

2012 Periodic Biosolids Program Performance Report

Issued: March 2013

"It is the goal of the City to manage biosolids processing, handling, and final disposal in a manner which meets public acceptance and to produce a product that complies with all state and federal regulatory requirements."

Introduction

The Grand Rapids Wastewater Treatment Plant (GRWWTP), located in Grand Rapids, MI, provides wastewater collection and treatment for the City of Grand Rapids and 9 surrounding communities totaling approximately 270,000 customers within a 118 square mile geographical area. The Wastewater plant treats 14,808 million gallons annually with a design capacity of 61.1 million gallons a day (MGD) and currently has an average daily flow of 40.57 MGD. The facility was constructed in the 1920's and treatment consisted of primary clarification, anaerobic digestion, and drying beds. The Biosolids from the drying beds were bagged and sold to businesses and homeowners for fertilizer for many years. In the mid 1950's the plant was expanded to include secondary treatment capability utilizing activated sludge as the biological treatment process along with increased primary treatment capacity and disinfection. In the 1970's the facility was again expanded to increase flow capacity and solids handling processes. Solids handling converted from anaerobic digestion to thermal heat treatment using low pressure oxidation. In addition to the main WWTP plant grounds there are 58 sanitary sewage pump stations that are monitored and maintained.



The GRWWTP was part of a third round of agencies participating in the National Biosolids Partnership (NBP) Environmental Management System (EMS) for Biosolids. Terminology for the program evolved in 2011 with Biosolids Management Program (BMP) replacing EMS. Development of our BMP started in early 2005 with the creation of an internal BMP team. Team members attended four (4) NBP sponsored workshops which helped guide the development of our BMP. The GRWWTP BMP was formally certified at the platinum level of certification by the NBP in December 2006 and successfully completed our first annual interim audit in November 2007. During 2008 an

internal audit was performed. In October of 2009 we successfully completed our second interim audit. We completed an internal audit during the first quarter of 2010 and in the first quarter of 2011 we conducted another internal audit. We successfully completed our recertification audit in October of 2011. During the first quarter of 2012 we completed an internal audit of our BMP.

During July of 2009, the Joint Biosolids Management Project Agreement was approved by the City of Grand Rapids and City of Wyoming which finalized the creation of the Grand Valley Regional Biosolids Authority (GVRBA). On July 1, 2009 the GVRBA became responsible for processing 100% of the biosolids from the City of Grand Rapids Wastewater Plant and the City of Wyoming Clean Water Plant. The City of Wyoming, Michigan BMP was certified in December of 2009.

In 2012, several modifications and improvements were completed, in process and/or undertaken at the WWTP, GVRBA and the collection system support facilities including:

- Eastside combined sewer overflow – Contract 17, Contract 20
- Plainfield – 3 Mile Road/I-96 (EB off ramp)
- Burton-Eastern/Plymouth
- Eastside CSO Contract No. 23A
- Eastside CSO Contract No. 23B
- Remembrance Road south of 3 Mile
- Logan-Division to Jefferson
- Continuation of the Sump Pump Program service area wide
- Eastside CSO Contract No. 18
- Eastside CSO Contract No. 26A
- Eastside CSO Contract No. 26B
- Ionia Avenue-Buckley St. to Wealthy St. (Urban Market)
- Plainfield-Leonard to Ann
- Maryland Estates District SSES
- East Leonard Heights SSES
- Emergency Power Supply Plant Gates
- North clarifier improvements and Bio P
- WWTP air compressor and air dryer system replacement
- MAPS flood gates repair and/or removal
- South Walker Sanitary Lift Station
- Television Truck replacement
- Kingsbury Lift Station replacement
- North Blower Building waste heat project
- Improvements to several buildings and roads within the plant grounds
- New groundwater dewatering wells in the south and north secondary area
- Continuation of the Footing Drain Disconnection Program in East Leonard Heights and Maryland Estates
- Headworks area new blowers and ventilation improvements
- Collection system flow meters and software
- Service Building modifications and repurpose
- GVRBA – modifications to Segments 1 and 4 HVAC
- GVRBA – replacement of all pipe fittings on Segment 3 (sludge line that runs between Wyoming and Grand Rapids).

