

Final

CMOM

Business Practice Evaluation

For

Saratoga County Sewer District No. 1

CMOM Program Development Project Business Practice Evaluation Criteria and Measurements

Element Criteria

Attribute	Subcategory	Description
Stage 5 (Optimized)		Continual improvement, refinement of processes, standards and procedures
Stage 4 (Managed)	High	Quantitative measurements are defined for processes and quality standards
	Medium	
	Low	
Stage 3 (Defined)	High	Defined repeatable approach that is documented and communicated within the utility
	Low	
Stage 2 (Initial)		Reactionary and without a systematic approach
Stage 1 (Unaware)		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 – MISSION STATEMENT

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

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Internal Mission Statement	The internal mission statement includes all of the characteristics mentioned above.	No written internal mission statement. Executive Director was able to verbalize general principles. Needs to be part of entire utility
External Mission Statement	The external mission statement complements and supports the goals and ideals of the internal mission statement.	No written external mission statement. Executive Director was able to verbalize general principles.

COLLECTION SYSTEM POLICY – STRATEGIC GOALS RELATED TO CUSTOMER SERVICE

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.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Quality	The utility’s customer service policy refers to the quality of information a customer service representative is able to provide a customer.	No written customer service policy. The website provides limited information such as – Sewer District rules and new construction forms. Design standards are not posted. Personal contact regarding individual issues (who to call, etc) is good.
Quantity	The utility’s customer service policy refers to the depth and breadth of the information relayed to the public.	No written customer service policy. There’s a need to make the public more aware of sewer district issues (projects, household oil/grease tips, etc) through web and mailer.
Reliability	The utility’s customer service policy refers to the reliability of the information a customer service representative is able to provide a customer.	No written customer service policy. What information is provided is current.
Responsiveness	The utility’s customer service policy states the responsiveness goals for customer service.	Support staff is service orientated. Calls are relayed 24 hours/day. Service responsiveness can be impacted by call in procedures, utility area and layout.

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Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Environmental Acceptability	The utility's customer service policy addresses typical environmental concerns of the customer.	No written customer service policy. No formal response provided on backup cleanups. Limited interaction with consumer.
Cost/User Rates	The utility should regularly review rates versus cost of providing service (operation and maintenance costs), with a general trend toward increasing rates.	The utility is aware that rates need to be revised. Emphasis has been on keeping rates steady rather than meeting needs of the utility. No rate increase in five years even with significant additions to collection system.

POLICY – STRATEGIC GOALS TO ACHIEVE REGULATORY COMPLIANCE

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 NYSDEC 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.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Permit Requirements	Permit requirements are being met.	Permits are maintained and being met. Facility is in substantial compliance. Good general awareness of permit requirements.
CMOM Guidance	The guidance is being followed.	The utility has started the process of developing a formal CMOM program
Compliance Orders or Decrees	The utility is not under an order or decree.	The utility has taken actions to avoid consent orders or decrees. Last order was in 2002 and the utility addressed the order.

POLICY – STRATEGIC GOALS FOR MANAGING UTILITY ASSETS

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.

Effective Practices

Business Process Area	Business Practice Characteristics	Findings of the Readiness Review
Condition Assessment	There is a process in place to modify or stipulate condition assessment of assets.	No written criteria in place. Through the CCTV program, condition of assets is being identified. With CIP money 90,000 feet of interceptor line has been televised and corrosion problem areas have been identified. The 18” – 30” lines will be televised next.
Rehabilitation	There is a process or set of criteria in place to aid in the determination of asset rehabilitation.	No written criteria in place. Obvious visual evidence of corrosion within interceptors (exposed rebar) has been used to justify rehabilitation.
Replacement	There is a process or set of criteria in place to aid in the determination of asset replacement.	No written criteria in place.
Disposal	Assets are disposed of in an economical manner.	The utility scavenges/salvages what they can. The utility follows county policy for disposal of useable equipment.

