

**Saratoga County Sewer District No. 1  
CMOM Business Practice Evaluation  
Recommendations and Action Matrix  
December 7, 2007**

Business Practice	Priority 1 = High 5 = Low	Findings	Recommendations	Risk	Consequences	Task Leader
<b>Maintenance – Pump Stations Preventive</b>						
Maintenance Prioritization	1.1	The utility has begun to implement a computer-based maintenance management system, starting with routine pump station maintenance.	Continue implementation of management system. Based on data, adjust maintenance prioritization.	Risk of pump station failure resulting in increased sanitary sewer overflow (SSO) events.	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial Impact from fines</li> <li>• Negative impact on customer service</li> <li>• System efficiency decreases</li> </ul>	Grant Eaton
Short-term Pumping Station Repairs		Generally, only short-term repairs are implemented. There is no comprehensive maintenance program that integrates long-term operation and maintenance activities.	Use data from maintenance program to consider short term repairs with rehabilitation/replacement			
Electronics		The utility has begun the process to consolidate the electronics (instrumentation) and electrical maintenance functions.	Hire electrical supervisor. Prioritize electronics tasks.			
Electrical		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.	Hire electrical supervisor. Prioritize electrical maintenance tasks.			
Mechanical		The utility has begun to implement a computer-based maintenance management system, starting with routine pump station maintenance.	Continue implementation of management system. Use information to develop/refine routine maintenance procedures.			
Physical		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).	Utility is hiring more summer help workers for lawn and physical maintenance.			
Valve exercising		There is no documented program in place.	Valve exercising is being put into pump station maintenance check lists.			
Cathodic Protection		Cathodic protection is provided for some pump stations. For those stations that have cathodic protection, the vendor is responsible for maintenance.	Maintain cathodic protection system.			
Corrosion Control		Several pump station have basic corrosion control features.	Maintain corrosion control features.			

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<b>Operations - Pumping Stations</b>						
Normal Operation	1.2	There are no standard operating procedures/effective practice guidelines (SOPs/EPGs) in place. Checklists are being developed for each station. Presently, field crews rely on experience only.	Finish developing SOPs/EPGs for each pump station.	Risk of pump station overflows resulting in increased SSO events.	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial Impact from fines</li> <li>• Negative impact on customer service</li> <li>• System Efficiency decreases</li> </ul>	Grant Eaton
Emergency Operation		There are no emergency operational procedures in place. The field staff relies on experience only.	Develop written emergency operational procedures to be posted at each pump station.			
Supervisory Control and Data Acquisition (SCADA)		There is an undocumented approach to SCADA utilization and the use of collected data.	Develop written procedure on SCADA utilization.			
<b>Maintenance - Grinder Pump Preventive</b>						
Maintenance Prioritization	1.3	The utility has recently dedicated a maintenance team to grinder pump maintenance and replacement.	Maintenance team will develop priority list based on evaluation and history.	Risk of grinder pump failure resulting in SSO events.	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial impact from fines</li> <li>• Negative impact on customer service</li> <li>• System efficiency decreases</li> </ul>	Grant Eaton
Short-term Pumping Station Repairs		The utility has recently dedicated a maintenance team to grinder pump maintenance and replacement.	Use data from maintenance program to consider short term repairs with rehabilitation/replacement.			
Electrical		There is no scheduled program for electrical preventive maintenance.	Hiring electrical supervisor will help enable utility to address and schedule electrical maintenance tasks.			
Mechanical		The utility has recently dedicated a maintenance team to grinder pump maintenance and replacement.	Maintain grinder pump maintenance team. Recently developed cleaning and preventive maintenance program will reduce call ins and improve reliability.			
<b>Operations – Grinder Pumps</b>						
Normal Operation	1.4	There are no SOPs/EPGs in place.	Develop general SOPs/EPGs for grinder pump operation.	Risk of grinder pump failure resulting in SSO events.	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial Impact from fines</li> <li>• Negative impact on customer service</li> <li>• System efficiency decreases</li> </ul>	Grant Eaton
Emergency Operation		Staff relies on experience. No written procedures in place.	Develop written emergency operational procedures to be used at grinder pumps.			
<b>Maintenance – Pressure System Preventive</b>						
Maintenance Prioritization	1.5	There is no documented process in place. Maintenance is reactive, not planned and proactive.	Develop a priority list based on evaluation and history.	Possibility of Force Main collapse.	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial impact from damage and fines</li> </ul>	Grant Eaton
Cleaning		There is no cleaning program in place.	Use pump station data to determine if cleaning is warranted.			
Air Release / Vacuum Valves		Valves are not been maintained.	Develop preventive maintenance program for valves.			
Valve Exercise		There is no documented program in place.	Valve exercising is being incorporated into the pump station preventive maintenance program.			

