

# Lorain County Storm Water District Open House

## Implementing a Storm Water District

October 4, 2010



# Lorain County's Storm Water Challenges

- Unfunded & mandated Ohio EPA NPDES Phase II water quality regulations
- The environment
- Water pollution
- Flooding and drainage including maintenance of storm sewers and ditches and development of retention/detention facilities
- EPA requirement to remove storm water from sanitary sewers (I/I Reduction)
- Lack of dedicated funding source

# EPA Ohio EPA NPDES Phase II Water Quality Regulations

- The County and 7 Townships are Phase II MS<sub>4</sub> permittees as required by Ohio and U.S. EPA
  - Amherst Township
  - Carlisle Township
  - Columbia Township
  - Eaton Township
  - Elyria Township
  - Grafton Township
  - Sheffield Township



# EPA Mandated Minimum Control Measures

- Public Education & Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post Construction Runoff Control
- Pollution Prevention/Good Housekeeping



# Flooding & Drainage Problems

- Development and growth increase the amount of storm water runoff and the speed at which water drains
- Runoff from roofs, parking lots and roads can overwhelm the current system of ditches and storm sewers causing flooding





# Inflow and Infiltration Problems

- When storm water makes its way into sanitary systems the result is Sanitary Sewer overflow which pollutes our lakes and streams.



# Storm Water District Concept

- Establishes a dedicated funding source
- Fee is based on contribution to runoff
- District will send bills on county property taxes
- No new bureaucracy
- Comprehensive watershed approach
- Business plan based program
  - Defined level of service
  - Cost of service based rate
- Ohio Counties/Agencies such as:
  - NEORSD, Butler, Hamilton, Lake, Trumbull and Warren
- More than 60 Cities in Ohio





# Business Plan Highlights

- 2 Year business plan developed
- Activities & responsibilities identified
  - Ohio EPA NPDES Phase II water quality regulations compliance
  - Drainage and Flooding
  - I and I problems
- 2 year rate plan
- Auditor provides billing services 2 times per year
- First billing date – January 2011





# Billing Policy Highlights

- Considerations / policies:
  - Treat gravel as impervious
  - Public roadways part of MS4
  - Owner gets the bill
- No exemptions
- Residential
  - Single family, Duplexes, Farms, Condos
- Non-Residential
  - All other including tax exempt
- Credits will be offered
- Using Impervious Area Method





# Rate Structure

- Basis is Impervious Area
  - Based on Contribution to runoff
  - Legally Defensible
- Residential
  - Single Family, Duplexes, Agricultural & Condominiums
  - 1 Equivalent Residential Unit (ERU) flat rate billing
- Non-residential
  - Industrial
  - Commercial
  - Churches
  - Schools





# Rate Structure (con't)

- Residential ERU = 6,000 sq. feet
- Based on a random sample of 400 residential properties
- Non-residential properties measured for hard surface (impervious area) – ERUs calculated
- Example: 12,000 sq. feet of impervious surface area divided by 6,000 = 2 ERUs

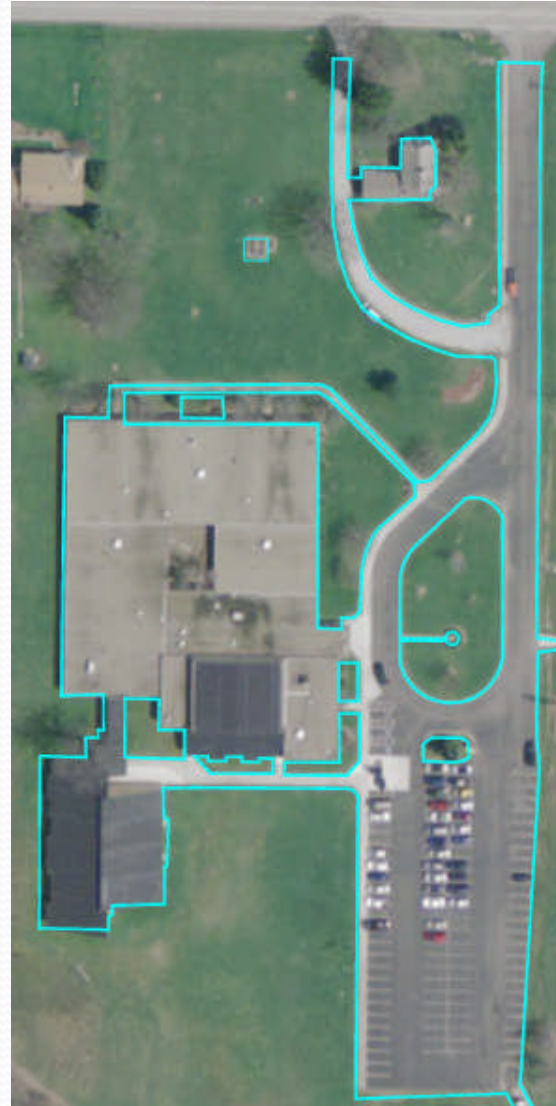


# Residential (example)





# Non-Residential (example)





# Rate Study Revenue Analysis

- Rate is dependent on defined level of service
- Credits will be offered for:
  - Green Infrastructure
  - BMPs
- Initial fee of \$1.50 per month for residential
- Initial fee of \$1.50 per month per ERU for non-residential
- Will generate approximately \$600,000 annually





# Business Plan Year 1

24% I & I Stimulus Project Loan  
Reimbursement

10% EPA, Legal, & Admin. Reimbursement

33% year 1 only Implementation Cost

21% Ohio EPA NPDES Phase II water  
quality regulations compliance

11% Storm Water Management  
Infrastructure Maintenance

1% annually for street sweeping





# Business Plan Year 2

24% I & I Stimulus Project Loan Reimbursement

10% EPA, Legal, & Admin. Reimbursement

34% Ohio EPA NPDES Phase II water quality  
regulations compliance

11% Storm Water Management Infrastructure  
Maintenance

20% Floodplain Management Design /  
Construction

1% for street sweeping





# Storm Water Information

- Storm Water Brochure
- Five Year Business Plan
- NPDES Phase II Water Quality Plan for the Unfunded Federal Mandate
- Storm Water Web Site Page
- Frequently Ask Questions
- Funding / Rate Plan
- Public Education Plan





# Question & Answer

