

**NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Product Quality**

The District owns and operates the Stickney Water Reclamation Plant (WRP), one of the world's largest WRPs at 1,440 MGD, in addition to six other WRPs: Calumet, John E. Egan, Hanover Park, James C. Kirie, Lemont, and Terrence J. O'Brien. The District's total wastewater treatment capacity is over 2.0 billion gallons per day.

Dedicated District staff always strives to operate and improve the WRP processes to achieve the best performance possible in order to maintain area waterways at the highest level of environmental quality. District staff closely monitors future legislation and environmental trends in order to assess impacts to its facilities, and analyzes innovative technologies and operational adjustments needed to deal with the potential impacts.

The District has a consistently excellent record in properly treating and processing wastewater, and consequently received the following awards from NACWA in 2012:

Calumet WRP – Platinum, 21 consecutive years with no effluent violations
John E. Egan WRP – Silver, 1 year with no more than five effluent violations
Hanover Park WRP – Platinum, 5 consecutive years with no effluent violations
James C. Kirie WRP – Platinum, 8 consecutive years with no effluent violations
Lemont WRP – Platinum, 16 consecutive years with no effluent violations
Terrence J. O'Brien WRP – Platinum, 7 consecutive years with no effluent violations
Stickney WRP – Platinum, 16 consecutive years with no effluent violations

The District has submitted its 2013 Peak Performance Awards applications to NACWA and is awaiting the results. Submissions consist of Platinum for the Calumet, Hanover Park, Kirie, Lemont WRPs, and O'Brien, and Silver for the Egan and Stickney WRPs.

**NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Financial Viability**

In order to protect the strong financial position of the District, ensure uninterrupted services, and stabilize annual tax levies, the District adheres to the following policies:

- The General Corporate Fund Balance shall be kept at 12-15% of appropriations to maintain all operations even in the event of unanticipated declines in revenue or significant non-recurring expenditure requirements.
- The Reserve Claim Fund shall remain at the maximum level permitted by statute or 0.05% of the Equalized Assessed Valuation, whenever economically feasible, to protect the District in the event of catastrophic failure of District operational infrastructure or other claims. This is in addition to \$1.5 billion insurance coverage which was secured for the first time in 2013 for \$10.4 billion worth of District assets as part of an expanded risk management policy.
- The District's overall tax levy shall not exceed a 5% increase over the prior year (excluding the Stormwater Management Fund tax levy).
- In 2013, a 20-year model was developed to estimate financing required to fund the Capital Improvements Program within the District's borrowing authority. The plan requires prioritization of projects to be financed at borrowing points that maximize borrowing efficiency and limit the increase to the annual levy amount within policy limits.

	<u>2013</u>	<u>2012</u>	<u>2011</u>
General Corporate Fund as a Percent of Appropriation	101.1%	120.2%	92.2%
Reserve Claim Fund as a Percent of Policy Limit	88.9%	78.0%	72.4%
Overall Levy Change as a Percent of Prior Year	4.65%	4.57%	4.51%
Borrowing Capacity Available	31.5%	32.1%	21.6%

Achievements in managing large expenditures and controlling rate increases:

- The District's AAA bond credit rating from Fitch and Standard & Poor's and Aa1 rating from Moody's attest to the District's sound financial operations.
- To decrease electricity costs, the District executed a reverse auction agreement which took effect in January 2012. A cost-savings of \$8,288,233 was realized in 2012, \$9,510,882 was realized in 2013, and \$10,076,520 is estimated for 2014. The District will conduct another reverse auction in 2015, which anticipates a cost-savings of about \$8 million per year.
- The District's pension funding improved from 50.4% in 2012 to 54.1% in 2013; 90% funding is required by 2050. The District's legislative reform initiative was passed in 2012 and implemented in 2013 to correct the prior statutory framework which resulted in an annual funding limit that did not meet the actuarial funding requirement for a financially viable pension plan. This was accomplished within the levy policy limit for allowable increases.
- The District provides and subsidizes health care benefits for its retirees. The District's goal of 50% funding of Other Post-Employment Benefits (OPEB) by 2055 is projected to be achieved early, by the end of 2014. The District's OPEB unfunded liability decreased by \$200 million between 2011 and 2013, and the funding ratio increased from 13.9% funded to 46.43% funded. The improvement was achieved primarily through the District's significant advance funding contributions well ahead of the funding policy schedule, along with investment returns that outperformed the plan's assumed rate of return.

**NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Customer Satisfaction**

In 2011, public perception about the District was low, partnerships were minimal, and relationships with other organizations and stakeholders were poor. Consequently, the District's 2012 Strategic Plan specified that one of the four main goals was to "Improve the District's Public Image." To achieve this goal, the District implemented the following changes:

- A Public Affairs consultant was hired to shift public perception. The consultant worked closely with staff to develop and implement plans and activities designed to repair community relationships and improve communications with the media and the public.
- A comprehensive media and communications plan was developed. Social media was implemented, and a list of media, community representatives, the public, and government representatives was generated. Proactive communication of District events and accomplishments began to be routinely transmitted to generate positive press. Partnerships with local municipalities and public and private organizations were formed, and the District regularly participated in community outreach events.
- Accuracy and timeliness of information provided to the media became top priorities.
- Promotional campaigns were developed to educate the public. Brochures, presentations, fact sheets, and other collateral materials were created and distributed to the public, and knowledgeable staff frequently spoke to local governments, community organizations, elementary schools, high schools, senior citizens, and trade groups to educate and inform on wastewater issues. A "Water Conservation Initiative" was created to encourage the public to consider their impact on the water environment and to commit to engaging in activities that will protect water quality and minimize flooding.
- To further assist the 125 communities in its service-delivery area, the District hosted its first Sustainability Summit in 2013 to educate municipal administrators and elected officials about available local, state, and federal resources. The 75 participants responded positively to the information provided, and the majority of respondents requested similar future events. A second Summit is slated for July 2014.

These efforts have culminated in extensive positive feedback received from District constituents. Comments such as "best run agency in the County" and, "We appreciate knowing what the District is up to," are routinely received. As the new 2015 Strategic Plan is developed, the goal of improving the District's public image will no longer be listed as a top priority, as it has already been achieved at a high level.

**NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Employee and Leadership Development**

The District's 1,900 employees participate in mandatory training annually to reinforce professional behavior. To promote continuous learning, an initiative was launched that encourages employees to obtain 24 hours of training per year in their occupational field. To achieve this, attendance at conferences and seminars is encouraged; eLearning also provides courses 24/7 and was accessed by 590 employees, or approximately 31% of the workforce.

The District actively engages employees in career development during the three main phases of their employment through the support of training programs. During the Entry phase, the focus is on laying the general foundation for career development. New employees are required to complete thirteen hours of training that reflect core values and topics that are important to the District, such as safety and diversity awareness. For new engineers, the District's Mentoring Program offers protégés an opportunity to be paired with seasoned professionals to help guide their development and share institutional knowledge; currently 25 pairs participate in this program.

Training at the Journey phase focuses on technical knowledge and specialization. The District established Master Agreements with colleges and organizations to provide expertise on an as-needed basis. For comprehensive study, approximately 80 employees participate in the tuition reimbursement program. Each month, one-hour seminars related to scientific research and wastewater topics are conducted by District staff and outside experts to provide employees with a forum to share knowledge and keep abreast of advancements in their field while earning continuing education units. Last year, 1,956 employees attended.

In the Managerial/Leadership phase, a five-day leadership program incorporates the Effective Utility Management Primer which provides the framework to help the District assess its performance based on the ten attributes. Cross-functional teams identify improvement projects which promote collaboration while addressing key priorities based on the attributes. Examples of projects include an Asset Management System using a Geographic Information System; a Work Plan to Improve the Aquatic Environment through Stormwater Management; and a Service Recognition Program. Participants conclude the program by committing to new behaviors and determining action steps to manage the future. A Business Impact Survey indicated positive outcomes: 54% of participants applied what they learned on a daily basis; and 75% modified existing practices while 50% launched new practices, both aimed at reducing costs. Since 2007, over twenty leaders have attended the Water and Wastewater Leadership Center training. Executive coaching services are also available for senior leaders throughout the year.