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Cathodic Protection		Cathodic protection is installed at pump stations. There is no documented program in place to maintain that protection.	Develop a cathodic protection program			
<b>Maintenance – Right-of-Ways (ROW)</b>						
Maintenance Prioritization	1.6	ROW areas are not regularly maintained making access difficult.	Develop program to maintain ROWs	Lack of access limits televising/cleaning.	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial impact from fines</li> <li>• Negative impact on customer service</li> <li>• Additional time and costs getting to site.</li> </ul>	Jim DiPasquale / Grant Eaton
Cross-country Easements and Right-of-Ways		No formal process in place. Access created only when there is a need to do work within the easement.	Develop program to maintain ROWs	Risk of longer SSO events because of limited access.		
Residential Easements and Right-of-Ways		No program in place.	Develop program to maintain ROWs			
<b>Operations – Line Location</b>						
Line Location Program	2.1	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.	Cross train other collection personnel to cover vacations and handle high volume during construction season.	Lack of proper identification increases potential damage to collection components.	<ul style="list-style-type: none"> <li>• Financial impact from fines and/or damage repair</li> <li>• Negative impact on customer service</li> </ul>	Grant Eaton
<b>Technical Support Function – Contingency Planning</b>						
Planning Process – Steps and Tasks	2.2	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.	Incorporate utility experience into DEC model sewer overflow response plan (SORP) to develop system-specific plan.	High risk of longer SSO events	Confusion/delay in responding to an overflow event.	Grant Eaton
Planning Process – Public Notification		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.	When SORP is developed, verify the public notification steps are valid and current.			
Planning Process – Regulatory Notification		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.	When SORP is developed, verify the regulatory notification steps are valid and current.			
Planning Process – Emergency Flow Control		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.	When SORP is developed, verify the emergency flow control steps are valid and current.			
Planning Process – Emergency Operations and Maintenance		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.	Consider and incorporate established emergency operations and maintenance.			

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Preparedness Training		The utility has not conducted preparedness training	After developing SORP, conduct hands on training using mock drills.			
Planning Process – Safety Issues		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.	Consider and incorporate collection safety issues into SORP.			
<b>Maintenance – Corrective</b>						
Priority System	2.3	The utility needs time and resources to develop a formal priority system. The utility is implementing a computer-based maintenance management system.	Continue utilizing and enhancing maintenance management system to develop a priority system.	Without a priority system staff and resources may not be utilized effectively.	Financial impact due to poor staff/resource allocation.	Grant Eaton
Backlog System		A backlog exists. Addressing backlog issues restricted by budget and procurement limitations.	Continue utilizing and enhancing maintenance management system.			
<b>Maintenance – Gravity System Preventive</b>						
Maintenance Prioritization	2.4	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.	Develop a prioritized list of maintenance issues/activities. More information from maintenance management system will help future prioritization.	Increased risk of SSOs	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial impact from fines</li> <li>• Negative impact on customer service</li> </ul>	Grant Eaton
Hydraulic Cleaning		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.	<ul style="list-style-type: none"> <li>• Develop a programmatic approach to hydraulic cleaning.</li> <li>• Spot check 10% of cleaned lines to ensure quality.</li> <li>• Explore options for replacing combination truck.</li> </ul>	Increased risk of SSOs	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial impact from fines</li> <li>• Negative impact on customer service</li> </ul>	
FOG Program		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.	If future assessment indicates FOG accumulation issues, develop a formal FOG control program.			
Root Control		No formal program in place.	Develop a formal program for root control.			
Manholes		No formal manhole inspection program in place.	<ul style="list-style-type: none"> <li>• Develop a formal program of manhole inspections.</li> <li>• Utilize manhole inspection forms.</li> </ul>			
Condition Assessment – CCTV		90,000 ft of large interceptor (30"+) was televised for first time. Trunk line televising will start in 2008 (19 miles).	Incorporate CCTV into CMOM plan.			

