Final

CMOM

Business Practice Evaluation

For the Village of Boonville, New York

CMOM Program Development Project
Business Practice Evaluation
Criteria and Measurements

Element Criteria

Attribute	Subcategory	Description
5		Continual improvement, refinement of processes, standards and procedures
4	High	Quantitative measurements are defined for processes and quality standards
	Medium	
	Low	
3	High	Defined repeatable approach that is documented and communicated within the utility
	Low	
2		Reactionary and without a systematic approach
1		Total unawareness within the utility

Measurements

- Defined Purpose
- Short- and Long- Term Goals
- Documentation
- Implemented by Well-Trained Personnel
- Performance Measures
- Program for Continuing Improvement

COLLECTION SYSTEM POLICY – STRATEGIC GOALS

Mission Statement

A mission statement should include all the activities that make the utility as efficient and effective as possible. A mission statement should be a clear, concise statement that says who the agency is, what it does, for whom, and on what part of the system.

Customer Service Goals

By setting strategic goals for customer service, the utility will be able to provide its customers with high quality service. A comprehensive customer service program should address the quality of information relayed to its customers, as well as the quantity and reliability of the information, and the responsiveness to customer concerns and complaints. It should also address typical environmental concerns its customers might have and analyze user rates and cost of service.

Elements of a customer service program are as follows:

- A customer service program should include training for administrators, staff, and first responders. It should be performed and updated regularly.
- A formalized process for call attendants to receive complaints, contact first responders for dispatch, and saving complaint records for follow-up should be in place. A detailed script of questions and responses should be available to call attendants and updated on a regular basis.
- Call out and notification lists should be up-to-date and reviewed regularly.
- A complaint management program should include components such as standard forms and codes, customer follow-up, and a central location for complaint records.
- A public information program should keep the public informed and aware of the utility's activities, e.g. smoke testing, major construction and notify them about maintenance to be performed.

Regulatory Compliance Goals

By setting strategic goals for regulatory compliance, the utility will avoid SSOs, permit violations, fines, consent orders, and penalties. The result will be protection of the environment, public health, and the well being of operators.

The primary elements for meeting regulatory compliance goals are as follows:

- Meeting SPDES or other NYS DEC permit requirements.
- Utility practices which follow the CMOM guidance to include proactive O&M activities and thorough documentation of such activities.
- The utility will take all prudent actions to avoid compliance orders or decrees.

Managing Utility Assets Goals

By setting strategic goals for asset management, the utility will be able to utilize assets in a more efficient manner and to their fullest extent. A utility with well managed assets will have processes in place for condition assessment, rehabilitation, and replacement. In addition, it will dispose of its assets in an economical manner.

Measures of strategic goals for managing assets include:

- The utility has a condition assessment process in place.
- A process or set of criteria for rehabilitation and from that the ability to determine which assets need rehabilitation.
- A process or set of criteria for replacement which includes the ability to determine which assets need replacement.
- The utility will dispose of assets when it is no longer cost-effective to keep them and considers alternatives to landfill disposal, e.g. recycling, reuse.

Work Management Goals

A well managed utility will strive for efficiency and proficiency, and will have a prioritization process in place. In addition, it will recognize the quality of life of its employees.

Measures of strategic goals for work management include:

- The utility is managed productively without waste.
- A prioritization process and form from which various programs and priority lists can be created.
- Management considers safety a "way of life".
- Management should always consider the quality of life of its employees as a priority of the utility.
- The utility will provide the tools and training necessary for its employees to insure that they are proficient and knowledgeable in their respective positions.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Mission Statement	The internal mission statement includes all of the characteristics mentioned above.	There is no formal mission statement. The Chief Operator was able to verbalize general principles.
Customer Service Goals	• The quality of information a customer service representative is able to provide. • The depth and breadth of the information relayed to the public. • The reliability of the information a customer service representative provides. • The responsiveness goals for customer service. • Addresses typical environmental concerns of the customer. • The utility reviews rates versus O&M costs, with a general trend toward increasing rates.	There are no written customer service goals. Staff is service oriented. Calls and follow-ups are processed in a timely fashion.

