

Capacity, Management, Operation, and Maintenance Program

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Annual Audit – 2019



Gwinnett
Water Resources

November 21, 2019

GWINNETT COUNTY, GEORGIA – DEPARTMENT OF WATER RESOURCES

Capacity, Management, Operation, and Maintenance Program Summary

July 2018 through June 2019

Mission: Provide Superior Water Services at an Excellent Value

Vision: To be widely recognized as a Leader in the Water Industry.

The purpose of this document is to summarize the findings of our annual audit of the Capacity, Management, Operations, and Maintenance (CMOM) Program which provides for the continued operation and management of Gwinnett County's sanitary sewer collection system in an environmentally conscientious and cost-effective manner. This audit and summary complies with the activities and reporting procedures required to document the progress of the program as outlined in Capacity, Management, Operations and Maintenance (CMOM) Consent Agreement Guidance, Georgia Water Environment Federation, April 2006.

The specific goals of the Gwinnett County CMOM Program are to:

1. Minimize the possibility of sanitary sewer overflows (SSOs) from the Gwinnett County Department of Water Resources' sewerage system;
2. Document a response program to mitigate the effects of SSOs when they occur;
3. Prioritize areas of the sewerage system that need to be addressed via short term and long term solutions based in part on consideration of the frequency of SSOs in specific areas of the sewerage system;
4. Document a spill reporting procedure that, at a minimum, ensures for proper reporting and posting of spills that occur from the Gwinnett County Department of Water Resources sewerage system in accordance with the Georgia Department of Natural Resources Environmental Protection Division's (EPD's) Rules and Regulations for Water Quality Control;
5. Provide firm schedules with major milestone dates for completion of sewerage system improvements as identified in the program;
6. Provide a Capital Improvement Plan (CIP) that ensures for the ongoing funding of sewerage system improvements;
7. Document sanitary sewer system annual operating budgets that ensure that at least 25 percent of each budget is earmarked for the implementation and administration of CMOM components; and
8. Provide regularly scheduled reports as defined in this program to the EPD to document compliance with the Gwinnett County Department of Water Resources' program, as provided in paragraphs (1) through (7) above.

Contents

ORGANIZATION.....	4
1.1 Engineering and Technical Services:	4
1.2 Field Operations:.....	5
1.3 Facilities:.....	6
1.4 Strategic Planning Workgroup:	7
LEGAL AUTHORITIES	7
2.1 Infiltration/Inflow Control:.....	7
2.2 Sewer Design and Construction:	7
2.3 Inspection of New and Rehabilitated Sewers:	8
2.4 Satellite Systems:	8
2.5 National Pretreatment Program:	8
MEASURES AND ACTIVITIES.....	8
3.1 Maintenance Facilities and Equipment:.....	8
3.2 Replacement Parts:	9
3.3 Development and Maintenance of Collection System Maps:.....	9
3.4 Overflow Correction Prioritization:.....	10
3.5 Routine Preventive Operations and Maintenance:.....	10
3.6 Sewage Pump Stations:.....	13
3.7 Pump Station and Meter Station Monitoring	13
3.8 Communications:	14
3.9 Remote Flow Meters:.....	15
3.10 Training:	15
DESIGN AND PERFORMANCE.....	15
4.1 Sewer and Pump Station Requirements and Standards:	15
4.2 Development Inspection Procedures and Specifications:.....	15
MONITORING, MEASURING, AND MODIFICATIONS.....	17
5.1 Metrics and Key Performance Indicators:.....	17
5.2 Program Updates:	17
5.3 Program Summary:	17
OVERFLOW EMERGENCY RESPONSE PLAN.....	18
6.1 Receipt of SSO Reports:	18
6.2 Response:	19
6.3 Official Notification:	19
6.4 Training:	19
6.5 Emergency Operations:.....	20
SYSTEM EVALUATION AND CAPACITY ASSURANCE.....	20

7.1	Hydraulic Modeling:	20
7.2	Master Plan:	20
7.3	Capital Improvement Plan:	21
7.4	Rehabilitation Identification and Prioritization:	21
PROGRAM AUDIT - INTERNAL.....		21
8.1	Program Monitoring:.....	21
8.2	Report Preparation:	22
Appendix A – Data Collection Form.....		23
Appendix B – Organization		32
Appendix C – Vehicles and Equipment		39
Appendix D – Warehousing		52
Appendix E – Spill Calculation Procedures.....		122
Appendix F – Capital Improvement Plan		136

ORGANIZATION

Gwinnett County’s sanitary sewer collection system is operated and maintained by the Gwinnett County Department of Water Resources (GCDWR). The Department includes several separate but interactive divisions that are responsible for the varied activities undertaken by the department. These divisions include: Engineering and Technical Services, Field Operations, and Facilities.

Appendix B shows organizational charts of the department divisions that are involved in CMOM implementation. It also shows those personnel who have wastewater collections system operator certification, and certification requirements for vacant positions. The identified divisions and a summary of their respective responsibilities are as follows:

1.1 Engineering and Technical Services:

The Engineering and Technical Services Division is comprised of separate units with CMOM related responsibilities as described below:

1.1.1 Engineering & Construction (E&C):

This division has the primary responsibility for the design and construction of the collection system. This responsibility entails: substantial project management, oversight of design consultants, oversight of construction work, as well as some in-house design. Engineering & Construction’s CMOM-related activities include the design, procurement, and inspection of new capital construction projects and large rehabilitation or replacement projects associated with the collection system.

1.1.2 Operations Technical Services (OTS):

This division identifies, delineates, and prioritizes collection system CIP projects for transfer to E&C. This workgroup manages the contractors performing installations, relocations, and maintenance of the collection system flow meters. Operations Technical Services also identifies condition assessment needs for implementation by Field Operations crews and performs analyses to develop forecasts of future

rehabilitation needs and asset performance. Operations Technical Services is responsible for the maintenance and upkeep of the sewer model and evaluates proposed system improvements. The modeling performed by this work group defines the current state of the collections system.

1.1.3 Infrastructure Support (IS):

This division is responsible for the maintenance of the GIS databases and maps used to display locations, attributes, and connectivity of the sewer system. Infrastructure Support collects, compiles, and verifies new GIS data proposed to be added to the County databases and incorporates this data into the base maps. Infrastructure Support is responsible for coordinating between Planning and Development and Field Operations during the processing of variance requests. They also work with developers to assure that the sewer demands associated with proposed developments are appropriately calculated and modeled. This division also maintains the Computerized Maintenance Management System (CMMS) used for sewer asset management.

1.1.4 Water Resources Laboratory:

The Water Resources Laboratory is responsible for laboratory analyses for water production and water reclamation. Additionally, this section manages the Industrial Pretreatment Program, including permitting, monitoring, and enforcement. CMOM-related activities that the Water Resources Laboratory has responsibility for include administration of the pretreatment program and water quality sampling. This group is responsible for testing water samples and reporting the results to the Environmental Protection Division following a major sanitary sewer spill.

1.2 Field Operations:

The Field Operations Division is comprised of separate sections with specific CMOM-related functions and responsibilities as set out here.

1.2.1 Corrective Maintenance Section:

The Corrective Maintenance section is primarily composed of repair and hydro-jet crews. Although this group is also responsible for distribution system maintenance, CMOM-related functions include field inspections, maintenance and repair work on gravity sewer pipelines, sewer manholes, sewer force mains, and sewer service laterals. They perform proactive hydro-jet flushing, complete reactive repairs, investigate customer complaints, mitigate and address SSOs, and respond to other emergency situations.

1.2.2 Warehouse Section:

Although this section provides support for all the operations of GCDWR, the Warehouse Section provides fundamental services to those workgroups with direct responsibility for operation and maintenance of the collection system. Key support functions include, purchasing and procurement, warehousing of parts, and coordinating equipment maintenance. This group is also responsible for coordinating with the Fleet Management group to assure that the vehicles used by the department are properly

maintained and are repaired in a timely manner. The Warehouse Section also provides and coordinates the daily operation of the Field Operations dump trucks to provide delivery and removal of soil, stone, and debris to and from work sites. Landscaping services for completed repairs are managed through this Section to restore disturbed areas.

1.2.3 Contracts/Support Section:

This section supports the Field Operations Division in several different functions. This section manages the contracts for maintenance and rehabilitation of the sanitary sewer collection system including: chemical root control treatments, manhole and pipeline rehabilitation, easement clearing, and sewer assessment. Additionally, this section includes the Maintenance Customer Service group which determines the nature and severity of situations reported by customers and route the issue to the appropriate group. Typical job functions of this group include: taking customer calls 24/7, monitoring pump station alarms after normal business hours, investigating customer calls, and are often the first representatives of the department to arrive on-site.

1.2.4 Preventive Maintenance Section:

This section is responsible for assessment of existing publicly-owned gravity sewer mains, sewer force mains, and privately-installed sewer extensions proposed to be added to the public system. CCTV inspections are performed to assess the internal condition of the pipes proactively, as support for corrective measures, and following backups or SSOs. Other responsibilities include: manhole condition assessment, critical sewer crossing inspections, and I/I investigations. This section also includes the Fats, Oils, and Grease (FOG) Facility Inspection Program which strive to prevent additional grease loading into the sewer system by food service establishments through education and routine inspection of grease interceptors.

1.3 Facilities:

The Facilities Division is comprised of separate units with specific CMOM-related functions and responsibilities as set out here.

1.3.1 Water Reclamation Section:

This section is responsible for the operation and maintenance of the County's wastewater treatment facilities. Primarily this section ensures the proper and continuous operation of the mechanical, chemical, and biological treatment processes for the wastewater in compliance with the permitted operations of the facility.

This section is also responsible for implementation of reactive, routine, predictive, and preventive maintenance of the facilities. They are responsible for documenting and reporting the status of compliance with regulations and permit requirements to the appropriate authorities and agencies.

1.3.2 Pump Stations Section:

This section maintains and monitors the performance of the County-owned and operated pump stations which control the transfer of sanitary sewer flows between the mechanical portions of the system and the gravity-driven collection system pipes. This section is also responsible for inspecting air release valves. The section also ensures the operation of privately-installed pump stations which are to be dedicated to the County.

1.4 Strategic Planning Workgroup:

This workgroup is convened as needed to address departmental-level issues and is not continuously involved in the daily operation of the utility. This workgroup is made up primarily of the Director, Assistant Director, and Deputy Directors. Other staff members are added as appropriate to effectively address the issue under consideration. The workgroup has departmental-level responsibility for identifying, quantifying, and planning for future sewer needs, supporting state and federal permitting, issuing construction permits for sewer extensions, and monitoring developing regulatory concerns. CMOM-related activities that the strategic planning workgroup has responsibility for include Wastewater Master Plan, CIP development, prioritizing CIP projects across divisions, and reviewing and permitting new sewer extensions proposed by developers and other private entities.

LEGAL AUTHORITIES

On September 1, 1998, the Gwinnett County Board of Commissioners adopted an ordinance for sewage collection, treatment, and construction. This ordinance, generally known as the “Sewer Use Ordinance”, sets forth uniform requirements for contributors into the wastewater collection and treatment system from Gwinnett County, Georgia and enables the County to comply with all applicable state and federal laws required by the Clean Water Act of 1977, amendments to this Act, and the general pretreatment regulations (40 CFR Part 403). Specific provisions of this Sewer Use Ordinance are documented in Chapter 106, Article III of the Gwinnett County Code of Ordinances on the [Municode Library](#) (Municode).

This ordinance addresses many topics including but not limited to the following:¹

2.1 Infiltration/Inflow Control:

[Section 106-126\(a\)\(2\)a.11](#) Prohibits the discharge of “Stormwater, surface water, groundwater, roof runoff, subsurface drainage, swimming pool drainage, unless specifically authorized by the director.”

2.2 Sewer Design and Construction:

[Section 106-98\(a\)](#) provides that “All extensions of the sewer system shall be designed and built in accordance with current DWR standards. The standards shall be those stated in the latest edition of ["WATER MAIN AND SANITARY SEWER DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS"](#), which is available at DWR and at the Department of Planning and Development. No installation of pipe or other materials for sewer extensions shall be allowed until the required information is received and the design is approved by the County. Inspection and acceptance procedures shall be specified in these standards.”

¹ The aspects of the ordinance discussed in this section are only brief summaries of that content and are not intended to be comprehensive

[Standards for the design and construction of sanitary sewer pump stations and force mains](#) are also published and set forth in a standard document which is available directly from the County website.

2.3 Inspection of New and Rehabilitated Sewers:

The Gwinnett County sanitary sewer standards provide minimum acceptable criteria for materials, construction, testing, and installation of sewer lines that are applicable to both new and rehabilitated public sewers.

[Section 106-96\(d\)](#) provides that “Permanent easements for sewer facilities are for the county to install, inspect, observe, measure, sample, repair, protect, maintain and operate any portion of the sewer facilities lying within such easement. It is essential that access to the easement not be obstructed...”

2.4 Satellite Systems:

[Section 106-129\(g\)\(1\)](#) provides that “If a municipality, other county, or user located within another municipality or county, contributes wastewater to the POTW, the director shall enter into an intergovernmental agreement with the contributing municipality or county.”

[Section 106-129\(g\)\(3\)a.](#) provides that “A requirement for the contributing municipality or county to adopt a sewer use ordinance which is at least as stringent as this division and local limits, including required BMPs, which are at least as stringent as county local limits. The requirement shall specify that such ordinance and limits must be revised as necessary to reflect changes made to the county's ordinance or local limits;”

2.5 National Pretreatment Program:

[Chapter 106-Article III-Division 2](#) implements the general and specific prohibitions of State and Federal Laws including the National Pretreatment Program (40 CFR 403). These sections incorporate the National Pretreatment Standards by reference and set forth local limits on pollutants discharged by system users as well as monitoring and reporting requirements.

MEASURES AND ACTIVITIES

The Department of Water Resources is committed to earmarking 25 percent of the annual sanitary sewer system operating budget for the implementation and administration of CMOM components, refer to Appendix A- XVIII.

3.1 Maintenance Facilities and Equipment:

The Department of Water Resources maintains a 118,000 sq. ft. facility for central administrative, engineering, planning, and maintenance operations, located at 684 Winder Highway, Lawrenceville, GA. Opened in 2000, this facility provides office and assembly accommodations for maintenance operations along with a 20,000 square foot warehouse, 4,000 square foot detached storage building, a 224,000 square foot storage yard, an 11 bay detached garage for storing the hydro-jet trucks, and mechanical and electrical shops for equipment and minor vehicle repair.

In 2013 a separate pump station building was constructed on the central facility to provide a space specifically dedicated to the operation and maintenance of pump stations. This facility is used for pump station component maintenance and storage and to house pump station vehicles and equipment.

GCDWR maintains an adequate heavy equipment inventory to fully equip repair crews including: manhole maintenance/repair crews, sewer pipe maintenance/repair crews, hydro-jet crews, and pump station repair crews. GCDWR also maintains vehicles and specialty equipment to fully equip CCTV inspection crews, acoustic inspection crews, electronic technicians, and odor control specialists. The collections workgroup's passenger vehicle inventory is adequate to support field coordinators, contract managers, inspectors, and field technicians. In addition, GCDWR maintains an inventory of stand-by emergency equipment that includes heavy-duty service and repair vehicles, portable generators, pumps, ATVs, light plants, message boards, and arrow boards.

Appendix C contains a more comprehensive list of County vehicles and equipment assigned to the collections system operation and maintenance. The maintenance of vehicles, heavy equipment, and other motorized equipment is centralized countywide through Gwinnett County's Department of Support Services – Fleet Management Division (GCFMD).

3.2 Replacement Parts:

The Department of Water Resources maintains a fully stocked warehouse with all necessary materials required to make emergency repairs on the collection system and to carry on the daily operations of the workgroups responsible for the operation and maintenance of the collection system. Pipe, repair clamps, closure pieces, transition couplings, and similar repair materials are stocked for all sizes of pipelines and force mains in the collection system.

The department also operates the potable water system and stormwater system, and many parts are interchangeable. GCDWR has standardized on one manufacturer of submersible pumps, limiting the amount of replacement parts inventory needed. Replacement parts are stocked for the most common types of failures experienced in pump stations, including control systems, valves, vacuum prime systems and electrical components. A representative sample of items stocked in the warehouse is attached as Appendix D.

As GCDWR has pump stations up to 30 MGD, it is not economically feasible to stock replacement pumps, motors, starters and complete valves for the larger sized facilities, however; in the preparation of project specifications and purchase of equipment, priority is given to vendors who maintain local service facilities and local inventories of spare parts for the equipment they propose to provide.

The design of the facilities also provides redundancy to allow for the service and repair of failed equipment. The warehouse manages replacement parts through the inventory control system. This software tracks the usage of the parts and notifies inventory personnel when the remaining quantities reach a pre-set reorder point. The parts are then replenished through the procurement process.

3.3 Development and Maintenance of Collection System Maps:

All sewer lines, manholes, pump stations, and related appurtenances have been digitized in a Geographic Information System (GIS). Additionally, paper as-built drawings have been scanned into an Electronic Document Management System (EDMS) and attached to the feature(s) to which they relate in the GIS. This enables the user to select a collection system

feature in the GIS and retrieve an electronic copy of the as-built drawings for it. In addition, GCDWR has implemented a computerized maintenance management system (CMMS) which can track work orders and CMOM related activities by asset. These CMOM activities include: inspections, maintenance, rehabilitation, and emergency calls. The CMMS is integrated with the County's GIS.

The Department of Water Resources has collected survey grade GPS coordinates, inverts and rim elevations on the critical sewer structures in our collection system to improve the accuracy of our GIS and sewer model. It is also required by GCDWR for the as-built drawings of any significant sewer improvements, extensions, or repairs to be submitted with associated GIS data. This data is prepared in a format and to a level of detail matching the Department databases to allow direct import of this information and update of the base maps. However, all assets are field verified before the as-built drawings are scanned into the EDMS and uploaded to GIS. The data collection and compilation process is on-going and evolving to provide continuous improvement to the system. This advanced level of information management allows the Department to better coordinate inspection and maintenance activities and increases the effectiveness of planning and execution for system renewal.

3.4 Overflow Correction Prioritization:

Sanitary Sewer Overflows are currently tracked in a module within our CMMS program which houses information regarding the specific asset(s) involved, date, location, volume, and cause(s). Historic data predating the development of this module was migrated into the software during implementation to ensure the continuity of the data. The locations and causes of SSOs are analyzed regularly to determine trends. In addition, SSOs are tracked in the GIS to allow the Department to plot and analyze for trends and other potential correlating factors. Preventive maintenance efforts, such as cleaning, flow monitoring, acoustic surveys, and CCTV inspections are adjusted and concentrated in the geographic areas where the incidences of SSOs are greatest.

3.5 Routine Preventive Operations and Maintenance:

Gwinnett County recognizes that preventive maintenance is an essential key to preventing SSOs and maintaining adequate conveyance capacity for peak flows. Therefore, GCDWR has undertaken a number of preventive maintenance programs which are detailed below.

3.5.1 Inflow/Infiltration Control:

The Department has installed a system of flow meters that allow the OTS workgroup to monitor and evaluate flow depths both during normal operations and under the stresses imparted by storm events. The flow meters are set at locations that divide the collection system into sub-basins containing approximately 100,000 – 125,000 ft. of main. The OTS workgroup manages the contractor responsible for maintaining the meters and performing new installations or relocations when needed. The flow meters take readings on a 15-minute basis and upload this data remotely on a daily basis. The receiving system (FlowWorks) is set with alarms and protocols to alert OTS if a flow meter has not uploaded data within a predefined delay. The website hosting this data stores the information by both time and location so that historic data is available for specific monitoring locations throughout the collection system. If a flow meter is relocated to another basin, then the data remains associated with the location from which it was collected.

The Department has an inspection program targeting manholes located in flood-prone areas. After rain events which are considered heavy enough to cause localized flooding, OTS reviews the output from the flow meters and notifies the field operations group of any mains that appear to be excessively impacted by inflow. These manholes are then inspected to ensure that they are still undamaged, sealed, and have not shifted out of position. Specialized land/water vehicles have been purchased to access these flood-prone areas following rain events and perform the inspections in a timely manner.

3.5.2 Easement Clearing:

The Department typically has a permanent twenty foot easement along its sewer lines. Easement clearing is performed to provide access to sanitary sewer lines for assessment and maintenance purposes, and reduce the potential for root intrusion into the sewer lines. Where sewers traverse undeveloped property, clearing of easements is typically accepted without complaint. However, opposition has been encountered from homeowners in some portions of the county, and occasionally from groups expressing concerns regarding easement clearing in environmentally sensitive areas. Accordingly, GCDWR has implemented a voluntary program wherein the property owner may take responsibility for clearing the easement on their premises using more individually acceptable methods such as hand-clearing. Such agreements require the owner to provide an adequate level of clearing to allow access to the sewers for inspection and maintenance; however, the majority of the easement clearing operations is performed by GCDWR through a contracted service.

3.5.3 Cleaning, Television Inspection, and Acoustic Assessment:

Hydraulic cleaning and television inspections of the pipes are performed: (1) in support of repairs or routine maintenance, (2) in areas where the heaviest concentrations of SSOs have occurred, (3) where maintenance issues are chronic or recurring, (4) in response to immediate flow problems, and (5) as part of a proactive assessment and maintenance program. Hydraulic cleaning is effective in removing material that becomes deposited in the sewer mains. This deposition typically occurs in lines with minimal slopes and in areas of high commercial activity. The Department employs both mechanical root removal methods to clear blockages and a chemical root control program to minimize the potential for recurring or future growth. The combination of physical root removal and chemical root control has been shown to be more effective in reducing the frequency and severity of root intrusions than the use of either method individually.

Closed Circuit Television (CCTV) inspections and acoustic assessments are aids in identifying lines with obstructions, installation defects, performance issues, corrosion problems, and advancing levels of pipe deterioration associated with the aging process and normal wear. The Department's asset management program has determined the condition of its critical sewer components, and is advancing the CCTV program to inspect less critical components while utilizing rapid acoustic assessment technology to identify pipes throughout the system that may be partially blocked or have artificially reduced capacities. The program calls for critical main lines to be assessed every ten years or more frequently if conditions warrant. On-going investigations and trend analyses are used to identify, delineate, and prioritize areas which may require attention on a more frequent basis. The reaches to be included in subsequent assessment efforts will be continually adjusted to address changing needs and priorities. In addition to in-house collections workgroup crews, GCDWR also funds an annual contract for cleaning and television inspection services.

3.5.4 Manhole Location and Adjustment:

The Department funds an annual contract for sanitary sewer manhole adjustment services to supplement the work performed by in-house crews. Proper maintenance of the manholes provides the GCDWR crews the necessary accessibility to properly assess the collection system and eliminates a major source of inflow and infiltration. These critical components of the sewer system are tracked in the asset management system with regard to current condition and inspection date. This inspection effort is on-going and continuous, when highly aggressive conditions are identified the OTS Workgroup does further evaluation for potential rehab or replacement. When repairs to a manhole are performed, the renewal method employed is documented, and the follow up condition assessment is input into the asset management system. This new condition then becomes the basis for the timing of the next scheduled inspection.

3.5.5 Grease Control:

The Department has implemented a fats, oils, and grease (FOG) program, through [Section 106-162](#) of the County Ordinances. Grease interceptors are required upstream of the connection to the public sewer system for food service establishments (FSE) or any facility which generates liquid wastes containing grease in excessive amounts. The Department's FOG group inspects and monitors all grease traps within the County. If a deficiency is found during an inspection, the FSE is notified and is required to address the deficiency within a specified period of time. The site is then re-inspected and enforcement is continued until compliance is achieved. The ordinance imposes a continuing responsibility on customers using grease interceptors to maintain, revamp, enlarge or otherwise modify their interceptors to achieve their intended purpose.

The Sewer Use Ordinance provides GCDWR with the right to enter the facility and inspect the grease trap for compliance. Failure to comply with provisions of the program places the customer in violation of the county code and may result in enforcement actions. Potential enforcement actions include notices, citations, penalties, and ultimately termination of water and sewer service.

Apartment complexes are not required to install grease management devices due to their residential classification. However, these developments may still be significant sources of grease due to the number and concentration of families contributing to the discharge from the facility. When grease-related blockages occur and result in back-ups in the county sewer system, the areas upstream are identified and targeted for distribution of educational materials developed as door-hangers by the FOG group. The Department also has an extensive FOG education program including posters, fliers, videos, and presentations which are provided to schools or other community groups.

The presence of grease in the collection system normally becomes an operational concern when it attaches to the pipe walls, pipe defects, or intruding roots, and impedes flow. The Field Operations Division addresses these situations by hydro-jetting the pipe or applying a chemical solvent to remove the grease. It is anticipated that the aggressive cleaning, acoustic assessment, television inspection, and root control programs discussed above will continue to address and reduce the impacts of grease on the sewer system. In addition, the FOG workgroup

reviews SSOs for FOG and rag related issues, identifies the areas that are the likely source, and targets those areas for public outreach and education.

3.6 Sewage Pump Stations:

The County currently operates many raw sewage pump stations of various sizes and configurations over a large service area. The majority of these stations are serving residential areas and they are either small above-ground wet-well mounted pump stations or submersible pump stations. The County-owned and operated pump stations have been divided into routes based on their locations. At least one mechanic is assigned to each route. The mechanic is responsible for performing routine periodic inspections on each pump station on the route and performing minor repairs as needed. Mechanical maintenance crews perform the heavier repairs that are beyond the capability of the route mechanic. In addition, GCDWR has contracted with qualified contractors to perform repairs on pump stations, generators, and overhead cranes.

It is GCDWR's goal to have a redundant power source at all pump stations in the event of a power failure. The Department standards require all new pump stations to have a secondary power generator installed. All of the existing stations except one have been equipped with on-site generators. This exception in our system is able to operate from a portable generator, and the County has two adequately-sized, portable generators available to ensure that one will be available at all times.

The Department recognized the need for an effective and responsive Supervisory Control and Data Acquisition (SCADA) system to monitor and control the existing sanitary sewer pumping stations as well as those that may be added in the future. SCADA and telemetry systems monitor the operation of remote pump stations, provide an alarm system to warn of pump station failure conditions, and control flows through pump stations. The advantages of an effective SCADA system include:

- Reduced labor for monitoring pump stations
- Better surveillance of station equipment
- Instantaneous notification of alarms
- Automatic gathering of operating data for management of flows and reporting
- Remote control capability

3.7 Pump Station and Meter Station Monitoring

GCDWR currently uses two types of systems for pump station and metering station communications.

3.7.1 Supervisory Control and Data Acquisition (SCADA):

This system is used to monitor and control pump stations through "real time" communications via cellular communication. All of the pump station sites can be monitored and controlled by this system. With appropriate administrative rights, the pump station operator can view the system's performance, access controls and alter their state from any computer that has internet access, or from specially configured wireless devices. This remote accessibility improves response times greatly by allowing the operator to begin investigating a potential problem immediately upon receiving an alarm instead of requiring a trip to the site.

The “Human Machine Interface” (HMI), an additional software toolset within SCADA, which allows authorized personnel to control or view the status of the connected pump station, metering station, or water reclamation facility. Authorized staff members also have the ability to access and control this equipment from any remote location via wireless (Wi-Fi) or a cellular network. Data from the two primary operating systems is stored at two physically separate locations within the County’s IT network. This provides redundancy for both operating systems - capturing and storing operating status changes and sensor logs as historic data. This information is used for trend analyses, pump runtime comparisons, flow measurements and alarm history monitoring.

Alarms from SCADA are received in Maintenance Customer Service which is staffed 24-hours a day. If alarms are not acknowledged within a specified amount of time, they are re-routed to a dedicated telephone at Maintenance Customer Service that only receives incoming calls from the remote telemetry units (RTU).

3.7.2 Cellemetry:

The “Cellemetry” control and monitoring system operates on a cellular base channel frequency. This technology is used as a back-up system for the primary telemetry units. In addition to monitoring the pump station for alarm conditions, this pump management system generates daily discrepancy reports to alert GCDWR’s crews to potential problems and disparities in the station’s performance.

3.8 Communications:

The County can contact the maintenance crews on a “live and immediate” basis using County-issued cell phones so they are not typically required to return to the office for instructions or advice. The Department leveraged the existing infrastructure when they expanded their radio-based system, by taking advantage of the six existing towers owned and operated by the County.

As communications technology changed, GCDWR improved its connectivity by including cell phones and mobile internet access to the system where appropriate and effective. Crew leaders are typically assigned a cell phone to ensure that communication with the crews is maintained. Further, mobile Wi-Fi hotspots are equipped into the majority of the field trucks allowing the crews to record data, receive work assignments, and access the County’s GIS on a live basis while still on the job-site. This connectivity to the County’s databases and work order system allows the crews to make more informed decisions, perform their work more effectively, and keep co-workers and management staff informed of on-going issues in the field.

The Department will continue to monitor and will occasionally test new communications technology to determine compatibility with the existing systems, reliability, and effectiveness. These new technologies may then be implemented into the County’s communications network. A trial period is typically used with a limited deployment in these instances to ensure that the change is appropriate and meets GCDWR’s needs. In this manner, GCDWR tries to protect the continuity of communications to the fullest extent while improving efficiency over time. Given the rapid advances in these technologies, it is possible that specific communications protocols could be different than those reflected in this document.

3.9 Remote Flow Meters:

The Department has stand-alone open-channel and area velocity flow meters at various locations throughout the collection system. The primary purposes of these flow meters are to monitor the performance of the system during normal operations, to provide flow data for analysis of capacity, and to evaluate the performance of the system under storm-related stresses. These meters are also associated to the network of County-owned and USGS rain gauges which are located throughout Gwinnett to provide data needed for I&I estimations and the evaluation of renewal effectiveness. The existing flow meters and rain gauges are connected into an automated, web-based, data collection system.

3.10 Training:

The Department provides its employees training opportunities both through in-house programs and programs provided by vendors and subject matter experts. All field personnel receive training from manufacturers and through peer instruction on the use of equipment relevant to their tasks and refresher training is provided as needed and appropriate. Safety training or certification in areas such as confined space entry, trenching, work zone traffic control, and flagging are required of most field staff and are provided through either the County's Department of Financial Services – Risk Management Division, or recognized safety instructors, including the National Safety Council and the Georgia Institute of Technology.

A position-specific safety training matrix has been developed and is reviewed by the County annually to ensure proper training is assigned for the staff. Training class attendance is tracked along with the required frequency of attendance to allow the staff to complete refresher training in compliance with their job requirements. County crews and staff are instructed to refrain from undertaking activities or using equipment for which they have not received the appropriate training.

The Field Operations Division has developed and implemented an employee skill development (ESD) program. The goal is to improve the recruitment, learning and growth, and retention of a competent, motivated and agile workforce, while retaining the institutional knowledge that could be lost due to future retirements. Training programs for work skill enhancement, supervisory development, and personnel management are available to GCDWR employees through GCDWR's training program and the County's Department of Human Resources.

DESIGN AND PERFORMANCE

4.1 Sewer and Pump Station Requirements and Standards:

All new collection facilities are inspected by GCDWR, utilizing either in-house personnel or consultants under contract. As addressed previously in this document, GCDWR has produced and maintains standards for the design and construction of new collection system pipelines and pump stations. These standards are applied to all projects including county installations and developer installations, thereby assuring acceptable levels of performance.

4.2 Development Inspection Procedures and Specifications:

[Section 106-98, Paragraph \(a\)](#) provides that “All extensions of the sewer system shall be designed and built in accordance with current DWR standards. The standards shall be those stated in the latest edition of ["Water Main and Sanitary Sewer Installation Regulations and Specifications"](#), which is available at DWR and at the Department of Planning and Development. No installation of pipe or other materials for sewer extensions shall be allowed until the required information is received and the design is approved by the county. Inspection and acceptance procedures shall be specified in these standards.”

Standards for the design and construction of sanitary sewer pump stations and force mains are published and set forth in a standard document entitled ["Gwinnett County Department of Water Resources – Developer Pump Station Standards"](#). These documents are updated as appropriate by the County and distributed through the County website. The above referenced Gwinnett County sanitary sewer standards provide minimum acceptable criteria for the construction, testing, and installation of sewer lines, and are applicable to both new and rehabilitated public sewers.

4.2.1 Specification Provisions:

1. At no time will any sewer construction commence before approval of all plans, submittal of required documents, including necessary easements, issuance of permits, and a preconstruction conference with the County inspector.
2. DWRSSS 4.1.4- “The Pipe Contractor is required to be listed on the approved Utility Contractors List by GCDWR to install manholes, tie-in commercial properties or install 8” or larger pipe. No Contractor shall be allowed to commence installation until an application for inclusion to the Approved Utility Contractors List has been received and approved by GCDWR. Appropriate construction permit(s) must also have been issued by GCP&D. See Article 5.15 for penalties for working without the appropriate permits.”
3. DWRSSS 4.2.1- “All sewer lines, manholes, and other appurtenances shall be installed according to approved plans and profiles. If a plan revision must occur, the redesigned area(s) must be submitted to GCP&D for approval prior to installation in accordance with Georgia Environmental Protection Division’s Rules and Regulations for Water Quality Control, Chapter 391-3-6.02(1). ”
4. DWRSSS 5.2.1- “The GCDWR Inspector will make periodic site visitations without advance notice to the Contractor. However, it is the responsibility of the Contractor to contact the Inspector during each phase of the installation for inspections and/or re-inspections.”
5. DWRSSS 5.7.1- “All sewers shall be tested for leakage using low pressure air testing, as specified herein.”
6. DWRSSS 5.8.1 If excessive deflection is noted during GCDWR Final Inspection, deflection tests shall be performed by GCDWR.”
7. DWRSSS 5.9.7- “...Any defects discovered by GCDWR inspection of the CCTV recording must be corrected immediately in order to receive Final Inspection approval.”
8. DWRSSS 5.10- “On newly installed sewers NO infiltration or leaks will be allowed. Any infiltration must be eliminated prior to approval.”

9. DWRSSS 5.9.1- “Upon completion and approval of all listed inspections, the sanitary sewer project will be scheduled for a GCDWR Final Inspection.”

MONITORING, MEASURING, AND MODIFICATIONS

5.1 Metrics and Key Performance Indicators:

It is believed that the overall effectiveness of the Department’s CMOM program can be demonstrated through the use of key performance indicators (KPI) that will be monitored over time. The metrics and performance indicators may change over time based on observed condition and performance of the system. The current primary key performance indicators for GCDWR’s CMOM Program include but are not limited to:

- Sewer spills per 100 miles of sewer pipe
- Collections O&M cost per 100 miles of sewer pipe
- Percent of collections calls responded to within 24 hours
- Collections O&M hours per 100 miles of sewer pipe

In addition to KPIs, the Department tracks other metrics used to track performance goals. Some of the primary metrics are:

- Total SSOs per 100 miles of sewer pipe
- Miles of sewer pipes inspected
- Miles of sewer pipes cleaned
- Miles of sewer pipes rehabilitated
- Miles of sewer easement cleared
- Number of sewer structures rehabilitated

5.2 Program Updates:

The Field Operations Division publishes a comprehensive statistical report that catalogs routine operations and maintenance activities. Included in this report are many CMOM-related elements that are used to monitor the progress of operations and maintenance activities such as SSOs, backups, emergency responses, repairs, and maintenance contract activity. Program elements will be formally updated as appropriate based on monitoring or performance evaluations.

5.3 Program Summary:

The Department views this annual summary report as a working document. There may be changes to the format or layout of the report between submittals that are intended to enhance clarity, document refinements or improvements to GCDWR’s CMOM-related activities, or reflect changes that occur within DWR. However, the primary reporting mechanism contained in Appendix A of this report follows the format set forth by EPA and is not expected to change unless we are notified by EPD that they desire such to occur. This report will be updated

at least annually, and more often as necessary to reflect significant changes. It will be submitted to EPD via electronically posting to the County website along with a notification to EPD that such posting has occurred. This process will provide easy and continuous access to this document by the public and Georgia EPD.

OVERFLOW EMERGENCY RESPONSE PLAN

It is the policy of GCDWR to comply with reporting requirements set forth in [Chapter 391-3-6-.05](#) of EPD's Rules and Regulations for Water Quality Control. Maintenance Customer Service serves as the most common point for receiving information regarding potential sanitary SSOs in the collection system. Maintenance customer service is typically alerted to potential SSOs through telephone calls from customers, contractors, environmental groups, regulatory agencies, and other county agencies. Additionally, all sanitary sewer pump stations in the collection system are equipped with telemetry that sends an alarm to sewer pump stations and maintenance customer service in the event of a pump station failure or when the stored volume in the wet well reaches a specified action level. Maintenance customer service monitors the pump station telemetry system for such alarms and is staffed 24-hours per day, seven days a week. The Field Operations Division maintains field staff on duty from 7am to 4pm five days a week. A rotational on-call schedule of field personnel and supervisors ensures that adequate personnel are available to handle any emergency repairs after regular business hours and on holidays. Facilities Division also provides rotating technical crews including mechanical, electronic, and electrical repair personnel as part of their on-call emergency response crews.

In addition to the continuous SSO related activities and precautions set out above, Field Operations works in close cooperation with the Department's Water & Wastewater Program Support Division to protect the natural waterways. This program is referred to as the Emergency Stream Inspection Program (ESIP). When the County Laboratory Group detects an unexplained, elevated fecal count in a stream, Field Operations reviews the GIS to see if there is an adjacent or upstream sewer which could contribute to flows in the identified area. If so, a crew is sent to the potentially impacted area and begins a walk-through of the zone. This inspection is used to determine whether there has been an unidentified spill. If an SSO is found, the procedures for SSO-response are initiated.

6.1 Receipt of SSO Reports:

Potential sewer overflows are considered emergencies. Maintenance customer service serves 24-hours per day, seven days a week point of contact for the receipt of these reports whether from citizens, agencies, or through the telemetry systems. All sanitary sewer pump stations in the collection system are equipped with telemetry, and critical stations have backup telemetry systems. When conditions arise at a pump station that could result in an overflow (e.g. pump failure, power failure, high wet well level), the telemetry systems send an alarm to maintenance customer service. The maintenance customer service representative on duty then contacts the on-call coordinator for pump stations who sends an appropriate emergency response crew to the reported site. These crews are trained to diagnose the cause of the problem and begin appropriate corrective actions. If the crew determines that an overflow has occurred, they contact a field supervisor (coordinator) if they are not already on-site and immediately initiate actions to contain and stop the overflow. The coordinator meets with the crew at the site and proceeds with (1) estimating the amount of the overflow using the procedures identified in Appendix E, (2) investigating the receiving waterways for any potential impact and the associated need for cleanup, and (3) documenting information needed to report the event.

6.2 Response:

All maintenance customer service personnel, administrative support staff, supervisors, and field crews have two-way radios or a County supplied phone for constant communications. In addition, field crews are supplied with internet in their response vehicles so that they can log onto the County intranet to access e-mail, as-builts, GIS, and work order histories on any asset they are sent to repair. Once the coordinator confirms that the reported back-up meets the requirements set forth by EPD in [section 391-3-6 of the Water Quality Control Act](#) as a sewer spill requiring emergency action, the coordinator then relays all pertinent information to the Maintenance Customer Service representative on duty. The crew and coordinator remain on-site until the spill is stopped and clean-up is complete. Target response times to arrive at the site are less than two hours during regular business hours, on evenings, weekends, and holidays.

6.3 Official Notification:

Once the coordinator confirms that the spill has been brought under control and clean up has been performed, the coordinator estimates the size of the spill and then relays all pertinent information to the Maintenance Customer Service representative on duty. Signs are posted at the spill site, where the spill entered state waters, public access areas downstream of the spill, and within reasonable distance downstream depending on the magnitude of the spill. Upon receiving the spill information, the Maintenance Customer Service representative then immediately notifies the EPD either by telephone or fax machine using the EPD approved Notification of Spill form. If the Notification of Spill form indicates a minor spill, the Department's Public Information Officer then proceeds with notification of the local media (newspaper, radio, and T.V.) and the Health Department. If the Notification of Spill form indicates a major spill has occurred or the potential for a water quality violation, the GCDWR Environmental is contacted to perform stream sampling. If the event occurs during non-business hours, the coordinator is responsible for collecting the initial set of samples and delivering them to the lab for testing. Additional notifications are associated with major spills beyond those that occur for minor spills. In these instances, the Maintenance Customer Service representative also proceeds with the direct notification of downstream municipalities, agencies, or affected entities (citizens, homeowner groups, etc.). Emergency contact lists showing whom to contact in these cases are included in GCDWR's Department-wide Contingency Plan and are posted in the Maintenance Customer Service area. GCDWR also publishes a notice of the spill in the legal organ of the County within seven calendar days. As a final notification, GCDWR issues a written report to EPD within five days confirming the details of the event and providing any corrections to the preliminary report which was originally faxed.

6.4 Training:

Emergency response to a spill is the responsibility of the Field Operations Division. All maintenance customer service personnel, field supervisors, foremen, lead workers, and managers involved in emergency response efforts have been trained in the appropriate procedures and requirements. In addition, field supervisors, foremen and lead workers have been trained in the calculation of spill volumes. The coordinators overseeing the field crews are trained in the proper collection, documentation and transport of stream samples. New personnel receive on-the-job training regarding these procedures. If performance reviews of the response or reporting process show that the procedures are not being carried out as effectively as practical, refresher training is provided.

6.5 Emergency Operations:

All initial emergency response and most emergency repair work are carried out with in-house forces. As shown previously, GCDWR has adequate staff, vehicles, and equipment to effectively handle these duties. Annual contracts for the repair of sewer lines and force mains augment the in-house repair capabilities. Such contracts require that the contractor must provide emergency mobilization and repair operations when called on by GCDWR. Construction contractors can also be hired through an accelerated procurement process to perform emergency repairs.

For pump stations, GCDWR also has emergency and accelerated repair arrangements with its mechanical and equipment suppliers to augment its in-house repair capabilities. The Department also maintains annual contracts with qualified local contractors for electrical repair, motor repair, and generator repairs.

SYSTEM EVALUATION AND CAPACITY ASSURANCE

Assessment of the capacity and condition of the collection system and treatment facilities is a continuous process. The Department has a full-time staff of planners, engineers, and technicians who monitor the existing system and estimate potential growth in wastewater flows. In addition, GCDWR has an aggressive master planning program which maintains a current Master Plan. This plan documents projected future average and peak flows. It also outlines activities and improvements recommended to proactively provide a wastewater infrastructure which can accommodate those future flows in a timely and sustainable manner. The Department uses flow projections developed and applied to major drainage basins as part of these infrastructure planning efforts.

7.1 Hydraulic Modeling:

The Operations Technical Services group has an active on-going hydraulic modeling effort for the County sewer system. The best available data is used to analyze the system capacity and compare it to directly metered or model-based flows. Flow monitors within the system are used to constantly assess the capacity that is available within the system and to identify areas in need of I&I control. The County monitors proposed new development within the service areas and anticipates what effect the proposed development will have on the sewer infrastructure as an integral part of the planning and design review processes. If there is any question as to existing conditions, the Infrastructure Support division works with proposed developments to ensure that the necessary survey, as-built, and flow meter data are obtained to improve the hydraulic model accuracy prior to permitting new sewer connections.

7.2 Master Plan:

Gwinnett County has an active on-going Master Planning effort, which provides strategies and long-term capacity enhancements of the wastewater conveyance system along with priorities and dependencies for these projects. The sewer model described previously is integral to this long-term planning process, and is used to assess the capacity of the system with both existing and future peak flows. System improvements are delineated to handle any significant shortfalls in the collection system and to improve efficiency. The estimations of population growth trends developed by the Gwinnett County Department of Planning & Development, private consultants, and the Atlanta Regional Commission are considered to establish a reasonable basis for calculating the ultimate capacity requirements of the

wastewater network. The long-range planning efforts set out in the plan are monitored and modified by GCDWR as time passes to ensure the recommendations provided are appropriate to the actual growth patterns realized in the county. The capacity of the treatment facilities and pump stations are also considered when developing recommendations for conveyance system improvements.

7.3 Capital Improvement Plan:

The Engineering and Technical Services Division maintains the long-range plan, including a 5-year Capital Improvement Plan (CIP), for system improvements. The long-range plan includes upgrades to existing lines, the installation of new lines, and the installation or decommissioning of pumping stations. This program is funded from available revenues, bonds, and other sources. The list of CIP projects include not only those originating from the Master Plan referenced above, but also water and wastewater treatment, water distribution, and various other departmental projects. An example of a monthly collections CIP review is presented in Appendix F. As such, collection system improvement projects are compiled and prioritized against not only other collection projects but also projects that address other departmental needs.

The Gwinnett County Board of Commissioners allocates funding for operation, maintenance, and upgrade of the sanitary sewer system through an annual budget process. New projects are recommended for incorporation in the CIP as new planning, engineering and assessment information becomes available.

7.4 Rehabilitation Identification and Prioritization:

Sewer rehabilitation projects are generally identified through the condition assessment programs or through the planning/permitting process. These rehabilitation efforts range from a point repair to address a specific asset to lining projects which can address short lengths of mains. More complex rehabilitation needs that address multiple assets are typically compiled into projects and can address more widespread needs or defects that cannot be addressed by a limited repair. Identified projects are discussed with planning, engineering, and the financial staff to designate a priority and a funding source for the project. Rehabilitation projects are generally funded through the capital budget program.

Funding amounts for the rehabilitation and assessment programs are reviewed and adjusted on an annual basis.

PROGRAM AUDIT - INTERNAL

8.1 Program Monitoring:

The Department will monitor CMOM-related activities to determine if they are providing positive results for the collection system and identify those activities that might be adjusted to provide a higher level of benefit. The Department will also attempt to identify gaps in the CMOM program that could be addressed by altering an existing activity or adding new activities. It is intended that the GCDWR's collection system maintenance and operations will be flexible enough to allow for minor changes in response to changing conditions in the collections system. However, proposed revisions to our activities that would potentially modify or impact those conditions of our CMOM program dictated by our voluntary Consent Agreement will not be undertaken without prior approval of such proposed changes by EPD.

8.2 Report Preparation:

The Field Operations Division will prepare the annual report to relay applicable metrics and will use the example, Data Collection Form contained in Appendix A from the Guide for Evaluating Capacity, Management, Operation, and Maintenance (CMOM) programs at sanitary sewer collection systems, published by the United States Environmental Protection Agency Office of Enforcement and Compliance Assurance (2224A), EPA 305-B-05-002_dated January, 2005.

