

# Local Limits and Domestic Sampling Programs





THE CITY OF  
**COLUMBUS**  
ANDREW J. GINTHER, MAYOR

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City of Columbus  
Pretreatment Program Manager

# Local Limits and Domestic Sampling Programs

1. Why We Create Local Limits
2. Gathering Information for Local Limits
3. What Local Limits Mean for our Communities

# Local Limits and Domestic Sampling Programs

## 1. Why We Create Local Discharge Limits

# Local Limits and Domestic Sampling Programs



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No known pictures exist of the June, 1969 fire; but it could have looked like this August, 2015 river fire in Moscow

# Local Limits and Domestic Sampling Programs



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Cuyahoga River Fire, 1952

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CBS NEWS June 17, 2015,  
Toxic algae bloom in Pacific Ocean could be largest ever

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Louisville, Kentucky

# Local Limits and Domestic Sampling Programs

- What Are Local Discharge Limits?
- Basically, a Local Limit is a numerical value representing the maximum allowable concentration of a given pollutant that can be safely and effectively treated and/or removed at the wastewater treatment facility.
- Local Limits are designed to keep the POTW safe while allowing for the reuse and recycle of treated wastewater and biosolids.
  
- The City of Columbus Local Limits are:

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- What Are Local Discharge Limits?

Pollutant	Maximum Composite Sample ug/l	Maximum Daily Mass Grams/day
Arsenic	1,000	38
Beryllium	Non Detect	Non Detect
Cadmium	500	19
Chromium, total	20,000	757
Chromium, hexavalent	No Limit	No Limit
Copper	2,700	102
Cyanide	5,000	189
Hydrocarbon FOG	200,000	7573
Phenol	No Limit	No Limit
Bis(2ethylhexyl)Phthalate	No Limit	No Limit
Lead	4,000	151
Mercury	20	1
Molybdenum	No Limit	No Limit
Nickel	5,000	189
Selenium	10,000	379
Silver	3,000	114
Zinc	5,500	209

# Local Limits and Domestic Sampling Programs

## Why Are Local Discharge Limits Necessary?

- Title 40 Code of Federal Regulations (CFR) 403 General Pretreatment Regulations for Existing and New Sources of Pollution
- 40 CFR 403.1 – Establishes the responsibility of Government and Industry to implement National Pretreatment Standards to:
  - A) Prevent the introduction of pollutants into POTWs which will interfere with the operation of a POTW, including interference with its use or disposal of municipal sludge
  - B) Prevent the introduction of pollutants into the POTWs which will pass through the treatment works...
  - C) Improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.

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## Why Are Local Discharge Limits Necessary?

- 40 CFR 403.5 National pretreatment standards: Prohibited Discharges
  - (a)(1) *General Prohibitions*. A User may not introduce into a POTW any pollutant(s) which cause Pass Through or Inteference.
  - (b) *Specific Prohibitions*. In addition, the following pollutants shall not be introduced to the POTW:
    - *Wastes which cause fire, explosion or corrosive hazards*
    - *Wastes which cause obstructions*
    - *Wastes which cause excessive heat, toxic gases, vapors or fumes*
    - *Wastes with high strength (BOD, TSS, TKN, etc.) or high flows*
    - *Oils; petroleum or mineral*
    - *Unauthorized hauled or trucked waste*