- Improvements to the North Aeration tanks and final clarifiers
- Pump house demolition
- Heat recovery system – north plant

Outcomes Matter

The NBP has identified key outcomes which serve as good indicators of successful and well managed Biosolids Management practices. Efforts undertaken by GRWWTP during the past year in support of these outcomes are detailed below.

Quality Management Practices

- Clean all sanitary sewers 24" and smaller in diameter once every 5 years in order to maintain the integrity of the biosolids, protect the environment and avoid system upsets that can result in sanitary sewage back-ups in residences and business facilities; comply with applicable local, state and federal regulations as well as public health and safety concerns. Footage of larger diameter sewers that have been cleaned is being tracked as a basis for future goals.
- As part of the reorganization of the plant, a Maintenance Technician position was added to the Wastewater Operations and Maintenance workgroup.
- Prepare to upgrade the Computerized Maintenance Management System (CMMS) program to Maximo 7.5 in order to maintain sanitary sewer system and treatment facilities and equipment in a more cost effective and pro-active manner.
- Increased the WWTP employee skill and performance in delivering City services through continued education with onsite training opportunities and encouraging attendance at seminars and conferences.
- Perform quarterly analysis on the WWTP biosolids and compare results to the tables found in Federal Regulations 503.
- Improve performance of assets by exposing high maintenance systems and/or equipment through better utilization of our CMMS's reporting function to track man-hour utilization and maintenance classifications (predictive and corrective).
- Lower the average annual final effluent levels to at least 10% lower than the maximum allowed by the WWTP National Pollution Discharge Elimination System (NPDES).
- Increase access to programs for properly managing and disposing of pharmaceuticals and Personal Care Products (PPCP's).
- Continue partnering with Kent County and surrounding communities in the "Take Back the Meds" program.
- Improve biochemical oxygen demand (BOD) removal, nitrification/denitrification and phosphorus removal in the north plant by tracking monthly averages for carbonaceous biochemical oxygen demand (C-BOD), total suspended solids (TSS), ammonia and total phosphorus (TP) attributed in the north plant.
- Continuation of the Footing Drain Disconnection Program (FDDP) and the Sump Pump Program (SPP) to better maintain biosolids throughout the collection system and those subsequently being processed at the WWTP.
- Provide commendable customer service by maintaining a 75% or greater satisfaction rating among those citizens we have serviced by surveying

customers that have reported possible issues with the collection system and those participating in the FDDP and SPP.

- Participation in “Competitive Assessment” review to identify service level needed.
- Reduce wastewater flow by 5% and improve consistency of biosolids through reduction of inflow and infiltration.
- Design brochure to assist and inform customers that experience issues with sanitary sewage discharge from their residence.
- Track the number of amalgam separators that are being installed in dentist’s offices that are connected to our sanitary sewer system.
- Find alternate approved method for analyzing wastewater samples for chloride that does not generate any hazardous waste as the current method does.
- Generate one “Environmental Tip” that is associated with a Critical Control Point”.
- Reduce the number of Significant Non-compliance violations by industrial users by 25%.

Relations with Interested Parties

In 2012, we focused on the many educational opportunities that were afforded to us in the Grand Rapids metropolitan area and within the Environmental Services Department (ESD). In most cases, the associated costs were limited to staff time and printing costs for educational materials that we passed out to interested parties.

- For the third time, several staff members volunteered at an informational booth at the March “Home and Garden Show”. This event is the largest of this type of event in West Michigan with attendance in excess of 30,000. This was the Home and Garden Show’s 32nd season and was held at the De Vos Center in downtown Grand Rapids. Staff from a variety of workgroups volunteered for this event.
- In celebration of Earth Day, staff manned an informational booth at the “Party for the Planet” which was held at John Ball Zoo in Grand Rapids. Approximately 6,000 people and 25 organizations participated.
- Over 1100 guests toured the Wastewater Treatment Facility in 2012. The popularity of these tours continues to grow.
- Based on enthusiastic input from staff, we continue to upgrade and expand the number and variety of display materials that are acquired and utilized to present more information in the limited amount of space that is usually allotted for “not-for-profit” entities at expositions.
- Distributed almost 80,000 “Environmental Tips” to area sewer customers.
- Developed and launched FDDP website.
- Developing Adopt a Catch Basin website.
- Started developing a “311” application scripts for the department to enhance and improve customer service.
- Created educational E-toon (animated video) for public and internal education.
- Citizens can explore various areas of the wastewater treatment process including pretreatment, bar screens, grit removal, primary treatment, aeration tank, final tank, ultraviolet disinfection, waste thickening, biosolids storage,

