

 **2017 Budget**
MOVING DOWN THE TRACK

Metropolitan Water Reclamation District of Greater Chicago

Maintenance & Operations

Executive Director's Budget Recommendations

John P. Murray, Director of Maintenance & Operations

 **Appropriations & Positions**

Maintenance & Operations – All Divisions

| | Appropriations | Positions |
|--------|----------------|-----------|
| 2017 | \$186,505,800 | 908 |
| 2016 | 187,725,800 | 927 |
| Change | ↓ \$1,220,000 | ↓ 19 |
| | 0.6% | |

Note: An additional 27 operational positions are funded by the Stormwater Management Fund for 2017.

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2016 Accomplishments

Innovative Operations for Nutrient Management Solutions

- Implemented the ultraviolet (UV) disinfection process at the O'Brien Water Reclamation Plant (WRP). UV disinfection is a physical process that neutralizes microorganisms as they pass by UV lamps in the effluent. It is safe, cost-effective, and environmentally friendly.
- Launched the Ostara Nutrient Recovery Facility at the Stickney WRP. The facility, which was developed in partnership with Ostara Nutrient Recovery Technologies and Black & Veatch, is an example of how progressive technology can be adopted to transform a wastewater treatment facility into a resource recovery center. The system is designed to capture phosphorus for environmentally friendly reuse, improve the quality of watercourses, and provide an additional revenue stream for the District.

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2016 Accomplishments

Enhancing Operations

- Implemented an online system allowing the public to file incident reports, which are then assigned to operations staff for immediate investigation and action. With the system's mapping function, odor complaints can be tracked to identify and analyze hot spots and clusters. With such high-quality data, the odors can be mitigated and customer satisfaction improved. It is estimated that operations staff responded to approximately 90 odor complaints in 2016.
- In 2015, the District generated 41.6 million kWh and received \$1.24 million in revenue from ComEd. Projected generation for 2016 is 40.9 million kWh, with a projected value of approximately \$1.17 million, and for 2017 is 41.5 million kWh, with a projected value of approximately \$1.0 million.

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Major Initiatives & Changes

Adding Value, Promoting Excellence

- Campaign to “Restore the Canopy, Plant a Tree”
 - Begin construction on an 8.2 acre tree nursery at the Hanover Park WRP. When complete, the facility will serve as a worldwide example of the value and viability of biosolids.
- Create markets for biosolids & biosolids-based products
 - Develop relationships with landscapers and communities
 - Maximize use of biosolids as a commercially viable fertilizer
- Voluntary Energy Curtailment Program
 - The Board of Commissioners selected EnergyConnect, Inc. in 2015 to guide the program
 - Program participants reduce energy use during peak periods
 - A \$1.5 million rebate is expected for the 2016-2017 period

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Major Initiatives & Changes

Adding Value

- Procurement of Energy Advisory Services
 - Become a Pennsylvania-New Jersey-Maryland Interconnection (PJM) service provider
 - Provide higher value for power generated by the Lockport Powerhouse, digesters, or other future assets by selling power directly into the PJM electricity grid
 - Realize revenues by selling the associated Renewable Energy Credits
 - Realize revenues for capacity of electricity generation. Members of PJM are compensated for their capacity to generate power by participation in the capacity auction.

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Major Initiatives & Changes

Developing Employees

- **Asset Management Section**
 - Consolidate electrical and mechanical engineering staff
 - Centralize the maintenance function
 - Prioritize work on a department-wide basis
 - Deploy resources as needed
- **Continue Emphasis on In-House Maintenance**
 - Leverage the expertise and experience of in-house personnel
 - Provide ongoing and targeted training to ensure the plants are well maintained
 - Reduce the 2017 budget for contractual services (excluding utilities) by ~ \$3.0 million or nine percent compared to the 2016 adjusted budget

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Major Initiatives & Changes

Resource Recovery and Technology

Tremendous resources reside in wastewater and biosolids. M&O has several new projects designed to extract that potential.

- **Ostara, also known as the “Pearl System”**
 - Extracts phosphorus and ammonia from the waste stream
 - Provides significant environmental benefits
 - Produces a slow-release fertilizer product
- **Gas Turbine**
 - Otherwise wasted digester gas will be turned into useful energy at the Stickney Water Reclamation Plant
 - Generated electricity will be delivered back to the grid and distributed throughout the plant, thereby reducing total electrical demand

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Major Initiatives & Changes

Resource Recovery (continued)

- Biosolids Composting Program
 - Adopted an Intergovernmental Agreement with the City of Chicago that runs through 2017
 - Use tree debris supplied by the city as a bulking agent for composting biosolids
 - Produce ~ 50,000 tons of composted biosolids in 2017
 - Create a value-added product with a variety of beneficial applications

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2017 Budget

MOVING DOWN THE TRACK

Metropolitan Water Reclamation District of Greater Chicago

Construction Fund

Executive Director's Budget Recommendations

John P. Murray, Director of Maintenance & Operations

Appropriations

Construction Fund

(Including BF-19 Changes)

| | Appropriations |
|--------|--|
| 2017 | \$34,450,400 |
| 2016 | 36,614,400 |
| Change | ↓ \$2,164,000 |
| | 5.9% |

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2017 Budget By Department

The Construction Fund is used District-wide as a capital rehabilitation and modernization program.

