameter water main under the State’s One-Call system.

Staff is intimately involved with planning, design review and construction of major supply, treatment and transmission facility improvements of the Capital Improvements Program.

Specific work units, service outputs, anticipated outcomes and benchmarks are listed below.

14. Service – Operations

The Operations Section, consisting of 12 employees, is a 24 hours per day, 7 days per week, 365 days per year operating unit. Individuals in this section pump, treat, and distribute an adequate supply of water by monitoring, controlling and operating the various water production facilities in both Lincoln and Ashland in an efficient and cost effective manner. From the Ashland control room, operators monitor and operate all LWS security equipment on a 24/7/365 basis. This includes access control to facilities, alarm response, incident command, response and notification to law enforcement. A direct and continuous working relationship exists between operator security functions in the control room, the operations supervisor and the Security Manager to ensure safety and security of the City’s public water supply.

Outputs & Performance Measures

▪ Total water used (million gallons)	11,338
▪ Gallons pumped from Ashland (million gallons)	11,893
▪ Gallons pumped from Antelope Valley (million gallons)	0
▪ Average usage (gallons per person per day)	119
▪ Maximum pumped in one day (million gallons)	70.1
▪ Energy cost to pump water to Lincoln (\$ per MG)	\$46.03
▪ Energy cost to pump water to Lincoln (KWH per MG)	1,068

Standards or Benchmarks:

- Production Lincoln and Ashland budgets assume selling 12,500 million gallons of water annually.
- Electrical energy efficiency of supplying water to Lincoln is measured using two parameters. These parameters compare \$/million gallons and KWH/million gallons with the previous year based on pump efficiency and combinations of pumps operating to produce the desired flow using the least amount of power. The goal each year is to be as energy efficient as possible with the hope that the cost and energy use per million gallons is lower than the previous year. However, energy cost increases per KWH continue to offset annual energy savings.

2000-2001: \$43.68/MG	2000-2001: 1,273KWH/MG
2001-2002: \$42.55/MG	2001-2002: 1,227KWH/MG
2002-2003: \$42.61/MG	2002-2003: 1,248KWH/MG

2003-2004: \$35.86/MG	2003-2004: 1,081KWH/MG
2004-2005: \$38.73/MG	2004-2005: 1,070KWH/MG
2005-2006: \$40.50/MG	2005-2006: 1,085KWH/MG
2006-2007: \$47.42/MG	2006-2007: 1,031KWH/MG
2007-2008: \$41.10/MG	2008-2009: 1,036KWH/MG
2008-2009: \$43.90/MG	2008-2009: 1,062KWH/MG
2009-2010: \$46.03/MG	2009-2010: 1,068KWH/MG

- Energy savings of approximately \$120,000 each year in electrical demand charges have resulted from efforts made in energy conservation.

Mayor's Community Outcome: Environmental Quality

Additional Outcomes: Healthy People

15. Service – Mechanical Maintenance including Buildings and Grounds

This section, consisting of 9 FTEs in Ashland and 6.625 FTEs in Lincoln, is responsible for all testing, repairing and/or replacing mechanical pumping and treatment equipment. It is also responsible for buildings and grounds maintenance including mowing and snow removal.

Outputs & Performance Measures

- | | |
|--|------|
| ▪ Scheduled work orders completed | 5014 |
| ▪ Unscheduled work orders completed | 122 |
| ▪ One-call locates completed of large diameter mains | 498 |
| ▪ Scheduled word orders, open | 323 |

Mayor's Community Outcome: Environmental Quality, Economic Opportunity

Additional Outcomes: Accountable Government

16. Service – Electrical, Control and Instrumentation Maintenance

This section, consisting of 5 FTEs in Ashland and 2 FTEs in Lincoln, is responsible for testing, repairing and/or replacing 4,500 field sensors, on-line analyzers, transmitters and field monitoring devices and over 600 remotely controlled equipment devices. Staff is also responsible for maintaining and repairing large electric motors, MCC contactors and transformers. The Supervisory Control and Data Acquisition system (SCADA), which is the control software used to monitor, control and operate the various components of the water system, is also maintained by this group.

