IEPA SMALL SYSTEMS COMPLIANCE ASSISTANCE PROGRAM



BACKGROUND: IEPA SMALL SYSTEMS COMPLIANCE ASSISTANCE PROGRAM

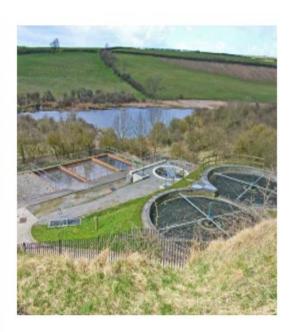
CHALLENGES FACED BY SMALL MUNICIPAL FACILITIES

- Economic/Financial Limitations (MHI 20K-35K)
- Aging or Inadequate Infrastructure (some date to 1960s).
- Inadequate Operation & Maintenance Procedures
- Difficulties Recruiting or Retaining Qualified Staff
- Lack of Training/Poor Understanding of Process Control by the Operator

COMPLIANCE ISSUES

- Systems not designed to meet new limits based on water quality standards
- Chronic SNC Effluent Limit Violations
- Compliance assistance can be a more effective and economical way of achieving compliance and/or improving effluent quality since it does not cause an additional financial hardship. (legal fees and penalties)

PROGRAM GOAL & PURPOSE



Our GOAL: To improve the water quality of our streams, rivers, and lakes by providing compliance assistance to Small Municipal WWTPs.

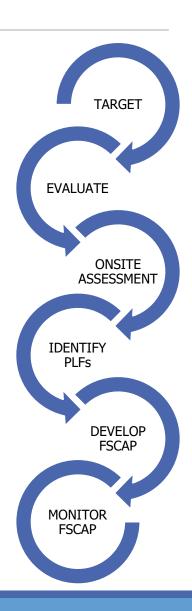


Our PURPOSE: To not only assist small municipal systems in returning to compliance, but provide them with the tools and training to ensure sustained compliance in the future.



OVERVIEW OF INITIAL CONCEPTUAL PROGRAM DESIGN

- 1. TARGET MUNICIPAL SMALL SYSTEMS <3300 POPULATION W/CHRONIC SNC EFFLUENT VIOLATIONS
- 2. COMPREHENSIVE INITIAL EVALUATION
- 3. ASSESSMENT & IN DEPTH ON-SITE EVALUATION
 - Characterization/sizing of facility's treatment units to evaluate capacities and O&M practices
- 4. IDENTIFY PERFORMANCE LIMITING FACTORS (PLFs)
- 5. DEVELOP MULTI PHASED FACILITY SPECIFIC COMPLIANCE ACTION PLAN (FSCAP)
 - Coordinate both internal & external resources to provide assistance
- 6. MONITOR IMPLEMENTATION & EFFECTIVNESS OF FSCAP



MULTI – PHASED FACILITY SPECIFIC COMPLIANCE ASSISTANCE PLAN

PHASE I

Low cost, economical solutions – training, and optimization of current treatment units

Identify Performance Limiting Factors (PLFs), develop process control, optimize O&M and BMPs

Option for Permit or Water Quality Stds Relief

PHASE II

Low budget modifications and/or repairs that may be sufficient to optimize the facilities' operations

Assistance and information regarding potential funding sources will be provided to the facility

PHASE III

Require more costly solutions, such as eliminating inflow and infiltration in their sewer system and/or modifying or adding additional treatment units