2017 Budget By Department

| Department | Budget | Percentage |
|---------------------------------------|---------------------|------------|
| Maintenance & Operations | \$17,975,600 | 52.2% |
| Engineering | \$9,542,900 | 27.7% |
| Monitoring & Research | \$3,981,900 | 11.5% |
| General Administration | \$1,720,000 | 5.0% |
| Information Technology | \$858,500 | 2.5% |
| Human Resources | \$146,500 | 0.4% |
| Finance | \$125,000 | 0.4% |
| Law | \$100,000 | 0.3% |
| Total Construction Fund Budget | \$34,450,400 | |

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2016 Accomplishments

- Began an energy conservation project for the installation of new boilers at the 125th Street Pumping Station in the Calumet Service Area
- Purchased equipment to support the in-house landscape maintenance program
- Awarded a contract to perform gas analysis of odorous compounds, the data from which will be used to select odor mitigation technologies
- Contributed to the Chi-Cal Rivers Fund for green infrastructure projects

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Major Initiatives & Changes

Add Value: Execute the Asset Maintenance Plan in 2017

- Maximize the life cycle and useful life of District assets to obtain maximum return on the capital investment
 - Restore the Process Control Building at the O'Brien WRP
 - Paint final tanks, District-wide
- Facilitate cost-effective processes
 - Purchase a dedicated air-lift blower for the Egan WRP air lifts to reduce operating costs by ~ \$44,000/year
 - Install new tank drives at the Lemont WRP
- Optimize assets for peak operating efficiency
 - Purchase a pump for the Deerfield Reservoir to ensure the reservoir has maximum dewatering capabilities to reduce the risk of flooding
 - Install an upgraded coarse screen conveyor system at the North Branch Pumping Station

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Major Initiatives & Changes

Add Value: Execute the Asset Maintenance Plan in 2017
(cont.)

- Improve asset utilization throughout the plants
 - Install boiler controls at the Stickney WRP to enable full utilization of digester gas
- Reduce the likelihood of service delays or interruptions to our customers
 - Rehabilitate Hydraulic Operator at TARP Gate Structure 1, Calumet Service Area
- Provide a safe and healthy working environment
 - Install a headrace handrail at the Lockport Powerhouse
 - Rehabilitate pavement, District-wide

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Major Initiatives & Changes

Excellence

- Use District personnel to develop, design, and implement Construction Fund projects
- Pursue research programs focused on addressing regulatory actions, achieving energy neutrality and resource recovery, and generating cost savings

Resource Recovery

- Research project using algae technology for the recovery of phosphorus and nitrogen from wastewater
- Phosphorus removal feasibility studies for the Egan, Hanover Park, Lemont, and Kirie WRPs

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2017 Budget

Metropolitan Water Reclamation District of Greater Chicago

Engineering

Executive Director's Budget Recommendations

Catherine A. O'Connor, Director of Engineering

Appropriations & Positions

Engineering - Corporate Fund

| | Appropriations | Positions |
|--------|----------------|-----------|
| 2017 | \$28,589,000 | 246 |
| 2016 | 28,072,900 | 244 |
| Change | ↑ \$516,100 | ↑ 2 |
| | 1.8% | |

Note: An additional 30 operational positions are funded by the Stormwater Management Fund for 2017.

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2016 Accomplishments

- Plan, Design, and Construct CIP Projects

In-House Designs Completed

- Conversion of GCTs to WASSTRIP Process, SWRP
- Aeration Tanks Air Valve Automation in Btty's A, B, C, and D, SWRP
- Calumet Intercepting Sewer 19F Rehabilitation, CSA
- IWD and Construction Office Renovation, CWRP
- Safety Railing Around Tanks, OWRP, CWRP, SWRP
- Main Sewage Pump Seal Water System Modification, MSPS
- A/B & C/D Service Tunnel and Connecting Tunnel Rehab - Phase II, SWRP
- Rehabilitation of Bridges, NSA

Consultant Designs Completed

- Des Plaines Connecting Tunnel

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2016 Accomplishments

- Plan, Design, and Construct CIP Projects

Projects Awarded - 2016

- D799 Switchgear Replacement Stickney WRP
- *Glenbrook Sanitary Sewer Rehabilitation, NSA*
- Streambank Stabilization Project for Tinley Creek in Orland Hills
- Streambank Stabilization Project for the N. Branch of the Chicago River
- A/B and C/D Service Tunnel Rehabilitation – Phase Two
- Conversion of OLD GCTs to WASSTRIP Process
- Calumet Intercepting Sewer 19F Rehabilitation, CSA
- McCook Reservoir, Des Plaines Inflow Tunnel, SSA
- Safety Railing Around Tanks, Stickney WRP
- Streambank Stabilization, Cal-Sag Channel Watershed, Oak Lawn
- Rehabilitation of Bridges, NSA on the North Shore Channel
- Safety Railing Around Tanks, Terrence J. O'Brien WRP
- Aeration Tanks Air Valves Automation in Batteries A, B, C and D, SWRP
- IWD and Construction Office Renovation, CWRP

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2016 Accomplishments

- Plan, Design, and Construct CIP Projects

Projects Completed - 2016

- Electrical Upgrade; Pumps, Motors & Drives Replacements, EWRP
- Tollway Dam, Grout Curtain and Quarry Plugs
- Distributed Control System for Solids Processes, SWRP
- Stickney Sludge Thickening Project
- Rehabilitation of the A/B and C/D Service Tunnels, Phase I
- Centrifuge Building and Sludge Loading, EWRP and HPWRP
- Disinfection Facilities, OWRP
- TARP Control Structure Rehabilitation, NSA, SSA, and CSA
- Des Plaines Intercepting Sewer Rehabilitation, SSA
- Coarse Screens and RSP Slide Gates Replacements
- Flood Control Project at Upper Salt Creek, Palatine, IL

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2016 Accomplishments

- Administer Watershed Management Ordinance

- 8 MG volume control storage (13 MG since WMO)
- 10 MG compensatory storage (25 MG since WMO)
- 134 MG locally-stored detention (242 MG since WMO)
- \$2.85 million sewer permit fees
- Revisions/Enhancements
 - Technical Advisory Committee input
 - Public review proposed November 7st – December 15th
 - Public meeting proposed November 16th
 - Adopt amendment 1st quarter 2017

- I/I Control Program

- 1st year for submitting annual reports
- 113 of 114 satellite entities responded
- 50 annual reports approved

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2017 Budget
MOVING DOWN THE TRACK

