



SD1 of Northern Kentucky *“Our Consent Decree Story”*

NACWA Consent Decree Handbook Workshop
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Deputy Executive Director



April 30, 2014

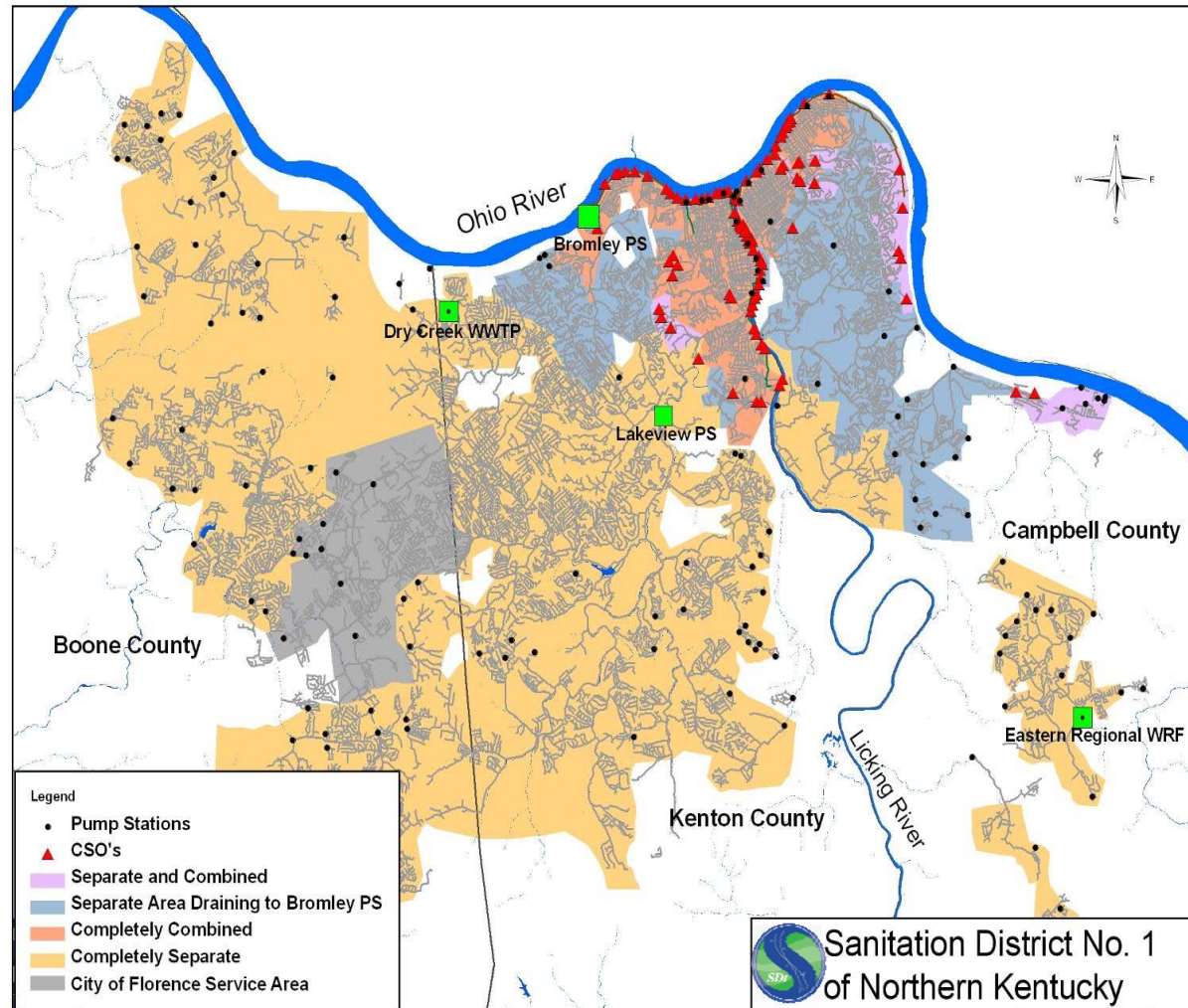
SD1 of Northern Kentucky

"The Southern Side of Cincinnati"



SD1 Facts

- Total service area ~ 229 sq miles
- CSO area 12 sq miles
- >1,600 miles of sewers
- 134 pump stations
- 3 regional treatment facilities



