

# METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO



## 2015 BIOSOLIDS PROGRAM AND ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) PERFORMANCE REPORT (Final)



Easter Sunday at a Biosolids Fertilized Park

**Report Date: May 2, 2016**

Viewable by accessing the District's Biosolids website, [www.mwrd.org](http://www.mwrd.org), and by navigating through Departments > Maintenance & Operations > EMS for Biosolids

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## **Summary**

The Biosolids Program and EMS Performance Report is intended to provide an annual review of information regarding the focus and status of the District's EMS for biosolids implementation activities during the previous year.

The Water Reclamation Plants (WRPs), which generate biosolids, continued to track progress towards reaching established goals and objectives. The District continued to provide a high quality biosolids product for farmland application and Controlled Solids Distribution, while adhering to sound management practices.

## **Introduction**

### **Purpose of the Report**

As specified in the requirements for Element 15 of the EMS, the District is required to prepare an annual report detailing the Biosolids Program and any performance related to EMS for Biosolids activities. The Biosolids Program and EMS Performance Report is intended to provide an annual review of information regarding the focus and status of the District's EMS implementation activities as well as its environmental and EMS performance. This report covers the following topics:

1. EMS for Biosolids Manual
2. Reporting on Annual EMS Tasks
3. Progress Towards Meeting Biosolids Goals and Objectives
4. Biosolids Utilization
5. Internal Audit
6. Third Party Audit
7. Other Various EMS Activities
8. Continual Improvement repetitious

### **Background**

The District entered into the EMS for Biosolids Program on February 17, 2004 by signing a Letter of Understanding with the "National Biosolids Partnership" (NBP). The EMS Coordinator soon began the developmental stage of the EMS. This included committing the District to the Code of Good Practice, establishing a biosolids policy, and developing an EMS manual. The developmental stage concluded on December 28, 2005, at which time the Director of M&O approved the EMS manual. In 2007, the District continued implementing the EMS for Biosolids Program. The Third Party Verification Audit took place from May 27 through June 5, 2008. The District's Biosolids EMS was independently verified on August 4, 2008 by the audit firm, NSF International, making the District the first wastewater agency to be certified in Illinois. In August of 2009 the District

achieved Tier 4 Platinum certification. In 2013, the District's program was re-verified as a Platinum certified agency by a third party auditor.

### **EMS for Biosolids Manual**

The master copy of the EMS Manual is kept on file with the EMS Coordinator. All elements and documents of the manual can be found electronically on the District's server at \\District\Falcon\M&O\Biosolids – EMS or on the District's website at [www.mwrd.org](http://www.mwrd.org) and by navigating through [Services & Facilities](#) >> [Biosolids Program](#) >> [EMS for Biosolids](#)

In 2015, modifications to the EMS for Biosolids Manual were performed to reflect changes in upper management position titles, as well as, continual improvement throughout.

### **Reporting on Annual EMS Tasks**

The annual EMS tasks have been combined into the Annual Internal Audit Report (Appendix C). The scope of the audit, conducted during the first quarter of 2016, included a review of the following:

1. The EMS manual and supporting documents. (Element 1)
2. Commitment and implementation of the *Code of Good Practice*. (Element 2)
3. Progress toward meeting Goals and Objectives for 2015. (Element 5)
4. Critical Control Point Tables and operational SOPs. (Elements 3, 7, 10, 13)
5. 2016 Goals and Objectives, established. (Element 5)
6. Public outreach programs conducted by contractors and the District. (Element 6)
7. Verification of Training (Element 8)
8. Verifying the corrective actions to the Third Party Interim Audit, 2015. (Element 14)
9. Contractor Activities for Land Application
10. Daily Non-Conformance to Operations (Element 14)
11. Opportunities for Improvement

The CCP tables were reviewed and minor revisions were made, such as typos, incorrect phone numbers on the tables and changes to various position titles. Reporting Requirements under Element 4 were updated for several plants.

### **Progress Towards Meeting Biosolids Goals and Objectives**

The Maintenance and Operations (M&O) and Monitoring and Research (M&R) Departments established goals and objectives (G&O) for the four District plants that produce biosolids (Stickney WRP, Calumet WRP, Hanover Park WRP, and Egan WRP), and for biosolids processing sites, Lawndale Avenue and Calumet Solids Management Areas. The Public Affairs Section, Monitoring and Research Department and Maintenance and Operations combined efforts to meet goals set

by the Executive Director. The G&O were tracked and progress reports submitted each quarter. Also, as required by the EMS program, input from interested parties regarding the G&O was solicited by way of a letter sent on June 22, 2015.

