

WHAT'S IN IT?

A Discussion of the Development of Pollutant Limits and Contaminants of Emerging Concern

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Local Limits Overview

- Local limits are standards that are set by the local POTW that establish the concentration of pollutants that may be discharged into the sewer system by permitted industries
- Required by the EPA through MWRA's NPDES Permit (40 CFR 403)

Local Limits Overview (cont.)

- Local Limits Are Designed to:
 - Prevent pass-through and interference at the treatment plant
 - Ensure protection of worker health and safety
 - Protect the receiving waters
 - Improve opportunities for sludge reuse
 - Protect the sewerage system infrastructure

Goals of Local Limits Analysis

- Develop technically defensible industrial discharge limits for heavy metals, organics, and other material discharged into the sewer system
- Identify other parameters or industry groups that should be regulated in order to reduce concentrations of pollutants coming into the treatment plant

Goals (Cont.)

- Recommend control measures for non-regulated sources that might be contributing significant amounts of pollutants of concern to the MWRA system

Overview of the Local Limits Development Process

Data Collection and Review

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graph TD; A[Data Collection and Review] --> B[MAHL Calculations and Influent Loadings Analysis]; B --> C[Loading Allocations for Targeted Pollutants]; C --> D[Development of Revised Local Limits];
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MAHL Calculations and Influent Loadings Analysis

Loading Allocations for Targeted Pollutants

Development of Revised Local Limits

Data Used in Local Limits Development

- Permitted Industrial
- Residential
- Commercial
- Infiltration
- Influent
- Effluent
- Residuals
- Plant Emissions

Loading Allocation Options

- Traditional Allocation Method
 - Focus Only on Permitted Industries
 - Assumes residential, commercial, I/I “uncontrollable”
- Alternative Allocation Approaches
 - Examine Potential Reductions From All Sources
 - Target Cost-Effective Reductions
- MWRA uses a hybrid approach

Emerging Contaminants

- Endocrine Disrupting Compounds
 - Personal care products
 - Pharmaceuticals
 - Unused disposed of down the drain
 - Excreted
- Microbeads

What Do We Know?

- Amounts in:
 - Wastewater?
 - Residuals?
- Potential Impacts?
- Control approaches?