POLICY – STRATEGIC GOALS FOR WORK MANAGEMENT

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
Efficiency	The utility is managing productively without waste.	No written policy pertaining to work management. Utility has recently taken steps to improve worker productivity. Plant location (southern part of county) and associated traffic impact efficiency – utility is taking steps to address this issue.
Prioritization	There is a process in place to create a priority list.	There is an informal unwritten process in place (respond to emergencies first).
Safety	Management supports safety measures.	Management is aware of the need for safety measures – many issues assumed to be covered by County Safety Officer.
Quality of Life	Management recognizes needs and issues in the work environment.	No effective practice evident.
Proficiency	Staff is knowledgeable about their respective positions.	Most training is on-the-job. Some vendor training provided. At times, employees have trained their supervisors.

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.	The utility needs time and resources to develop a formal priority system. The utility is implementing a computer-based maintenance management system.
Backlog System	There is a process in place to reduce backlog.	A backlog exists. Addressing backlog issues restricted by budget and procurement limitations.

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, which is utilized in the case 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.	Presently, mostly reactive maintenance only. Very little preventive maintenance. The utility is implementing a computer-based maintenance management system that will eventually assist with prioritization.
Hydraulic Cleaning	There is a program in place.	No programmatic approach. Periodic maintenance issues associated with the age of the combination truck (12+ years) has occasionally caused interruptions in the utilities ability to conduct effective hydraulic cleaning. The truck is currently operational and hydraulic cleaning has resumed. The utility is actively seeking funding options to replace their current combination truck.

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FOG Program	There is a program in place for addressing FOG.	No formal FOG control program in place. Food handlers are required to have appropriately sized grease trap. WWTP accepts grease (provides disposal option). No follow up on grease trap pumping and maintenance.
Root Control	There is a program in place.	No formal program in place.
Manholes	There is a program to prioritize manholes for inspection.	No formal manhole inspection program in place.
Condition Assessment - CCTV	There is a program in place to prioritize pipelines for CCTV inspection.	90,000 ft of large interceptor (30"+) was televised for first time. Trunk line televising will start in 2008 (19 miles).

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.	ROW areas are not regularly maintained making access difficult.
Cross Country Easements and Right-of-Ways	There is a program in place to maintain easements and ROW.	No formal process in place. Access created only when there is a need to do work within the easement.
Residential Easements and Right-of-Ways	There is a program in place to maintain easements and ROW.	No program in place.

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. Emergencies are documented. Eventually emergencies will be entered into the computer-based maintenance program to facilitate tracking. An emergency contractor list is updated and used as needed. Presently, call in procedure can cause response delays – responders must drive to plant (often driving past emergency), get vehicle, and then report back to emergency.

MAINTENANCE – PRESSURE SYSTEM PREVENTIVE

A pressure system (force main) preventive maintenance program will include the efficient and thorough inspection of air release valves, 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.
- Air release/vacuum valve exercise and maintenance plan.
- Force main isolation valve exercise and maintenance plan.
- Cathodic protection is looked at as a means to aid against corrosion.

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 documented process in place. Maintenance is reactive, not planned and proactive.
Cleaning	There is a program to prioritize for cleaning.	There is no cleaning program in place.
Air Release/Vacuum Valves	There is a program in place to maintain valves.	Valves have not been maintained.
Valve Exercise	There is a program in place to exercise valves.	There is no documented program in place.
Cathodic Protection	There is a cathodic protection program in place to aid against corrosion.	Cathodic protection is installed at pump stations. There is no documented program in place to maintain that protection.

MAINTENANCE – GRINDER PUMPS PREVENTIVE

A grinder pump 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 grinder pumps.

Elements of a grinder pump 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 and systematic program for testing electrical loads and electrical equipment.
- A documented, scheduled program for addressing structural needs.
- A documented, scheduled mechanical maintenance program for all grinder pumps.