biosolids dewatering, biosolids trucking, biosolids disposal and wastewater plant final discharge on the Environmental Services Department website.

- The ESD Sanitary Sewer and Stormwater Maintenance group, SPP and FDDP continue to have a customer service ranking over 92%.
- Over 700 households participated in a grease education program that was operated cooperatively with the Grand Rapids Public School system.
- *For more detailed information regarding ESD's efforts view 2013 Transformation Memo - "Brag Book" which can be found on the ESD Website <http://grcity.us/enterprise-services/Environment-Services/Pages/default.aspx>*

Regulatory Compliance

- Started modifications to the north plant to improve our treatment.
- Achieved 100% compliance with regulatory requirements as related to biosolids.
- Waiting approval of application for our new National Pollution Discharge Elimination System (NPDES) permit.

Environmental Performance

- In January of 2012 the ESD Sanitary Sewer and Stormwater Maintenance group implemented a daily and weekly on-line pre-trip inspection form for the combo jet-vacuum trucks. This was done to comply with DOT requirements, reduce vehicle costs, enhance safety and reduce down time.
- Maintaining effective CMMS programs (Maximo® and Cityworks®) in the Environmental Services Department helps maintain infrastructure, ensure reliable equipment and operations resulting in the compliance with permit requirements, prevention of accidental spills, combined sewer overflows and sanitary sewer overflows.
- In 2012 the ESD Sanitary Sewer and Stormwater Maintenance group developed and distributed educational brochures written in Spanish which explain sewer issues for both City maintained and homeowner maintained systems.
- A motivated staff striving to achieve 100% compliance with all regulatory requirements is focused on protecting the environment. The Environmental Services Department's Grand Rapids staff operates in a highly effective and professional manner and consistently achieves regulatory compliance in excess of 99%.
- In 2012 there were 10 Sanitary Sewer Overflows (SSO's) within the service area. The causes and associated sewage lost to the environment for nine of the SSO's are as follows; grease (4) – 40 gallons, roots (1) – 1 gallon, contractor created activity (2) – 2359 gallons, mechanical (1) – 1500 gallons, and vandalism (1) – 2 gallons for a total of 4,022 gallons. This equates to an average of less than 500 gallons per SSO – a very respectable average taking response time, locations and time of day of the SSO's into consideration. We had one SSO in which 1,036,311 gallons were lost to the environment. This SSO was caused by human error/lack of communication

and/or training about new dewatering wells and monitoring locations within the plant. As soon as the issue was realized, staff rectified the situation and followed up by; (1) investigating what when wrong and/or right, (2) having an "action plan" in place regarding steps to take to make sure this never happened again and (3) completing all portions of the "action plan".