Appendix A – Data Collection Form

COLLECTION SYSTEM PERFORMANCE INDICATOR DATA COLLECTION FORM Rev. October 2019

EXAMPLE COLLECTION SYSTEM PERFORMANCE INDICATOR DATA COLLECTION FORM

I. General Information

- A. Agency Name: **Gwinnett County Department of Water Resources**
- B. Agency Address - Street: **684 Winder Hwy** City: **Lawrenceville** State: **GA** Zip: **30045**
- C. Contact Person: **Eric Swett**
- D. Telephone Voice: **(678) 376-6979** Fax: **(678)376-6930**
- E. Email: **eric.swett@GwinnettCounty.com**
- F. Data provided for latest fiscal/calendar year: **2018/2019**

II. Collection System Description

- A. Service Area: **437 Square miles**
- B. Population Served: **927,781**
- C. System Inventory

Miles of gravity sewer	Miles of force main	Number of maintenance access structures	Number of pump stations	Number of siphons	Number of air, vacuum, or air/vacuum relief valves
2,815	278	80,294	216	0	662

- D. Number of Service Connections:
Residential: N/A Commercial: N/A Industrial: N/A Total: **175,178**
- E. Lateral Responsibility (check one)
1. At main line connection only
 2. **From main line to property line or easement/cleanout**
 3. Beyond property line/cleanout
 4. Other
- F. System combined (storm and sanitary)? **No**
- G. Average Annual Precipitation: **59.76** inches (Total for Year)
- H. System Flow Characteristics (total for service area)

Peak Dry Weather Flow (MGD)	Peak Wet Weather Flow (MGD)	Average Daily Flow (MGD)
84.85	117.37	59.99

III. Special Conditions

- A. Indicate local conditions that are accounted for during design, construction, operation, and maintenance of the collection system.
1. Precipitation: **Yes** If yes, provide brief explanation: Floodplain/low-land Manholes are sealed and bolted
 2. Terrain: **Yes** If yes, provide brief explanation: Easements are cleared for inspections and response
 3. Soils: **Yes** If yes, provide brief explanation: Excavation safety considers local soil types
 4. Temperature: **Yes** If yes, provide brief explanation: PPE and safety equipment is required
 5. Groundwater: **Yes** If yes, provide brief explanation: Pumping during repairs, and infiltration limitations
 6. Geology: **Yes** If yes, provide brief explanation: Excavation and backfills require soils consideration
 7. Other:
- B. Is corrosion a significant problem? **Yes**
1. Is there a corrosion control program in place? **Yes**
- C. Is odor a significant problem? **Yes**
1. Is there an odor control program in place? **Yes**
- D. Is grease a significant problem? **Yes**
1. Is there a grease control program in place? **Yes**
- E. Are roots a significant problem? **Yes**
1. Is there a root control program in place? **Yes**

These maintenance issues are not typically considered as significant problems internally because they are primary considerations in the preventive maintenance programs. They are identified as above to indicate this impact to our operations.

IV. Age Distribution of Collection System

Age	Gravity Sewer, miles	Force Mains, miles	Number of Pump
0 - 25 years	1,612.16	234.79	155
26 - 50 years	1,098.14	43.16	61
51 - 75 years	4.85	0	0
> 76 years	0	0	0
Unknown	0	0	0

V. Size Distribution of Collection System

Diameter in inches	Gravity Sewer, miles	Force Mains, miles
8 inches or less	2,489.26	129.76
9 - 18 inches	184.99	47.94
19 - 36 inches	97.92	83.19
> 36	42.98	17.06
Unkn	0	0

VI. Distribution of Gravity Sewer By Material

A.	Vitrified Clay Pipe (VCP)	382.33	Miles
B.	Reinforced Concrete Pipe (RCP)	86.79	Miles
C.	Unreinforced Concrete Pipe (CP)	0.0	Miles
D.	Plastic (all types)	1,724.60	Miles
E.	Brick	0.0	Miles
F.	Other- CIP	5.87	Miles
G.	Other- DIP	613.98	Miles
H.	Other – Steel	0.48	Miles
I.	Other- Unknown	1.10	Miles

VII. Distribution of Force Mains By Material

A.	Reinforced Concrete Pipe (RCP)	0	Miles
B.	Prestressed Concrete Cylinder Pipe (PCCP)	0	Miles
C.	Asbestos Cement Pipe (ACP)	0	Miles
D.	Polyvinyl Chloride (PVC)	21.45	Miles
E.	Steel	0	Miles
F.	Ductile Iron	254.85	Miles
G.	Cast Iron	0.75	Miles
H.	Techite (RPMP)	0	Miles
I.	High Density Polyethylene (HDPE)	0.50	Miles
J.	Fiberglass Reinforced Plastic (FRP)	0	Miles
K.	Other	.4	Miles

VIII. Preventive Maintenance of System**A. Physical Inspection of Collection System, Preventive Maintenance**

Inspection Activity	Total Annual Labor Hours Expended for This Activity	Total Completed (Miles of Pipe or Manholes Inspected Annually)	Crew Size (s)
CCTV	NA	198.04	(4) 2 PERSON CONTRACT
Visual Manhole Inspection, Surface Only	NA	NA	2 PERSON
Visual Manhole Inspection, Remove Cover	NA	6,334	(2) 2 PERSON
Visual Gravity Line Inspection, Surface Only	NA	146.70	2 PERSON
Visual Force Main Inspection, Surface Only	NA	140.09	2 PERSON
Other - Ultrasonic	CONTRACT	CONTRACT	CONTRACT
Acoustic Inspections	NA	37.04	(2) 2 Person

B. Mechanical and Hydraulic Cleaning, Preventive Maintenance

Cleaning Activity	Total Annual Labor Hours Expended for This Activity	Total Annual Labor Hours Expended for Scheduled PM	Total Miles Cleaned Annually	Crew Size (s) Four Trucks Available	Range of Pipe Diameters Cleaned
Hydraulic Jet	7,2025	4,567.25	295.33	(4) 2 PERSON	4" – 16"
Bails, Kites, Scooters	DNA	DNA	DNA	DNA	DNA
Combination Machines	DNA	DNA	DNA	DNA	DNA
Rod Machines	DNA	DNA	DNA	DNA	DNA
Hand Rodding	DNA	DNA	DNA	DNA	DNA
Bucket Machines	DNA	DNA	DNA	DNA	DNA
Chemical Root Control	CONTRACT	CONTRACT	21.42	CONTRACT	4" – 16"
Chemical or Biological Grease Control	DNA	DNA	DNA	DNA	DNA

IX. Dry Weather Stoppages		
A.	Number of stoppages backups, overflows, and spills:	234
B.	Average time to clear spills:	1.58 hours
C.	Number of stoppages resulting in sanitary sewer overflows:	126
D.	Total quantity of spills:	78,552 gallons
E.	Is there an established procedure for problem diagnosis?	Yes
F.	Are future preventive measures initiated based on diagnosis?	Yes
G.	What equipment is available for emergency response?	Jet truck, Vac-con, tractors, pipe repair equipment
X. Repairs and Rehabilitation, Proactive		
A.	Number of annual spot repairs identified	142
B.	Number of annual spot repairs completed	142
C.	Percent of spot repairs contracted	42%
D.	Number of manholes identified for rehabilitation	436
E.	Number of manholes rehabilitated annually	436
F.	Percent of manhole repairs contracted	74%
G.	Feet of main line needing rehabilitation	22,735
H.	Feet of main line rehabilitated (lined or burst)	22,735
I.	Percent of main line rehabilitation contracted	100%
J.	No. of manholes scheduled for rehab by Capital Improvement Program	436
K.	Ft of main scheduled for rehab under Capital Improvement Program	27,474
XI. Repairs and Rehabilitation, Reactive		
A.	Number of annual line features	NA
B.	Number of line repairs (MH and Pipe)	65
XII. Pump Stations		
A.	Number of pump stations inspected:	216
B.	Frequency of inspection:	weekly
C.	Number of inspection crews:	14
D.	Crew size:	1
E.	Number of pump stations with pump capacity redundancy	216
F.	Number of pump stations with backup power sources	215
G.	Number of pump stations with dry weather capacity limitations	0
H.	Number of pump stations with wet weather capacity limitations	3
I.	Number of pump stations calibrated annually	216
J.	Number of pump stations with permanent flowmeters	22
K.	Number of pump stations with remote status monitoring	216
L.	Number of pump stations with running time meters	216
M.	Number of mech maint staff assigned to mechanical maintenance	22
N.	Number of elect maint staff assigned to electrical maintenance	3
O.	Total labor hours scheduled annually for elect and mech PM tasks	20,618.08
P.	Total labor hours expended annually for elect and mech PM tasks	19,341.38
XIII. Pump Station Failures, Dry Weather		
A.	Number of failures resulting in overflows/bypass or backup, annually	1
B.	Total quantity of overflow/bypass	2,500 gal
C.	Average time to restore operational capability	2 hrs
D.	Total labor hours expended for electrical and mechanical corrective maintenance	11,310.48
E.	Is failure mode and effect diagnosed?	Yes
F.	Are future preventive measures initiated based on diagnosis?	Yes

	G. What equipment is available for emergency response?	<u>Vehicles,</u>
	<u>generators, pumps, crane truck, pump truck</u>	
XIV.	Force Mains	
	A. Force mains inspected annually	17.59 <u>miles</u>
	B. Force mains monitored annually (pressure profile, capacity)	280 <u>miles</u>
	C. Number of force main failures annually	8
	D. Cause(s) of force main failures corrosion, construction impacts, installation damage	Internal H2S
XV.	Air Relief/Vacuum Valves	
	A. What is frequency of valve inspections?	annual
	B. What is frequency of PM (backflushing, etc)?	annual
	C. Number of annual valve failures	25
	D. Cause(s) of valve failures failure- ARV	clogged/part
XVI.	System Operation and Maintenance Efficiency	
	A. Total full time or full time equivalent staff assigned to O & M (excluding administration staff but including line managers and Supervisors)	175
	B. Total estimated labor hours actually expended for active O & M tasks (this is the total above less hours for sick, vacation, holidays, training, breaks, etc., not directly related to performing O & M tasks)	55,980.86
XVII.	Level of Service	
	A. Average annual rate for residential users:	\$8.14/1000 gal
	B. Rate based on: Consumption	Water
	C. Number of complaints annually:	1,182
	D. Number of complaints that are agency responsibility:	484
	E. Number of public health or other warnings issued annually:	19
	F. Number of claims for damages due to backups annually:	31
	G. Total cost of claims settled annually:	\$70,117.31
XVIII.	Financial	
	A. Total annual revenue received from wastewater:	151,954,574
	1. % of revenue for long-term debt	19.42%
	2. % of revenue for treatment and disposal	44.75%
	3. % of revenue for collection and conveyance	35.79%
	B. Current value of collection system assets (pipe / PS)	\$1.02B/\$112M
	C. Annual O & M expenditure	\$48,925,856
	D. Annual CIP expenditure for repair, replacement, or rehabilitation	\$83,751,228
	E. Annual O & M training budget	\$601,414
	F. Total number of O & M personnel (positions- including admin)	171
	G. Number of personnel with collection system certification	81
	H. Number of personnel qualified for collection system certification	81
	I. Amount of O & M budget allocated for contracted services	\$34,598,437
	J. Hydroflush cost per foot	\$1.10
	K. Rodding cost per foot	DNA
	L. Bucketing cost per foot	DNA
	M. CCTV cost per foot	\$1.09
	N. Spot repairs, cost each	\$4,535

XIX. Safety		
A.	Total labor hours assigned to O & M	1,373.75
B.	Number of lost time injuries	12
C.	Total lost time days	58
D.	Total cost of lost time injuries	\$ 28,144.65
XX. Regulatory		
A.	Total number of violations issued by Gwinnett County annually	47
B.	Total cost of fines paid annually	\$1,000
C.	What is minimum reportable quantity in gallons?	No minimum
D.	What is time reporting requirement?	Immediate
E.	Number of annual WWTP upsets due to wet weather flow	0
XXI. General		
A.	Has SSES been performed on system? PS- N/A	<u>Yes</u>
B.	Total O & M positions currently budgeted PS- 38	82
C.	Total O & M positions currently filled PS- 35	74
D.	Is computerized maintenance management system PS- Yes used for O & M?	<u>Yes</u>
E.	Is GIS system used for O & M managing? PS- No	<u>Yes</u>
XXII. Procedures or Other Documentation Available		
A.	Overflow, bypass and containment	<u>Yes</u>
B.	Problem evaluation and solution	<u>Yes</u>
C.	Cleanup procedure	<u>Yes</u>
D.	Failure mode and effect procedure	<u>Yes</u>
E.	O & M budget process	<u>Yes</u>
F.	O & M budget with line item detail	<u>Yes</u>
G.	Long-range CIP planning for system expansion, rehab,	
H.	and replacement	<u>Yes</u>
I.	Is there a written procedure for cleanup to mitigate overflow effects?	<u>Yes</u>
J.	Is there a written procedure for containing overflows and bypasses?	<u>Yes</u>
K.	Is there an established procedure for containing overflows and bypasses?	<u>Yes</u>
L.	Is there an established procedure for problem evaluation and solution?	<u>Yes</u>
M.	Is there an established procedure for cleanup to mitigate effect of overflow?	<u>Yes</u>
N.	Is there a grease control program?	<u>Yes</u>
O.	Is there a pretreatment program?	<u>Yes</u>
P.	Is there a private source I/I reduction program?	<u>Yes</u>
Q.	Do you have chronic O & M problems that are designed into your system?	<u>No</u>
	If yes, provide brief description:	
R.	Do you have chronic O & M problems that are constructed into your system?	<u>Yes</u>
-	If yes, provide brief description:	
	Pipes requiring frequent maintenance have been identified and scheduled to avoid back-ups.	
S.	How would you rate your construction inspection program?	
	<u>Very effective</u> Needs improvement Poor	

XXIII. Definitions/Clarifications

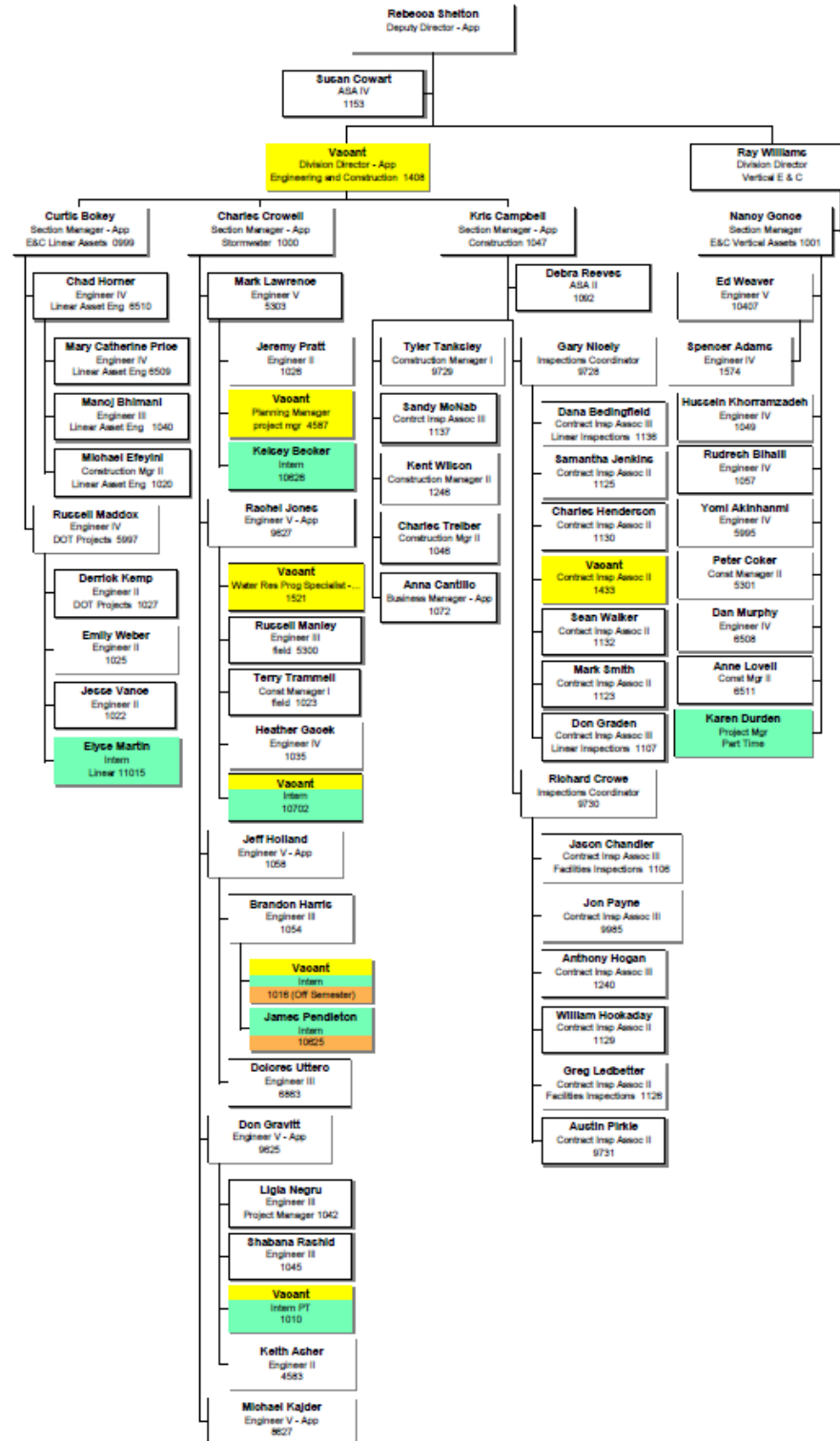
- A. Maintenance access structures, most commonly manholes, in your system that are incorporated into your O & M program.
- B. Pump capacity redundancy is the ability to maintain pumping at design capacity with the largest pump out of service.
- C. Remote status monitoring is any remote monitoring system such as alarm telemetry or SCADA that provides remote pump station status information.
- D. You will notice that in the section on stoppages and pump station failures, we are asking for dry weather incidents only. Dry weather system performance is a good indicator or effectiveness of O& M program. If you have wet weather information that you wish to provide also, please do.
- E. Under the Special Conditions sections we are identifying conditions that are present in your system that require consideration during design, construction, and O & M of your system.
- F. Any of the questions dealing with labor hours are designed to determine total labor hours irrespective of crew size or crews that are only assigned to cleaning, for example, less than full time.
- G. Our goal is to obtain data that can be or are standardized and that are accurate. We also realize that some data may not be available; however, data can be accurately estimated. If you estimate data please follow with an (E).
- H. If data is not available please indicate "NA." If data does not apply to your system, please indicate by "DNA."
- I. Failure mode and effect refers to any established procedure you have to diagnose system failures to determine the cause and effect of the failure. This can apply to crews clearing stoppages or to pump station failures.
- J. Pump station inspection (XII) means scheduled inspection by operators to verify station operation and perform PM. It excludes electrical or mechanical craft maintenance.
- K. Stoppage in section IX refers only to stoppages other than pump stations. Pump stations are covered in Section XIII. Backup in this case refers to a basement or other structure backup as opposed to main line sewer backup.

XXIV. Additional Comments

- A. XIV.B. Force mains are monitored through the pump station alarms and telemetry systems of the associated pump stations.

Appendix B –

Organization



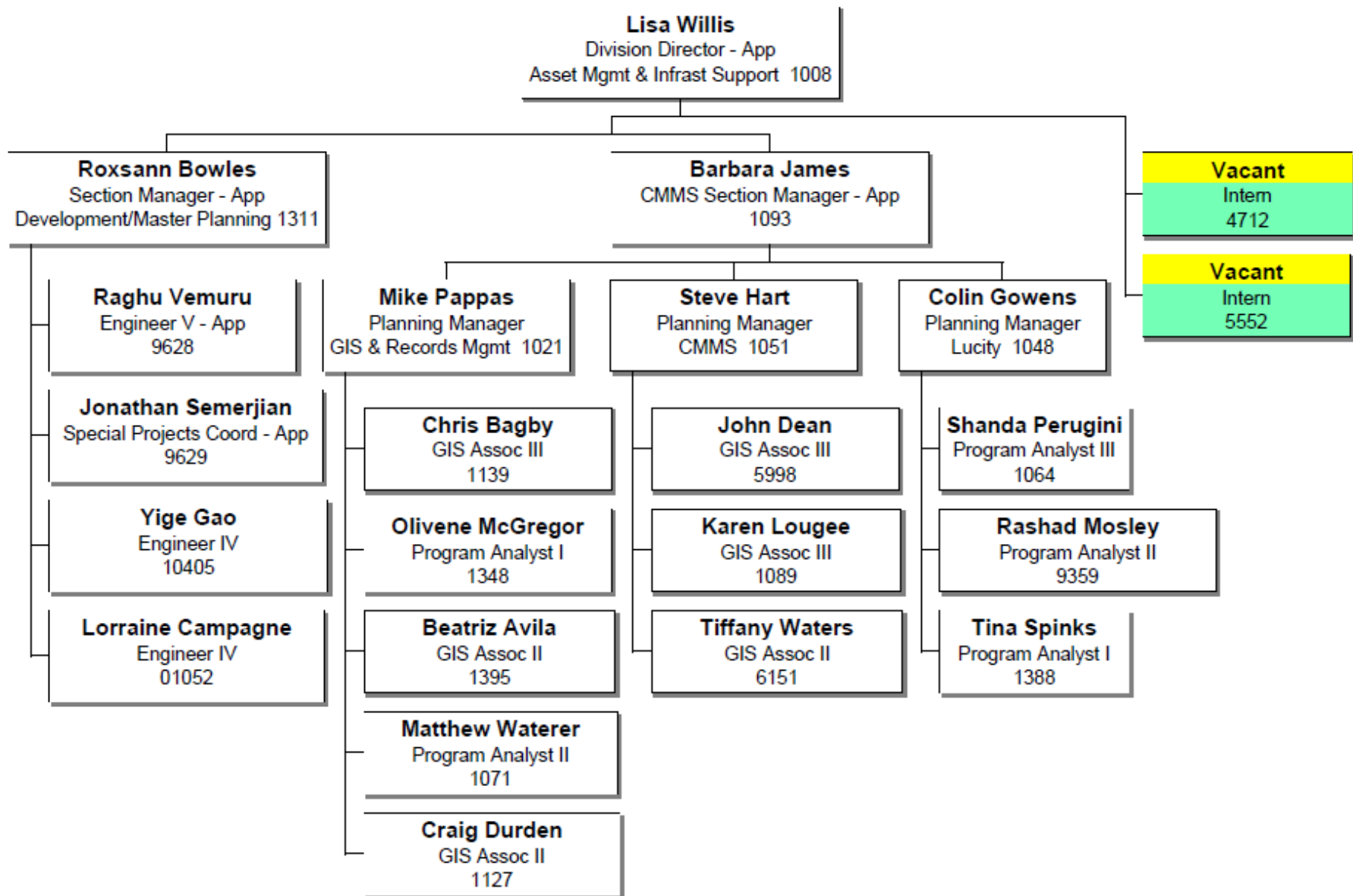


Figure 2 - Appendix B - Infrastructure Support (IS)

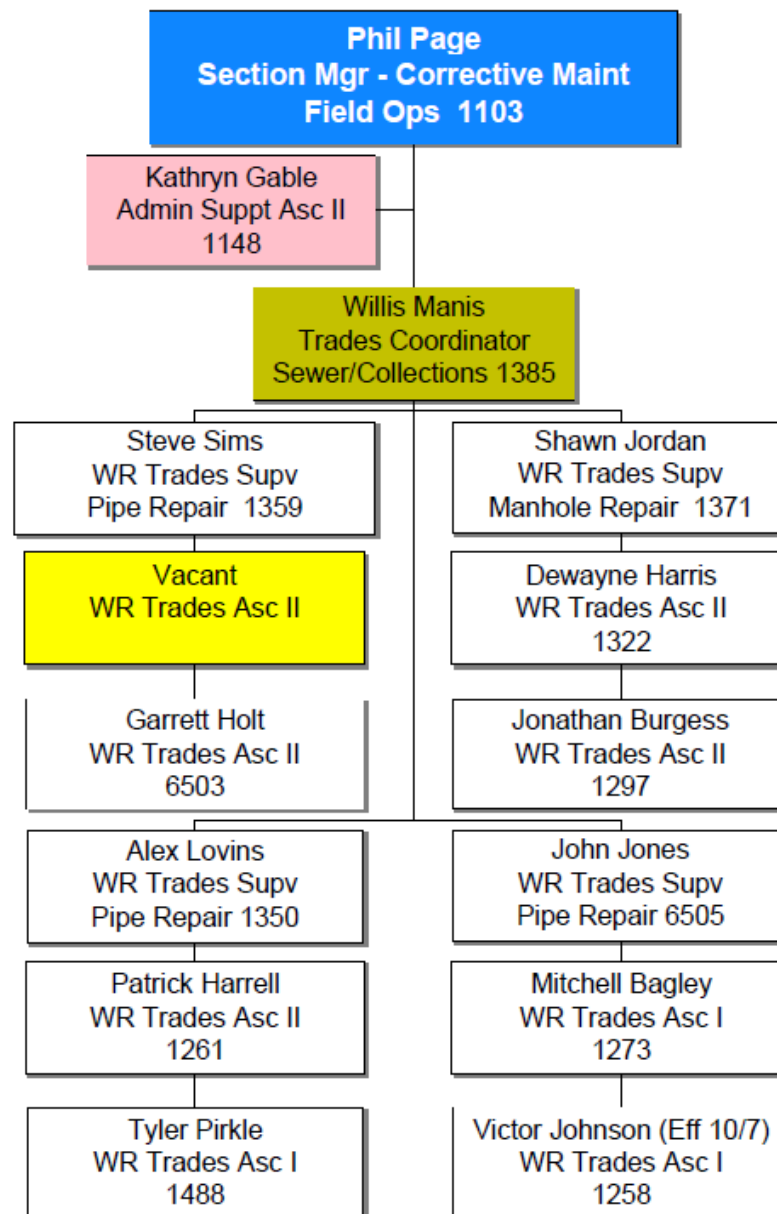


Figure 3 - Appendix B - Field Operations Corrective Maintenance

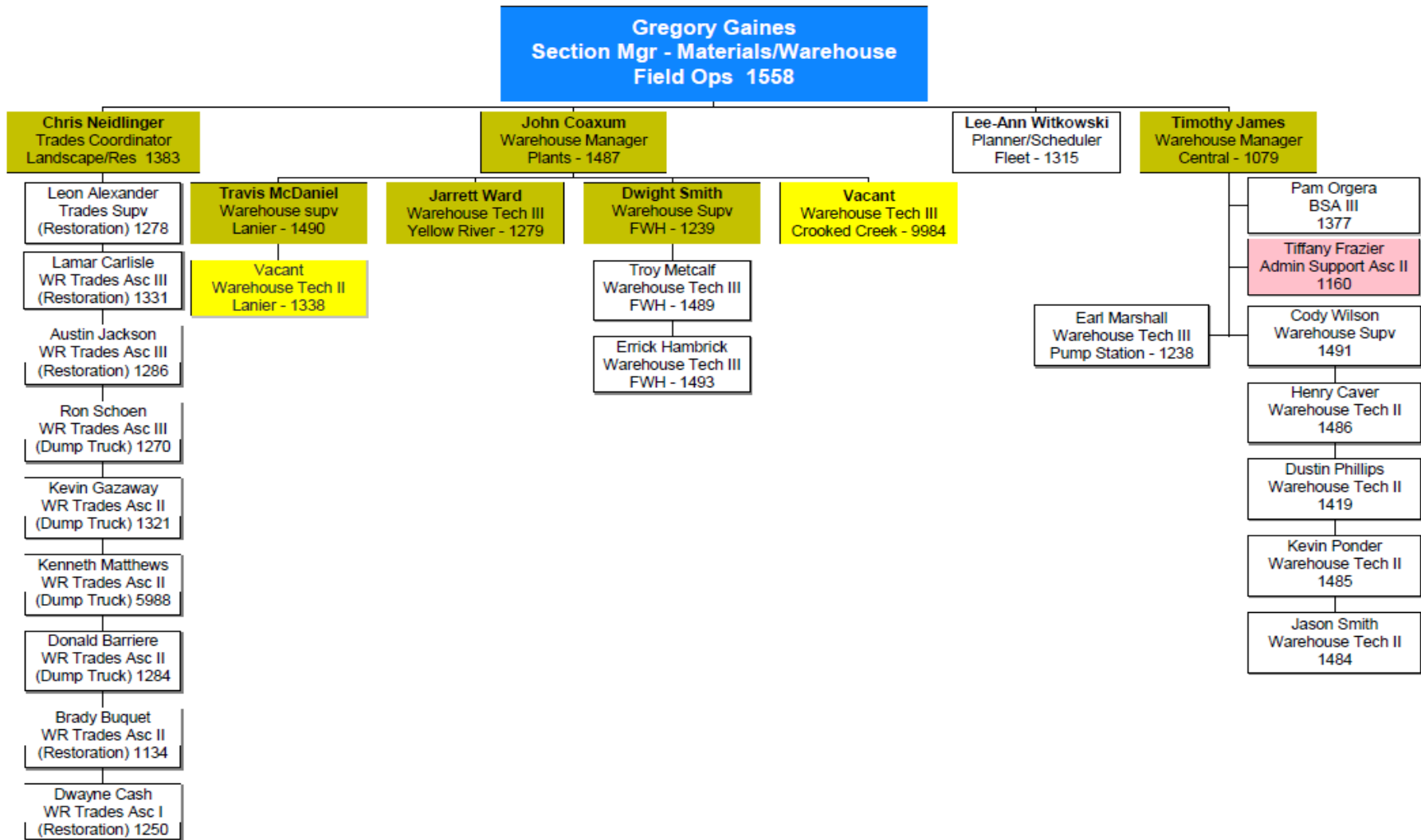


Figure 4 - Appendix B - Field Operations Warehouse and Landscaping

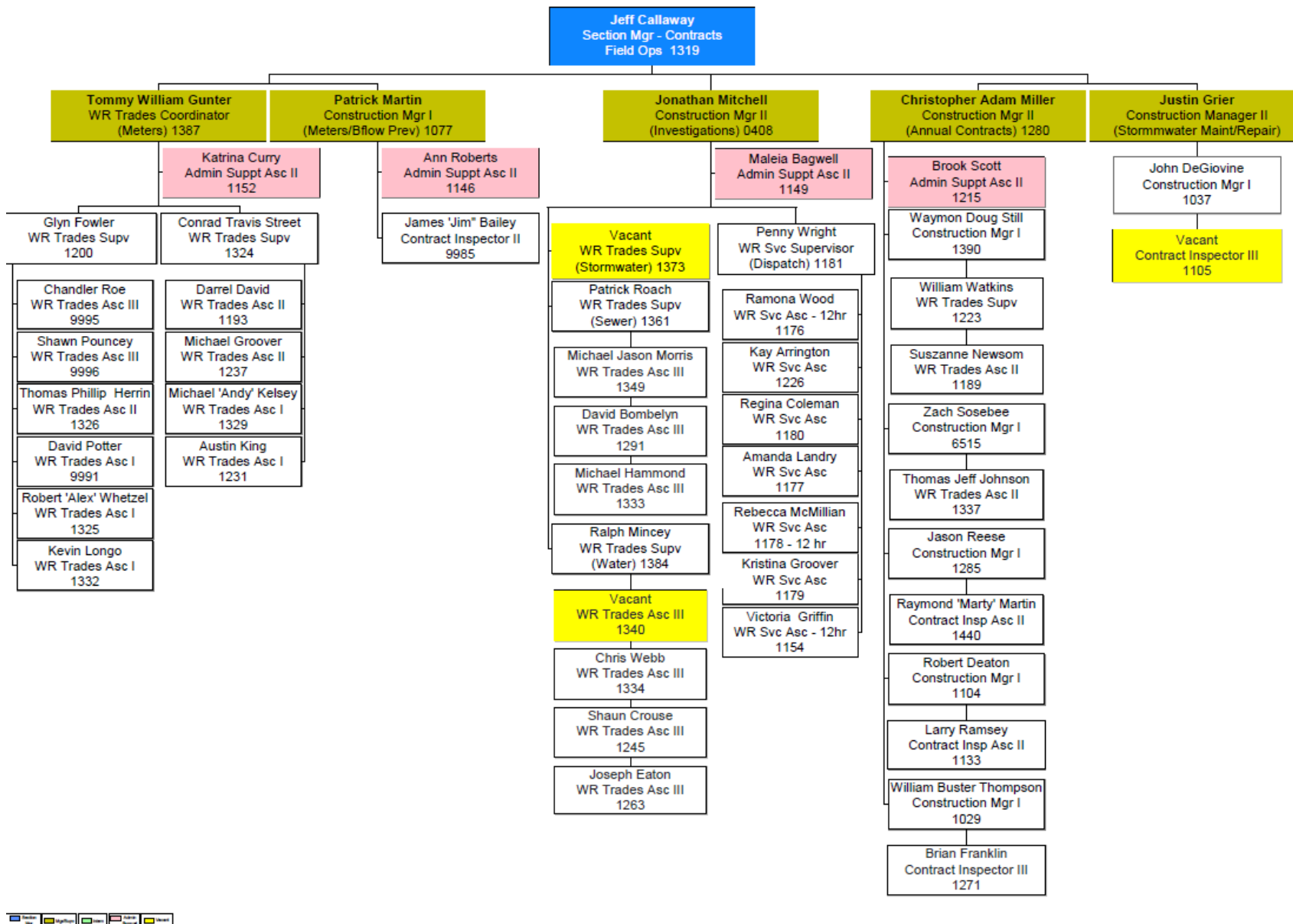


Figure 5 - Appendix B - Field Operations Contracts Support and Maintenance Customer Service

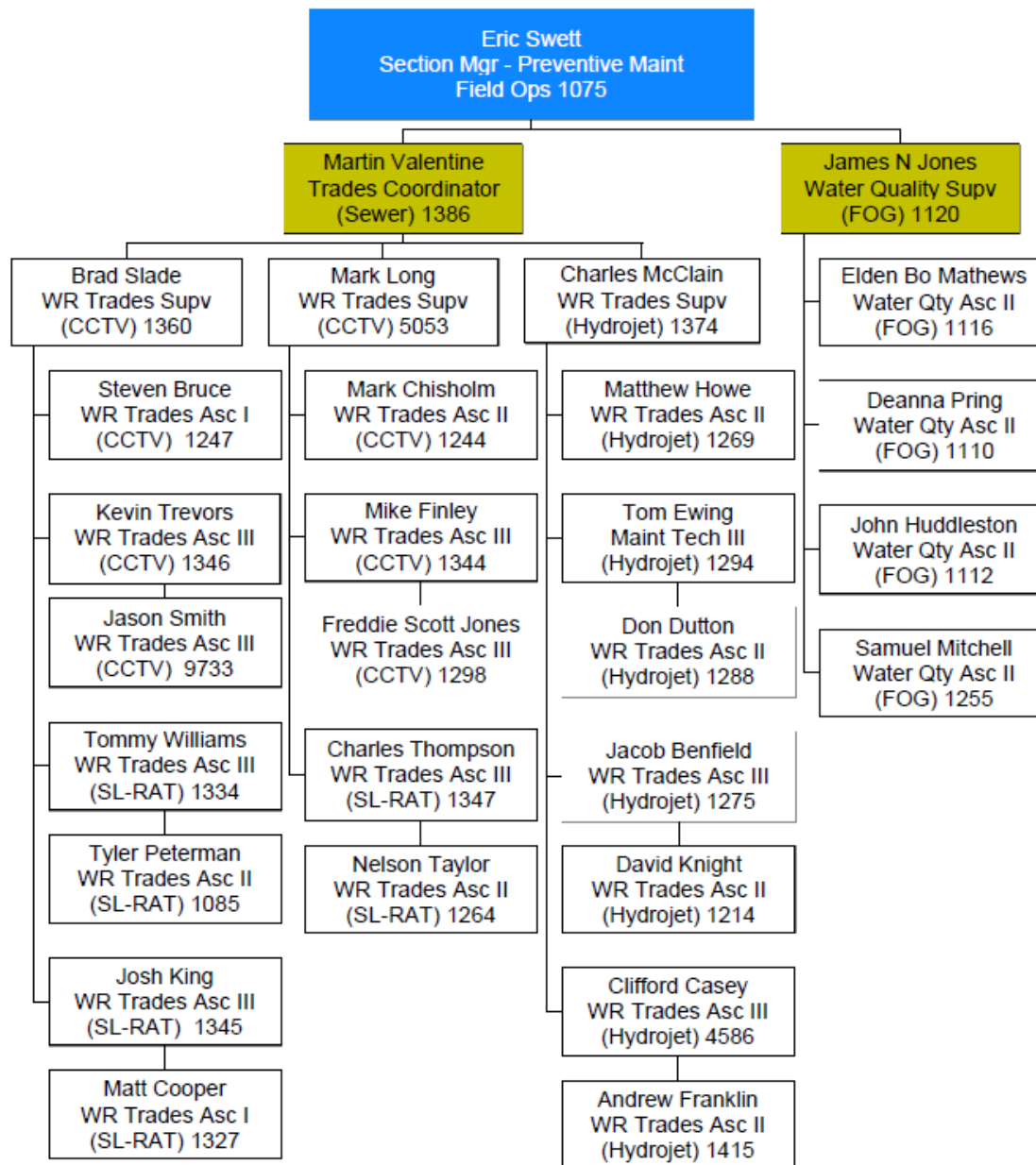


Figure 6 - Appendix B - Field Operations Preventive Maintenance

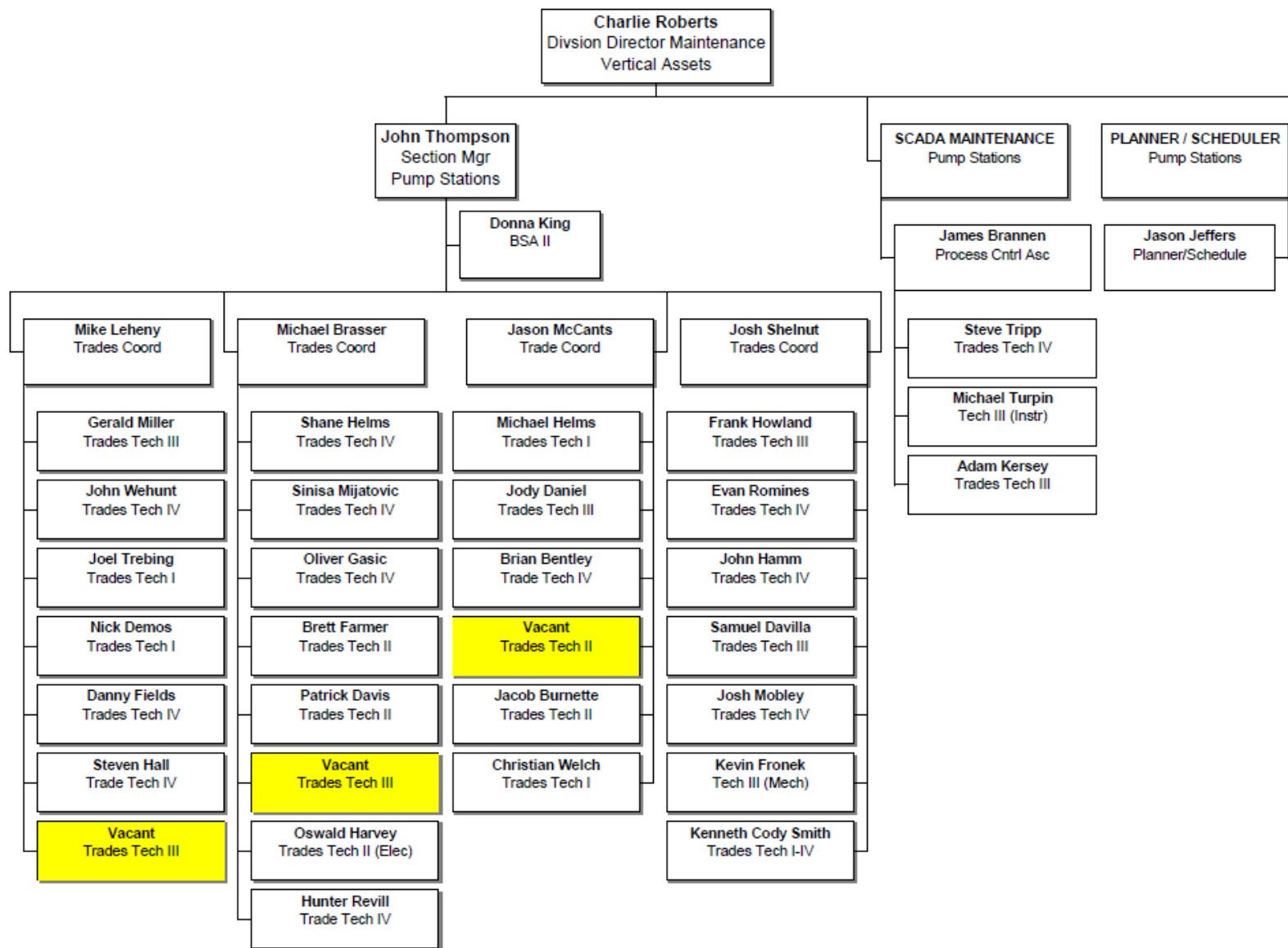


Figure 7 - Appendix B – Facility Maintenance Org Chart

Appendix C – Vehicles and Equipment

Equip #	Description	Cost Center
4088	1986 LOW BOY	19080002
18776	1993 FORD F800	19090003
15475	1996 FORD Y82	19080007
3621	1997 MO TRAILERS	19080007
3622	1997 MO TRAILERS	19080007
3623	1997 MO TRAILERS	19080007
3624	1997 MO TRAILERS	19080007
197245	1997 PRIME EQUIPMENT	19040005
1726	1997 TRAILER TRAILER	19090003
488931	2000 CHEVROLET CC31403	19090007
81452	2000 FORD E350	19090007
79838	2000 HOMEMADE TRAILER	19090006
8325	2001 COMP DEWATERING	19080007
49120	2001 FORD E350	19090007
119022	2001 OBRIEN 3304-JS	19090007
329152	2001 WALLACE DLBT40-3	19080003
54726	2002 FORD E350	19040004
54727	2002 FORD E350	19090015
54728	2002 FORD E350	19040004
32834	2002 MGS N32-6135	19080007
401217	2002 MITSUBISHI FBC20K	19090015
620014	2002 TEREX TB50	19040005
2403	2002 YALE GLP100	19040005
125401	2003 CHEVROLET 1500	19080007
194844	2003 CHEVROLET G3500	19040005
201617	2003 CHEVROLET G3500	19040005
27850	2004 FORD E350	19090007
40412	2004 FORD E350	19040004
19835	2004 FORD F350	19040004
93005	2004 FORD F550	19040006
174245	2004 FORD TAURUS	19090015
96865	2004 STERLING ACTERRA	19080007
237324	2005 CHEVROLET G-VAN	19080003
7222	2005 FORD F350	19090007
54215	2005 FORD RANGER	19040004
84044	2005 FORD RANGER	19080007
84045	2005 FORD RANGER	19090007

84046	2005 FORD RANGER	19090007
131938	2005 FORD TAURUS	19060002
136071	2005 FORD TAURUS	19090015
36070	2005 FORD TAURUS	19080007
151489	2005 SULLAIR 185	19080002
35812	2006 FORD F150	19080008
35813	2006 FORD F150	19050002
35814	2006 FORD F150	19080002
94948	2006 FORD RANGER	19040005
94949	2006 FORD RANGER	19090006
94950	2006 FORD RANGER	19040005
301472	2006 JLG INDUSTRIES	19040004
1989	2006 KOMATSU PC138USLC-3	19080003
440061	2007 BOBCAT T300	19080003
401829	2007 CATERPILLAR 420E1T4ESAKMW01711	19080003
120977	2007 CHEVROLET 1500	19090006
124459	2007 CHEVROLET 1500	19080007
179896	2007 CHEVROLET G-VAN	19090003
196094	2007 CHEVROLET SILVERADO	19080008
196472	2007 CHEVROLET SILVERADO	19100001
196566	2007 CHEVROLET SILVERADO	19010004
765070	2007 CLUB CAR	19090006
832351	2007 DODGE RAM	19080003
832353	2007 DODGE RAM	19080003
832354	2007 DODGE RAM	19080003
40739	2007 FORD E350	19080007
40740	2007 FORD E350	19040004
181513	2007 FORD TAURUS	19010004
181516	2007 FORD TAURUS	19090016
401835	2007 GENIE GTH-844	19080003
21809	2007 GMC 1500	19090006
173561	2007 JLG INDUSTRIES	19040004
1482	2007 JOHN DEERE	19040005
192811	2007 JOHN DEERE	19080001
175621	2007 K & K 824E210K	19090015
175623	2007 K & K 824E210K	19090015
175624	2007 K & K 824E210K	19110001
401833	2007 KOMATSU D39PX-21A	19080003
401834	2007 KOMATSU FG30HT-16	19080003
3426	2007 KOMATSU PC78MR-6	19080003
401831	2007 KOMATSU WA320-5	19080003

66649	2007 STERLING ACTERRA	19080003
66650	2007 STERLING ACTERRA	19080003
66651	2007 STERLING ACTERRA	19080003
66652	2007 STERLING ACTERRA	19080003
66658	2007 STERLING ACTERRA	19080002
66659	2007 STERLING ACTERRA	19080007
66646	2007 STERLING LT9500	19080003
283116	2007 SUPERLINE BO12T192ALP	19080002
35026	2008 BOBCAT T300	19080003
202888	2008 CHEVROLET 1500	19080002
217256	2008 CHEVROLET COLORADO	19060002
137097	2008 CHEVROLET EXPRESS	19080001
137457	2008 CHEVROLET EXPRESS	19080008
211834	2008 CHEVROLET EXPRESS	19040005
267893	2008 CHEVROLET IMPALA	19090016
269516	2008 CHEVROLET IMPALA	19080008
270207	2008 CHEVROLET IMPALA	19080003
270926	2008 CHEVROLET IMPALA	19060002
271492	2008 CHEVROLET IMPALA	19060002
273874	2008 CHEVROLET IMPALA	19090016
105969	2008 CHEVROLET MALIBU	19060002
106290	2008 CHEVROLET MALIBU	19040005
106601	2008 CHEVROLET MALIBU	19100001
107434	2008 CHEVROLET MALIBU	19060002
109156	2008 CHEVROLET MALIBU	19030003
109320	2008 CHEVROLET MALIBU	19100001
201010	2008 CHEVROLET UPLANDER	19090007
226598	2008 DODGE RAM	19090007
65988	2008 FORD F150	19100001
3811	2008 FORD F350	19090015
66529	2008 FORD F450	19080003
66530	2008 FORD F450	19080003
24389	2008 FORD F550	19080003
31093	2008 FORD RANGER	19040004
39734	2008 FORD RANGER	19080008
74203	2008 FORD RANGER	19040005
74204	2008 FORD RANGER	19080002
74205	2008 FORD RANGER	19080002
74207	2008 FORD RANGER	19080003
85027	2008 FORD RANGER	19010002
88006	2008 FORD RANGER	19080003

130023	2008 JLG INDUSTRIES	19040004
31410	2008 JOHN DEERE	19040005
143052	2008 KOMATSU WB146-5	19080003
143057	2008 KOMATSU WB146-5	19080003
43054	2008 KOMATSU WB146-5	19080003
43055	2008 KOMATSU WB146-5	19080003
522944	2008 SOLAR TECHNOLOG	19080002
210047	2008 SULLAIR 185	19040005
309017	2008 TAKEUCHI TL	19040004
70190	2008 TOYOTA 7FGU45	19040004
11152	2009 BOBCAT E25	19040005
132199	2009 CHEVROLET 2500	19060002
169216	2009 CHEVROLET C1500	19080008
139832	2009 CHEVROLET COLORADO	19100001
144084	2009 CHEVROLET COLORADO	19100001
556283	2009 DODGE RAM	19040005
556284	2009 DODGE RAM	19080007
556285	2009 DODGE RAM	19080007
556286	2009 DODGE RAM	19080007
558168	2009 DODGE RAM	19080003
558169	2009 DODGE RAM	19080003
558170	2009 DODGE RAM	19080003
558171	2009 DODGE RAM	19080003
558172	2009 DODGE RAM	19080003
558187	2009 DODGE RAM	19080002
558188	2009 DODGE RAM	19080002
558189	2009 DODGE RAM	19080002
558190	2009 DODGE RAM	19080002
558293	2009 DODGE RAM	19080007
558294	2009 DODGE RAM	19080007
558297	2009 DODGE RAM	19110001
558298	2009 DODGE RAM	19110001
558299	2009 DODGE RAM	19080003
558300	2009 DODGE RAM	19110001
558301	2009 DODGE RAM	19080003
558302	2009 DODGE RAM	19110001
560075	2009 DODGE RAM	19090015
560076	2009 DODGE RAM	19080007
560077	2009 DODGE RAM	19080007
5148	2009 KOMATSU PC888MR-8	19080002
8045	2009 STERLING L7501	19080002