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<b>Administrative Support Function – Financial</b>						
Budgeting	2.5	A number of levels of staff have input into the budgeting process.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.	Low risk		Sue Duff
Rate Analysis		Rates are reviewed on a regular basis, though they have not changed in several years.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Cost of Operation		Previous years' expenditures are taken into account, though the utility has been requested to level fund the budget.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Cost of Maintenance		Previous years' expenditures are taken into account, though the utility has been requested to level fund the budget.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Capital Improvement Plan (CIP)		The utility does have CIP in place. The plan needs to be implemented, tracked, and regularly reviewed.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Cost of Management		Previous years' expenditures are taken into account, though the utility has been requested to level fund the budget.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Life Cycle Cost Analysis		The utility is aware of the need for this business practice.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Insurance		The utility is not self insured.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
<b>Technical Support Function – Information Management</b>						
Overflow Reporting, Notification, and Record Keeping – Regulatory Agencies	2.6	DEC Regional office is notified of pump station and manhole overflows, could be more formalized.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.	Medium to high risk of less than optimal use of data and timely information to manage collection system operation and maintenance activities.	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial impact from fines</li> <li>• Level of service and efficiency decrease</li> </ul>	Grant Eaton
Overflow Reporting, Notification, and Record Keeping – Affected Agencies and Public		No formal program in place. Utility notifies other affected agencies, as directed, if necessary.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Information Management – Maintenance		The utility has begun to implement a computer-based maintenance management program.	Analyze data and track trends gathered with increased use of computerized maintenance management program for efficient application of maintenance methods.			
Information Management – Operations		The utility has begun to implement a computer-based maintenance management program.	Analyze data and track trends gathered with increased use of computerized maintenance management program for efficient application of operations methods.			

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Information Management – 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.	Enter complaints directly into CMMS to allow data to be compiled and tracked.			
Information Management – System Wide Information Coordination to Support Management		The utility has begun to implement a computer-based maintenance management program that will be used to support management decisions.	Analyze data and track trends gathered with increased use of computerized maintenance management program for efficient application of operations methods			
Information Management – Financial		There is a low defined system in place to track costs and budgets.	Analyze data and track trends gathered with increased use of computerized maintenance management program for efficient application of operations methods			
Information Management – Document Control		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.	Develop a document control system.			
<b>Technical Support Function – Legal Support</b>						
Sewer Use Ordinance (SUO)	2.7	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.	EPA has recently contacted the district regarding their sewer use ordinance. Enacting an updated sewer use ordinance is recommended.	Utility will bear the burden of responsibility for SSOs that are the responsibility of other parties unless legal protections are enacted.	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial impact from fines</li> <li>• Reduced future performance</li> </ul>	Grant Eaton
FOG Control Ordinance		No ordinance is in place.	If SUO is being updated, FOG control ordinance should be incorporated.			
Inter-Governmental Agreements		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.	Ensure each municipality is keeping the sewer district informed on all service additions/deletions to the system. Incorporate flow limits and penalties into future agreements, when renewed.			
Line Location		The Utility utilizes and participates in the Dig Safe program.	Continue current business practice while developing formal procedures. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Liquidated Damages and Law Suits		Backups are resolved but there is no formal policy in place.	Continue current business practice while developing formal procedures. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
<b>Maintenance – Emergency</b>						