SD1's Customer Base

- 102,000 Wastewater Accounts
- 94,500 Storm Water Accounts

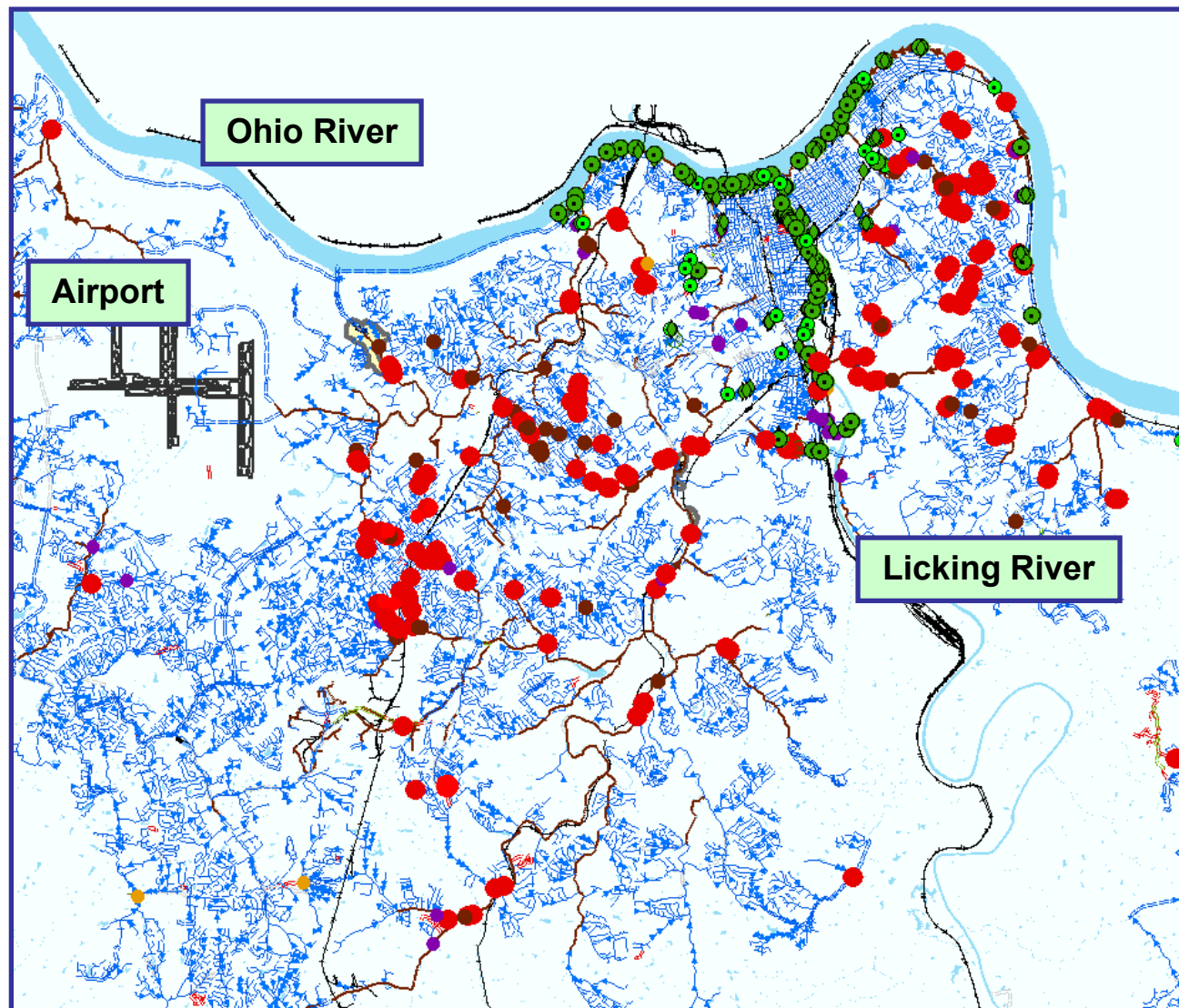


Primary Challenges

- Combined Sewer Overflows
 - 95 CSO Locations
 - 1.8 Billion Gallons Annually
- Sanitary Sewer Overflows
 - 166 SSO Locations
 - 200 Million Gallons Annually
- Storm Water Runoff (MS4 & NPS)
 - Flooding
 - Hydromodification
- Impaired Waters
 - Primary Pollutants of Concern (Bacteria, Solids & Nutrients)