The G&O were developed by the EMS Field Representatives and approved by the EMS Coordinator, the Director of M&O and the Division Heads. Descriptions of established G&O for each plant and the progress towards meeting the G&O were as follows:

### **Executive Director**

#### **Goal – Increase use of Biosolids within Cook County and 125 community service areas of the District**

The EMS Goals and Objectives are to utilize 100% of the of District's biosolids by distributing 15% of the biosolids through the Controlled Solids Distribution Program and the remaining 85% of the biosolids through the Beneficial Reuse on Farmland Application Program. Through the fourth quarter 27% of the total utilization was used as Controlled Solids. The total utilization in Cook County totaled 23%.

The District's efforts towards a legislative change were rewarded by the passing of HB1445 on July 20th by Illinois Governor, Bruce Rauner. The passing of this bill will increase the marketability of biosolids and biosolids derived products, such as composted biosolids. As an example of the increased acceptance, 1,860 dry tons of biosolids products were picked up by users saving the District delivery costs estimated at \$31,000.

The Public Affairs Section promoted biosolids through interactions at 165 public meetings, events and schools throughout Cook County with a total attendance over 32,400. In addition, 100 tours were organized for the public and attended by 1,636 attendees, which included biosolids conveyance systems at various plants and the lab and greenhouse where biosolids are used to grow plants for research and demonstration purposes. Marketing materials continued to be revised. Several press releases were distributed throughout the year regarding biosolids. Social media was utilized to reach potential customers. Public Affairs staff held two photo shoots: one of biosolids-mulch blend in use at a Hyde Park community garden and the second took place at Centennial Hill, a future biking and hiking destination along MWRD property that is leased to the Forest Preserves of Cook County. Biosolids were used to cover spoil from construction of the nearby McCook Reservoir. Public Affairs held the third annual Sustainability Summit on November 10th. The event attracted local community leaders, elected officials and municipal staff from throughout Cook County and offered information and testimonials pertaining to biosolids.

**Goal – Create a Composted Biosolids Program**

The Maintenance and Operations and Monitoring and Research Departments have continued working together to grow the Composted Biosolid Program. Wood chips received through an IGA with the City of Chicago were mixed with biosolids and composted resulting in the delivery/pickup of 2,052 dry tons of EQ compost. The pilot test utilizing Gore technology ended in August and a final report has been received. A resource recovery ordinance has been drafted and is under review. The ordinance will allow the District to receive woodchips and yard waste for a fee. The Maintenance and Operations Department received two windrow turners and one compost screener during the fourth quarter.

**Goal – Odor Mitigation throughout the District**

The Monitoring and Research Department's Planning Group continued to investigate alternative biosolids processing technologies at the Calumet WRP with a goal to discontinue the District's current practice of air drying of biosolids at that location. The evaluation is working to address several issues related to biosolids management at the Calumet WRP, including odors/emissions. The evaluation was completed during the third quarter with the chosen technology to be covered composting. The Monitoring and Research Department's Planning Group vetted, and received approval, a project to establish covered composting for the Calumet WRP solids handling area. The project has been turned over to Engineering for design in 2016, utilizing Gore Technology for the composting and covers.

Information learned from this evaluation will be incorporated into the District's Biosolids Master Plan to address biosolids operations throughout the District. The goal for biosolids EMS purposes has been completed.

**Goal – Start a Tree Farm and Native Prairie Landscape Nursery at Hanover Park's Fischer Farm**

During the third quarter a feasibility study was awarded and completed. The final report of the study was received during the fourth quarter and was presented to the E.D., receiving approval for implementation. In addition, discussions have taken place with the Morton Arboretum to determine how we can work together in education and marketing aspects of the project and with the State of Illinois Tree Nursery for the procurement of one thousand trees for the project. The fourth quarter goal to establish an RFP for the establishment of the Tree Farm and Native Prairie Landscape Nursery was revised and award of the project is expected to be in the third quarter of 2016.