A recruitment team participates in approximately 30 career events annually, leading to a competent workforce that has a low turnover rate of 5%. The District's internship program is also a talent pipeline and has grown from an initial six to twenty-four internships.

NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Operational Optimization

The District's seven wastewater treatment plants consistently achieve a high level of compliance, with greater than 99.5% compliance with the National Pollutant Discharge Elimination System requirements that are administered by the Illinois Environmental Protection Agency. Highly trained operations staff utilizes state-of-the-art treatment and control technology to quickly react to changes in influent characteristics in order to ensure permit compliance. Additionally, Standard Operating and Emergency Procedures are frequently analyzed in order to continue and maintain operations during different types of situations.

The District utilizes a strong asset management plan to maintain its facilities at levels sufficient to meet operational and permit requirements in the most efficient and economically, environmentally, and socially sustainable manner. The plan's current routine maintenance tasks include regularly scheduled cleaning, adjustments, replacement of wear items, inspections, vibration analysis, infrared testing, and oil analysis. Use of a computerized Maintenance Management System has also enabled the District to automate and improve the efficiency of the plan. These preventative and predictive maintenance programs will be continually fine-tuned to ensure return on effort and that they remain practical, constructive, and a high priority.

The District ensures long-term output consistency or improvement through preventative maintenance management, modernization, rehabilitation, and planned replacement at its facilities. District staff utilizes maintenance history and cost of operation and repair when determining whether to identify such capital projects. Identified capital projects then go through a rigorous vetting process for either verification and prioritization or further evaluation. This more thorough evaluation process systematically identified and modified the plan for the new West Side Primary Tanks, which will improve operational performance by enhancing the settling of primary sludge and making more digester gas available for use. For that project, vetting analysis determined that only nine circular primary tanks and six aerated grit tanks would be needed, as compared to the prior plan's 27 primary and eight grit tanks, and eliminated the traveling bridge component of the plan; this translates into an estimated cost savings of about \$188 million for the entire project. Similarly significant savings are expected from the D799 Transformer project, which will increase overall plant reliability by minimizing the risk of power outages, and by the air control project, which will allow reduced dissolved oxygen levels to more efficiently meet effluent demands.

The District began to reduce routine maintenance service contracts in recent years by restructuring staff so that work could be planned, scheduled, and performed by in-house trades. In addition, biosolids processing has been altered to process more low solids, which reduces electrical and chemical costs. As a result of these changes, the cost of operation has generally trended downwards. Going forward, the District will continue to explore ways to maximize utilization of both physical and human resources.

	<u>2013</u>	<u>2012</u>	<u>2011</u>
Maintenance/Operations Expenditures	\$161,787	\$161,188	\$177,908
Percent Change in Expenditures	0.4%	-9.4%	-6.9%

NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Infrastructure Stability

Through preventative maintenance management, modernization, rehabilitation, and planned replacement, the District ensures the long-term reliability and cost-effectiveness of operations. Facility improvement Master Plans covering the next 32 years have been prepared for the Calumet, O'Brien, Stickney, and Hanover Park Water Reclamation Plants (WRPs). The Master Plans look at the effectiveness of existing facilities, the future growth of the service area, and the proposed and anticipated regulations that affect treatment, and provide a road map for capital planning to meet proposed future needs. In 2013, a Process Facility Capital Planning and Technology Evaluation Group was formed to continually update the Master Plans and prioritize and size future capital projects to ensure the most effective use of capital improvement funds.

In 2013, the District replaced the existing Interceptor Inspection and Rehabilitation Program with the new Collections Asset Management Plan (CAMP). The intent of CAMP is to move the District from a prescriptive inspection and rehabilitation program, in which efforts are often expended on repeatedly inspecting sewers with little downside risk, into a risk-based asset management system where the most at-risk infrastructure is consistently given priority and resources are optimally allocated. The plan includes complete adoption of industry-wide inspection standards published by the National Association of Sewer Service Companies, adoption of additional and more efficient inspection technologies, and the prioritization of sewer inspection and rehabilitation based on a risk register tailored to the District's infrastructure.