SSO & CSO Locations



Regulatory Storm was Approaching



SD1's Situation

- Significant number of documented CSOs and SSOs
 - Sierra Club sued Cincinnati MSD in Federal Court for same violations
- May 2004 - received CWA 308 letter from USEPA
- Began discussions with Kentucky DEP to create state-based, flexible resolution of issues
- Due to length of proposed implementation schedule, USEPA got involved
- August 2005 - received 60-day Notice of Intent to sue letter from Sierra Club
- Delaying a resolution would have resulted in a citizen lawsuit, larger civil penalty, daily fines for violations, significant attorneys fees



Bold Leadership was Key



PROTECTING THE ENVIRONMENT SAFEGUARDING PUBLIC HEALTH



Recognized High Cost Burden of Traditional Approaches



Problems Required Innovative Approach



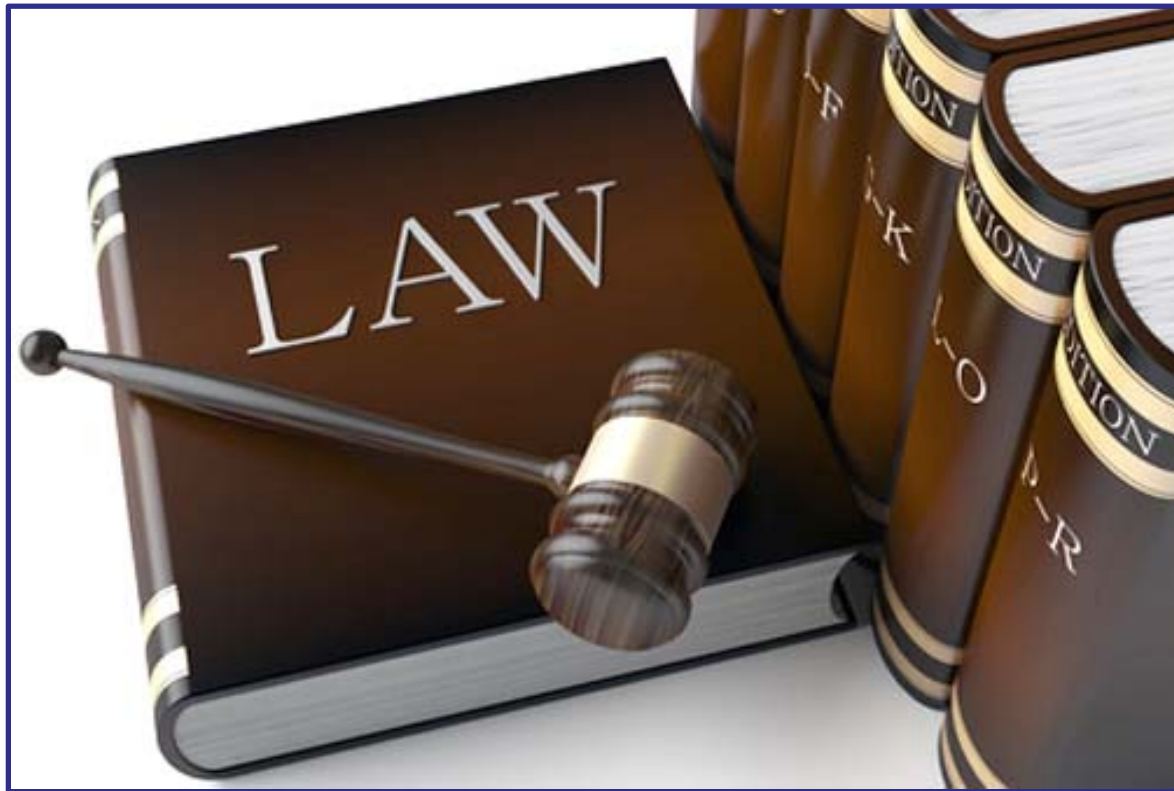
Consent Decree Negotiations with USEPA and Kentucky DEP began in 2005