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Program	3.1	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.	Develop a formal emergency response program.	Prolonged emergency events resulting in potential increased damage and associated costs. Potential lawsuits.	<ul style="list-style-type: none"> <li>• High costs associated with emergency</li> <li>• Safety issues</li> <li>• Higher insurance premiums</li> </ul>	Grant Eaton
<b>Administrative Support Function – Customer Service</b>						
Complaint Management	3.2	There is an informal, undocumented complaint management program in place.	Develop a formal complaint management system.	Low risk	Ineffective complaint management and dissemination of information will erode customer and public support of utility operations.	Jim DiPasquale
Public Information		Staff is knowledgeable but needs to be proactive in getting information out to the public.	Utilize web site for increasing information available to the public; such as frequently asked questions, frequently requested telephone numbers, and information on upcoming utility activities.			
Public Education		Some tours are provided to schools and colleges. More education opportunities need to be explored.	Utilize web site for educating customers and the public with information on the utility and its operations, especially as they pertain to the collection system.			
<b>Operations – Flow Monitoring</b>						
Gravity Systems	3.3	There are 10 flow meters in the gravity system.	Continue collecting flow information and analyzing data.	Low-to-medium risk	Potential bad decision making, if flow meters are not properly calibrated	Bernie Gurtler
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.	Continue with high importance of pump station data collection.			
<b>Operations – Corrosion Control / Chemical Addition</b>						
Corrosion Control Program	3.4	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).	Formalize a corrosion control program that incorporates collection system, grinder pumps, and pump stations.	Increased risk of SSOs due to corrosion-related failures.	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial impact from fines</li> </ul>	Grant Eaton
<b>Technical Support Function – Source Control</b>						
Fats, Oils, and Grease Control – Inspection	4.1	No routine inspections unless problems are occurring.	Conduct periodic spot checks of grease traps/pumping records.	Low risk	Unaddressed FOG problem areas could lead to future blockages and	Tammy Ballestero

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Fats, Oils, and Grease Control – Enforcement		There is a 100 mg/l FOG limit in SUO but no enforcement measure.	Proposed Sewer Use Ordinance outlines enforcement options.	Although FOG does not appear to be an issue at this point, FOG preventive measures should be explored and implemented.	SSOs.	
Fats, Oils, and Grease Control – Compliance Assistance		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	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Fats, Oils, and Grease Control – Public Education		There is no public education program in place.	Use mailers and public outreach (web site) to educate public on oil and grease issues.			
Fats, Oils, and Grease Control – Performance Measures		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.	If in the future FOG issues become a priority, develop a performance measure to assess success with remediation efforts.			
Pretreatment Program - Permitting		There is a permitting program in place. There are 3 categorical and 3 Significant Industrial Users.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Pretreatment Program – Inspection		Inspections are done routinely on an unannounced basis.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Pretreatment Program – Enforcement		Under current SUO enforcement is weak. The proposed SUO would provide better enforcement capability.	Enact updated sewer use ordinance.			
Pretreatment Program – Compliance Assistance		The utility requests compliance assistance when necessary.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Pretreatment Program – Performance Measures		The primary performance measure is compliance. Industries are meeting pretreatment standards	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
<b>Collection System Policy – Mission Statement</b>						
Internal Mission Statement	5.1	No written internal mission statement. Executive Director was able to verbalize general principles. Needs to be part of entire utility	Develop an internal mission statement and communicate it to staff.	Low risk	Lack of clear message to staff. Priorities are not established or are overlooked.	Jim DiPasquale
External Mission Statement		No written external mission statement. Executive Director was able to verbalize general principles.	Develop an external mission statement and communicate it to staff, customers, and the public.	Low risk		

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<b>Collection System Policy – Strategic Goals Related to Customer Service</b>						
Quality	5.2	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.	Develop strategic goal and policy pertaining to customer service. Utilize web site to increase information available to customers.	Low risk	Ineffective customer service will erode customer and public support of utility operations.	Jim DiPasquale
Quantity		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		No written customer service policy. What information is provided is current.				
Responsiveness		Support staff is service orientated. Calls are relayed 24 hours/day. Service responsiveness can be impacted by call in procedures, utility area and layout.				
Environmental Acceptability		No written customer service policy. No formal response provided on backup cleanups. Limited interaction with consumer.				
Cost/User 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.				
<b>Policy – Strategic Goals to Achieve Regulatory Compliance</b>						
Permit Requirements	5.3	Permits are maintained and being met. Facility is in substantial compliance. Good general awareness of permit requirements.	Develop strategic goal and formal management program for regulatory compliance, including satellite systems.	Increased regulatory scrutiny of utility operation and maintenance policies and procedures.	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial impact from fines</li> </ul>	Jim DiPasquale
CMOM Guidance		Utility has started the process of developing a formal CMOM program	Develop an all inclusive CMOM plan incorporating all job functions and lines of authority and resources necessary to support a sustainable future.			
Compliance Orders or Decrees		The utility has taken actions to avoid consent orders or decrees. Last order was in 2002 and the utility addressed the order.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			