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.	The utility has recently dedicated a maintenance team to grinder pump maintenance and replacement.
Short-Term Grinder Pump Repair	There is a process in place for addressing equipment failures consisting of a short-term repair program followed by rehabilitation/replacement for long-term operation.	The utility has recently dedicated a maintenance team to grinder pump maintenance and replacement.
Electrical	There are scheduled programs for these components.	There is no scheduled program for electrical preventive maintenance.
Mechanical	There are scheduled programs for these components.	The utility has recently dedicated a maintenance team to grinder pump maintenance and replacement.

MAINTENANCE – PUMPING 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.
- A documented, scheduled program to exercise valves.
- 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.

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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.	The utility has begun to implement a computer-based maintenance management system, starting with routine pump station maintenance.
Short-Term Pumping Station Repair	There is a process in place for addressing equipment failures consisting of a short-term repair program followed by rehabilitation/replacement for long-term operation.	Generally, only short-term repairs are implemented. There is no comprehensive maintenance program that integrates long-term operation and maintenance activities.
Electronics	There are scheduled programs for these components.	The utility has begun the process to consolidate the electronics (instrumentation) and electrical maintenance functions.
Electrical	There are scheduled programs for these components.	The utility has begun the process to consolidate the electronics (instrumentation) and electrical maintenance functions. Pump station electrical maintenance done once or twice a year. Electrician responsible for generator preventive maintenance program.
Mechanical	There are scheduled programs for these components.	The utility has begun to implement a computer-based maintenance management system, starting with routine pump station maintenance.
Physical	There are scheduled programs for these components.	Physical maintenance is a lower priority. Lawn maintenance for more than 60 pump stations requires at least one utility employee and summer help (rules prevent summer help from driving County vehicles).
Valve Exercising	There is a program in place to exercise valves.	There is no documented program in place.
Cathodic Protection	There is a cathodic protection program in place to aid against corrosion	Cathodic protection is provided for some pump stations. For those stations that have cathodic protection, the vendor is responsible for maintenance.
Corrosion Control	There is a corrosion control program in place	Several pump station have basic corrosion control features.

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 documented program in place. Maps are available. Utility participates in Dig Safe program. One person spends 65% of their time in this program.

OPERATIONS – GRINDER PUMPS

Grinder pumps 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 for each generation of grinder pump.

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, checking float operation, 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.

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.	There are no SOPs/EPGs in place.
Emergency Operation	Updated SOPs/EPGs are in place and used by staff.	Staff relies on experience. No written procedures in place.

OPERATIONS – PUMPING 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.	There are no SOPs/EPGs in place. Checklists are being developed for each station. Presently, field staff relies on experience only.
Emergency Operation	Updated SOPs/EPGs are in place and used by staff.	There are no emergency operational procedures in place. The field staff relies on experience only.
Supervisory Control and Data Acquisition (SCADA)	This system is being used effectively.	There is an undocumented approach to SCADA utilization and the use of collected data.

OPERATIONS – CORROSION CONTROL / CHEMICAL ADDITION

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 that includes inspection and testing of assets for corrosion.	Definite corrosion within the interceptors has raised awareness of the issue. The utility has had several corrosion control evaluations conducted. Rehabilitation project in early stages. Some seasonal chemical addition for odor control has added benefit of reducing sulfides. Bioxide is also being used in several locations (handled by a contractor).

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 10 flow meters in the gravity system.
Pumping Stations	There are flow meters at pumping stations.	Utility places a high importance on collection of pump run-time data. Flow monitoring is used at billing locations (about 8 locations). Newer pump stations (less than 3 years old) have flow metering.

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. This data should be documented in an easily accessible and useable format.
- 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 H₂S and should also include chemicals, and flows with varying pH. This data should be documented in an easily accessible and useable format.
- Clearly identify the owner of the service lateral from the house to the public sewer main. If the utility is responsible for the lateral, it is recommended that this responsibility be transferred to the home owner.
- 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.