Initial Consent Decree Negotiations were Tough

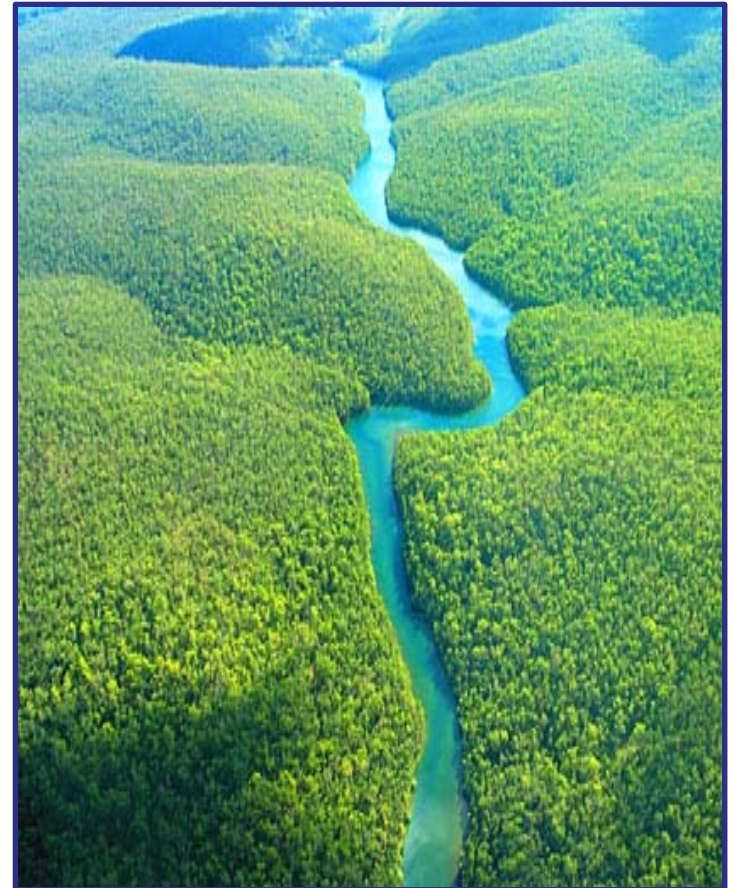


Consent Decree was Lodged with Federal
Court in October 2005 but Challenged
by Sierra Club



Watershed-based Consent Decree

- Consent Decree was entered in Federal Court on April 18, 2007
- SD1 successfully negotiated first Consent Decree based on watershed management!
 - Requires SD1 to improve water quality, eliminate SSOs and comply with the CSO Policy by 2025
 - Watershed management approach allows SD1 to **revise watershed plans every 5 years**