**Stickney WRP**

**Goal – Improve West Side Solids feed to Digesters**

The first G&O is the conversion of Imhoff Battery A to nine circular primary tanks and replace grit facilities and the improvement of sludge feed to the digesters via new thickening facilities. The Contractor has been on site and is excavating and

driving piles for the tanks and conduits. With reference to the improvement of sludge feed to the digesters; contract, 09-176-3P, was awarded in March 2010, work is progressing. At present, O'Brien and SWRP WAS/Primary solids are being feed into the GCTs. The solids streams have been separated; only WAS is being centrifuged and primary solids are pumped to the GCTs. The installation of pre-digestion centrifuges is scheduled for completion in the spring of 2016.

**Goal – Reduce Polymer and Electrical Use at Post-Centrifuge Building**

The second G&O was to maintain low solids pumping to LASMA at 45,000 dry tons in 2015. The total amount of low solids pumped to LASMA Lagoons in 2015 was 29,609 dry tons. The goal of 45,000 dry tons was not achieved because midway through 2015, M&O staff realized that due to a wet 2014 and spring of 2015, lagoon space was limited. Therefore, it was decided to centrifuge more and retain lagoon space for winter months.

**Calumet WRP**

**Goal 1 - Utilize All Biogas**

We are continuing to cooperate with the Engineering Department after they rejected the proposals for 100% utilization of digester gas. The Engineering Department is reevaluating the direction to achieve 100% utilization and will be reissuing an RFP in early 2016. Digester gas production and use, along with natural gas usage is continue to be tracked. Funding for this project is available in the Engineering Department budget.

**Goal 2 – Usage of the Central Boiler Facility for heating digestion**

Project 06-213-3M was approved by the vetting panel on May 21st, 2015. The project was then withdrawn from presentation to the Executive Team at the request of the Engineering Department sponsor. No further progress was made. Baseline data for digester temperatures, natural gas usage and digester boiler maintenance costs continue to be tracked.

**Hanover Park WRP**

**Goal – Prevent Nutrient Overloads in Soil at Fischer Farm**

Operations applied supernatant evenly across 5 fields and Biosolids evenly across 5 fields. Sampling of the soil in all 7 fields will take place in the spring of 2016 for nutrients and metals content and the findings will be reported. In early August a crop of oats were planted. This was HWRP's first try attempt oats since 1992, which failed to germinate. The crop of oats was a success at 50 bushels/acre, harvested on November. In December, 7 million gallons of Biosolids were injected into the soil. No odor or other complaints were received.

**Goal – To utilize as much digester gas as possible (2015-2016)**

A 40% decrease in natural gas purchased in 2015 from 2014, this equated to a savings of over \$14,000 for the year although there was a utilization rate increase by 2.41% for the year.

## **Egan WRP**

### **Goal – Maximize Solids Utilization at the Egan WRP (2011 – 2015)**

During the fourth quarter of 2015, Egan WRP did not achieve its goal and objective to maximize the amount of digested solids processed through the centrifuges by minimizing the amount of sludge pumped to the O'Brien WRP (OWRP). A Majority or 98.8% of the digested solids processed at Egan this quarter were pumped to the OWRP. This was the result of the Dewatering building shutdown for work under Engineering Contract 06-494-3P. See the other Egan Goal below for more details. Only a total of 4.91 DT of the centrifuged cake solids were hauled to LASMA.

Since the beginning of 2011 and until January 2014, Egan has not pumped any sludge to the OWRP and was very successful in meeting this goal. During 2014, Egan pumped some sludge to OWRP in January 2014, and then pumped continuously starting from September 23, 2014 due to the above Dewatering building shutdown. The continuous pumping was ongoing through December when new Dewatering equipment startup and testing began. There was 1,586.69 DT of sludge pumped to OWRP during the fourth quarter of 2015 and a total of 7,650.50 DT pumped for the year.

All of the 7,227.87 dry tons of digested solids in 2011; 6,132.72 dry tons in 2012; and 6,663.16 in 2013 were centrifuged. This resulted in 6,840.84, 5,822.20 and 6,539.37 dry tons of Biosolids cake in 2011, 2012 and 2013 respectively, that was either hauled to HASMA or directly land applied. In 2014, Egan hauled 3526.52 DT of centrifuge cake to either HASMA or CALSMA, and pumped a total of 1893.38 DT of digested sludge to OWRP.