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Regulatory Compliance Goals	• Permit Requirements are being met • The CMOM guidance is being followed • The utility is not under a consent order.	There are no written goals regarding regulatory compliance. Participating in this evaluation supports the development of a formal CMOM program. Work to eliminate I/I within the system is on-going.
Managing Utility Assets Goals	• A process is in place to stipulate condition assessment of assets. • A set of criteria is in place to aid in the determination of asset rehabilitation. • A set of criteria is in place to aid in the determination of asset replacement. • Assets are disposed of in an economical manner.	There are no written goals regarding asset management.
Work Management Goals	• The utility is managing productively without waste • There is a process in place to create a priority list. • Management supports safety measures.. • Management recognizes needs and issues in the work environment. • Staff is knowledgeable about their respective positions.	There are no written goals regarding work management.

MAINTENANCE – CORRECTIVE

The proficiency of a good corrective maintenance program is reflective of the level of service provided in the preventive maintenance program. For example, a comprehensive and well functioning preventive maintenance process will reduce or nearly eliminate corrective maintenance activities on critical equipment and assets.

Measures of a proficient corrective maintenance program are as follows:

- Prioritization system to include an asset criticality rating.
- Backlog system as an indication of the proficiency of the utility's overall maintenance activities.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Priority System	A system has been developed.	An informal priority system exists. The highest priority is to respond to safety issues first. Corrective work prioritization also focuses on reducing inflow and infiltration (I/I) within the collection system in order to reduce activation of the Overflow Retention Facility.
Backlog System	There is a process in place to reduce backlog.	There is a backlog in place. There is no written process to reduce backlog.

MAINTENANCE – GRAVITY SYSTEM PREVENTIVE

The proficiency of a gravity system preventive maintenance program, as compared to a corrective maintenance program, is reflective of how well a system is managed, operated and maintained.

Key elements of a gravity system preventive maintenance program are as follows:

- Prioritization system to include an asset criticality rating.
- Recognizing the need of a thorough hydraulic cleaning program, which is performed routinely, but not to the point of over cleaning (cleaning clean sewers). A mechanical cleaning program, is utilized where hydraulic cleaning is not adequate to perform the task at hand and the condition of the pipe or defects such as roots and grease, is thoroughly understood prior to cleaning.
- A root control program that is monitored, documented, and adequate to assure system capacity.
- A method of prioritizing manholes for inspection. For example, buried manholes, manholes in critical locations or facilities, and manholes in easements.
- An effective Fats, Oils, and Grease (FOG) Program is in place with ordinances, education materials, and coordination with grease trap inspection authorities.
- CCTV inspections should be conducted prior to cleaning efforts.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Maintenance Prioritization	There is a process in place to prioritize maintenance activities.	There is no formal process in place to prioritize maintenance activities. Several known problem areas have been identified and are periodically monitored to assess need for maintenance.
Hydraulic/Mechanical Cleaning	There is a program in place.	Hydraulic/mechanical cleaning equipment is available and used, but a systematic approach to cleaning is not utilized.
FOG Program	There is a program in place for addressing FOG.	There is no written FOG control program in place.
Root Control	There is a program in place.	There is no formal root control program in place.
Manholes	There is a program to prioritize manholes for inspection.	There is no formal program in place to prioritize manhole inspections.
Condition Assessment - CCTV	There is a program in place to prioritize pipelines for CCTV inspection.	There is no formal program in place to prioritize pipelines for CCTV inspection.

MAINTENANCE OF RIGHT- OF- WAYS

A program designed to maintain right-of-ways will provide access to the right-of-way for the manpower and equipment necessary to properly manage, operate and maintain any collection system appurtenance within the right-of-way.

Elements of a thorough maintenance of right-of-way program include:

- Keeping all cross country and residential easements clear of all obstructions.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Maintenance Prioritization	There is a process in place to prioritize maintenance activities within right-of-ways.	There is no program in place to prioritize maintenance activities within right-of-ways.
Easements and Right-of-Ways	There is a program in place to maintain easements and right-of-ways	There is no program in place to maintain easements and right-of-ways.

MAINTENANCE – EMERGENCY

An emergency maintenance program will be a thoroughly documented, repeatable program which provides the necessary elements by which the utility can respond to complaints, calls for dispatch, customer follow-up phone calls and natural disasters.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Emergency Maintenance Program	There is a program in place to address emergencies within the wastewater collection system.	The utility has an undocumented system in place to respond to customer calls and complaints, as well as other emergencies. All emergency responses are documented.

MAINTENANCE – PRESSURE SYSTEM PREVENTIVE

A pressure system (force main) preventive maintenance program will include the efficient and thorough inspection of internal and external force main components, and isolation valves all of which is appropriately documented.