Metropolitan Water Reclamation District of Greater Chicago

Capital Improvements Bond Fund

Executive Director's Budget Recommendations

Catherine A. O'Connor, Director of Engineering



Appropriations & Positions

Capital Improvements Bond Fund

| | Appropriations |
|--------|-----------------|
| 2017 | \$348,037,200 |
| 2016 | 483,764,800 |
| Change | ↓ \$135,727,600 |
| | 28.1% |

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 **2016 Accomplishments**

Mission Critical

- Completed mining McCook Stage 1
- Awarded Des Plaines Inflow Tunnel
- Completed Ostara phosphorus recovery
- Awarded WASSTRIP construction, to enhance phosphorus recovery





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 **2016 Accomplishments**

Preservation of Infrastructure – Under Construction

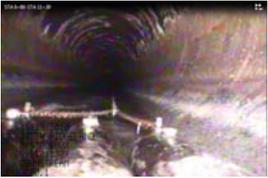
- A/B and C/D Service Tunnel Rehabilitation – Phase Two, SWRP

Preservation of Infrastructure – Awarded

- Calumet Intercepting Sewer 19F

Rehabilitation – Complete

- North Shore Intercepting Sewer 2
- Des Plaines River Intercepting Sewer
- Glenbrook Sanitary Sewer

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2016 Accomplishments

Commitment to Community

- Awarded Engineering design of digester gas cleaning at Stickney WRP
- Completed construction of ANITAMox™ for nitrogen removal at Egan WRP
- Awarded Engineering study to develop strategy for energy neutrality at Egan, Hanover Park WRPs



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2017 Initiatives

- Mission Critical, Improve Environmental Quality
- McCook Stage 1 on-line 2017!
- Continue construction
 - Des Plaines Tunnel
 - Mining McCook Stage 2
 - WASSTRIP, SWRP
 - Nine Primary Tanks, & Grit Removal, SWRP
- Award Automation of Air Valve, SWRP



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2017 Initiatives

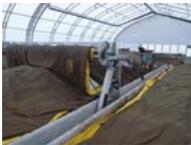
- Preservation of Infrastructure
- Award
 - Rehab of Service Tunnels Phase 2, SWRP
 - Rehab of Upper Des Plaines Dropshaft 5
- Continue construction
 - Construct automated screens, TARP, CWRP
 - Replace course screens, slide gates, EWRP
 - Replace medium voltage switchgear, SWRP
 - Replace TARP pumps, motors, CWRP
 - TARP Pump #8 Rehab




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2017 Initiatives

- Commitment to Community
- Award the following contracts:
 - Organic waste receiving facility, CWRP
 - Covered composting facility, CWRP
 - Convert two existing tanks to fermenters, SWRP
 - Design of digester gas utilization facilities, SWRP



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Commitment to Excellence

Capital Improvement Program Project Performance

In-Progress Construction Projects in 2016

| Beginning Year | Number of Contracts | Percent of Original \$ | Percent of Original Time |
|----------------|---------------------|------------------------|--------------------------|
| 2013 | 1 | 101% | 100% |
| 2014 | 4 | 106% | 105% |
| 2015 | 7 | 102% | 110% |
| 2016 | 13 | 100% | 100% |

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Commitment to Excellence

Capital Improvement Program Project Performance

Completed Construction Projects in 2016

| Beginning Year | Number of Contracts | Percent of Original \$ | Percent of Original Time |
|----------------|---------------------|------------------------|--------------------------|
| 2009 | 3 | 105% | 273% |
| 2010 | 3 | 104% | 130% |
| 2012 | 3 | 102% | 162% |
| 2013 | 6 | 102% | 113% |
| 2014 | 3 | 104% | 141% |
| 2015 | 1 | 100% | 100% |

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Metropolitan Water Reclamation District of Greater Chicago

Stormwater Management Fund

Executive Director's Budget Recommendations

Catherine A. O'Connor, Director of Engineering



Appropriations & Positions

Stormwater Management Fund

| | Appropriations | Positions |
|--------|---|---|
| 2017 | \$44,997,100 | 57 |
| 2016 | 40,500,800 | 59 |
| Change | ↑ 4,496,300 | ↓ 2 |
| | 11.1% | |

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 **2016 Accomplishments**

- Major flood control projects completed
 - Upper Salt Creek Flood Control Project
 - Flood Control/Streambank Stabilization on Tinley Creek
 - Glenview-East of Harms Storm Sewer/Pump Station
 - Elk Grove Village-Busse Woods Dam Modification
 - Westchester-Mayfair Reservoir Expansion





- Small Streams Maintenance
 - Protect 532 miles of small streams
 - ~ 25,000 cubic yards of debris removed from area waterways

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 **Major Initiatives**

- Stormwater Phase I Projects
 - Addison Creek Reservoir
 - Buffalo Creek Reservoir Expansion
 - Farmers-Prairie Creek
 - Arrowhead Lake Flood Control
 - Lyons Levee
- Stormwater Phase II Projects
 - Natalie Creek in Midlothian
 - Melvina Ditch Reservoir
 - Village of Robbins
 - Town of Cicero
 - Village of Worth




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Major Initiatives

- Green Infrastructure
 - Partnerships with local communities
 - 2017 call for GI projects
- Flood-Prone Property Acquisitions
 - 183 additional properties identified
 - Partnerships with 7 communities
- Regional Partnerships
 - Cook County
 - Illinois Department of Transportation
 - Illinois Tollway




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Stormwater Program Summary

| Program Component | Current Number of Projects | Structures Protected / Removed | Construction / Acquisition Cost (\$Million) | MWRD Cost (\$Million) |
|----------------------------------|----------------------------|--------------------------------|---|-----------------------|
| Phase I | 27 | 4,423 | \$369 | \$315 |
| Phase II Shovel Ready | 21 | 3,146 | \$81 | \$41 |
| Phase II Preliminary Engineering | 13 | TBD | TBD | TBD |
| Green Infrastructure | 25 | 717 | \$48 | \$13 |
| Flood Prone Property Acquisition | 9 | 201 | \$61 | \$34 |
| Totals | 85 | 8,487 | \$559 | \$403 |