# Local Limits and Domestic Sampling Programs

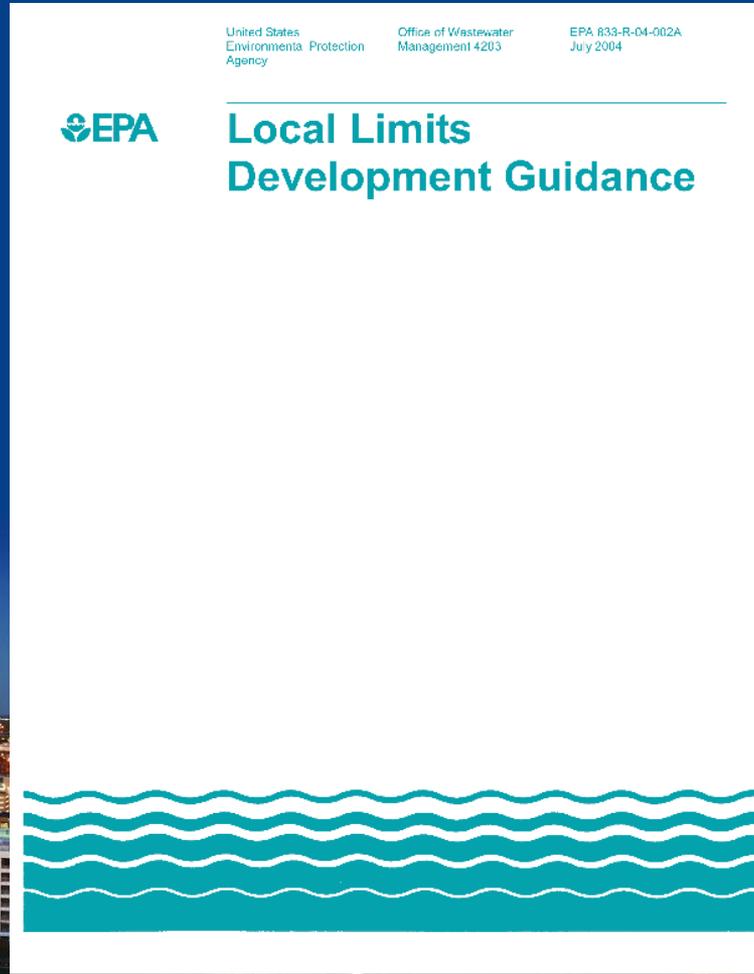
## Why Are Local Discharge Limits Necessary?

- 40 CFR 403.5 National pretreatment standards: Prohibited Discharges
  - (c) When specific limits must be developed by POTW. (1) Each POTW developing a POTW Pretreatment Program pursuant to 40 CFR 403.8 shall develop and enforce specific limits to implement the prohibitions in paragraphs (a)(1) and (b) of this section.
  - IF a POTW has an Approved Pretreatment Program, Local Limits are always a requirement of your NPDES Permit.
  - IF a POTW does not have an Approved Pretreatment Program, Local Limits will be developed by the OEPA.
  - Generally, Local Limits must be reviewed and technically justified at a minimum of every 5 years.

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## 2. Gathering Information for Local Limits

# Local Limits and Domestic Sampling Programs



# Local Limits and Domestic Sampling Programs



City of  
Columbus, Ohio

Department of Public Utilities

Division of  
Sewerage and Drainage

## Domestic Sampling Plan for Local Limits

April, 2010

Prepared by:  
Jeffrey L. Bertacchi  
Pretreatment Program Manager

# Local Limits and Domestic Sampling Programs

## 3. What Local Limits Mean for our Communities

# Local Limits and Domestic Sampling Programs



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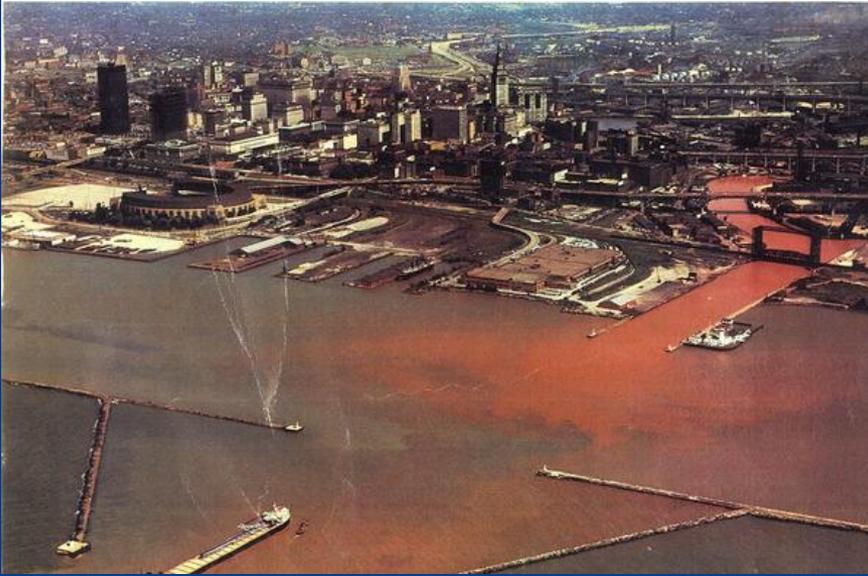
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An Entertainment Complex on the  
Cleveland Waterfront