The elements of a pressure system preventive maintenance program are as follows:

- Prioritization system to include an asset criticality rating.
- A cleaning prioritization method, based on pump performance or pump discharge pressure.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Maintenance Prioritization	There is a process in place to prioritize maintenance activities.	There is no process in place to prioritize force main maintenance activities.
Cleaning	There is a program to prioritize for cleaning.	There is no program in place for cleaning.

MAINTENANCE – PUMP STATION PREVENTIVE

A pump station preventive maintenance program will incorporate a system for documenting and prioritizing routine maintenance activities to include all mechanical, electrical, control and structural assets associated with the wastewater pumping station.

Elements of a pumping station preventive maintenance program are as follows:

- Prioritization system to include an asset criticality rating.
- A method of addressing equipment failures by implementing a short-term repair program followed by rehabilitation/replacement for long-term operation.
- A documented, scheduled evaluation and testing of electronic control systems.
- A documented and systematic program for testing electrical loads and electrical equipment.
- A documented, scheduled mechanical maintenance program for all pumping station equipment.
- A documented, scheduled program for addressing pump station structure needs such as cleaning, painting, and site maintenance.
- Pump valve exercise and maintenance plan.
- Cathodic protection is looked at as a means to aid against corrosion.
- A document, scheduled program for painting of assets as a form of corrosion control.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Maintenance Prioritization	There is a process in place to prioritize maintenance activities.	Station visits are based on reliability and maintenance needs.
Short-Term Pumping Station Repair	The utility only performs short-term repairs.	Short-term repairs are done with long range operation considered.
Electronics	There are scheduled programs for these components.	There are no scheduled programs for these components.
Electrical	There are scheduled programs for these components.	There are no scheduled programs for these components.
Mechanical	There are scheduled programs for these components.	There are no scheduled programs for these components.
Physical	There are scheduled programs for these components.	There are no scheduled programs for these components.
Valve Exercise	There is a program in place to exercise valves.	There is no program in place.
Cathodic Protection	There is a cathodic protection program in place to aid against corrosion	There is no program in place.
Corrosion Control	There is a corrosion control program in place	There is no program in place.

OPERATIONS – PUMP STATIONS

Pump stations are critical assets in the wastewater conveyance system. A well documented and routinely updated set of SOPs/Effective Practice Guidelines (EPGs) for normal and emergency operations should be available at each location. SCADA should be used in the capacity for which it was designed.

The key elements of pump station operations are as follows:

- SOPs/EPGs for normal operations should be up-to-date and used by staff. For example, checking alarms, bleeding air compressors, checking pump run times, checking pump starts and stop, etc.
- SOPs/EPGs for emergency operation should be up-to-date and used by staff. All normal operation elements should be included as well as emergency contact information, stand-by power operation, special monitoring or sampling consideration, etc.
- Supervisory Control and Data Acquisition (SCADA) operation is being used effectively as a tool for efficient pump station operation.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Normal Operation	Updated SOPs/EPGs are in place and used by staff.	Pump stations are visited weekly for inspection and maintenance.
Emergency Operation	Updated SOPs/EPGs are in place and used by staff.	No written SOPs/EPGs are in place for emergency operation.
Supervisory Control and Data Acquisition (SCADA)	This system is being used effectively.	SCADA is not utilized.

OPERATIONS – CORROSION CONTROL

Measures for system-wide corrosion control should include a documented and scheduled approach to the inspection and testing of critical assets within the wastewater conveyance system; for example cathodic protection for force mains, pumps stations, and pipes; protective coatings and wrappings, chemical addition, etc.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Corrosion Control Program	There is a program in place which includes inspection and testing of assets for corrosion.	There is no program in place.

OPERATIONS – FLOW MONITORING

Flow monitoring within the gravity system, which includes pumping stations, helps provide a reliable measure of system capacity, system response to storms, and system performance. Other areas of flow monitoring the utility should include are pre- and post-construction certification, indicators of systems blockages or breaks, and identification of sources of inflow and infiltration. A good flow monitoring system will include routine data retrieval and analysis.