### **Goal – Improve Dewatering Facility at Egan WRP (2012-2015)**

Under Engineering Contract 06-494-3P, the existing conveyor system with a history of high maintenance costs and poor reliability was replaced with a new conveyance system. Additional Biosolids storage capacity was provided by replacing two existing hoppers with four silos. The new system is expected to improve the Dewatering facility performance, and reduce operations and maintenance costs of the existing conveyor system. It is expected to reduce odors by being an enclosed system and reduce cleanup costs.

The contract work started in December of 2013. The contractor has since completed all the construction work including installation of the new silos, reversible screw conveyor, pumps and associated equipment and piping. The contractor was originally given a 75 day Dewatering shutdown in September 2014 to complete the contract work requiring centrifuges outage. However, during the shutdown the contractor identified missing electrical and control wiring work. The extra work was completed under a change order in September 2015. As the new equipment testing began, additional issues were identified with programming and interlocks.



In December 2015, the equipment testing utilizing centrifuges and centrifuged cake had begun. During this operating/testing phase some additional issues were identified that will be addressed in 2016 to make the system more reliable and robust, and to allow for extending the centrifuge operation to 24/7 and to provide steady centrate feed to Anita Mox process currently being installed at Egan. Meanwhile, new equipment operation and testing has continued into 2016. Operator training was also completed. Egan is currently working to extend centrifuge operating hours and reduce, then stop pumping sludge to OWRP.

### **Kirie WRP**

#### **GOAL - Upgrade Instrumentation (Magnetic Meter Installation) for Flow Measurement of Waste Activated Sludge (WAS) Transmission to the Egan WRP (2015-2016)**

The magnetic meter has been received and scheduling of installation is in progress. Miscellaneous parts and materials are being procured prior to installation. In order to minimize the number of shutdowns of the WAS line, installation of the magnetic meter will coincide with the shutdown required for the tollway's re-routing of the WAS line. The tollway work is tentatively scheduled for summer 2016. Maintenance costs associated with flow measurement and sludge transmission interruptions (hours) continue to be tracked.

#### **GOAL - Improve Cathodic Protection of the Waste Activated Sludge Transmission Pipeline to the Egan WRP.**

The contract for the cathodic protection improvements was awarded in 2015 and the contractor begun work. All work is expected to be completed by June 30, 2016.

### **General Division**

#### **Goal – Utilization of Solids Production**

General Division received a total of 87,362 dry tons of biosolids from the various plants. The 2015 total utilization was 71,021 DT's. This represents 81% of the total production. The goal was not met due to wet weather conditions in June creating poor drying conditions. In addition, wet farmland conditions prevented delivery to farms.

#### **Goal – Beneficial Reuse of Solids Production**

The 2015 total farmland utilization was 51,739 DT's. The 2015 Controlled Solids Distribution (CSD) utilization of 19,283 DT's represented 27% of total utilization. The goal of 15% through the CSD program was exceeded.