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Metropolitan Water Reclamation District of Greater Chicago

Monitoring & Research

Executive Director's Budget Recommendations

Thomas C. Granato, Director of Monitoring & Research



Appropriations & Positions

Monitoring & Research

| | Appropriations | Positions |
|--------|---|--|
| 2017 | \$31,030,400 | 308 |
| 2016 | 30,523,200 | 308 |
| Change | ↑ \$507,200 1.7% | → -- |

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2016 Accomplishments

Add Value

- Implemented practices to enhance customer service in the Industrial Waste Division (IWD)
- Continued redesign of Analytical Laboratories and Environmental Monitoring & Research Divisions
- Developed and implemented targeted odor control strategies
 - Continued formulation of District-wide odor management plan
 - Completed conceptual plans for CWRP and HPWRP
- Utilized Fulton County property for nutrient control technology
 - Continued to develop research program to inform and support Illinois Nutrient Loss Reduction Strategy

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Major Initiatives

M&R IWD Customer Service Initiative

**NUMBER OF USER CHARGE APPEALS
2011 - 2015**

■ Director Appeals ■ Board Appeals

| Year | Director Appeals | Board Appeals | Total Appeals |
|------|------------------|---------------|---------------|
| 2011 | 35 | 1 | 36 |
| 2012 | 27 | 3 | 30 |
| 2013 | 13 | 1 | 14 |
| 2014 | 8 | 1 | 9 |
| 2015 | 8 | 0 | 8 |

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Major Initiatives & Changes

Adding Value Through Research & Demonstration at Fulton County



Innovating more effective nutrient loss reductions through use efficiency improvements via interseeding



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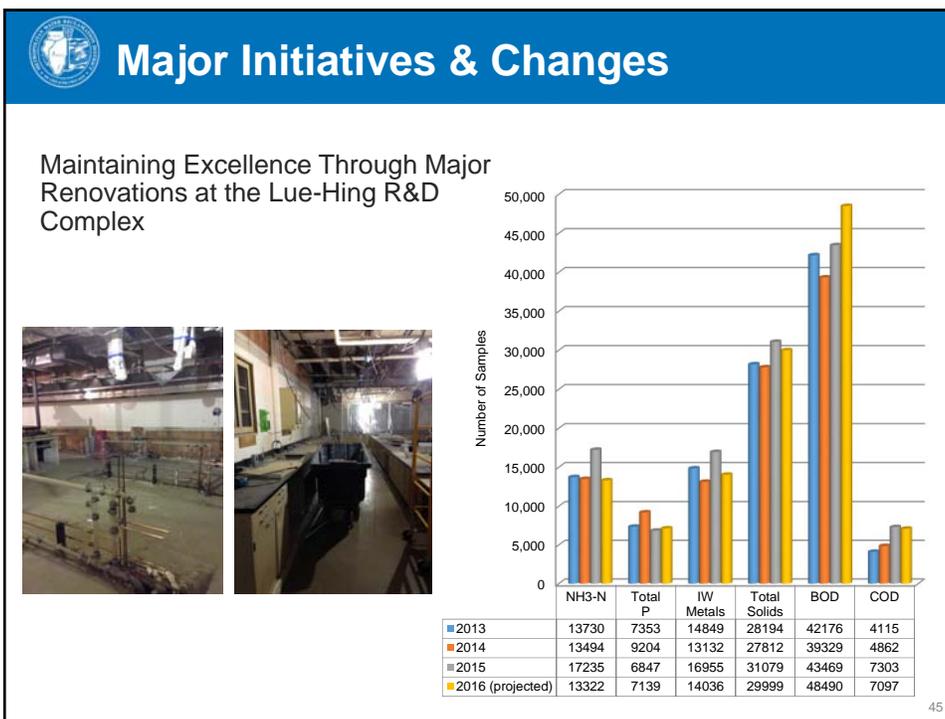


2016 Accomplishments

Excellence

- Maintained optimal output of analytical support during Lue-Hing R&D Complex HVAC renovation
- Further Lue-Hing R&D Complex facility improvements were needed to maintain excellence
- Discontinued use of contract employee services to support laboratory operations
- Completed development of process and hydraulic models for CWRP to enhance planning of capital improvements
- Completed study to inform automation of discretionary Lake Michigan diversion control

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- ## 2016 Accomplishments
- ### Resource Recovery
- Leveraged relations with industrial sector to identify resource recovery opportunities
 - Led development of a resource recovery program for enhanced biological phosphorus removal from feedstock
 - Led development of strategies to optimize enhanced biological phosphorus removal at WRPs
 - Completed Biosolids Strategy at Calumet WRP and continued to expand the plan to other WRPs
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Major Initiatives & Changes

Identifying Recoverable Resources for Enhanced Biological Phosphorus Removal



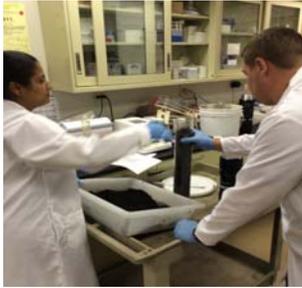
| Sample Name | URR1 P Release Inducement | Biological Test Results | | |
|-----------------|---------------------------|----------------------------------|--------------------|---------------------|
| | | Characteristics Resolved at SCRS | SDR Batch Used? | Nutrient Inhibition |
| C95M#2 | Yes (5/1/16) | Yes | N/A | TRFD |
| C95M#3 | Yes (1/26/16, 2/2/16) | Yes | Yes (began 5/2016) | No |
| JPN#1/1 | Yes (1/19/16) | Yes | TRFD | TRFD |
| C95#1/1 | Yes (1/19/16, 4/21/16) | Yes | TRFD | TRFD |
| Food waste #1/1 | No | Yes | N/A | TRFD |
| PC2#1 | TRFD | TRFD | N/A | TRFD |
| PC2#2 | Yes (7/6/16, 7/15/16) | Yes (8/3/16) | TRFD | TRFD |
| PC2#3 | TRFD | TRFD | N/A | TRFD |
| PC2#4 | Yes (6/21/16) | TRFD | TRFD | TRFD |