Elements of a flow monitoring program are as follows:

- Gravity system flow monitoring program for identifying areas of I/I.
- Flow monitoring data is used to determine system performance, response to storms, and as a measure of capacity.
- Pump station flow monitoring program for accurately measuring the flow leaving the pump station. Changes in baseline data can be an indicator of force main failure, pump failure, valve failure, etc.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Gravity Systems	Flow monitoring is being conducted.	There are no flow monitors in the gravity system.
Pumping Stations	There are flow meters at pumping stations.	The pump stations have run-time meters, not flow meters.

OPERATIONS – LINE LOCATION

Force mains and gravity sewers are very important assets in the wastewater conveyance system. It is critical to know the location of these assets in order to inspect them for maintenance and protect them from geologic or construction damage.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Line Location Program	There is a program in place to determine the location of critical assets for inspection, maintenance, and protection from damage.	There is a program in place. The utility participates in the Dig Safely program. There is no SOP for coverage or after-hours notification.

TECHNICAL SUPPORT FUNCTION – INFORMATION MANAGEMENT

A highly functioning utility has a well defined and documented system for addressing information management in all aspects of its daily activities.

Elements of an efficient information management system are as follows:

- A documented and regularly updated program for record keeping, notification and reporting overflow information to regulatory agencies and other affected communities, agencies, utilities and the general public, particularly those downstream of the overflow area.
- A documented method of record keeping by which the utility tracks all:
    - Operational activities performed on equipment, vehicles, and the wastewater conveyance system.
    - Complaints received by the utility. This process will include a mechanism for reviewing all complaints by a field supervisor.
    - Financial activities at an asset level for equipment, vehicles, and the wastewater conveyance system in general.
- A mechanism for brining all information together in order to provide management with the most complete picture of utility function.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Overflow Reporting, Notification, and Record Keeping - Regulatory Agencies	There is an information management system in place to: Conduct regulatory reporting. Notify affected agencies and the public.	The utility follows NYS DEC regulations and guidelines.
Information Management – Components and Techniques	There is an information management system in place to: • Track maintenance records. • Track operations records. • Track and follow-up on complaints. • Support management decisions. • Track costs and budgets. • Control the use, addition or deletion of information; and where it should reside.	The utility effectively utilizes paper records to track operation and maintenance issues, complaints, financial issues (costs and budgets), etc.

TECHNICAL SUPPORT FUNCTION – CONTINGENCY PLANNING

A well thought out plan is an essential component of a utility's ability to respond to an operational emergency. There should be a mechanism to initiate updates to the plan at least semi-annually and for new contingency plans updates should be initiated quarterly.

The key elements of a comprehensive overflow emergency response plan are as follows:

- A well documented and routinely updated SSO response plan to include prioritized steps and organized tasks.
- A reliable method of public notification.
- A method of notifying the proper regulatory agencies and authorities. This information should be in a detailed list identifying the agencies and required reporting information.
- A process in place for emergency flow control i.e. regulating pump run times for maximum utilization of in system storage, and the use of portable pumping equipment.
- A documented and regularly updated process for emergency operation and maintenance to include routine testing of stand-by power, portable pumps, etc.
- A documented and regularly practiced emergency response training program, specifically mock drills, for all staff who would be required to respond to an emergency.
- A documented and regularly updated emergency response safety plan.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Planning Process and Tools	An overflow emergency response plan exists and describes: • Steps and tasks for response. • Public notification procedures. • Regulatory reporting requirements/process. • How to manage emergency flow control. • Emergency O&M requirements. • Preparedness training. • Safety issues during overflow response	There currently is no formal sewer overflow response plan.

TECHNICAL SUPPORT FUNCTION – SOURCE CONTROL

An important mechanism for protecting the utility's/public infrastructure investment is a comprehensive source control program. A comprehensive source control program includes various aspects of fats, oils, and grease (FOG) control, as well as a pretreatment program.

The key elements in the establishment of a comprehensive source control program are as follows:

- The utility has the available resources to establish and maintain a comprehensive source control program.
- A permitting program exists for both pretreatment and FOG control.
- Inspections of the pretreatment program, as well as sources of FOG, are conducted regularly.
- Control measures that are in place for each source are enforced.
- The utility requests compliance assistance from different branches/departments within the County or the state if it becomes necessary to do so.
- The utility includes information regarding the control of FOG in its public education program.
- Performance measures for the various aspects of each program are in place and used consistently.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Fats, Oils, and Grease Control	• There is a permitting program for FOG control in place. • Inspections are conducted on a regular basis. FOG control measures are enforced. • If necessary, compliance assistance is sought from different branches/departments. • There is a program in place to educate the public on FOG control. • Performance measures for FOG control are in place.	The utility does not have a FOG control program.