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- 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
Asset Inventory	There is a complete inventory of collection system assets that is kept up to date.	A partial inventory of system assets is available.
Sewerage System Maps	Sewerage system maps are kept on record and up-to-date.	System maps are available. There is a defined process on how maps are updated.
Design – Gravity Lines	The design is done in-house with sufficient staff or by a consultant. If the design is done by a consultant, utility staff have input.	Design done by consultant (with capacity check). Utility reviews, DEC must approve.
Design – Grinder Pumps	The design is done in-house with sufficient staff or by a consultant. If the design is done by a consultant, utility staff have input	Design done by consultant. Utility reviews, DEC must approve. Utility uses one standard grinder pump vendor/design.
Design – Pumping Stations	The design is done in-house with sufficient staff or by a consultant. If the design is done by a consultant, utility staff have input	Design done by consultant. Utility reviews, DEC must approve. Utility uses one standard pump station vendor/design. Now on third generation based on operator input.
Design – Force Mains	The design is done in-house with sufficient staff or by a consultant.	Design done by consultant (with capacity check). Utility reviews, DEC must approve.
Construction Field Inspection	The utility performs construction inspection.	Construction inspection is performed either in-house, or by private engineers reimbursed by developer.
Acceptance Testing	The utility performs testing	For new construction, conducted by private engineers reimbursed by developer
Infrastructure Acquisition	There is a procedure for ensuring the condition of assets acquired during annexation or exchange of responsibility.	Any infrastructure to be acquired must be brought up to pre-determined county standards.
Condition Assessment – Priorities	There is a process in place to prioritize.	The condition of all major pump stations and interceptors has been evaluated and recommended work has been prioritized.
Condition Assessment - Smoke Testing	The utility conducts smoke testing.	Currently, there is no program in place.

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Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Condition Assessment – CCTV	The utility does CCTV and information collected is reviewed to determine what actions, if any, are to be taken.	Outside consultant televised 90,000 ft of large interceptor (30”+) in 2005. Trunk line (18” – 30”) televising will start in 2008 (19 miles). The utility has in-house capability to televise lines.
Condition Assessment - Manhole Inspection	The utility performs manhole inspections using standard forms and procedures.	No program in place.
Condition Assessment - Corrosion Identification	The utility performs corrosion identification.	Obvious visual evidence of corrosion within interceptor identified.
Condition Assessment - Gravity System Defect Analysis	Analysis is done by a qualified professional.	No condition assessment program is in place.
Condition Assessment - Force Mains	There is a program in place to assess the condition of force mains.	No formal program in place.
Condition Assessment – Grinder Pumps	There is a program in place to assess condition of pumping stations.	The utility has recently dedicated a maintenance crew to grinder pump maintenance and replacement.
Condition Assessment - Pumping Stations	There is a program in place to assess condition of pumping stations.	The utility is identifying and rehabilitating the older pump stations with operating concerns as money allows. Several more need work.
Rehabilitation/Replacement Gravity Line - Criteria	Criteria exist for determining rehabilitation or replacement of sewers.	The information collected from televising the interceptors is being evaluated by a consultant to identify problem areas.
Rehabilitation/Replacement Gravity Line – Methods	A variety of methods are considered for rehab and replacement.	Consultant and Utility determine on case by case basis.
Rehabilitation/Replacement Gravity Line – Design Specifications	The utility has and maintains specifications for sewer construction.	The utility uses in-house and state design criteria and specifications.
Rehabilitation/Replacement Gravity Line – Inspection	The utility has an inspection procedure for gravity sewer construction.	Done by independent consultant with spot check from utility QA person.
Rehabilitation/Replacement Gravity Line – Testing	The utility has acceptance testing criteria for rehabilitated sewers.	Done by consultant. Line is televised before acceptance.
Rehabilitation/Replacement Manhole – Criteria	Criteria exist for determining rehabilitation or replacement of manholes.	Repair and replacement generally done in conjunction with gravity line repair/replacement work.