| Sample Name | Sample Description | Sample Type | P Release | Physical Properties | | Chemical Properties | | Comments |
|-------------|--------------------|-------------|-----------|---------------------|--------|---------------------|----------|----------|
| | | | | Moisture (%) | SS (%) | pH | ORP (mV) | |
| URR1#1 | Residual | Sludge | Trace | 95.00 | 50% | 7.42 | 1.00 | High P |
| URR1#2 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#3 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#4 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#5 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#6 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#7 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#8 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#9 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#10 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#11 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#12 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#13 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#14 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#15 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#16 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#17 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#18 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#19 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |
| URR1#20 | Residual | Sludge | Trace | 95.00 | 50% | 7.40 | 1.00 | High P |

Major Initiatives & Changes

Enhanced Resource Recovery Through Biosolids Composting





2016 Accomplishments

Leading Partnerships

- Partner with academics, WERF, WEP, and leading POTWs to develop sustainable solutions to future water quality goals
- Lead point source sector in implementation of Illinois Nutrient Loss Reduction Strategy
- Develop partnerships with Illinois' agricultural sector, colleges, and universities to study and promote nutrient loss reduction
- Completed first phase of seven-year study with Argonne National Laboratory to provide high quality science to inform development of policy and planning vision for waterways

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Major Initiatives & Changes

Partnerships Established for Nutrient Loss Reduction Initiative at Fulton County

Drainage water

Richard Cooke, University of Illinois at Urbana-Champaign (UIUC)
Alex Echols, Ecosystems Exchange Services, Iowa



Extension-Cover crop

Peter Fandel, Illinois Central College

Riparian buffer

DoKyoung Lee, UIUC
Thomas Voigt, UIUC
Gary Letterly, UIUC



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 **2017 Budget**
MOVING DOWN THE TRACK

Metropolitan Water Reclamation District of Greater Chicago

Finance

Executive Director's Budget Recommendations

Jacqueline Torres, Clerk/Director of Finance

 **Appropriations & Positions**

Finance

| | Appropriations | Positions |
|--------|----------------|-----------|
| 2017 | \$3,655,900 | 28 |
| 2016 | 3,696,300 | 28 |
| Change | ↓ \$40,400 | → -- |
| | 1.1% | |

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2016 Accomplishments

Add Value

- Completed nine planned and four unplanned internal audits which provided the District cost savings and ensured continued compliance
- Assisted operating departments with payment and collection strategies for the new Resource Recovery Program

Excellence

- Received unmodified (clean opinion) for the 2015 Comprehensive Annual Financial Report (CAFR) from external auditor
- Received the Government Finance Officers Association (GFOA) Award for Excellence in Financial Reporting on the 2015 CAFR for the 41st consecutive year
- Implemented Governmental Accounting Standards Board 68 for improved reporting of the District's pension liability

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2016 Accomplishments

Develop Employees

- Created a series of training seminars to develop staff on transaction processing and system reporting
- Cross-trained with learning opportunities of other Finance unit activities, roles, and responsibilities
- Held SAP system report training with Finance, Treasury, and General Administration staff to access and report financial information

Technology

- Upgraded the Time and Attendance system to the newest cloud version that improved back-end processing and enhanced end-user navigation
- Upgraded the Vendor Invoice system to enable supplier level straight-through processing and improve the workflow approval process

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Major Initiatives & Changes

- Continue to obtain unmodified external audit opinions and earn the GFOA Award for Excellence in Financial Reporting
- Continue to promote cost-effective solutions and optimize operations through automation
 - Will seek to implement a hosted web application to integrate the compilation of data and publishing of the District and the Other Post-Employment Benefits (OPEB) Trust CAFRs and the District's Budget Book

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2017 Budget

MOVING DOWN THE TRACK

Metropolitan Water Reclamation District of Greater Chicago

Law

Executive Director's Budget Recommendations

Ronald M. Hill, General Counsel



Appropriations & Positions

Law

| | Appropriations | Positions |
|--------|----------------|-----------|
| 2017 | \$8,375,300 | 38 |
| 2016 | 7,972,600 | 38 |
| Change | ↑ \$402,700 | → -- |
| | 5.1% | |

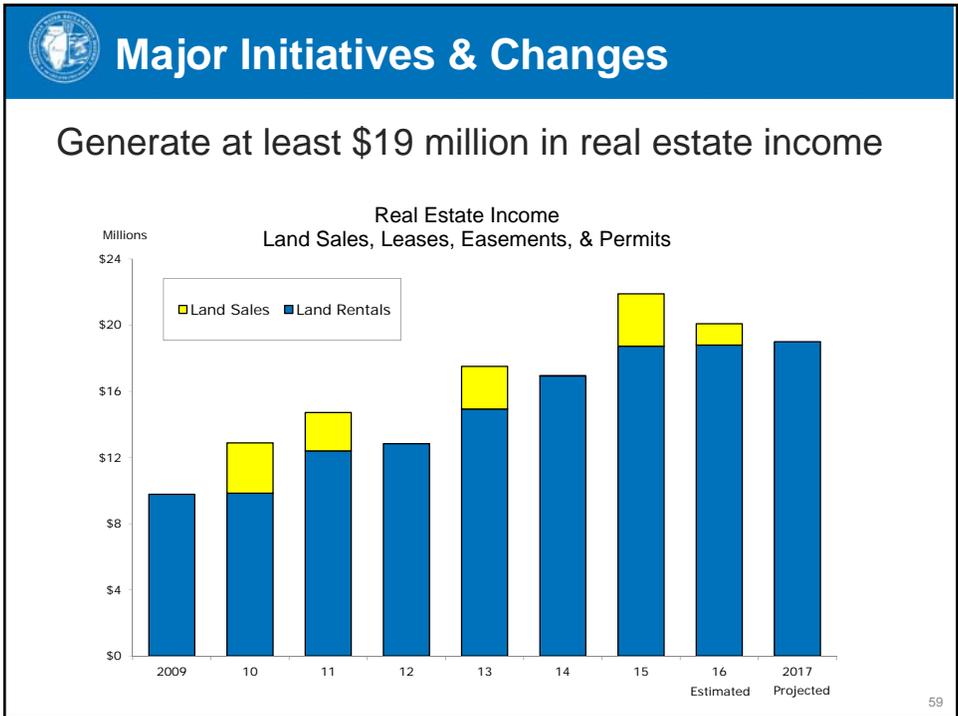
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2016 Accomplishments