**Goal – Increase use of Biosolids within Cook County**

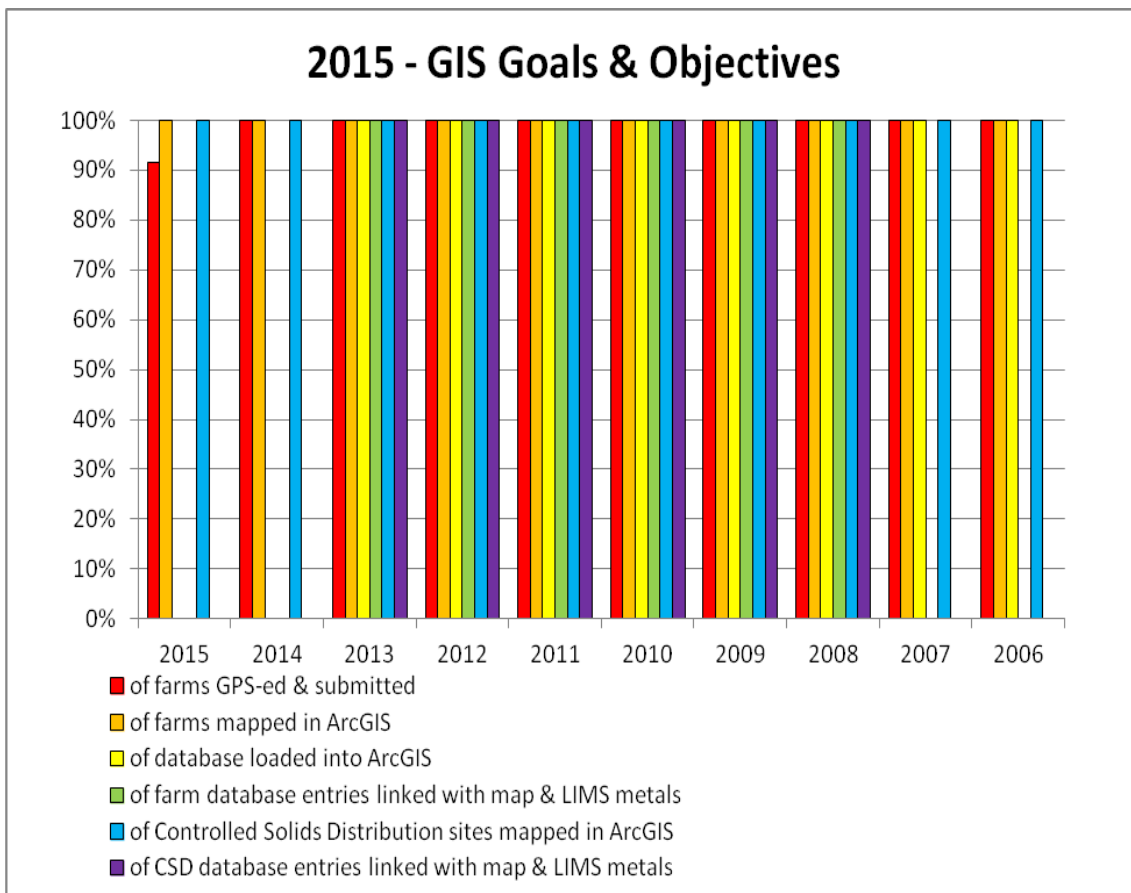
The 2015 Controlled Solids Distribution within Cook County was 16,350 DT's, 23% of total utilization. The goal of 15% overall utilization in Cook County was exceeded. See Executive Director Goals for more information.

**Goal – Create EQ Compost Biosolids**

General Division staff worked with Monitoring and Research staff to combine wood chips and biosolids at optimal ratios for composting. The total 2015 EQ Compost delivered was 2,052 DT's. See Executive Director Goals for more information.

**Goal GIS Mapping for Biosolids**

GIS data was maintained throughout 2015 by mapping farms & CSD sites as contractor's submittals and other pertinent information were received. Historical data entry continued throughout the year.



### **Monitoring and Research (M&R)**

#### **Goal – Locate three (3) new Significant Industrial Users and/or Large Commercial Industrial Users that discharge to any of the Metropolitan Water Reclamation District of Greater Chicago's (District's) Water Reclamation Plants (WRPs)**

The Field Services Section located more than 10 new significant industrial users (SIU's) and/or large commercial industrial users that discharge to the District's water reclamation plants, exceeding the goal.

### **Public Affairs**

#### **Goal – Identify Potential Customers:**

Public Affairs utilized community outreach events, press releases/social media and tours to aid in identifying potential customers. Activities of the Public Affairs group were very extensive in 2015. See Appendix A for a summary of activities for the Office of Public Affairs.

### **Biosolids Utilization**

#### **Farmland Application**

The farmland application program includes land application of centrifuge cake, dried biosolids and liquid biosolids. The use of centrifuge cake for farmland application has been reduced due to the high cost of centrifuge operations. The operation, which consisted of direct hauling from the centrifuges or cake storage areas, will continue to diminish as the use of centrifuges is reduced.

Biosolids which had been processed in centrifuges is now pumped to aging lagoons. The solids settle out of the water over a period of time. The water is pumped back to the plant for retreatment. The biosolids are removed from the lagoon and thickened on drying beds, increasing the solids content from approximately 8%TS to 35%TS. The biosolids are then hauled to farmland.

In the liquid biosolids land application program, all biosolids produced at the Hanover Park WRP are utilized on the District's Fischer Farm, which is a 130-acre site located on the grounds of the WRP. The liquid biosolids are held in storage lagoons and a contractor applies the material by subsurface injection once a year after harvesting in the fall. Corn is grown on the farm annually and the harvested crop is used for either animal feed or ethanol production. This land application program is conducted under a permit issued by the IEPA.