- In 2005, the City (including the Wastewater Plant) formed a "Renewable Energy Team" that began meeting with various community partners, companies, and energy experts in search of the best way to fulfill the 20% renewable energy goal set by Mayor George Heartwell. The City Commission approved a purchase that met the 20% goal in November, 2007. This purchase continues to significantly reduce Grand Rapids' carbon footprint by offsetting the greenhouse gasses (carbon dioxide, sulfur dioxide and nitrogen oxide) produced using non-renewable sources and qualifies the City for this recognition by the Environmental Protection Agency (EPA).
- In 2011, as part of our continuous improvement process, the City formed an Energy Management Strategy Team that is composed of representatives from all areas of the City including the Environmental Services Department. Some of the focus areas of this team are pumps and process equipment, electricity, natural gas, steam, fuel, and renewable energy. In 2012, the Grand Rapids ESD won the DTE and Detroit Engineering Society "Sustainable Energy Program of the Year – Municipal" award for our heat recovery system in the north secondary portion of the plant. This project has an unheard of 5 year payback!
- ESD received rebates from Consumers Power Company of approximately \$40,000 for their energy savings efforts.
- Through the use of technology ESD Sanitary Sewer and Stormwater Maintenance group implemented a Customer Service Request and Work Order system that is 100% paperless, improved customer service response time and made sewer events and infrastructure data readily available in the field with laptops in all field vehicles. Staff are fully trained in GIS and Cityworks which is used remotely via wireless connections.
- Through the FDDP over 14,000,000 million gallons of groundwater that were needlessly entering the sanitary sewer system annually were rerouted to the stormwater system.
- Over the last 20 years the City of Grand Rapids has worked aggressively to reduce Combined Sewer Overflow volumes by 99.9% and is continuing work to remove the remaining 0.1%.
- In 2011 we replaced our oversized compressed air system with a "right-sized" system. Development of this project (which has a 2 year pay-off) was done completely "in house" in lieu of utilizing a consulting engineer. Projected cost savings are \$30,000 annually in electric costs alone.
- The ESD is in discussion stages of entering into a cooperative pilot program which will introduce biosolids into compost materials to expedite the decomposition process and also enrich the end product.
- The Central Sanitary Landfill located in Pierson, Michigan is very interested in receiving the GVRBA biosolids for its facility which has environmentally proactive uses for the methane that is generated from it's landfill. This facility will propose rates that are quite cost effective for GVRBA and utilization of this facility will be reviewed by GVRBA board of directors in the near future.

- For more detailed information regarding ESD's efforts view 2013 Transformation Memo - "Brag Book" which can be found on the ESD Website <http://grcity.us/enterprise-services/Environment-Services/Pages/default.aspx>

Biosolids Value Chain - Monitoring and Measurement Report and Progress

Monitoring and measurement provides critical input to the organization relative to the effectiveness of its operational controls. This information helps to identify any weaknesses or other areas in which the program can be improved. The department continues to develop and utilize more accurate and easily maintained monitoring equipment.

Wastewater Collection and Pretreatment

Significant Industrial Users (SIU) – In 2012, the Industrial Pretreatment Program (IPP) staff worked with industrial users and State regulators to maintain compliance with local, state, and federal discharge laws. In June, the Department of Environmental Quality (DEQ) conducted an Industrial Pretreatment Program Reconnaissance Inspection of the GRWWTP. No concerns were identified by the DEQ as a result of the inspection. The departments many achievements were denoted and the IPP passed with flying colors. Annually, IPP provides an industrial user meeting to keep industries current on regulations, understanding the IPP program, and compliance issues. A Linko® compliance database is utilized to track compliance while email and phone reminder notifications are sent to industrial users for sampling and reporting events.

Commercial User Discharges – IPP staff continues to review the cyclic non-domestic user surveys. Users who might fit the criteria of a SIU are notified and further information is collected by phone and/or a site visit to determine if the user requires an industrial user permit.

Discharge Authorizations – Discharge requests that are one time or short term discharges to the Publicly Owned Treatment Works (POTW) are handled using this process. A discharge request containing Material Safety Data Sheets (MSDS), waste characterization, flow volumes, discharge rates and location is submitted by potential dischargers. The proposed discharge is reviewed by IPP staff to determine potential impacts to the POTW. The user receives an approval or denial letter for the discharge.

Pollutant Minimization – Toxic metals, including mercury, are the main focus for pollutant minimization for IPP staff. Toxic metals are tracked by collecting and analyzing six trunk line locations daily, while mercury is analyzed monthly from each of the six locations. POTW influent mercury is sampled and analyzed monthly, with low level influent and final effluent sampling performed quarterly.

CROMERR - Steps have been taken by IPP to obtain approval from the Environmental Protection Agency (EPA) of a Cross-Media Electronic Reporting Regulation (CROMERR) electronic reporting system. This will allow industries to submit required reports electronically and eliminate data entry for IPP staff personnel, paper copies from industries, and reduce the reporting burden on industrial users.

Wastewater Treatment and Solids Generation

Solids Screening and Grit Collection – Bar screens in the Wastewater plant headworks continue to significantly reduce screening type debris in the biosolids. We have been exploring alternatives that would further enhance our ability to screen debris.