Mayor's Community Outcome: Environmental Quality, Economic Opportunity,

Additional Outcomes: Accountable Government

17. Service – Laboratory

This section, consisting of 3.75 FTEs, is responsible for water quality testing. This includes collecting and analyzing water samples from various sources including the Platte River, wells, various points in the treatment process and in the distribution system for compliance with Federal and State Drinking Water Regulations. Laboratory staff monitors and reports results of the testing for contaminants which could have a detrimental effect on water quality, i.e. atrazine, nitrates and bromide. The laboratory staff analyzes and reports the individual parameter data for thousands of samples each year to support Water Operator's treatment decisions. They are also responsible for monitoring the distribution system water quality for compliance with the Total Coliform Rule. They provide and review all information contained in the Water Quality Brochure for accuracy prior to mailing to customers.

Outputs & Performance Measures

▪ Number of coliform samples collected and tested (compliance)	2,335
▪ Number of individual analyses tested and reported	28,510
▪ Number of violations requiring public notification	0
▪ Number of lead/copper samples collected and tested	51
▪ Number of tests for customer water quality inquiries	26
▪ Number of Water Quality Brochures mailed to customers	90,977

Quality does not exceed maximum contaminant level (MCL) of Safe Drinking Water Act.

▪ Nitrate – (MCL Standard of 10 ppm)	0.81
▪ Atrazine – (MCL Standard of 3ppb)	0.2
▪ Fluoride – (MCL Standard of 4 ppm)	1.0
▪ Chlorine – (MCL Standard not available)	2.6
▪ Manganese – (Secondary Standard <0.05 ppm)	0.008
▪ Arsenic – (MCL Standard of 10 ppb)	8.9

Standards and Benchmarks

- Almost all water samples collected and analyzed are mandated by the Federal and State Safe Drinking Water Act. Lincoln Water System must also meet the Clean Water Act standards for discharge of filter backwash water through monitoring through NPDES permit process.
- Producing and mailing the Water Quality Brochures is also mandated by the Safe Drinking Water Act. These must be certified to the State Health Department by July 1 of each year that the mailings have occurred.

***Mayor’s Community Outcome: Environmental Quality
Additional Outcomes: Healthy People***

18. Service – Security

This section consists of one (1) FTE who is responsible for CIP planning and implementation of security measures throughout the water system. Additional responsibilities include oversight and management of security camera surveillance and access control equipment, daily security operations activities and coordination with federal, State and local agencies.

Outputs & Performance Measures

▪ Investigation of security incidents annually	28
▪ Number of security improvement projects per year	7

Standards and Benchmarks

- Respond to reports of security incidents 24 hours per day, 7 days per week.
- Compliance and implement security improvements as identified in the Federal Public Health Security and Bioterrorism Preparedness and Response Act of 2002.
- Compliance with Homeland Security Presidential Directive 5 for the implementation of the National Incident Management System in response plans.
- Compliance and maintain updates to the Lincoln Water System Emergency Response Plan as mandated by the Nebraska Health Department.

SECTION: WATER ADMINISTRATIVE SERVICES

The Administrative Services Section employs eight (8) FTEs. This Section provides administrative, clerical and technical support for the Lincoln Water System Service Center in Lincoln and the Ashland Water Treatment Plant. Administrative staff is charged with performing a variety of support services including: customer services for citizens, government officials, other City departments and employees; data entry into various databases for the LWS sections; preparing the annual operating budget; preparing a variety of documents including executive orders and directorial orders; processing work orders; requisitioning parts and supplies; generating payment vouchers; support for the Mayor's Water Conservation Task Force; scheduling meetings and resources; maintaining and processing personnel information and payroll for LWS employees; maintaining project and general files; and providing written correspondence to internal and external customers.