The District has also begun utilizing the Construction Fund for capital projects, which allows technical staff to focus on upgrading, rehabilitating, and rebuilding critical infrastructure to ensure the stability of its plants.

Pursuant to Rule 34 of the Government Accounting Standards Board (GASB), the District uses the "Modified Approach" in calculating depreciation of assets. Accountability under GASB 34 is both financial and operational. Condition assessments of eligible infrastructure assets must be completed at least every three years following the initial assessments. The Egan and O'Brien networks each had its most recent condition assessment completed in 2013. The Hanover, Calumet, and Lemont networks each had its most recent condition assessment completed in 2012. The Kirie, Central (Stickney), and Waterways networks each had its most recent condition assessment completed in 2011.

NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Operational Resiliency

In 2013, the District secured a \$1.5 billion insurance coverage for \$10.4 billion worth of District assets. This insurance covers catastrophic damage from natural and unforeseen forces and strengthens the District's ability to meet any emergency that should arise throughout the year. The plan protects taxpayers from the costs of catastrophic disasters that may damage District property. The District also secured an excess casualty insurance program that provides protection against the impact of large/catastrophic loss events for workers' compensation and a variety of liability risks. The excess casualty insurance program provides protection to the District and to taxpayers against the cost of large workers' compensation claims as well as third-party claims or lawsuits for which the District is held legally liable. Going forward, other liability and claim insurance packages will be explored, and total risk management of safety and workers' compensation program will be addressed to ensure a safe workplace and proactive management of costs.

To maintain operations and reduce the risk of flooding during wet weather events, the District utilizes a quick-response plan that includes lowering water levels in the Chicago Area Waterways System to make room for rainwater run-off and opening a protective system of gates when necessary. The District's Tunnel and Reservoir Plan (TARP) tunnels are also always prepared to hold over two billion gallons of water. This preparation and response plan also includes participation by the public, which is notified of any impending rain events via social media and email blasts and educated on reducing water usage to prepare for and prevent flood damage.

In 2013, the District prepared a plan to monitor safety and claims administration. Working with a third-party administrator and developing a light-duty/return-to-work program for injured employees, the plan will reduce further injuries and the impact on day-to-day operations. Safety work orders have been elevated to top priority to ensure prompt action is taken to address unsafe work conditions. The carpenters' union has provided national expert assistance to District staff in assessing plant conditions, offering a valuable outside safety perspective for program improvement.

Development of a District-wide emergency response and business continuity plan has begun and will be continually re-developed to adapt to changing circumstances; one of the key issues addressed by the plan is the mitigation of environmental, information, and cyber risks. A risk management team has been designated to oversee these efforts.

NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Community Sustainability

Energy-Neutrality: The District has set a goal of becoming energy-neutral by 2023, starting by reducing greenhouse gas emissions through renewable/clean energy initiatives and capturing renewable energy from its own processes.

Installation of new energy-capture systems during the past two years has aided the District in reducing emissions and providing for its own energy needs. In 2012, the District installed 45 solar panels at the Egan Water Reclamation Plant (WRP), which reduced greenhouse gas emissions by 10.8 metric tons of carbon dioxide in 2013. A sewer thermal heating and cooling system was also installed in 2012 to harness energy from the constant high temperatures of effluent water, supplying the Kirie WRP with up to 40% of its heating and cooling energy needs; furthermore, the system uses only 20% of the power that would otherwise be needed for a traditional direct heating system. And in 2013, a new application of a “pico turbine” installed at the Stickney WRP began to capture the energy of water falling over a weir. The waterfall turbine has so far produced about 1,200 watts of electricity, and the District plans to install pico turbines throughout the plant, which is expected to produce 12,000 watts total.