7544	2009 STERLING LT8513	19110001
8037	2009 STONE 95CMED	19090006
105403	2010 CHEVROLET COLORADO	19080008
2003598	2010 CHEVROLET IMPALA	19010004
2003599	2010 CHEVROLET IMPALA	19060002
2003600	2010 CHEVROLET IMPALA	19060002
2003601	2010 CHEVROLET IMPALA	19100001
2003602	2010 CHEVROLET IMPALA	19060002
2003642	2010 FORD F150	19090007
181	2010 FREIGHTLINER M2106	19080007
2002672	2010 FREIGHTLINER M2106	19080002
2002673	2010 FREIGHTLINER M2106	19080002
2002674	2010 FREIGHTLINER M2106	19080002
2003414	2010 FREIGHTLINER M2106	19080002
2003415	2010 FREIGHTLINER M2106	19080002
2003416	2010 FREIGHTLINER M2106	19110001
2003421	2010 FREIGHTLINER M2106	19080003
2003422	2010 FREIGHTLINER M2106	19080003
2003423	2010 FREIGHTLINER M2106	19080003
2003424	2010 FREIGHTLINER M2106	19080003
2003425	2010 FREIGHTLINER M2106	19090015
2003426	2010 FREIGHTLINER M2106	19080002
2003427	2010 FREIGHTLINER M2106	19080002
2003428	2010 FREIGHTLINER M2106	19080001
2003429	2010 FREIGHTLINER M2106	19110001
2003431	2010 FREIGHTLINER M2106	19110001
2182	2010 FREIGHTLINER M2106	19080007
2183	2010 FREIGHTLINER M2106	19080007
508	2010 FREIGHTLINER M2106V	19110001
303166	2011 ARGO AVENGER	19080003
2003648	2011 CHEVROLET 1500	19060002
2003674	2011 DODGE DAKOTA	19060002
2003675	2011 DODGE DAKOTA	19060002
2003665	2011 DODGE RAM	19090003
2003666	2011 DODGE RAM	19060002
401707	2011 DOOSAN DL220	19080001
401708	2011 DOOSAN DX255LC	19080001
2003670	2011 FORD RANGER	19100001
2003673	2011 FORD RANGER	19080008
303296	2011 K & K 102X25E210K	19080002
303302	2011 K & K 8X25E220KA	19110001

303303	2011 K & K 8X25E220KA	19110001
2005878	2011 POLARIS RANGER	19090006
2005880	2011 POLARIS RANGER	19090006
2005881	2011 POLARIS RANGER	19090006
401687	2011 TOYOTA 7FGU35	19080001
2005516	2012 CHEVROLET 3500	19080003
2005494	2012 CHEVROLET COLORADO	19080003
2005495	2012 CHEVROLET COLORADO	19080003
2005496	2012 CHEVROLET COLORADO	19080003
866055	2012 HOMEMADE TRAILER	19040004
703185	2012 MGS CD103	19080007
2005879	2012 POLARIS GEM	19090007
401685	2012 YAMAHA ADVENTURER	19090015
401784	2013 CASE CX55	19110001
401786	2013 CASE CX55	19080003
401785	2013 CASE CX80	19080003
401787	2013 CASE CX80	19080003
401788	2013 CASE CX80	19080003
401783	2013 CASE TV380	19110001
2005875	2013 GENIE Z-40/23NRJ	19040005
1591	2013 SUPERIOR 1510-L3513	19090006
401828	2013 TOYOTA 8FGU30	19080003
401874	2014 CASE 580SN	19040005
401875	2014 CASE 580SN	19080003
401869	2014 CASE CX235C	19080003
401886	2014 CASE CX80	19080003
401891	2014 CASE CX80	19080003
401796	2014 CLUB CAR	19090003
401797	2014 CLUB CAR	19080003
2005915	2014 FREIGHTLINER 114SD	19110001
2005916	2014 FREIGHTLINER 114SD	19080003
2006289	2015 CHEVROLET SILVERADO	19060002
2006290	2015 CHEVROLET SILVERADO	19080003
2006291	2015 CHEVROLET SILVERADO	19080001
2006292	2015 CHEVROLET SILVERADO	19110001
2006293	2015 CHEVROLET SILVERADO	19090007
304363	2015 DITCH WITCH	19080003
304353	2015 FELLING XF-110-3HDG0006	19080002
2006274	2015 FORD TRANSIT	19040006
2006275	2015 FORD TRANSIT	19080007
2006276	2015 FORD TRANSIT	19080007

2006277	2015 FORD TRANSIT	19040005
2006278	2015 FORD TRANSIT	19090006
2006279	2015 FORD TRANSIT	19080007
2006573	2015 FORD TRANSIT	19080003
304466	2015 K & K 7X22E23K	19080002
304467	2015 K & K 7X22E23K	19080002
304468	2015 K & K 7X22E23K	19080001
304492	2015 K & K 7X22E23K	19080002
304493	2015 K & K 8X30E212K	19080002
304494	2015 K & K 8X30E212K	19080003
304495	2015 K & K 8X30E212K	19080003
304499	2015 K & K 8X30E212K	19080002
304540	2015 K & K 8X30E212K	19080002
304681	2015 K & K 8X30E212K	19080003
304455	2015 POLARIS GEM	19090007
304456	2015 POLARIS GEM	19090007
304457	2015 POLARIS GEM	19090007
304458	2015 POLARIS GEM	19090007
2006283	2015 RAM 1500	19040005
2006284	2015 RAM 1500	19060002
2006285	2015 RAM 1500	19080007
2006286	2015 RAM 1500	19090003
332976	2015 TRAILER 10	19080002
304953	2016 ATLAS COPCO	19080002
305114	2016 BOMAG BMP8500	19040005
304879	2016 CASE 580SN	19040005
304880	2016 CASE 580SN	19080001
304881	2016 CASE 580SN	19080003
402005	2016 CASE CX80	19080003
402006	2016 CASE CX80	19080003
402011	2016 CASE TV380	19080003
2006673	2016 CHEVROLET COLORADO	19080002
2006674	2016 CHEVROLET COLORADO	19080003
2006709	2016 CHEVROLET COLORADO	19080002
2006642	2016 CHEVROLET SILVERADO	19080003
2006643	2016 CHEVROLET SILVERADO	19080003
2006644	2016 CHEVROLET SILVERADO	19080003
2006645	2016 CHEVROLET SILVERADO	19040005
2006646	2016 CHEVROLET SILVERADO	19080003
2006647	2016 CHEVROLET SILVERADO	19090007
2006648	2016 CHEVROLET SILVERADO	19080008

2006649	2016 CHEVROLET SILVERADO	19080007
2006650	2016 CHEVROLET SILVERADO	19080007
2006651	2016 CHEVROLET SILVERADO	19080007
2006652	2016 CHEVROLET SILVERADO	19100001
2006653	2016 CHEVROLET SILVERADO	19080002
2006654	2016 CHEVROLET SILVERADO	19060002
2006655	2016 CHEVROLET SILVERADO	19090015
2006656	2016 CHEVROLET SILVERADO	19090007
2006657	2016 CHEVROLET SILVERADO	19090015
2006658	2016 CHEVROLET SILVERADO	19080003
2006659	2016 CHEVROLET SILVERADO	19100001
2006660	2016 CHEVROLET SILVERADO	19100001
2006661	2016 CHEVROLET SILVERADO	19100001
2006662	2016 CHEVROLET SILVERADO	19090015
2006663	2016 CHEVROLET SILVERADO	19040005
2006664	2016 CHEVROLET SILVERADO	19090007
2006665	2016 CHEVROLET SILVERADO	19030003
2006666	2016 CHEVROLET SILVERADO	19100001
2006667	2016 CHEVROLET SILVERADO	19080002
2006668	2016 CHEVROLET SILVERADO	19080003
2006669	2016 CHEVROLET SILVERADO	19080001
2006670	2016 CHEVROLET SILVERADO	19080003
2006671	2016 CHEVROLET SILVERADO	19080003
2006672	2016 CHEVROLET SILVERADO	19080003
2006963	2016 CHEVROLET SILVERADO	19100001
2006964	2016 CHEVROLET SILVERADO	19100001
2006965	2016 CHEVROLET SILVERADO	19050007
2006966	2016 CHEVROLET SILVERADO	19040004
2006967	2016 CHEVROLET SILVERADO	19080002
2006977	2016 CHEVROLET SILVERADO	19100001
2006981	2016 CHEVROLET SILVERADO	19080001
2006982	2016 CHEVROLET SILVERADO	19080007
304749	2016 CLARK C32C	19040005
402016	2016 DIAMOND PRODUCT	19110001
402017	2016 DIAMOND PRODUCT	19110001
402018	2016 DIAMOND PRODUCT	19110001
2006956	2016 DODGE RAM	19080007
2006957	2016 DODGE RAM	19040005
2006958	2016 DODGE RAM	19080007
2006959	2016 DODGE RAM	19080007
2006960	2016 DODGE RAM	19080007

2006961	2016 DODGE RAM	19080003
2006704	2016 FORD EXPLORER	19090016
2006231	2016 FORD FUSION	19080008
2006500	2016 FORD FUSION	19100001
2006501	2016 FORD FUSION	19060002
2006306	2016 FORD TRANSIT	19080007
2006307	2016 FORD TRANSIT	19080007
2006308	2016 FORD TRANSIT	19040005
2006309	2016 FORD TRANSIT	19080007
2006979	2016 FORD TRANSIT	19050007
2006980	2016 FORD TRANSIT	19030003
2006548	2016 FREIGHTLINER M2106	19080002
2006631	2016 FREIGHTLINER M2106	19080007
2007005	2016 FREIGHTLINER M2106	19080001
2007006	2016 FREIGHTLINER M2106	19080001
2007050	2016 FREIGHTLINER M2106	19080003
304950	2016 JOHN DEERE	19040004
304878	2015 K & K 8X30E212K	19080003
305081	2016 LINCOLN WELDER	19090006
304901	2016 POLARIS GEM	19090007
304902	2016 POLARIS GEM	19040004
304903	2016 POLARIS GEM	19040005
304904	2016 POLARIS GEM	19040005
304905	2016 POLARIS GEM	19040004
304906	2016 POLARIS GEM	19040004
304907	2016 POLARIS GEM	19040005
304908	2016 POLARIS GEM	19090007
304909	2016 POLARIS GEM	19090006
304910	2016 POLARIS GEM	19040005
304911	2016 POLARIS GEM	19090006
304912	2016 POLARIS GEM	19090006
304913	2016 POLARIS GEM	19090003
304914	2016 POLARIS GEM	19090006
304915	2016 POLARIS GEM	19090015
2006974	2016 POLARIS RANGER	19090006
2006302	2016 RAM 1500	19060002
2006303	2016 RAM 1500	19080008
2006304	2016 RAM 1500	19080008
2006305	2016 RAM 1500	19080002
2006310	2016 RAM 1500	19080002
2006317	2016 RAM 1500	19090007

2006675	2016 RAM 5500	19080007
2006676	2016 RAM 5500	19080007
2006995	2016 RAM 5500	19080007
2006997	2016 RAM 5500	19080007
2006998	2016 RAM 5500	19080007
2006999	2016 RAM 5500	19080007
2007000	2016 RAM 5500	19080003
2007001	2016 RAM 5500	19090007
2007010	2016 RAM 5500	19090007
2007011	2016 RAM 5500	19080007
304954	2016 SKID PRO	19090015
402008	2016 VERMEER BC1400	19080002
304951	2016 WACKER NEUSON	19080002
304952	2016 WACKER NEUSON	19080003
402081	2017 CASE CX80	19080002
2007099	2017 CHEVROLET SILVERADO	19080002
2007100	2017 CHEVROLET SILVERADO	19090015
2007101	2017 CHEVROLET SILVERADO	19090015
2007102	2017 CHEVROLET SILVERADO	19060002
2007103	2017 CHEVROLET SILVERADO	19060002
2007104	2017 CHEVROLET SILVERADO	19060002
2007105	2017 CHEVROLET SILVERADO	19100001
2007106	2017 CHEVROLET SILVERADO	19100001
2007107	2017 CHEVROLET SILVERADO	19080003
2007108	2017 CHEVROLET SILVERADO	19080002
2007109	2017 CHEVROLET SILVERADO	19090003
2007110	2017 CHEVROLET SILVERADO	19090003
2007111	2017 CHEVROLET SILVERADO	19080002
2007112	2017 CHEVROLET SILVERADO	19080008
2007113	2017 CHEVROLET SILVERADO	19080003
305295	2017 FINN CORP	19110001
2007086	2017 FORD TAURUS	19090015
2007087	2017 FORD TAURUS	19090015
2007094	2017 FORD TAURUS	19010001
2007078	2017 FORD TRANSIT	19090015
2007176	2017 FORD TRANSIT	19090015
2007044	2017 FREIGHTLINER 108SD	19080002
2007043	2017 FREIGHTLINER 114SD	19080002
2007045	2017 FREIGHTLINER M2106	19080007
2007080	2017 FREIGHTLINER M2106	19090003
2007095	2017 FREIGHTLINER M2106	19080001

2007096	2017 FREIGHTLINER M2106	19080001
2007097	2017 FREIGHTLINER M2106	19110001
2007098	2017 FREIGHTLINER M2106	19110001
2007162	2017 FREIGHTLINER M2106	19110001
2007164	2017 FREIGHTLINER M2106	19110001
703566	2017 HYDRA TECH	19040005
305328	2017 HYDRA-TECH PUMP	19080003
305256	2015 K & K 8X30E212K	19110001
752113	2017 MULTIQUIP MC94SH8	19090006
2007041	2017 RAM 3500	19090007
2007088	2017 RAM 4500	19080001
2007081	2017 RAM 5500	19090007
2007085	2017 RAM 5500	19090003
2007093	2017 RAM 5500	19090006
2007163	2017 RAM 5500	19080002
2007207	2017 RAM 5500	19080003
305288	2017 SOLT SILENT	19080003
305289	2017 SOLT SILENT	19080002
305290	2017 SOLT SILENT	19110001
402062	2017 TOYOTA 8FGU25	19110001
402063	2017 TOYOTA 8FGU32	19040005
402061	2017 WHITMAN WBH16	19110001
402143	2018 BOBCAT T770	19080003
402140	2018 CASE CX80	19080003
402141	2018 CASE CX80	19080002
402142	2018 CASE CX80	19080003
402137	2018 CASE TV380	19080003
402132	2018 CATERPILLAR 926M	19080001
2007383	2018 CHEVROLET MALIBU	19080008
2007384	2018 CHEVROLET MALIBU	19080008
2007414	2018 CHEVROLET MALIBU	19090016
305766	2018 CLUB CAR	19090006
2007216	2018 FORD TRANSIT	19060002
2007455	2018 FORD TRANSIT	19090015
2007456	2018 FORD TRANSIT	19090015
2007457	2018 FORD TRANSIT	19090015
2007458	2018 FORD TRANSIT	19090015
175305	2018 K & K 83X18E27K	19080001
305698	2018 K & K 83X18E27K	19080003
305699	2018 K & K 83X18E27K	19080003
305700	2018 K & K 83X18E27K	19080003

305701	2018 K & K 83X18E27K	19080003
305702	2018 K & K 83X18E27K	19110001
305726	2018 K & K 83X18E27K	19110001
305776	2018 K & K 83X18E27K	19110001
402127	2018 KUBOTA RTVX1100CWL-H	19080001
305942	2018 MOTO ELECTRIC	19090007
2007418	2018 RAM 1500	19090015
2007419	2018 RAM 1500	19090015
2007420	2018 RAM 1500	19090015
2007421	2018 RAM 1500	19080002
2007422	2018 RAM 1500	19100001
2007423	2018 RAM 1500	19080008
2007424	2018 RAM 1500	19080002
2007425	2018 RAM 1500	19060002
2007434	2018 RAM 1500	19080002
2007435	2018 RAM 1500	19030003
2007436	2018 RAM 1500	19060002
2007437	2018 RAM 1500	19060002
2007438	2018 RAM 1500	19100001
2007439	2018 RAM 1500	19100001
2007440	2018 RAM 1500	19100001
2007450	2018 RAM 1500	19060002
2007451	2018 RAM 1500	19080003
2007452	2018 RAM 2500	19080002
2007490	2018 RAM 5500	19090015
402128	2018 TAKEUCHI TL	19090007
402126	2018 TOYOTA 8BNCU18	19080001
402170	2019 CATERPILLAR 299D3	19080007
2007464	2019 FORD TRANSIT	19080008
2007894	2019 FORD TRANSIT	19090007
305943	2019 JOHN DEERE	19040005
306000	2019 K & K 8X25E212K	19080003
2007905	2019 RAM 5500	19080003
7444	2019 ROCK SOLID	19080002
2007919	2020 FREIGHTLINER M2106	19080002
2007920	2020 FREIGHTLINER M2106	19080002
2007921	2020 FREIGHTLINER M2106	19080002
402177	2020 SEA-ARK 2072-FX	19080007
72D032823A	MSG A70-6261-GENERA 16MPF12272D032823	19040005

Table 1 - Appendix C - Active Vehicles and Equipment

Appendix D – Warehousing

Table 2 - Appendix D - Monthly Warehouse Cycle Count

Monthly Cycle Count Report			
	Value of Inventory	Value of Items Cycle Counted	Variance
Jul-17	\$3,152,847.61	\$1,099,797.32	\$851.35
Aug-17	\$3,669,197.40	\$804,554.43	\$863.11
Sep-17	\$4,019,457.32	\$1,421,738.06	\$2,060.32
Oct-17	\$4,132,924.74	\$1,354,113.69	\$1,903.25
Nov-17	\$4,130,790.36	\$1,029,441.32	\$1,929.59
Dec-17	\$4,265,205.30	\$1,086,169.54	\$1,607.98
Jan-18	\$4,077,593.85	\$910,975.33	\$2,605.35
Feb-18	\$3,687,824.10	\$1,117,362.32	\$2,074.85
Mar-18	\$3,691,981.36	\$902,945.51	\$1,597.07
Apr-18	\$3,430,666.93	\$872,166.99	\$1,338.39
May-18	\$3,475,610.49	\$1,021,384.97	\$1,148.34
Jun-18	\$3,281,422.61	\$798,652.11	\$858.72

Table 3 - Appendix D - On Hand Inventory Value

Monthly On Hand Inventory Report					
	# Stock Issue Transactions	ISSUE Value	# Stock Received Transactions	REC Value	Total Value Stock on Hand
Jul-17	1892	\$356,314.75	146	\$366,981.57	\$3,152,847.61
Aug-17	1987	\$471,711.08	182	\$804,554.43	\$3,669,197.40
Sep-17	1648	\$398,293.62	157	\$748,553.55	\$4,019,457.32
Oct-17	1965	\$352,444.19	178	\$464,043.20	\$4,132,924.74
Nov-17	1791	\$380,858.85	173	\$378,724.40	\$4,130,790.36
Dec-17	1676	\$139,473.55	90	\$273,875.16	\$4,265,205.30
Jan-18	1945	\$362,938.53	142	\$175,340.34	\$4,077,593.85
Feb-18	1563	\$465,193.23	312	\$170,511.79	\$3,687,824.10
Mar-18	1776	\$285,076.08	234	\$297,460.69	\$3,691,981.36
Apr-18	1616	\$426,019.41	195	\$178,053.86	\$3,430,666.93
May-18	1740	\$272,268.92	180	\$320,703.53	\$3,475,610.49
Jun-18	1672	\$314,393.49	179	\$136,958.79	\$3,281,422.61

BIN#	SAP#	Material Description
1736	100001	ABSORBER FILTER SOCK, 750G
8501	100002	ACETYLENE, COMPRESSED GAS L-BUILD
817.9	111807	Adapter Cable, Lamp I (12pn to shorty)
2065	100007	ADAPTER, 1 1/2 NST X 1 1/2 NST NPT MALE
2064	100008	ADAPTER, 2 1/2 NST X 1 1/2 NST MALE
2066	100009	ADAPTER, 2 1/2" NST X 2" NPT MA X MA
2062	100010	ADAPTER, 2 1/2" NST X 3/4" MAL GHT NIP
4207	100011	ADAPTER, BELL X MJS 48" LCP YARD
4206	100012	ADAPTER, DOUBLE SPIGOT 48" LCP YARD
518.1	100017	ADAPTER, FEM THD/SLP PVC SCH 80 1 1/2"
523	100018	ADAPTER, FEMALE THD/SLP PVC SCH 80 2"
514.1	100014	ADAPTER, FEMALE PVC SCH 80 1 1/4"
507.1	100015	ADAPTER, FEMALE PVC SCH 80 1"
500.1	100016	ADAPTER, FEMALE PVC SCH 80 1/2"
503.1	100019	ADAPTER, FEMALE PVC SCH 80 3/4"
519	100020	ADAPTER, MALE PVC SCH 80 1 1/2"
515	100021	ADAPTER, MALE PVC SCH 80 1 1/4"
508	100022	ADAPTER, MALE PVC SCH 80 1"
501	100023	ADAPTER, MALE PVC SCH 80 1/2"
523.1	100024	ADAPTER, MALE PVC SCH 80 2"
504	100025	ADAPTER, MALE PVC SCH 80 3/4"
533.1	100026	ADAPTER, MALE PVC SCH 80 4"
4205	100027	ADAPTER, SPIGOT X MJS SP-5 48" LCP YARD
2063	100028	ADAPTER, SWIVEL 2 1/2" NST X 2" NPT MALE
2228	100036	ADHESIVE, SUPER/RUBBER- 5.0 OZ
725	100037	AIR COMPRESSOR
1701.2	100039	AIR FILTER KIT, TS400 SAW 4223 007 1010
1701.1	110110	Air Filter,Kit STIHL Saw #4238-140-4404
2221	100049	ALCOHOL, 16OZ
758.7	100050	ALTERNATING RELAY, S&L AGSL
758.4	100051	ALTERNATING RELAY, TIMER S&L AF5L
7836	100062	AMMONIA NITRATE, 34-0-0 50LB
2231.1	100063	AMMONIA, INHALANTS
792	111650	Antenna, Ext. Mag Mount, for 2105c mod.
1155.2	100071	ANTI FRICT BEARING 47, MET250 M94 5 1/4
2231.2	105580	ANTIBIOTIC CREAM, TRIPLE- (10 CT Pack)
1619	100073	ANTIFREEZE, BIO DEGRADABLE

BIN#	SAP#	Material Description
1618	100074	ANTIFREEZE, LOW SILICANT
1719	100075	ANTI-SEIZE, COPPER, 16 OZ., W. BRUSH
969.3	100078	APPLICATOR, WAX HEAD W HANDLE 3"W X 18"L
8503	100079	ARGON, COMPRESS GAS 75/25% CO2 MIX LB
8500	100080	ARGON, COMPRESS GAS UHP 99.9993% LB
791	111623	ASSY, POWER REGULATOR, FST
8000	100102	AXE, BUSH, 16" BLADE
653	100111	BACKFLOW PREVENT, PVC SCH 40, 4" R/FLAP
656	100112	BACKFLOW PREVENTOR, PVC SCH 40 6" VALVE
1099	100152	BAG, EQUIPMENT (NET) BLACK 36" X 25"
926.1	100157	BAG, PLASTIC ZIP LOC 4" X 6" 100CT
926	100158	BAG, PLASTIC ZIP LOCK 9" X 12" 25CT
926.3	100159	BAG, PLASTIC ZIP LOCK, 5" X 8" 100CT
20143	100170	BAG, SAND-BURLAP 17" X 30"
991	100172	BAG, TRASH 24" X 33" .23 ML 16GL CL
990	100173	BAG, TRASH 33" X 40" 1.5 ML 33GL BLK
989	100174	BAG, TRASH 38" X 58" 2 ML 55GL BLK
992	100175	BAG, TRASH 39" X 46" ASB DISP 50CT
988	100176	BAG, TRASH 40" X 46" 1.5 ML 45GL BLK
898.2	100190	BALLAST, 175W MERCURY VAPOR H39 ADVANCE
881	100201	BALLAST, ELEMAG F40T12 120V CL P
2227	100221	BAND AID, STRETCH CLOTH 1" X 3" 50CT
20041	106777	BAND, DIMPLE (FLAT) 48 "
20032	100222	BAND, DIMPLE (FLAT) 10" WIDE FOR 18" CMP
20033	100223	BAND, DIMPLE (FLAT) 10" WIDE FOR 24" CMP
20034	100224	BAND, DIMPLE (FLAT) 10" WIDE FOR 30" CMP
20035	100225	BAND, DIMPLE (FLAT) 10" WIDE FOR 36" CMP
20036	100226	BAND, SMOOTH (FLAT) 24" WIDE FOR 18" CMP
20037	100227	BAND, SMOOTH (FLAT) 24" WIDE FOR 24" CMP
20038	100228	BAND, SMOOTH (FLAT) 24" WIDE FOR 30" CMP
20039	100229	BAND, SMOOTH (FLAT) 24" WIDE FOR 36" CMP
2225	100234	BANDAGE, COMPRESS 3" X 3" 4CT
7986	100240	BARREL, TRAFFIC ORANGE (5) 6" REFLECT
7985	100241	BARRICADE, TRAFFIC TYPE II STENCILED
20057	111626	BASIN, 3' H x 4' DIA W/18" RCP 1Hole
20058	111627	BASIN, 3' H x 4' DIA W/24" RCP 1Hole
20051	100249	BASIN, 3' HX4' DIAW/18"CR 2/HO 12/6 RCP
20050	100250	BASIN, 3'HX4'DIA W/18"CR 2HOLES 12/3 RCP

BIN#	SAP#	Material Description
20054	100251	BASIN, 4' H X 4' DIAW/24"CR 2/HO12/3RCP
20056	100252	BASIN, 4' H X 4' DIAW/30"CR 2/HO12/6RCP
2240.1	110352	BATTERY CHARGER, 12VOLT
2240	110351	BATTERY CHARGER, 24VOLT
2206.2	106917	BATTERY, 18 VOLT, 18V-XRTCORDESS DEWALT
2202	100256	BATTERY, 6V ALK, LANTERN SPRING DWR ONLY
2206	100259	BATTERY, 9V
2204.1	107318	BATTERY, AA CELL 1.5V (DWR ONLY)
2205.1	109610	BATTERY, AAA CELL1.5V (DWR ONLY)
2204	107339	BATTERY, C CELL 1.5V (DWR ONLY)
1603	110272	BATTERY, CLEANER-SPRAY
2203	107338	BATTERY, D CELL 1.5V (DWR ONLY)
790	111551	BATTERY, FLOW METER , ADS
2206.1	109841	BATTERY, MOTOROLA RADIO NTN9858C
722	110270	BATTERY, SCADA 12V, 5AH
919.2	100272	BEAKER, 13912-149
1178.1	103514	BEARING, THRUST-OPERATING NUT CLOW M2
818.4	112483	BEARING, U SHORTY HW018
134.1	100277	BELL REDUCER, BRASS 1" X 3/4" IP
246	100279	BELL REDUCER, GALV 1 1/2" X 2" PIPE
245.2	100280	BELL REDUCER, GALV 1 1/4" X 1" PIPE
243.2	100281	BELL REDUCER, GALV 1" X 1 1/2" PIPE
244.1	100282	BELL REDUCER, GALV 1/2" X 3/8" PIPE
223	100283	BELL REDUCER, GALV 2 1/2" X 2" PIPE
245.1	100284	BELL REDUCER, GALV 3/4" X 1" PIPE
245	100285	BELL REDUCER, GALV 3/4" X 1/2" PIPE
200.5	100286	BELL REDUCER, GALV 4" X 3" PIPE
1710	111765	BELT, Gas Quick Cut Saw, TS420
1709.1	100314	BELT, TS400
3106	111995	BEND, 1 1/2" 90 DEG NPT 150LB 304 S/S
3105	101978	BEND, 1" 90 DEG NPT 150LB 304S/S
3103	101979	BEND, 1/2" 90 DEG NPT 150LB 304S/S
3101	101980	BEND, 1/4" 90 DEG NPT 150LB 304S/S
3100	101981	BEND, 1/8" 90 DEG NPT 150LB 304S/S
5542	100431	BEND, 10" DIP MJ 11 1/4DEGREE
5543	100432	BEND, 10" DIP MJ 22 1/2DEGREE
5544	100433	BEND, 10" DIP MJ 45DEGREE
5545	100434	BEND, 10" DIP MJ 90DEGREE

BIN#	SAP#	Material Description
5546	100435	BEND, 12" DIP MJ 11 1/4DEGREE
5547	100436	BEND, 12" DIP MJ 22 1/2DEGREE
5548	100437	BEND, 12" DIP MJ 45DEGREE
5549	100438	BEND, 12" DIP MJ 90DEGREE
5060	100439	BEND, 14" DIP MJ 11 1/4DEG (yard)
5047	100440	BEND, 14" DIP MJ 22 1/2DEG (yard)
5045	100441	BEND, 14" DIP MJ 45DEG (yard)
5044	100442	BEND, 14" DIP MJ 90 DEG (yard)
5550	100443	BEND, 16" DIP MJ 11 1/2DEGREE
5551	100444	BEND, 16" DIP MJ 22 1/2DEGREE
5552	100445	BEND, 16" DIP MJ 45DEGREE
5553	100446	BEND, 16" DIP MJ 90DEGREE
5042	100447	BEND, 18" DIP MJ 11 1/4DEG (yard)
5049	100448	BEND, 18" DIP MJ 22 1/2DEG (yard)
5048	100449	BEND, 18" DIP MJ 45DEG (yard)
5043	100450	BEND, 18" DIP MJ 90DEG (yard)
3108	101982	BEND, 2" 90 DEG NPT 150LB 304S/S
5027	100451	BEND, 20" DIP MJ 11 1/4DEG (yard)
5029	100452	BEND, 20" DIP MJ 22 1/2DEG (yard)
5028	100453	BEND, 20" DIP MJ 45DEG (yard)
5030	100454	BEND, 20" DIP MJ 90DEG (yard)
5025	100455	BEND, 24" DIP MJ 11 1/4DEG (yard)
5023	100456	BEND, 24" DIP MJ 22 1/2DEG (yard)
5026	100457	BEND, 24" DIP MJ 45DEG (yard)
3110	101983	BEND, 3" 90 DEG NPT 150LB 304S/S
3357	112601	BEND, 3/4 90 DEGREE NPT 150 30 4SS
3102	101984	BEND, 3/8" 90 DEG NPT 150LB 304S/S
5022	100458	BEND, 30" DIP MJ 11 1/4DEG (yard)
5021	100459	BEND, 30" DIP MJ 22 1/2DEG (yard)
5020	100460	BEND, 30" DIP MJ 45DEG (yard)
5046	100461	BEND, 30" DIP MJ 90 DEG (yard)
5053	106958	BEND, 30" FLEX RING 45 D, DI (yard)
5530	100462	BEND, 4" DIP MJ 11 1/4DEGREE
5531	100463	BEND, 4" DIP MJ 22 1/2DEGREE
5532	100464	BEND, 4" DIP MJ 45DEGREE
5533	100465	BEND, 4" DIP MJ 90DEGREE
5533.5	100466	BEND, 4" FL X FL 90DEGREE 150LB
551	100467	BEND, 4" X 1/16" PVC SCH 40 STR GLUE JT

BIN#	SAP#	Material Description
559	100468	BEND, 4" X 1/8" PVC SCH 40 STR GLUE JT
5017	112469	BEND, 48" DUCTILE IRON 11 1/4 DEGREE
5016	112468	BEND, 48" DUCTILE IRON 22 1/2 DEGREE
5015	112467	BEND, 48" DUCTILE IRON 45 DEGREE
5534	100470	BEND, 6" DIP MJ 11 1/4DEGREE
5535	100471	BEND, 6" DIP MJ 22 1/2DEGREE
5536	100472	BEND, 6" DIP MJ 45DEGREE
5537	100473	BEND, 6" DIP MJ 90DEGREE
5538	100474	BEND, 8" DIP MJ 11 1/4DEGREE
5539	100475	BEND, 8" DIP MJ 22 1/2DEGREE
5540	100476	BEND, 8" DIP MJ 45DEGREE
5541	100477	BEND, 8" DIP MJ 90DEGREE
211	101985	BEND, GALV 1 1/2" 45 DEGREE PIPE
206	101986	BEND, GALV 1 1/2" 90 DEGREE PIPE
209.1	101987	BEND, GALV 1 1/4" ELBOW 45 DEG PIPE
209	101988	BEND, GALV 1 1/4" ELBOW 90 DEG PIPE
205	100478	BEND, GALV 1" PIPE ELBOW 90D
203	100479	BEND, GALV 1" PIPE ELBOWS 45D
201.2	100480	BEND, GALV 1/2" 90D
201.1	100481	BEND, GALV 1/2" STREET 90D
200.2	100482	BEND, GALV 1/4" 90D
201	100483	BEND, GALV 1/4" STREET 90D
200	100484	BEND, GALV 1/8" 90D, THD
200.1	100485	BEND, GALV 1/8" STREET 90D
201.4	100486	BEND, GALV 2 1/2" ELBOW 45 D PIPE
200.4	100487	BEND, GALV 2 1/2" ELBOW 90 D PIPE
210	100488	BEND, GALV 2" ELBOW 45 D PIPE
208	100489	BEND, GALV 2" ELBOW 90 D PIPE
207	100490	BEND, GALV 2" ELBOW STREET 90D
202.1	100491	BEND, GALV 3/4" ELBOW 45D PIPE
204	100492	BEND, GALV 3/4" ELBOW 90D PIPE
202	100493	BEND, GALV 3/4" ELBOW STREET 90D PIPE
200.3	100494	BEND, GALV 3/8" ELBOW 90D PIPE
201.3	100495	BEND, GALV 3/8" ELBOW STREET 90D
565	100496	BEND, PVC SCH 35 6" STREET ELL 1/16 22 D
564	100497	BEND, PVC SCH 35 6" STREET ELL 1/8 45 D
649	100498	BEND, PVC SCH 35 6" X 1/16" 22 D
560	100499	BEND, PVC SCH 35 6" X 1/4" 90 D

BIN#	SAP#	Material Description
651	100500	BEND, PVC SCH 35 6" X 1/8" 45 D
552	100501	BEND, PVC SCH 40 4" X 1/16" 22D
553	100502	BEND, PVC SCH 40 4" X 1/4" 90 D
558	100503	BEND, PVC SCH 40 4" X 1/8" 45 D
519.1	100504	BEND, PVC SCH 80 1 1/2" 45 D
520.2	100505	BEND, PVC SCH 80 1 1/2" 90 D
515.1	100506	BEND, PVC SCH 80 1 1/4" 45 D
516	100507	BEND, PVC SCH 80 1 1/4" 90 D
508.1	100508	BEND, PVC SCH 80 1" 45 D
509	100509	BEND, PVC SCH 80 1" 90 D
509.1	100510	BEND, PVC SCH 80 1" 90 D THD TO THD
503	100511	BEND, PVC SCH 80 1/2" 45 D
502.1	100512	BEND, PVC SCH 80 1/2" 90 D
529	100513	BEND, PVC SCH 80 2 1/2" 45 D
529.1	100514	BEND, PVC SCH 80 2 1/2" 90 D
524	100515	BEND, PVC SCH 80 2" 45 D
524.1	100516	BEND, PVC SCH 80 2" 90 D
530	100517	BEND, PVC SCH 80 3" 45 D
530.1	100518	BEND, PVC SCH 80 3" 90 D
505	100519	BEND, PVC SCH 80 3/4" 45 D
504.1	100520	BEND, PVC SCH 80 3/4" 90 D
534	100521	BEND, PVC SCH 80 4" 45 D
534.1	100522	BEND, PVC SCH 80 4" 90 D
538.1	100523	BEND, PVC SCH 80 6" 45 D
539	100524	BEND, PVC SCH 80 6" 90 D
651.1	112052	BEND, PVC SDR35, 8" 90 SWR GXG
132.5	100525	BF PREVENTER, 1" DBL CHK, 1" FIP,T-PLUGS
133.1	100526	BF PREVENTER, 2" DBL CHK w/test ports
132.1	107373	BF PREVENTER, 3/4" DBL CHECK, W/TPORTS
133	100527	BF PREVENTER, 3/4" CHK VALVE RESIDENTIAL
50088.1	100541	BINDER, RING 1" BLK W/View insert
50088.3	109709	BINDER, RING 1/2" BLK, w/view insert
50088.2	100542	BINDER, RING 2" BLK, W/View Insert
2043	100677	BIT DRILL, 5/8" MASONRY-SHANK 1/2" X 6"
2044	100678	BIT DRILL, 5/8" STEEL-SHANK 1/2" X 6"
855.8	100681	BLADE 8", ROOTCUTTER SPIRAL
2005	100684	BLADE, 16" WHEEL CUTTER
2002	100685	BLADE, 3/4" WHEEL TUBING CUTTERS

BIN#	SAP#	Material Description
855.1	100686	BLADE, 6" ROOTCUTTER W/EXTRA CURL
856	100688	BLADE, 8" ROOTSAW W/EXTRA CURL
2006	100689	BLADE, 8" TO 12" WHEEL CUTTER
712	100690	BLADE, CHOP SAW 10 X 3 3/32 X 5/8 ARBOR
2017	100694	BLADE, HACKSAW, 12" X 18 TOOTH
2042.5	100701	BLADE, J-HAMM P-MENT BRKR CONCR 1 1/4 "
2041.5	100699	BLADE, J-HAMMER CHISEL PT 1 1/4 X 6 HEX
2042	100700	BLADE, J-HAMMER MOIL PT 1 1/4X 6 HEX
2004	100702	BLADE, PIPE CUTTER 2"
2004.1	100703	BLADE, PIPE CUTTER 3" AND 4"
855	100707	BLADE, ROOTSAW SPIRAL 6"
707.5	100708	BLADE, SAW 12" DIAMOND TIP ASPHALT 20MM
707.1	100709	BLADE, SAW 12" DIAMOND,CURED CONC, 20MM
707	100710	BLADE, SAW 12" MASONARY 1" ARBOR
713	100711	BLADE, SAW 12" MASONARY 20MM ARBOR
714	100712	BLADE, SAW 12" STEEL 20 MM ARBOR
715	100713	BLADE, SAW 12"STEEL/CARBON, 1"
706	100714	BLADE, SAW 14" CONC X 1/8",1" W/P-HOLE
705	100715	BLADE, SAW 14" DIAMOND,CURED CONC, 1"
705.2	107160	BLADE, SAW 14" DIAMOND,CURED CONC.20mm
706.1	109544	BLADE, SAW 14" DIAMOND-CURE CONC/REBAR
706.2	109543	BLADE, SAW 14" DIAMOND-DUCTILE IRON BLK
705.3	107161	BLADE, SAW 14" MASONARY 20mm ARBOR
705.5	100716	BLADE, SAW 14" STEELW/ 20 MM ARBOR
708	100717	BLADE, SAW 18" DIAMOND W 1" ASPHALT
709	100718	BLADE, SAW 18" DIAMOND W 1"C-CONCRETE
2019	100719	BLADE, SAW 18" PVC/ABS,CARBON STEEL
2044.5	100720	BLADE, SAWZALL 10/14T X 12" PLASTIC
2044.1	100721	BLADE, SAWZALL 4" DEWALT
2044.2	100722	BLADE, SAWZALL 8" DEWALT DW4809
2044.6	110003	BLADE, SAWZALL wood 9" DW4803
1706.1	100723	BLADE, WEEDEATER POLY FS65WAL 12CT
706.3	112261	BLADE,SAW ASPHALT 14 INCH 20MM ARBOR
1512	107341	BLEACH, ONE GALLON/EACH
724	100732	BLOWER, S&L 1/20 HP 265CFM (SM DOG HOUSE
7786	107393	BOARD, MASONITE PL LAP, 7/16" X8" X 16FT
2071	100733	BOLT CUTTER, 24"
1366	100735	BOLT, 1 1/2" X 6" HEX HEAD CAP

BIN#	SAP#	Material Description
1359	100736	BOLT, 1 1/2" X 7" HEX HEAD CAP
1352	100737	BOLT, 1 1/2" X 8" HEX HEAD CAP
1365	100738	BOLT, 1 1/4" X 6" T-HEAD M J WITH NUT
1364	100739	BOLT, 1 1/4" X 7" HEX HEAD CAP
1363	100740	BOLT, 1" X 4 1/2" HEX HEAD CAP
1358	100741	BOLT, 1" X 6" MJ
1357	100742	BOLT, 1" X 7" MJ
1310	100743	BOLT, 1/2" X 1 1/2" 13 HEX HEAD CAP
1309.3	100744	BOLT, 1/2" X 1 1/4" 13 HEX HEAD CAP
1310.2	100745	BOLT, 1/2" X 1 3/4" HEX HEAD CAP
1309.2	100746	BOLT, 1/2" X 1", HEX HEAD CAP, FULL THD
1311.2	100748	BOLT, 1/2" X 2 1/2" 13 HEX CAP FULL THD
1370	100749	BOLT, 1/2" X 2 1/2" S/S HEX HEAD CAP
1311.1	100750	BOLT, 1/2" X 2 1/4" HEX HEAD CAP
1312	100751	BOLT, 1/2" X 2 3/4" HEX HEAD CAP
1311	100752	BOLT, 1/2" X 2" HEX HEAD CAP
1312.2	100753	BOLT, 1/2" X 3 1/2" HEX HEAD CAP
1312.1	100754	BOLT, 1/2" X 3" HEX CAP FULL THD
1309.1	100755	BOLT, 1/2" X 3/4" HEX HEAD CAP
1312.3	100756	BOLT, 1/2" X 4" 13 HEX HEAD CAP
20030	100757	BOLT, 1/2" X 6" CARRIAGE BANDS
20031	100747	BOLT, 1/2" X 8" CARRIAGE BANDS
1302	100758	BOLT, 1/4" X 1 1/2" 20 HEX HEAD CAP
1301	100759	BOLT, 1/4" X 1 1/4" 20 HEX HEAD CAP
1301.2	100760	BOLT, 1/4" X 1 3/4" 20 HEX CAP FULL THD
1300.3	100761	BOLT, 1/4" X 1" 20 HEX HEAD CAP
1300	100762	BOLT, 1/4" X 1/2" 20 HEX HEAD CAP
1302.1	100763	BOLT, 1/4" X 2 1/2" 20 HEX HEAD CAP
1302.2	100764	BOLT, 1/4" X 2 3/4" 20 HEX HEAD CAP
1301.3	100765	BOLT, 1/4" X 2", 20 HEX HEAD CAP
1300.2	100766	BOLT, 1/4" X 3/4" HEX HEAD CAP
1300.1	100767	BOLT, 1/4" X 5/8" 20 HEX CAP FULL THD
1331	111532	BOLT, 20mm x 70mm Stainless , Full-Thd
1317	100768	BOLT, 3/4" X 1 1/2" HEX CAP FULL THD
1317.1	100769	BOLT, 3/4" X 1 3/4" HEX CAP FULL THD
1316.3	100770	BOLT, 3/4" X 1" HEX CAP FULL THD
1318	100771	BOLT, 3/4" X 2 1/2" HEX CAP FULL THD
1317.3	100772	BOLT, 3/4" X 2 1/4" HEX CAP FULL THD

BIN#	SAP#	Material Description
1317.2	100773	BOLT, 3/4" X 2" HEX HEAD CAP FULL THD
1318.3	100774	BOLT, 3/4" X 3 1/2" HEX HEAD CAP
1318.1	100775	BOLT, 3/4" X 3" HEX CAP W/NUT
1335	100776	BOLT, 3/4" X 3" HEX HEAD CAP
1346	100777	BOLT, 3/4" X 4 1/2" T-HEAD MJ W/NUT
1336	100778	BOLT, 3/4" X 4" HEX HEAD CAP
1320.4	100779	BOLT, 3/4" X 4" MJ ANTI ROTATE
1330	100780	BOLT, 3/4" X 4" MJ T-HEAD W/NUT
1320.6	100781	BOLT, 3/4" X 4.5" MJ TIE LOOP HEAD
1338	100783	BOLT, 3/4" X 6" MJ 90D TIE LOOP HEAD
1320.5	100782	BOLT, 3/4" X 6" MJ ANTI ROTATE
1305.3	100784	BOLT, 3/8" X 1 1/2" 16 HEX HEAD CAP
1305.2	100785	BOLT, 3/8" X 1 1/4" HEX CAP FULL THD
1306	100786	BOLT, 3/8" X 1 3/4" HEX CAP FULL THD
1305.1	100787	BOLT, 3/8" X 1" 16 HEX CAP
1307	100788	BOLT, 3/8" X 2 1/2" HEX CAP
1306.3	100789	BOLT, 3/8" X 2 1/4" HEX CAP FULL THD
1306.2	100791	BOLT, 3/8" X 2" HEX CAP
1306.1	100790	BOLT, 3/8" X 2" HEX CAP SS
1305	100792	BOLT, 3/8" X 3/4" HEX CAP FULL THD
1303.2	100793	BOLT, 5/16" X 1 1/2" HEX CAP FULL THD
1303.1	100794	BOLT, 5/16" X 1 1/4" HEX CAP FULL THD
1303.3	100795	BOLT, 5/16" X 1 3/4" HEX CAP FULL THD
1303	100796	BOLT, 5/16" X 1" HEX CAP
1304.1	100797	BOLT, 5/16" X 2 1/2" HEX CAP
1304	100798	BOLT, 5/16" X 2 1/4" HEX CAP
1304.2	100799	BOLT, 5/16" X 2" HEX CAP
1302.3	100800	BOLT, 5/16" X 3/4" HEX CAP
1350.1	100805	BOLT, 5/8" X 1 1/16" HEX CAP
1315	100801	BOLT, 5/8" X 1 1/2" HEX CAP FULL THD
1314.3	100802	BOLT, 5/8" X 1 1/4" HEX CAP FULL THD
1315.1	100803	BOLT, 5/8" X 1 3/4" HEX CAP FULL THD
1344	100806	BOLT, 5/8" X 2 1/2" FRANGIBLE W NUT-EACH
1350	100807	BOLT, 5/8" X 2 1/2" HEX CAP
1349	100808	BOLT, 5/8" X 2 1/2" HEX CAP FULL THD
1315.3	100809	BOLT, 5/8" X 2 1/4" HEX CAP FULL THD
1315.2	100810	BOLT, 5/8" X 2" 11 HEX CAP
4240	100811	BOLT, 5/8" X 3 1/2" 48" ECP/LCP W NUT