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<b>Policy – Strategic Goals for Managing Utility Assets</b>						
Condition Assessment	5.4	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.	Develop a strategic goal for managing assets and a formal asset management plan.	High risk of substandard asset performance, third party lawsuits, and accounting implications.	<ul style="list-style-type: none"> <li>Enforcement actions</li> <li>Level of service and efficiency decrease</li> <li>Financial implication for bond rating</li> </ul>	Jim DiPasquale
Rehabilitation		No written criteria in place. Obvious visual evidence of corrosion within interceptors (exposed rebar) has been used to justify rehabilitation.				
Replacement		No written criteria in place.				
Disposal		The utility scavenges/salvages what they can. The utility follows County policy for disposal of useable equipment.				
<b>Policy – Strategic Goals for Work Management</b>						
Efficiency	5.5	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 was impacting efficiency – utility is taking steps to address this issue.	Develop a strategic goal for work management and a formal management program incorporating efficiency, prioritization, safety, quality of life, and proficiency.	High risk to level of service and efficiency.	<ul style="list-style-type: none"> <li>Safety concerns</li> <li>Financial impacts</li> </ul>	Jim DiPasquale
Prioritization		There is an informal unwritten process in place (respond to emergencies first).				
Safety		Management is aware of the need for safety measures – many issues assumed to be covered by County Safety Officer.				
Quality of Life		No effective practice evident.				
Proficiency		Most training is on-the-job. Some vendor training provided. At times, employees have trained their supervisors.				
<b>Administrative Support Function – Human Resources</b>						
Human Resources – Table of Organization	5.6	The table of organization provided was out of date.	Develop an up-to-date table of organization.	High risk of loss of technical human resources due to inadequate succession planning to replace existing knowledge, skills, and abilities to manage, operate, and maintain assets.	<ul style="list-style-type: none"> <li>Increased frequency of SSOs and or other substandard performance.</li> <li>Loss of institutional knowledge.</li> <li>Level of service and efficiency decrease.</li> </ul>	Jim DiPasquale
Human Resources – Position Descriptions		Position titles may need to be amended due reorganization (electrical / instrumentation).	Update position descriptions as necessary and develop a mechanism for continuous review and updating.			
Human Resources – Succession Planning		Utility is in the initial stages of succession planning. The Sewer Commission has formed a committee to examine this issue.	Continue with succession planning.			