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Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Rehabilitation/Replacement Manhole – Methods	A variety of methods are considered for rehab and replacement.	Done on a case-by-case basis.
Rehabilitation/Replacement Manhole – Design Specifications.	The utility has and maintains specifications for manhole construction.	The utility uses in-house and state design criteria and specifications.
Rehabilitation/Replacement Manhole – Inspection	The utility has an inspection procedure for manhole construction.	Done by independent consultant with spot check from utility QA person.
Rehabilitation/Replacement Manhole – Testing	The utility has acceptance testing criteria for rehabilitated manholes.	Done by consultant.
Rehabilitation/Replacement Grinder Pumps – Criteria	Criteria exist for determining rehabilitation or replacement of pumping stations.	No formal program in place.
Rehabilitation/Replacement Grinder Pumps – Methods and Techniques	A variety of methods are considered for rehabilitation and replacement.	Depends on situation.
Rehabilitation/Replacement Grinder Pumps – Design Specifications	The utility has and maintains specifications for grinder pump construction.	The utility uses a standard specification for grinder pump design.
Rehabilitation/Replacement Grinder Pumps – Inspection	The utility has an inspection procedure for pumping station construction.	Done by utility QA person.
Rehabilitation/Replacement Grinder Pumps – Testing	The utility has acceptance testing criteria for rehabilitated pumping stations.	Verify controls and units work. Check pumping rate with drawdown.
Rehabilitation/Replacement Pumping Stations – Criteria	Criteria exist for determining rehabilitation or replacement of pumping stations.	No formal program in place. Based on staff evaluation – electrical components, impeller.
Rehabilitation/Replacement Pumping Stations – Methods and Techniques	A variety of methods are considered for rehabilitation and replacement.	Done on a case-by-case basis.
Rehabilitation/Replacement Pumping Stations – Design Specifications	The utility has and maintains specifications for pumping station construction.	The utility uses a standard pump station design.
Rehabilitation/Replacement Pumping Stations – Inspection	The utility has an inspection procedure for pumping station construction.	Done by independent consultant with spot check from utility QA person.
Rehabilitation/Replacement Pumping Stations – Testing	The utility has acceptance testing criteria for rehabilitated pumping stations.	Verify controls and units work. Check pumping rate with drawdown.
Rehabilitation/Replacement Force Main – Criteria	Criteria exist for determining rehabilitation or replacement of force mains.	Based on staff and engineer evaluation.
Rehabilitation/Replacement Force Main – Methods and Techniques	A variety of methods are considered for rehab and replacement.	As circumstances require.

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Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Rehabilitation/Replacement Force Main – Design Specifications	The utility has and maintains specifications for force main construction.	The utility has and maintains design specifications.
Rehabilitation/Replacement Force Main – Inspection	The utility has an inspection procedure for force main construction.	Done by independent consultant with spot check from utility QA person.
Rehabilitation/Replacement Force Main – Testing	The utility has acceptance testing criteria for rehabilitated force mains.	The utility has a pressure test acceptance criteria.
Capacity Assurance - Definition of Adequate Capacity	There is a definition of adequate capacity.	For Pump Stations the definition is less than 35% pump runtime.
Capacity Assurance - Flow Monitoring	There is a program in place for conducting flow monitoring.	Some flow monitoring is done. However, data is not being used to its full potential.
Capacity Assurance Tools - Modeling	Modeling is used to evaluate capacity and overflows.	Modeling is used.
Capacity Assurance Management - Assurance Process	There is an assurance process in place by management.	A capacity letter is required from new development; Contractor can not proceed without this letter.
Capacity Assurance - Pumping Stations Adequacy and Performance	Pumping stations are sized adequately for projected growth.	The county has experienced significant growth. Most pump stations have reserve capacity but a few pump stations around Saratoga Lake are close to capacity.
Capacity Assurance - New Construction	There is a program or process in place to aid in the determination of capacity assurance.	Consultant must verify capacity exists.
Capacity Assurance - New Construction (grinder pump)	There is a program or process in place to aid in the determination of capacity assurance as it pertains to grinder pump systems.	Consultant must verify capacity exists
Capacity Assurance - New Service and Tap-Ins	There is a program or process in place to assure capacity that allows new service & tap-ins.	Consultant must verify capacity exists