TECHNICAL SUPPORT FUNCTION – LEGAL SUPPORT

An important mechanism for protecting the utility's public infrastructure investment is the legal authority granted the utility through the sewer use ordinance and inter-municipal agreements.

The key elements in the establishment of a comprehensive legal authority are as follows:

- Annual report of any enforcement actions taken, new connections approved, the amount in feet of new pipe, (laterals or mains), added to the system.
- A fat, oil, and grease interception program which includes inspection, permitting, and reporting requirement to identify cleaning of grease interception devices, enforcement and notices of violations.
- Provision to prevent the illicit discharge into the system of high strength waste by waste haulers.
- The legal authority for the inspection, enforcement and permitting of all new connections and additions to the collection system.
- Resources available for legal counsel.
- A documented and regularly updated program for the receiving and disseminating of utility location request.
- A documented and regularly updated process for addressing damages and law suits related to basement back-ups.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Sewer Use Ordinance	The utility has an effective SUO in place.	The utility has an effective SUO in place. Restricted materials, limits and penalties are part of the SUO.
Fats, Oils, and Grease Control Ordinance	The utility has established limits for FOG and has a grease trap policy.	The utility does not have a FOG control ordinance.
Line Location	The utility utilizes Dig Safely.	The Utility participates in and utilizes the Dig Safely program.
Liquidated Damages and Lawsuits	Back-ups are resolved in a timely manner according to an adopted policy.	Back-ups are resolved in a timely matter once the cause of the back-up is determined.

TECHNICAL – ENGINEERING

An effective engineering function is aware of current operation and maintenance practices, performance standards and the expectations of collection system customers. Engineering supports O & M through strong interaction with collection system personnel to produce facilities that meet capacity requirements that are both operable and maintainable.

Elements of an effective technical support engineering program are as follows:

- A documented and regularly updated program for maintaining as-built drawings.
- A process for clearly documenting and regularly updating system maps.
- A trained and qualified technical staff proficient with respect to their job functions as it pertains to construction inspection.
- A method of prioritizing condition assessment data.
- A thorough condition assessment program must include smoke testing, dyed water flooding, and CCTV with the necessary interaction with power cleaning. A thorough manhole inspection should include a top to bottom survey of the manhole including frame and cover as well as complete documentation of its condition. This data should be documented in an easily accessible and useable format.
- A corrosion identification program should not be limited to H_2S and should also include chemicals, and flows with varying pH. This data should be documented in an easily accessible and useable format.
- Technical staff performing gravity system defect analysis should be trained using a national standard for defect analysis, for example the PACP course from NASSCO.
- Force mains condition assessment data should be documented in an easily accessible and useable format.
- A pump station condition assessment program will incorporate a system for assessing all mechanical, electrical, control and structural assets associated with the wastewater pumping station. This data should be documented in an easily accessible and useable format.
- The collection system must have capacity to convey all dry weather and wet weather flows. Engineering must assure this capacity through adequate design.
- A key component of capacity assurance is a flow monitoring program to monitor system performance.
- Optimize pump run times to maximize system storage capacity. In addition, flexibility of the pumping station to increase or decrease flow should be considered.
- A current and up-to-date flow modeling program calibrated to actual performance of the collection system is a key element in a capacity assurance program.
- A capacity assurance process program should incorporate all the elements of this section.
- Pump stations should be sized adequately for future flow projections.
- All new construction should meet capacity assurance parameters for future flow projections.
- Wastewater collection systems should be sized appropriately and have existing capacity to allow for new system tap-ins.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
As-Built Plans	As-builts are kept on record and up-to-date.	As-built plans are retained. System repairs and improvements are documented in site logbooks.
Asset Inventory	There is a complete inventory of collection system assets that is kept up to date.	There is no asset inventory.
Sewerage System Maps	Sewerage system maps are kept on record and up-to-date.	System maps are available and kept up-to-date.
Design of System Modifications	The design of gravity lines, force mains, and pump stations is done by qualified personnel.	System modifications are designed by consultants following the standards outlined in Ten States "Recommended Standards for Wastewater Facilities".
Construction Field Inspection	The utility performs construction inspection.	Utility or engineer conducts field inspection.
Acceptance Testing	The utility performs testing	Acceptance testing is done on all new construction.
Infrastructure Acquisition	There is a procedure for ensuring the condition of assets acquired during annexation or exchange of responsibility.	There is no policy or procedure for infrastructure acquisition.
Condition Assessment - Priorities	There is a process in place to prioritize.	Repair, replacement, and rehabilitation decisions are prioritized in conjunction with street repair activities.
Condition Assessment - Practices	As necessary, the utility performs the following: • Smoke testing. • CCTV is performed and information collected is reviewed to determine actions needed. • Manhole inspections are done using standard forms and procedures. • Corrosion identification is conducted. • Condition of force mains, pump stations and gravity systems are assessed.	The Village has done limited smoke testing, CCTV, and manhole inspections; though no systematic approach to overall condition assessment is utilized.
Rehabilitation/Replacement Gravity Line - Criteria	Criteria exist for determining rehabilitation or replacement of sewers.	There are no written criteria, but trouble spots or identified problem areas associated with excessive inflow and infiltration are the highest priority. The utility tries to coordinate work with road paving.