Outputs & Performance Measures

▪ Receive and process customer service telephone calls	26,300
▪ Customer correspondence prepared and mailed	4,800
▪ Work orders processed	40,000
▪ Customer service related appointments scheduled	2,500
▪ Invoices, requisitions, EOs/DOs, and project payments	3,900
▪ Process payroll, performance evaluations, personnel action forms and disciplinary actions as directed for 95 - 100 employees	
▪ Research and assimilate budget history, personnel costs, line item information, etc. and prepare annual operating budget for submittal	

Standards and Benchmarks

- Customer service and administrative support for a water utility is based on a 24 hour per day, 7 day per week operation
- Customer expectation of a water utility is for continuous, uninterrupted service and delivery of safe, high quality water 24/7

Mayor's Community Outcome: Administrative Services not specifically addressed
Additional Outcomes: Healthy People, Accountable Government

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CITY OF LINCOLN DEPARTMENT OF Public Works & Utilities *Operations Overview*



Fiscal Year
2011 - 2012



Business Office
Engineering Services
Special Projects Development
StarTran
Wastewater & Solid Waste
Water System
Watershed Management



WATERSHED MANAGEMENT DIVISION F.Y. 2011-2012 OPERATIONS OVERVIEW

Mission

To improve water quality, manage stormwater, reduce flood hazards, and insure that the City meets Federal requirements for clean water in streams and lakes.

1. Service - Deliver Stormwater Engineering and Projects

Within Lincoln's 3-mile jurisdiction there are 247 square miles of watershed areas consisting of 12 major drainage basins with 300 linear miles of mapped floodplains. Water quality, flood management, and stream stability are specific issues that impact the public in each of these basins. The division creates watershed master plans for individual basins to be used as planning tools for reference in conjunction with proposed development and used as a guide in the preparation of future capital improvement projects. Six master plans have been completed which recommend implementation of a total of over 30 remaining flood management, stream stability, and water quality projects. A seventh master plan is currently underway.

Lincoln has also experienced repeated localized flooding issues and failing infrastructure related to local drainage in the urban area. The division has completed preliminary engineering for approximately 137 of the 581 miles of storm drain system for (24 percent) within Lincoln's urban area, which represents the area of greatest stormwater system deficiencies. This preliminary engineering has identified a minimum of over 45 essential projects to correct drainage deficiencies, which the department plans to complete over the next twelve years.

This service area also entails Geographic Information System mapping and modeling to develop the best available information and analysis regarding flood management, drainage areas, and water quality improvements.

Outputs and Performance Measures

▪ Completed watershed/basin master plan(s)	1
▪ Number stream miles with updated floodplain mapping remapped to federal floodplain standards	274
▪ Conservation easements finalized	2
▪ Water quality projects designed and completed	2
▪ Stream stability projects designed and completed	2
▪ Flood control projects with construction ongoing	1
▪ Urban drainage projects designed and completed	2

Standards and Benchmarks

- Federal Clean Water standards goals are to reduce pollutants to provide swimmable, fishable, drinkable water in all local creeks and lakes
- Total Maximum Daily Loads (TMDLs) of specific pollutants established by the State of Nebraska exist for six of eighteen Lincoln area waterbodies (15 streams, 3 lakes). These TMDLs require that measures be taken to reduce those specific pollutants.
- Meet local, state and federal standards for floodplain and floodprone areas

Mayor's Community Outcomes: Safety and Security, Environmental Quality

Additional Outcomes: Livable Neighborhoods, Healthy People, Destination Lincoln

2. Service - Manage Lincoln's Clean Water Program

Locally, seven out of eighteen streams and lakes in the Lincoln area (39% of all waterbodies tested in and adjacent to the Lincoln City limits) are categorized on the State of Nebraska's formal list of polluted waters indicating that they are unsuitable for their listed uses. Pollutants listed include copper, conductivity, E-Coli, high pH ammonia, dissolved oxygen, chlorides and atrazine.