BIN#	SAP#	Material Description
1316	100812	BOLT, 5/8" X 3" HEX CAP FULL THD
1345	100813	BOLT, 5/8" X 3" MJ 3 AND 4" DIP
1331.2	111559	BOLT, 5/8" X 4 1/2" TIE LOOP HEAD
1343	100815	BOLT, 5/8" X 4" FRANGIBLE W NUT-each
1349.1	100816	BOLT, 5/8" X 4" HEX HEAD CAP
1308	100817	BOLT, 7/16" X 1 1/2" HEX CAP FULL THD
1308.1	100818	BOLT, 7/16" X 1 3/4" HEX CAP
1307.2	100819	BOLT, 7/16" X 1" HEX CAP FULL THD
1309	100820	BOLT, 7/16" X 2 1/2" HEX CAP FULL THD
1308.3	100821	BOLT, 7/16" X 2 1/4" HEX CAP FULL THD
1308.2	100822	BOLT, 7/16" X 2" HEX CAP FULL THD
1307.1	100823	BOLT, 7/16" X 3/4" HEX CAP FULL THD
1337	100824	BOLT, 7/8" X 4" HEX HEAD CAP
1313.3	100825	BOLT, 9/16 X 2 1/4" HEX HEAD CAP
1313.1	100826	BOLT, 9/16" X 1 1/2" HEX CAP FULL THD
1313	100827	BOLT, 9/16" X 2 1/2" HEX CAP FULL THD
1313.2	100828	BOLT, 9/16" X 2" HEX CAP FULL THD
1314.1	100829	BOLT, 9/16" X 3 1/2" HEX CAP FULL THD
1314	100830	BOLT, 9/16" X 3" HEX CAP FULL THD
1331.3	111610	BOLT, ROD CONNECTOR 5/8"
1100	111960	Bonnet Gasket, AD 5 1/4"
1141.3	111965	Bonnet Gasket, Kennedy 5 1/4"
1151	111968	Bonnet Gasket, Mueller 5 1/4"
1179.1	100853	BONNET O RING, CLOW T2401032 M32
1182	100854	BONNET, CLOW M1600809 M30
50115	100856	BOOK, LOG 12 1/8" X 7.5" LINED PAGES
1238	100865	BOOT, KOR-N-SEAL MANHOLE 8" DIP/PVC
1238.1	111801	BOOT, KOR-N-SEAL Manhole 8" Truss Pipe
1235	100898	BOOT, M/H 106-16 SZ 12 TO 14 1/2
1234	100899	BOOT, M/H 106-16B DI 9 1/2" X 11 1/4"
1242	100900	BOOT, M/H 9X10.5 CR HL 406-12 PL 7.5" 9"
1241	100902	BOOT, M/H KOR-N-SEAL 6" CLAY/DIP/PVC
1236	100903	BOOT, M/H PVC 106-16A 10.5"X13.25"
1005	100904	BOOT, PVC SZ 10.0 STEEL TOE, 16"
1006	100905	BOOT, PVC SZ 11 S/TOE 16" PULL UP
1007	100906	BOOT, PVC SZ 12 S/TOE 16" PULL UP
1008	100907	BOOT, PVC SZ 13 S/TOE 16" PULL UP
1009	100908	BOOT, PVC SZ 14 S/TOE 16" PULL UP

BIN#	SAP#	Material Description
1010	100909	BOOT, PVC SZ 15 S/TOE 16" PULL UP
1011	100910	BOOT, PVC SZ 16 S/TOE 16" PULL UP
1001	100911	BOOT, PVC SZ 6 S/TOE 16" PULL UP
1002	100912	BOOT, PVC SZ 7 S/TOE 16" PULL UP
1003	100913	BOOT, PVC SZ 8 S/TOE 16" PULL UP
1004	100914	BOOT, PVC SZ 9 S/TOE 16" PULL-UP
1016	100915	BOOT, RUBBER HIP STEEL TOE SZ 10
1017	100916	BOOT, RUBBER HIP STEEL TOE SZ 11
1018	100917	BOOT, RUBBER HIP STEEL TOE SZ 12
1019	100918	BOOT, RUBBER HIP STEEL TOE SZ 13
1019.1	107382	BOOT, RUBBER HIP STEEL TOE SZ 14
1012	100919	BOOT, RUBBER HIP STEEL TOE SZ 6
1013	100920	BOOT, RUBBER HIP STEEL TOE SZ 7
1014	100921	BOOT, RUBBER HIP STEEL TOE SZ 8
1015	100922	BOOT, RUBBER HIP STEEL TOE SZ 9
902	100923	BOTTLE, LARGE SQUARE 1GAL W LID
907	100925	BOTTLE, PLASTIC 1/2GAL CLEAR W CAP
901	100926	BOTTLE, PLASTIC 32OZ W/TRIGGER SPRAYER
903	100928	BOTTLE, SAMPLE 1000 ML, Wide Mouth
905	100929	BOTTLE, SAMPLE 125 ML W/CAP (12PK)
904	100930	BOTTLE, SAMPLE 500 ML, Wide Mouth
906.1	100933	BOTTLE, WASH/SQUIRT, 1000 ML 03 409 22D
978	100952	BROOM, INDUSTRIAL CORN 12CT
977	100955	BROOM, STREET PUSH (USE HANDLE 1060)
976	100960	BRUSH, 9" TRUCK (USE HANDLE 1028)
944	100961	BRUSH, ALGAE 9" X 1 1/2" PL HD/SS BRIS
975	100962	BRUSH, FLOOR 24" 12CT
974	100966	BRUSH, TOILET BOWL W/12" HANDLE
973	100968	BRUSH, UTILITY 9" L X 3" W
2069	100973	BRUSH, WIRE 1 1/8" X 10" L
1400	100986	BULB, 100W 130V LG NECK
1401	100987	BULB, 100W 130V SHORT NECK
953.1	101047	BULB, FLASHLIGHT LANTERN OR D CELL 2CT
817	109764	BULB, HALO/XENON OZ IT,12V, 12W, #EC124
50163	101083	BUNGEE CORD, FOR BL PAGERS IMPRINT
8013.1	109680	BUNGEE CORDS, 18" RUBBER/W HOOKS
2241	101084	BURN SPRAY, 3 OZ Aerosol Can
111.1	101086	BUSHING, REDUCE 1" X 3/4" BR HEX CC THD

BIN#	SAP#	Material Description
134	101087	BUSHING, REDUCE 1" X 3/4" BR HEX NPT THD
520	101088	BUSHING, REDUCE PVC SCH 80 1 1/2"X1 1/4"
516.1	101089	BUSHING, REDUCER PVC SCH 80 1 1/4" X 1"
509.2	101090	BUSHING, REDUCER PVC SCH 80 1" X 3/4"
501.2	101091	BUSHING, REDUCER PVC SCH 80 1/2" X 1/4"
526	101092	BUSHING, REDUCER PVC SCH 80 2" X 1 1/2"
525	101093	BUSHING, REDUCER PVC SCH 80 2" X 1 1/4"
525.1	101094	BUSHING, REDUCER PVC SCH 80 2" X 1"
525.5	101095	BUSHING, REDUCER PVC SCH 80 2" X 1/2"
526.1	101096	BUSHING, REDUCER PVC SCH 80 2" X 3/4"
531	101097	BUSHING, REDUCER PVC SCH 80 3" X 2 1/2"
504.2	101098	BUSHING, REDUCER PVC SCH 80 3/4" X 1/2"
535	101099	BUSHING, REDUCER PVC SCH 80 4" X 2"
535.1	101100	BUSHING, REDUCER PVC SCH 80 4" X 3"
538	101101	BUSHING, REDUCER PVC SCH 80 4" X 6"
815.1	109761	CABLE ASSY, POWER, u-shorty #MC236
1908	101108	CABLE PULLER, 8000LB LOAD (2.8-55)
1613.1	101126	CABLE, JUMPER 16FT 4 GUAGE
1917	101124	CABLE, PULLING 3/8 AIRCRAFT GALV 100FT
7880	101128	CALCIUM CHLORIDE, 50LB., LOWER BUILD
1901	101137	CAN, POLY JERRI 2 1/2 GAL CL WI/CAP
1902	101138	CAN, POLY JERRI 5 GAL CL W/CAP
50158	100038	CANNED AIR DUSTER, 10 oz CAN
818.6	112485	CAP SCREW, U-SHORTY HW1062
3165	101140	CAP, 1" NPT 150LB 304S/S
3163	101141	CAP, 1/2" NPT 150LB 304S/S
3161	101142	CAP, 1/4" NPT 150LB 304S/S
3160	101143	CAP, 1/8" NPT 150LB 304S/S
5717	101144	CAP, 10" MJ DIP W/ACC
5718	101145	CAP, 12" MJ DIP
5719	101146	CAP, 14" MJ DIP
5720	101147	CAP, 16" MJ DIP
3168	101148	CAP, 2" NPT 150LB 304S/S
5721	101149	CAP, 20" MJ DIP FULL BODY W/ACC
5722	101150	CAP, 24" MJ DIP
3170	101151	CAP, 3" NPT 150LB 304S/S
3360	112604	CAP, 3/4 NPT 150 304 SS
3162	101152	CAP, 3/8" NPT 150LB 304S/S

BIN#	SAP#	Material Description
5723	101153	CAP, 30" MJ DIP
5724	101154	CAP, 36" MJ DIP
5715	101155	CAP, 6" MJ DIP
5716	101156	CAP, 8" MJ DIP
1020	107013	CAP, FULL BRIM, CANVAS KHAKI, FLOPPY
217.1	102160	CAP, GALV 1 1/2"
218.1	101159	CAP, GALV 1 1/4"
218	101160	CAP, GALV 1"
218.2	101161	CAP, GALV 1/2"
219.1	101162	CAP, GALV 1/4"
219.2	101163	CAP, GALV 1/8" THD
217.2	101164	CAP, GALV 2 1/2" CAP
217	101165	CAP, GALV 2"
219	101166	CAP, GALV 3/4" PIPE
218.3	101167	CAP, GALV 3/8" PIPE THD
1110.1	101171	CAP, NOZZLE HOSE W/CHAINS 2 1/2"
1110.2	101172	CAP, PUMPER NOZZLE W CHAINS 4 1/2"
652	101173	CAP, PVC SCH 40 6" SCREW
510	101174	CAP, PVC SCH 80 1"
505.1	101175	CAP, PVC SCH 80 3/4"
536	101176	CAP, PVC SCH 80 4"
540	101177	CAP, PVC SCH 80 6"
1021	109542	CAP, SOFT CANVAS, TAN, EMBROID BLUE
1022	101179	CAP, SUMMER-NAVY- REGULAR SIZE
1023	101184	CAP, WATCH BLACK, SOCK HAT
1180.1	101182	CAP, WEATHER CLOW M0800588 M26
1602.2	101185	CARBURATOR CLEANER, AEROSOL SPRAY
50208	109832	CARTRIDGE, HP C8543X, laserjet 9000 sr.
50171.9	111785	CARTRIDGE, HP51A, Q7551A
50191.2	101196	CARTRIDGE, INK BLACK HP C6656AN
50178	101208	CARTRIDGE, INK HP C6578A COLOR
50171.1	107123	CARTRIDGE, INK HP Q5950A BLACK
50171.2	107124	CARTRIDGE, INK HP Q5951A CYAN
50171.3	107125	CARTRIDGE, INK HP Q5952A YELLOW
50171.4	107126	CARTRIDGE, INK HP Q5953A MAGENTA
50171.5	107140	CARTRIDGE, INK HP Q6470A BLACK
50171.6	107141	CARTRIDGE, INK HP Q7581A CYAN
50171.7	107142	CARTRIDGE, INK HP Q7582A YELLOW

BIN#	SAP#	Material Description
50171.8	107143	CARTRIDGE, INK HP Q7583A MAGENTA
50167.2	109590	CARTRIDGE, TONER HP Q2612A PRINT C/S
50206	109328	CARTRIDGE, TONER HP4350, Q5942X
50209	112246	CARTRIDGE, INK HP LASERJET CE255A
1515.1	101235	CAULK, 100% SILICONE CLEAR 10.1OZ
1515	101236	CAULK, BUTYL RUBBER FORMULA 10.1OZ
1914	101237	CAULK, GUN W TIP CUTTER SPOUT NEEDLE
50150.6	101242	CD-RW, 700MB 80MIN
939	101243	CELL, DISPOSABLE FOR DR2000 HACH
921.2	110005	CELL, SAMPLE COLORIMETER, SCW CAP 10ml
717.1	111201	CELLULAR MODEM, SCADA-DC-WAN-U605
7434	101245	CEMENT, PORTLAND TYPE 1 94LB BAG
7436	101247	CEMENT, QUICKCRETE W ROCKS SAND 80LB
7608	101246	CEMENT, SPEED PLUG HYDRAULIC 5GAL
8013	101258	CHAIN, 3/8" G-70 DOT SPEC 6,600LB
1706.2	101259	CHAIN, CHAIN SAW STIHL 33RM266
1706.4	110835	CHAIN, CHAIN SAW, STIHL 26RS74
736.2	101266	CHECK VALVE, 6" BRONZE BUSHING 3/4 BORE
735.4	101267	CHECK VALVE, 6" FLAT NEOPRENE SEAT
730.2	101268	CHECK VALVE, 6" O-RING FOR SHAFT
736.5	101269	CHECK VALVE, 6" SHOULDER BOLT
736.3	101270	CHECK VALVE, 6" ST SHEER DIN FOR SHAFT
737.1	101271	CHECK VALVE, 6" STAINLESS STEEL SPRING
736.7	101272	CHECK VALVE, 6" SWING ARM SHEER PIN S/S
746	101274	CHECK VALVE, S&L 4" BUSHING BRONZE
735.7	101275	CHECK VALVE, S&L 4" CLAPPER ARM, BRASS
736.4	101276	CHECK VALVE, S&L 4" CLAPPER, BRASS
736.8	101277	CHECK VALVE, S&L 4" CLAPPER, SHOUL BOLT
745.4	101278	CHECK VALVE, S&L 4" LEFT HAND ASM
736.9	101279	CHECK VALVE, S&L 4" NEOPRENE FLAT SEAT
735.9	101280	CHECK VALVE, S&L 4" NEOPRENE SEAT O-RING
745.3	101281	CHECK VALVE, S&L 4" RIGHT HAND ASM
730.4	101282	CHECK VALVE, S&L 4" SHAFT O-RING
736.1	101283	CHECK VALVE, S&L 4" SHAFT S/S SHEER PIN
736	101284	CHECK VALVE, S&L 4" SHAFT, S/S
737.2	101285	CHECK VALVE, S&L 4" SPRING, S/S
737.3	101286	CHECK VALVE, S&L 4" SWG ARM S/S SHER PIN
735.3	101287	CHECK VALVE, S&L 4X6X4X6 DISK/CLAPPER

BIN#	SAP#	Material Description
737.7	101288	CHECK VALVE, S&L 6" BRASS CLAPPER ARM
736.6	101289	CHECK VALVE, S&L 6" DISK CLAPPER BRONZE
745.2	101290	CHECK VALVE, S&L 6" LEFT HAND ASM
738.4	101291	CHECK VALVE, S&L 6" NEOPRENE SEAT O-RING
738.7	101292	CHECK VALVE, S&L 6" RIGHT HAND
738.3	101293	CHECK VALVE, S&L 6" SHAFT
756.1	101294	CHECK VALVE, S&L 6" SHAFT O-RING
737.4	101295	CHECK VALVE, S&L 6" SWG ARMS/S SHER PIN
2045	101300	CHISEL, COLD-1" X 12" HEX HEAD
744.3	111332	Circuit Breaker (120-277v) Clamp Lockout
744.2	111333	Circuit Breaker (480-600v) Clamp Lockout
8101	101314	CLAMP, 1" WATER HOSE S/S BANDING
435	101315	CLAMP, 10" BELL JOINT DI OD 11.10-11.40
6031	101316	CLAMP, 10" FULL CIR 12"LG OD11.04-12.24
303	101317	CLAMP, 10" FULL CIR 12"LG OD11.10-11.90
6032	101319	CLAMP, 10" FULL CIR 20"LG OD 11.04-12.24
436	101320	CLAMP, 12" BELL JOINT DI OD 13.20-13.50
304	107290	CLAMP, 12" FULL CIR 12" L OD 13.14-13.94
304.1	107317	CLAMP, 12" FULL CIR 12"LG 12.75-13.55
6025.1	101322	CLAMP, 12" FULL CIR 12"LG OD 13.14-14.34
6025	101323	CLAMP, 12" FULL CIR 12"LG OD 13.20-14.00
6026	101324	CLAMP, 12" FULL CIR 12"LG OD 13.50-14.30
6020	101325	CLAMP, 12" FULL CIR 12"LG OD 13.65-14.45
6024	101321	CLAMP, 12" FULL CIR 20"LG OD 13.14-14.34
430	101326	CLAMP, 14" BELL JOINT DI OD 15.16-15.90
6037	101327	CLAMP, 14" BELL JOINT DI OD 15.90
6038	101328	CLAMP, 14" FULL CIR 15"LG OD 15.07-15.82
431	101329	CLAMP, 16" BELL JOINT DI OD 17.40-17.80
6035	101330	CLAMP, 16" FULL CIR 20"LG OD 17.15-17.90
6036	101331	CLAMP, 16" FULL CIR 20"LG OD 18.00-18.90
6005	101332	CLAMP, 16" FULL CIR 20"LG OD 18.46-19.21
306	101334	CLAMP, 2" FULL CIR 12"LG S-PIPE OD 2.35
6099	101335	CLAMP, 20" BELL JOINT DI OD 21.60-22.06
6432	101336	CLAMP, 20" FULL CIR 24"LG OD 21.52-22.27
6405	101337	CLAMP, 24" BELL JOINT DI OD 25.80-26.32
6433	101338	CLAMP, 24" FULL CIR 18"LG OD 25.70-26.80
305	101339	CLAMP, 3" FULL CIR 12" LG S-PIPE OD 3.49
8101.1	101340	CLAMP, 3" WATER DISCHAR S/S BANDING LB

BIN#	SAP#	Material Description
8100	101341	CLAMP, 3/4" WATER HOSE S/S BANDING
6406	101342	CLAMP, 30" BELL JOINT DI OD 31.74-32.74
6407	101343	CLAMP, 36" BELL JOINT DI OD 37.96-38.70
432	101344	CLAMP, 4" BELL JOINT DI OD 4.80 5.00
300	101345	CLAMP, 4" FULL CIR 12" LG OD 4.74-5.57
433	101346	CLAMP, 6" BELL JOINT DI OD 6.90-7.10
301	101347	CLAMP, 6" FULL CIR 12" LG OD 6.62-7.42
6033	101348	CLAMP, 6" FULL CIR 20" LG OD 6.62-7.42
434	101349	CLAMP, 8" BELL JOINT DI OD 9.05 9.30
302	101350	CLAMP, 8" FULL CIR 12" LG OD 8.62-9.42
6034	101351	CLAMP, 8" FULL CIR 20" LG OD 8.62-9.42
6008	101352	CLAMP, 8" FULL CIR 20" LG OD 8.99-9.79
952	101362	CLEANER, BASEBOARD & COVE 32OZ
981	101363	CLEANER, BATHROOM TUB AND TILE 1GAL 4CT
1509.1	101369	CLEANER, CONTACT SPRAY AEROSOL 18OZ
953	101377	CLEANER, GLASS 32oz
954	101380	CLEANER, HAND LANOLIN 4.5LB CARTR W GRIT
955	101381	CLEANER, HAND LANOLIN UNSCENTED 8.5 OZ
1510.1	101385	CLEANER, MOISTURE DISPLACER AEROSOL 24OZ
956	101392	CLEANER, POLISH STAINLESS STEEL AEROSOL
1617.1	101405	CLEANER, VINYL AND RUBBER RESTORER 32OZ
657	101414	CLEANOUT CAP, 3" BRASS SCREW
658	101415	CLEANOUT CAP, 4" BRASS SCREW
661	101416	CLEANOUT CAP, 5" BRASS SCREW
662	101417	CLEANOUT CAP, 6" BRASS SCREW
561	101357	CLEANOUT, PVC SCH 35 6" W/SCREW CAP
556	101418	CLEANOUT, PVC SCH 40 4" W/SCREW CAP
50162.1	109733	CLIP, BELT STRAP, RETRACTABLE
50034	101422	CLIP, BINDER LARGE 1" 12CT
50032	101426	CLIP, BINDER MEDIUM 5/8" 12CT
50033	101429	CLIP, BINDER SMALL 3/8" 12CT
50162	101431	CLIP, EMPLOYEE BADGE RETRACTABLE
50014	101437	CLIP, PAPER JUMBO
50012	101441	CLIP, PAPER SMALL
50104	101442	CLIPBOARD, HARDBOARD 9 1/2" X 12 1/2"
50099	101444	CLIPBOARD, PLASTIC WITH STORAGE
4204	101446	CLOSURE, 6' LL X 48"W RINGS LCP L301
710.1	101449	CLOTH, SANDING 1" X 50YD 180 GRIT

BIN#	SAP#	Material Description
20073	107107	CMP METAL 18"FLARED END TO CONCRETE PIPE
20072	107106	CMP METAL 24"FLARED END SECTION,COATED
711	101491	COCK, DRAIN 1/4" NPT BRASS
7607	110175	Cold Patch, Bagged 50# QPR
20110	101533	CONCRETE ADAPTER, 5' TO 4' ROUND
20094	101534	CONCRETE ADAPTER, 58" RND X 36" SQ
864.3	101542	CONDUIT NUT, 1/2" 5L13A
7983	101570	CONE, 28" FLU ORANGE PVC 6" REFL. STR
724.6	101581	CONTROL MODULE, SQUARE D ALTISTART 48
758	101582	CONTROLER, FLYGT DUPLEX
158	101598	COPPER, 1 1/2" UNION SWEAT
151.5	101599	COPPER, 1" CAP SWEAT
153.3	101600	COPPER, 1" COUPLING SWEAT
149.1	101601	COPPER, 1" ELBOW 45DEG SWEAT
150.3	101602	COPPER, 1" ELBOW 90DEG SWEAT
157	101603	COPPER, 1" TEE SWEAT
151.3	101605	COPPER, 1/2" CAP SWEAT
153.1	101606	COPPER, 1/2" COUPLING SWEAT
148.3	101607	COPPER, 1/2" ELBOW 45DEG SWEAT
150.1	101608	COPPER, 1/2" ELBOW 90DEG SWEAT
155	101609	COPPER, 1/2" STRAPS, TUBING
156.3	101610	COPPER, 1/2" TEE SWEAT X SWEAT X SWEAT
157.4	101611	COPPER, 1/2" UNION SWEAT
153	101613	COPPER, 1/4" COUPLING SWEAT
148.1	101614	COPPER, 1/4" ELBOW 45DEG SWEAT
149.3	101615	COPPER, 1/4" ELBOW 90DEG SWEAT
156.1	101616	COPPER, 1/4" TEE SWEAT
151	101617	COPPER, 1/8" CAP SWEAT
152.3	101618	COPPER, 1/8" COUPLING SWEAT
148	101619	COPPER, 1/8" ELBOW 45DEG SWEAT
149.2	101620	COPPER, 1/8" ELBOW 90DEG SWEAT
156	101621	COPPER, 1/8" TEE SWEAT
153.4	101623	COPPER, 2" COUPLING SWEAT
149.4	101625	COPPER, 2" ELBOW 90DEG SWEAT
162.1	101627	COPPER, 3/4" ADAPTER, MALE SWEAT
151.4	101628	COPPER, 3/4" CAP SWEAT
153.2	101629	COPPER, 3/4" COUPLING SWEAT
149	101630	COPPER, 3/4" ELBOW 45DEG SWEAT

BIN#	SAP#	Material Description
150.2	101631	COPPER, 3/4" ELBOW 90DEG SWEAT
155.1	101632	COPPER, 3/4" STRAP TUBING
156.4	101633	COPPER, 3/4" TEE SWEAT
157.3	101634	COPPER, 3/4" UNION, SWEAT
151.2	101635	COPPER, 3/8" CAP SWEAT
152.4	101636	COPPER, 3/8" COUPLING SWEAT
148.2	101637	COPPER, 3/8" ELBOW 45DEG SWEAT
150	101638	COPPER, 3/8" ELBOW 90DEG SWEAT
156.2	101639	COPPER, 3/8" TEE SWEAT
157.5	101640	COPPER, DISC 3/4" METER PLUG 10CT
100	101645	CORPORATION, 1" CC X COMP COPPER
129	101646	CORPORATION, 2" MIP X 2" MIP BALL TYPE
103.1	101647	CORPORATION, 3/4" Ball CC X CTS COMP
114	101648	CORPORATION, DUO STOP 3/4" X 2 PVC BR
808.9	101654	COUPLER, FEMALE QUICK DISCONNECT 1/4"
125.7	101657	COUPLING ADAPT, 2" 3 PIECE COMP CTS
125.6	101658	COUPLING ADAPT, 2" FIP X COMP CTS BR
125.5	101659	COUPLING ADAPT, 2" MIP X CTS COMP BR
3135	101660	COUPLING, 1" NPT 150LB 304S/S
3133	101661	COUPLING, 1/2" NPT 150LB 304S/S
3131	101662	COUPLING, 1/4" NPT 150LB 304S/S
3130	101663	COUPLING, 1/8" NPT 150LB 304S/S
3138	101664	COUPLING, 2" NPT 150LB 304S/S
3140	101665	COUPLING, 3" NPT 150LB 304S/S
3359	112602	COUPLING, 3/4 NPT 150 304 SS
3132	101666	COUPLING, 3/8" NPT 150LB 304S/S
113	101668	COUPLING, ADAPT 1" ADAP MIP X COM BR
112	101669	COUPLING, ADAPT, 1" FIP X COMP BR
145.2	101670	COUPLING, ADAPT, 1" METER X 1" FIP
104	101671	COUPLING, ADAPTER 3/4" FIP X CTS P/JOINT
105	101673	COUPLING, ADAPTER 3/4" MIP X COMP/NUT
5713	101674	COUPLING, ANCHOR 6" X 12" LG DI MJ
144	101675	COUPLING, COMP 2 1/2", GALV/PVC HP PIPE
142	101676	COUPLING, COMP 3" GALV/PVC HP PIPE
143	101677	COUPLING, COMP 4" GALV/PVC HP PIPE
226	101727	COUPLING, DRESSER 2" X 5" LONG
225	101716	COUPLING, DRESSER 1 1/2" X 5" LONG
224.1	101718	COUPLING, DRESSER 1 1/4" X 5" LONG

BIN#	SAP#	Material Description
224	101678	COUPLING, DRESSER GALV 1" X 5" LONG
212	101721	COUPLING, DRESSER GALV 1/2" X 5" COMP
222	101679	COUPLING, DRESSER GALV 3/4" X 5" LONG
132	101680	COUPLING, ELBOW 3/4" COMP BRONZE
1224	101681	COUPLING, FERNCO 10" CL TO 10" CL
1226	101682	COUPLING, FERNCO 10" CL TO 10" DI
1225	101683	COUPLING, FERNCO 10" CL TO 10" PL
1223	101684	COUPLING, FERNCO 10" DI/AC TO 10" DI/AC
1227	101685	COUPLING, FERNCO 10" DI/AC TO 10" PL
1232	101686	COUPLING, FERNCO 10" PL/CI X 10" PL/CI
1229	101687	COUPLING, FERNCO 12" CL TO 12" C.I./PL
1228	101688	COUPLING, FERNCO 12" CL TO 12" CL
1230	101689	COUPLING, FERNCO 15" CI/PL TO 15" CI/PL
1231	101690	COUPLING, FERNCO 15" CL TO 15" CI / PL
1237	101691	COUPLING, FERNCO 18" CL TO 18"AC/DI
1200	101692	COUPLING, FERNCO 3" FIT ALL
1203	101694	COUPLING, FERNCO 4" AC/DI TO 4" AC/DI
1206	101695	COUPLING, FERNCO 4" CL TO 4" PL/CI
1202	101696	COUPLING, FERNCO 4" CL/AC TO 4" DI
1204	101697	COUPLING, FERNCO 4" CLAY TO 4" CLAY
1205	101698	COUPLING, FERNCO 4" CONTO 4" CI/PL
1201	101693	COUPLING, FERNCO 4" FIT ALL
1213	101699	COUPLING, FERNCO 6" CL TO 6" DI/AC
1212	101700	COUPLING, FERNCO 6" CL TO 6" PL/CI
1211	101701	COUPLING, FERNCO 6" CL TO CL 1001-66
1208	101702	COUPLING, FERNCO 6" DI TO 6" PL SCH 35
1210	101703	COUPLING, FERNCO 6" DI/AC TO 6" DI/AC
1209	106827	COUPLING, FERNCO 6" PL X 6" PL SCH35
1207	101704	COUPLING, FERNCO 6" PVC 35 X 4" PVC 40
1214	101705	COUPLING, FERNCO 8" CL X 6" CL
1222	101708	COUPLING, FERNCO 8" CLAY TO 8" CI/PLAST
1216	101709	COUPLING, FERNCO 8" CLAY TO 8" CLAY
1216.5	101710	COUPLING, FERNCO 8" CON TO 8" CON
1221	101711	COUPLING, FERNCO 8" DIP TO 6" DI/PL
1217	101706	COUPLING, FERNCO 8" DIP TO 8" DIP
1220	101712	COUPLING, FERNCO 8" DIP TO 8" PLAST
1219	101713	COUPLING, FERNCO 8" DIP/AC TO 8" CLAY
1215	101707	COUPLING, FERNCO 8" PL TO 6" PL

BIN#	SAP#	Material Description
1218	101714	COUPLING, FERNCO 8" PL/C.I. TO PL/C.I.
213	101715	COUPLING, GALV 1 1/2"
214	101717	COUPLING, GALV 1 1/4"
214.1	101719	COUPLING, GALV 1"
215	101720	COUPLING, GALV 1/2" THD
216.2	101722	COUPLING, GALV 1/4" COUPLING
216	101723	COUPLING, GALV 1/8" THD
221.1	101724	COUPLING, GALV 2 1/2"
220	101725	COUPLING, GALV 2"
221	101726	COUPLING, GALV 2" HOSE TO THD
215.1	101728	COUPLING, GALV 3/4" THD
216.1	101729	COUPLING, GALV 3/8" PIPE
120.3	101730	COUPLING, PACK JOINT 1" CTS X 3/4 PE
145	101731	COUPLING, PACK JOINT 1" PVC PIPE
145.1	101732	COUPLING, PACK JOINT 3/4" PEP PIPE
562	101734	COUPLING, PVC SCH 35 6"
557	101735	COUPLING, PVC SCH 40 4"
562.1	101736	COUPLING, PVC SCH 40 6"
520.1	101737	COUPLING, PVC SCH 80 1 1/2"
517	101738	COUPLING, PVC SCH 80 1 1/4"
510.1	101739	COUPLING, PVC SCH 80 1"
511	101740	COUPLING, PVC SCH 80 1" THD
501.1	101741	COUPLING, PVC SCH 80 1/2"
529.5	106948	COUPLING, PVC SCH 80 2 1/2"
527	101742	COUPLING, PVC SCH 80 2"
531.1	101743	COUPLING, PVC SCH 80 3"
506	101744	COUPLING, PVC SCH 80 3/4"
536.1	101745	COUPLING, PVC SCH 80 4"
540.1	101746	COUPLING, PVC SCH 80 6"
529.6	101747	COUPLING, REDUCER 2 1/2X2 PVC SCH80 GLUE
531.2	101748	COUPLING, REDUCER 3X2 PVC SCH 80 GLUE JT
1106	101752	COUPLING, ROD FRANG A D 4 1/4" MARK 73
1106.5	101753	COUPLING, ROD FRANG A D 5 1/4" B-62-B
1106.6	101754	COUPLING, ROD FRANGI A D 5 1/4" B-84-B
1136	101755	COUPLING, ROD KENNEDY K81A 5 1/4"
1154.1	101756	COUPLING, ROD MET 250 5 1/4 26
1113	101757	COUPLING, ROD NON FRANG M & H 4 1/4"
6253	101759	COUPLING, TRANS 10" X 14" LG, DI TO AC

BIN#	SAP#	Material Description
6637	101760	COUPLING, TRANS 12" X 14" LG, DI TO AC
6640	101761	COUPLING, TRANS 16" X 14" LG, DI TO AC
6635	101763	COUPLING, TRANS 4" X 14" LG, DI TO AC
6631	101765	COUPLING, TRANS 6" X 14" LG, DI TO AC
6632	101767	COUPLING, TRANS 8" X 14" LG, DI TO AC
120.1	101770	COUPLING, UNION 1" 3 PC COMP X COMP
122	101771	COUPLING, UNION 3/4" 3 PC COMP X COMP
1156	101772	COUPLING, V- ROD ASSEM,W R-RING MET 250
1173.2	101773	COUPLING, VALVE ROD ASSEMBLY CLOW MED
8105	101774	COUPLING, W/HOSE 1" FEM NPSM THD W/S
8104	101775	COUPLING, W/HOSE 1" MALE NPSM THD
8102	101776	COUPLING, W/HOSE 3/4" FEM NPSM THD W/S
8107	101777	COUPLING, W/HOSE 3/4" FEM SW/BIB THD
8103	101778	COUPLING, W/HOSE 3/4" MALE HOSE BIB THD
8106	101779	COUPLING, W/HOSE 3/4" MALE NPSM THD
111	101780	COUPLING, Y COMP 1"X 3/4" X 3/4" CTS
533.2	109810	COUPLING,REDUCER sch80 pvc, 4" x 3"
765	111660	Coupling-Lovejoy, L090 1 1/8" Bore#6x073
764	111649	Coupling-Lovejoy, L090 3/4" Bore #4x187
766	111661	Coupling-Lovejoy, L090 Spyder,Buna#1x407
1159	112080	COUPLING-ROD Non Frangi Met 250 M94
4116	101782	COVER, MANHOLE BOLT DOWN YARD
4115	101783	COVER, MANHOLE NON-BOLT DOWN YARD
755.6	101814	CUP, DVS 1"
1096	101816	CUP, HOLDER, 7 OZ, PAPER CONES
1097	101818	CUP, PAPER WATER 7OZ 250CT
109	101822	CURB STOP, 1" COMP X MET COUP W/WING
110	101823	CURB STOP, 1" FIP X COMP W/LOCKWING
120	101824	CURB STOP, 1"FIP X 1"FIP T-HEAD W/LOCK
124.1	109862	CURB STOP, 2" comp.x fip (poly)
124	103320	CURB STOP, 2" FIPX 2" FLBALW/LOCKW
124.2	111805	Curb Stop, 2" FIPXFIP, AY MD LF M76101WK
102	101825	CURB STOP, 3/4" FIP T-HEAD W/LOCKWING
106	101826	CURB STOP, 3/4" FIP X COMP W/LOCKWING
107	101827	CURB STOP, COMBO 3/4" COMP X MET COUP
128	103319	CURB STOP,1 1/2"FIP X 1 1/2" FLBLW/LW
2039.2	101828	CUTTER SHELL, 11/16 FOR 3/4" TAP DMSC-3
909.1	101831	CYLINDER, GRADUATED 10 ML PLASTIC

BIN#	SAP#	Material Description
910	101834	CYLINDER, GRADUATED 25 ML
911	101835	CYLINDER, GRADUATED 4000 ML 08 572 5J
908.2	101832	CYLINDER, GRADUATED PMP 100 ML
908.1	101833	CYLINDER, GRADUATED PMP 1000 ML
983	101837	DAMP MOPPING, ALL PURPOSE 1GAL
1078	111553	Degreaser, (Duke's)JetPower II, 5 GL,Hyd
982	110855	DEGREASER, HYDROJET TANKS-KW54 -1gal
7021	110004	DEGREASER, JETPOWER II 55GAL DRUM
1070	101843	DEGREASER, SOAP SOLVENT, INDUSTRIAL 55GL
1514.1	101844	DEICER, ICE MELT SPRAY 11.5 OZ
957	101847	DEODORANT, METER MIST AEROSOL SPRAY 70Z
985	111620	DETERGENT, DAWN - 5 GAL.
986	101854	DETERGENT, DAWN 38OZ.
980	101855	DETERGENT, GERMICIDAL 1GAL
984	101856	DETERGENT, HEAVY DUTY ALL PURPOSE 1GAL
4232	101870	DIAPER, STANDARD 48" LCP L301
4233	101872	DIAPER, WIDER 48" LCP
733.4	111217	DIN CONNECTOR, SA06-004, PARKER
948	101893	DIPPER, SAMPLE 3' HANDLE 4" DIA 10CM
949	101894	DIPPER, SAMPLE POLY 12' 2-PC HANDLE 10CM
50150.7	101895	DISC, CD-R 700MB/80 MIN 100CT SPINDLE
958	101902	DISINFECTANT, DEODORANT AEROSOL 200Z
786	101906	DISK, FLEX 10" MEMORY
787	101907	DISK, FLEX 12" MEMORY
784	101908	DISK, FLEX 6" MEMORY
785	101909	DISK, FLEX 8" MEMORY
783	106227	DISK, FLEX, 4" MEMORY
959	101924	DISPENSER, GO JO PLASTIC CARTRIDGE 4.5LB
50017	101929	DISPENSER, TAPE
922.5	101930	DISPENSER, TEST DPD FREE CHLORINE 25MM
2235	101932	DOG REPELLENT, HALT SPRAY 1.5OZ
844	101935	DOOR HANGER, SSES DIV, GREEN, 50PKS
844.1	101936	DOOR HANGER, WATER DIV, YELLOW, 50PKS
1181.1	101939	DRAIN RING, REPAIR KIT M & H 5 1/4"
972	101958	DUST MOP HEAD, 24" PAD ONLY 12CT
971	101963	DUST WAND, 42" TELESC HANDLE, LAMBS WOOL
755.3	101965	DVS BELLOWS, 1 1/2" DAVIS CHEM. PUMP
755.4	101966	DVS BELLOWS, 1" DAVIS CH PUMP CA/CHL

BIN#	SAP#	Material Description
1715.1	101967	DYE, LEAK DETECTION KITS C/S 500CT
1713	101968	DYE, TRACING TABLET FLUOR RED 200CT
1045	101969	EAR MUFF, HEADBAND MIN 20 DB
1046	101970	EAR PLUG, DISPOSABLE TAPERED 100CT
1047	101972	EAR PLUG, REUSE TRIPLE FLANGE W BX
729.7	101989	ELECTRODE COVER, S&L O-RING LARGE
735.8	101990	ELECTRODE DOME, S&L
735	101991	ELECTRODE RETROFIT KIT S&L (OLD STYLE)
730.3	101992	ELECTRODE, 5"
731.8	111663	ELECTRODE, 6"
730.7	101994	ELECTRODE, RELAY SOCKET 8 PIN 300V 10A
50091	102039	ENVELOPE, WHITE LETTERHEAD 500CT
50144	102040	ENVELOPES CLASP 10" X 13" (100 ct)
1253	102047	EPOXY, PREDCO KIT
20145	102054	EROSION CONTROL MAT, STRAW 7 1/2' X 120'
718	110845	Ethernet Interface, AB Cat. #1761-NETENI
5612	102057	EXTENSION, 4 1/2 X 12" A D MARK 73
5600	102058	EXTENSION, 4 1/2 X 12" KENNEDY K11
5618	102059	EXTENSION, 4 1/2 X 12" M & H VO ACC
5608	102060	EXTENSION, 4 1/2 X 12" MUELLER ACC/KIT
5601	102061	EXTENSION, 4 1/2 X 6" KENNEDY K81A
5619	102062	EXTENSION, 5 1/2 X 12" M & H, VO 129
5616	102069	EXTENSION, 5 1/4 X 12 MET 250 M94 STRAIT
5610	102063	EXTENSION, 5 1/4 x 12" A D B62B ACC
5621	102064	EXTENSION, 5 1/4 X 12" CLOW MED ACC
5604	102065	EXTENSION, 5 1/4 X 12" KENNEDY K10B
5603	102066	EXTENSION, 5 1/4 X 12" KENNEDY K81A
5620	102067	EXTENSION, 5 1/4 X 12" M & H, VO 6 HOLE
5615	102068	EXTENSION, 5 1/4 X 12" MET 250 TAPERED
5606	102070	EXTENSION, 5 1/4 X 12" MUELLER ACC/KIT
5611	102071	EXTENSION, 5 1/4 X 24" A D B62B ACC
5617	102072	EXTENSION, 5 1/4 X 24" MET 250
1127	102073	EXTENSION, 5 1/4 X 48" M & H 129
5609	102074	EXTENSION, 5 1/4 X 6" A D B62B ACC
5602	102075	EXTENSION, 5 1/4 X 6" KENNEDY K81A
5613	102076	EXTENSION, 5 1/4 X 6" MET 250 ACC/KIT
5614	102077	EXTENSION, 5 1/4 X 6" MET 250 ACC/STEM
5607	102079	EXTENSION, 5 1/4" X 24" MUELLER ACC/KIT

BIN#	SAP#	Material Description
5605	102078	EXTENSION, 5 1/4" X 6" MUELLER ACC/KIT
2223	102081	EYE WASH, 1 OZ Bottle
1051	112140	Faceshield Plastic-fits Bullard Hard Hat
788	102095	FAN, EXHAUST 12" 1/30 HP 1.4A (LAR. DOG)
7982	102099	FENCE, BARRIER FL/OR 48" X 100' W STKS
7835	102101	FERTILIZER, 10-10-10, 50 LB.
7834	110320	FERTILIZER, LIQUID 10-8-8 (5-GAL PAIL)
7838	112142	Fertilizer,Liquid 10-8-8, 55 Gallon Drum
50153	110923	FILE BOX, STORAGE-letter&legal* DWR*only
1711	102120	FILTER, AIR 14" X 25" X 1"
1709	102122	FILTER, AIR 16 X 25 X 1
1716	102123	FILTER, AIR 16" X 20" X 1" DISPOSABLE
1700	102124	FILTER, AIR 18 X 25 X 1 FIBERGL DISPOS
1727	102127	FILTER, AIR SUNSHINE 45002
1707	102132	FILTER, OIL BT839-10 BALDWIN
1701	102133	FILTER, QUICK-CUT SAW
1088	102134	FILTER, RESPIR HEPA NORTH N7500-8 144CT
1089	102135	FILTER, RESPIR WELDING NORTH 75SCP100
919	102137	FILTER, SUSP SOLIDS 21 CM CIRCLES 100CT
918	102140	FILTER, TTL SOLIDS 4X4 GLASS FIBER SAMP
1708	102145	FIRE EXTINGUISHER, 2.58LB DRY CHEM
5714	102148	FIRE HYDRANT 3-WAY,5 1/4"
1621	111781	Fire Hydrant Oil
2234	102152	FIRST AID KIT, REGULAR SIZE METAL BOX
2040	102153	FISHTAPE, 1/8" X 100' STEEL W CASE
808	102154	FITTING, 1" 37DEG ST MA 45DEG ELBOW
808.3	102156	FITTING, 1" FEMALE NO SWIVEL
808.1	102157	FITTING, 1" MALE FLARE JIC
824	102159	FITTING, 1" X 37DEG ST MALE 45DEG ELBOW
809.4	102167	FITTING, PSH LCK 3/8 TUB X 3/8 NPT MA ST
1603.1	102168	FIX-A-FLAT, INSTANT TIRE INFLATOR 12OZ
701.1	102173	FLAG, BLUE/UNDERGROUND WARNING 100CT
701	102180	FLAG, GREEN/UNDERGROUND WARNING 100CT
1907.1	102182	FLAG, HAND FLU ORANGE 24" X 24" W/36"
701.2	102185	FLAG, ORANGE/UNDERGROUND WARNING
702	102199	FLAG, PURPLE UNERGROUNND WARNING 100CT
5341	102203	FLANGE ADAPTOR, 10" 10.70-12.00, 260PSI
5331	102204	FLANGE ADAPTOR, 10" DIP 150, LG COLLAR

BIN#	SAP#	Material Description
5338	102205	FLANGE ADAPTOR, 4" 4.25-5.11 260PSI
5334	102206	FLANGE ADAPTOR, 4" DIP 150 , LG COLLAR
5339	102207	FLANGE ADAPTOR, 6" 6.42-7.68 , 260PSI
5333	102208	FLANGE ADAPTOR, 6" DIP 150 LG COLLAR
5335	102209	FLANGE, ADA PTER COUPLING RESTRAIN 6"
5342	110141	FLANGE, ADAPTER, 3" 2100 SERIES
5336	102210	FLANGE, ADAPTER, COUPLING RESTRAIN 8"
5340	102211	FLANGE, ADAPTOR, 8" 8.54-9.84 260PSI
5332	102212	FLANGE, ADAPTOR, 8" DIP 150 LG COLLAR
5324	102213	FLANGE, BLIND 10",STEEL
5325	102214	FLANGE, BLIND 12", STEEL
5325.1	102215	FLANGE, BLIND 14", STEEL
5321.3	102216	FLANGE, BLIND 3" 4 HOLE, STEEL
5321.5	102218	FLANGE, BLIND 4" W/ 2"TAP, STEEL
5321.7	102217	FLANGE, BLIND 4", STEEL
5322	102219	FLANGE, BLIND 6" 8 HOLE, STEEL
5322.1	107360	FLANGE, BLIND 6" W/2 " TAP NPT HOLE
5323.1	107361	FLANGE, BLIND 8" W/2" TAP NPT HOLE
5323	102220	FLANGE, BLIND 8", STEEL
225.1	102221	FLANGE, GALV 2" THD 4 BOLT
138	102222	FLANGE, METER 1 1/2" F/ FACE W/GS B/NTS
137	102223	FLANGE, METER 2" F/FACE W/GS B/NTS
527.1	102224	FLANGE, PVC SCH 80 2" 4 BOLT
532	102225	FLANGE, PVC SCH 80 3" 4 BOLT
537	102226	FLANGE, PVC SCH 80 4" 8 BOLT
541	102227	FLANGE, PVC SCH 80 6" 8 BOLT
1184	102228	FLANGE, SAFETY REPAIR 5 1/4" CLOW
50004	110880	FLASH DRIVE, USB 4 GB, HIGH SPEED
2075	102231	FLASHLIGHT, 2 D CELL DIRECTOR CONE WTPRF
2073	102232	FLASHLIGHT, 6V LANT SPRING TERMINALS
4130	102236	FLAT TOP, M/H 1' W 2' OFFSET ENTR 4' DIA
4109	102237	FLAT TOP, MANHOLE 60" 1' W PRECAST R/C
743	102245	FLOAT, FLYGT W 60FT OF 3 PAR WIRE
2035.1	102246	FLOAT, HAND MAG METAL, 16" LG X 4 1/2 W
742	105650	FLOAT, S&L NORMALLY OPEN (4L291)
789	111550	FLOW METER ANTENNA, ADS
1604	102255	FLUID, BRAKE GUNK M44-12 12CT
1604.1	102258	FLUID, POWER STEERING R-GENT PSF12

BIN#	SAP#	Material Description
1624	102259	FLUID, SHORING 1QT
1606	102260	FLUID, TRANSMISSION AUTOM DEXTR III 12CT
719	110276	FLYGT, MAS Base Unit, # 40-501141
1701.4	102265	FOAM FILTER, TS400 SAW 4223-141-0600
50092	102270	FOLDER, FILE HANGING GREEN LEGAL
50093	102271	FOLDER, FILE HANGING GREEN LETTER
50097	102280	FOLDER, LEGAL- MANILLA
50094	102284	FOLDER, LETTER MANILA 100CT
50160	102303	FORM, ENTRY PERMIT CONFINED SPACE 50CT
50161	102304	FORM, ENTRY ROUTINE CONFINED SPACE 50CT
1605	102344	FUEL MIXTURE, 2-CYCLE STIHL 6.4FL.OZ
1605.1	110318	FUEL TREATMENT, ETHANOL BLENDED GAS
941	102346	FUNNEL, PLASTIC- LG 10"X1 5/8" WIRE FILT
941.1	102348	FUNNEL, PLASTIC- SMALL 4 1/4"
941.2	102347	FUNNEL, PLASTIC-MED 6 3/8" LARGE END
868.3	109775	Fuse 10 amp, 250V, ceramic, u-sho#ABC-10
868.1	109773	Fuse 1amp, 250V, glass , u-shorty #AGC-1
868.2	109774	Fuse 2 amp, 250V, glass ,u-shorty #AGC-2
868	109772	Fuse 4 amp, 250V, sloact , u-short#mdl-4
717.4	111285	Fuse, for EDCO HSP121BT-1RU
889	102349	FUSE, 1 TIME MIDGET GEN PURPOSE 10A 250V
890	102350	FUSE, 1 TIME MIDGET GEN PURPOSE 15A 250V
891	102351	FUSE, 1 TIME MIDGET GEN PURPOSE 20A 250V
887	102352	FUSE, 1 TIME MIDGET GEN PURPOSE 2A 250V
892	102353	FUSE, 1 TIME MIDGET GEN PURPOSE 30A 250V
888	102354	FUSE, 1 TIME MIDGET GEN PURPOSE 5A 250V
865.2	102355	FUSE, ATM 10 SPEC 59 600VAC 10A
897	102356	FUSE, CERAM BODY TIME DELAY 10A 125V
898	102357	FUSE, CERAM BODY TIME DELAY 15A 125V
893	102358	FUSE, CERAM BODY TIME DELAY 1A 250V 5CT
894	102359	FUSE, CERAM BODY TIME DELAY 3A 250V
895	102360	FUSE, CERAM BODY TIME DELAY 5A 250V
896	102361	FUSE, CERAM BODY TIME DELAY 8A 250V
865.3	102364	FUSE, FAST-ACTING KLK2 600VAC OR LESS 2A
865.4	102365	FUSE, IRIOKA 250VAC TRM2 1/2 2 1/2A
886	102366	FUSE, MAIN FEEDER OTS SERIES 10A 250V
885	102367	FUSE, MAIN FEEDER OTS SERIES 15A 250V
884	102368	FUSE, MAIN FEEDER OTS SERIES, 20A 250V