# Local Limits and Domestic Sampling Programs



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Downtown Cleveland Waterfront  
Then & Now

# Local Limits and Domestic Sampling Programs



# Local Limits and Domestic Sampling Programs



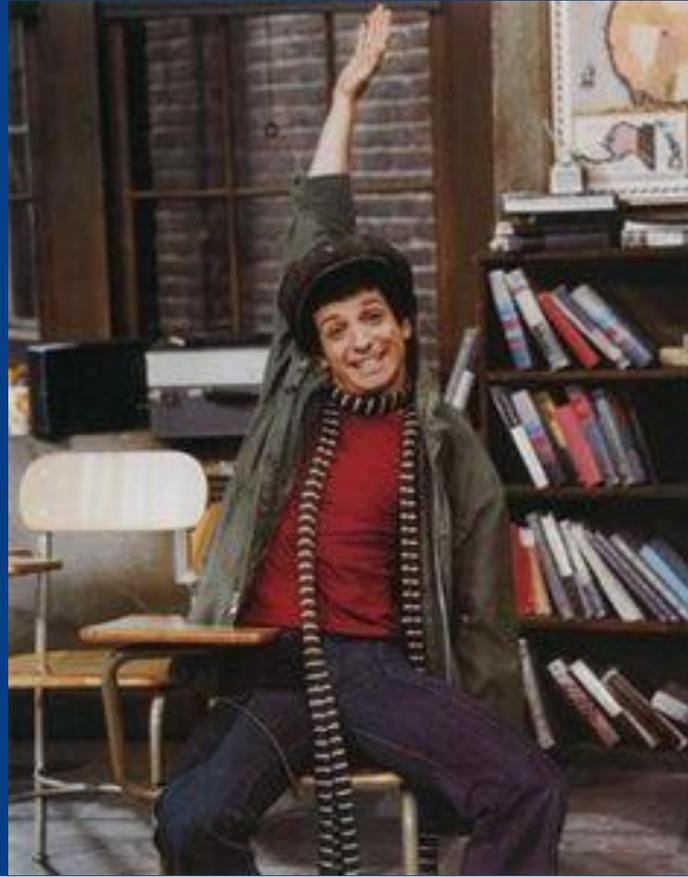
# Local Limits and Domestic Sampling Programs



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**WHY?**

**HOW MUCH?**

# Local Limits and Domestic Sampling Programs

## USGS Figures:

332.50	Million Cubic Miles of Water in the World
1,100,000,000,000.00	Gallons in a Cubic Mile (1.1 Trillion)
365,750,000,000,000.00	Gallons of Water in the World (365.75 Quadrillion)
7,515,284,153.00	Population
48,667.49	Gallons of Water per Person
25.00	Gallons per Day / per Person
365.00	Days per Year
9,125.00	Gallons per Person / per Year
<b>5.33</b>	<b>YEARS TO RECYCLE ALL WATER</b>

