

Municipal and Industrial Wastewater Treatment 60 Years of Progress

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While doing a little pre-Spring house cleaning, a function which I usually perform every 10 years (creative minds are rarely tidy), but now essential for my retirement on May 1st of this year, I happened upon an old Department of Public Health Record of Sewerage Works for both municipal and industrial facilities dated January 1, 1947. Since this publication was the date of my birth, and I am retiring, I reflected on the accomplishments made in this field since my birth and the time of my employment with the Departments infant agency AWIC in 1972. In reviewing the document summary, you can truly understand the accomplishments made in water pollution control field over the past 60 years (I don't feel that old except for the graying hair, limited vision, and numerous senior moments). The most striking observation was the number of raw (untreated) discharge outfalls, septic and imhoff tanks which totaled 191, and 122, respectively. A detailed summary is shown below:

Population Served:	1,126,005
No. Raw Outfalls:	191
No. Pumping Stations:	14
No. Septic Tanks:	92
Pre-chlorination:	21
Post-chlorination:	21
Coarse screens:	31
No. Grit chambers:	12
No. Imhoff tanks:	30
No. Primary Clarifiers:	43
No. Secondary Clarifiers:	25
No. Digesters:	39
Trickling Filters:	28
Sludge Beds:	53

IMPROVEMENTS IN MUNICIPAL WASTEWATER TREATMENT OVER 60 YEARS OF PROGRESS 1947-2007

Year	Major State and Federal Legislation	Number and Type of Facility
1947	State Created AWIAC	131 Municipal Sewer Systems 11 Biological Treatment Plants 6 Primary Plants 55 Community Septic Tank Systems 18 Community Imhoff Tank Systems
1953	State Created AWIC	165 Raw Sewage Outfalls
1964		167 Municipal Sewer Systems 128 Biological Treatment Plants
1970	EPA Created	128 Biological Treatment Plants
1971	State Water Pollution Control Act 1260	53 Primary Plants
1972	Federal Water Pollution Control Act	31 Raw Sewage Outfalls
1977	The Clean Water Act	
1982	State Created ADEM under Act 82-612	
1987	Water Quality Act of 1987	
1988	Municipal Compliance Deadline	182 Municipal Sewer Systems 250 Biological Treatment Plants 1 Community Imhoff Tank System 1 Community Onsite Septic Tank System
2007**		243 Municipal Sewer Systems 308 Biological Treatment Plants

**Over 60% of state's population now on Public Sewer System

**Also, 240 semi-public and private 91 WTP's, and 40 MS4 storm water under NPDES permits

Times have surely changed and I think you will agree for the better. The chart depicts the strides made by municipalities over those 60 years as major state and federal legislation spawned the various regulatory agencies such as EPA and ADEM which led to these improvements. A