Communication was Key During Development of Watershed Plan



Integrated Watershed Plan Submitted to Regulators in 2009



Resubmitted Integrated Watershed Plan to Regulators in 2011

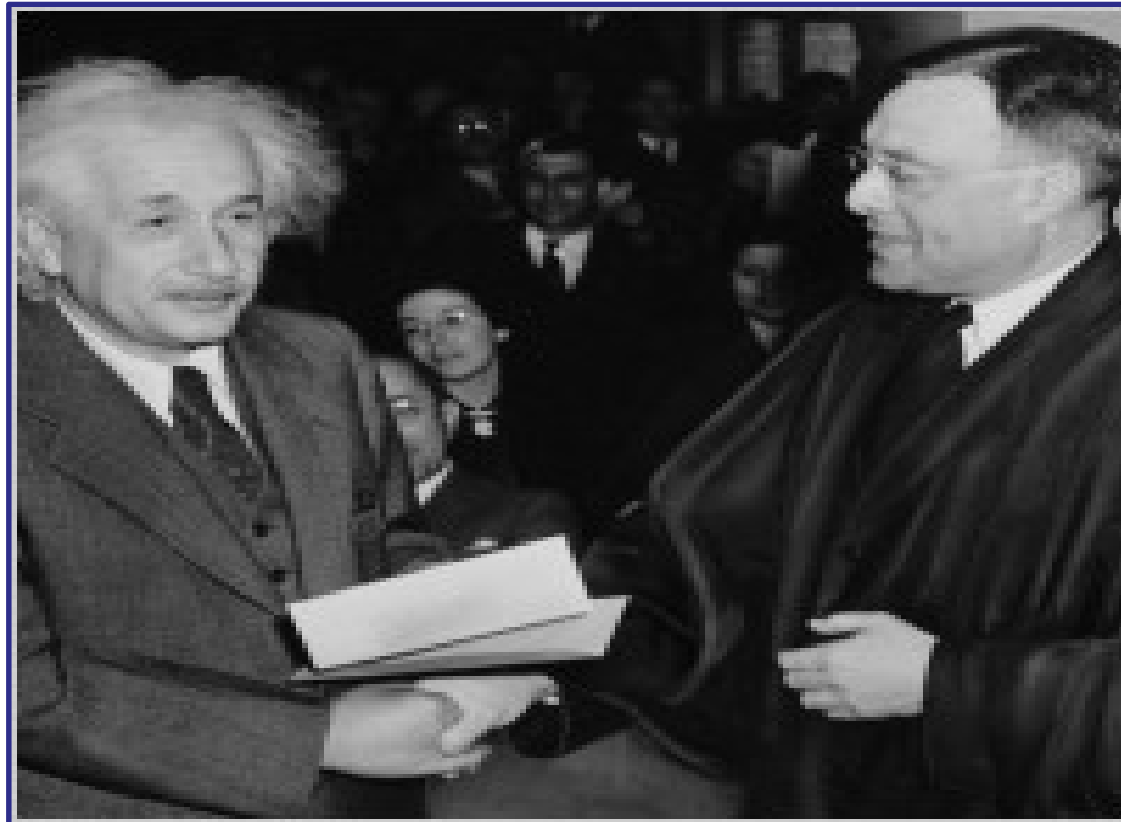
Watershed Plans for Northern Kentucky

Sanitation District No. 1
March 31, 2011



Technical Portion of Integrated Watershed Plan was Approved on February 14, 2014

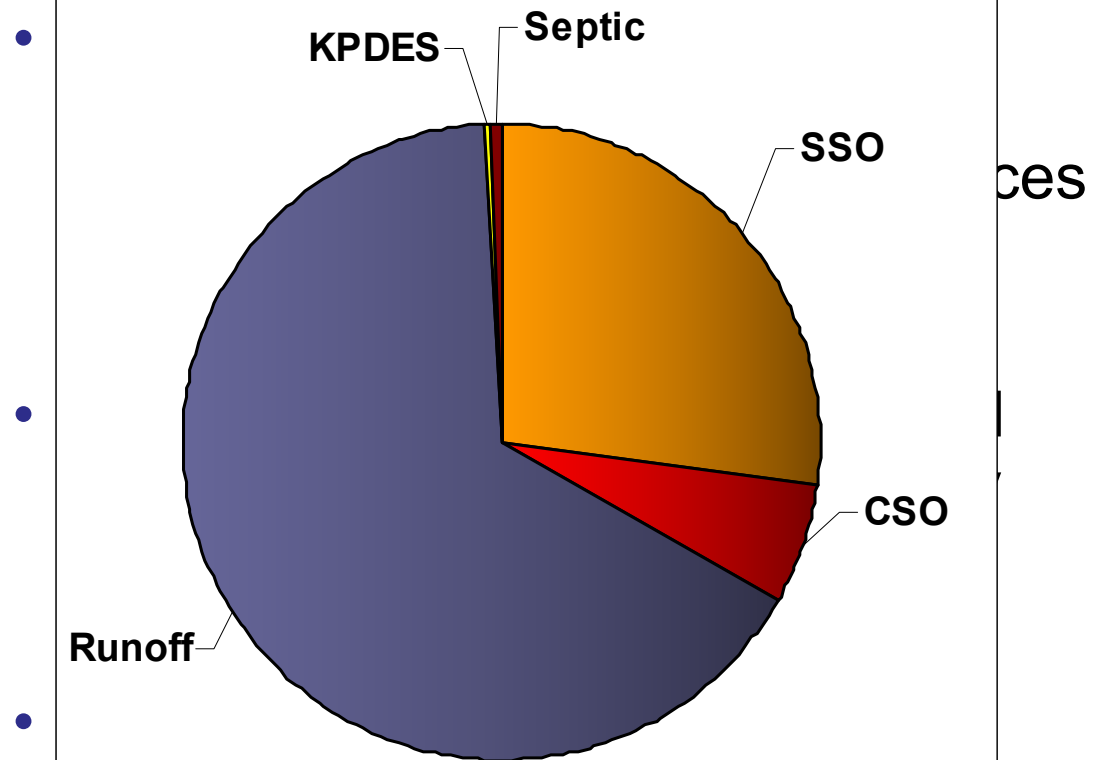
(Pending Federal Judge Approval)



So, what's our plan look like?