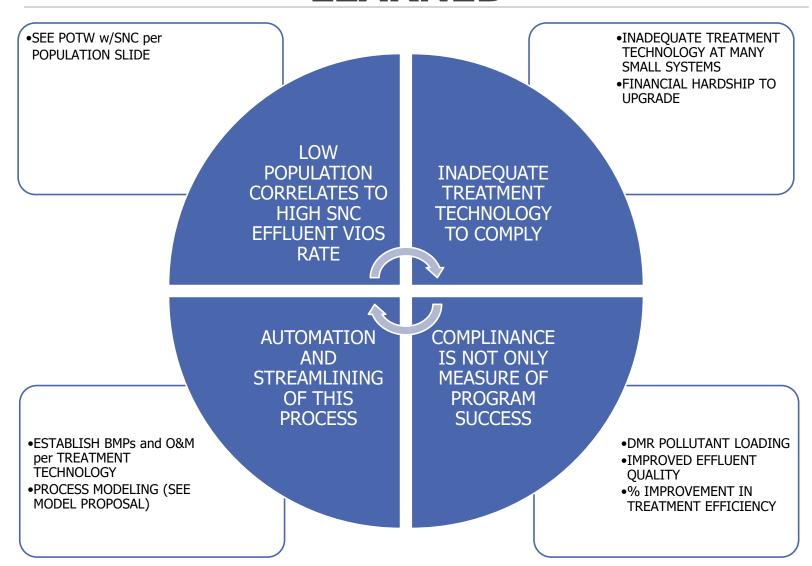
Assistance and information regarding potential funding sources will be provided to the facility

Engineering designs and improvements made to the facility in this phase will be the responsibility of the municipality

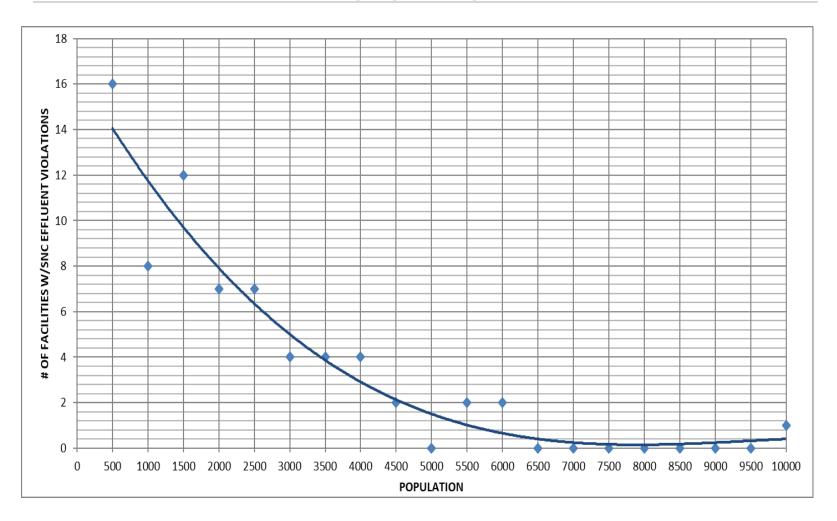
COMPONENTS OF FSCAP — Phase I:

- (1) Facility, Treatment and Compliance Overview
- (2) Regulatory Relief or Regionalization Options
 - ✓ Water Quality Standards relief
- (3) Recommended Compliance Action Plan
 - ✓ O & M improvements + BMPs
 - Process Control
 - ✓ Unit Process Sampling
 - ✓ Laboratory and Record Management
- (4) Training/Assistance
 - Operator
 - √ Reporting/Administrative
 - ✓ Asset Management
- (5) Potential Funding Sources

WHERE WE ARE & WHAT WE'VE LEARNED



NUMBER OF MINOR INDIVIDUAL NPDES PERMITS (POTWs) WITH SNC EFFLUENT VIOLATIONS PER POPULATION



INPUT (Design Criteria, etc) **MODEL** OPTIMAL DISCHARGE **CWA STANDARDS ACHIEVABLE UNACHIEVABLE** Treatment Technology Treatment Technology Adequate Inadequate **DMR DATA** SIMULATION ADD NO AVAILABLE/ COMPLIANT TREATMENT AFFORABLE COMPLIANT TECHNOLOGY TREATMENT TREATMENT INEFFIENCIES **UNACHIEVABLE** MODEL - Current Specs **COMPLIANCE** + Onsite Evaluation w/ **Process Sampling** Regulatory State Relief Programs ID ALL PLFs Elimination **Shooting** Resources Guidance **OPERATIONAL** TOOLS Pollution Training Plan Resources **FACILITY SPECIFIC** Asset COMPLIANCE ACTION PLAN Management 0 & M Tool COMPLIANCE ACHIEVED/MAINTAINED

DRAFT CONCEPTUAL SMALL SYSTEMS WASTEWATER PROCESS MODEL

Questions?





Thank you

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