The District has also begun collaborating with the City of Chicago to reduce their combined vehicle gas emissions through a co-composting program. In years past, the City and District would dispose of residual waste at landfills and farmlands, requiring roundtrip travel of 80 and 100 miles per load, respectively. In 2013, the District’s Calumet Solids Management Area accepted 720 dry tons (DT) of woodchips from the City, allowing the City to decrease their annual driving distance by 2,500 net miles. The woodchips were then co-composted with the District’s biosolids and then shipped together for application to Chicagoland turf that was only 25 miles away, allowing the District a savings of 12.5 net miles per DT biosolids. In total, this co-composting program resulted in savings of 5,000 net miles or 51 metric tons of CO₂ emissions by the two agencies during the year.

Flood Reduction: To alleviate flooding on a regional basis, the District’s Board of Commissioners passed a Watershed Management Ordinance in 2013 to establish uniform stormwater management regulations; this is expected to prevent future commercial, municipal, and residential development and redevelopment projects from exacerbating flooding.

To reduce flooding in the community, the District has initiated a Green Infrastructure Program under which a range of technologies will be utilized to help conserve water, protect water quality, and reduce flooding, combined sewer overflows, and loading to District facilities. In 2013, the District partnered with Chicago Public Schools (CPS) and the City of Chicago to install GI at four public schools. The GI measures include permeable pavement, rain gardens, bioswales, and retention areas. The District is also partnering with three suburbs within its service area to develop flood mitigation projects that incorporate GI. All of the above projects are expected to be completed in 2014. The District continues to seek other similar GI projects throughout its service area to be completed in future years; these projects will help to reduce stormwater flows and protect water quality.

NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Water Resource Adequacy

The effluent from the District's seven treatment facilities discharges into waterways of varying uses as defined by the Illinois Environmental Protection Agency (IEPA). The District continuously treats its effluent to a point that consistently meets the designated use of the receiving stream. In order to assure that the designated use of the waterway is not impacted, the District conducts intensive chemical and biological monitoring of all its receiving streams as part of the Ambient Water Quality Monitoring (AWQM) Program. In 2013, the District collected and analyzed approximately 1,200 water quality samples from the District service area waterways.

In addition to complying with all state and federal regulations and operating permits, the District also monitors the effectiveness of its operations in improving the environment. Since 2001, the District has conducted continuous dissolved oxygen monitoring at various locations in District service areas to characterize water quality and evaluate oxygen dynamics. The District currently maintains 19 continuous monitoring stations.

The District's biological monitoring program, which runs in conjunction with the AWQM Program, includes chlorophyll monitoring, the study of the benthic invertebrate and fish communities, characterization of the physical habitat, and assessment of sediment toxicity and sediment chemistry. The District also performs microbiological monitor of liquid (area water and final effluent) and solids (Biosolids) to ensure regulatory compliance of its operations and its impact on the waterway system. The primary objective of the overall monitoring program is to provide scientific data for internal analyses as well as for the IEPA regarding the biological condition of the District service area waterways. The District has been very actively involved in a Use Attainability Analysis rulemaking regarding beneficial uses on the Chicago Area Waterways since 2009, the basis of which was driven by District's collected data.

In addition to protecting the receiving streams, the District also minimizes its use of potable water at all of its facilities by reusing effluent water in its daily activities, including cleaning of tanks and other treatment plant equipment, flushing water, landscaping, and water dilution.

**NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Stakeholder Understanding and Support**

The District has consciously involved all stakeholders in advisory committees that have played key roles in the development of new ordinances and programs. In concert with the Cook County Councils of Government (COGs), the District also conducts Watershed Planning Council (WPC) meetings quarterly to discuss issues concerning flooding and water quality.

Watershed Management: In 2007, the District began development of the Watershed Management Ordinance (WMO), which includes stormwater management regulations for development and redevelopment projects. It addresses water quality, isolated wetlands, riparian environment, and sediment and erosion control, and provides more stringent requirements for stormwater detention. To facilitate stakeholder involvement, the District formed the Technical Advisory Committee (TAC) and the Public and Private Organization Advisory Committee (PPOAC). TAC membership included engineers and state and federal agencies; the PPOAC included non-governmental organizations. These two committees provided valuable insight during drafting of the WMO. A public review period with several hearings was held in late 2009. An Economic Impact Study (EIS) was later conducted to help understand the potential impacts the WMO might have on development in Cook County. As a result, the WMO was revised, underwent a second public review process in the summer of 2013, and was adopted in October 2013, with an effective date of May 1, 2014.