Liquid injection of biosolids from the lagoons, low in solids content, began in 2013. This process is inherently less cost effective than the land application of other biosolids products but reduces the potential for odor complaints. This practice will help ensure a sustainable Land Application Program.

Dried biosolids, 60%TS and greater, has become a positive aspect of the land application program due to the lack of odor when land applying and reduction in truck traffic to the farms.

In 2015, 51,739 dry tons of biosolids were used on as Farmland Application.

The farmland application contracts have the most significance in relation to the principles and practices of the EMS for Biosolids. Summaries of activities performed by the District and the District's land application contractors in 2015 are attached as Appendix B.

### **Controlled Solids Distribution**

In the Controlled Solids Distribution (CSD) program, Class A biosolids are utilized as 1) a nutrient-rich soil amendment for construction or renovation of recreational areas (such as golf courses, athletic fields, and parks) and 2) as a fertilizer and/or topdressing on those areas. This program allows the use of biosolids under the CSD permit issued by the IEPA and removes the permitting burden from the individual biosolids users. The District has committed to use only Class A biosolids under this program

In 2015, a total of 19,283 dry tons of biosolids products from the Stickney and Calumet WRPs were distributed to various sites through the District's CSD program.

Details pertaining to the end user locations and type of use can be found in Appendix E, Annual Biosolids Program Report for 2015 by M&R.

### **Use and Disposal at Landfills**

Biosolids can be utilized in non-hazardous waste landfills as a daily cover and as a final cover. Biosolids utilization under this program is conducted in accordance with 40 CFR Parts 258 and 261. Biosolids utilization in these outlets is usually conducted through contracts with the landfill owners or operators in which the District pays the tipping fees and costs for hauling. However, in 2008 the District eliminated "Landfill" from the title of the contract, opting to have a contract for "Utilization and Transportation" of Biosolids. This change was made in an effort to ensure additional opportunities for beneficial reuse and to eliminate landfill tipping fees as public acceptance of biosolids has increased. The biosolids products most commonly utilized as landfill daily cover are air-dried, un-aged cake or air-dried, un-aged low solids. Biosolids used as landfill final cover must meet the specifications of IPCB AS 03-02. This includes the aged air-dried cake and aged air-dried low solids materials. Class A pathogen criteria are not required for landfill final cover.

In 2015, a total of 0 dry tons of biosolids from the Stickney and Calumet WRP areas were used as daily cover for municipal solids waste. The District utilized

423 dry tons of biosolids as a final vegetative cover at non-hazardous waste landfills. A total of 1,229 dry tons were co-disposed with municipal solid waste as unsuitable material at landfills.

### **Use on District Land**

The District also uses dried biosolids on its own properties for ground under repair due to construction and for research. In 2015, a total of 689 dry tons of biosolids were utilized in this manner.

### **Internal Audit**

An Internal Audit of the 2015 Environmental Management System activities and overall health of the system took place during the first quarter of 2016. The results of this Internal Audit are attached as Appendix C.

### **Third Interim Party Audit**

An Interim Audit took place in 2015. The results of the Interim Audit are attached as Appendix D.

### **Other EMS Activities**

#### **Element 4 – Legal and Other Requirements**

The Monitoring and Research Department prepared Report 16-05 Annual Biosolids Management Report for 2015. This report details any legally required monitoring, measuring and laboratory testing. Report 16-05 is attached as Appendix E.

#### **Element 6 and 9 – Public Participation in Planning and EMS Communications**

In 2015, the Public Affairs Section had an extensive program which included community outreach, Student/Teacher/Administrator Educational visits, tours, marketing materials, website, letters to interested parties, Press Releases/Social Media/Media Coverage and Event Planning. The Monitoring and Research (M&R) Department contacted 310 biosolids users via regular mail, email and phone, conducted 45 meetings with park districts, country clubs, schools, and community gardeners and presented 9 times at various venues. In addition, M&R worked with General Administration and Public Affairs Sections to host a workshop and recognized progressive and innovative biosolids users. (Lakhwinder Hundal)

The Maintenance and Operations (M&O) Department held community meetings at the Calumet Plant addressing odor issues related to the plant. The meetings resulted in an odor monitoring program in the local community and master plan studies to reduce odors throughout the biosolids operations. The Stickney Plant hosted a contingent from South Korea with the solids train as the primary focus. The Hanover Park and Egan Plants hosted open house events during the third

quarter and gave tours to over 40 people. In addition, the Hanover Park Plant is considering converting their corn crop farm into a tree nursery with public participation.