BIN#	SAP#	Material Description
883	102369	FUSE, MAIN FEEDER OTS SERIES, 30A 250V
882	102370	FUSE, MAIN FEEDER OTS SERIES, 60A 250V
867.2	102371	FUSE, ONE TIME K5 600VAC OR LESS 10A
867.4	102372	FUSE, ONE TIME NOS 30A 600V OR LESS LTL
866.1	102375	FUSE, SLO-BLO 250V 1 1/2A LITTLE
866	102374	FUSE, SLO-BLO 250V 1 1/2A LITTLE FLNR
866.2	102376	FUSE, SLO-BLO 250V 10A LITTLE
867	102377	FUSE, SLO-BLO 600V 50A
865.5	102378	FUSE, TIME DELAY 500V OR LESS 3A LITTLE
866.3	102379	FUSE, TIME DELAY 600V 30A LITTLE
867.3	102381	FUSE, TIME DELAY 600V OR LESS 60A LITTLE
866.4	102382	FUSE, TIME DELAY JTD2 600V 2A
1906	102386	GAS CAN SPOUT, FOR 2 1/2 AND 5GAL
1905	102387	GAS CAN, 2 1/2GL STEEL VENTED W/ NOZZLE
1904	102388	GAS CAN, 5GL STEEL VENTED W/ NOZZLE
741	102394	GAS DETECTOR, BUMP GAS AEROSOL
1810	112492	GASKET, 4 INCH RED RUBBER W/BOLT HOLES
1811	112493	GASKET, 6 INCH RED RUBBER W/BOLT HOLES
196.1	111742	GASKET, 6" TRANSITION MJ X SCH 35 PVC
1812	112494	GASKET, 8 INCH RED RUBBER W/BOLT HOLES
174.4	102402	GASKET, BELL 10"
174.5	102403	GASKET, BELL 12"
175	102404	GASKET, BELL 14"
176	102405	GASKET, BELL 16"
177	102406	GASKET, BELL 18"
178	102407	GASKET, BELL 20"
179	102408	GASKET, BELL 24"
174	102409	GASKET, BELL 3"
180	102410	GASKET, BELL 30"
181	102411	GASKET, BELL 36"
174.1	102412	GASKET, BELL 4"
181.1	107144	GASKET, BELL 42" RUBBER
182	102413	GASKET, BELL 48"
174.2	102414	GASKET, BELL 6"
174.3	102415	GASKET, BELL 8"
1100.1	112121	Gasket, Bonnet A D 4 1/2
4230	102417	GASKET, CLOSURE 48" LCP
1805	102419	GASKET, FIBER DROP IN 10"

BIN#	SAP#	Material Description
1806	102420	GASKET, FIBER DROP IN 12"
1807	102421	GASKET, FIBER DROP IN 14"
1808	102422	GASKET, FIBER DROP IN 16"
1809	102423	GASKET, FIBER DROP IN 24"
1800	102424	GASKET, FIBER DROP IN 3"
1801	102425	GASKET, FIBER DROP IN 4" (donut)
1802	102426	GASKET, FIBER DROP IN 6" (THIN)
1803	102427	GASKET, FIBER DROP IN 6", (THICK)
1804	102428	GASKET, FIBER DROP IN 8"
1123	102429	GASKET, FIBER M & H 4 1/2" 129T
1100.3	112120	Gasket, Flange A D 4 1/2
1100.2	112119	Gasket, Flange A D 5 1/4
1817	102431	GASKET, FLANGE 10" FF RUBBER W BOLT KIT
1818	102432	GASKET, FLANGE 12" FF RUBBER W BOLT KIT
1819	102433	GASKET, FLANGE 14" FF RED RUBBR W BOLT K
1820	102418	GASKET, FLANGE 16" FF RUBBER BOLT KIT
1821	102434	GASKET, FLANGE 18" FF RUBBER W BOLTS
1822	102435	GASKET, FLANGE 20" FF RUBBER W BOLTS
1823	102436	GASKET, FLANGE 24" FF RUBBER W BOLTS
1813	102437	GASKET, FLANGE 3" FF RUBBER W BOLT KIT
1824	102438	GASKET, FLANGE 30" FF RUBBER W BOLTS
1825	102439	GASKET, FLANGE 36" FF RUBBER W BOLTS
1814	102440	GASKET, FLANGE 4" FF RUBBER W BOLT KIT
1815	102441	GASKET, FLANGE 6" FF RUBBER W BOLT K FT
1816	102442	GASKET, FLANGE 8" FF RUBBER W BOLT K FT
1177.4	102745	GASKET, HOSE NOZZLE 2 1/2, A D
4231	102444	GASKET, LAYING LCP 21/32" 48" L301
1255	102445	GASKET, M/H CVR 1/8" 22 5/8 ID 25 1/2 OD
159.1	102446	GASKET, METER FLANG 1 1/2" FULL FACE /HO
159.6	102447	GASKET, METER FLANGE 1 1/2" DROP IN
159.5	102448	GASKET, METER FLANGE 2" DROP IN
159	102449	GASKET, METER FLANGE 2" FULL FACE W/HO
189	102450	GASKET, MJ 10"
199	102451	GASKET, MJ 10" TRANSITION
190	102452	GASKET, MJ 12"
199.1	102453	GASKET, MJ 12" TRANSITION
190.1	102454	GASKET, MJ 14"
199.2	102455	GASKET, MJ 14" TRANSITION

BIN#	SAP#	Material Description
190.2	102456	GASKET, MJ 16"
199.3	102457	GASKET, MJ 16" TRANSITION
190.3	102458	GASKET, MJ 18"
191	102459	GASKET, MJ 20"
191.1	102460	GASKET, MJ 24"
183	102461	GASKET, MJ 3"
193	102462	GASKET, MJ 3" TRANSITION
192	102463	GASKET, MJ 30"
192.1	102464	GASKET, MJ 36"
184	102465	GASKET, MJ 4"
194	102466	GASKET, MJ 4" TRANSITION
192.5	102467	GASKET, MJ 42"
192.2	102468	GASKET, MJ 48"
186	102469	GASKET, MJ 6"
196	102470	GASKET, MJ 6" TRANSITION
188	102471	GASKET, MJ 8"
198	102472	GASKET, MJ 8" TRANSITION
1177.3	102473	GASKET, PUMPER NOZZLE 4 1/2 A D MARK 73
1123.1	102430	GASKET, STAND PIPE RUB M & H 5 1/4" 129T
1098	102474	GATORADE, 2 1/2 GAL ASSORT FLAVOR 32CT
2038.2	102475	GAUGE, 3000PSI LIQUID FILLED 1/4"NPT
2038.1	102477	GAUGE, COMBO PRESSURE/VACUUM 1/4 100 PSI
2038	102478	GAUGE, PRESS LIQ FILLED SS 300PSI 1/4 "
723.2	107122	GENERATOR HEATER 110V
5830	102482	GLAND, 24"
5831	102483	GLAND, 30"
5832	102484	GLAND, 36"
5314	102485	GLAND, RETAINER 10" MJ DI MEGA LUG
5304	102486	GLAND, RETAINER 12" MJ DI
5315	102487	GLAND, RETAINER 12" MJ DI MEGA LUGG
5316	102489	GLAND, RETAINER 14" MJ DI BOLT-ON
5316.1	102488	GLAND, RETAINER 14" MJ DI MEGA LUGG
5330	102490	GLAND, RETAINER 16" MJ DI BOLT-ON
5321	102491	GLAND, RETAINER 16" MJ DI MEGA LUGG
5329	102492	GLAND, RETAINER 18" MJ DI
5316.5	102493	GLAND, RETAINER 20" MJ DI MEGA LUG STAR
5317	102494	GLAND, RETAINER 24" MJ DI MEGA LUG
5310	102495	GLAND, RETAINER 3" MJ DI BOLT-ON

BIN#	SAP#	Material Description
5320	102496	GLAND, RETAINER 3" MJ DI MEGA LUGG
5065	102497	GLAND, RETAINER 30" MJ DI MEGA LUG STAR
5064	102498	GLAND, RETAINER 36" MJ DI MEGA LUG STAR
5318	102500	GLAND, RETAINER 4" MJ DI MEGA LUG
5062	102501	GLAND, RETAINER 42" MJ DI MEGA LUG
5063	102502	GLAND, RETAINER 48" MJ DI MEGA LUG
5312	102503	GLAND, RETAINER 6" DI MEGA LUGG
5313	102504	GLAND, RETAINER 8" DI MEGA LUGG
5712	102505	GLAND, SPLIT 6" ANCHOR DI
5711	102506	GLAND, SPLIT 8"
5308	102507	GLAND, SPLIT MEGA LUG 10" MJ DI EBAA
5319	102508	GLAND, SPLIT RETAINER 10" MJ DI
5309	102509	GLAND, SPLIT RETAINER 12" MJ DI EBBA
5306	102510	GLAND, SPLIT RETAINER 18" MJ DI MEGA LUG
5917	102511	GLAND, SPLIT RETAINER 6" MEGA LUGG
5303	102512	GLAND, SPLIT RETAINER 8" DI MEGA LUGG
1042	102515	GLASSES, SAFETY CLEAR
1043	112233	GLASSES, SAFETY CLEAR (over reg glasses)
1042.1	102516	GLASSES, SAFETY GREY
1044	111942	GLASSES, SAFETY, FOAM UVEX Clear
1024	102521	GLOVE, BROWN JERSEY COTTON L LF-RT
1027	102525	GLOVE, LEATHER DRIVING L
1026	102526	GLOVE, LEATHER DRIVING M
1025	102527	GLOVE, LEATHER DRIVING SM
1028	102528	GLOVE, LEATHER DRIVING XL
1033	112143	GLOVE, NITRILE DISPOS 2XL, BX
1031	102530	GLOVE, NITRILE DISPOS LARGE 6.5 MIL
1030	102531	GLOVE, NITRILE DISPOS MED 6.5 MIL
1029	102532	GLOVE, NITRILE DISPOS SM CHEM RESIST
1032	102533	GLOVE, NITRILE DISPOS XL
1034	102534	GLOVE, NITRILE GREEN 13" 15MIL XL
1035	102535	GLOVE, PVC NITRILE MULTI-DIPPED CHEM
1036	102537	GLOVE, WORK L DOUBLE PALM LEATHER
1037	109557	GLOVES, GRAY LATEX COATED SZ.8 MED
1038	109556	GLOVES, GRAY LATEX COATED SZ.9 LAR
1039	109554	GLOVES, PURPLE FOAM COATED SZ.8 MED
1040	109555	GLOVES, PURPLE FOAM COATED SZ.9 LAR
7020	102564	GLYCERINE 22.7% USP 55GAL

BIN#	SAP#	Material Description
1041	102566	GOGGLES, CLEAR PLASTIC DIRECT VENT
7616	102570	GRASS SEED, ANNUAL RYE 50LB
7618	102571	GRASS SEED, BERMUDA, HULLED 50LB
7617	102572	GRASS SEED, FESCUE, KENTUCKY 31 50LB
7619	102573	GRASS SEED, FESCUE, REBEL 2, 50LB
20165	102574	GRATE & FRAME, HEAVY DUTY YARD
20167	102575	GRATE, 24" X 36" CAST IRON
20169	111787	GRATE, FOR HOODED GRATE FRAME
1615	102579	GREASE GUN, HAND
1627	110273	GREASE, DIELECTRIC SILICONE
1615.3	102578	GREASE, FITTING 1/8" NPT, SPEC EX SHORT
1622	102581	GREASE, LITHOPLEX 2 MP 10.1OZ
7011.1	102582	GREASE, LITHOPLEX 2 MP 35GAL
7011	102583	GREASE, LITHOPLEX 2 MP 55GAL
7012	102584	GREASE, MOBILITH SHC 460 35GAL
7018	102586	GREASE, STERLING SIHL MIXER 5GAL
1620	102587	GREASE, WHITE FOOD GRADE TUBE
1626	102588	GREASE, ZENIPLEX 1 14OZ
1916	102589	GRIPPER, 3/4" COPPER PULLERS CABLE EYE
2038.5	102619	HAMMER, BRICK 16OZ
2039	102620	HAMMER, DOUBLE FACE 2LB
8011	102621	HAMMER, SLEDGE 8 LB
839.4	102630	HANDLE PLASTIC
8000.1	102631	HANDLE, 16" BUSH BLADE AXE 40" 4-BLT WD
979	102634	HANDLE, DUST MOP 60"
979.1	102640	HANDLE, STREET PUSH BROOM 60" TAPPERED
979.2	102646	HANDLE, WET MOP HEAD FIBERGLASS 60"
979.3	100963	HANDLE, WOODEN 60" X 15/16" W/METAL THD
777	102647	HANGER, CABLE
1048	102681	HAT, HARD WHITE FULL BRIM
1049	102682	HAT, HARD WHITE W SURE LOCK RATCHET
20204	102694	HEADWALL, 18" CONC W/NIPPLES YARD
20218	112114	HEADWALL, 24" HOLE
20211	102697	HEADWALL, 24" W/NIPPLE
20213	102698	HEADWALL, 30" HOLE
20215	102701	HEADWALL, 42" HOLE
20202	102702	HEADWALL, 48" WITH NIPPLES yard
20214	102700	HEADWALL, 54" HOLE

BIN#	SAP#	Material Description
20216	102703	HEADWALL, 60" HOLE
20220	112116	HEADWALL, 36" HOLE
20221	112117	HEADWALL, 48" HOLE
1520	102713	HERBICIDE, SUPER KILLZ ALL 2.5GAL Iobuil
1624.1	102728	HOG WASH, FOR HOLE HOG PIERCING TOOL 1QT
20168	109750	HOOD, CURB BASIN W/GRATE/FRAME
1172	102736	HOOK S 3"
1909	102737	HOOK, 3/8 CHAIN CLEVIS GRAB
1910	111762	Hook, Large for Lifting Chains
1912	102739	HOOK, MANHOLE SMALL WOOD T-HANDLE
165.5	102740	HOOK, METER LID STEEL 1/4" X 30" T-HANDL
8010	102742	HOOK, REFUSE (Large) 4 TINES, 60" HANDLE
8017	112045	HOOK, REFUSE (Small) 4 TINES, 60" HANDLE
1911	111763	Hook, Repair Latch Kit
127	102761	HOSE BIB, 3/4 " WATER SPIGOT
830	112423	HOSE FITTING, 3/4 MALE JET TRUCK #UE1121
831	112424	HOSE FITTING, FEMALE HYDRAJET TR UE1121FS
832	112425	HOSE MENDER, 3/4 HYDRAJET TRUCK #UE1122
1177.1	102746	HOSE NOZZLE O-RING CLOW T2400952 M40
8115	102762	HOSE, DISCHARGE 3" PVC LAY FLAT BLUE
8120	102763	HOSE, FIREHOSE 1 1/2" X 50' ROLL 250PSI
5725	102765	HOSE, HYDROJET-1" 3000PSI 500' ROLL
8110	110016	HOSE, HYDROJET-3/4" 3000psi 500ft Roll
835.1	110017	HOSE, LEADER, HYDROJET-3/4" 3000psi
8109	102766	HOSE, RUBBER 1" 200PSI REINFORCD PE 500'
8108	102767	HOSE, RUBBER 3/4" 200PSI REINFOR PE
1615.1	102768	HOSE, RUBBER ASSEMBLY LINCOLN 5812
1107.3	102772	HOUSING COVER, AD 4 1/2" MK-73-1
1107.4	102773	HOUSING COVER, AD 5 1/4" B65
1107.5	102774	HOUSING, AD 5 1/4" B62B
720	110274	HYDRANT, YARD FREEZE PROOF, 2FT.
721	110275	HYDRANT, YARD REPAIR KIT, 2FT.
6703	107401	HYDRA-STOP FITTING, 4"X16" AC 4.60-5.00
6704	107400	HYDRA-STOP FITTING, 4"X16" DIP 4.30-4.70
6705	107403	HYDRA-STOP FITTING, 6"X16" AC 7.00-7.50
6706	105534	HYDRA-STOP FITTING, 6"X16" DIP 6.70-7.10
6707	107404	HYDRA-STOP FITTING, 8"X20" AC 9.30-9.70
6708	105536	HYDRA-STOP FITTING, 8"X20" DIP 8.89-9.25

BIN#	SAP#	Material Description
7817	102779	HYDRAULIC FLUID, UNIVERSAL 5GAL lobuil
2224	102780	HYDROGEN PEROXIDE, SPRAY, 3%
758.3	102783	IMPELLER BOLT, S&L 3" SHAFT,W THRDLOCK
758.1	102784	IMPELLER BOLT, S&L 1 7/8", 2 1/8" SHFW/THLK
757.9	102785	IMPELLER WASHER, S&L 1 7/8", 2 1/8" SHFT
2243	102903	INSECT REPELLENT 8 OZ PUMP SPRAY
2242	102904	INSECT REPELLENT, PIN-ON
1545	102908	INSECTICIDE, ANT POISON, 4.5LB CAN
6727	107411	INSTA-VALVE 8" OD 9.50, RANGE 9.30-9.70
900	103014	JUG, PLASTIC W/CAP 1GAL
762	110282	JWC Coupling #30017-0005-003, Half
763	110283	JWC Coupling #30017-0011-001, Half
760	110280	JWC Grinder, Reducer #31313-0029-145T
761	110281	JWC Grinder, Gear Reduce #31313-0029-182T
1254	103017	KENT SEAL ROLL, 8 CT issued per roll
8014.2	107000	KEY, COMBO CURB & VALVE, 3.5-6.5 LG
8015	112180	KEY, GATE VAL TELESCOP, 12', 2" Fix-Head
8016	103019	KEY, GATE VAL TELESCOP, 8', 2" FLEX-HEAD
8014.1	103020	KEY, WATER CURB STOP 1 1/2" 5FT T-HANDL
165	103021	KEY, WATER METER 5/8"X27 CURB T-HANDL
772.2	103022	KIT, ACTUATOR REBLD CYL PRATT VALV 8" BR
1118	103028	KIT, COLL REPAIR M&H 4 1/2" 129T 1994UP
1141	103024	KIT, COLLISION KENNEDY 5 1/4" K10B
1109	103025	KIT, COLLISION REPAIR AD B62B5 1/4"86/UP
1108	103026	KIT, COLLISION REPAIR AD MARK 73
1142	103027	KIT, COLLISION REPAIR KENN K81A 5 1/4"
1119	103029	KIT, COLLISION REPAIR M & H 5 1/4" 129T
1161	103030	KIT, EXTENSION ACC A D B62B, 5 1/4"/12"
1134	103031	KIT, EXTENSION ACC KENNEDY K81A 5 1/4/6"
1151.2	103033	KIT, EXTENSION ACC MUELLER 4 1/2/12
1152	103035	KIT, EXTENSION ACC MUELLER 5 1/4/6"
1183	103036	KIT, MAIN VALVE SEAT REPAIR CLOW/5 1/4
758.2	103041	KIT, REPAIR DVS STARITE SEAL 1/6 HP
816	109762	KIT, REPAIR, 4/5 pin, el220, u-sho# RP102
1175	103043	KIT, SAFETY REPAIR CLOW MEDALLION 5 1/4"
1160.1	103045	KIT, SAFETY REPAIR, MET 250 M94 5 1/4"
1158.1	103046	KIT, SAFETY REPAIR, MET 250, 5 1/4" OLD/ST
1147.1	103047	KIT, SAFETY REPAIR, MUELLER 4 1/2"

BIN#	SAP#	Material Description
1143	103048	KIT, SAFETY REPAIR, MUELLER 5 1/4"
840.2	103049	KIT, SPLICING EPOXY RESIN
1930	107370	KITS, WATER CONSERVATION (NIAGARA)
2033	103050	KNIFE, PUTTY METAL BLADE 1 1/4" STIFF
50084	103061	LABEL, FILE FOLDER ASSORT 248CT
50008	112172	Label, Rhino, 1/2" flex nyl black on wht
50009	112173	Label, Rhino, 3/8" ht shriek black on wht
898.1	103096	LAMP, FLOODLIGHT 175W
898.5	111832	LAMP, HALITE METAL 175W
898.3	103101	LAMP, HALITE METAL 250W
1405	112164	Lamp, Plug-In CFL, 42W, 4-pin
898.4	103115	LAMP, QUARTZ, 300W T3/CL-FCL
50086	103132	LEAD, MECHANICAL PENCIL 0.5MM
835.3	112011	LEADER HOSE, 1" X 10ft, 3000psi
960	103139	LENS CLEANER, ANTI FOG LIQUID 16OZ
50109	103152	LETTERHEAD STATIONARY, pack
8020	112285	LIFTER, VALVE BOX COVER
818	109768	Lifting,loop, webbing u-shorty #MC223
1403	103159	LIGHT BULB, FLOOD PAR38-120V 130W
1404	103160	LIGHT BULB, FLUOR 8' COOL WHT SNGL PIN
1402	103161	LIGHT BULB, FLUORESCENT 40W X 48" F40CW
1406	112184	LIGHT BULB, Fluorescent 48" F32T8SP35
1407	112219	LIGHT BULB, Vapor Lamp 41826-mvr1000/u
7812	103164	LIME HYDRATE, 50 LB. BAGS
7837	103165	LIME PELLETIZED, DOLINATE 40 LB. BAGS
1050	103178	LINERSWINTER, HARD HAT, QUILTED
50003	103183	LIQUID PAPER, WHITE CORRECTION TAPE
1915	103186	LOAD BINDERS, RATCHET 3/8" GRAB-HOOKS
1114.1	103192	LOCK NUT, OPER NUT, 4 1/2" M & H 129
2207.6	112473	LOCK, MASTER 6125KA SHORT SHANK
2207.8	112474	LOCK, MASTER 6125LJ LONG SHANK
1141.1	103193	LOCKNUT, KENNEDY 5 1/4" K81A-LEF/THDS
1126.2	103194	LOCKNUT, M & H 5 1/4" 129
1112	111943	Locknut, New Style Operating Nut,M&H 129
1126	103195	LOCKNUT, OPERATING 4 1/2" M & H 129
1174.4	103196	LOCKNUT, PUMPER NOZZLE CLOW
1920	103197	LOCKOUT DEVICE, OVERSIZED BREAKER 600V
1092	103199	LOCKOUT, HASP 1 1/2" ELECT. MULTI LOCK

BIN#	SAP#	Material Description
1093	103200	LOCKOUT, HASP 1" ELECT. MULTI LOCK
2207.1	103201	LOCKS, BRASS M REPAIR W/4" SHAK 1 1/2"
2207.5	103202	LOCKS, BRASS METER SERV 1 1/2"
2207	103203	LOCKS, BRASS PUMP STAT 1 1/2"
2220	103204	LOCKTIGHT, PERMATEX 50ML
961	103207	LOTION, ZEP-O-CREST HAND REFILL 1QT
1188	103208	LOWER STEM, CLOW M2202374 M12
1173	103209	LOWER VALVE PLATE, CLOW F1600829 M24
1509	103213	LUBRICANT, SILICONE 20OZ 12CT
1903	103221	MAILBOX POST, CEDAR
1900	103222	MAILBOX, STANDARD BLACK 1
1147	103223	MAIN SEAT VALVE, MUELLER 4 1/2"
4102.1	107270	MANHOLE 1 1/2ft., RISER SECT (4' DIA) yd
4142	111823	MANHOLE BASE, 48" X 2', Polymer
4104	103224	MANHOLE CONE, 2' ECCENTRIC 4' DIA yard
4107	103225	MANHOLE CONE, 3' ECCENTRIC 4' DIA yard
4131	103226	MANHOLE CONE, 3' W RING P-CAST yard
4136	111545	MANHOLE CONE, 48" X 2' Ecc., Polymer
20239	103227	MANHOLE COVER, W/FISH LOGO yard
4144	112460	MANHOLE LID INFRA-RISER 1 " THICK
4145	112461	MANHOLE LID INFRA-RISER 2" THICK
4112	103231	MANHOLE LID RISER, 2" w/ set screw
4111	103232	MANHOLE LID RISER, 1 1/2" w/ set screw
4146	112462	MANHOLE LID-INFRA-RISER 3 " THICK
4117	103229	MANHOLE RING & COV, NON-BLT DOWN yard
4118	103228	MANHOLE RING & COVER, BOLT DOWN yard
4147	112463	MANHOLE RING & COVER, W/REVOLUTION LID
20240	103230	MANHOLE RING, 1033D
4102	103233	MANHOLE RISER, 1 foot SECTION 4' DIA
4105	103234	MANHOLE RISER, 2'SECTION 4' DIA
4108	103235	MANHOLE RISER, 3' SECTION 4' DIA
4134	111543	MANHOLE RISER, 48" X 2' Section, Polymer
4139	111548	MANHOLE RISER, 48" X 3' Section, Polymer
4133	111542	MANHOLE RISER, 48" X 4' Section, Polymer
4110	103236	MANHOLE RISER, 60" X 5' ROUND
1256	111764	Manhole Step, Plastic coated steel
4103	103238	MANHOLE, 2' BOTTOM SECTION 4' DIA
4106	103239	MANHOLE, 3' BOTTOM SECTION 4' DIA

BIN#	SAP#	Material Description
4137	111546	MANHOLE, Rubber Gasket 48", Polymer
50050	103247	MARKER, DRY ERASE BLUE
4141	103250	MARKER, FIBERGLASS GREEN DECAL 72"
50058	103251	MARKER, HIGHLIGHT BLUE
50054	103252	MARKER, HIGHLIGHT GREEN
50047	103253	MARKER, HIGHLIGHT ORANGE
50048	103255	MARKER, HIGHLIGHT YELLOW
50043	103266	MARKER, KING BLACK CHISEL PT
50065	103262	MARKER, MEAN STREAK WHITE
50066	103263	MARKER, MEAN STREAK YELLOW
1190	103264	MARKER, MID-RANGE WATER SCHOTCHMARK
50041.5	103270	MARKER, SHARPIE BLACK Fine Point
50041	103268	MARKER, SHARPIE BLACK, Ultra Fine Point
50064	103273	MARKER, UNI PAINT BLUE
50063	103274	MARKER, UNI PAINT RED
50064.5	103275	MARKER, UNI-PAINT MED LINE WHITE
1090	103284	MASK, RESPIRAT DISPOS NOSE-CLIP 2OZ 20CT
1091	103285	MASK, RESPIRATOR .99% W/VENT VALVE
773	111782	MEDIA, PS-Odor- 1800 Series
774	111783	MEDIA, PS-Odor- 2050 & 3000 Series
114.1	103299	METER ADAPTER, 3/4", MAC #10J23
5233	111288	METER BOX LID, 15" X 18" OVAL
5235	103300	METER BOX LID, 15"X18" SOLID CAST IRON
5234	111287	METER BOX LID, 24" X 18" LARGE, CAST
5236	103301	METER BOX, 15"X18"X12" PLASTIC W/CI LID
5240	111998	METER BOX, 17" X 30" X 18" W/PLASTIC LID
5238	103305	METER BOX, 24" X 16" X 16" CAST IRON
5239	103302	METER BOX, 24"X18"X12" PLASTIC W/CI LID
5237	103306	METER BOX, EXTENSION PLASTIC 6"
758.5	103303	METER ROUND MNT, S&L RND FACE 3 SCW AC
758.6	103304	METER SQ MNT, S&L RND FACE 4 SCW
135	103309	Meter Valve Locking Device, EW-200
173	110121	METER, FH, 3", 2" GATE, New Number
758.8	111353	Meter, Hour AC, 120v 60hz, Din Rail Mt.
135.1	103310	METER, LOCKOUTS 3/4" JONES J280
169.3	103313	METER, RESETTER 1 1/2"X24"H,W/2 V,13"LL
169	103314	METER, RESETTER 1"X12"H,W 10 3.4"LL
169.5	103315	METER, RESETTER 2"X18"H,W/2" V, 17"LL

BIN#	SAP#	Material Description
169.6	103316	METER, RESETTER 2"X24"H,W/2" V, 17"LL
170	103317	METER, RESETTER 3/4"X12"H,W/ 7"LL
170.1	103318	METER, RESETTER, 3/4X 7"H,W/7"LL
130.2	103321	METER, WATER 1 1/2" POS DISP FL
139	103322	METER, WATER 1" POS DISP
139.1	103323	METER, WATER 1" POS DISP (REUSE)
130.1	103324	METER, WATER 2" POS DISP (FL)
163	103325	METER, WATER 3" COMP W/ENCODREG
131	103326	METER, WATER 3/4" SHORT POS.DISPL.
171	103327	METER, WATER 4" COMPW/ENCODREG
5437	103328	METER, WATER 6" COMPW/ENCODREG
5438	103329	METER, WATER 6" FIRE LINEW/ENCODREG
5440	103330	METER, WATER 8" COMPW/ENCODREG
5439	103331	METER, WATER 8" FIRE LINE W/ENCODREG
169.2	103312	METER,RESETTER11/2"X18"H,W/11 V,11/23"LL
2233	103333	MICROSHIELD, CPR BREATHER
970	103346	MOP, DUST FRAME 5" X 24" 12CT
951	103350	MOP, HEAD WET 4-PLY LAUNDERABLE
7430	103356	MORTAR MIX, TYPE N 72LB
719.3	112274	MOUNTING BRACKET,JOHN CRANE SAFE UNIT
1395	112312	NAIL,GALV. FLAT SIZE 12-BOX-4NEV8
1394	112311	NAIL,GALV. FLAT SIZE 8-BOX-4NEV6
924	103373	NET, SKIMMER-SURFACE DEEP BAG 20"X6"X12"
925	103374	NET, SKIMMER-SURFACE FLAT BAG 12" X 15"
3242	103377	NIPPLE 1 1/2" X 4" NPT,150LB 304 S/S
3255	103378	NIPPLE 1" X 6" NPT, 150LB 304S/S
3210	103379	NIPPLE 1" X CLOSE NPT,150LB 304S/S
3238	103380	NIPPLE 1/2" X 4" NPT,150LB 304S/S
3208	103381	NIPPLE 1/2" X CLOSE NPT,150LB 304S/S
3221	103382	NIPPLE 1/4" X 2" NPT,150LB 304S/S
3236	103383	NIPPLE 1/4" X 4",150LB 304 S/S
3206	103384	NIPPLE 1/4" X CLOSE NPT,150LB 304S/S
3233	103385	NIPPLE 1/8" X 3" NPT,150LB 304 S/S
3205	103386	NIPPLE 1/8" X CLOSE NPT,150LB 304 S/S
3272	111846	NIPPLE 2" X 4" NPT, 150lb 304 S/S
3273	103387	NIPPLE 2" X 8" NPT,150LB 304S/S
3213	103388	NIPPLE 2" X CLOSE NPT,150LB 304S/S
5570.1	109682	NIPPLE 3" FL X 20' PE DIP, (4-HOLE)

BIN#	SAP#	Material Description
5857	109681	NIPPLE 3" FL X 3' PE DIP, (4-HOLE)
3275	103389	NIPPLE 3" X 10" NPT,150LB 304S/S
3215	103390	NIPPLE 3" X CLOSE NPT,150LB 304S/S
3234	103391	NIPPLE 3/8" X 3" NPT,150LB 304 S/S
3207	103392	NIPPLE 3/8" X CLOSE NPT,150LB 304 S/S
3373	112617	NIPPLE, 1" X 2" NPT 150 304 SS
3374	112618	NIPPLE, 1" X 3" NPT 150 304 SS
3375	112619	NIPPLE, 1" X 4" NPT 150 304 SS
3376	112620	NIPPLE, 1" X 5" NPT 150 304 SS
3349	112593	NIPPLE, 1/2" X 1" NPT 150 304 SS
3350	112594	NIPPLE, 1/2" X 2" NPT 150 304 SS
3351	112595	NIPPLE, 1/2" X 3" NPT 150 304 SS
3352	112596	NIPPLE, 1/2" X 4 1/2" NPT 150 304 SS
3353	112597	NIPPLE, 1/2" X 5" NPT 150 304 SS
3354	112598	NIPPLE, 1/2" X 6" NPT 150 304 SS
3355	112599	NIPPLE, 1/2" X 7" NPT 150 304 SS
3341	112585	NIPPLE, 1/4" X 1" NPT 150 304 SS
3342	112586	NIPPLE, 1/4" X 2" NPT 150 304 SS
3343	112587	NIPPLE, 1/4" X 3" NPT 150 304 SS
3344	112588	NIPPLE, 1/4" X 4 1/2 " NPT 150 304 SS
3336	112580	NIPPLE, 1/8" X 1" NPT 150 304 SS
3337	112581	NIPPLE, 1/8" X 2" NPT 150 304 SS
5861	103393	NIPPLE, 10" FL X 3' PE DIP,COATED INSIDE
5862	103394	NIPPLE, 12" FL X 3' PE DIP,COATED INSIDE
5864	103395	NIPPLE, 16" FL X 3' PE DIP,COATED INSIDE
3364	112608	NIPPLE, 3/4" X 1 1/2" NPT 150 304 SS
3366	112610	NIPPLE, 3/4" X 2 1/2" NPT 150 304 SS
3365	112609	NIPPLE, 3/4" X 2" NPT 150 304 SS
3367	112611	NIPPLE, 3/4" X 3" NPT 150 304 SS
3368	112612	NIPPLE, 3/4" X 4" NPT 150 304 SS
3369	112613	NIPPLE, 3/4" X 5" NPT 150 304 SS
3370	112614	NIPPLE, 3/4" X 6" NPT 150 304 SS
3363	112607	NIPPLE, 3/4" X CLOSE NPT 150 304 SS
3345	112589	NIPPLE, 3/8" X 1 1/2 " NPT 150 304 SS
3346	112590	NIPPLE, 3/8" X 2 " NPT 150 304 SS
3347	112591	NIPPLE, 3/8" X 4" NPT 150 304 SS
5858	103396	NIPPLE, 4" FL X 3' PE DIP, COATED INSIDE
5859	103397	NIPPLE, 6" FL X 3' PE DIP, COATED INSIDE

BIN#	SAP#	Material Description
5860	103398	NIPPLE, 8" FL X 3' PE DIP, COATED INSIDE
755.2	103399	NIPPLE, DVS ELBOW 2CT
237.1	103400	NIPPLE, GALV 1 1/2" X 3" PIPE
239	103401	NIPPLE, GALV 1 1/2" X 4" PIPE
237	106828	NIPPLE, GALV 1 1/2" X 6" PIPE
238	103402	NIPPLE, GALV 1 1/2" X CLOSE PIPE
236	103403	NIPPLE, GALV 1 1/4" X 2" PIPE THD
228	103404	NIPPLE, GALV 1 1/4" X 3" PIPE
236.1	103405	NIPPLE, GALV 1 1/4" X 4" PIPE
236.2	103406	NIPPLE, GALV 1 1/4" X 6" PIPE
228.1	103407	NIPPLE, GALV 1" X 2" PIPE THD
227	103408	NIPPLE, GALV 1" X 4" PIPE THD
238.1	103409	NIPPLE, GALV 1" X 6" PIPE THD
228.2	103410	NIPPLE, GALV 1" X CLOSE PIPE
230.1	103411	NIPPLE, GALV 1/2" X 4" PIPE
230	103412	NIPPLE, GALV 1/2" X 6" PIPE
235.2	103413	NIPPLE, GALV 1/4" X 4" PIPE
235.1	103414	NIPPLE, GALV 1/4" X 6" PIPE
235	103415	NIPPLE, GALV 1/4" X 8" PIPE
234.2	103416	NIPPLE, GALV 1/8" X 4" PIPE
234.1	103417	NIPPLE, GALV 1/8" X 6" PIPE
234	103418	NIPPLE, GALV 1/8" X 8" PIPE
260.1	103419	NIPPLE, GALV 2 1/2" X 12" PIPE
250	103420	NIPPLE, GALV 2 1/2" X 2" PIPE
201.5	103421	NIPPLE, GALV 2 1/2" X 3" PIPE
250.1	103422	NIPPLE, GALV 2 1/2" X 4" PIPE
260.2	103423	NIPPLE, GALV 2 1/2" X 6" PIPE
241	103424	NIPPLE, GALV 2" X 3" PIPE
240	103425	NIPPLE, GALV 2" X 4" PIPE
241.1	103426	NIPPLE, GALV 2" X 6" PIPE
239.2	103427	NIPPLE, GALV 2" X CLOSE, PIPE
232.1	103428	NIPPLE, GALV 3/4" X 2" PIPE
230.2	103429	NIPPLE, GALV 3/4" X 24" PIPE
232	103430	NIPPLE, GALV 3/4" X 3" PIPE
231.1	103431	NIPPLE, GALV 3/4" X 4" PIPE
231	103432	NIPPLE, GALV 3/4" X 6" PIPE
233	103433	NIPPLE, GALV 3/4" X CLOSE PIPE
233.2	103434	NIPPLE, GALV 3/8" X 2" PIPE

BIN#	SAP#	Material Description
233.1	103435	NIPPLE, GALV 3/8" X 4" PIPE
808.8	103436	NIPPLE, MALE QUICK DISCONNECT 1/4"
108	106651	NIPPLE, METER 1" X 2 5/8" BRASS
115	103437	NIPPLE, METER 3/4" X 2 1/2 " BRASS
140	103438	NIPPLE, METER 3/4" X 2" BRASS
119	103439	NIPPLE, METER 3/4" X 3" BRASS
510.2	103440	NIPPLE, PVC 1" X JAM, THD
521.1	103441	NIPPLE, PVC SCH 80 1 1/2" JAM
517.1	103442	NIPPLE, PVC SCH 80 1 1/4" JAM
511.1	103443	NIPPLE, PVC SCH 80 1" X 4"
50135	110177	Notebook, Project Planner, 9x7, #20816
841.3	103447	NOZZLE, 1" 15 D SHORT 2500PSI 65GPM
841.5	103450	NOZZLE, 1" NST X 8" LG BRASS 5/16"
833.8	103474	NOZZLE, 1" SHORT 35D 2500PSI 65GPM
841.4	103452	NOZZLE, 1" SND GRSE 35 45D MXD 8REAR 1FW
835.2	110018	NOZZLE, 30 Deg. HYDROJET 3/4" 3000PSI
1189	103469	NOZZLE, CLOW 2 1/2" (Outlet) 5 1/4"
1144.2	103576	NOZZLE, FH 2 1/2" MUELL 1978 NEW L/ H GR
1144.1	103577	NOZZLE, FH 2 1/2" MUELL 1978/OLD R/H RED
1103.5	103465	NOZZLE, FH HOSE 2 1/2" A D B62B 5 1/4"
1103	103466	NOZZLE, FH HOSE 2 1/2" AD MARK 73 4 1/2"
1124	103575	NOZZLE, FH HOSE 2 1/2" M & H 129T
1165	106758	NOZZLE, FH HOSE 2 1/2" MET 250, M94
1104	103471	NOZZLE, FH PUMPER 4 1/2" AD MARK 73
1144	103581	NOZZLE, FH PUMPER 4 1/2" MUELLER A423
1117	103580	NOZZLE, FH PUMPER4 1/2" M & H 129T
2060	103463	NOZZLE, FIREHOSE 1 1/2" BRASS BUMPER NST
840	103468	NOZZLE, HOSE 3/4" GHT X 6" LONG
1164	109683	NOZZLE, PUMPER 4 1/2" MET 250, M94
833.4	103473	NOZZLE, RAD AL TEARDRP LANCE TP 1" 11D
833.3	103478	NOZZLE, SPEARPT PENETR 1" 35 D 2800PSI
2008	103480	NUT DRIVER, 3/8" NUT PLASTIC HANDLE
2009	103481	NUT DRIVER, 5/16" PL HNDLE WTRPRF HVY DT
160	103482	NUT GASKET ASSEMBLY, 1" FORD NGF4
162.5	103483	NUT GASKET ASSY, 1" CURBSTOP 3/8" SCREW
161	103484	NUT PACK GASKET ASSY, 3/4" 3/8" OLD FORD
1380	103486	NUT, 1/2" BRASS HEX COARSE THD
160.1	112491	NUT, 2 " PACK JOINT

BIN#	SAP#	Material Description
1331.1	111533	NUT, 20mm, 11 Thd per Inch, Stainless
1174	103488	NUT, 5/8 T0400072 M29 CLOW
1125	103491	NUT, CAP M & H 929 P.N. 46
160.5	103492	NUT, COMPRESS 1" METAL LOCK RING BRASS
162	103493	NUT, COMPRESSION 3/4" LOCK RING BRASS
1329	103494	NUT, HEX 3/4" MJ BOLTS
1337.1	103495	NUT, HEX 7/8"
1320.2	103496	NUT, HEX COARSE THD 1/2"
1320.1	103497	NUT, HEX COARSE THD ZINC 7/16"
1329.2	110277	NUT, HEX GRADE 5 ZINC 1"
1321.1	103498	NUT, HEX GRADE 5 ZINC 10 3/4"
1320	103499	NUT, HEX GRADE 5 ZINC 16 3/8"
1319.2	103500	NUT, HEX GRADE 5 ZINC 20 1/4"
1329.4	103501	NUT, HEX GRADE 5 ZINC COARS THD 1 1/2"
1329.3	103502	NUT, HEX GRADE 5 ZINC COARS THD 1 1/4"
1321	103503	NUT, HEX GRADE 5 ZINC COARS THD 1 5/8"
1319.3	103504	NUT, HEX GRADE 5 ZINC COARS THD 5/16"
1320.3	103505	NUT, HEX GRADE 5 ZINC COARS THD 9/16"
1158.2	103506	NUT, HOLD DOWN METROPOLITAN 250 5 1/4"
731.7	111662	Nut, Jam,S&L #6L222A
1114.7	103547	NUT, OPERATING 4 1/2" M & H 129T NEW
1115	103551	NUT, OPERATING 5 1/4" M & H 129T NEW SY
1101	103507	NUT, OPERATING 4 1/2" A D MARK 73
1124.1	103549	NUT, OPERATING 5 1/4 M&H 929
1102	103508	NUT, OPERATING 5 1/4" A D B62B
1137	103509	NUT, OPERATING 5 1/4" KENNEDY K81A
1114	103550	NUT, OPERATING 5 1/4" M & H 129 OLD STY
1146	103511	NUT, OPERATING 5 1/4" MUELLER
1170	103512	NUT, OPERATING CLOW BRONZE M3
1139.1	103513	NUT, OPERATING STEM KENNEDY K-10
1155	103515	NUT, REVOLVING MET 250
1178.2	103517	NUT, THRUST CLOW
1178	103518	NUT, THRUST SET SCREW CLOW
1155.1	103519	NUT, TRAVEL STOP MET 250 M94 5 1/4
1176.3	103520	NUT, UPPER STEM NUT CLOW
1154	103510	NUT, WEATHER CAP, MET 250 5 1/4
1114.3	103548	NUT,OPERATING 4 1/2" M & H 129T OLD STY
1721	103527	OIL LUBRICANT, 1GAL

BIN#	SAP#	Material Description
7004	103528	OIL, 10W PACEMAKER 32 D10 55GAL
7005	103530	OIL, 90 OW EQUIVALENT COMPOUND 220 55GAL
7425	103531	OIL, ABSORBENT PREMIUM 40LB
7016	106757	OIL, AEON PD, SYNTHETIC, 5 GAL.
1715	106940	OIL, CUTTING THD, DARK RIDGID#70830
7009	106686	OIL, E-20 A/W 68 HYDRAULIC 55GAL
1623	103212	OIL, GEAR 85W-140, MULTI-PURPOSE SAE
7015	103534	OIL, GR-XP-320 5GAL
1610	103536	OIL, HEAVY DUTY ENGINE 15W40 1QT
7010	103537	OIL, HEAVY DUTY ENGINE 30 SAE 55GAL
1612	103538	OIL, HEAVY DUTY ENGINE 30W SAE 1QT
7008	103540	OIL, PACE MAKER CITGO 150 HB 55GAL
1514	103541	OIL, PENETRATING W TEFLON 24OZ
7017	103543	OIL, SYNTH BEARING GEAR SCH-630 55GAL
7007	103545	OIL,Shell Omala S2G220-P GBOX LUBR 5GAL
7006	106131	OIL,TURBINE, GST46 5GAL *Chevron Only*
817.6	109771	O-ring, 2-018, silicone #HW 683 u-shorty
1179.2	103553	O-RING, DRAIN RING CLOW MED
1125.2	103556	O-RING, HOSE NOZZLE 2 1/2" M & H
1125.1	103557	O-RING, LOWER MAIN VALVE M & H 4 1/2129T
1135.1	103558	O-RING, LOWER MAIN VALVE SEAT KENN K81
1147.2	103559	O-RING, LOWER MAIN VALVE SEAT MUELLER
817.7	110353	O-RING, MOLDED LIGHT HEAD pn#cz059 cues
1178.4	103560	O-RING, PUMPER NOZZLE CLOW
729.2	103563	O-RING, S&L 2 1/8" ELECTRODE COVER SMALL
1103.1	103565	O-RING, SEAT INSIDE/OUT A D B62B 5 1/4
1104.1	103566	O-RING, SEAT INSIDE/OUT A D MARK 73
1165.4	103567	O-RING, SEAT RING MET 250 M94 5 1/4
1180.2	103569	O-RING, THRUST NUT CLOW
1139.2	103570	O-RING, UP MAIN VALVE SEAT KENN K81 51/4
1147.3	103571	O-RING, UP MAIN VALVE SEAT MUELLER 5 1/4
1156.1	103572	O-RING, VALVE ROD LOWER MET 250 5 1/4"
1138	103574	OUTLET, 2 1/2" KENNEDY K81A
1181	103578	OUTLET, 4 1/2" CLOW MEDALLION
1139	103579	OUTLET, 4 1/2" KENNEDY K81A
8502	103588	OXYGEN, COMPRESSED GAS SIZE 200
8502.1	107147	OXYGEN, COMPRESSED GAS SIZE 300
912	112289	P.H. STRIPS,MICRO ESSENTIAL #6EGFO