Infiltration and Inflow (I/I) Control: In 2011, the District undertook development of a new Infiltration and Inflow Control Program in anticipation of new requirements imposed by the Illinois EPA in the District's National Pollutant Discharge Elimination System permits, which require measures to be taken if excessive I/I causes/contributes to sanitary sewer overflows and basement backups. To facilitate stakeholder involvement, an Advisory Technical Panel (ATP) was formed, which included representatives from the USEPA, IEPA, local sewer system owners, engineering consultants, and District staff. The ATP evaluated I/I-related issues, including regulatory requirements, operational challenges, available technology, and funding challenges. Recommendations for the new program were collaboratively developed by the ATP, and five public meetings were held in early 2014 to explain the program and facilitate dialogue. The new I/I program is anticipated to be adopted in 2014.

User Charge (UC): In 2011, the District developed a Blue Ribbon Panel (BRP) of its User Charge Program stakeholders to review and clarify the program, improve User Charge Ordinance (UCO) administration and compliance, and revise cost and rate methodology. As a result, the UCO was amended in 2012 to clarify certain language and to reduce the administrative burden on users. The BRP continued to meet in 2013; recommendations included revised methods of rate adjustments and allocation of I/I volume and waste loads, incorporation of administration fees to UC rates, establishment of a simplified single rate system, and a set schedule for annual publishing of rates. The USEPA agreed that the proposed changes were consistent with the original UC System, would improve financial management, and would promote the overall financial sustainability of the system. The resultant UC rates for 2014 were adopted at the District Board Meeting of December 5, 2013.

**NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Water Resources Recycling & Stormwater Management**

Stormwater Management: The District's 2013 Watershed Management Ordinance (WMO) established uniform stormwater management regulations for Cook County in order to prevent future commercial, municipal, and residential development and redevelopment projects from exacerbating flooding; it becomes effective May 1, 2014. The WMO includes six Detailed Watershed Plans and 32 high-priority projects; 11 of these projects are expected to be awarded in 2014, with the remaining 21 currently in design.

The District has implemented a Stormwater Management Program. Phase 1 included capital improvement projects designed to address overbank flooding and streambank erosion issues along regional waterways. Phase 2 of the Stormwater Management Program was initiated in 2013 and involves partnerships with local communities and agencies to address more localized stormwater issues not necessarily involving a waterway, such as green infrastructure, grey infrastructure, localized detention, pump stations, and establishing drainage ways. The District conducted outreach to local municipalities, townships, and agencies to identify existing flooding problems and potential solutions; 35 projects were identified for further study, 16 of which are now "shovel ready." The District will break ground on these projects in 2014.

A second aspect of the Stormwater Program's Phase 2 was the creation of Stormwater Master Plans for all communities in Cook County. The plans will analyze any existing flooding problems, identify future flooding potential, and develop a comprehensive approach to address those challenges. To conduct this planning effort uniformly throughout the county, five pilot studies will begin in 2014, one in the City of Chicago (City) and one in each of the four Councils of Government (COG) areas which represent the suburban municipalities. After completion of these first studies, the standard methodology developed will be followed in the subsequent studies that will ultimately cover the entire county.

Water Recycling: The District internally reuses effluent water in its daily activities, including cleaning of tanks and other treatment plant equipment, flushing water, landscaping, and water dilution.

Externally, the District has begun preliminary efforts to draw interest for the distribution of high quality effluent to potential local industrial and commercial users that do not need potable water for their processes. Recycling of effluent water would replace the use of potable water, which in turn would result in expanded distribution of source water or a reduction of fresh water diversion from Lake Michigan, and a reduction in the energy required to treat and transport the potable water. After performing preliminary investigations into the concept's feasibility in 2013, a request for Expression of Interest is currently being prepared and will be followed up with a detailed Request for Proposal from potential vendors interested in installing, operating, and maintaining infrastructure to recycle the Calumet Water Reclamation Plant's effluent water.

**NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Pretreatment Program**

The District's pretreatment program was approved by the USEPA in 1985 and later amended in 1987. The purpose of this program is to control and mitigate wastewater pollutant discharges at the source, so the District requires dischargers' compliance with applicable local and USEPA pretreatment standards. Local pretreatment standards apply to all dischargers in the District's service area, and the USEPA's pretreatment standards, as set forth in 40 CFR 403, apply as an additional requirement to significant industrial users (SIUs) in specific categories.

The District controls the quality and quantity of wastewater discharge from each SIU through the issuance of permits, or individual Discharge Authorizations (DAs). To be approved, each SIU must submit periodic self-monitoring reports to ensure compliance with applicable pretreatment standards; in addition, the District performs its own inspection and monitoring of these SIUs as well. The District also investigates instances of noncompliance by any industrial user and utilizes legal remedies to deter further instances of noncompliance.

	<u>2013</u>	<u>2012</u>	<u>2011</u>
Number of SIUs	356	357	361
Number of SIUs in Compliance	234	235	248
Percent of SIU's in Compliance	66	66	69
Number of Enforcement Actions Issued	197	191	176

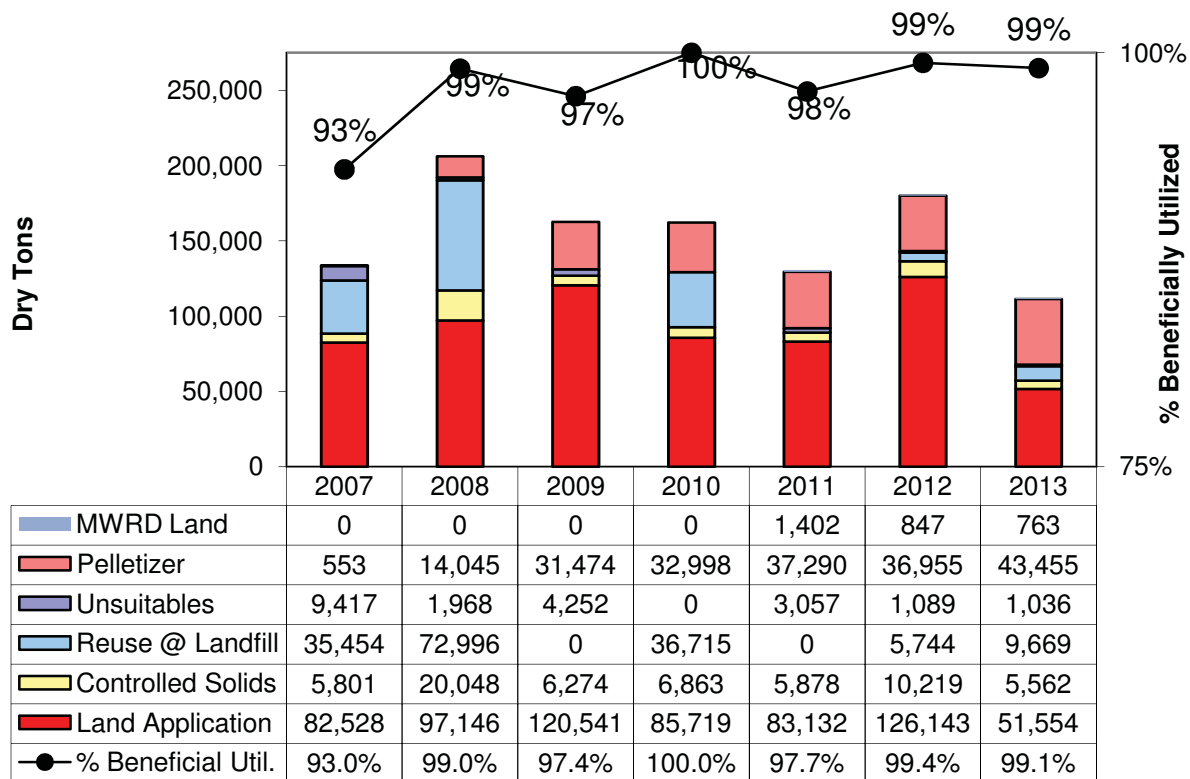
Pursuant to the requirements in its approved pretreatment program, the District must submit an annual summary report of its pretreatment program administration and activities to both the US EPA and the Illinois EPA.