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.
- A documented and regularly updated program for record keeping, notification and reporting overflow information to 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.
- A documented method of reporting using standard forms for tracking all complaints received by the utility. This process will include a mechanism for reviewing all complaints by a field supervisor.
- A mechanism for bringing all information together in order to provide management with the most complete picture of utility function.
- A documented method of record keeping by which the utility tracks all financial activities at an asset level for equipment, vehicles, and the wastewater conveyance system in general.

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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.	DEC Regional office is notified of pump station and manhole overflows, could be more formalized.
Overflow Reporting, Notification, and Record Keeping - Affected Agencies and Public	There is an information management system in place to notify affected agencies and the public.	No formal program in place. Utility notifies other affected agencies, as directed, if necessary.
Information Management - Maintenance	There is an information management system in place to track maintenance records.	The utility has begun to implement a computer-based maintenance management program.
Information Management - Operations	There is an information management system in place to track operations records.	The utility has begun to implement a computer-based maintenance management program.
Information Management - Complaints	There is an information management system in place to track and follow-up on complaints.	The present system relies on paper copies of complaints, followed by eventual computer entry. The utility has begun to implement a computer-based maintenance management program. Eventually, complaints will be entered directly into the maintenance management program.
Information Management – System-Wide Information Coordination to Support Management	There is an information management system in place to support management decisions.	The utility has begun to implement a computer-based maintenance management program that will be used to support management decisions.
Information Management - Financial	There is an information management system in place to track costs and budgets.	There is a low defined system in place to track costs and budgets.
Information Management – Document Control	There is a system in place to control the use, addition or deletion of information, and where it should reside.	There is no formal system. However the utility keeps individual job files for all collection activities. In house staff review and finalize documents (for example, Design Specifications) for public use.

TECHNICAL SUPPORT FUNCTION – CONTINGENCY PLANNING

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

The key elements of a comprehensive contingency 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 documented list identifying the agencies, authorities 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 around equipment.
- A documented and regularly updated process for emergency operation and maintenance to include routine testing of stand-by power, emergency pump operation, portable pumps etc.
- A documented and regularly practiced emergency response training program, specifically mock drills, for all administrative and operations staff who would be required to respond to an emergency.
- A documented and regularly updated emergency response safety plan.

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Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Planning Process - Steps and Tasks	An overflow response plan exists which shows steps and tasks for response.	The utility does not have a formal contingency plan. The utility has a copy of the model DEC SORP available but it has not been tailored. Currently based on past experience.
Planning Process - Public Notification	An overflow response plan exists which explains procedures.	The utility does not have a formal contingency plan. The utility has a copy of the model DEC SORP available but it has not been tailored. Currently based on past experience.
Planning Process - Regulatory Notification	An overflow response plan exists which states requirements and process for reporting.	The utility does not have a formal contingency plan. The utility has a copy of the model DEC SORP available but it has not been tailored. Currently based on past experience.
Planning Process - Emergency Flow Control	An overflow response plan exists for managing flows.	The utility does not have a formal contingency plan. The utility has a copy of the model DEC SORP available but it has not been tailored. Currently based on past experience.
Planning Process - Emergency Operations and Maintenance	An overflow response plan exists for emergency O&M.	The utility has emergency contractors on call if needed and the list is updated on a regular basis. This needs to be formalized within a formal plan. Currently based on past experience.
Preparedness Training	An overflow response plan exists that describes preparedness training.	The utility has not conducted preparedness training.
Planning Process - Safety Issues	An overflow response plan exists and explains safety issues during overflow response.	The utility does not have a formal contingency plan. The utility has a copy of the model DEC SORP available but it has not been tailored. Currently based on past experience.