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Human Resources – Disciplinary Actions		Disciplinary actions are not performed in a timely manner, nor does there appear to be a definitive process in place for disciplinary action.	Develop and implement a formal, progressive discipline policy.	Increased risk of accidents	<ul style="list-style-type: none"> <li>• Potential lawsuits.</li> <li>• Decrease in moral</li> </ul>	
Human Resources – Certification Requirements		CDL license is needed to drive the combination truck. No financial incentive to maintain license.	Implement NYWEA voluntary collection system operator certification.			
Human Resources – Training – Technical		Most training received is on-the-job training. Staff sees improvement opportunities: for example - use surplus equipment to set up pump station training.	Continue with expanding the technical training opportunities.			
Human Resources – Training – Skills		Training for collection personnel is minimal – due to limited training opportunities and cost.	Explore mechanisms to expand current skills training opportunities.			
Human Resources – Compensation		Compensation appears comparable to other utilities.	Continue current business practice.			
Human Resources – Safety Program – Safety Authority		Safety Officer at County level. Utility has Safety Committee.	Continue current business practice.			
Human Resources - Safety Program – Confined Space Entry (CSE)		Utility-wide CSE training program has been provided. SOP/EPG has not been developed.	Develop a formal SOP/EPG for confined space entry procedures			
Human Resources - Safety Program – General Safety Procedures		Some procedures in place. No apparent formalized safety procedures exist	Develop formalized safety procedures and incorporate into the CMOM plan, as plan is developed			
Human Resources - Safety Program – Traffic Management		No apparent traffic management safety program in place.	Develop formalized traffic safety program and incorporate into CMOM plan, as plan is developed.			
Human Resources - Safety Program – Lock Out, Tag Out		Training provided in 2006. SOP/EPG has not been developed.	Develop formalized lock out, tag out program and incorporate into the CMOM plan, as the plan is developed.			
Human Resources - Safety Program – Safety Equipment		Limited safety equipment is available to staff. Gas meter for each truck, shoe allowance, uniforms, and some PPE provided	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Human Resources - Safety Program – Performance Measures		No apparent performance measure in place.	Develop formalized performance measures and incorporate into the CMOM plan, as the plan is developed.			
Human Resources – Workman’s Compensation		Lost time accident rate is fairly steady.	Monitor workman’s compensation trend and periodically assess the effectiveness of the safety program.			
<b>Administrative Support Function – Procurements</b>						

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Vehicle Purchase and Repair	5.7	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	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed. Continue to explore opportunities for purchasing a new combination truck.	High risk of procurement practices affecting collection system operation and maintenance in the area of SSO prevention and response if proper vehicles, tools, and equipment are not available.	<ul style="list-style-type: none"> <li>• Notice of Violation</li> <li>• Enforcement Action</li> <li>• Financial impact from fines</li> <li>• Level of service and efficiency decrease</li> <li>• Morale decrease</li> </ul>	Sue Duff
Equipment Purchase and Repair		There is a process in place to facilitate equipment purchase and repair.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Tools Purchase and Inventory		There is a process in place to facilitate tool purchase and inventory.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Spare Parts Purchase and Inventory		There is a process in place to facilitate spare parts purchase and inventory.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Supplies Purchase and Inventory		There is a process in place to facilitate supplies purchase and inventory.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
External Procurement		There is a process in place for external procurement.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
<b>Technical – Engineering</b>						
As-Built Plans	5.8	As-built plans are retained	Continue current business practices. Incorporate documentation of business practice into CMOM plan, as plan is developed.	<ul style="list-style-type: none"> <li>• Low potential risk of increased SSOs resulting from engineering oversights</li> <li>• SSOs resulting from inadequate capacity.</li> <li>• Financial impacts of replacing/correcting system components.</li> <li>• Loss of efficiency</li> </ul>		Jim DiPasquale
Asset Inventory		A partial inventory of system assets is available.				
Sewerage System Maps		System maps are available. There is a defined process on how maps are updated.				
Design – Gravity Lines		Design done by consultant (with capacity check). Utility reviews, DEC must approve.				
Design – Grinder Pumps		Design done by consultant. Utility reviews, DEC must approve. Utility uses one standard grinder pump vendor/design.				
Design – Pumping Stations		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		Design done by consultant (with capacity check). Utility reviews, DEC must approve.				
Construction Field Inspection		Construction inspection is performed either in-house, or by private engineers reimbursed by developer.				