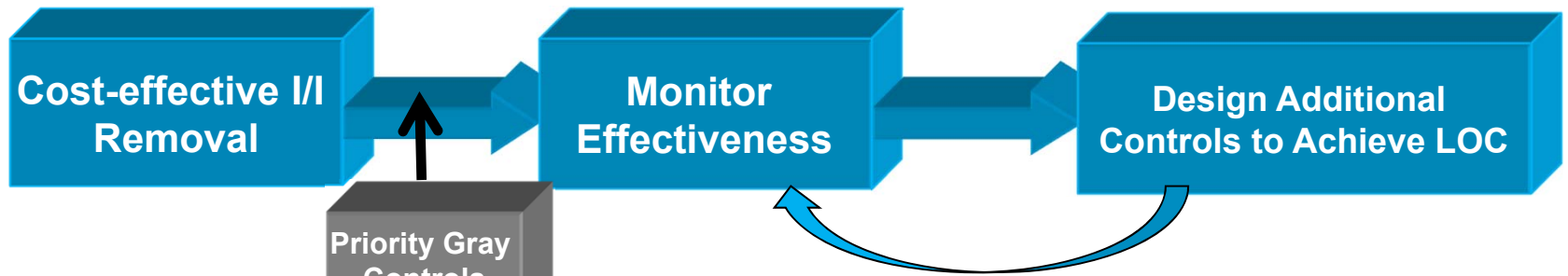
Unique Watershed Based Approach



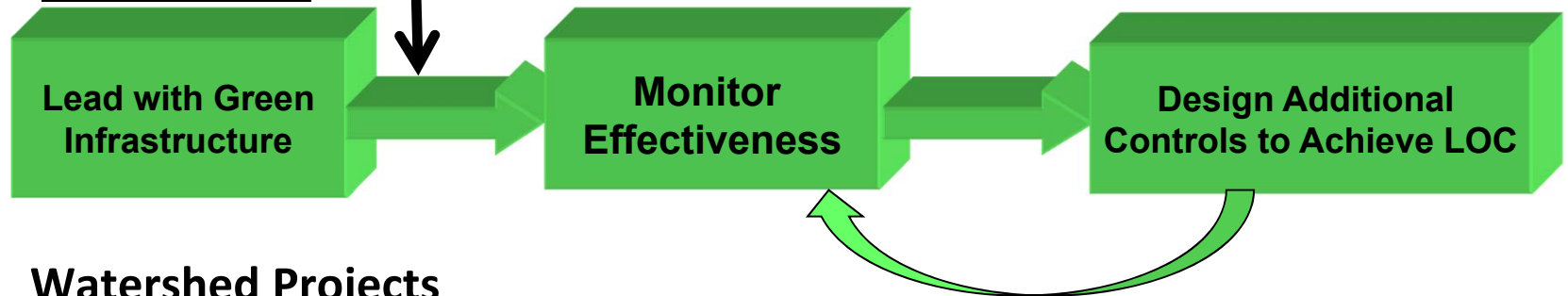
Bacteria sources in Banklick Creek

Integrated Plan Implementation Strategy

SSO Solution



CSO Solution



Watershed Projects



Levels of Control

- SSOs
 - Two-year, six-hour design storm
- CSOs
 - 85% capture
 - Number of overflows
 - 36 Ohio River
 - 24 Banklick Creek
 - 18 Licking River



Good Data Supports Findings





Watershed Impact

Projected System-wide Typical Year Overflow Reduction

Scenario	Approx. System-wide SSO Volume (MG)	Approx. System-wide CSO Volume (MG)
Current Condition	240 MG	1,870 MG
Implementation of Five-Year Improvement Program	135 MG	1,380 MG ¹
Total Reduction	105 MG (44%)	490 MG (26%)

¹ Includes benefits of River Water Intrusion Mitigation, Lakeside Park Sewer Rehab, and Church Street projects begun in five-year improvement program that will extend beyond the first five year period.



Integrated Plan Benefits versus Traditional Plan - Summary

Criteria	Difference
Days of attainment	96 versus 63 (52% more)
% Reduction in bacteria loads	51% versus 47%
% Reduction in nutrient loads	9% versus 2%
Stream miles improved	148 miles versus 64 miles

Despite Technical Approval, Our Negotiations are Not Over



Our Current Plan is Unaffordable!!