Scum – This product consists of greases and oils which enter the wastewater plant through the collection system. A proactive program to capture and remove grease and oil at lift stations by cleaning the wet wells on a routine basis continues to help reduce grease and oils contained in the biosolids. Schedules for cleaning wet wells are continually adjusted according to condition of the well at last cleaning, condition history, etc. The captured grease and oil is collected and transported to local landfills for disposal. We have ramped up our public “grease” education program. In 2012, we partnered with City High and Middle School in a program in which over 700 students and their families focused on reducing the amount of grease that they discharge into the system and then finding creative reuses for those grease products. We have already received requests for 2013 participation.

Primary Treatment – We have been very proactive in maintaining our primary tank mechanisms and associated equipment during “fair weather” months so that repairs during the winter months are minimized and/or not necessary. The new compressed air system has operated without any system or sizing issues.

Plant Lighting – Staff continues to replace plant lighting with more energy efficient units as time and funding allows (based on cost effectiveness of the replacement). The WWTP is participating in a citywide program geared at reducing electrical consumption.

Raw Solids Storage – Biosolids are held in new storage tanks prior to dewatering. Alternative blending methods have been discussed.

Secondary Treatment – BioP facilities in the south aeration plant continue to be exceptionally effective. We began the “build” portion of a project to convert the north plant to BioP. Upon completion of this project, the liquid processes of the WWTP will be “chemical free”.

Composting – A pilot program and negotiations for an ongoing program to utilize biosolids with leaves and yard waste to accelerate the composting process was undertaken in 2012. All information available indicates that this will be a cost effective beneficial use of a large portion of our biosolids.

Changes in Flows – Billed volume remains low due to the economic climate. Elimination of a majority of the combined sewers has had a dramatic effect on stabilization of plant flows during rain events and winter thaws. Disconnection of footing drains that are discharging to the sanitary should further minimize influent flow peaks.

Solids Stabilization, Conditioning, and Handling

Centrifuge Dewatering – Centrifuge operation went smoothly during 2012. The Program Manager continues to monitor the performance of the units under various load rates in order to determine which feed rate is most cost effective based on electric use, solids capture, polymer usage and recycle treatment costs. Through monitoring centrifuge operations closely, an SOP for centrifuge operation has been developed resulting in a more consistent product and diminished operating costs.

Centrifuge Thickening (WAS) – The centrifuge thickeners are scheduled to be replaced. Possible replacements and/or alternatives continue to be studied.

Odor Control – The odor control system worked great all year. The wastewater plant did not experience any odor complaints related to the plant. The odor control media for all 3 odor control units at the sludge processing facilities were changed in 2012. Modifications were implemented to minimize maintenance hours and material costs.

Hydrogen Sulfide Containment – The modifications that were made to the silo augers seal systems in 2011 have proved to be effective. Graphite packing was used in lieu of the designed grease seal. This proved effective in eliminating the release of hydrogen sulfide from the seal area and continues to be an extremely cost effective solution to the problem.

Solids Storage and Transportation

Truck Loading – The contractor maintains log-sheets and inspects each truck before departure from the site to ensure that there are no leakage or tracking issues. We have made significant headway in regards to diminishing the excessively high levels of hydrogen sulfide that was being released during loading.

Truck Cover – All trucks are covered during transport to the landfill and compost sites in accordance with state law.

Truck Transport to Landfill – The contractor maintains records of dates, driver(s) and landfill destination site(s) for each load leaving the site. There were no spills in 2012.

Truck Washing Procedures – The contractor maintains procedures to wash and inspect trucks to minimize odors and biosolids tracking issues.

Biosolids End Use or Disposal

Landfill – The contractor works with the landfills to properly incorporate the biosolids into the municipal trash. This augments the decomposition process and maximizes the potential for methane gas which is recovered and beneficially used.

Composting – A pilot program and negotiations for an ongoing program to utilize biosolids with leaves and yard waste to accelerate the composting process was undertaken in 2012. All information available indicates that this will be a cost effective beneficial use of a large portion of our biosolids.

