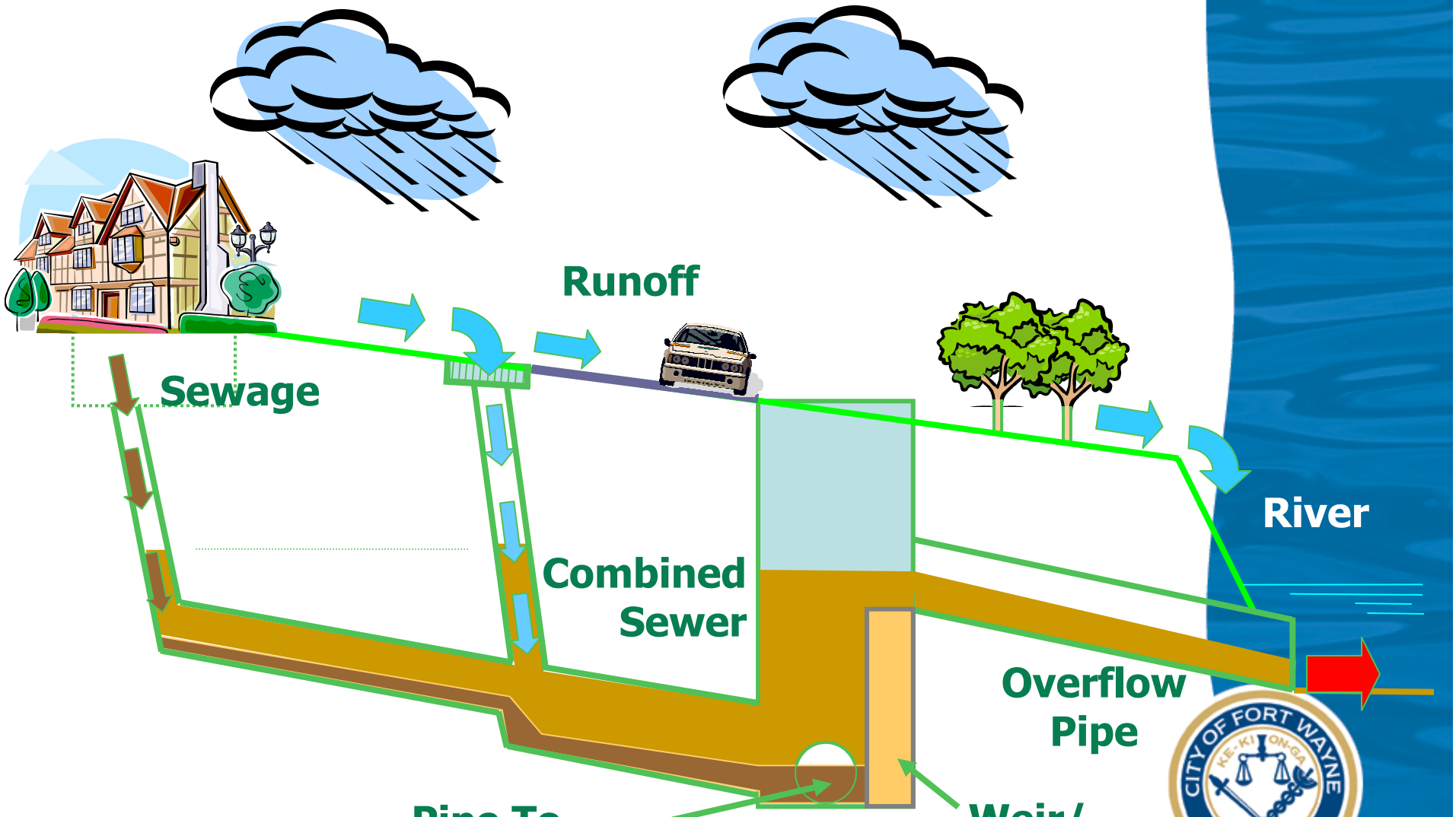
Sewage Overflow Reduction and Long Term Control Plan