- Negotiated, drafted, and executed approximately 70 Intergovernmental Agreements/Memoranda of Understanding
- Worked with staff, stakeholders, and regulators to draft and adopt the Resource Recovery Ordinance
- Persuaded the Illinois Supreme Court to provide clarification of the law in flooding claims arising under the Illinois Constitution
- Illinois Department of Natural Resources granted the District's Petition to Modify the District's Lake Michigan Water Allocation Permit

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- Major Initiatives & Changes**
- Provide District-wide training on legal matters to supervisors and managers
 - Collaborate with operating departments to ensure successful implementation of the Resource Recovery Ordinance
 - Acquire at least 200 real estate interests needed to move forward on various Stormwater projects
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Metropolitan Water Reclamation District of Greater Chicago

Procurement & Materials Management

Executive Director's Budget Recommendations

Darlene A. LoCascio, Director of Procurement & Materials Management



Appropriations & Positions

Procurement & Materials Management

| | Appropriations | Positions |
|--------|---|--|
| 2017 | \$9,534,000 | 63 |
| 2016 | 8,777,400 | 63 |
| Change | ↑ \$756,600 | → -- |
| | 8.6% | |

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2016 Accomplishments

- Enhance Contract Bidding Document
- Redesigned several processes for the receipt and issuance of materials to ensure that M&O has the material in a timely manner
- Collaborated with M&O to issue an RFP for the District to become a Pennsylvania-New Jersey-Maryland Interconnection (PJM) service provider
- Purchased recyclable plastic pallets for storerooms

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Major Initiatives and Changes

- Ensure that 100% of material and supplies required for preventive maintenance work orders are available in the storeroom
- Award a contract for assisting the District in becoming a PJM service provider
- Develop and implement a schedule for recurring contracts to ensure the replacement contract is in place before the end of the current contract

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Metropolitan Water Reclamation District of Greater Chicago

General Administration

Executive Director's Budget Recommendations

Eileen M. McElligott, Administrative Services Manager



Appropriations & Positions

General Administration

| | Appropriations | Positions |
|--------|---|---------------------------------------|
| 2017 | \$18,545,300 | 123 |
| 2016 | 16,819,300 | 122 |
| Change | ↑ \$1,726,000 | ↑ 1 |
| | 10.3% | |

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2016 Accomplishments

Administrative Services Division

- Excellence - The 2016 Budget received the 32nd consecutive Distinguished Budget Presentation Award from the Government Finance Officers Association (GFOA), receiving Special Performance Measures Recognition
- Leading Partnerships - Implemented a drug collection program with the Cook County Sheriff's Office to expand drug collection initiatives and added four permanent drug collection boxes at District facilities
- Add Value/Technology - Completed the carpet replacement and painting project on the 3rd floor of the Main Office Building (MOB), initiated the rehabilitation of two elevators (MOB), replaced the mixed air heating unit in the Main Office Building Annex (MOBA), installed an additional heating unit and reconfigured ductwork (MOBA), replaced an electric water heater (MOBA), and expanded the Building Automation System in the Main Office Building Complex (MOBC) to achieve greater energy efficiency

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2016 Accomplishments

Diversity Section

- Excellence - Received the 2016 Egretta Diversity Award from the Association of Women's Business Centers and received the 2016 Advocate of the Year Award from the Federation of Women Contractors



- Leading Partnerships - Hosted the District's African American History Celebration, honoring African American grassroots organizations
- Develop Employees - Most Diversity employees attended Compliance Industry Training, as presented by the American Contract Compliance Association

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2016 Accomplishments

Office of Public Affairs

- Resource Recovery – Distributed over 21,000 tree saplings as part of the Restore the Canopy, Plant a Tree program, and distributed over 95,000 rain barrels to public and private sites to help alleviate flooding in the region
- Leading Partnerships – Partnered with over 29 municipalities, 38 schools, and 65 community groups to facilitate the Restore the Canopy, Plant a Tree program and executed 26 intergovernmental agreements to aid in the distribution of rain barrels
- Add Value – Conducted ribbon cuttings and special events for O'Brien WRP Disinfection, Phosphorus Recovery Facility, water bottle delivery to Flint, Michigan, Fourth Annual Sustainability Summit, open houses at six water reclamation plants, and Legislative Day, Springfield, IL
- Excellence – Issued over 100 press releases and articles, which received over 460 positive media hits and continued to expand the visibility of the District through various social media platforms

Social Media Trends

| Month | Facebook | Twitter | LinkedIn |
|-----------|----------|---------|----------|
| OCT. 2012 | 250 | 114 | 0 |
| OCT. 2013 | 535 | 420 | 440 |
| OCT. 2014 | 953 | 826 | 720 |
| OCT. 2015 | 1,436 | 1,225 | 1,117 |
| OCT. 2016 | 2,300 | 1,726 | 1,482 |

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Historical Photos on Throwback Thursday

