



***Maintenance and Rehabilitation of
the MWRD's Conveyance System***

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Regulations

NPDES Permits -

- New special conditions in all draft permits regarding excessive I/I reduction, SSOs, and CMOM
- CMOM Program/Plan (develop within 12 months of effective date of permit)
 - *Measures and Activities*
 - *Design and Performance Provisions*
 - *Overflow Response Plan*
 - *System Evaluation Plan*
 - *Reporting and Monitoring Requirements*
- Ensure facilities are capable of performing up to design specifications
- CMOM requirements to be included in future municipal CSO NPDES permits

Regulatory Compliance

- **CMOM Program/Plan**

- **Based on MWRD's CSO O&M Plan (still in draft phase)**
- **Interceptor Inspection and Rehabilitation Program (currently updating) – GIS Integration**
- **Additional I/I reduction programs to supplement Sewer Summit Agreement**



MWRD's

Interceptor Inspection and Rehabilitation

Program (IIRP) - I

- **Physical Inspection of Interceptors - 5-yr cycle**
- **TV Inspection**
 - 3-yr Cycle – Older and deterioration-prone segments**
 - 10-yr Cycle – New and sound segments**
- **Development of sewer rehab/replacement projects**

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Interceptor Inspection and Rehabilitation

Program (IIRP) - II

- **CCTV Inspection**
- **Physical entry**
 - ***Scaling, Spalling, Pits, Cracks, Erosion***
 - ***Joint Displacement***
 - ***Exposed Rebar***
- **Coordination with Engineering Department**
- **Selection of Rehabilitation Method**
 - ***Grouting***
 - ***Lining***
 - ***Replacement***

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Interceptor Inspection and Rehabilitation Program

(IIRP) - III

- **Interceptor systems O&M**
 - Three MWRD teams (48 employees)**
 - 7-9 contracts for inspection and maintenance (\$2-million)**
- **Annual expense for conveyance & TARP system O&M**
 - \$30 –million (non-personnel)**
- **Capital improvement projects**
 - Past 7 years - 17 projects, cost \$219 –million**
 - In near future - 3 projects, cost \$40 –million**
 - In the pipeline - additional 5 projects, cost \$65 –million**

MWRD Conveyance System Assets

	North Side Basin	Stickney Basin	Calumet Basin
Interceptors 6" to 96"	177 miles	97.1 miles	157 miles
Interceptors greater than 96"	10 miles	66.6 miles	28 miles
Local Sewer / Interceptor Connections	580+	900+	440+
Tide Gates	111	273	81
Tarp Control Structures	60	143	99
TARP Shafts	72	135	52
Pumping Stations	7	6	9
Reservoirs	22	4	9
Instream Aeration or SEPA Stations	2	0	5

Features of Local Sewers and MWRD Interceptors

Municipal Local Sewers

- **Smaller diameter pipes**
- **Many private service connections (citizens own laterals)**
- **Pipe materials and joints – concrete, clay, PVC...**
- **Typically circular pipes**
- **Shallow depths**
- **Fats, oils, and grease (FOGs) impacts**

MWRD Interceptors

- **Larger diameter pipes**
- **Municipal sewer connections**
- **Large percentage of cast-in-place pipes (fewer joints)**
- **Circular and horseshoe-shaped pipes**
- **Deeper pipes**

Questions?