Summary of Total Capital Costs for Affordability Analysis

All work done 2009-2025

Cost items	Cost in \$M 2009
Consent Decree Related Projects	\$1,256
Asset Management	\$252
Public Structural Rehabilitation	\$197
Facility Planning Projects	\$254
Committed Capital Projects	\$241
Potential Future Effluent Limits	\$229
Total Costs	\$2,429

Passing Rate Increases Based on 2025 Deadline would be Difficult



Regulators Agree Current Plan is “High Burden” on Customers



More Time is Needed to Make our Plan Affordable



Currently Negotiating Affordability Versus Time Extension



Rate Approval Process Must be Revised



We're Continuing to Forge
Ahead with our Program Because....



We Know We're Doing the Right Thing
for our Community...



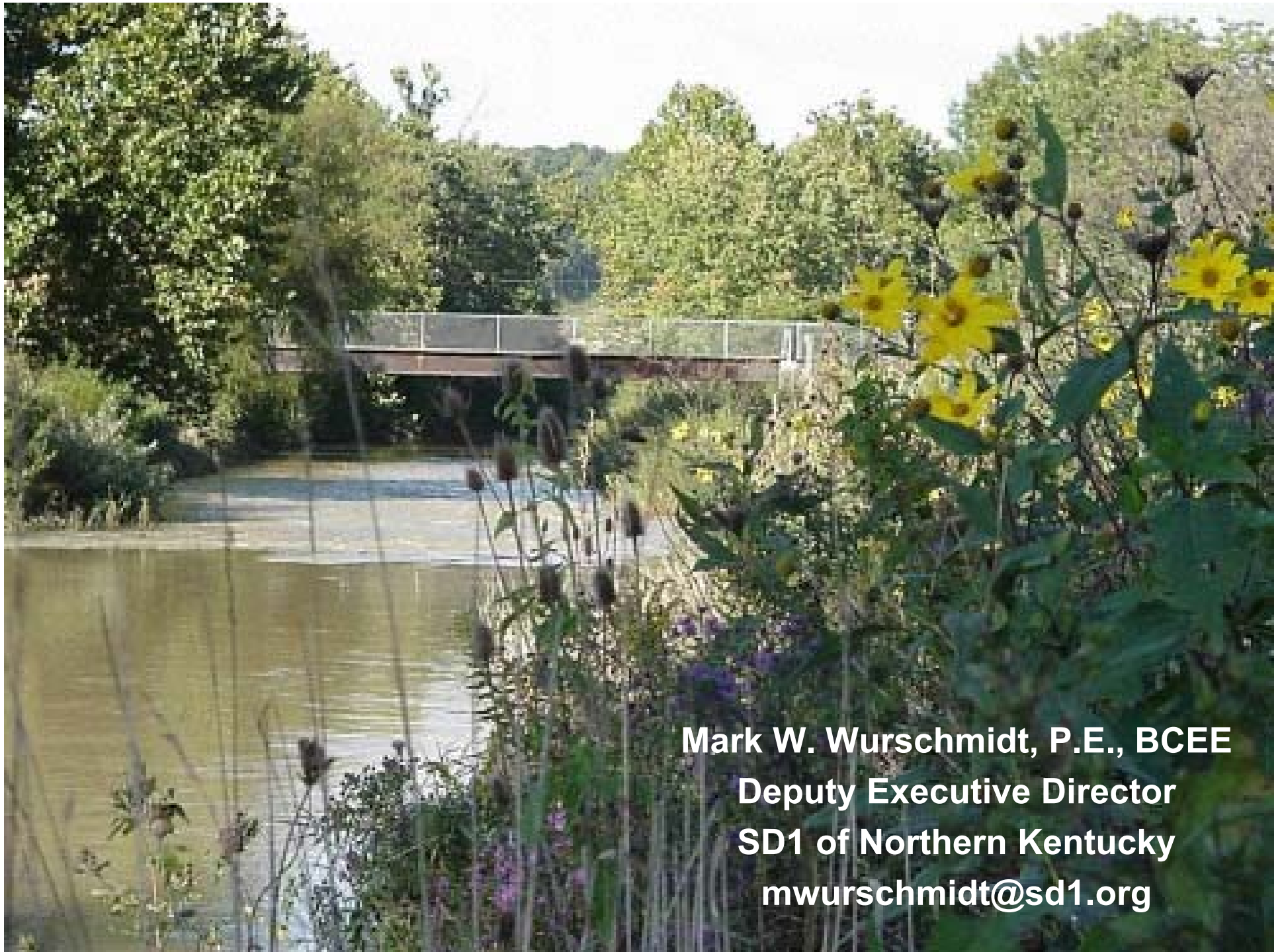
For our Customers...





And, for our Environment





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