Annual Operational Controls Review and Internal Audit

An internal audit of the City's BMP was conducted during the first quarter of 2012. There were 4 minor non-conformances that were identified during the audit.

Third Party Recertification Audit

In the fall of 2011, the City underwent its recertification audit. The Environmental Services Department appreciates the opportunities that having our entire biosolids value chain, as well as those management practices and activities that directly support biosolids-related operations, processes and activities, objectively reviewed through the 3rd party audit process provides us. The feedback gleaned through this process is of great assistance in our commitment for continual improvement. We found the auditor, Dr. Hancuff to be very comprehensive and insightful. We will continue to expand our horizons and encourage the public, educators, representatives of local and state

agencies, as well as staff members to become more knowledgeable and involved in our BMP. The department received one positive observation.

- The Environmental Services Department's Wastewater Treatment Plant personnel involved in biosolids management should be recognized for their outstanding achievements, and the exceptional features of their Biosolids Management Program.

In addition to the positive observation the department received commendations as follows:

- The Department established an excellent training program to encourage all employees to understand critical control points (CCP). The active participation of different work groups in creating CCP training videos aided those who made the videos as well as captured the attention of fellow employees. The viewing of the 6 videos during the annual BMP refresher training set a new attendance record.
- The Department has prepared several exemplary environmental protection "tips" publications. These "tips" are short quarter page color handouts that explain what individual citizens can do to help control pollution associated with wastewater generation. The TIPs developed to date include "Proper Grease Disposal", "Proper Medicine Disposal", "Disposable Not Flushable" (for convenience wipes), and "Rain Water is not Wastewater."
- The sewer maintenance crew is almost a full year ahead of its schedule to routinely clean all sewer lines 24-inch and smaller.
- The hard work and dedication of the BMP management team must be acknowledged. While maintaining the BMP verification goal is obviously a team effort, the effectiveness of guidance provided by the Manager assured maintenance of this common goal.

There were also opportunities for improvement.

- Overall – Consider encouraging the use of the terms "solids" and "biosolids" in place of the term "sludge," and consider referring to the Biosolids Environmental Management System (EMS) as the Biosolids Management Program (BMP).
- Requirement 5.1 – Review the status of the objective associated with preparation of the TIP leaflet scheduled to be produced in 2011.
- Requirement 5.5 – The Grand Rapids biosolids value chain related goals, objectives and programs established in the wastewater treatment "lean" process have not been incorporated into the goals, objectives and programs of the biosolids management program. Additionally, the BMP takes no credit for the detail cost tracking and savings attributable to improved operations resulting from the accomplishment of biosolids goals and objectives. And finally, the Department has established a mercury pollution minimization program to comply with NPDES permit requirements, but has not included it as a goal/objective with regulatory compliance outcomes.
- Requirement 6 – The list of interested parties contact information identified in Table 6.2 of the Grand Rapids Biosolids Management Program Element 6 procedure does not identify the NBP or the lead auditor as interested parties to receive formal communications.

- Requirement 9 – Review Element 9 (and 6) procedure(s) to update contents and specifically define how the program will increase public involvement in determining biosolids goals and objectives.
- Requirement 10.5 – The hauling contractor, Cordes Trucking Inc's Vehicle Inspection Plan – 2009-1 does not reference or attach the Truck Inspection Log sheet as a figure or table in the procedure (plan). Additionally, 2 of the truck drivers did not have the vehicle inspection plan with them in their trucks.
- Requirement 12 – Element 12 procedure related to document control does not clearly indicate that the EMS Document Revision History as it appears in each document is no longer used to record document changes. The new method of tracking revision history through SharePoint is not described. Consider including in the last revision history entry to all element documents entered on 3/28/2008 that this is the last entry in this format and all future document revision histories will be documented in SharePoint. Additionally some of the descriptions of changes recorded in the SharePoint revision history are not described in sufficient detail including those revisions resulting from audit findings.
- Requirement 15 – The periodic biosolids program performance report for 2010 did not present the specific details of the non-conformances identified in the third party interim audit.
- Requirement 15 – Consider including costs and savings associated with biosolids operations and the BMP in the periodic biosolids program performance report.