NACWA 2014 Excellence in Management Recognition Program Metropolitan Water Reclamation District of Greater Chicago Biosolids

The District has developed a sound Controlled Solids Distribution (CSD) and Farmland Application (FA) Program under permits issued by the Illinois Environmental Protection Agency. Under the CSD program, exceptional quality air-dried biosolids are used as a soil amendment and fertilizer in the Chicago metropolitan area. This program reduces landscape maintenance costs for local park districts and school districts that participate. Under the FA program, air-dried biosolids are used as fertilizers or soils amendments on local farm fields. This program reduces the operating costs of local farmers and supports the overall farming industry. Both of these programs are integral in maintaining the District's high annual biosolids utilization rate.

The District will continue the promotion of biosolids and other sustainability practices to improve public awareness of the benefits of utilizing biosolids as fertilizer and soil amendments through future sustainability workshops. In addition to the above programs, the District also has various other available beneficial outlets as seen below.

Biosolids Utilization 2007-2013



**NACWA 2014 Excellence in Management Recognition Program
Metropolitan Water Reclamation District of Greater Chicago
Water Quality Protection on a Watershed Basis**

Watershed Management Ordinance (WMO): Pursuant to the District's WMO adopted in 2013, new development or redevelopment projects which disturb more than 0.5 acres will be required to capture one-inch runoff from impervious surfaces. This capture, or "volume control," will help to prevent flooding and provide significant water quality benefits. The WMO also affords protection to existing riparian areas and isolated wetlands, which are wetlands without significant nexus to a waterway and not regulated by the U.S. Army Corps of Engineers. Although regulated to some degree by other entities, the District felt it prudent to also require sediment and erosion control measures in the WMO, given their importance in maintaining water quality during the construction process.

Small Streams Maintenance Program (SSMP): The SSMP was conceived and established in 2006 and follows the District's stormwater management mission to improve flooding prevention in urbanized areas through immediate and relatively simple remedies. The objective of the program is to remove obstructions and debris in the waterways that impede the natural drainage of Cook County's small streams and rivers with the potential for flooding urban areas. SSMP also undertakes streambank stabilization activities to prevent further erosion from adversely impacting structures and infrastructure located along the waterway. The improvements have a direct and positive impact on water quality.

The SSMP is advertised on the District's website and includes a link to allow citizens to report stream blockages. The SSMP staff also attends meetings of the Watershed Planning Councils (WPCs), Councils of Governments (COGs), and local public works meetings to provide an overview of the program's purpose, objectives, and goals. The local municipalities enthusiastically assist in identifying blockages, stream deficiencies, and sensitive areas within their jurisdictions. Their communication with the District is ongoing and valuable to the success of the program. District staff also directly contacts representatives of the various WPCs, COGs, public works officials, and citizens to coordinate the work.

In 2013, District and contractor crews removed approximately 30,821 cubic yards of debris. Included in the debris total were 2,837 cubic yards of river and canal debris removed by the District's debris and pontoon boat crews along the Chicago Area Waterways.

Streambank Stabilization Program: Through development of watershed plans for the six established watersheds of Cook County, the District identified areas where severe streambank erosion was threatening structures and infrastructure. As these projects were too large and complex for the SSMP to handle, the District is currently designing several additional streambank stabilization projects with construction expected to occur over the next few years.

Green Infrastructure (GI): The District's Green Infrastructure Program works with interested local agencies, non-governmental organizations, citizens, and private entities to increase acceptance of and investment in GI measures within the District's service area to reduce Combined Sewer Overflow discharges, localized flooding, and stormwater impacts.