The State issued a stormwater permit to the City authorizing it to discharge stormwater from the urban drainage system into streams and lakes, but mandates the City must meet Federal Clean Water Act requirements by implementing specific program elements designed to address water pollution issues in those discharges.

Managing Lincoln's Clean Water Program is a time-intensive service involving numerous projects and programs and a broad range of expertise. There are over 50 activities under eight major program component outputs associated with implementing this plan:

Outputs and Performance Measures

1. Provide Public Education and Outreach services
 - Public Education presentations provided 2
 - Billboards that provide water quality messages 2
 - Informational signs completed for Rain to Recreation projects 2
2. Provide Public Participation and Involvement services
 - Area residents taking a survey regarding stormwater issues 175
 - No Dumping storm drain markers placed 100
 - Volunteer stream monitoring event held 8
 - Water quality public education events 2
 - Residential Rain Gardens installed 20
 - Rain Barrel /Rain Garden classes/workshops held 6
3. Provide Illicit Discharge Detection and Elimination services
 - Monitoring locations screened for discharges 50
 - Investigations for illicit discharges 3
 - Illicit discharge responses 50
4. Provide Construction Site Runoff Control services
 - Erosion and sediment control plans reviewed 40
 - Non-compliance letters sent 40
 - Erosion and sediment control inspections 300
 - Educational events held 1
5. Provide Post Construction Runoff Control services
 - Best Management Practices (BMPs) constructed 5
 - Detention/retention ponds inspected 40
6. Provide Pollution Prevention and Good Housekeeping services
 - Municipal facilities inspections coordinated 22
7. Coordinate Industrial and Related Facilities Inspections
 - Industrial and related facilities inspected 80
8. Provide Water Quality Monitoring assessment studies
 - Number of monitoring locations 2
9. Provide a report of all federal Clean Water Act compliance efforts by participating city departments
 - Report(s) created for State of Nebraska 1
 - Website(s) maintained to provide information 1

Standards and Benchmarks

- Programs, standards and activities identified by Lincoln’s State-issued stormwater permit
- Federal Clean Water standards goals are to reduce pollutants to provide swimmable, fishable, drinkable water in all local creeks and lakes
- Total Maximum Daily Loads (TMDLs) of specific pollutants established by the State of Nebraska exist for 6 of 18 Lincoln area waterbodies. These TMDLs require that measures be taken to reduce those specific pollutants.
- Post-construction standards for water quality, which have been adopted by numerous other communities nationwide and in the Midwest, including Omaha

Mayor’s Community Outcome: Environmental Quality

Additional Outcomes: Livable Neighborhoods, Healthy People, Destination Lincoln

3. Service - Development Review Services

Review plans for land development and infrastructure projects to ensure that city standards are followed and departments coordinate project development. This process reduces the likelihood that post construction conditions will adversely impact properties adjacent to proposed projects and that established City standards for floodplains and stormwater will be followed. Also included in this process is the review and updating of the City's Design Standards and the Drainage Criteria Manual.

Outputs and Performance Measures

- | | |
|---|-----|
| ▪ Land development and infrastructure projects reviewed | 40 |
| ▪ Floodplain permits reviewed | 20 |
| ▪ Decrease in floodplain insurance premiums | 20% |

Standards and Benchmarks:

- Meet local, state and federal standards for floodplain and floodprone areas
- The Community Rating System (CRS) provides a reduced rate for flood insurance for communities that incorporate floodplain management activities that exceed the minimum National Floodplain Insurance Program requirements. Lincoln is currently at a Class Six rating (corresponds to a 20% decrease in floodplain insurance premiums for properties in the floodplain) and must continue certain program elements to maintain this rating and discount.
- Development Service Centers (DSC) are being established at various locations in the U.S. to provide more effective and transparent review of local permits. The City of Lincoln is in the process of developing a DSC and development review services offered by Watershed Management will be meeting the standards developed by that process.

Mayor’s Community Outcome: Environmental Quality

Additional Outcome: Accountable Government

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