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Acceptance Testing		For new construction, conducted by private engineers reimbursed by developer					
Infrastructure Acquisition		Any infrastructure to be acquired must be brought up to pre-determined county standards.					
Condition Assessment – Priorities		The condition of all major pump stations and interceptors has been evaluated and recommended work has been prioritized.					Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.
Condition Assessment – Smoke Testing		Currently, there is no program in place.					Use as needed in system evaluation.
Condition Assessment – CCTV		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					Planned televising of trunk lines will provide a current assessment.
Condition Assessment – Manhole Inspection		No program in place.					Establish written form for evaluation of manholes.
Condition Assessment – Corrosion Identification		Obvious visual evidence of corrosion within interceptor identified.					Continue assessment of system to identify corrosion problems.
Condition Assessment – Gravity System Defect Analysis		No condition assessment program is in place.					Establish written criteria for rehabilitation/replacement.
Condition Assessment – Force Mains		No formal program in place.					Establish written criteria and procedures to assess condition of force mains.
Condition Assessment – Grinder Pumps		The utility has recently dedicated a maintenance crew to grinder pump maintenance and replacement.					Continue current business practices. Incorporate documentation of business practice into CMOM plan, as plan is developed.
Condition Assessment – 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		The information collected from televising the interceptors is being evaluated by a consultant to identify problem areas.					
Rehabilitation/Replacement Gravity Line – Methods		Consultant and Utility determine on case by case basis.					
Rehabilitation/Replacement Gravity Line – Design Specifications		The utility uses in-house and state design criteria and specifications.					
Rehabilitation/Replacement Gravity Line – Inspection		Done by independent consultant with spot check from utility QA person.					
Rehabilitation/Replacement Gravity Line – Testing	Done by consultant. Line is televised before acceptance.						

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Rehabilitation/Replacement Manhole – Criteria		Repair and replacement generally done in conjunction with gravity line repair/replacement work.	Establish written criteria for rehabilitation and replacement.			
Rehabilitation/Replacement Manhole – Methods		Done on a case-by-case basis.	No recommendation, continue current business practice.			
Rehabilitation/Replacement Manhole – Design Specification		The utility uses in-house and state design criteria and specifications.	Continue current business practices. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Rehabilitation/Replacement Manhole – Inspection		Done by independent consultant with spot check from utility QA person.				
Rehabilitation/Replacement Manhole – Testing		Done by consultant.				
Rehabilitation/Replacement Grinder Pump – Criteria		No formal program in place.				
Rehabilitation/Replacement Grinder Pump – Methods and Techniques		Depends on situation.				
Rehabilitation/Replacement Grinder Pump – Design Specifications		The utility uses a standard specification for grinder pump design.				
Rehabilitation/Replacement Grinder Pump – Inspection		Done by utility QA person.				
Rehabilitation/Replacement Grinder Pump – Testing		Verify controls and units work. Check pumping rate with drawdown.				
Rehabilitation/Replacement Pumping Stations – Criteria		No formal program in place. Based on staff evaluation – electrical components, impeller.				
Rehabilitation/Replacement Pumping Stations – Methods and Techniques		Done on a case-by-case basis.	Continue current business practices. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Rehabilitation/Replacement Pumping Stations – Design Specifications		The utility uses a standard pump station design.				
Rehabilitation/Replacement Pumping Stations – Inspection		Done by independent consultant with spot check from utility QA person.				
Rehabilitation/Replacement Pumping Stations – Testing		Verify controls and units work. Check pumping rate with drawdown.				
Rehabilitation/Replacement Force Main – Criteria		Based on staff and engineer evaluation.				
Rehabilitation/Replacement Force Main – Methods and Techniques		As circumstances require.				
Rehabilitation/Replacement Force Main – Design Specifications		The utility has and maintains design specifications.				
Rehabilitation/Replacement Force Main – Inspection		Done by independent consultant with spot check from utility QA person.				
Rehabilitation/Replacement Force Main – Testing		The utility has a pressure test acceptance criteria.				

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Capacity Assurance – Definition of Adequate Capacity		For Pump Stations, the definition is less than 35% pump runtime.	Continue current business practice. Incorporate documentation of business practice into CMOM plan, as plan is developed.			
Capacity Assurance – Flow Monitoring		Some flow monitoring is done. However, data is not being used to its full potential				
Capacity Assurance Tools – Modeling		Modeling is used.				
Capacity Assurance – Management – Assurance Process		A capacity letter is required from new development; Contractor can not proceed without this letter.				
Capacity Assurance – Grinder Pump Adequacy and Performance		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 – Pumping Stations Adequacy and Performance		Consultant must verify capacity exists.				
Capacity Assurance – New Construction		Consultant must verify capacity exists				
Capacity Assurance – New Construction (grinder pumps)		Consultant must verify capacity exists				
Capacity Assurance – New Service and Tap-Ins	Consultant must verify capacity exists					