The Lima Story: First Integrated Plan Approval in Ohio and USEPA Region 5

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> OWEA Annual Conference June 24, 2015

Let's take a look at the City of Lima

- Service Population/Accounts
 - Sewer 47,920/16,000
- Sewer Collection System
 - 251 miles of sewer lines (60% combined)
 - 20 Combined Sewer Overflows
 - 32 Sanitary Sewer Overflows
 - 25 pump stations
- Wastewater Treatment Plant
 - Average dry weather flow capacity of 18.5 MGD (tertiary with P removal);
 - Peak flow capacity of 96.0 MGD (under construction)
 - Peaking Factor greater than 5





- 20 Combined Sewer Overflows (CSOs)
- 32 Sanitary Sewer Overflows (SSOs)

- Stormwater Utility
- Water Supply **System**

The Problem: Lima LTCP History



Lima's LTCP History



Lima's LTCP History



City Submits Revised LTCP	EPA's Integrated Planning Approach Concept Revealed			City Submits Revised LTCP Lima Presents Integrated Planning Approach to USEPA, HQ				Submits ed LTCP	
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Lima's LTCP History



Burden will be on the Ratepayers



Lima Faces Extreme Economic Challenges

- City population: 38,838 and declining
- Wastewater utility service area population ~47,920
- City MHI \$26,943 and declining
 - this is \$3,607 *below* the Ohio Very Low Income (VLI)
 Threshold of \$30,550 (50% of Ohio MHI)
- 34.7% of City residents below poverty level
- Unemployment 20.2% (2X Nat'l Avg.)

The Solution: Integrated Plan

- Fund Projects with Greatest Benefits
- Schedule and Plan Flexibility
- Partners vs. adversaries



History of Integrated Planning (IP)

- Inflexible EPA positions on decrees, Long-Term Control Plans, SSOs, other CWA issues
 - 2% of MHI / 20 years / 4 overflows per year
- Communities faced substantial costs without significant improvements to water quality
- WEF, NACWA and US Conference of Mayors voiced concerns to EPA EPA not using the flexibility in existing Agency policies
- Communities need to be able to determine how to maximize environmental benefit of their CWA actions given limited resources

Development of Integrated Planning (IP) Framework

- Memo issued Oct. 27, 2011 by Office of Water and Office of Enforcement
 - Stated EPA intention to develop integrated planning framework
 - Plans should use existing flexibility while maintaining regulatory standards
 - A municipality's ability to pay should consider ALL Clean Water obligations
- Final framework issued June 5, 2012
- Communities are now developing or considering integrated plans in OH, MA, IN, MD, RI, CO, NH, NY, MO, TX and other States

Integrated Plan is a "Leap of Faith"

- EPA realize there are financial implications to municipalities
- Municipalities demonstrate the cost-benefit
- Stakeholders Support the plan that is best for the community



The Benefits: A Cost-Effective Roadmap to a Sustainable Utility

- Integrates a Utility Plan with wastewater, stormwater for new and existing infrastructure
- Optimizes capital and environmental benefits
- Stretching out schedule reduces rate payer impacts



The Benefits: A Cost-Effective Roadmap to a Sustainable Utility

- Flexibility to changing regulations, economics and political conditions
- Partnerships with regulators, other stakeholders
- Existing Capital Improvement Plan verification



Lima's Proposed Integrated Plan

Economic Challenges

 Median Household Income has declined dramatically in recent history



Economic Challenges

 Sewer usage has also been steadily declining



Affordable Implementation of Plan Based on Optimistic Economic Conditions

Peak Growth, Average Inflation



Peak Historical Annual Growth:

MHI: 2.11% (Hist. Annual Average ('00-'10): 0.43%) Usage: 1.57% (Hist. Annual Average ('03-'12): -1.9%)

Average Historical Annual Inflation:

Construction: 2.60% (ENR-CCI 5-Yr Avg ('05-'10) Cinci & Detroit) O & M: 3.07% (City 10 Year '03-'12 Avg)

Lima Agreement – Key Aspects

- Consent Decree filed on Nov. 19, 2014
- Consent Decree and Integrated Plan (LTCP) final into Federal Court Jan.13, 2015
- Schedule extends into 2038
- Sequenced to achieve greatest environmental benefits first
- Bonding cycles affected schedule
- Reopeners for affordability, affecting schedule and changes in controls
- Also reopener for adaptive management, green infrastructure, and economic reasons

Lima Agreement – Key Aspects

- Integrates WWTP, CSO, and SSO issues as well as asset management and stormwater system improvements:
 - Early Action Projects
 - Increase WWTP capacity first
 - Then implement CSO controls to achieve 97.5% capture
 - Finally, implement SSO abatement for a level of control design storm
 - Annual renewal and replacement program to maintain deteriorating system
 - Annual stormwater system improvements to address quality and quantity issues

Elements of Lima Plan/Decree

- Treatment plant upgrade to expand wet weather capacity – done in 4 years
- CSOs target of 5 overflows/year, reached in 10 years
- SSOs different design storms for different basins (5year or 25-year) – done in 24 years
- Civil penalty of \$49,000
- SEP of tree planting along Ottawa River \$218,400 cost



Proposed Integrated Plan

- Total cost \$147.6 million over 28 years (2011 \$)
- \$87 million to be spent in first 12 years (2011 \$)
- 2.58% MHI per EPA guidance
 - Over 4% for more than one third of Lima's families



Proposed Improvement Costs

CSO Improvements	\$40.73 million
13 mg CSO Tank + 30 mgd Pump Station	\$36.84 million
Upstream Sewer Separation)	\$2.88 million
RTC Improvements	\$1.01 million
WWTP Improvements	\$29.21 million
Headworks, Primaries (53 mgd)	\$19.33 million
Interceptor (96 mgd)	\$2.99 million
Peak Wet Weather (70 mgd)	\$6.89 million
SSO Abatement Improvements	\$30.33 million
Allentown Rd.	\$7.15 million
West St.	\$ 5.33 million
Koop Rd.	\$ 7.54 million
Lost Creek	\$ 5.14 million
Cole St.	\$ 2.91 million
Findlay Rd.	\$ 2.06 million
Fifteenth St.	\$ 0.20 million
Asset Management (\$1.3M/Year)	\$30.80 million
Stormwater (\$0.6K/Year)	\$16.54 million
Total	\$147.61 million

Lima Reopener Language

 Notwithstanding anything else in this Decree, Lima may propose, and the United States and the State may consider, any amendments to Appendix A to accommodate changed circumstances that may include but are not limited to: (i) financial and budgetary considerations identified in Appendix D; (ii) adaptive management considerations yielding equal or better environmental outcomes than particular projects identified in Appendix A; and/or, (iii) green infrastructure projects.

Lima Appendix D Factors

- Any factor referenced in U.S. EPA's "Combined Sewer Overflows Guidance for Financial Capability Assessment and Schedule Development," EPA 832-B-97-004, published February 1997 ("FCA Guidance"), including but not limited to the Residential Indicator (the cost per household expressed as a percentage of the Median Household Income for Lima's service area);
- Economic conditions and trends, such as service area poverty levels;
- Service area unemployment data and trends ;
- Service area population data and trends;

More Lima Appendix D Factors

- Service area size, including any changes in size or boundaries such as realignment of part of the service area to Allen County or other service providers;
- Service area revenue data and trends, including changes such as water conservation efforts;
- Lima's account base data and trends, including changes such as closure of major industrial or institutional wastewater accounts;
- Changes in the costs of wastewater operations;

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