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Rehabilitation/Replacement Gravity Line – Methods	A variety of methods are considered for rehab and replacement.	The preferred method is to replace existing pipe with new plastic pipe.
Rehabilitation/Replacement Gravity Line – Design Specifications	The utility has and maintains specifications for sewer construction.	The utility follows or improves upon the existing design when replacing gravity lines. Plastic pipe is used exclusively in replacement.
Rehabilitation/Replacement Gravity Line – Inspection	The utility has an inspection procedure for gravity sewer construction.	An informal inspection is done during replacement.
Rehabilitation/Replacement Gravity Line – Testing	The utility has acceptance testing criteria for rehabilitated sewers.	No testing is done since replacement is done on an active sewer.
Rehabilitation/Replacement Manhole – Criteria	Criteria exist for determining rehabilitation or replacement of manholes.	There are no written criteria. Deteriorating manholes, located in proximity to gravity line replacement activities, are replaced
Rehabilitation/Replacement Manhole – Methods	A variety of methods are considered for rehab and replacement.	Rehab and replacement decisions are made on a case-by-case basis.
Rehabilitation/Replacement Manhole – Design Specifications	The utility has and maintains specifications for manhole construction.	The utility follows or improves upon the existing design when replacing gravity lines and manholes.
Rehabilitation/Replacement Manhole – Inspection	The utility has an inspection procedure for manhole construction.	An informal inspection is done during replacement.
Rehabilitation/Replacement Manhole – Testing	The utility has acceptance testing criteria for rehabilitated manholes.	No testing is done since replacement is done on an active sewer.
Rehabilitation/Replacement Pumping Stations – Criteria	Criteria exist for determining rehabilitation or replacement of pumping stations.	There are no formal criteria. The decision is based on staff evaluation using pump hours/flow and maintenance history.
Rehabilitation/Replacement Pumping Stations – Methods and Techniques	A variety of methods are considered for rehabilitation and replacement.	Rehab and replacement decisions are made on a case-by-case basis.
Rehabilitation/Replacement Pumping Stations – Design Specifications	The utility has and maintains specifications for pumping station construction.	The utility follows the standards outlined in Ten States “Recommended Standards for Wastewater Facilities”.
Rehabilitation/Replacement Pumping Stations – Inspection	The utility has an inspection procedure for pumping station construction.	Inspection would be performed by a consultant
Rehabilitation/Replacement Pumping Stations – Testing	The utility has acceptance testing criteria for rehabilitated pumping stations.	Testing would be performed by a consultant.
Rehabilitation/Replacement Force Main – Criteria	Criteria exist for determining rehabilitation or replacement of force mains.	There are no written criteria.