<http://www.worldometers.info/world-population/>

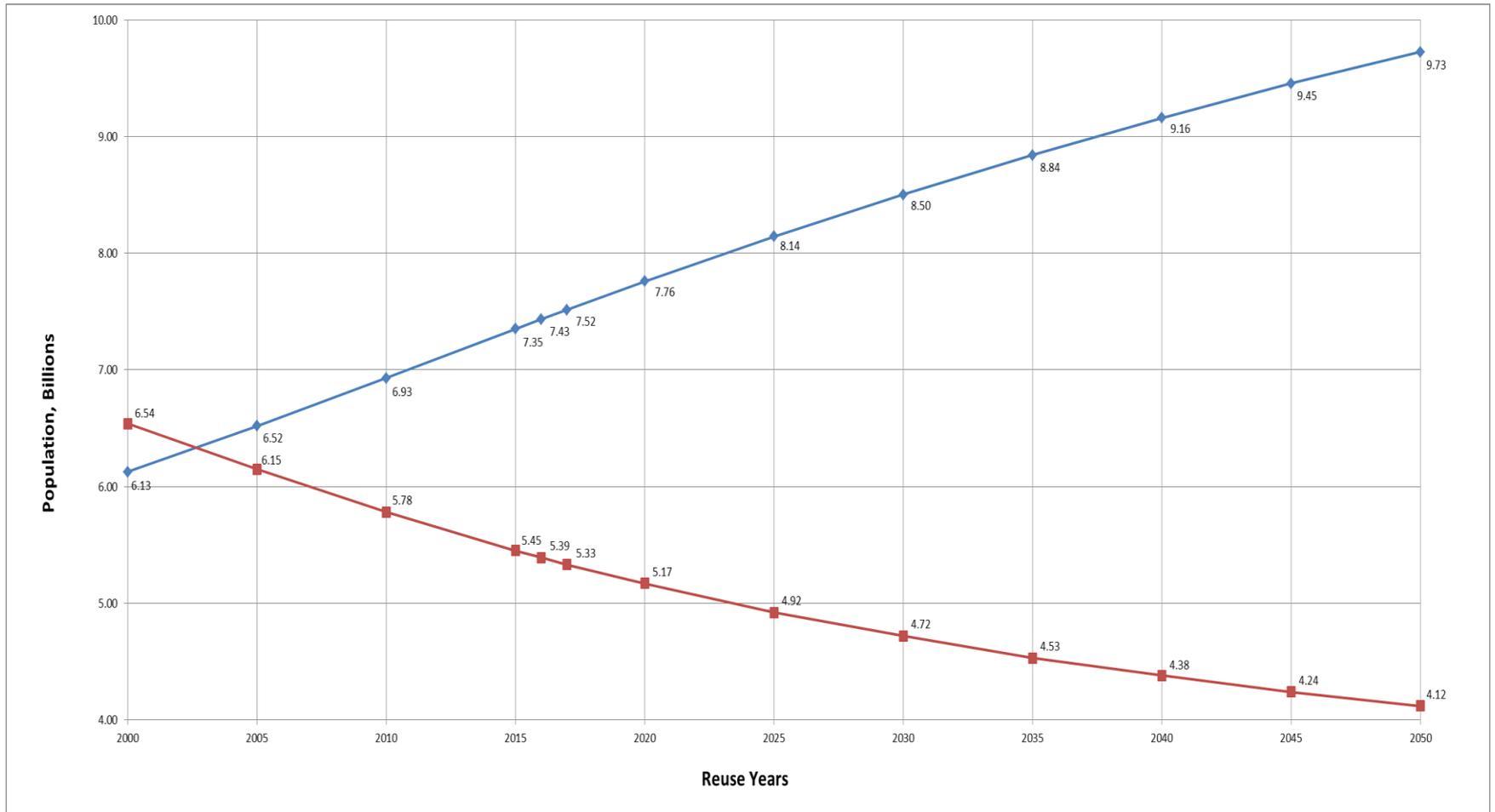
## World Population (2017 and historical)

Year	Population
2017	7,515,284,153
2016	7,432,663,275
2015	7,349,472,099
2010	6,929,725,043
2005	6,519,635,850
2000	6,126,622,121

## World Population Forecast

Year	Population
2020	7,758,156,792
2025	8,141,661,007
2030	8,500,766,052
2035	8,838,907,877
2040	9,157,233,976
2045	9,453,891,780
2050	9,725,147,994

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**QUESTIONS:**

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