BIN#	SAP#	Material Description
50125	103615	PAD, LEGAL - WH 8 1/2" x 11", 100 sht.
50123	103619	PAD, LETTER - WH 8 1/2" x 11 3/4", 100sht
50123.5	103621	PAD, LETTER YELLOW 8 1/2"x11 3/4"
50133	103622	PAD, MEMO 3" X 5", Sprial Top, Pocket sz
50131	103623	PAD, MEMO 5" X 7" Spiral-Poly Cov
50103	103635	PAD, POST-IT 3" X 3" yellow
50102	103637	PAD, POST-IT 3" X 5" yellow
50101	103646	PAD, POST-IT 4" X 6" LINED yellow
962	103654	PAD, SCOURING 6" X 4 1/2" GREEN 12CT
963	103655	PAD, SCOURING STAINLESS STEEL 12CT
50128	103657	PAD, STENO 6" X 9" GREGG RULE
5868	103660	PAD, VALVE BOX CONCRT 24X24X4, 9" OPENG
7984	103661	PADDLE, STOP & SLOW PVC 18" SIGN
1914.1	103711	PAINT, MARKING GUN, HAND HELD 10"
1506	103737	PAINT, SPRAY BLACK INT/EXT GLOSS 12OZ
1500	103738	PAINT, SPRAY BROWN GLOSS 12OZ
1502	103742	PAINT, SPRAY GRAY PRIMER 12.5OZ
1503.1	103743	PAINT, SPRAY GREEN MED GLOSS 12 OZ
1505	103744	PAINT, SPRAY RED GLOSS FIRE ENGINE 12OZ
1504	103745	PAINT, SPRAY SILVER 12OZ CAN
1507	103747	PAINT, SPRAY UPSIDE DN FLUOR GREEN 17OZ
1503	103748	PAINT, SPRAY UPSIDE DN FLUOR ORANGE 17OZ
1508	103749	PAINT, SPRAY UPSIDE DN FLUORSC BLUE 17OZ
1507.5	103750	PAINT, SPRAY UPSIDE DOWN PURPLE 17OZ
1502.1	103751	PAINT, SPRAY UPSIDE DOWN WHITE 17OZ
1501	103753	PAINT, SPRAY YELLOW GLOSS SAFETY 12OZ
1504.1	112245	PAINT, SILVER ONE GALLON BUCKETS
964	103763	PAN, DUST PLASTIC 12CT
9510	103838	PANTS, BDU 100% COTTON, 2XL
9512	103839	PANTS, BDU 100% COTTON, 3XL
9513	103840	PANTS, BDU 100% COTTON, 4XL
9505	103836	PANTS, BDU 100% COTTON, LARGE
9502	103835	PANTS, BDU 100% COTTON, MEDIUM
9508	103837	PANTS, BDU 100% COTTON, XL
9507	103774	PANTS, BDU NAVY REG CUT XL
9220.1	103766	PANTS, BDU NAVY LONG LARGE
9501	103767	PANTS, BDU NAVY LONG MEDIUM
9506	103768	PANTS, BDU NAVY LONG XL

BIN#	SAP#	Material Description
9509	103769	PANTS, BDU NAVY OVERSIZE 2XL
9511	103770	PANTS, BDU NAVY OVERSIZE 3XL
9503	103771	PANTS, BDU NAVY REG CUT LARGE
9500	103772	PANTS, BDU NAVY REG CUT MEDIUM
50056	104011	PAPER, COPY 8 1/2" X 11" BLUE
50052	104013	PAPER, COPY 8 1/2" X 11" GREEN
50057	104014	PAPER, COPY 8 1/2" X 11" ORCHID
50055	104015	PAPER, COPY 8 1/2" X 11" SALMON
50057.1	104017	PAPER, COPY 8 1/2X11 BRT WHT 24 INKJET
50054.1	104089	PAPER, WHT 9 1/2" X 11" CONTINUOUS 20LB
50054.3	104096	PAPER, XEROX 8 1/2" X 14"
50054.4	104097	PAPER, XEROX WHITE 11" X 17" 20
50054.2	104098	PAPER, XEROX WHITE 8 1/2" X 11" 20
916.2	104099	PARAFILM, 2" X 250'
50071	104138	PEN, BALL POINT MED BLACK, RETRACTABLE
50073	104137	PEN, BALL POINT MED BLUE, RETRACTABLE
50068	104152	PEN, GEL RETRACT BLACK
50069	104154	PEN, GEL RETRACT RED
50079	104153	PEN, GEL- RETRACTABLE BLUE,CLIP
50046.1	106937	PEN, STYLUS-COMPUTER, T1012BW
50016	109972	PENCIL, MECHANICAL
50023	104170	PENCIL, NO. 2, (PER DOZEN ONLY)
759.2	111501	Phase Monitor, 230/3 DPDT+12 pin (MPE)
759.1	111502	Phase Monitor, 480/3 DPDT+12 pin (MPE)
8006	104187	PICK, HAND, BLADE 1 1/2" X 30" 6LB HEAD
818.9	112488	PIGTAIL, ULTRA SHORTY (770001)
922	104191	PILLOW, CL2 FREE 100CT
50007.5	104200	PIN, T 100CT
1176.2	104201	PIN, UPPER STEM CLOW
7811	104203	PINE BARK, MINI NUGGETS 3 CB FT BAGS
4241	104204	PIPE LUBE, 1GAL / 8LB 48" ECP/LCP
1720	106829	PIPE LUBRICATION, QT/HALF GALLON TUB
4200	104205	PIPE SEC, 48"LCP SH 8.87' LL L301MK286
5569.8	104206	PIPE, 1 1/2" X 20' PVC SCH 80 PL
5569.7	104207	PIPE, 1 1/4" X 20' PVC SCH 80 PL
5569.2	104208	PIPE, 1" X 20' PVC SCH 80 PL
5569.6	104209	PIPE, 1/2" X 20 PVC SCH 80 PL
4126	104210	PIPE, 10" X 13' PVC SCH 35 PL,GRN

BIN#	SAP#	Material Description
5575	104211	PIPE, 10" X 18' DI CLASS 350
4127	104212	PIPE, 12" X 13' PVC SCH 35 PL,GRN
5576	104213	PIPE, 12" X 18' DI CLASS 350
5577	104214	PIPE, 14" X 18' DI CLASS 350
5578	104216	PIPE, 16" X 18' DI CLASS 350
4121	104217	PIPE, 18" X 18' DI CLASS 52 EPOXY
5569	104218	PIPE, 2" X 20' PVC CLASS 200 PL W/G
5569.9	104219	PIPE, 2" X 20' PVC SCH 80 PL
4117.1	104220	PIPE, 20" X 20' DI CLASS 300
4117.2	104221	PIPE, 24" X 18' DI CLASS 300
5570	104222	PIPE, 3" X 18' DI CLASS 350
5569.3	104223	PIPE, 3" X 20' PVC SCH 80 PL
5569.1	104224	PIPE, 3/4" X 20 PVC SCH 80 PL
4118.1	104225	PIPE, 30" X 20' DI CLASS 250
4119	104227	PIPE, 36" X 18' DI CLASS 250
5571	104228	PIPE, 4" X 20' DI CLASS 350
5571.1	104229	PIPE, 4" X 20' DI CLASS 350,PLAIN X FL
4123	104230	PIPE, 4" X 20' PVC SCH 40 PL
5569.5	104231	PIPE, 4" X 20' PVC SCH 80 PL
4819	104232	PIPE, 42" X 20' DI CLASS 250
4820	104234	PIPE, 48" X 20' DI CLASS 250
5419	106959	PIPE, 54" X 20', DI FLEX RING CL250
5420	106960	PIPE, 54" X 20', DI MJ CL250
4114	104235	PIPE, 6" X 14foot PVC SCH 35 PL,GRN
5572	104236	PIPE, 6" X 18' DI CLASS 350
5572.1	104237	PIPE, 6" X 18' DI CLASS 350, PLAIN X FL
5569.4	104238	PIPE, 6" X 20' PVC SCH 80 PL
4125	104240	PIPE, 8" X 12.5' PVC TRUSS W/G
4113	104239	PIPE, 8" X 13.5' PVC SCH 35 PL,GR
5574	104241	PIPE, 8" X 18' DI CLASS 350
5574.1	104242	PIPE, 8" X 18' DI CLASS 360, PLAIN X FL
20010	104243	PIPE, ARCH CR 16" 11"RISE X18"SPX8'
20011	104244	PIPE, ARCH CR 18" 13 1/2"RISEX22"SPX8'
20012	104245	PIPE, ARCH CR 24" 18"RISEX28 1/2"SPX8'
20014	104246	PIPE, ARCH CR 30" 22 1/2"RSX36 1/4"SPX8'
20017	104247	PIPE, ARCH CR 36" 26 5/8"RSX43 3/4"SPX8'
20018	104248	PIPE, ARCH CR 42" 31 5/8"RSX51 1/8"SPX8'
5579	112090	PIPE, C900 4" X 20 ', DR18 235 PSI

BIN#	SAP#	Material Description
5580	112092	PIPE, C900 6" X 20 ', DR18 235 PSI
5581	112095	PIPE, C900 8" X 20 ', DR18 235 PSI
20070	104249	PIPE, CMP FULL RND 15" X 20' 14 gauge
20082	104250	PIPE, CMP FULL RND 18" X 20' 14GA Alum
20083.5	104252	PIPE, CMP FULL RND 24"X 20' 14GA Alum
20085	104253	PIPE, CMP FULL RND 30"X 20' 14GA Alum
20087	104254	PIPE, CMP FULL RND 42" X 20' 14GA Alumin
20088	106768	PIPE, CMP FULL RND 48"X20' 14 gauge
20089	106678	PIPE, CMP FULL RND 60"X20' 12 GA COATED
20086	106918	PIPE, CMP RULL RND 36"X20' 14 gauge
2003	104255	PIPE, CUTTERS, 2",RIDGED
1722	104256	PIPE, DOPE THREAD COMPOUND, PINT CAN
5590	104257	PIPE, GALV 1 1/2" X 21'
5587	104258	PIPE, GALV 1 1/4" X 21' JOINTS
5589	104259	PIPE, GALV 1" X 21'
5592	104260	PIPE, GALV 2 1/2" X 20'
5591	104261	PIPE, GALV 2" X 21' THD
5588	104262	PIPE, GALV 3/4" X 21' THD
20278	109631	PIPE, HDPE 15" X 20' SMOOTH INSIDE POLY
20279	104263	PIPE, HDPE 18" X 20' SMOOTH INSIDE POLY
20280	104264	PIPE, HDPE 24" X 20' SMOOTH INSIDE POLY
20281	104265	PIPE, HDPE 30" X 20' SMOOTH INSIDE POLY
20282	104226	PIPE, HDPE 36" X 20' SMOOTH INSIDE POLY
20283	104233	PIPE, HDPE 48" X 20' SMOOTH INSIDE
20304	104266	PIPE, RCP 15" X 8' CLASS 3 T IN GROOVE
20302	104267	PIPE, RCP 18" X 8' CLASS 3 T IN GROOVE
20303	104268	PIPE, RCP 24" X 8' CLASS 3 T IN GROOVE
20320	104269	PIPE, RCP 30" X 8' CLASS 3 T IN GROOVE
20305	104270	PIPE, RCP 36" X 8' CLASS 3 T IN GROOVE
20306	104271	PIPE, RCP 42" X 8' CLASS 3 T IN GROOVE
20307	104272	PIPE, RCP 48" X 8' CLASS 3 T IN GROOVE
20312	104273	PIPE, RCP 54" X 8' CLASS 3 T IN GROOVE
7610	104279	PLASTIC SHEETING, 4 MILS, 10' X 100', CL
1173.1	104288	PLATE, UPPER VALVE CLOW 5 1/4"-M17
1158.4	104289	PLATE, VALVE BOTTOM MET 250 M94 5 1/4
1158.5	104290	PLATE, VALVE UPPER MET 250 M94 5 1/4
2012	104291	PLIERS, 10" ADJ CHROM CHANNEL LOCK 430G
2013	104292	PLIERS, 10" LOCK VISE GRIPS

BIN#	SAP#	Material Description
2011	104293	PLIERS, 12" ADJ CHR CHANNEL LOCK - 440G
2010	104294	PLIERS, 16" ADJ CHANNEL LOCKS
3361	112605	PLUG HEX, 3/4 NPT 150 304 SS
248.2	104334	PLUG, GALV 1" SQUARE HEAD
5033	104296	PLUG, 10" MJ DI W/ACC SIGMA DMP10
5522	104297	PLUG, 10" RUSSELL
5519	104298	PLUG, 12" D.I. SIGMA
5031	104299	PLUG, 12" MJ DI W/ACC SIGMA DMP12
5035	104300	PLUG, 14" MJ DIF-NS-P140
5036	104301	PLUG, 16" MJ
5520	104302	PLUG, 16" TYTON C
5038	104304	PLUG, 30" MJ DIF-NS-P300
864.2	104305	PLUG, 3-PRG W/GND T/LOCK 20A 125V
5039	104306	PLUG, 4" MJ
5517	104307	PLUG, 6" D.I. SIGMA
5032	104308	PLUG, 6" MJ DI WITH ACC.
5041	104309	PLUG, 6" MJ TAPPING 6" X 3"
5040	104310	PLUG, 6" MJ TAPPING 6" X 4"
1252	104311	PLUG, 6" PVC PIPE WINGNUT
5518	104312	PLUG, 8" D.I. SIGMA
5034	104313	PLUG, 8" MJ DI W/ACC.
5081	104314	PLUG, 8" MJ WITH 2" TAP
1247	104315	PLUG, 8" PVC PIPE MECH S-802
247	105459	PLUG, GALV 1 1/2" SQUARE HEAD
248	104318	PLUG, GALV 1/2" SQUARE HEAD
249.2	104319	PLUG, GALV 1/4" SQUARE HEAD
249	104320	PLUG, GALV 1/8" SQUARE HEAD
247.1	104321	PLUG, GALV 2" SQUARE HEAD
248.1	104322	PLUG, GALV 3/4" SQUARE HEAD
249.1	104323	PLUG, GALV 3/8" SQUARE HEAD
3180	104324	PLUG, HEX HD 1" NPT 150LB 304S/S
3178	104325	PLUG, HEX HD 1/2" NPT 150LB 304S/S
3176	104326	PLUG, HEX HD 1/4" NPT 150LB 304S/S
3175	104327	PLUG, HEX HD 1/8" NPT 150LB 304 S/S
3183	104328	PLUG, HEX HD 2" NPT 150LB 304S/S
3185	104329	PLUG, HEX HD 3" NPT 150LB 304S/S
3177	104330	PLUG, HEX HD 3/8" NPT 150LB 304 S/S
1248	104331	PLUG, MECHANICAL WINGNUT 6"

BIN#	SAP#	Material Description
1249	104332	PLUG, MECHANICAL WINGNUT 8"
2231	104346	POISON IVY, PLANT - GEL ANTI ITCH 25CT
2217.1	104347	POISON IVY, SKIN PROTECTANT 4OZ
1921	104348	POLE BREAKER, SINGLE LOCKOUT
947	104352	POLE, ALUMINUM EXTENS 16' TELESCOPIC
959.1	104364	POLISH, FURNITURE AEROSOL 10OZ 12
8007	104374	POST HOLE DIGGER, W/48" WD HANDLES
921.1	104383	POTASSIUM IODIDE, ELECTROLYTE SOLUTION
965	104394	POWDER, SCOURING 21OZ 24CT
717.3	111284	Power Line Protector, EDCO HSP121BT-1RU
717.6	111640	Power Supply, 12V-Locking-Digi cord only
50164.5	106939	PRINTER CART, BLK, TGA776-26250002 CS
913.1	104478	PROBE, COMBINATION PH/ATC
914	104480	PROBE, DO SENSOR, W/10 FOOT CABLE
918.1	104483	PROBE, PH STAND
50118	104486	PROTECTOR, SHEET LETTER
8012	104493	PRY BAR, 18 60"
753	112181	Pump DVS Repair Kit,1 1/2"Bellows
754	112182	Pump DVS Repair Kit,1"Bellows0300129
749	104506	PUMP, DVS CHEMICAL FEED W 1 1/2" BELLOW
748	104507	PUMP, DVS CHEMICAL FEED W/1" BELLOW
749.1	112288	PUMP,DVS CHEMICAL 1 1/2 #15908-001
2045.5	104535	PUNCH, PIN 5/16"
50007	104536	PUSH PIN
1718.1	111513	PVC Cement Rain-R-Shine 8 oz. Can
1718	104539	PVC CEMENT/GLUE, 16 OZ. CAN
1717	104540	PVC CLEANER PURPLE PRIMER, 16 OZ.
2229.1	101650	Q TIP (COTTON), WOOD HANDLE 6" LG 10CT
1057	106798	RAINCOAT, PVC/NYLON XXXXL 48" W/HOOD
1053	104557	RAINCOAT, PVC/NYLON LARGE 48" W HOOD
1054	104553	RAINCOAT, PVC/NYLON XL 48" W HOOD
1055	104554	RAINCOAT, PVC/NYLON XXL 48" W HOOD
1056	104555	RAINCOAT, PVC/NYLON XXXL 48" W HOOD
1058	104556	RAINCOAT, PVC/NYLON XXXXXL 48" W HOOD
1061	104558	RAINSUIT, YELLOW L COAT W HOOD BIB BOTTM
1060	104559	RAINSUIT, YELLOW M COAT W HOOD BIB BTM
1059	104560	RAINSUIT, YELLOW S COAT W HOOD BIB BOTTM
1062	104561	RAINSUIT, YELLOW XL COAT W HOOD BIB BTM

BIN#	SAP#	Material Description
1063	104562	RAINSUIT, YELLOW XXL COAT HOOD BIB BTTM
1064	104563	RAINSUIT, YELLOW XXXL COAT HOOD BIB BTTM
1065	106797	RAINSUIT, YELLOW XXXXL COAT/HOOD BIB
1066	104564	RAINSUIT, YELLOW XXXXXL W/HOOD&BIB
8001	104565	RAKE BOW, 15", 15 TINES 60" WOOD HANDLE
2028	104574	RATCHET, 1/2" DRIVE, 10 3/8" LONG
2067	107385	RATCHET, MJ ADJUSTABLE QUICK RELEASE
20170	104581	REBAR, 1/2" X 20' GR 40
864	104584	RECEPTACLE, SINGLE 20A 250V
5512.5	104588	REDUCER ,8" X 6" DI FL X FL
3378	112622	REDUCER BELL 1" X 1/2" NPT 150 304 SS
3377	112621	REDUCER BELL 1" X3/4" NPT 150 304 SS
3356	112600	REDUCER BELL 1/2" X 3/4" NPT 150 304 SS
3340	112584	REDUCER BELL 1/4"X1/2" NPT 150 304 SS
3283	104589	REDUCER BELL, 1/2"X3/8" NPT 150LB 304S/S
3281	104590	REDUCER BELL, 1/4"X1/8" NPT 150LB 304S/S
3338	112582	REDUCER BELL, 1/8" X 1/4" NPT 150 304 SS
3282	104591	REDUCER BELL, 3/8"X1/4" NPT 150LB 304S/S
3302	104592	REDUCER BUSH, 1 1/2"X1" NPT 150LB 304S/S
3300	104593	REDUCER BUSH, 1"X3/4" NPT 150LB 304S/S
3298	104594	REDUCER BUSH, 1/2"X1/4" NPT 150LB304S/S
3313	104595	REDUCER BUSH, 1/2"X3/8" NPT 150LB304S/S
3296	104596	REDUCER BUSH, 1/4"X1/8" NPT 150LB304S/S
3304	104597	REDUCER BUSH, 2 1/2"X2" NPT 150LB304S/S
3303	104598	REDUCER BUSH, 2"X1 1/2" NPT 150LB304S/S
3305	104599	REDUCER BUSH, 3"X2 1/2" NPT 150LB304S/S
3299	104600	REDUCER BUSH, 3/4"X1/2" NPT 150LB304S/S
3308	104601	REDUCER BUSH, 3/4"X1/4" NPT 150LB304S/S
3297	104602	REDUCER BUSH, 3/8"X1/4" NPT 150LB304S/S
3379	112623	REDUCER BUSHING 1"X 1/2" NPT 150 304 SS
3339	112583	REDUCER BUSHING 1/8"X1/4" NPT 150 304 SS
5513.5	104604	REDUCER, 10" X 8" DI FL X FL
5513.3	104605	REDUCER, 10" X 8" DI MJ
5514	104606	REDUCER, 12" X 8" DI MJ
5511.5	104608	REDUCER, 6" X 4" DI FL X FL
5511	104609	REDUCER, 6" X 4" DI MJ
5516	104610	REDUCER, 8" PE X 6" DI MJ
5512	104612	REDUCER, 8" X 6" DI MJ

BIN#	SAP#	Material Description
5343	112503	REDUCER,COMPRESSION 4X6 FLANGED
243.1	104615	REDUCING BUSHING, GALV 1" X 1 1/2" HEX
243.3	104616	REDUCING BUSHING, GALV 1" X 1 1/4" HEX
242.2	104617	REDUCING BUSHING, GALV 2 1/2" X 2" HEX
242	104618	REDUCING BUSHING, GALV 2" X 1 1/4"
244.2	104619	REDUCING BUSHING, GALV 3" X 2 1/2"
243	104620	REDUCING BUSHING, GALV 3/4" X 1" HEX
244	104621	REDUCING BUSHING, GALV 3/4" X 1/2" HEX
242.1	101102	REDUCING, BUSHING HEX GALV 1 1/2" X 2"
759	111500	Relay, Alternating 120V W/SS & PWR (MPE)
751	109673	RELAY, S&L ELECTRODE (NEW) #4L408H
730.5	101993	RELAY, S&L ELECTRODE (OLD) #4L408
1087	104626	RESPIRATOR, MASK LARGE, CART TYPE
1086	104627	RESPIRATOR, MASK MEDIUM CART TYPE
1085	104628	RESPIRATOR, MASK SMALL, CART TYPE
1329.1	104645	ROD CONNECTOR COUPLING, 3/4" METAL
1146.1	104646	ROD, COUPLING MUELLER 4 1/2" NEW
1145	104647	ROD, COUPLING MUELLER 5 1/4" NEW
1102.1	104648	ROD, OPERATING UPPER A D MARK 73
8014	104649	ROD, PROBING, INSUL ROD,METAL TIP, 4 FT
1913	104660	ROPE, 1/4" SOLID BRAID NYLON 1000'
833	104662	ROPE, POLY-LIFT INFLATABLE HOSE 20FT
1107.6	109833	RUBBER, MAIN VALVE A D MARK 73 4 1/2"
1107	104678	RUBBER, MAIN VALVE A D B62B
1180.3	104679	RUBBER, MAIN VALVE CLOW MED 5 1/4"
1135	104680	RUBBER, MAIN VALVE KENNEDY K81A 5 1/4
1120	104681	RUBBER, MAIN VALVE M & H 4 1/2"129T V O
1120.1	104682	RUBBER, MAIN VALVE M & H VO 5 1/4" 129T
1158.3	104683	RUBBER, MAIN VALVE MET 250 5 1/4"OLDSTYL
1148	104684	RUBBER, MAIN VALVE MUELLER 4 1/2"
1150	104685	RUBBER, MAIN VALVE MUELLER 5 1/4"
1165.3	104686	RUBBER, MAIN VALVE, MET 250 M94 5 1/4
50002.5	104687	RUBBERBAND, SIZE 16
50002	104688	RUBBERBAND, SIZE 33
422	104691	SADDLE, 1 1/2" X 1" CC 1STP OD 1.62 1.92
423	104692	SADDLE, 1 1/2" X 3/4"CC 1STPOD 1.61-1.92
411	104693	SADDLE, 10"X1" CC 2ST AC/CI 11.10-12.12
314	104694	SADDLE, 10"X1" CC TAP2ST SDR21 CL 200

BIN#	SAP#	Material Description
416	104695	SADDLE, 10"X2" IP 2ST AC/CI 11.10-12.12
315	104696	SADDLE, 10"X2" IP 2ST SDR21CLASS 200
319	104697	SADDLE, 10"X3/4" CC 2ST TAPSDR 21CL200
404	104698	SADDLE, 10"X3/4"CC 2ST AC/CI11.10-12.12
6357	104699	SADDLE, 12" X 8" TAP FAB DI 13.13-13.60
420	104700	SADDLE, 12"X1" CC 2ST AC/CI 13.20-14.38
425	104701	SADDLE, 12"X2" IP 2ST AC/CI 13.20-14.38
405	104702	SADDLE, 12"X3/4"CC 2ST AC/CI 13.20 14.38
6356	104704	SADDLE, 12"X6" FAB DI 13.13-13.60
440	104703	SADDLE, 12"X6" TAP CI DI 13.13 13.60
414.1	104705	SADDLE, 14"X2" IP TAP 2ST DI 15.30-16.80
421	104706	SADDLE, 16" X 1"CC 2ST CI AC 17.40 18.90
6358	104707	SADDLE, 16" X 8" TAP FAB 17.88 18.43
426	104708	SADDLE, 16"X2" IP 2ST CI AC 17.40 18.95
406	104709	SADDLE, 16"X3/4"CC 2STR CI AC17.40 18.95
6359	104710	SADDLE, 18" X 8" TAP FAB 19.41-20.01
439	104711	SADDLE, 2 1/2" X 1" CC TAPING PVC PIPE
438	104712	SADDLE, 2 1/2" X 3/4" IP TAP 2.44 2.91
417	104713	SADDLE, 2" X 1" CC 2STR GALV.2.38 2.56
418	104714	SADDLE, 2"X3/4"CC 2STR TAP GALV2.35 2.56
323	104715	SADDLE, 20" X 3/4" TAPPING DI
6368	104716	SADDLE, 20"X 1" CC 3STR DI 21.35 22.60
6367	104717	SADDLE, 20"X 2"IP 2STR NPT 21.58 DI
6366	104718	SADDLE, 20"X8" 3STR TAP DI FLG W/O-RING
6361	104719	SADDLE, 24" X 8" TAP FAB, 27.26 27.96
312	104720	SADDLE, 24"X1"CC 3STR CI AC 25.50 26.50
6365	104721	SADDLE, 24"X12" TAP DI FL 25.80 OD RANGE
317	104722	SADDLE, 24"X2" IP 3STR CI 25.50 26.50
322	104723	SADDLE, 24"X3/4"CCTAP3STRCIAC25.55-26.32
6353	104724	SADDLE, 24"X6",FAB STEEL 25.71-26.41
400.1	111931	SADDLE, 3" X 2"ip, 2ST,CI/AC 3.45 - 4.05
407.5	104725	SADDLE, 3"X 3/4" CC,2STR DI , 3.45 4.05
400	104726	SADDLE, 3"X 3/4" CC,2STR TAP DI
407	104727	SADDLE, 3"X1"CC, SDR-21CL200 2.97 3.54
412	104728	SADDLE, 3"X2"IP SDR-21CL 200 2.97 3.54
313	104729	SADDLE, 30"X1"CC 3STR CIAC OD31.75 32.50
6364	104730	SADDLE, 30"X12" 3STR TAP DI 31.52 32.22
311	104731	SADDLE, 30"X2"IP3STR TAP CIAC31.75 32.50

BIN#	SAP#	Material Description
316	104732	SADDLE, 30"X3/4"CC TAP3STR CI AC 31.75
6364.5	107001	SADDLE, 36" X 6" FABRICATED 31.75
6351	104733	SADDLE, 36"X1"CC TAP CIAC 37.71 38.46
6363	104734	SADDLE, 36"X12" TAP DI 38.18 38.60 O-RG
6352	104735	SADDLE, 36"X2" IP TAP CI AC 37.71 38.46
6350	104736	SADDLE, 36"X3/4"CC TAP DI/CI 7.71 38.46
413.1	112200	SADDLE, 4" X 2", IP 2 Strp,4.40-4.80od.
408	104737	SADDLE, 4"X1" CC 2 STR CI/AC 4.50-5.40
308.1	104738	SADDLE, 4"X1" IP SDR-21 CL200 4.00-4.50
413	104739	SADDLE, 4"X2" IP 2STR CI/AC 4.50-5.40
310	104740	SADDLE, 4"X2" IP SDR-21CL200 4.00-4.50
401	104741	SADDLE, 4"X3/4"CC 2STR CI/AC 4.50-5.40
308	104742	SADDLE, 4"X3/4"CC TAP 2STR PVC 4.70 5.40
6361.5	104743	SADDLE, 42"X12"TAP DI FLG W/3STR 44.50
6362	104744	SADDLE, 48"X12" TAPDI FLG 50.68 51.12
409	104745	SADDLE, 6"X1" CC 3STR CI AC 6.63 7.60
429	104746	SADDLE, 6"X1"CC 2STR SDR-21 6.00-6.63
414	104747	SADDLE, 6"X2" IP 2STR AC/CI 6.63-7.60
320	104748	SADDLE, 6"X2" IP 2STR SDR-21 6.00-6.63
402	104749	SADDLE, 6"X3/4" CC 2STR CI AC 6.63 7.60
428	104750	SADDLE, 6"X3/4" CC 2STR SDR-21 6.00-6.63
318	104751	SADDLE, 6"X6" TAP MJ CI 7.40 7.73 FAB
410	104752	SADDLE, 8"X1" CC 2STR AC/CI 9.05-9.55
419	104753	SADDLE, 8"X1" CC 2STR SDR-21 8.63
415	104754	SADDLE, 8"X2" IP 2STR AC/CI 9.05-9.55
321	104755	SADDLE, 8"X2" IP 2STR SDR-21 8.63 9.80
403	104756	SADDLE, 8"X3/4" CC 2STR AC/CI 9.05-9.55
424	104757	SADDLE, 8"X3/4" CC 2STR SDR-21 8.00-8.63
548.1	104758	SADDLE, PVC TAPPING 8" HUB TYPE, PREDCO
719.1	112272	SAFE UNIT-JOHN CRANE 0-4GPM 228862200000
1081	104759	SAFETY BELT, LARGE FLU ORANGE W/SUSP
1080	104760	SAFETY BELT, MEDIUM FLU ORANGE W/SUSP
1079	104761	SAFETY BELT, SMALL FLU ORANGE W/SUSP
1082	104762	SAFETY BELT, XLARGE FLU ORANGE W/SUSP
1083	104763	SAFETY BELT, XXLARGE FLU ORANGE W/SUSP
1084	104764	SAFETY BELT, XXXLARGE FLU ORANGE W/SUSP
1513	104768	SAFETY SOLVENT AND DEGREASER, 20OZ 12CT
1074	104769	SAFETY SUIT, LARGE DISPOS COVERALLS

BIN#	SAP#	Material Description
1075	104770	SAFETY SUIT, XL DISPOS COVERALLS
1076	104771	SAFETY SUIT, XXL DISPOS COVERALLS
1077	104772	SAFETY SUIT, XXXL DISPOS COVERALLS
1078	104773	SAFETY SUIT, XXXXL DISPOS COVERALLS
7813	104778	SALT, ROCK COARSE 50LB
950	104784	SANITIZER, HAND INSTANT 4OZ 36CT
2016	104788	SAW, HACK 12" HEAVY DUTY INDUSTRIAL
2018	104789	SAW, HAND PLASTIC PIPE ALUMINUM HANDLE
50111	104791	SCISSORS, 8" PLASTIC HANDLES
936	104793	SCOOP, UTILITY POLYETHYLENE 2QT WHITE
817.2	109766	SCREW, FLAT 4-40X5/16 S/S u-shorty#HW266
1114.6	104807	SCREW, FLAT HEAD M&H WEATH/SHIELD
1170.1	104808	SCREW, FLATHEAD CLOW 3/8"
1138.1	104811	SCREW, LOCKING HEX OUTLET CLOW
817.3	109767	SCREW, SET 8-32X1LG, LOK,u-shorty #HW769
1176	104819	SCREW, WEATHER CAP CLOW
1396	112382	SCREW,SELF TAPPING 1 1/2 INCH #14
818.3	112482	SCREW,SHOULDER HW772 U-SHORTY
2017.1	107030	SCREWDRIVER, STUBBY SLOTTED TIP
2014.1	104820	SCREWDRIVER, 8" x 1/4" PHILLIPS HEAD
2015	104821	SCREWDRIVER, LG 12" FLAT 3/8" BLADE
2014	104822	SCREWDRIVER, SM 6" FLAT PL HANDLE
730.1	104824	SEAL FILTER, O-RING SCHRADER BELLOWS S&L
734.5	104825	SEAL WATER FILTER S&L ASSY 40 MIC (OLD)
747.1	104853	SEAL WATER FILTER, FILTER ELEMENT ONLY
747	104849	SEAL WATER FILTER, S&L ASSY 40MIC (NEW)
747.3	104852	SEAL WATER FILTER, S&L DRAIN VALVE ONLY
735.2	104850	SEAL WATER FILTER, S&L BWL+DRAIN+ORNG
734.6	104851	SEAL WATER FILTER, S&L FILTER DEFLECTOR
747.2	104854	SEAL WATER FILTER, S&L O-RING ONLY
727.1	104826	SEAL, 3" DOUBLE MECH PUMP S&L
1165.1	104828	SEAL, BONNET MET 250 5 1/4"
731.1	104829	SEAL, S&L 1 7/8" DBLE MECH HOUSING
731.2	104830	SEAL, S&L 1 7/8" DBLE MECH LOWER HOUSING
728	104831	SEAL, S&L 1 7/8" DOUBLE MECHANICAL
729.4	104832	SEAL, S&L 1 7/8" HOUSING GASKET
728.6	104833	SEAL, S&L 1 7/8" HOUSING, QUADRING
727.2	104834	SEAL, S&L 1 7/8" SINGLE MECHAN

BIN#	SAP#	Material Description
730.8	104835	SEAL, S&L 1 7/8" SINGLE MECHAN HOUSING
731.3	104836	SEAL, S&L 2 1/8" DBLE MECH HOUSE LOWER
728.1	104837	SEAL, S&L 2 1/8" DOUBLE MECHAN
730.9	104838	SEAL, S&L 2 1/8" DOUBLE MECHAN HOUSE
729.3	104839	SEAL, S&L 2 1/8" HOUSING GASKET
729.1	104840	SEAL, S&L 2 1/8" HOUSING QUADRING
731	104841	SEAL, S&L 2 1/8" SINGLE MECHAN HOUSING
728.2	104842	SEAL, S&L 2 1/8" SINGLE MECHANICAL
731.5	104843	SEAL, S&L 3" DOUBLE MECH HOUSING LOW 1
731.4	104844	SEAL, S&L 3" DOUBLE MECH HOUSING LOW 2
729.5	104845	SEAL, S&L 3" HOUSING GASKET OLD PUMP
729	104846	SEAL, S&L 3" HOUSING QUADRING
731.6	104847	SEAL, S&L 3" HOUSING, SINGLE MECHANICAL
727	104848	SEAL, S&L 3" SINGLE MECHANICAL
1244	104858	SEALER, JT 4" SCH 40 PVC PIPE PREDCO
1245	104859	SEALER, JT 6" DI PIPE PREDCO
1246	104860	SEALER, JT 6" SCH 35 PVC PIPE PREDCO
1251	106650	SEALER, MANHOLE RAP-0 1/2" X 84" ROLL
1165.2	104861	SEAT RING, BRASS 5 1/4 MET 250 M94
1168.8	107130	SEAT RING, BRASS 5 1/4" MET 250 OLD
1105	104863	SEAT, MAIN VALVE A D B62B 5 1/4"
1140	104864	SEAT, MAIN VALVE KENNEDY K81A 5 1/4"
1116	104865	SEAT, MAIN VALVE M & H 4 1/2" 129T V O
1121	104866	SEAT, MAIN VALVE M & H VO 5 1/4" 129T
1149	104867	SEAT, MAIN VALVE MUELLER 5 1/4"
1121.1	104868	SEAT, MAIN VALVE O-RING KIT M&H 129
1166	104869	SEAT, RING CLOW 5 1/4" MEDALLION
1107.1	104870	SEAT, VALVE A D MARK 73 4 1/2"
719.2	112273	SENSOR,LIGHT ALARM-JOHN CRANE 22770511
9504	112059	SHIRT, GOLF MW, NAVY 4XL
9516	112058	SHIRT, GOLF MW, NAVY (2XL)
9515	112057	SHIRT, GOLF MW, NAVY SMALL
9520	104972	SHIRT, GOLF NAVY OVERSIZE 2XL
9522	104974	SHIRT, GOLF NAVY OVERSIZE 4XL
9518	104975	SHIRT, GOLF NAVY REG CUT L
9217	104976	SHIRT, GOLF NAVY REG CUT M
9519	104977	SHIRT, GOLF NAVY REG CUT XL
9514.4	112653	SHIRT, V-NECK GOLF LADIES MW, NAVY 2XL

BIN#	SAP#	Material Description
9514.2	112651	SHIRT, V-NECK GOLF LADIES MW, NAVY LARGE
9514.1	112649	SHIRT, V-NECK GOLF LADIES MW, NAVY MED.
9514	112048	SHIRT, V-NECK GOLF LADIES MW, NAVY SMALL
9514.3	112652	SHIRT, V-NECK GOLF LADIES MW, NAVY XL
9516.1	112279	SHIRT,GOLF MW,NAVY (3 XL)
9515.3	112278	SHIRT,GOLF MW,NAVY (XL)
9515.2	112277	SHIRT,GOLF MW,NAVY LARGE
9515.1	112275	SHIRT,GOLF MW,NAVY MEDIUM
8002	105130	SHOVEL, FLAT 48" HANDLE
8003	105132	SHOVEL, ROUND POINT 48" HANDLE
8004	105135	SHOVEL, SHARP SHOOTER 5 1/2"X14" WD HAND
8005	105136	SHOVEL, SHARP SHOOTER W48"LONG HANDLE
8009	105137	SHOVEL, SQUARE POINT 27" D-HANDLE
8019	107372	SHOVEL, TRENCH, 5 " BLADE, 48" HANDLE
1052	105147	SIDESHIELD, SLIP-ON 10PK
7991	105155	SIGN, 48" ROLL UP ROAD CLOSED ORANGE
7987	105156	SIGN, 48" ROLL-UP FLAGGER AHEAD ORANGE
7989	105157	SIGN, 48" ROLL-UP LANE CLOSED ORANGE
7988	105158	SIGN, 48" ROLL-UP MEN WORKING ORANGE
1713.1	104179	SILICONE,RTV 6B BLUE PERMATEX TUBE
7844	105355	SILT FENCE, BLACK CLOTH 36" 100'
20242	109404	SILT SCREEN, FILTER , RND BASE
20241	109403	SILT SCREEN, RND BASE, FLTR ASSY
804	105361	SLIPPER HOSE GUIDE, W/ EYE RP TIGER TAIL
947.2	105362	SLUDGE CORE SAMPL, BOT SECT 10' W VALVE
947.1	105363	SLUDGE CORE SAMPL, TOP SECT 5' W ROPE
966	105371	SOAP, BODY LIQUID 1GAL
966.1	105374	SOAP, HAND ANTISEPTIC, 900 ML REFILL
966.2	105376	SOAP, HAND DOUBLEPLAY W PUMICE 1GAL
1619.1	106660	SOAP, TRUCK&CAR LIQ 35GL DRUM
816.2	111352	Socket Holder, Lamp - OZ II , #EC123
2054	105377	SOCKET, 1 1/16" 6PT 1/2" DRIVE DEEP DPT
2007.1	105378	SOCKET, 1 1/16" MJ
2055	105379	SOCKET, 1 1/8" 6PT 1/2" DRIVE DEEP DEPTH
2053	105380	SOCKET, 1" 6PT 1/2" DRIVE DEEP DEPTH
2056	105381	SOCKET, 1/2" 6PT 1/2" IMPACT DEEP DRIVE
2051	105382	SOCKET, 13/16" 6PT 1/2" DRIVE DEEP DEPTH
2052	105383	SOCKET, 15/16" 6PT 1/2" DRIVE DEEP DEPTH

BIN#	SAP#	Material Description
2049	105384	SOCKET, 3/4" 6PT 1/2" DRIVE DEEP DEPTH
2050	105385	SOCKET, 7/8" 6PT 1/2" DRIVE DEEP DEPTH
2068	107386	SOCKET, MJ -CORPORATION SPLIT
2007	105386	SOCKET, WRENCH 1 1/4" MJ
750.1	110890	SOLENOID KIT, S&L, SONIC START SYSTEM
733.2	105393	SOLENOID VALVE, 2-WAY 3/8"
733	105394	SOLENOID VALVE, S&L 3WAY/W SLVE WREN
733.1	105395	SOLENOID VALVE, S&L SLEEVE WRENCH
5558	105396	SOLID SLEEVE, 10" X 12" MJ DI
5559	105397	SOLID SLEEVE, 12" X 12" MJ DI
5561	105398	SOLID SLEEVE, 14" X 15" MJ DI
5562	105399	SOLID SLEEVE, 16" X 15" MJ DI
5560	105400	SOLID SLEEVE, 18" X 15" MJ DI
5563	105401	SOLID SLEEVE, 20" X 15" MJ DI
5564	105402	SOLID SLEEVE, 24" X 15" MJ DI
5554	105403	SOLID SLEEVE, 3" X 12" MJ DI
5565	105404	SOLID SLEEVE, 30" X 24" MJ DI
5566	105405	SOLID SLEEVE, 36" X 24" MJ DI
5555	105406	SOLID SLEEVE, 4" X 12" MJ DI
5005	105407	SOLID SLEEVE, 42" X 24" MJ DI
5000	105408	SOLID SLEEVE, 48" X 24" MJ DI
5556	105409	SOLID SLEEVE, 6" X 12" MJ DI
5557	105410	SOLID SLEEVE, 8" X 12" MJ DI
5557.1	105411	SOLID SLEEVE, 8" X 7" MJ DI (SHORT)
1705.3	105417	SPARK PLUG, QUICK CUT SAW
20097	105423	SPILLWAY THROAT 1033 DOUBLE WING
20424	105421	SPILLWAY THROAT 1033 LEFT WING
20426	105422	SPILLWAY THROAT 1033 RIGHT WING
835	110015	SPLICER, COUPLING 3/4" 3000lb
966.3	105432	SPONGE, SCRUBBING 40CT
5844	105434	SPOOL, 10" DIA X 24" LAY FL X FL DI
5850	105435	SPOOL, 10" DIA X 72" LAY FL X FL DI
5841	105436	SPOOL, 4" DIA X 24" LAY FL X FL DI
5847	105437	SPOOL, 4" DIA X 72" LAY FL X FL DI
5842	105438	SPOOL, 6" DIA X 24" LAY FL X FL DI
5848	105439	SPOOL, 6" DIA X 72" LAY FL X FL DI
5839	111652	SPOOL, 6" DiaX 12"Lay w/2"Tap,Cen. FLXFL
5843	105440	SPOOL, 8" DIA X 24" LAY FL X FL DI

BIN#	SAP#	Material Description
5849	105441	SPOOL, 8" DIA X 72" LAY FL X FL DI
5840	111653	SPOOL, 8" DiaX 12"Lay w/2"Tap,Cen. FLXFL
1509.5	105449	SPRAY, ANTI-FOG AEROSOL
1907	105455	SPRAYER, COMPRESSED AIR 2 1/2 GAL
966.4	105465	SQUEEGEE, FLOOR 36" (USE HANDLE 1060)
7990	105491	STAND, SIGN 2 SPRNG STAND W LOCKING LEGS
7980	105492	STAND, SIGN T GALV ST BUILT-IN SPR CLIP
50013	105500	STAPLER, STANDARD
2072	111800	STAPLES, Arrow T50, 3/8 x 10mm #506
50010	105504	STAPLES, STANDARD 1/4" 5000CT
1179	103044	STEM, CLOW MEDALLION 5 1/4"
1106.2	105510	STEM, EXTENSION A D 4 1/2" X 12"
1106.1	105511	STEM, EXTENSION A D 5 1/4" X 12"
1137.1	105512	STEM, EXTENSION KENNEDY K10B K11 K81A
1157	105513	STEM, OPER LOWER 3 FT MET 250 5 1/4"
1152.1	105514	STEM, OPER LOWER 4 FT MUELLER 5 1/4
1187	105515	STEM, OPER UPPER CLOW MEDDALLION 5 1/4"
1141.2	105516	STEM, OPER UPPER KENNEDY 5 1/4" K81A
1122	105517	STEM, OPER UPPER M & H 4 1/2", 129
1133	105518	STEM, OPER UPPER M & H 5 1/4", 129
1158	105519	STEM, OPER UPPER MET 250 5 1/4"
1151.1	105520	STEM, OPER UPPER MUELLER 5 1/4
2226	105581	STING SWAB, PAIN KILL 10CT
6718	105535	STOP FITTING, 8" C-900 PVC SS PERM FLGE
5437.2	105539	STRAINER, MTR 3" VERT BRONZE 150PSI
5437.3	105540	STRAINER, MTR 4" VERT BRONZE 150PSI
5437.1	105541	STRAINER, MTR 6" VERT BRONZE 150PSI
5441	105542	STRAINER, MTR 8" VERT BRONZE 150PSI
7627	105546	STRAW, PINE BALE
7626	105547	STRAW, WHEAT BALE
2230.1	105574	SUNBLOCK, SPF30 1OZ
9524	112055	SWEATSHIRT, FULL ZIP-HOOD, 100%COT,(2XL)
9525	112056	SWEATSHIRT, FULL ZIP-HOOD, 100%COT,4-EXL
9530	105635	SWEATSHIRT, ZIPPER W HOOD BLACK 2XL
9531	105636	SWEATSHIRT, ZIPPER W HOOD BLACK 3XL
9532	105637	SWEATSHIRT, ZIPPER W HOOD BLACK 4XL
9527	105639	SWEATSHIRT, ZIPPER W HOOD BLACK M
9529	105640	SWEATSHIRT, ZIPPER W HOOD BLACK XL

BIN#	SAP#	Material Description
9528	105641	SWEATSHIRT, ZIPPER W/HOOD BLACK L
9526	111622	SWEATSHIRT, ZIPPER W-HOOD, BLACK, SM
9523.3	112282	SWEATSHIRT, ZIPPER-HOOD, 100% COT, (XL)
9524.1	112283	SWEATSHIRT, ZIPPER-HOOD, 100% COT,(3 XL)
9523.2	112281	SWEATSHIRT, ZIPPER-HOOD, 100% COT,LARGE
9523.1	112280	SWEATSHIRT, ZIPPER-HOOD, 100% COT,MEDIUM
9523	112054	SWEATSHIRT, ZIPPER-HOOD, 100% COT,SMALL
1737	105643	SWEEPING COMPOUND, 50LB BOX
725.1	105651	SWITCH, PRESSURE 9012 GAW-5
50159	112020	TAG, HOT WORK PERMIT, YELLOW 3 PAR
1094	105672	TAG, LOCKOUT "DO NOT CLOSE VALVE" 5/pk
1094.1	105673	TAG, LOCKOUT "DO NOT OPEN VALVE" 5/pk
1094.2	105674	TAG, LOCKOUT DO NOT OPER,PLASTIC -5 PACK
1919.1	111770	TAG, Lubrication Record
1918	105676	TAG, REPAIR ORDER ORDER 5CT
1919	106685	TAG, YELLO METER LOCKOUT
844.2	105679	TAG,"FH OUT OF SERVICE"YW 7 X 7 W/3"CIR
1926	112193	Tags, Malnilla Small w/wire ties (50 pk)
2222	105690	TAPE, ADHESIVE 1/2" X 10 YD
1614	105691	TAPE, BARRICADE "CAUTION"3"X1000' YEL/BL
1608	105692	TAPE, BARRICADE "DANGER"3"X1000' RED/ BL
50001	105696	TAPE, CALCULATOR, 2 1/4" (PMC 08835)
2217	105701	TAPE, DUCT 2" X 60 YDS (GREY)
2211	105702	TAPE, ELECT 1" 70,HG TEM,SELF FS/SIL RUB
2208	105703	TAPE, ELECT BLACK VINYL , 3/4" X 66'
2216.1	105704	TAPE, ELECT BLUE VINYL , 3/4" X 66'
2212	105705	TAPE, ELECT BROWN VINYL 3/4" X 60 FOOT
2216	105706	TAPE, ELECT GREEN VINYL 3/4" X 60 FOOT
2210	105707	TAPE, ELECT HG TEMP GL/CL 3/4" X 66'
2209	105708	TAPE, ELECT LINERLESS SPLICING,3/4"X30'
2213	105709	TAPE, ELECT ORANGE VINYL 3/4" X 66'
2212.1	105710	TAPE, ELECT RED VINYL 3/4" X 66'
2215	105711	TAPE, ELECT WHITE VINYL 3/4" X 66'
2214	105712	TAPE, ELECT YELLOW VINYL 3/4" X 66'
1608.1	105717	TAPE, FLAGGING , 1" X 100' FLU ORAN, PL
50040	105728	TAPE, MASKING 1" X 60ft, tan
2037	105733	TAPE, MEASURING 25' X 1" PL COVER W/LOCK
2219	105736	TAPE, REFLECTIVE WHITE 2"

BIN#	SAP#	Material Description
50074	105741	TAPE, SEALING, CLEAR-2 INCH
2218	105745	TAPE, TEFLON 1/2" X 600FT THREADSEAL
50037	105746	TAPE, TRANSPARENT 3/4"
700	105749	TAPE,"CAUTION SEWER LINE" 2"X1000' ROLLS
7609	105750	TAR, PLASTIC ROOF CEMENT-5 GALLON BUCKET
3150	105755	TEE, 1" NPT 150LB 304 S/S
3148	105756	TEE, 1/2" NPT 150LB 304 S/S
3146	105757	TEE, 1/4" NPT 150LB 304 S/S
3145	105758	TEE, 1/8" NPT 150LB 304 S/S
5502	105759	TEE, 10" X 10" MJ DI
5501	105760	TEE, 10" X 10" MJ X 10" FLG DI W/ACC
5500	105761	TEE, 10" X 6" DI W/ACC KIT
5502.1	105762	TEE, 10" X 8" X 10" DI, MJ X MJ REDUCER
5492	105763	TEE, 12" X 12" X 12" MJ DI W/ACC
5504	105764	TEE, 12" X 12" X 8" MJ DI W/ACC
5505	105765	TEE, 12" X 6" MJ DI
5506	105766	TEE, 14" X 6" MJ DI DIF-NS-T140 X 60
5506.5	105767	TEE, 14" X 6" MJ X FL DI COATED LINED
5508	105768	TEE, 16" X 10" MJ DI
5509	109560	TEE, 16" X 12" MJ DI
5510	105769	TEE, 16" X 16" MJ DI
5507	105770	TEE, 16" X 8" MJ DI
3153	105771	TEE, 2" NPT, 150 LB 304 S/S
5011	105772	TEE, 20" X 20" X 20" MJ DI W/ACCES.
5012	105773	TEE, 24" X 24" X 24" MJ DI W/ACCES
3155	105774	TEE, 3" NPT, 150 LB 304 S/S
3358	112603	TEE, 3/4 NPT 150 304 SS
118	105775	TEE, 3/4" BRASS COMPRESSION
3147	105776	TEE, 3/8" NPT, 150 LB 304 S/S
5013	105777	TEE, 30" X 30" X 30" MJ DI W/ACCESS
5495	105779	TEE, 4" X 4" MJ DI
5494	105780	TEE, 4" X 4" MJ X 4" FLG DI W/ACC
5496	105781	TEE, 6" X 4" MJ DI DIF-T60X40
5497	105783	TEE, 6" X 6" X 6" MJ DI W/ACC
5499.1	105784	TEE, 8" X 8" MJ X 8" FLG DI W/ACC
5498	105785	TEE, 8" X 8" X 6" MJ DI W/ACC
5499	105786	TEE, 8" X 8" X 8" MJ DI W/ACC
5503	105787	TEE, ANCHORING 12"X12"X6" MJ DI W ACC

BIN#	SAP#	Material Description
5529	105789	TEE, ANCHORING 8" X 8" X 6" MJ DI W ACC
255	105460	TEE, GALV 1 1/2" SQUARE HEAD
254	105790	TEE, GALV 1 1/4" SQUARE HEAD
253	105791	TEE, GALV 1" SQUARE HEAD
251.2	105792	TEE, GALV 1/2" THD
251.1	105793	TEE, GALV 1/4"
251	105794	TEE, GALV 1/8"
260	105795	TEE, GALV 2 1/2"
261	105796	TEE, GALV 2"
259.1	105797	TEE, GALV 2" X 1" X 2"
252.1	105798	TEE, GALV 3/4" PIPE
252	105799	TEE, GALV 3/8" PIPE
650	105800	TEE, PVC SCH 35 6"
655	111930	TEE, PVC SCH 35, 8X6X8, glue
555	105801	TEE, PVC SCH 40 4"
522	105802	TEE, PVC SCH 80 1 1/2"
518	105803	TEE, PVC SCH 80 1 1/4"
512	105804	TEE, PVC SCH 80 1"
502	105805	TEE, PVC SCH 80 1/2"
528	105806	TEE, PVC SCH 80 2"
532.1	105807	TEE, PVC SCH 80 3"
506.1	105808	TEE, PVC SCH 80 3/4"
537.1	105809	TEE, PVC SCH 80 4"
541.1	105810	TEE, PVC SCH 80 6"
654.1	112053	TEE, PVC SDR35, 8" SWR GXGXXG
938.1	105814	TEST KIT, CHLOR FREE TOTAL 0-3.5 M916
1250	105816	TEST PLUG, 10" MECHANICAL WINGNUT
938.5	105818	TEST TUBES, REPLACEMENT FOR TEST KITS
920.1	105820	THERMOMETER, 20/110 CP WB SP
7000	105826	THREADED ROD, 1/2" X 6'
7003	105827	THREADED ROD, 3/4" X 10' ALL THRD ROD
7002	105828	THREADED ROD, 3/4" X 6' ALL THRD ROD
7001	105829	THREADED ROD, 5/8" X 10'
1715.2	105841	TIE, NYLON FLUOR GREEN- 11 inch
966.5	105849	TISSUE, EYE GLASS
930.1	105850	TISSUE, KIM WIPE 280 PK
967	105853	TOILET SEAT COVER, 20CT
997	104088	TOILET PAPER 96CT.