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Rehabilitation/Replacement Force Main – Methods and Techniques	A variety of methods are considered for rehab and replacement.	Rehab and replacement decisions are made on a case-by-case basis.
Rehabilitation/Replacement Force Main – Design Specifications	The utility has and maintains specifications for force main construction.	The utility follows the standards outlined in Ten States "Recommended Standards for Wastewater Facilities".
Rehabilitation/Replacement Force Main – Inspection	The utility has an inspection procedure for force main construction.	Inspection would be performed by a consultant
Rehabilitation/Replacement Force Main – Testing	The utility has acceptance testing criteria for rehabilitated force mains.	Testing would be performed by a consultant.
Capacity Assurance - Flow Monitoring	There is a program in place for conducting flow monitoring.	No flow monitoring is conducted.
Capacity Assurance Management - Assurance Process	There is an assurance process in place by management.	Any additional flows, beyond existing system capacity, must be approved by DEC.
Capacity Assurance - Pumping Stations Adequacy and Performance	Pumping stations are sized adequately for projected growth.	The utility does not have a projection for all future growth options.
Capacity Assurance - New Construction	There is a program or process in place to aid in the determination of capacity assurance.	Any proposed new construction must first evaluate existing system capacity to ensure adequate capacity exists and the evaluation must be approved by DEC before construction.
Capacity Assurance - New Service and Tap-Ins	There is a program or process in place to assure capacity that allows new service & tap-ins.	Any proposed new service or tap-ins must first evaluate existing system capacity to ensure adequate capacity exists and the evaluation must be approved by DEC.

ADMINISTRATIVE SUPPORT FUNCTION – HUMAN RESOURCES

Comprehensive support of the human resources program consists of, at a minimum, a table of organization, position descriptions, succession planning, a disciplinary action program, an effective training program, as well as a comprehensive safety program, which includes a written safety policy, safety officer, and standardized reporting forms.

Elements of a human resources support function are as follows:

- A table of organization to show the structure of a utility and lines of authority.
- Position descriptions to act as a guide.
- Succession planning for sustainability of utility work force.
- Administering disciplinary actions in a timely manner.
- Appropriate certification requirements.
- Technical training for continued growth of staff.
- Skills training to address managerial requirements of all supervisory positions.
- Compensation comparable to regional and industry standards.
- Adequate safety program including:
    - Confined space entry (CSE), entry procedure and permit system.
    - General safety procedures to include personal sanitation, CPR, first aid, lifting techniques, slips and falls, personal protective equipment (PPE), and defensive driving.
    - Traffic management to include standard traffic management procedures, scheduling work during non-peak hours, and coordination with emergency services utilities (i.e. fire and law enforcement).
    - Lock-out/tag-out procedure to include permit system, equipment marking, lock out tag with information defining the only person responsible for tag removal.
    - Safety equipment to include but not limited to tripod and hoist, atmospheric testing equipment, self-contained breathing apparatus (SCBA), personal protective equipment, lights and barricades, and air supply equipment.
    - Trenching and shoring to include general trenching and shoring procedures used during underground construction.
- Performance measures to include records to management information system, workman's compensation claims, lost time, and injuries.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Human Resources - Table of Organization	An up-to-date table of organization exists.	There is no up-to-date- organization table.
Human Resources - Position Descriptions	An up-to-date set of descriptions exists.	Up-to-date position descriptions do not exist.

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Human Resources – Succession Planning	Human resources supports a succession planning policy.	Critical retirements are pending that will impact customer service and institutional knowledge. The utility has begun identifying potential key staff replacements.
Human Resources – Disciplinary Actions	Human resources supports an effective disciplinary program.	The utility does not have a formal policy for disciplinary actions.
Human Resources – Certification Requirements	Certifications that are required by job description are maintained.	There are no collection system-related certification requirements.
Human Resources - Training - Technical	Training is available and/or conducted.	Most of the technical training received is on-the-job training. SOPs are needed for equipment and tasks.
Human Resources - Training – Management	Training is available and/or conducted to address a multitude of effective management business practices.	The management training provided is minimal.
Human Resources – Compensation	Compensation of collection system workers is comparable to regional and industry standards.	Compensation is adequate and does not impact effective system operation.
Human Resources - Safety Program	• A safety authority exists. • A confined space entry program with an established confined space entry procedure is in place and followed according to SOPs. • General safety procedures exist and are followed according to standard operating procedures. • There is a traffic management safety program that is followed. • A lockout, tag out SOP exists and is followed. • The necessary safety equipment is available to perform all job functions. • Performance measures are in place such as tracking lost time accidents and the number of workman's compensation cases.	The Chief Operator is the safety authority. There is no formal confined space entry program. There are no general safety SOPs. There is no traffic safety management program. There is no lock-out/tag-out SOP. Basic personal protective equipment is available. No safety-related performance measures are monitored.
Human Resources - Workman's Compensation	There is a downward trend in the number of lost time accidents.	There have been no recent lost-time accidents.