TECHNICAL SUPPORT FUNCTION – SOURCE CONTROL

An important mechanism for protecting the utilities/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 - Inspection	Inspections are conducted on a regular basis.	No routine inspections unless problems are occurring.
Fats, Oils, and Grease Control - Enforcement	FOG control measures are enforced.	There is a 100 mg/l FOG limit in SUO but no enforcement measure.
Fats, Oils, and Grease Control – Compliance Assistance	If necessary, the utility requests compliance assistance from different branches or departments within the County or the state. Alternatively, the utility offers compliance assistance to industrial or commercial establishments experiencing FOG issues.	The utility recently sent a letter to all entities with grease traps. The letter lists recommendations to assure the grease trap is properly cleaned out
Fats, Oils, and Grease Control – Public Education	There is a program in place to educate the public on FOG control.	There is no public education program in place.
Fats, Oils, and Grease Control – Performance Measures	Performance measures for FOG control are in place.	The utility has not attributed any blockages to FOG and considers this an indication that FOG is not an issue for them. Performance measure = no blockages.

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Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Pretreatment Program - Permitting	There is a permitting program in place.	There is a permitting program in place. There are 3 categorical and 3 Significant Industrial Users.
Pretreatment Program - Inspection	Inspections are conducted on a regular basis.	Inspections are done on a routine unannounced basis.
Pretreatment Program - Enforcement	The pretreatment program is enforced.	Under current SUO enforcement is weak. The proposed SUO would provide better enforcement capability.
Pretreatment Program – Compliance Assistance	If necessary, the utility requests compliance assistance from different branches/departments within the County or the state.	The utility requests compliance assistance if necessary.
Pretreatment Program – Performance Measures	Performance measures for the pretreatment program are in place.	The primary performance measure is compliance. Industries are meeting pretreatment standards

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.
- Inter-governmental agreement with the satellite system to include the amount of flow, duration of agreement, penalties and fines for violations, and a means for making modifications to the agreement.
- The legal authority for the inspection, enforcement and permitting of all new connections and additions to the collection system.
- Resources available for legal counsel.
- Clearly identify the owner of the service lateral from the house to the public sewer main. If the utility is responsible for the lateral, it is recommended that this responsibility be transferred to the home owner.
- 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.

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Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Sewer Use Ordinance	The utility complies with DEC's model SUO	The utility recognizes the current SUO is inadequate. They have a proposed SUO in to EPA for approval (submitted in 2000) that still has not been approved.
Fats, Oils, and Grease Control Ordinance	The utility has established limits for FOG as well as a grease trap policy.	No ordinance is in place.
Inter-Governmental Agreements	The utility has inter-governmental agreements that address amount of flow (peak and dry weather), and fines or penalties for violations.	The existing inter-governmental agreements do not address flows (peak or dry weather) or enforcement options. The utility works with DEC and most municipalities to assure that the system has capacity for increased flows. City of Saratoga Springs does not keep Sewer District informed regarding projects and additional flows.
Liquidated Damages and Lawsuits	Back-ups are resolved in a timely manner according to an adopted policy.	Backups are resolved but there is no formal policy in place.

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.
- 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.	The table of organization provided was out of date.
Human Resources - Position Descriptions	An up-to-date set of descriptions exists.	Position titles may need to be amended to reorganization (electrical / instrumentation).
Human Resources – Succession Planning	Human resources supports a succession planning policy.	Utility is in the initial stages of succession planning- the Sewer Commission has formed a committee to examine this issue.