BIN#	SAP#	Material Description
50167	105901	TONER, HP C4127X 4050TN LEX140127A 6CT
50171	105903	TONER, HP C4182X 8100N 8150HP LASERJET
20098	105957	TOP, BASIN LID, 1033 DOUBLE WING
20423	105954	TOP, BASIN LID, 1033 LEFT WING
20425	105955	TOP, BASIN LID, 1033 RIGHT WING
20099	105956	TOP, CR DOUBLE SPILLWAY 6' X 6'
20407	105958	TOP, CR PEDSTAL 48" ROUND W/1033 R&C
20409	105960	TOP, CR PEDSTAL5' X5' X8"SQ W/1033 R&C
20410	105961	TOP, CR PEDSTAL6' X6' X6" SQ W/1033 R&C
20419	105965	TOP, CR PLAIN 4' X 4' X 6" SQ SOLID
20002	105962	TOP, CR PLAIN 5' X 5' X 6" SQ SOLID
20411	105963	TOP, CR PRECAST 6' X 6' X 6" SQ SOLID
20418	105964	TOP, CR PRECAST4' X 4' X 6"SQ W/1033 R&C
20004	105966	TOP, CR PRECAST4' X 4' X 8"SQ W/GT&FRM
20003	105967	TOP, CR PRECAST5' X 5' X 8"SQ W/GT&FRM
20421	105968	TOP, CR PRECAST5' X5' X 6"SQ W/1033 R&C
20415	110528	TOP, RND 48" X 12" OFF-SET W/SW R&C 1033
20417	105953	TOP, RND 48" X 12" W/SQ GRATE & FRAME
20408	105959	TOP,CR PEDESTAL4' X 4' X 6"SQ W/1033 R&C
817.8	111806	Tow Cable, F/Shorty & 36" Packer, 54"
818.2	112481	TOW CABLE, PIPE RANGER WS062
815.2	109834	TOW CABLE, ULTRA SHORTY # 120163
995	105972	TOWEL, BAR MOP 17"X20" COTTON 20 OZ 10CT
998	105977	TOWEL, PAPER MULTI-FOLD
996	105975	TOWEL, PAPER ROLL
999	112300	TOWEL,PAPER-TOUCHLESS DISPENSER REFILL
818.1	112480	TRACK ASSEMBLY,RND CLEAT 47 CNT MC208
816.1	109763	Track assy, rnd clt,76Lnk,u-sho#MC208-1
717	110904	TRANSFORMER(current)sacda-SENTRY SC200-2
1519.1	105991	TREEKOTE, TREE WOUND DRESSING AERO
2034	106020	TROWEL, 10" X 4 3/4" BRICK,CARBON STEEL
2035	106021	TROWEL, 4 1/2" X 14" FLAT BLADE, S/S
2036	106022	TROWEL, 6" X 2 3/4",SM DIAMOND HEAD
2070	106024	TROWEL, GARDEN W/3"BLADE AND PL GRIP
9556	111621	T-SHIRT, LS NAVY W-WHITE LOGO 5-XL
9540	110087	T-SHIRT, LS, NAVY W/ WHITE LOGO MEDIUM
9545	110011	T-SHIRT, LS, NAVY W/WHITE LOGO, XL
9548	110012	T-SHIRT, LS, NAVY W/WHITE LOGO, 2XL

BIN#	SAP#	Material Description
9551	110013	T-SHIRT, LS, NAVY W/WHITE LOGO, 3XL
9554	110014	T-SHIRT, LS, NAVY W/WHITE LOGO, 4XL
9542	110010	T-SHIRT, LS, NAVY W/WHITE LOGO, LARGE
9555	110251	T-SHIRT, NAVY W/WHITE LOGO 5XL
9557	110252	T-SHIRT, NAVY W/WHITE LOGO 6XL
9544	106047	T-SHIRT, NAVY W/WHITE LOGO, XL
9547	106043	T-SHIRT, NAVY W/WHITE LOGO, 2XL
9550	106044	T-SHIRT, NAVY W/WHITE LOGO, 3XL
9553	107027	T-SHIRT, NAVY W/WHITE LOGO, 4XL
9541	106045	T-SHIRT, NAVY W/WHITE LOGO, LARGE
9539	106046	T-SHIRT, NAVY W/WHITE LOGO, MEDIUM
9536	110852	T-SHIRT, SS KHAKI W/BBLUE LOGO, 2X-LAR.
9537	110853	T-SHIRT, SS KHAKI W/BBLUE LOGO, 3X-LAR.
9538	110854	T-SHIRT, SS KHAKI W/BBLUE LOGO, 4X-LAR.
9534	110850	T-SHIRT, SS KHAKI W/BBLUE LOGO, LAR.
9533	110839	T-SHIRT, SS KHAKI W/BBLUE LOGO, MED.
9535	110851	T-SHIRT, SS KHAKI W/BBLUE LOGO, X-LAR.
9549	110085	T-SHIRT, SS NAVY W/ WHITE LOGO 2XL/TALL
9552	110086	T-SHIRT, SS NAVY W/ WHITE LOGO 3XL/TALL
9543	110083	T-SHIRT, SS NAVY W/ WHITE LOGO LRG/TALL
9546	110084	T-SHIRT, SS NAVY W/ WHITE LOGO XL/TALL
6568	106116	TUBING COPPER, 1" X 100' RL,"K" SOFT
6567	106117	TUBING COPPER, 3/4" X 100' RL,"K" SOFT
2001	106118	TUBING CUTTER, COPPER 3/16" TO 1 1/4"
2000.2	106119	TUBING CUTTER, KSCISSOR POLY 1/2" TO 1"
2000.1	106120	TUBING CUTTER, RATCH PVC 1/2" TO 1 1/8"
2000	106121	TUBING CUTTER, SCISSOR POLY 1/2" TO 1"
728.3	106122	TUBING FERREL, S&L PLASTIC BLACK
6001	106123	TUBING POLYETHYL, 1" X 300' 200PSI
6004	106124	TUBING POLYETHYL, 2" X 100' 200PSI
6000	106125	TUBING POLYETHYL, 3/4"X 500' 200PSI
6570	112472	TUBING, 2 INCH MUNICIPEX-REHAU 100 FT
6569	112471	TUBING, 3/4 INCH MUNICIPEX-REHAU 100 FT
6003	106126	TUBING, POLY 1 1/2"
929.1	111664	Tubing, Red Poly - 3/8" O.D.#E-64-R-0500
922.2	106127	TUBING, RUBBER FOR PUMP
929	106129	TUBING, SAMPLE3/8"IDX5/8ODX100' VINYL CL
923.1	106128	TUBING, SAMPLER .375 SILIC RUBBER

BIN#	SAP#	Material Description
2226.1	105430	TWEEZER, METAL WITH NARROW POINT
1714	106135	TWINE, NYLON 18 X 1093' 100% FILAMENT
3195	106138	UNION 1" NPT, 150 LB 304 S/S
3193	106139	UNION 1/2" NPT, 150 LB 304 S/S
3191	106140	UNION 1/4" NPT, 150 LB 304 S/S
3190	106141	UNION 1/8" NPT, 150 LB 304 S/S
3198	106142	UNION 2" NPT, 150 LB 304 S/S
3200	106143	UNION 3" NPT, 150 LB 304 S/S
3192	106144	UNION 3/8" NPT, 150 LB 304 S/S
3362	112606	UNION, 3/4 NPT 150 304 SS
257	106947	UNION, GALV 1 1/2"
257.1	106145	UNION, GALV 1 1/4"
258.1	106146	UNION, GALV 1"
256.1	106147	UNION, GALV 2 1/2"
256	106148	UNION, GALV 2" THD X THD
258	106149	UNION, GALV 3/4"
512.1	106150	UNION, PVC SCH 80 1"
500	106151	UNION, PVC SCH 80 1/2"
528.1	106152	UNION, PVC SCH 80 2"
533	106153	UNION, PVC SCH 80 3"
507	106154	UNION, PVC SCH 80 3/4"
717.5	111286	UPS, Allen-Bradley-Rockwell 1609-U500N
968	106155	URINAL SCREEN, W DEODORANT BLOCK 12CT
738.9	106158	VACUUM PUMP, S & L, ONE HEAD
732.7	106159	VACUUM PUMP, S&L 2 HEAD
739.2	106160	VACUUM PUMP, S&L CONTROL RELAY
726.1	106164	VACUUM PUMP, S&L REED VALVE 1 HEAD
726.3	106165	VACUUM PUMP, S&L REPAIR KIT 1 HEAD
739.1	106166	VACUUM PUMP, S&L REPAIR KIT 2 HEAD
739.3	106167	VACUUM PUMP, S&L TIME DELAY RELAY
739	106163	VACUUM PUMP, S&L, SUCT REED VALVE, 2 HEAD
738.8	106162	VACUUM PUMP, S&L, EXH REED VALVE, 2 HEAD
3348	112592	VALVE 3/8" S/S BALL THD VINYL COAT HANDL
427	106170	VALVE ASSEM, 2" DUAL CHK W/2PORT B VAL
5383	106171	VALVE BOX LID, 5 1/4" CI, "WATER" ON LID
5385	106172	VALVE BOX RISER, 5 1/4" CI SHAFT 1 1/2"
5384	106173	VALVE BOX RISER, 5 1/4" CI SHAFT 2 1/4"
5386	106174	VALVE BOX, 18" TO 24" SLIP TYPE CI

BIN#	SAP#	Material Description
5387	106175	VALVE MARKER, CONCR, 4"X4' 1" SQ."V" IND
1165.5	106176	VALVE PLATE, UPPER, MET 250 OLD/STYLE
5479.1	106177	VALVE PLUG, ECCENT 10" W/R ANG OPER
5476.5	106178	VALVE PLUG, ECCENT 4" W/OPER NUT TOP
5476.3	106179	VALVE PLUG, ECCENT 4" W/R ANG OPER
5477.5	106180	VALVE PLUG, ECCENT 6" W/OPER NUT TOP
5477.3	106181	VALVE PLUG, ECCENT 6" W/R ANG OPER
5478.5	106182	VALVE PLUG, ECCENT 8" W/OPER NUT TOP
5478.3	106183	VALVE PLUG, ECCENT 8" W/R ANG OPER
123	106184	VALVE, 1 1/2" GATE THD IP WHL BRNZ 200
546	106185	VALVE, 1 1/2" PVC BALL DBL UNION,D-BLOC
545	106187	VALVE, 1 1/4" PVC BALL DBL UNION D-BLOC
147.2	106188	VALVE, 1" BALL THD BRZ WOG 1" IPS-BRZ
544	106192	VALVE, 1" PVC BALL DBL UNION D-BLOC
3330	106189	VALVE, 1" S/S BALL THD VINYL COATED HAND
147	106193	VALVE, 1/2" BALL BRONZE THD
542	106197	VALVE, 1/2" PVC BALL DBL UNION D-BLOC
3328	106194	VALVE, 1/2" S/S BALL THD VINLY COAT HAND
3326	106198	VALVE, 1/4" S/S BALL THD VINY COAT HAND
781	106199	VALVE, 10" CHECK VALMATIC SWINGFLEX
5479	106200	VALVE, 10" GATE MJ RESIL ST W/2" OP NUT
5490	106201	VALVE, 10" TAPPING MJ X FLG RESIL SEAT
5485	106202	VALVE, 12" BUTTERFLY MJ W/2" OPER NUT
782	106203	VALVE, 12" CHECK VALMATIC SWINGFLEX
5463	106204	VALVE, 12" GATE WHEEL FLG X FLG
5491	106205	VALVE, 12" TAPPING MJ X FLG RESIL SEAT
5486	106206	VALVE, 16" BUTTERFLY MJ W/2" OPER NUT
117	106207	VALVE, 2 1/2" GATE THD WHEEL BRASS
121.1	111978	Valve, 2" Brass Ball,Thd, Vinyl Coat Hnd
121	106210	VALVE, 2" GATE THD IP WHL BRZ 200PSI
547	106211	VALVE, 2" PVC BALL DBL UNION D-BLOC
3333	106208	VALVE, 2" S/S BALL THD VINYL COAT HAND
5473	106212	VALVE, 24" BUTTERFLY MJ W/2" OPER NUT
5481	106214	VALVE, 3" GATE FLG X FLG WHEEL OPER
5475	106215	VALVE, 3" GATE MJ RESIL SEAT W/2" OP NUT
5480	106216	VALVE, 3" GATE OS & Y FLG X FLG RSTEM
116	106217	VALVE, 3" GATE THD WHEEL BRASS
548	106218	VALVE, 3" PVC BALL DBL UNION D-BLOC

BIN#	SAP#	Material Description
3335	106213	VALVE, 3" S/S BALL THD VINYL COAT HAND
147.1	106219	VALVE, 3/4" BALL THD WOG IPS-BRZ 400
101.2	106222	VALVE, 3/4" GATE THD BRNZ 200PSI
141	106224	VALVE, 3/4" PRESSURE REDUC THD. BRNZ
543	106225	VALVE, 3/4" PVC BALL DBL UNION D-BLOC
5472	106226	VALVE, 30" BUTTERFLY MJ W/2" OPER NUT
778	106228	VALVE, 4" CHECK VALMATIC SWINGFLEX
5467	106229	VALVE, 4" FLG CHECK
5476	106230	VALVE, 4" GATE MJ RESIL STW/2" OP NUT
5482	106231	VALVE, 4" GATE OS & Y FL X FL R/STEM WHL
5464	110030	VALVE, 4" GATE, OS&Y FL X MJ, R/STEM
549	106232	VALVE, 4" PVC BALL DBL UNION D-BLOC
756.3	106233	VALVE, 4-WAY SOLENOID
779	106234	VALVE, 6" CHECK VALMATIC SWINGFLEX
5470	106236	VALVE, 6" DUEL CHECK W/ 2 OS&Y GATE VA
5468	106237	VALVE, 6" FLG CHECK
5483	106238	VALVE, 6" GATE FLG X FLG
5461	106239	VALVE, 6" GATE FLG X FLG WHEEL OPER
5477	106240	VALVE, 6" GATE MJ RESIL ST 2" OPER NUT
5483.1	106241	VALVE, 6" GATE OS & Y FLG X FLG RSTEM
5465	110031	VALVE, 6" GATE, OS&Y FL X MJ, R/STEM
5488	106242	VALVE, 6" TAPPING MJ X FLG W/2"OPER NUT
5487	106961	VALVE, 72" BUTTERFLY FLANGED
5469	106243	VALVE, 8" CHECK FLG SWING
780	106244	VALVE, 8" CHECK VALMATIC SWINGFLEX
5471	106246	VALVE, 8" DUEL CHECK W/ 2 OS&Y GATE VA
5462	106247	VALVE, 8" GATE FLG X FLG WHEEL OPER
5478	106248	VALVE, 8" GATE MJ RESIL ST W/2"OPER NUT
5484	106249	VALVE, 8" GATE OS & Y FLG X FLG RSTEM
5466	110032	VALVE, 8" GATE, OS&Y FL X MJ, R/STEM
5489	106250	VALVE, 8" TAPPING MJ X FLG RESIL SEAT
755.1	106251	VALVE, DVS EPT
1392	112098	VALVE, OP NUT, Gate, RS, AMER. VALVE
1393	112099	VALVE, OP NUT, Gate, RS, CLOW
1390	112096	VALVE, OP NUT, Gate, RS, M & H
1391	112097	VALVE, OP NUT, Gate, RS, MUELLER
5479.9	106253	VALVE, PLUG, NUT EXTENSION 2 FT
3372	112616	VALVE, 3/4" SS BALL THD VINYL COAT HANDLE

BIN#	SAP#	Material Description
6724	107405	VALVE-INSTA 4" OD 4.80, RANGE 4.60-5.00
6723	107408	VALVE-INSTA 4" OD 5.13, RANGE 4.93-5.33
6726	106254	VALVE-INSTA 6" OD 6.90, RANGE 6.70-7.10
6725	107410	VALVE-INSTA 6" OD 7.20, RANGE 7.00-7.50
6728	106255	VALVE-INSTA 8" OD 9.05, RANGE 8.85-9.25
734.7	111216	VAPOR FILTER, S & L, 1L571B
775	112130	VENT VALVE, Odor Control PS - 1800 w/rs
776	112132	VENT VALVE, Odor Control PS - 2050 box
1071	106261	VEST, SAFETY 2XLARGE LIME GRN W/RF STR
1072	106262	VEST, SAFETY 3XLARGE LIME GRN W/RF STR
1073	106263	VEST, SAFETY 4XLARGE LIME GRN W/RF STR
1067	106264	VEST, SAFETY FLUOR. GREEN, TEMP.
1069	106265	VEST, SAFETY LARGE LIME GRN W/RF STR
1068	106266	VEST, SAFETY MEDIUM LIME GRN W/RF STR
1070	106267	VEST, SAFETY XLARGE LIME GRN W/RFL STR
729.9	106289	VOLUTE GASKET S&L FOR 4B3-4C3 (LARGE)
729.8	104855	VOLUTE GASKET,S&L FOR 4B2, 4C2 (SMALL)
1323.1	106292	WASHER, 3/4" MJ FLAT STEEL
1328.2	106296	WASHER, FLAT 1 1/2" STEEL
1328.1	106297	WASHER, FLAT 1 1/4" STEEL
1322.2	106298	WASHER, FLAT 1/2" STEEL
1321.2	106300	WASHER, FLAT 1/4" STEEL
1322	106301	WASHER, FLAT 3/8" STEEL
1321.3	106303	WASHER, FLAT 5/16" STEEL
1323	106304	WASHER, FLAT 5/8" STEEL
1322.1	106305	WASHER, FLAT 7/16" STEEL
1323.2	106306	WASHER, FLAT 7/8" STEEL
1322.3	106307	WASHER, FLAT 9/16 STEEL
1328	106308	WASHER, FLAT, 1" STEEL
1324.2	106311	WASHER, LOCK SPLIT 1/2" STEEL
1323.3	106312	WASHER, LOCK SPLIT 1/4" STEEL
1325.2	106313	WASHER, LOCK SPLIT 3/4" STEEL
1324.3	106314	WASHER, LOCK SPLIT 3/8"STEEL
1324	106315	WASHER, LOCK SPLIT 5/16" STEEL
1325	106316	WASHER, LOCK SPLIT 5/8" STEEL
1324.1	106317	WASHER, LOCK SPLIT 7/16" STEEL
1325.3	106318	WASHER, LOCK SPLIT 7/8" STEEL
1325.1	106319	WASHER, LOCK SPLIT 9/16" STEEL

BIN#	SAP#	Material Description
158.3	106320	WASHER, METER 1" RUBBER PK/25
168.2	106321	WASHER, METER 1" X 1/8" FIBER PK/ 50
167	106322	WASHER, METER 3/4 X 1/32" rubber PK/100
158.2	106323	WASHER, METER 3/4" RUBBER PK/50
167.2	106324	WASHER, METER 3/4" X 1/8" FIBER PK/100
168	106326	WASHER, METER FIBER 1" X 1/32" PK/100
168.1	106325	Washer, Meter Rubber/Fiber1"X1/16"pk/100
167.1	106295	Washer, Rubber/Fiber 3/4"X1/16", pk100
1111	112118	Washer, Thrust M & H 5 1/4
1153	112171	Washer, Thrust, Mueller, 5 1/4 VO
817.5	109770	Washer,teflon, .910 ODX.760id u-sh#hw649
1162	112170	Washer,Thrust, U.S. Met 250, 5 1/4
1510	106329	WASP SPRAY, AEROSOL KILL RANGE 20FT
1023.1	112647	WATCH CAP,YELLOW W/REFLECTIVE STRIPE
1095	106334	WATER COOLER, 2 GALLON SCREW LID
732	106342	WATER TRAP BOTTLE ASSEMBLY S&L
730	106343	WATER TRAP BOTTLE BALL S&L
735.1	106344	WATER TRAP BOTTLE BOWL S&L
746.2	106345	WATER TRAP BOTTLE DRAIN VALVE S&L
729.6	106346	WATER TRAP BOTTLE S&L O-RING
969.1	106348	WAX APPLICATOR REFILL 6" W X 18" L
969.2	106360	WAX, TRUCK TURTLE 16 FL OZ
818.8	112487	WEAR STRIP, U-SHORTY MC003
818.7	112486	WEAR STRIP, U-SHORTY MC009
1107.2	106361	WEATHER COVER A D 5 1/4" B62B
1114.5	106363	WEATHERSHIELD, M&H 4 1/2" 129
1119.1	106364	WEATHERSHIELD, M&H 5 1/4" 929
1613	106370	WHEEL CHOCKS, RUBBER W/EYEBOLT
704.1	106371	WHEEL, BRUSH, 5/8 11" H/G
716	110930	WHEEL, Cutting, 4" x.045 x 5/8"
716.1	110931	WHEEL, Cutting, 4.5" x.045 x 7/8"
716.2	110932	WHEEL, Disc, 4.5" x 1/4" x 5/8"
716.3	110933	WHEEL, Disc, 4.5" x 1/4" x 7/8"
704	106373	WHEEL, GRINDING, 7" X 1/4" X 5/8"-11 H/G
827.6	106374	WHEEL, MEASURING, URATHANE
703	106376	WHEEL, STONE, 8" X 1 1/4" X 1" ARBOR B/G
703.1	106377	WHEEL, WIRE BRUSH, 8" X 1" ARBOR B/G
9561	106385	WINDBREAKER, BLUE OVERSIZE 2XL

BIN#	SAP#	Material Description
9559	106386	WINDBREAKER, BLUE REG CUT LARGE
9558	106387	WINDBREAKER, BLUE REG CUT MEDIUM
9560	106388	WINDBREAKER, BLUE REG CUT XL
9562	107066	WINDBREAKER, NAVY OVERSIZE 3XLARGE
9563	107084	WINDBREAKER, NAVY OVERSIZE 4XLARGE
1617	106398	WINDSHIELD WIPER SOLVENT
994	106404	WIPE, CLEANER/WET
993	106406	WIPE, WATERLESS ALL PURPOSE BOX
863.4	110922	WIRE CONNECTOR, WING NUT ORANGE 100ct
863	106409	WIRE CONNECTOR, WING NUT RED 100CT
863.1	106410	WIRE CONNECTOR, WINGNUT BLUE 25 CT
863.3	106411	WIRE CONNECTOR, WINGNUT YELLOW 100CT
861.9	110915	Wire Term-Fork Con-BLU-14-16#10Studpk-25
862.3	110919	Wire Term-Fork Con-BLU-14-16#6 Stud(100)
861.8	110914	Wire Term-Fork Con-RED-18-22#10Stud
862.2	110918	Wire Term-Fork Con-RED-18-22#6 Stud
862	110916	Wire Term-Fork Con-YEL-10-12#10Studpk-25
862.1	110917	Wire Term-Fork Con-YEL-10-12-1/4"Sd
861.2	110908	Wire Terminal-B Splice-BLU-14-16Ga.pk-25
861.3	110909	Wire Terminal-B Splice-YEL-10-12Ga.pk-25
861.1	110907	Wire Terminal-BSplice-Red-18-22ga.pk-100
862.4	110920	Wire Term-Ring Term-BLU-14-16Ga1/2.pk-25
862.5	110921	Wire Term-Ring Term-YEL-10-12Ga1/2.pk-25
861.5	110911	Wire Term-Spade Ds-Blu-14-16FML1/4"pk-25
861.4	110910	Wire Term-Spade Ds-Blu-14-16ML1/4"
861.7	110913	Wire Term-Spade Ds-YEL-10-12FML1/4"
861.6	110912	Wire Term-Spade Ds-YEL-10-12ML1/4".pk-25
7787	107394	WIRE, WELDED, 5FT X 150FT, 6"X6"X10GA
7783	107390	WOOD, BOARD 1" X 4" X 16FT
7784	107391	WOOD, BOARD 1" X 6" X 16 FT
7780	107387	WOOD, BOARD 2" X 4" X 16FT, SPRUCE
7781	107388	WOOD, BOARD 2" X 6" X 16 FT PINE
7782	107389	WOOD, BOARD 2" X 8" X 8FT PINE
7785	107392	WOOD, PLYWOOD 3/4" 4FT X 8FT
7793	105476	WOOD, STAKE 12" (50 PER BUNDLE)
7794	105477	WOOD, STAKE 24" (50 PER BUNDLE)
7795	105478	WOOD, STAKE 36" (25 PER BUNDLE)
863.2	106439	WRAP CAP, RUBBER 100CT

BIN#	SAP#	Material Description
2020	106442	WRENCH, 10" ADJUST END CHROM
2048	106443	WRENCH, 12" ADJUST END CHROM
2023	106444	WRENCH, 14" PIPE IRON, 2" JAW CAP
2047	106445	WRENCH, 15" ADJUSTABLE CHROME
2046	106446	WRENCH, 18" ADJUST. END NI-CR PLATED ST
2021	106447	WRENCH, 8" ADJUST. END NI-CR PLATED ST
1326.1	106448	WRENCH, ALLEN 1/2" FOR TAMPER PROOF BOLT
1326	106449	WRENCH, ALLEN 5/8" HOLE TAMPER PRF BOLT
2027	106452	WRENCH, FIRE HYDRANT
2026	106454	WRENCH, METER 1 1/4" ONE HAND
2029	106455	WRENCH, MJ RATCHET
2030	106456	WRENCH, PIPE 10" IRON JAW HEAVY DUTY
2022	106457	WRENCH, PIPE 18" IRON JAW HEAVY DUTY
2048.5	106458	WRENCH, PIPE 24" IRON JAW HEAVY DUTY
815	109760	WYE ELIMINATOR, 60deg, u-shorty, #MC233
818.5	112484	WYE ELIMINATOR,WT311
654	106463	WYE, PVC SCH 35 6"
554	106464	WYE, PVC SCH 40 4" DWV
2022	106457	WRENCH, PIPE 18" IRON JAW HEAVY DUTY
2048.5	106458	WRENCH, PIPE 24" IRON JAW HEAVY DUTY
815	109760	WYE ELIMINATOR, 60deg, u-shorty, #MC233
818.5	112484	WYE ELIMINATOR,WT311
654	106463	WYE, PVC SCH 35 6"
554	106464	WYE, PVC SCH 40 4" DWV

Table 4 - Appendix D - Sample Inventory List

Appendix E – Spill Calculation Procedures



A-01: Sanitary Sewer Overflow (SSO) Mitigation

Department of Water Resources
Field Operations Standard Operating Procedures

Rev Oct 2018

General Information – this SOP applies ONLY to Field Crew activities

The Corrective Maintenance Section Manager is responsible for ensuring non-field Activities such as notifications, reporting, etc. are conducted as set out in the County SSO Response Documents.

This SOP is intended to assist Gwinnett County Water Resources field crews with the primary goal of identifying and repairing sanitary sewer releases. Multiple activities as set out below may be underway at the same time - as safe operations allow - to minimize the impacts of the overflow.

A "Spill" (also referred to as reportable spill) is any discharge of raw sewage by a Publicly Owned Treatment Works (POTW) to the waters of the state.

A "Major Spill" is any discharge of raw sewage that 1) exceeds 10,000 gallons or 2) results in water quality violations in the water of the state.

Guidelines for estimating spill volumes are provided in Attachment 1.

Responsibilities

Sewer Corrective Maintenance Coordinator, Investigator, On-Call Coordinator (if after hours), Repair Crew, Dispatch, Administrative Support Associate

Procedure

Spill by Overflowing Manhole, Wetwell, or Broken Gravity Pipe

1. First responder may be an investigator or on-call coordinator and will investigate the report of possible overflow or back-up. The goal is to investigate as soon as possible or within two hours of initial report.
2. Upon arriving at the site, set up work zone according to safety procedures (Safety Manual located in DWR Library).
3. Investigator walks line and locates overflowing manhole or evidence of ruptured pipe.
4. **If spill is suspected, but no obvious source can be determined, get test sample and take to DWR Lab for fecal count analysis.**
5. Investigator contacts Coordinator/Dispatch and informs of condition.
6. Investigator follows the path of the overflow and determines:
 - a. Where the flow stops moving. If it is still moving, estimate its path.
 - b. If sewage has reached a storm water drain.
 - c. If sewage has reached a body of water.
 - d. Potential containment areas.
7. If a County spill, the investigator contacts the Sewer Corrective Maintenance Coordinator who assigns a Response Crew and immediately directs them to the site.

8. If a "spill" or "major spill", the investigator is to immediately send an email to the Field Operations Deputy Director, Assistant Director, Corrective Maintenance Section Manager, Preventive Maintenance Section Manager, Contracts/Support Section Manager and DWR Public Information Officer. If the spill involves a pump station also copy the Facilities Deputy Director notifying them that a "spill" or "major spill" has occurred and the location. This should be done immediately and not wait until the flow is stopped or the spill volume is calculated.
9. Response Crew goes to the location of the reported problem.
10. Crew secures site and implements additional safety measures as needed.
11. Response crew sets up any practical measures to minimize or prevent the overflowing sewage from reaching water body, storm drains, or private properties. Measures include building dikes or berms, excavating trenches, using
12. pump truck, collecting flows in road-side ditches or other natural swales. Care is to be used to minimize exposure of public or crews to wastewater.
13. If line is to be flushed, Response Crew follows SOP A-02 for flushing.
14. Coordinator and Response Crew continue walking the downstream line until a dry or low-flowing manhole is found.
 - a. Crew extends safety measures and work zone as appropriate.
 - b. Coordinator determines whether flow control is practical or needed. Reference SOP A-17 for Flow Control.
 - c. Crew determines depth of flow at the low-flowing or dry manhole before flushing line.
 - d. Crew flushes line in the upstream direction from this manhole to remove blockage according to SOP A-02 (Back-ups in Main Line) or A-03 (Back Ups - Service Lateral). More than one blockage may be in the main.
 - e. Crew visually identifies type of blockage removed when possible (grease, roots, debris, etc.).
 - f. After clearing blockage, crew returns to the overflowing manhole and visually verifies that flow in the main has been restored.
 - g. Crew proceeds to manhole upstream of overflow location to verify flow is restored.
 - h. Crew documents the time at which flow is restored to the main.
 - i. The time recorded should reflect the time that overflow stops escaping from the sewer system.
 - ii. Re-measure depth of flow in previously dry/low-flowing manhole when flow appears to have stabilized and surcharge is gone from upstream manhole.
 - iii. Calculate flow using the attached chart for the depth before clearing line and depth after clearing line. Subtract second calculated flow from the first. Multiply this flow value times the length of the overflow time. This is the total spill volume.
 - iv. Subtract the volume of spill which was contained on-site by the restoration crew from the total spill volume. This is the volume to be reported.
 - v. If an accurate volume of the release cannot be immediately determined, the Repair Coordinator should estimate the volume and provide on the SSO NOTIFICATION FORM as an estimate before the end of the work shift. Clearly identify the volume reported as an ESTIMATE.
 - vi. If the estimated volume released is approaching 10,000 gallons, the event should be treated as a MAJOR SPILL until the actual volume of the spill can be accurately determined.
15. If Response Crew determines need for repair in the main or manhole, Coordinator immediately dispatches repair crew to the site.
16. All SSO's on gravity mains are to be CCTV inspected to identify the cause, following the restoration of flow. The inspection is to document one segment upstream and downstream of the overflow location at a minimum. Refer to SOP A-05 for CCTV Surveillance.

17. Response crew cleans site to remove all solids deposited, rakes area, spreads lime to disinfect as appropriate. Standing fluids are to be removed by pump truck if possible, and wet soil is to be removed and hauled to landfill. Impervious areas are to be washed down using a jet truck or similar equipment. Remaining area is filled with rock.
18. Response Crew completes work order with all events and activities and submits to the Coordinator for review and approval.
19. Response Coordinator verifies the depth of flow in the manhole previously used to access the blocked main.
20. Response Coordinator determines spill amount using the methods shown in Attachment 1 for depth of flow in downstream manhole or escaping flow from a manhole.
21. COORDINATOR MUST RETURN THE COMPLETED SPILL NOTIFICATION FORM TO DISPATCH PRIOR TO LEAVING AT THE END OF THE SHIFT.
22. If a spill reaches a waters-of-the-State,
 - a. The Response Coordinator shall have spill signs posted and return to remove the Spill Signs after 7-days.
 - b. Samples must be collected by a properly trained person.
 - i. If a major spill occurs during weekend or holiday, Coordinator collects Spill Samples
 - ii. Response Coordinator completes Chain-of-Custody form and sample labels and delivers samples to the testing facility
 - iii. During other times – Response Coordinator is to coordinate with Industrial Pretreatment and lab for sampling
23. The Collections Section Manager is responsible for ensuring non-field Activities such as notifications, reporting, etc. are conducted as set out in the County SSO Response Documents. The Response Coordinator is responsible for ensuring all appropriate data and measurements are collected during the repair for accurate reporting and evaluation.

Spill on Force Main Pipe Due to Rupture or Cut

1. First Responder investigates report of possible overflow.
2. Upon arriving at the site, set up work zone according to safety procedures (Safety Manual located in DWR Library).
3. Investigator walks line and locates evidence of ruptured pipe.
4. Investigator contacts Coordinator and Dispatch and informs of condition.
5. Investigator follows the path of the overflow and determines:
 - a. Where the flow stops moving. If it is still progressing, estimate the continuing path.
 - b. If sewage has reached a storm water drain.
 - c. If sewage has reached a Water-of-the-State.
 - d. Potential containment areas
6. Reference the Force Main Contingency Plan if one exists for the damaged main.
7. Coordinator assigns Response Team:
 - a. GCDWR Response Crew.
 - b. Emergency Repair Crew (Internal or Contract).
 - c. Initiate contact with Pump Stations Manager.
 - i. Identify the location of the rupture and
 - ii. The force main impacted.

8. Repair Crew goes to the location of the reported problem.
9. Crew secures site and implements additional safety measures as needed.
10. Response crew sets up any practical measures to minimize or prevent the overflowing sewage from reaching waters-of-the-state, storm drains, or private properties. Measures include building dikes or berms, excavating trenches, using pump truck, collecting flows in road-side ditches or other natural swales. Care is to be used to minimize exposure of public or crews to wastewater.
11. Repair Coordinator contacts Pump Station Coordinator, Dispatch and Central Facility to:
 - a. arrange potential shut down of Pump Station,
 - b. determine length of time pump station can be out of operation,
 - c. Identify critical observation point,
 - i. The first location an overflow will occur after pump station shuts down may not be at the station.
 - d. Arrange pump-truck support as appropriate, and
 - e. Identify receiving manhole for Pump Truck unloading or By-Pass pumping that does not return flow to the pump station.
 - f. Repair Coordinator calls in an emergency Utility Locate via Dispatch. However, do not delay excavation while waiting for utility locate. Use extreme caution during the excavation process
12. Repair Crew excavates down to main at the location of the surfacing discharge
13. Crew continues to expose pipe until the apparent length of impacted pipe is exposed
14. Coordinator determines if a Temporary Point Repair is appropriate depending on type of damage identified and the conditions surrounding the repair.
 - a. Install temporary repair, secure the site, restore flow in the force main, and return to site when full repair can be performed under controlled conditions.
15. Crew performs repair as set out in SOP-07 using appropriate methods and equipment
16. Coordinator documents the times at which:
 - a. Containment of flows in the field is achieved, and
 - b. The force main is returned to service.
17. Coordinator or Pump Station crew estimates the time that the pump was running after rupture occurred.
18. From pump run times, Repair Coordinator estimates volume of flow released from the force main that was not successfully contained. Contact OTS or Section Manager to assist in calculations as needed.
 - a. Begin with pumped volume during the time the force main was damaged
 - b. Reduce volume of the release by the volume managed / contained by the field crews
 - c. Reduce volume of the release by the volume delivered to the treatment plant by the force main during the time the force main was damaged
19. If a spill reaches a waters-of-the-State,
 - a. The Response Coordinator shall have spill signs posted and return to remove the Spill Signs after 7-days.
 - b. Samples must be collected by a properly trained person.
 - i. If a major spill occurs during weekend or holiday, Coordinator collects Spill Samples
 - ii. Response Coordinator is to complete Chain-of-Custody form and sample labels and deliver samples to the testing facility
 - iii. During other times – Response Coordinator is to coordinate with Industrial Pretreatment and lab for sampling

20. Response crew cleans site to remove all solids deposited, rakes area, spreads lime to disinfect as appropriate. Standing fluids are to be removed by pump truck if possible, and wet soil is to be removed and hauled to landfill. Impervious areas are to be washed down using a jet truck or similar equipment and disinfects as appropriate.
21. Response Crew completes the Work Order and submits to the Coordinator for review and approval.
22. Crew remains on site to assist in clean-up and other activities until dismissed by the Response Coordinator.
23. The Collections Manager is responsible for ensuring non-field Activities such as notifications, reporting, etc. are conducted as set out in the County SSO Response Documents. The Response Coordinator is responsible for ensuring all appropriate data and measurements are collected during the repair for accurate reporting and evaluation. **The Repair Coordinator must complete and return the Notification of Spill form to Dispatch for processing prior to leaving work at the end of the shift.**

Attachments

Attachment 1: Reportable Reportable SSO Notification Action Plan

FIELD OPERATIONS DIVISION
Reportable Spill Notification Action Plan

SANITARY SEWER OVERFLOWS

Revised October 2018

A “Spill” (also referred to as reportable spill) is any discharge of raw sewage by a Publicly Owned Treatment Works (POTW) to the waters of the state.

A “Major Spill” is any discharge of raw sewage that 1) greater or equal to 10,000 gallons or 2) results in water quality violations in the water of the state.

Waters of the State means any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, springs, wells, wetlands, and all other bodies of water that are actively flowing to any of the above at the time of the spill, which are not entirely confined and retained completely upon the property of a single individual, partnership, or corporation.

This procedure was developed based on the requirements set forth in O.C.G.A 391-3-6-.05 and NPDES Permit No. GA0026433 for Crooked Creek WRF/F Wayne Hill WRC.

NOTIFICATION REQUIREMENTS

Within 24 hours of notification of the reportable spill:

- Notification of the reportable spill or major reportable spill must be sent to EPD. The notification must be within 24 hours of the spill and include:
 - Date of the spill or major spill
 - Location and cause of the spill or major spill
 - Estimated volume discharged and name of receiving waters; and
 - Corrective action taken to mitigate or reduce the adverse effects of the spill or major spill. Examples of corrective actions include:
 - Capturing the overflowing wastewater at the site to the extent possible cleaning the area at and downslope of the spill
 - Spreading lime
 - Collecting any standing water at the spill location and disposing into the sewer system
 - Posting warning signs at the location of the spill and impacted waterway
- The spill or major spill must be reported to the local health department including the information above within 24 hours of spill via the Water Reclamation Program Coordinator.
- The spill or major spill must be reported to the local media (television, radio and print media) including the information above.
- A notice must be posted as close as possible to where the spill or major spill occurred and where the spill or major spill entered State waters. The notice shall include at a minimum the same information required above. The intent of this requirement is to notify citizens, who may come into contact with the affected water, that the spill or major spill has occurred. Post additional notices of the spill or major spill along the portions of the

waterway affected by the incident (i.e. at bridge crossings, trails, boat ramps, recreational areas, and other points of public access to the affected waterway). These notices shall remain in place for a minimum of seven days after the spill or major spill has ceased.

- For major spills only:
 - A monitoring program must be established for any major spill and include monitoring the receiving stream for: dissolved oxygen, fecal coliform bacteria, pH and temperature. The program must include sufficient upstream and downstream sampling points to accurately characterize the impact of the major spill. The results of the monitoring must be reported to EPD and all downstream public agencies using the affected waters as a source of a public water supply within 20 miles.
 - Provide notice to every county, municipality or other public agency whose public water supply is within 20 miles downstream and to any others which could potentially be affected by the major spill.

Within 5 days of notification of the spill:

- A written report must be submitted to EPD including the information in the first bullet above.

Within 7 days of a major spill:

- A notice of the major spill must be published in the legal organ of the County (Gwinnett Daily Post) including the information in the first bullet above.

PROCEDURE

This procedure applies to spills and major spills. Dispatch must be notified of all spills immediately so they can begin the EPD notification process.

Within 24 hours of notification of the spill:

- As soon as possible, **Coordinator or Investigator** notifies Dispatch that this will be a reportable spill and to start the Spill Notification process.
- **Dispatch** starts the Spill Notification form and saves to SharePoint in the Reportable Spill Notifications Library and emails Contact List 1 that the form is available and the name of the file. This allows necessary staff to know the 24-hour window for completing the notification process.
- If there is evidence of a fish kill or the spill is greater or equal to 10,000 gallons, the **Coordinator** notifies **Dispatch** to call the EPD Emergency Hotline at 800-241-4113 to report the spill. If there is a fish kill, the spill, regardless of size, will be treated as a Major Spill.
- For Major Spills only – **Coordinator** notifies Industrial Pretreatment to begin water and stream sampling. If a weekend, Coordinator takes sample and notifies DWR Environmental Lab.
- **Coordinator** completes the form and emails that it is ready for review to Contact List 1.
- The **Section Manager or Deputy Director** reviews the form and emails Contact List 1 that it is ready to be sent to EPD.
- **Dispatch** faxes page 1 of the Spill Notification to EPD at 404-656-2453. A copy of the fax coversheet confirmation and Spill Notification is kept to file and saved to SharePoint. Dispatch scans page 1 and emails to Spill Notification Contacts. Dispatch completes page three with all contacts notified.
- For Major Spills only – **Dispatch** notifies downstream municipalities, agencies, or affected entities (citizens,

homeowners groups, etc.) by telephone as soon as possible. Lists of downstream contacts, within 20 miles of the spill, may be found in Dispatch. Dispatch notes all downstream contacts that were contacted on page 3 of the Spill Notification form.

- **Section Manager or Deputy Director** works with the **DWR Public Information Officer** to prepare and distribute the media notice to print, radio and TV news media and the Health Department.
- **Coordinator** works with crews to post signs at the spill site, the location where the sewage entered State waters and any public access areas downstream of spill within a reasonable distance based on the magnitude of the spill.

Within 5 days of notification of the spill:

- The **PA Group** prepares a final report which is reviewed and signed by a **Section Manager or Deputy Director**. The **PA Group** faxes the final report to EPD.
- For major spills only - the **PA Group** prepares a notice of the major spill which is approved by the **DWR Public Information Officer** and a **Section Manager or Deputy Director**. The **PA Group** submits the notice to be published as a legal ad in the Gwinnett Daily Post. The legal ad must run within 7 days of the major spill.