ADMINISTRATIVE SUPPORT FUNCTION – PROCUREMENT

Procurement is a support service that has a direct impact on the ability of the field staff (and others) to efficiently perform their jobs. Business practices that hinder the ability of staff to perform efficiently can have an impact on regulatory compliance. A comprehensive procurement program for equipment, tools, spare parts, and supplies consists of, at a minimum, a procurement policy and procurement officer.

Elements of an equipment, spare parts, supplies, services and tool procurement policy are as follows:

- Procurement request process.
- A system to track equipment, tools, spare parts, and supplies.
- A procurement review process.
- The procurement process provides for performance based equipment specifications rather than low bid on capital projects leading to high quality equipment and/or standardization of assets.
- A process for procurement of "single source" for proprietary equipment, as well as commonly purchased materials and supplies.
- Cost criteria for purchase authority at various levels.
- Criteria for the number of quotes required for commonly procured items and single source items.
- A process for procuring high priority maintenance items in a timely fashion.
- A procedure for procurement under emergency conditions.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Vehicle Purchase and Repair	There is a process in place to facilitate vehicle purchase and repair.	There is a process in place for vehicle purchase. Routine repairs are done by utility staff.
Equipment Purchase and Repair	There is a process in place to facilitate equipment purchase and repair.	The equipment purchase and repair process is effective and does not impair or restrict collection system operation and maintenance.
Tools Purchase and Inventory	There is a process or program in place to facilitate purchasing of tools, which includes the criteria used for purchase. The whereabouts of the tools are tracked.	The tools purchase and inventory process is effective and does not impair or restrict collection system operation and maintenance.
Spare Parts Purchase and Inventory	There is a process or program in place to facilitate spare parts purchasing, which includes the criteria used for purchase. The whereabouts of the spare parts are tracked.	The spare parts purchase and inventory process is effective and does not impair or restrict collection system operation and maintenance.
Supplies Purchase and Inventory	There is a process or program in place to facilitate purchasing supplies, which includes the criteria used for purchase. The whereabouts of the supplies are tracked.	The supplies purchase and inventory process is effective and does not impair or restrict collection system operation and maintenance.

ADMINISTRATIVE SUPPORT FUNCTION – FINANCIAL

A comprehensive financial administration program consists of at a minimum; a budgeting process, periodic rate analysis, a CIP, an accounting of operation and maintenance, life-cycle cost analysis, and insurance.

Elements of a financial administration program are as follows:

- A budgeting process to include input from all sections within the utility.
- A routinely performed rate analysis.
- Cost of management, operation and maintenance to include previous year's expenditures, projected labor and equipment, support of non-core municipal functions and contracted services.
- Capital improvement plan funding to include a minimum five year planning horizon, how much spent in the preceding five years, how much to be spent during the next five years and the level of current indebtedness.
- Life-cycle cost analysis should include analysis for infrastructure and analysis for equipment.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Budgeting	Various individuals have input into the budgeting process.	The Chief Operator prepares the budget with input from staff.
Rate Analysis	Rate analysis is performed regularly.	Rate analysis is not performed for the collection system. Collection system operation, maintenance, and improvement activities are not financed through the sewer rate.
Cost of Management, Operation & Maintenance	Previous years' expenditures are taken into account.	Previous years expenditures are taken into account.
Capital Improvement Plan (CIP)	There is a CIP that extends 5 or more years into the future.	The Village has a 5-year CIP, but does not have a dedicated source of funds to implement it.

ADMINISTRATIVE SUPPORT FUNCTION – CUSTOMER SERVICE

A comprehensive customer service program consists of, at a minimum, a process for complaint management, administrative support to staff, public information dissemination, and public education.

Elements of a customer service program are as follows:

- A complaint management program should include components such as standard forms and codes, customer follow-up, and a central location for complaint records.
- A public information program should keep the public informed and aware of the utility's activities, e.g. smoke testing, major construction and notify them about the maintenance to be performed.
- A public education program should be well defined, documented and include public meetings, as well as flyers, or bill inserts to educate the public. A regularly scheduled facility tour for any interested citizens also works well in keeping the public informed about the utility's mission and operation.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Complaint Management	Complaints are prioritized and/or categorized.	There is an effective but undocumented complaint management system in place.
Public Information	Staff is knowledgeable and able to inform the public on issues that arise.	The staff is knowledgeable and information is distributed to the public when necessary.
Public Education	Staff is knowledgeable and able to educate the public on issues that arise.	The staff is knowledgeable. In the past, public tours of the treatment plant have been conducted.