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Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Human Resources – Disciplinary Actions	Human resources support an effective disciplinary program.	Disciplinary actions are not performed in a timely manner, nor does there appear to be a definitive process in place for disciplinary action.
Human Resources – Certification Requirements	Certifications that are required by job description are maintained.	CDL license is needed to drive the combination truck. No financial incentive to maintain license.
Human Resources - Training - Technical	Training is available and/or conducted.	Most training received is on-the-job training. Staff sees improvement opportunities: for example - use surplus equipment to set up pump station training.
Human Resources - Training - Skills	Training is available and/or conducted to address a multitude of effective business practices.	Training for collection personnel is minimal – due to limited training opportunities and cost.
Human Resources – Compensation	Compensation of sewer workers is comparable to regional and industry standards.	Compensation appears comparable to other utilities.
Human Resources - Safety Program - Safety Authority	A safety authority exists.	Safety Officer at County level. Utility has Safety Committee.
Human Resources - Safety Program - Confined Space Entry (CSE)	A confined space entry program exists and a confined space entry procedure is in place and followed according to standard operating procedures.	Utility-wide CSE training program has been provided. SOP/EPG has not been developed.
Human Resources - Safety Program - General Safety Procedures	General safety procedures exist and are followed according to standard operating procedures.	Some procedures in place. No apparent formalized safety procedures exist
Human Resources - Safety Program - Traffic Management	There is a traffic management safety program that is followed according to standard operating procedures.	No apparent traffic management safety program in place.
Human Resources - Safety Program - Lock Out, Tag Out	An SOP exists and is followed.	Training provided in 2006. SOP/EPG has not been developed.
Human Resources - Safety Program - Safety Equipment	The utility has the necessary safety equipment to perform all job functions.	Limited safety equipment is available to staff. Gas meter for each truck, shoe allowance, uniforms, and some PPE provided
Human Resources - Safety Program - Performance Measures	Performance measures are in place such as tracking lost time accidents and the number of workman’s compensation cases.	No apparent performance measure in place.

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Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Human Resources - Workman's Compensation	There is a downward trend in the number of lost time accidents.	Lost time accident rate is fairly steady.

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.

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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.	Vehicle purchase and repair is handled by County Dept. of Public Works. Age and condition of the combination truck is a major concern (13 years old) The utility is seeking grant money opportunities to purchase a new combination truck
Equipment Purchase and Repair	There is a process in place to facilitate equipment purchase and repair.	There is a process in place to facilitate equipment purchase and repair.
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.	There is a process in place to facilitate tool purchase and inventory.
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.	There is a process in place to facilitate spare parts purchase and inventory.
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.	There is a process in place to facilitate supplies purchase and inventory.
External Procurement	External procurement supports field operations department on all requests received in order to ensure adequacy and avoid regulatory non-compliance.	There is a process in place for external procurement.

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.
- Insurance as an indicator of the utility’s ability to manage, operate and maintain its assets.

Effective Practices

Business Process Area	Business Practice Characteristics	Finding of the Readiness Review
Budgeting	Various individuals have input into the budgeting process.	A number of levels of staff have input into the budgeting process.
Rate Analysis	Rate analysis is performed regularly.	Rates are reviewed on a regular basis, though they have not changed in several years.
Cost of Operation	Previous years' expenditures are taken into account.	Previous years' expenditures are taken into account, though the utility has been requested to level fund the budget.
Cost of Maintenance	Previous years' expenditures are taken into account.	Previous years' expenditures are taken into account, though the utility has been requested to level fund the budget.
Capital Improvement Plan	There is a CIP that extends 5 or more years into the future.	The utility does have CIP in place. The plan needs to be implemented, tracked, and regularly reviewed.
Cost of Management	Previous years' expenditures are taken into account.	Previous years' expenditures are taken into account, though the utility has been requested to level fund the budget.
Life Cycle Cost Analysis	Life cycle cost analysis is performed.	The utility is aware of the need for this business practice.
Insurance	The utility is self-insured.	The utility is not self insured.

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 informal, undocumented complaint management program in place.
Public Information	Staff is knowledgeable and able to inform the public on issues that arise.	Staff is knowledgeable but needs to be proactive in getting information out to the public.
Public Education	Staff is knowledgeable and able to educate the public on issues that arise.	Some tours are provided to schools and colleges. More education opportunities need to be explored.