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Major Initiatives & Changes

Administrative Services Division

- Add Value – The Facilities Section will finish rehabilitation of two elevators at the MOB and begin a project to extend the roof life at the MOB
- Excellence
 - The Budget Office will strive to obtain a 33rd consecutive Distinguished Budget Presentation Award from GFOA
 - The Police Section will maintain a safe and secure work environment for all District employees while reducing overtime usage
 - The Facilities Section will provide excellent customer service to all departments in the areas of fleet management, mailing, printing, and MOBC building maintenance
- Leading Partnerships – The Police Section will foster its relationship with the Cook County Sheriff's Office to improve and expand the drug take back efforts in the region, as outlined by an intergovernmental agreement
- Develop Employees – The Budget Office will expand its internal training efforts for employees of all departments to ensure that sound financial management, for which the District is known, is carried into the future

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Major Initiatives & Changes

Diversity Section

- Technology - The Diversity Section will
 - Complete and present PRISM to the public and include information from PRISM on the District's website
 - Update the website created to support the Disparity Study to accommodate any changes resulting from the study, improve the e-Library forms and documents on the District's website, and update the minority, women, and small business enterprise vendor list smart-search database to make it more user-friendly
- Develop Employees - Diversity staff will be trained in teambuilding techniques. These skills are vital to the continued success of the section.
- Leading Partnerships - The Diversity Section will utilize outreach opportunities in order to establish a base of contractors who will help the District meet or exceed its participation targets to ensure that bona fide minority, women, and small business enterprises are given an equal and increasing opportunity to participate in the performance of District construction and consultant contracts

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Major Initiatives & Changes

Office of Public Affairs

- Resource Recovery - Public Affairs will
 - Educate and inform the public about the District's resource recovery work by producing targeted, audience-appropriate materials that clearly explain this subject
 - Continue to support biosolids marketing efforts, stormwater management, disinfection and other water quality improvements, and developments in the Tunnel and Reservoir Plan
- Add Value – The first phase of the McCook Reservoir will come online in 2017. Public Affairs will organize and execute a ribbon cutting event to educate the public on this substantial engineering accomplishment.
- Technology - Public Affairs will
 - Upgrade graphic design workstations in order to ensure industry standards
 - Expand aerial photography in order to showcase District facilities and projects

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2017 Budget

MOVING DOWN THE TRACK

Metropolitan Water Reclamation District of Greater Chicago

Information Technology

Executive Director's Budget Recommendations

John H. Sudduth, Director of Information Technology



Appropriations & Positions

Information Technology

| | Appropriations | Positions |
|--------|----------------|-----------|
| 2017 | \$17,283,200 | 75 |
| 2016 | 17,448,600 | 76 |
| Change | ↓ \$165,400 | ↓ 1 |
| | 0.9% | |

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2016 Accomplishments

- Implemented a project management framework
- Standardized the IT incident response framework
- Completed the ITD organizational realignment
- Implemented a new agile development platform
- Completed the migration of the District's email system to Microsoft Office 365

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2016 Accomplishments

- Completed the migration of the District's ERP system to new hardware
- Completed the decommissioning of the Egan Water Reclamation Plant datacenter
- Continued the upgrade of the District's wide area network
- Continued the upgrade of the District's local area network

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Major Initiatives & Changes

- Implement IT asset management system
- Implement IT incident management system
- Consolidate the District's enterprise database platforms
- Streamline data backup process
- Consolidate data centers
- Upgrade security cameras District-wide
- Evaluate current desk phone system for upgrade possibilities

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 **2017 Budget**
MOVING DOWN THE TRACK

Metropolitan Water Reclamation District of Greater Chicago

Human Resources

Executive Director's Budget Recommendations

Beverly K. Sanders, Director of Human Resources

 **Appropriations & Positions**

Human Resources

| | Appropriations | Positions |
|--------|----------------|-----------|
| 2017 | \$59,032,300 | 71 |
| 2016 | 60,816,800 | 73 |
| Change | ↓ \$1,784,500 | ↓ 2 |
| | 2.9% | |

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2016 Accomplishments

- Expanded the internship program to provide meaningful training experiences to 50 interns
- Developed a Business Continuity Plan
- Promoted safe working practices
- Expanded the eLearning program to include trades and industry specific training courses
- Launched a pilot training program to provide new hires in specific job classifications with job readiness skills

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Major Initiatives & Changes

- Implement a new applicant tracking system
- Negotiate six collective bargaining agreements covering approximately 760 employees
- Implement a Medicare Advantage Plan for retirees that becomes effective January 1, 2017
- Continue to develop and implement training initiatives that meet the needs of individual departments and the organization as a whole

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 **2017 Budget**
MOVING DOWN THE TRACK

Metropolitan Water Reclamation District of Greater Chicago

Board of Commissioners

Executive Director's Budget Recommendations

*Nicholas O'Connor, Administrative Aide to President
Mary Ann Boyle, Treasurer*

 **Appropriations & Positions**

Board of Commissioners

| | Appropriations | Positions |
|--------|----------------|-----------|
| 2017 | \$4,510,800 | 38 |
| 2016 | 4,407,800 | 38 |
| Change | ↑ \$103,000 | → -- |
| | 2.3% | |

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2016 Accomplishments

- In July 2016, the District closed on the sale of \$426.2 million of General Obligation Capital Improvement Bonds
 - Sale included \$104 million of bonds issued with a “Green Bond” designation to allow direct investment in the District’s environmentally beneficial projects
 - Included \$4 million of bonds issued as Qualified Energy Conservation Bonds to finance energy efficiency projects
 - Achieved savings in excess of \$120 million of future debt service as a result of refunding the May 2006 bonds
- Fourth consecutive year of access to \$200 million in low-interest loans from the IEPA as a result of the Illinois Clean Water Initiative
- The District progressed in meeting its funding policy goals for its retirement plans. As of December 31, 2015, the Retirement Fund’s funded ratio was 55.2%, and the OPEB Trust’s funded ratio was 52.1%.