Presentation to
Clean Rivers Task Force
June 2, 2008

Presentation Outline

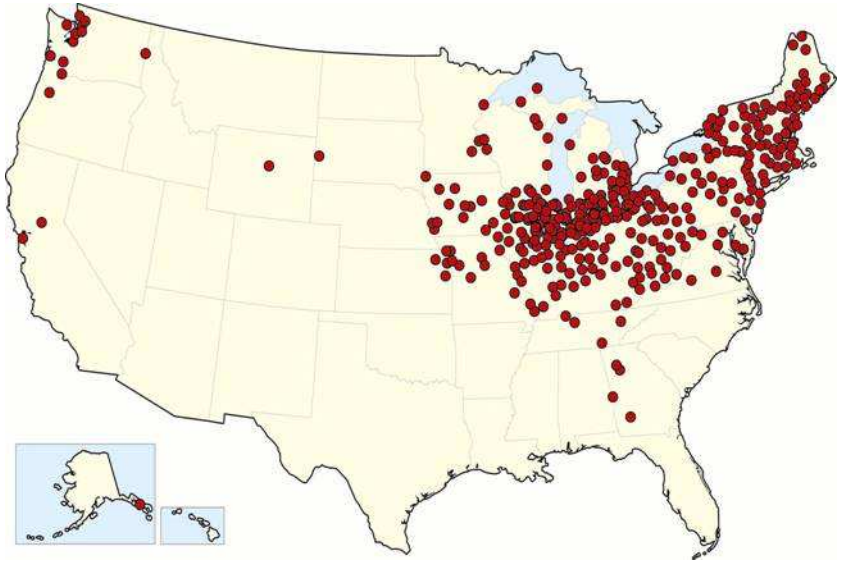
- Background
- Regulatory/Legal Issues
- Alternatives We Considered
- Chosen Plan
- Plan Financing and Implementation

Why Our Sewers Overflow



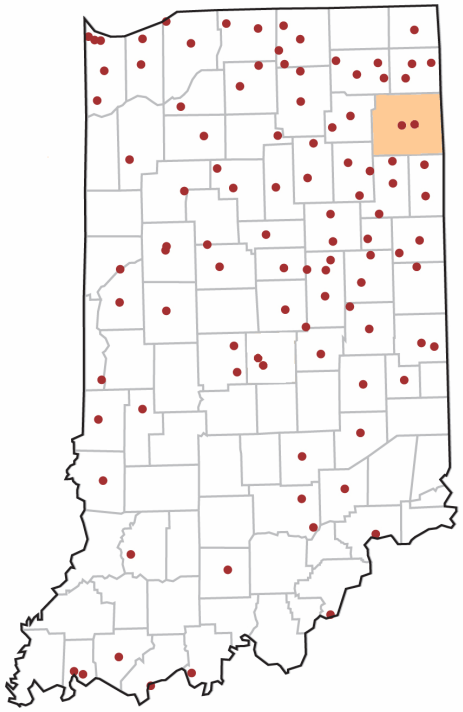
We Are Not Alone!