For at least one year after a major spill:

- **Industrial Pretreatment** completes the water monitoring program of the area affected by the spill according to the guidelines set forth by the Rules and Regulations for Water Quality Control, Chapter 391-3-6. The results of the monitoring must be reported to EPD and all downstream public agencies using the affected waters as a source of a public water supply.

EMPLOYEE RESPONSIBILITIES

Employee Receiving Initial Notification of Overflow

- Contact Dispatch IMMEDIATELY with pertinent information including time and date, name and telephone number of person calling, location of overflow, and names of employees responding to call.

Coordinator

- Use DWR's Sanitary Sewer Flow Rates for Spill Determinations chart or the calculator in the Spill Notification form to calculate estimated spill amount. For gravity sewer spills:
 1. Measure the flow to depth of the first downgrade manhole of the spill immediately upon arrival on site.
 2. Make necessary corrections to allow the flow to restore to a normal flow.
 3. Measure depth of normal flow in same downgrade manhole. Subtract the two numbers.
 4. Calculate the spill.
 - a. Using the chart, the difference in inches of the two measurements under the pipe size in inches is a factor (number). Multiply this number by the time in minutes the spill occurred. This will give an estimated number of gallons overflowed. These directions are listed on the bottom of the chart.
 - b. Using the calculator, enter the before and after depth and time in minutes and the form will calculate the spill volume.

For force main overflows, use calculator in the Spill Notification form. For pump station spills, use pump station data to determine volume.

- Coordinator completes the Spill Notification form including response information, spill information, waterways and spill volume and emails that it is ready for review to Contact List 1.
- For Major Spills only – Coordinator notifies Industrial Pretreatment to begin water and stream sampling. If a

weekend, Coordinator takes sample and notifies DWR Environmental Lab.

- Coordinator determines where signs must be posted. Coordinator works with crews to post signs at the spill site, the location where the sewage entered State waters and any public access areas downstream of spill within a reasonable distance based on the magnitude of the spill. Blank sign forms are in Dispatch and Coordinator's office.

Dispatch

- Dispatch starts the Spill Notification form and saves to SharePoint in the Spill Notifications Library and emails Contact List 1 that the form is available and the name of the file. This allows necessary staff to know the 24-hour window for completing the notification process.
- If there is evidence of a fish kill or the spill is over 10,000 gallons, **Dispatch** calls the EPD Emergency Hotline at 800-241-4113 to report the spill. If there is a fish kill, the spill, regardless of size, will be treated as a Major Spill.
- Upon receiving approved form from Section Manager or Deputy Director, dispatch faxes page 1 of the Spill Notification form to EPD at 404-656-2453. A copy of the fax coversheet confirmation and Spill Notification is kept to file and saved to SharePoint. Dispatch scans page 1 and emails to Spill Notification Contacts. Dispatch completes page three with all contacts notified.
- For Major Spills only – Dispatch notifies downstream municipalities, agencies, or affected entities (citizens, homeowners groups, etc.) by telephone as soon as possible. Lists of downstream contacts, within 20 miles of the spill, may be found in Dispatch. Dispatch notes all downstream contacts that were contacted on page 3 of the Spill Notification form.

PA Group

- Within 5 days of the spill the PA Group prepares a final report which is reviewed and signed by a Section Manager or Deputy Director. The PA Group faxes the final report to EPD.
- For major spills only, the PA Group prepares a notice of the major spill which is approved by the DWR Public Information Officer and a Section Manager or Deputy Director. The PA Group submits the notice to be published as a legal ad in the Gwinnett Daily Post. The legal ad must run within 7 days of the major spill. The PA Group emails a copy of the public notice to Cindy Keel.
- The PA Group emails the final report to the Spill Notification Contacts on page 3 of the Spill Notification form.
- Maintain permanent file of **ALL** spills.

Contact List 1

Position	DWR Division
Assistant Director	Department of Water Resources
Deputy Director	Field Operations
Division Director	Environmental Compliance and Permitting
Section Manager	Field Operations- Corrective Maintenance
Section Manager	Field Operations- Preventive Maintenance
Section Manager	Field Operations- Contracts and Support
Section Manager	Field Operations- Warehouse
Section Manager	Facility Operations- Pump Stations
Trades Coordinator	Field Operations- Sewer Corrective Maintenance
Trades Coordinator	Field Operations- Sewer Preventive Maintenance
Water Quality Supervisor	Field Operations- FOG Preventive Maintenance

Trades Supervisor	Field Operations- Sewer Corrective Maintenance
Program Analyst III	Field Operations- Preventive Maintenance
Program Analyst II	Field Operations- Preventive Maintenance
Construction Manager II	Field Operations- Contracts and Support
Water Resources PIO	Environmental Compliance and Permitting
Water Resources Program Director	Environmental Compliance and Permitting
Resources Marketing Specialist	Environmental Compliance and Permitting
Water Quality Associate II	Field Operations- FOG Preventive Maintenance
Program Analyst I	Field Operations- Preventive Maintenance
DWR Dispatch e-mail group	Field Operations- Contracts and Support

Contact List 2

Position	DWR Division
Department Director	Department of Water Resources
Assistant to Director	Department of Water Resources
Assistant Director	Department of Water Resources
Deputy Director	Field Operations
Assistant to Deputy Director	Field Operations
Deputy Director	Engineering
Division Director	Environmental Compliance and Permitting
Section Manager	Field Operations- Corrective Maintenance
Section Manager	Field Operations- Preventive Maintenance
Section Manager	Field Operations- Contracts and Support
Section Manager	Field Operations- Warehouse
Section Manager	Facility Operations- Pump Stations
Engineer V	Engineering
Panning Manager	Environmental Compliance and Permitting
Water Quality Coordinator	Environmental Compliance and Permitting
Trades Coordinator	Field Operations- Sewer Corrective Maintenance
Trades Coordinator	Field Operations- Sewer Preventive Maintenance
Water Quality Supervisor	Environmental Compliance and Permitting
Water Quality Supervisor	Field Operations- FOG Preventive Maintenance
Program Analyst III	Field Operations- Preventive Maintenance
Program Analyst II	Field Operations- Preventive Maintenance
Construction Manager II	Field Operations- Contracts and Support

Water Resources PIO	Environmental Compliance and Permitting
Water Resources Program Director	Environmental Compliance and Permitting
Resources Marketing Specialist	Environmental Compliance and Permitting
Water Quality Associate II	Field Operations- FOG Preventive Maintenance
Program Analyst I	Field Operations- Preventive Maintenance
DWR Dispatch e-mail group	Field Operations- Contracts and Support
EMA- Homeland Security	N/A

Contact List 3

Position	DWR Division
Deputy Director	Field Operations
Assistant to Director	Department of Water Resources
Section Manager	Field Operations- Corrective Maintenance
Section Manager	Field Operations- Preventive Maintenance
Section Manager	Field Operations- Contracts and Support
Section Manager	Field Operations- Warehouse
Water Quality Supervisor	Field Operations- FOG Preventive Maintenance
Program Analyst III	Field Operations- Preventive Maintenance
Program Analyst II	Field Operations- Preventive Maintenance
Water Resources PIO	Environmental Compliance and Permitting
Water Resources Program Director	Environmental Compliance and Permitting
Resources Marketing Specialist	Environmental Compliance and Permitting
Water Quality Associate II	Field Operations- FOG Preventive Maintenance
Program Analyst I	Field Operations- Preventive Maintenance



Figure 1 - Appendix E - Example Documentation for Determining Spill Amount

Gwinnett County Department of Public Utilities Collection

Sanitary Sewer Flow Rates for Spill Determinations
Gallons per minute @ V= 2.0 fps & n= 0.013

Depth of
Flow
(inches)

Pipe Size - Inches

	8	10	12	15	18	21	24
1	20	25	30	35	40	45	50
2	60	70	80	85	95	105	125
3	110	125	135	150	175	185	210
4	160	180	200	235	260	285	320
5	190	240	280	315	360	380	445
6	260	310	355	415	455	500	555
7	290	370	425	495	570	620	695
8	320	430	500	600	680	760	815
9		465	575	690	800	890	965
10		490	625	775	905	1005	1120
11			685	870	1020	1135	1275
12			715	935	1130	1260	1410
13				1020	1240	1415	1580
14				1070	1345	1520	1690
15				1105	1425	1650	1850
16					1495	1760	1990
17					1550	1880	2110
18					1595	1980	2285
19						2050	2410
20						2115	2530
21						2160	2630
22							2700
23							2765
24							2820

SPILL CALCULATION PROCEDURES

1. Determine the time Public Utilities was initially notified of a potential SSO..
2. Measure the flow, if any, in inches in the manhole immediately downstream of the blockage and determine the flow rate at this point from the table above.
3. Clear blockage as needed, note time, allow flow to stabilize to a normal flow rate.
4. After flow reaches normal flow rate, measure the flow in the same location as in step # 2 and determine the normal flow rate from table above.
5. Subtract the flow rate in step # 2, in any, from the normal flow rate taken after the blockage was cleared in step #4 and multiply this number by the length of time from notification until the spill was corrected. (blockage cleared & no overflow)
6. Report amount spilled as required per SOP Spill Reporting Procedure.

Figure 2 - Appendix E - Spill Calculation Table

**Estimating Water Loss
Force Mains**

If losses exceed 50% - contact Central to get confirmation.

Flow Lost from a Force Main Beam-Break

Multiply Pump Station Flow to get Flow Lost Through the Crack																				
Pipe Diam (Inch)	Pipe Area sq ft	Circumference ft	(1/16)																	
			Width of Crack (Inch)																	
			0.0625	0.1	0.2	0.3	0.4	0.5	0.75	1	1.25	1.5	1.75	2	2.5	3	4	5	6	
2	0.02	6	0.111	0.187	0.298	0.375	0.444	0.500												
4	0.09	12	0.222	0.374	0.596	0.750	0.889	1.000	0.479	0.500										
6	0.20	18	0.333	0.561	0.894	1.125	1.333	1.500	0.718	0.750	0.455	0.500								
8	0.35	25	0.556	0.938	1.490	1.875	2.222	2.500	1.194	1.250	0.718	0.750	0.467	0.500						
10	0.55	31	0.834	1.406	2.235	2.812	3.333	3.750	1.791	1.875	1.071	1.125	0.643	0.667	0.500					
12	0.79	36	1.111	1.875	2.981	3.750	4.444	5.000	2.389	2.500	1.429	1.500	0.857	0.889	0.667	0.500				
14	1.08	41	1.556	2.611	4.167	5.125	5.926	6.667	3.357	3.500	2.045	2.143	1.286	1.333	1.000	0.667				
16	1.38	47	2.000	3.333	5.417	6.750	7.778	8.889	4.444	4.667	2.714	2.857	1.714	1.778	1.333	0.889	0.500			
18	1.68	50	2.222	3.704	6.000	7.500	8.571	9.722	4.907	5.125	3.000	3.125	1.905	1.964	1.464	1.000	0.667	0.500		
20	1.97	57	2.500	4.167	6.750	8.333	9.524	10.769	5.556	5.833	3.333	3.500	2.143	2.222	1.667	1.111	0.778	0.500		
24	2.78	68	3.333	5.556	8.944	11.125	12.699	14.286	7.407	7.708	4.444	4.667	2.857	2.981	2.222	1.500	1.000	0.667	0.500	
26	3.08	75	3.704	6.111	9.875	12.344	14.074	15.741	8.148	8.469	4.907	5.125	3.125	3.262	2.407	1.667	1.111	0.778	0.500	
28	3.38	80	4.074	6.667	10.714	13.333	15.238	17.143	8.889	9.238	5.333	5.556	3.469	3.611	2.667	1.889	1.333	0.889	0.667	
30	3.68	86	4.444	7.222	11.556	14.375	16.444	18.519	9.722	10.074	5.833	6.074	3.810	3.964	2.981	2.111	1.500	1.000	0.667	
32	3.98	91	4.815	7.778	12.407	15.417	17.619	19.754	10.667	11.074	6.333	6.574	4.152	4.310	3.262	2.222	1.667	1.111	0.778	
34	4.28	96	5.185	8.333	13.250	16.444	18.750	20.972	11.611	12.074	6.833	7.074	4.494	4.652	3.574	2.444	1.778	1.222	0.833	
36	4.58	101	5.556	8.889	14.094	17.500	19.889	22.222	12.593	13.074	7.333	7.574	4.836	4.994	3.889	2.667	1.889	1.333	0.889	
38	4.88	106	5.926	9.444	14.938	18.519	20.972	23.438	13.574	14.074	7.833	8.074	5.178	5.336	4.194	2.889	2.000	1.444	1.000	
40	5.18	111	6.296	10.000	15.781	19.524	22.037	24.643	14.556	15.074	8.333	8.574	5.519	5.677	4.500	3.111	2.222	1.667	1.111	
42	5.48	116	6.667	10.556	16.625	20.500	23.148	25.852	15.537	16.074	8.833	9.074	5.860	6.019	4.815	3.333	2.444	1.889	1.333	
44	5.78	121	7.037	11.111	17.469	21.479	24.259	27.059	16.519	17.074	9.333	9.574	6.202	6.360	5.125	3.556	2.667	2.000	1.500	
46	6.08	126	7.407	11.667	18.313	22.407	25.370	28.269	17.500	18.074	9.833	10.074	6.544	6.702	5.438	3.778	2.889	2.222	1.667	
48	6.38	131	7.778	12.222	19.156	23.333	26.481	29.472	18.481	19.074	10.333	10.574	6.886	7.044	5.750	4.000	3.111	2.500	1.889	
50	6.68	136	8.148	12.778	19.999	24.259	27.593	30.677	19.463	20.074	10.833	11.074	7.228	7.386	6.056	4.222	3.333	2.667	2.000	
52	6.98	141	8.519	13.333	20.844	25.185	28.704	31.881	20.444	21.074	11.333	11.574	7.569	7.727	6.360	4.444	3.556	2.889	2.222	
54	7.28	146	8.889	13.889	21.688	26.111	29.815	33.086	21.426	22.074	11.833	12.074	7.910	8.069	6.667	4.667	3.778	3.111	2.444	
56	7.58	151	9.259	14.444	22.531	27.037	30.826	34.286	22.407	23.074	12.333	12.574	8.252	8.410	6.972	4.889	4.000	3.333	2.667	
58	7.88	156	9.630	15.000	23.375	28.000	31.852	35.486	23.389	24.074	12.833	13.074	8.594	8.752	7.278	5.111	4.222	3.556	2.889	
60	8.18	161	10.000	15.556	24.219	29.000	32.857	36.688	24.370	25.074	13.333	13.574	8.936	9.094	7.581	5.333	4.444	3.778	3.111	
62	8.48	166	10.370	16.111	25.063	30.000	33.869	37.889	25.352	26.074	13.833	14.074	9.278	9.436	7.889	5.556	4.667	4.000	3.333	
64	8.78	171	10.741	16.667	25.906	31.000	34.881	39.086	26.333	27.074	14.333	14.574	9.619	9.778	8.194	5.778	4.889	4.222	3.556	
66	9.08	176	11.111	17.222	26.750	32.000	35.894	40.286	27.315	28.074	14.833	15.074	9.961	10.136	8.500	6.000	5.000	4.444	3.778	
68	9.38	181	11.481	17.778	27.593	33.000	36.904	41.481	28.297	29.074	15.333	15.574	10.302	10.494	8.815	6.222	5.222	4.667	4.000	
70	9.68	186	11.852	18.333	28.438	34.000	37.915	42.681	29.278	30.074	15.833	16.074	10.644	10.852	9.125	6.444	5.444	4.889	4.222	
72	9.98	191	12.222	18.889	29.281	35.000	38.926	43.881	30.259	31.074	16.333	16.574	10.986	11.210	9.438	6.667	5.667	5.111	4.444	
74	10.28	196	12.593	19.444	30.125	36.000	39.938	45.086	31.240	32.074	16.833	17.074	11.328	11.569	9.750	6.889	5.889	5.333	4.667	
76	10.58	201	12.963	20.000	30.969	37.000	40.949	46.286	32.222	33.074	17.333	17.574	11.670	11.927	10.056	7.111	6.111	5.556	4.889	
78	10.88	206	13.333	20.556	31.813	38.000	41.961	47.486	33.203	34.074	17.833	18.074	12.012	12.286	10.360	7.333	6.333	5.778	5.111	
80	11.18	211	13.704	21.111	32.656	39.000	42.972	48.688	34.185	35.074	18.333	18.574	12.354	12.644	10.667	7.556	6.556	6.000	5.333	
82	11.48	216	14.074	21.667	33.500	40.000	43.981	49.889	35.167	36.074	18.833	19.074	12.696	12.994	10.972	7.778	6.778	6.222	5.556	
84	11.78	221	14.444	22.222	34.344	41.000	44.994	51.086	36.148	37.074	19.333	19.574	13.038	13.352	11.278	8.000	7.000	6.444	5.778	
86	12.08	226	14.815	22.778	35.188	42.000	45.994	52.286	37.129	38.074	19.833	20.074	13.380	13.702	11.581	8.222	7.222	6.667	6.000	
88	12.38	231	15.185	23.333	36.031	43.000	46.994	53.481	38.111	39.074	20.333	20.574	13.722	14.054	11.889	8.444	7.444	6.889	6.222	
90	12.68	236	15.556	23.889	36.875	44.000	47.994	54.681	39.093	40.074	20.833	21.074	14.064	14.402	12.194	8.667	7.667	7.111	6.444	
92	12.98	241	15.926	24.444	37.719	45.000	48.994	55.881	40.074	41.074	21.333	21.574	14.406	14.750	12.500	8.889	7.889	7.333	6.667	
94	13.28	246	16.296	25.000	38.563	46.000	49.994	57.086	41.056	42.074	21.833	22.074	14.748	15.094	12.806	9.111	8.111	7.556	6.889	
96	13.58	251	16.667	25.556	39.406	47.000	50.994	58.286	42.037	43.074	22.333	22.574	15.090	15.442	13.111	9.333	8.333	7.778	7.111	
98	13.88	256	17.037	26.111	40.250	48.000	51.994	59.481	43.019	44.074	22.833	23.074	15.432	15.786	13.415	9.556	8.556	8.000	7.333	
100	14.18	261	17.407	26.667	41.094	49.000	52.994	60.681	44.000	45.074	23.333	23.574	15.774	16.136	13.722	9.778	8.778	8.222	7.556	
102	14.48	266	17.778	27.222	41.938	50.000	53.994	61.881	44.981	46.074	23.833	24.074	16.116	16.484	14.028	10.000	9.000	8.444	7.778	
104	14.78	271	18.148	27.778	42.781	51.000	54.994	63.086	45.963	47.074	24.333	24.574	16.458	16.836	14.333	10.222	9.222	8.667	8.000	
106	15.08	276	18.519	28.333	43.625	52.000	55.994	64.286	46.944	48.074	24.833	25.074	16.800	17.180	14.639	10.444	9.444	8.889	8.222	
108	15.38	281	18.889	28.889	44.469	53.000	56.994	65.481	47.926	49.074	25.333	25.574	17.142	17.528	14.944	10.667	9.667	9.111	8.444	
110	15.68	286	19.259	29.444	45.313	54.000	57.994	66.681	48.907	50.074	25.833	26.074	17.484	17.876	15.248	10.889	9.889	9.333	8.667	
112	15.98	291	19.630	30.000	46.156	55.000	58.994	67.881	49.889	51.074	26.333	26.574	17.826	18.220	15.556	11.111	10.111	9.556	8.889	
114	16.28	296	20.000	30.556	47.000	56.000	59.994	69.086	50.870	52.074	26.833	27.074	18.168	18.568	15.860	11.333	10.333	9.778	9.111	
116	16.58	301	20.370	31.111	47.844	57.000	60.994	70.286	51.852	53.074	27.333	27.574	18.510	18.910	16.167	11.556	10.556	10.000	9.333	
118	16.88	306	20.741	31.667	48.688	58.000	61.994	71.481	52.833	54.074	27.833	28.074	18.852	19.252	16.469	11.778	10.778	10.222	9.556	
120	17.18	311	21.111	32.222	49.531	59.000	62.994	72.681	53.815	55.074	28.333	28.574	19.194	19.594	16.778	12.000	11.000	10.444	9.778	
122	17.48	316	21.481	32.778	50.375	60.000	63.994													

Appendix F – Capital Improvement Plan

(Changes Monthly)

CIP Tracking Monthly Report



Project: M-0745 Pump Station Rehab											
Status	Project	2019	2020	2021	2022	2023	2024	2025	Total	YTD Spent	Est. Spend (Yr) Owner and Comments
Substantially Complete	M-0745-71 NCI Pump Station Rehabilitation	\$4,140,156							\$4,140,156	\$2,461,492	\$3,104,792 Tanksley; Tyler - Construction is substantially complete. Punchlist and change order in process. 09-27-2019
Pending	M-0745-88 PS-OCPS19-06 Fairmont PS Rehab		\$344,931						\$344,931	\$0	\$0 Hampton; Rich - NTP issued 5/8/2019.
Design	M-0745-89 Sagamore Hills and Hunters Creek PS Modifications	\$62,273	\$1,238,141						\$1,300,414	\$32,453	\$126,414 Bihalli; Rudresh - RB - 10/01/2019: This project is handed over from Charles Horner. During the meeting on May 20, 2019, it was decided to stick to the scope of decommissioning Hunters Creek PS and upgrade Sagamore Hill PS to meet the current and future flows. Woods, LLC submitted geotechnical report. There is no rock but encountered groundwater table between 7 to 10 feet below grade. ESI to submit 60% design in October 2019.
Completed	M-0745-93 Lower Big Haynes Pump Station Improvements	\$613,980							\$613,980	\$576,889	\$599,686 Bihalli; Rudresh - RB - 10/01/19: Will have CO.1 for \$26,132; CO.2 for \$702; CO.3 for \$750; and CO. 4 for \$5,550 and Multiplex has requested for time extension of 140 days due to weather, delay in fabrication and galvanizing of steel structures for canopy. The project was substantially complete is on 8/14/19. Contractor to address punch list items and working on project closeout.
	M-0745-95 PS Odor Control System - Grease Filters and Access Ports	\$19,411							\$19,411	\$18,546	\$17,619 Bihalli; Rudresh - RB-4/4/19: Contractor has completed installation of Grease Filters and Access Doors at various PS per Contract. Following substantial completion, project walk thru was completed on 12/19/2018. Contractor addressed punch list items and reached Final completion on 1/14/19. Change Order # 1 Final for \$1,210 was approved by Purchasing Director. Final pay application was processed on 3/11/19. Asset report was completed and the project is closed out.
Total		\$4,835,820	\$1,583,072						\$6,418,892	\$3,089,379	\$3,848,511

Project: M-0746 Pump Station Rehab											
Status	Project	2019	2020	2021	2022	2023	2024	2025	Total	YTD Spent	Est. Spend (Yr) Owner and Comments
Pending	M-0746- BL012-19 Coatings Projects for Pump Stations 2019	\$500,000							\$500,000	\$0	\$0 Hampton; Rich -
	M-0746-85 PS-OCPS19-10 Wellington Walk PS Rehab	\$10,365	\$399,803						\$410,168	\$10,365	\$330,000 Hampton; Rich - Work to begin 1st quarter 2020.
	M-0746-65 PS-OCPS19-13 Pinecrest PS Rehab	\$60,000							\$60,000	\$0	\$60,000 Hampton; Rich - Work to begin after Wellington Walk, fall 2019

CIP Tracking Monthly Report



Project: M-0746												Pump Station Rehab
Status	Project	2019	2020	2021	2022	2023	2024	2025	Total	YTD Spent	Est. Spend (Yr)	Owner and Comments
Planning	M-0746- PS-OCPS19-14 Parker Woods North PS Rehab		\$20,000						\$20,000	\$0	\$0	Hampton; Rich - ESI is working on Procurement documents for pump purchases. Install 2020.
	M-0746-67 PS-OCPS19-15 Evergreen Lakes PS Rehab		\$20,000						\$20,000	\$0	\$0	Hampton; Rich - ESI is working on Procurement documents for pump purchases Install 2020
Substantially Complete	M-0746-23 On Call Coatings Technical Support Services	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000		\$300,000	\$49,824	\$50,000	Gonce; Nancy - 09.03.19 Coatings inspections and reports performed at NCI Pump Station for the wetwell, grinder, diversion chamber, and miscellaneous metals. Final invoice submitted on 08/16/19. Project will be closed. Remaining work at NCI Pump Station to be issued under a separate work authorization.
	M-0746-82 PS-IWQ1-573003 NBC Flow Meter	\$18,189							\$18,189	\$0	\$0	Hampton; Rich - 5/29/19 Flow meter was delivered on 5.13.19 but we never recieved the submittals. John Fleck with ESI has reached out to the vendor to get the submittals to make sure what wereceived meets the spec required.
	M-0746-86 PS-OCPS19-08 Old Thompson Mill PS Rehab	\$174,793							\$174,793	\$174,793	\$0	Hampton; Rich - start up 8/2. Awaiting final invoice.
	M-0746-56 PS-OCPS19-17 Duluth Village PS Rehab	\$309,165							\$309,165	\$309,165	\$398,402	Hampton; Rich - 7-8-19 waiting on close out docs .
	M-0746-59 PS-OCPS19-18 Marathon Valve Mod	\$97,044							\$97,044	\$91,451	\$5,594	Hampton; Rich - Closing construction WO. Will finish work once easement issue settled..
	M-0746-81 PS-OCPS19-22 Hog Mountain 2 PS Rehab	\$601,522							\$601,522	\$527,641	\$374,637	Hampton; Rich - Processing final pay app
	M-0746-73 PS-OCPS19-26 Bermuda PS Gate Repair	\$44,477							\$44,477	\$44,477	\$57,802	Hampton; Rich - Waiting on close out docs.
	M-0746-77 PS-OS016-17-JWC Enviromental-Grinder repair Lower Big Haynes PS	\$30,318							\$30,318	\$30,318	\$30,318	Hampton; Rich -
	M-0746-12 County-wide Pump Station Condition Assessment Update	\$112,804							\$112,804	\$108,598	\$0	Suttles; Jennifer - ESI has delivered geodatabase. Will be presented and reviewed 8/16/19.
	M-0746-89 PS-OCPS19-36 BL016-18 NFPC PS HVAC Replacement	\$37,974							\$37,974	\$18,519	\$37,974	Suttles; Jennifer - Received final invoice from United 6/21/19.
Bid	M-0746-71 PS-IWQ 1-565072 Lower Big Haynes Check Valve Procurement	\$59,487							\$59,487	\$0	\$0	Hampton; Rich - Procurement only. DWR will install.
	M-0746-72 PS-IWQ 1-565190 PS CM Shop Generator	\$51,928							\$51,928	\$0	\$0	Hampton; Rich - PO canceled. Will re-bid. Never received submittals from vendor.
	M-0746-51 Hidden Meadows PS Improvements	\$10,103							\$10,103	\$0	\$10,102	Joiner; Matthew -

CIP Tracking Monthly Report



Project: M-0746												Pump Station Rehab
Status	Project	2019	2020	2021	2022	2023	2024	2025	Total	YTD Spent	Est. Spend (Yr)	Owner and Comments
Contract Execution	M-0746-61 PS-OCPS19-19 NFPC Rehab	\$966,591							\$966,591	\$50,995	\$955,000	Hampton; Rich - Sent to On-Call committee 8/6.
	M-0746-92 PS-OCPS19-32 The Oaks rehab	\$13,880							\$13,880	\$0	\$14,000	Hampton; Rich - Doghouse manhole to be installed 10/2019. Rehab work in 2020
	M-0746-93 PS-OCPS19-33 Rivercliff rehab	\$7,190							\$7,190	\$0	\$8,000	Hampton; Rich - Doghouse manhole to be installed 10/2019. Rehab in 2020.
	M-0746-77 PS-OS012-15 Xylem-Prospect Rd Replacement Pumps	\$22,749							\$22,749	\$22,749	\$22,749	Johnson; Jeremy -
Design	M-0746-69 Brooks Road Pump Station Improvements	\$483,897	\$5,723,194	\$3,720,658					\$9,927,748	\$389,457	\$491,338	Bihalli; Rudresh - RB - 10/01/19: Progress meeting was held on 8/13/19 to discuss on PER, Hydraulic and surge analyses as well as Pump Selection reports. Review commnets on 60% design drawings and Specifications have been provided to Tetra Tech on 9/11/2019. Expectiong 90% design submittal on 10/22/19.
	M-0746-24 Peachtree MHP Pump Station Imprvements	\$42,842	\$1,645,422						\$1,688,264	\$25,647	\$26,675	Bihalli; Rudresh - RB-10/01/19: PS upgrade, FM relocation and water main installation will be advertised in Phase 1. Review comments on bid ready documents provided to ESI on 7/23/19. Final review on Bid Ready documents is in progress. Will be submitted o Purchasing on 10/10.2019.
	M-0746-32 Engineering Support Services for Pump Station	\$1,050,000	\$1,050,000	\$1,050,000	\$1,050,000	\$1,050,000	\$1,050,000		\$6,300,000	\$0	\$0	Joiner; Matthew - This project is only for engineering support.
	M-0746-55 Sherwood Pump Station - Rock Quarry PS Rehabilitation Project	\$373,796	\$3,698,533						\$4,072,329	\$180,679	\$216,651	Weaver; Edward - 9/4/19: Current Est. Cost: \$3,718,000. 60% received on 3/11. On-site geotech work and hazmat testing done on 3/18, 60% Review done 3/26. 90% submittal rec'd 6/12. 90% Review meeting held 6/28. P&D Comments rec'd 9/3/19.
Construction	M-0746-77 PS - 2019 Equipment Purchases	\$606,698							\$606,698	\$334,721	\$607,361	Hampton; Rich -
	M-0746-74 PS-OCPS19-03 Brooks Road PS Rehab	\$1,224,293							\$1,224,293	\$639,336	\$264,539	Hampton; Rich - Construction begun. Anticipate completion10/2
	M-0746-80 PS-OCPS19-23 Alcovy FM ARV Rpair & Diversion Valve Actuator Replacement	\$135,270							\$135,270	\$42,220	\$169,986	Hampton; Rich - Site Eng to begin work in mid-October.
	M-0746-97 PS-OCPS19-27 Patterson Surge Tank Rehab	\$374,560							\$374,560	\$83,701	\$0	Hampton; Rich - 7-8-19 Received and reviewed revised submittal for surge system equipment and access platform. Wait on delivery of equipment.
	M-0746-98 PS-OCPS19-28 Ivy Creek Wet Well Coating	\$658,006							\$658,006	\$16,517	\$657,446	Hampton; Rich - Work ongoing. Scaffolding set up, NACE inspection, coating removal during June/July
	M-0746-90 PS-OCPS19-29 Tanglewood PS rehab	\$508,982							\$508,982	\$114,839	\$499,249	Hampton; Rich - Work to begin 8/12

CIP Tracking Monthly Report



Project: M-0746												Pump Station Rehab
Status	Project	2019	2020	2021	2022	2023	2024	2025	Total	YTD Spent	Est. Spend (Yr)	Owner and Comments
Construction	M-0746-58 PS-OCPS19-47 Brooks Booster Surge Tank and Compressor	\$24,123							\$24,123	\$24,123	\$0	Hampton; Rich - Tank and compressor received. Determining how to install.
	M-0746-77 PS-OS012-15 Xylem-East Park Place PS Pump Replacement	\$101,196							\$101,196	\$101,196	\$0	Johnson; Jerimy - .
	M-0746-77 PS-OS012-15 Xylem-Northfork Pump Replacements	\$305,784							\$305,784	\$305,784	\$305,784	Johnson; Jerimy - .
	M-0746-77 PS-OS012-15 Xylem-Ozora Rd Replacement Pumps	\$22,675							\$22,675	\$22,675	\$0	Johnson; Jerimy - waiting on parts .
Pre-Design	M-0746-83 Category A1 - Arcadis on-call Professional Services support	\$100,000							\$100,000	\$0	\$280,000	Moon; Thomasa - DS19016; currently no active tasks 2020 funds deleted as this WA will be close at end of 2019
	M-0746-84 Category A1 - Tetra Tech Inc on-call Professional Services support	\$100,000							\$100,000	\$0	\$300,000	Moon; Thomasa - DS19020; currently no active tasks 2020 dollars deleted as this WA will be closed at the end of 2019.
Completed	M-0746-96 PS - BL016-18 LBH PS HVAC Replacement	\$49,861							\$49,861	\$33,409	\$49,861	Hampton; Rich - complete.
	M-0746-77 PS - BL021-17 APD Door Replacement-Brooks Rd Booster	\$12,741							\$12,741	\$12,741	\$0	Hampton; Rich - Settlement sent 9.4.19
	M-0746-34 PS - OS012-15-Xylem-Spare Pump Replacement	\$9,468							\$9,468	\$9,468	\$6,226	Hampton; Rich - Settlement sent 7/2/19
	M-0746-46 PS-IWQ 1-545937 HOG MOUNTAIN ROAD 1 & 2 PS RTU PANEL	\$45,865							\$45,865	\$45,865	\$0	Hampton; Rich - Received.
	M-0746-56 PS-IWQ 1-551934 Duluth Village package pump systems	\$54,535							\$54,535	\$54,535	\$0	Hampton; Rich - Waiting on settlement
	M-0746-61 PS-IWQ NFPC RTU PANEL	\$38,532							\$38,532	\$38,532	\$0	Hampton; Rich -
	M-0746-34 PS - Franklin Miller - Jacks Cr grinder replacement	\$37,305							\$37,305	\$37,305	\$37,305	Johnson; Jerimy - Recieved and invoiced 2-8-19 RCF recieved 4-8-19.
	M-0746-76 PS-BL081-18-Chapman Fence- carrington Gate PS	\$7,800							\$7,800	\$7,800	\$7,800	Johnson; Jerimy - Ivoiced 3-15-19
	M-0746-70 PS-OCPS18-02 Brookwood HS PS Site Rehab	\$763,643							\$763,643	\$763,643	\$96,815	Johnson; Jerimy - complete
	M-0746-68 PS-OCPS18-28 Farmers Court PS Rehab	\$30,243							\$30,243	\$30,243	\$0	Johnson; Jerimy - complete

CIP Tracking Monthly Report



Project: M-0746												Pump Station Rehab
Status	Project	2019	2020	2021	2022	2023	2024	2025	Total	YTD Spent	Est. Spend (Yr)	Owner and Comments
Completed	M-0746-78 PS-OCPS19-20 Dominion Walk PS Bypass Connection	\$6,133							\$6,133	\$6,133	\$0	Johnson; Jerimy - Work was completed. Invoiced on 1-30-19.
	M-0746-77 PS-OS012-15 Xylem-Bailey Farms-Replacement pumps	\$22,615							\$22,615	\$22,615	\$0	Johnson; Jerimy - Parts recieved. Invoiced 2-8-19.
	M-0746-77 PS-OS012-15 Xylem-Dominion Walk Replacement pumps	\$24,557							\$24,557	\$24,557	\$24,557	Johnson; Jerimy - Pumps recieved and invoiced 4-18-19
	M-0746-34 PS-OS012-16-Watson Marlow- Eco-Tech- NBC Bredel Pumps replacement	\$9,926							\$9,926	\$9,926	\$0	Johnson; Jerimy - Parts received and invoiced 12-19- 18
	M-0746-77 PS-OS016-17-JWC Enviromental- 2nd Grinder Repair for Beaver Ruin PS	\$34,622							\$34,622	\$34,622	\$0	Johnson; Jerimy - Completed and invoiced on 3-27-19 RCF recieved on 4-4-19
	M-0746-34 PS-OS016-17-JWC Enviromental- Grinder Repair	\$8,131							\$8,131	\$8,131	\$0	Johnson; Jerimy - .
	M-0746-77 PS-OS016-17-JWC Enviromental-Grinder repair for Beaver Ruin PS	\$45,782							\$45,782	\$45,782	\$0	Johnson; Jerimy - Completed and invoiced on 3-27-19 RCF recieved on 4-4-19
	M-0746-88 PS - BL016-18 Level Creek PS HVAC Replacement	\$26,360							\$26,360	\$25,653	\$26,360	Suttles; Jennifer - Completed
	M-0746-79 PS-OCPS19-21 BL016-18 Patterson PS HVAC Replacement	\$45,396							\$45,396	\$41,963	\$45,395	Suttles; Jennifer - Completed
Total		\$10,564,217	\$12,606,952	\$4,820,658	\$1,100,000	\$1,100,000	\$1,100,000		\$31,291,827	\$4,972,715	\$6,467,926	

Project: M-0750												Sanitary Sewer Collection Sys Ren
Status	Project	2019	2020	2021	2022	2023	2024	2025	Total	YTD Spent	Est. Spend (Yr)	Owner and Comments
Bid	M-0750-43 Gold Creek Way - Sugar Hill Sewer Rehab	\$711,742							\$711,742	\$533,494	\$554,419	Horner; Charles - Substantially complete. Performed final punchlist walk-through on 9.26.2019. Developing change order. 10.1.2019 CH
	M-0750-58 Lake Colony Drive Sewer	\$12,241	\$756,250						\$768,491	\$3,199	\$13,357	Weber; Emily - 03.25.19 - Final easement documentation under Law review. 04.18.19 - Preparing bid documents. 07.08.19 - Awaiting revised bid documents. 09.03.19 - Onsite pre-bid meeting scheduled for 09.05.19, Bid opening postponed 09.27.19, 10.1.19 awaiting revisions to plans and supp. conditions
Design	M-0750-67 Ambercrest Sewer Extension Project	\$97,411	\$279,364	\$1,600,000					\$1,976,775	\$13,429	\$43,460	Bhimani; Manoj - As per direction, removing forceman portion from this project. PPI is working on that.

Status	Project	2019	2020	2021	2022	2023	2024	2025	Total	YTD Spent	Est. Spend (Yr)	Owner and Comments
Design	M-0750-60 Lake Lanier Low Pressure Sewer					\$3,437,000	\$1,813,319		\$5,250,319	\$0	\$0	Bhimani; Manoj - 1/28/2019 Project is On Hold BY UPPER MANAGEMENT. * Design Consultant - Brown and Caldwell - - Low Pressure , working on tech specification - 8 inch Gravity - - DWR submit 17 easements plates to DoSSs on 09/27/2018 for 8' Gravity Line - submit 180 homes info to DoSS for to prepare a right of entry forms. - Low Pressure sewer standards is complete on April 2018 * United Consulting - - additional bore and SUE A @ Buford Dam rd
	M-0750-80 Category I - CDM Fire Station 19 on-call Professional Services support	\$43,161							\$43,161	\$4,428	\$43,131	Farrell; Kevin - DS19061; BOC approved UEM and CAMMP; execution of UEM in process; implementation of CAMMP started
	M-0750-63 Dual ARV Separation Project	\$125,391	\$506,696						\$632,087	\$2,729	\$128,139	Horner; Charles - Atkins developing plats. 90% review identified some errors in bid specs which are being revised. Hazen & Sawyer performing field investigations with help of Operations. 10.1.2019 CH
	M-0750-75 Level Creek Interceptor Upsizing	\$189,425	\$1,509,948	\$1,500,000					\$3,199,372	\$38,616	\$203,771	Price; Mary - working with Century Development to install dry sewer on property. Tentative field meeting 10.4.2019. Gas main potholed, alignment validated. Discussing temp. easemnt alignment. construction monies moved to 2020-2021. Project being transfered to Mary Catherine Price. 10.1.2019 CH
On Hold	M-0750-69 Northforke Plantation PS Decommissioning	\$1	\$1	\$1					\$3	\$0	\$0	Weber; Emily - 03.25.19 - JC requested this project be placed on-hold until further notice [as of 7.31.18].
Pre-Design	M-0750-78 Category B - PPI on-Call Professional Support Services - CM work	\$600,000							\$600,000	\$5,973	\$1,200,000	Bokey; Curtis - DS19048; Rosemoore Lake On-call: M-0777-18-2-02 ; Staff is working with PPI to create job specific WA's so this can be deleted.
	M-0750-72 Category B - PPI on-Call Professional Services Support	\$103,860							\$103,860	\$78,594	\$0	Moon; Thomasa - DS18081; NTP dated 4/24/18; Active projects - Pharr Woodberry Peter Coker; WIC Curtis Bokey; Mountain Park, Dacula Gravity and Parkview/Pinecrest Stream Chad Homer. This WA has been closed and settlement to DWR Finance 6.20.19
	M-0750-76 Category B - The Constantine Group on-call Professional Services support	\$258,994							\$258,994	\$105,349	\$0	Moon; Thomasa - DS18163; Current Active Projects - OFS Sewer Lisa Willis; Ross Road PS BCE Ray Williams; SR20 Grayson Michael Efeyini; Duluth Booster PS Demo Chad Homer
	M-0750-68 North Fork Peachtree Force Main Replacement	\$452,488	\$399,715	\$8,738,962	\$680,902				\$10,272,067	\$132,157	\$437,518	Murphy; Daniel - 9/30/2019 - Preliminary Design in progress. Meeting was held between Gwinnett County and Engineer to discuss route options from draft route analysis report submittal. Engineer recently submitted the technical memorandum (evaluation of existing PS, ARVs, sizing of new force main and gravity sewer, route anaylsis, cost estimate, etc.). Technical memorandum is currently under review.
Construction	M-0750-73 Mountain Park ES New Gravity Sewer	\$1,557,054							\$1,557,054	\$1,486,579	\$1,464,614	Horner; Charles - Constrution Substantally complete. punchlist items remaining. 9.4.2019CH

Figure 1 - Appendix F – CIP List for Pump Station Rehab (double-click to open embedded pdf)

CIP Tracking Monthly Report



Project: F-0541										DWR Building Rehab/Upgrades		
Status	Project	2019	2020	2021	2022	2023	2024	2025	Total	YTD Spent	Est. Spend (Yr)	Owner and Comments
Completed	F-0541-03 BL053-17 Advantage - DWR Central Parking Lot Repairs	\$25,437							\$25,437	\$25,437	\$24,411	Duncan; Jason H. - 7/5/19 - Project completed, final invoice paid. Project closed out.
	F-0541-26 CF - OCCF19-01 DWR Central Facility Restrooms and Misc Renovations	\$99,386							\$99,386	\$56,080	\$99,386	Duncan; Jason H. - 7/30/19- Renovations are complete. Final invoice recieved.
	F-0541-32 Norcross Tank & Booster Fence Repair	\$14,521							\$14,521	\$14,521	\$14,521	Duncan; Jason H. - 7/25/19 - Project completed
	F-0541-19 CF - BL016-18 DWR Central HVAC Replacement	\$374,659							\$374,659	\$374,659	\$0	Hampton; Rich - complete.
Design	F-0541-33 SCADA Central room - Construction	\$500,000							\$500,000	\$0	\$500,000	Paul; Sam -
	F-0541-11 GCDWR Central Assessment and Master Plan	\$298,167	\$11,043						\$309,210	\$39,933	\$0	Semerjian; Jonathan - DWR Assessment being finalized for delivery. Programming and Staffing Projections also being finalized.
On Hold	F-0541-12 DWR Central Buildouts and Enhancements - Remaining project Lobby Renovation	\$78,352	\$350,000	\$75,000					\$503,352	\$0	\$0	Coker; Peter - 10/2/2019 The project is still on hold.
	F-0541-10 F Wayne Hill Operations Building Expansion			\$108,818	\$2,770,228	\$2,421,868	\$17,714		\$5,318,628	\$0	\$0	Gonce; Nancy - 05/09/2019- construction cost numbers modified to reflect spend shown in ML 4/26/19 email. Project on Hold pending results of FWH Master Plan (expected May 2018). Schedule based upon proposal which will need to be re-evaluated once master plan results are complete. Project was in Pending phase prior to hold being administered, could probably be completely removed and rebooted when needed.
Study	F-0541-23 PS Maintenance Building Upgrades		\$621,970						\$621,970	\$0	\$0	Joiner; Matthew -
Contract Execution	F-0541-24 Central - Intech Systems - FIRE Alarm Upgrade	\$43,363							\$43,363	\$0	\$43,363	Duncan; Jason H. - 10-2-2019 – After new design areas were identified that would not meet code. Requested for quote to be provided for any additional needs. Will request to increase PO once that is received.
	F-0541-Pending DWR Central West Traffic Arm Replacement	\$11,278							\$11,278	\$0	\$0	Duncan; Jason H. - 7/30/19 - Project complete but funded from operating. Needs to be removed for CIP Tracker.
Construction	F-0541-25 Category I - DWR Central Signage - PPI DS19099	\$123,581							\$123,581	\$2,449	\$128,934	Duncan; Jason H. - 10-2-2019 Project was re-visited with contractor to point out areas that were incomplete along with areas that were left out. Asked that an additional quote be submitted to include additional signage needs. Once received will request to increase PO.

CIP Tracking Monthly Report



Project: F-0541											
DWR Building Rehab/Upgrades											
Status	Project	2019	2020	2021	2022	2023	2024	2025	Total	YTD Spent	Est. Spend (Yr) Owner and Comments
Construction	F-0541-14 CF - BL018-19 Lighting LED Interior Upgrades for Central Facility	\$109,816							\$109,816	\$0	\$76,736 Duncan; Jason H. - 9-5-2019 Project underway. Some fixtures are not available from vendor even though they were quoted. Replacement fixtures are at an additional cost which will require increase in PO.
	F-0541-17 CF - OCCF18-02 DWR Central Misc Support for Building Renovations and Repairs	\$68,554							\$68,554	\$38,452	\$0 Duncan; Jason H. - 10/2/19 - Invoice payments are up to date. Last paid invoices was for scanning the walls.
	F-0541-28 CF - BL016-18 DWR Central Facility Chiller Replacement project	\$406,474							\$406,474	\$0	\$399,774 Hampton; Rich - Construction scheduled to be complete 10/8/19.
	F-0541-27 CF - BL097-16 Central Facility Electrical System Replacements	\$247,960							\$247,960	\$169,297	\$247,960 Hampton; Rich - Received all materials necessary for construction on 8/9. Installation will require outages as follows: Saturday October 19th, Saturday October 26th , Saturday-Sunday November 2-3.
	F-0541-09 DWR Central Vehicle Wash	\$915,703							\$915,703	\$443,267	\$900,775 Lovell; Anne - 2019.09.03-DWR has requested an updated schedule to completion. The current schedule shows completion on 9/25. This date will not be met.
Planning	F-0541-XX Monument Construction	\$31,098							\$31,098	\$0	\$0 Butts; Varessa - 8/1 - added per Rebecca.
	F-0541-31 DWR Central Facility Building Modifications and Construction (placeholder)	\$250,000	\$725,000	\$1,000,000	\$3,000,000	\$3,000,000			\$7,975,000	\$0	\$0 Roberts; Charlie - 1/24/19 - meeting with Tyler took place. She would like to use on-call services to address the public bathrooms on a seperate project. For the major upgrade project, Tyler would like to utilize demand services to get PPI to do a buildingwide assessment of everyones needs and then create a phased approach to implementation. Jason will meet with Rich this week so a PM can be assigned to this project to run the assessment and the project bid and construction.
Pending	F-0541-31 DWR Central Facility Repairs and Maintenance (Placeholder)	\$250,000	\$500,000	\$500,000	\$1,000,000	\$1,500,000	\$1,000,000	\$1,000,000	\$5,750,000	\$0	\$0 Duncan; Jason H. - New owner: Jason Duncan.
	F-0541- Water Resources Lab Expansion							\$1,895,219	\$1,920,000	\$0	\$0 Funk; Denise - May 1, 2019 - Project start date pushed to 2025.
Total		\$3,848,348	\$2,208,013	\$1,683,818	\$6,770,228	\$6,921,868	\$1,017,714	\$2,895,219	\$25,369,989	\$1,164,094	\$2,435,859

Figure 1 - Appendix F – CIP List for Water Reclamation (double-click to open embedded pdf)