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Major Initiatives & Changes

BOARD OF COMMISSIONERS

- Establish policies and programs for the District
- Promote the District’s legislative program with the state and federal governments
- Provide a forum to encourage community participation

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Major Initiatives & Changes

TREASURY

- Add Value through the issuance of RFPs for professional services, financial tools to maintain and ensure financial stability, and innovative debt and investment management ideas to create greater returns on taxpayers' assets
- Commit to Excellence through responsible management of assets, ensure compliance with federal laws and state statutes, and fulfill pension and OPEB funding policy goals
- Develop Employees through attendance at conferences and cross-training
- Special Projects:
 - Administrative Procedures and legal and financing documents that define the Local Government Loan Program
 - Procedures to define disclosure requirements for bond issues and post-issuance compliance regulations

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2017 Budget

MOVING DOWN THE TRACK

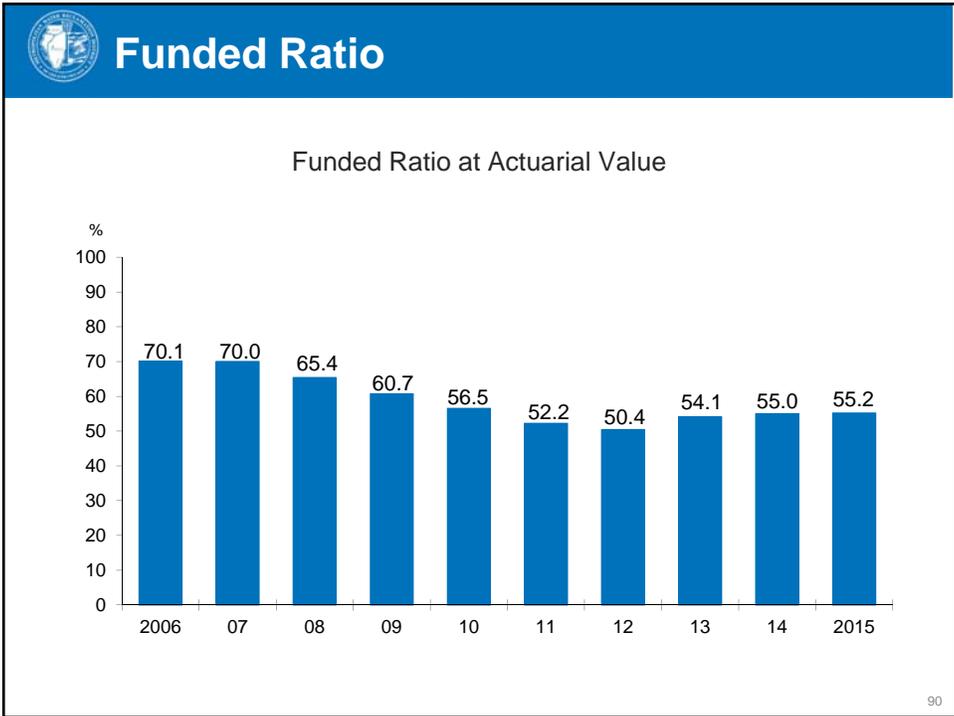
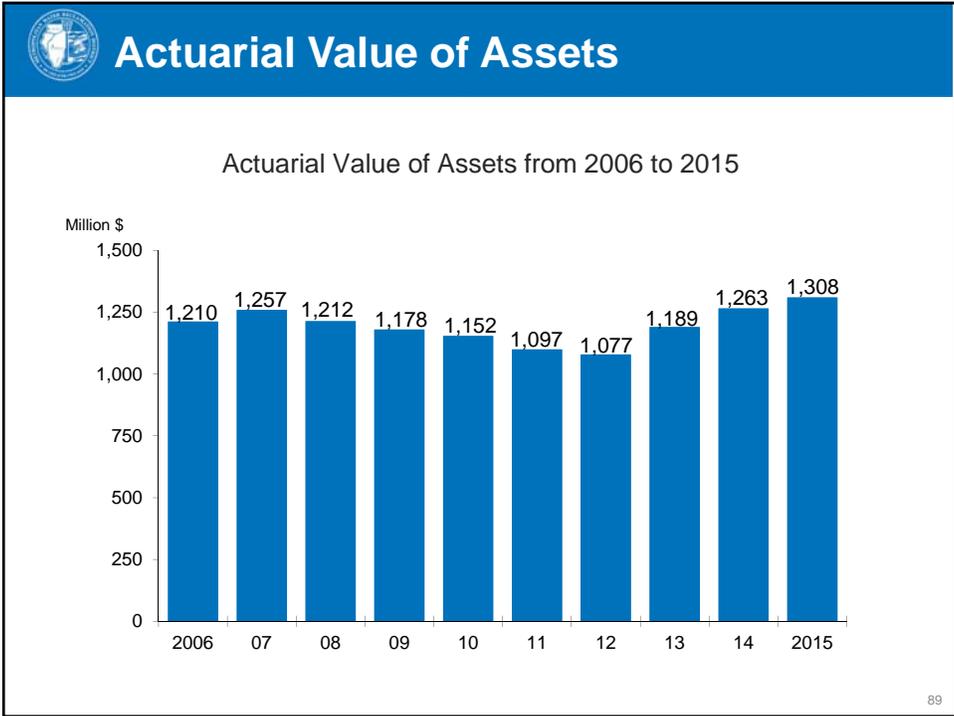
Metropolitan Water Reclamation District of Greater Chicago

Retirement Fund

Executive Director's Budget Recommendations

Susan Boutin

Executive Director, Metropolitan Water Reclamation District Retirement Fund



 **District Retirement Obligations**

As of December 31, 2015

| | |
|--|----------------|
| Actuarial Value of Assets | \$1.3 billion |
| Total Actuarial Liability | \$2.4 billion |
| Funded Ratio | 55.2% |
| 2016 Actuarially Determined Contribution | \$64.6 million |
| 2017 Expected Employer Property Tax Levy | \$79.5 million |

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 **2017 Budget**
MOVING DOWN THE TRACK



Any Questions?