Seven (7) minor non-conformances were identified in the audit and can be found in the summary of non-conformances section near the end of the report.

Interested Parties Input/Participation

- During the last quarter of each year the City develops a list of goals and objectives for the next year. As part of this process we seek input from our interested parties regarding concerns and issues they may have. We did receive positive feedback from 2 interested parties regarding our commitment to improvement in 2011.
- Held an annual meeting with industrial users to discuss new compliance inspection procedures. Industries impact on Biosolids quality was discussed as well as the City's Biosolids BMP.
- The City will continue to keep interested parties apprised of our efforts to seek input as part of our continuous improvement process.

2013 - Current Year Goals & Objectives

An important component of our Biosolids BMP is continual improvement. Annually, goals are identified based on key outcomes, Biosolids value chain, or BMP improvements. During the past year staff determined the following new goals would help us achieve these objectives:

Environmental Tip

- Educate customers by providing a minimum of one “Environmental Tip” that is associated with a “Critical Control Point” of the Biosolids Management Program.

Reduce Significant Industrial User Non-compliance

- To avoid NPDES permit violations and obtain a more consistent quality of biosolids we want to reduce the number of Significant Industrial Users (SIU) that do not comply to the regulations imposed on them.

Maintenance of Sanitary Sewers

- Track and monitor cleaning of all sanitary sewers 24” and smaller with goal of cleaning these once every 5 years. It is critical to maintain our sanitary sewers in order to maintain the integrity of the biosolids, protect the environment and avoid system upsets that can result in sanitary sewer back-ups in residences and business facilities, violation of applicable local, state and federal regulations as well as pose public health and safety concerns.

Chloride

- To eliminate one hazardous waste stream which originates in house, change to an alternate approved method of analyzing wastewater samples for chloride that does not generate any hazardous waste as does the current method.

Improve Use of Computerized Maintenance Management System

- Better utilize the “Computerized Maintenance Management System” (Maximo 7.5) by increasing the accuracy and completeness of data entered before closing a work order so that we may better maintain our assets by having complete information in the system.

Amalgam Separators

- Track the number of amalgam separators that are being installed in dentist offices connected to our collection system to ensure quality biosolids.

Commendable Service

- Maintain a 75% satisfaction rating among those citizens we have serviced by surveying the customers that have requested service and those involved in the Footing Drain Disconnection Program and Sump Pump Program.

Biosolids Quality

- Perform quarterly analysis on WWTP biosolids and compare results with those found in tables associated with Federal Regulations 503 to help assess the impact of changes made in the North Plant Improvement Project which

should result in the reduction/elimination of the ferrous addition for phosphorus removal.

BOD

- Track C-BOD, TSS, ammonia and TP attributed to the North Plant Modification Project.

Operator – Maintainers

- Award three Operator – Maintainer positions by the end of 2013.

Summary of Non-Conformances

2012-1

- Figure 7.1 – Organizational Chart was dated October 2011 but was out of date due to changes in staffing. Updated.

2012-2

- SOP 3611, 3612 and 3613 need to be referenced in table 3.1 as these SOP's were adopted as of last internal audit. Referenced in table 3.1.

2012-3

- Two (2) quarterly reports for the annual goals were submitted after the deadline.

2012-4

- Figure 7.2 includes staff changes – only the BMP Coordinator was assigned. Defined roles as defined in Element 16.

Summary

Maintaining a Biosolids Management Program can be challenging - especially when contending with unprecedented staff cuts and turnovers due to the difficult financial times all government entities have been experiencing the last few years. Success has only been achieved through the hard work and dedication of staff, input from interested parties as well as the leadership and guidance of our department administration and the National Biosolids Partnership (NBP).

Continual improvement has long been a departmental philosophy and our Biosolids Management Program enhances this process. The guidelines set forth by the NBP for Biosolids Management Programs has helped immensely with our growth as an organization and encourages teamwork amongst those helping to administer the program.

Non-conformances which are identified assist in strengthening our management practices and improve the overall effectiveness of the Biosolids Management Program. We believe that the new goals we have identified for 2013 will further improve our Biosolids quality and management practices.

Kathie Kuzawa
BMP Coordinator