On August 10, 2015, John from Cook County Lumber, 200 E.130th, Chicago, contacted the West Scale House to complain of a strong odor coming from the site and asked us to turn on the Odor Control Unit. The CALSMA staff investigated and found that unit appeared to be operating properly. However after following up with John he stated that there was a lingering odor and they were not detecting the aroma of the odor control solution. The system was rechecked, and it was determined that although the unit was on, it was not misting properly. A work order was entered for the trades to come check the unit. Repairs were made to the system the following day. The Lumber Yard was contacted to inform that the problem was resolved.

On August 26, 2015, John from Cook County Lumber, 200 E.130th, Chicago contacted the West Scale House to state that he was receiving complaints from his workers in the lumber yard of a strong odor coming from the Drying Site, and asked if we could turn the Odor Control Unit on. The unit was checked and it was determined to be working properly. Biosolids that were being loaded into trucks for delivery to the landfill were the source of the odor. The unit was manually overridden throughout the afternoon, to provide extra misting of the odor control agent.

The District's land application contractors continued their public relations program (PRP). Summary of Activities of the District's Land Application Program are attached as Appendix B.

#### **Element 17 – Management Review**

On May 26, 2015, a meeting was held with the Executive Director, Director of Maintenance and Operations and the EMS Coordinator to discuss the 2015 Biosolids Program and EMS Performance Report, the internal and external audit activities, changing circumstances, and the District's commitment to continual improvement. Additionally, the meeting addressed the possible need for changes to the District's Biosolids Policy, goals and objectives, and the Biosolids Management Program. The Executive Director established short and long term Goals and Objectives for the Biosolids Program, including a Tree Farm and Native Prairie Landscape Nursery at Hanover Park's Fischer Farm, increasing the utilization of biosolids products in Cook County and 125 community service areas of the District, create a composting program, and mitigate odors around the District.

## Continual Improvement

There were many meaningful biosolids management activities in 2015 which were conducted in the spirit of continual improvement as highlighted in the Executive Director's Goals and Objectives. The passing of HB1445, the procurement of composting equipment, the expanded use of biosolids products use in the City of Chicago and future plan's to upgrade solids handling at the Calumet WRP are among the highlights.

The District's planning group in Monitoring and Research has been instrumental in the continual improvement by researching processes for improved efficiency and odor reduction. In addition, by reviewing the activities of the previous year, the District will be able to continually improve its EMS for Biosolids Program in subsequent years.



Compost Windrow Turner

The M&R Department and Public Affairs Section will continue to host various events which provide opportunities to showcase the District's biosolids products and biosolids management program. These events provide opportunities for the District to continually improve its relations with interested parties.

Biosolids Goals & Objectives for 2016 have been established and can be found on the District's Website at [www.mwrd.org](http://www.mwrd.org), and navigating through Departments >Maintenance & Operations >EMS for Biosolids

## **Appendix A**

### **Summary of Activities for the Office of Public Affairs**

Viewable by accessing the District's Biosolids website, [www.mwrd.org](http://www.mwrd.org), and by navigating through Departments > Maintenance & Operations > EMS for Biosolids



## **Appendix B**

### **Summary of Activities of the District's Land Application Program**

Viewable by accessing the District's Biosolids website, [www.mwrd.org](http://www.mwrd.org), and by navigating through Departments > Maintenance & Operations > EMS for Biosolids

## **Appendix C**

### **Internal Audit Report**

Viewable by accessing the District's Biosolids website, [www.mwrd.org](http://www.mwrd.org), and by navigating through Departments > Maintenance & Operations > EMS for Biosolids

## **Appendix D**

### **Third Party Interim Audit Report**

Viewable by accessing the District's Biosolids website, [www.mwrd.org](http://www.mwrd.org), and by navigating through Departments > Maintenance & Operations > EMS for Biosolids

## **Appendix E**

### **Annual Biosolids Program Report by M&R**

Viewable by accessing the District's Biosolids website, [www.mwrd.org](http://www.mwrd.org), and by navigating through Departments > Maintenance & Operations > EMS for Biosolids