- Nationwide problem, especially in Midwest and Northeast



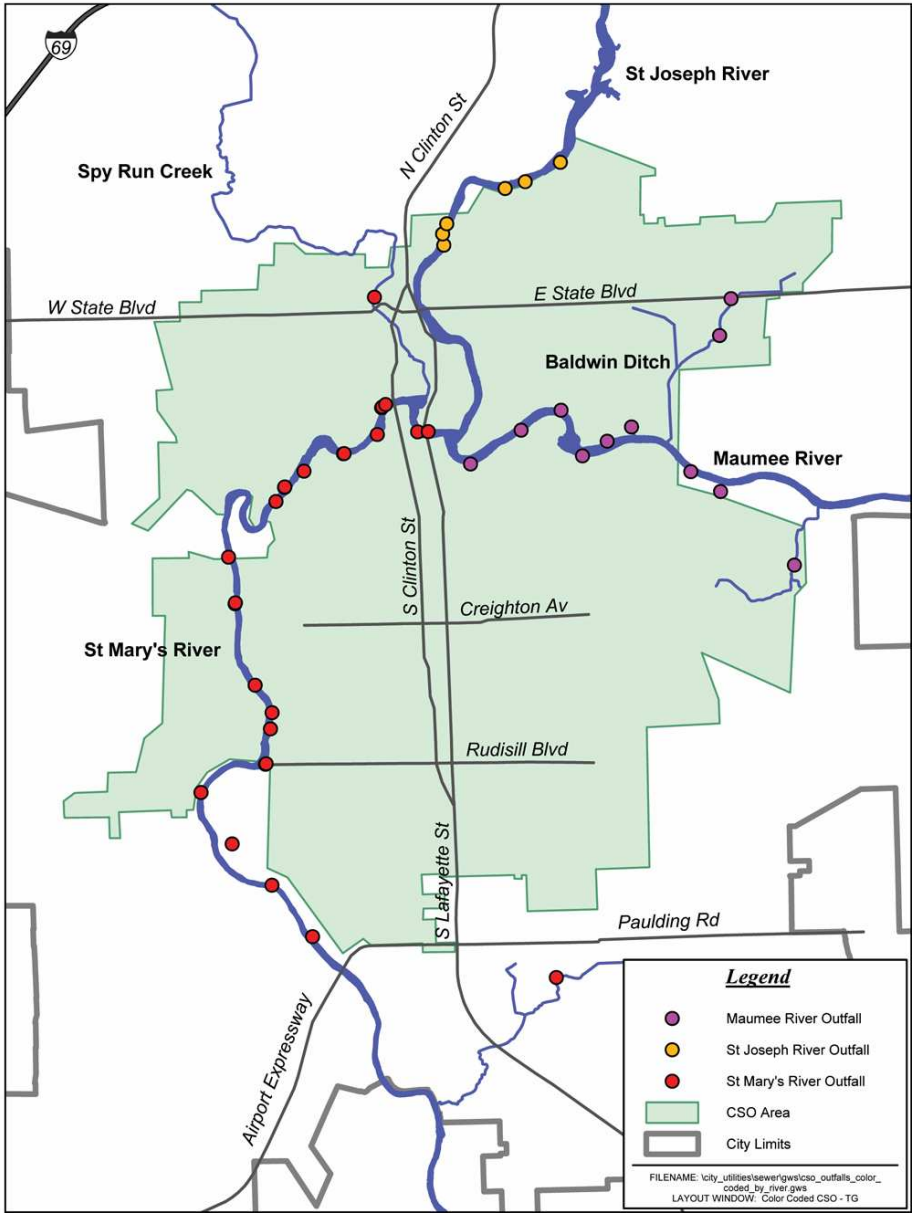
- 772 communities nationwide

- 105 communities in Indiana



Where Sewers Overflow

- Maumee
- St. Joseph
- St. Mary's
- Spy Run Creek
- Baldwin Ditch
- Other tributaries



Water Quality Problems

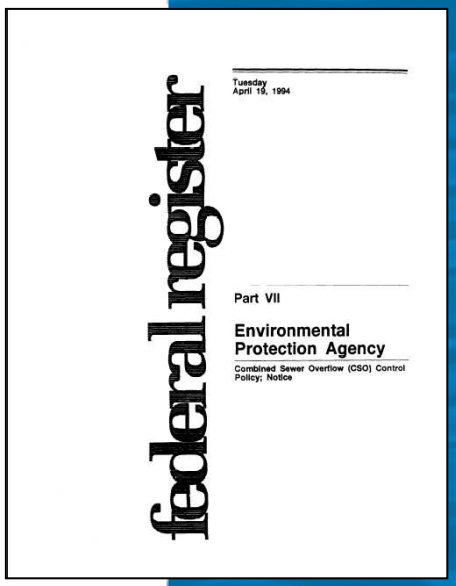
- Maumee River, St. Joseph River, St. Mary's River impaired by bacteria, according to IDEM
- On average, waterways exceed *E. coli* standards 85 days per year

- Many sources of bacteria: Sewer overflows, failing septic systems, urban stormwater, agricultural runoff and overflows from sanitary sewers

Regulatory and Legal Issues

Regulatory Requirements

- Sewer overflows must be controlled under the Clean Water Act
- U.S. EPA & IDEM policies:
  - Require development of cost-effective controls on sewer overflows
  - Allow review of water quality standards, if appropriate, to ensure they're attainable
- Many communities under federal consent decrees (Indianapolis, Toledo, Cincinnati, Louisville…)



Consent Decree

- Culmination of 5 years of negotiations
- Filed December 2007
- Consent decree requirements:
  - Meet schedule & performance standards for reducing combined sewer overflows
  - Eliminate sanitary sewer system overflows
  - Implement operational plans for both combined and sanitary sewer systems
  - Pay $296,000 in civil penalties
  - Implement local environmental projects to reduce penalties (septic tanks & rain gardens)
  - Submit status reports every 6 months
  - Agree to stipulated fines for failure to comply in the future

Fort Wayne's Goals

- Complying with state and federal Clean Water Act and permit requirements
- Reducing the likelihood of fines for water quality violations
- Eliminating many of the failing and potentially failing septic systems in our community
- Having an integrated and coordinated approach to water quality improvement
- Improving the quality of life in riverside neighborhoods by reducing odors and capturing the unsightly materials that may enter the rivers when sewers overflow

Work Already Completed

- In 2001 citizens directed us to proceed cautiously until CD was approved
- $34.4 million to build storm sewers in 11 areas to reduce sewer backups
- $65.8 million to replacing aging equipment and expand treatment plant
- Improvements to existing sewers
- Public notification program

Alternatives We Considered for Overflow Reduction

Criteria We Used

- Rate impacts over time
- Capital costs
- Operation & maintenance costs
- Operation & maintenance issues
- Level of treatment
- Ability to coordinate with other programs and adapt over time
- Construction inconvenience & disruption
- Regulatory agency support

Alternatives & Results

- Deep Tunnel Storage: Too costly, high rate impacts
- Satellite Disinfection: High O&M burden, less treatment capacity needed, disruptive
- Partial Separation: May be beneficial in some neighborhoods
- Complete Sewer Separation: Too expensive on city-wide basis, too disruptive
- CSO Ponds with Storage/ Treatment: Best treatment at reasonable cost with fewer O&M issues & least disruption