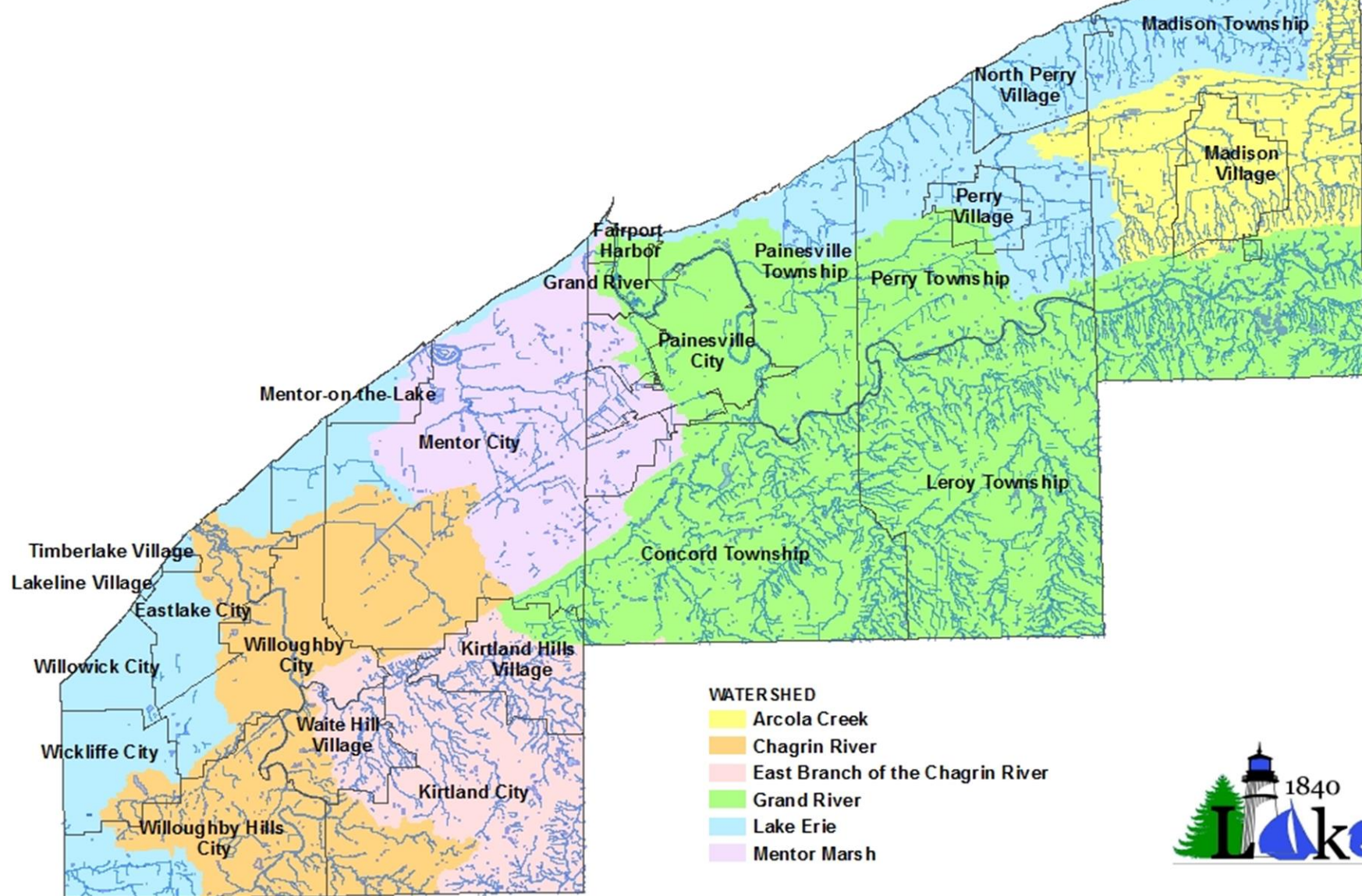
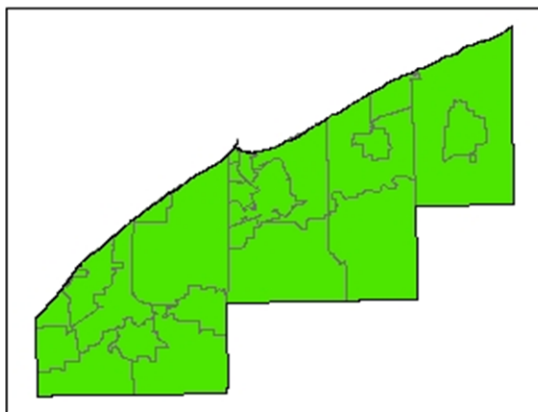
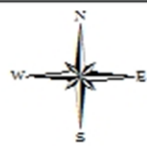


IN THE BEGINNING...



LAKE COUNTY, OHIO





Stormwater Task Force

Representative from each:

- ☐ Government Unit
- ☐ School District
- ☐ Major Retail Center (Malls)
- ☐ Lake County Realtors Association
- ☐ College
- ☐ Farm Bureau
- ☐ Major Industry
- ☐ Civic Groups
- ☐ Chamber of Commerce
- ☐ Park System
- ☐ ODOT
- ☐ Commissioners, Planning Commission
- ☐ Utilities
- ☐ Golf Course
- ☐ Area Churches
- ☐ Interested Citizens

- Stakeholder Meetings held = 4
- Average Attendance = 75
- Public Hearings = 2
- Made over 100 presentations to government units, chambers, civic groups, etc.

Tasks for the...

General Plan of Drainage

- Make presentations to all interested parties
- Conduct introductory meetings throughout May 2002 with local councils, boards, watershed groups, etc.
- The Watershed team of consultants will meet with local representatives to gather data and identify problem areas.
- The Consultant will create a map of existing Stormwater information and problem areas.
- The Consultant will evaluate solutions to existing Stormwater problems.

Opportunity

So, what options do we have to manage our stormwater problems?

How can we get this done?



Will Phase II be any help?

What should be our strategy?

Phase II represents an important opportunity to solve storm water problems on a systematic basis.

Questions that Need Answers...

- ☐ What are the major goals and objectives of a Countywide stormwater program?
- ☐ Who should own the various components of the drainage system?
- ☐ What services should be provided?
- ☐ What existing community/county capabilities and key staff can be leveraged to support the stormwater program?

Questions that Need Answers...

- ☐ What are the responsibilities of private property owners?
- ☐ What drainage district boundaries should be established?
- ☐ Does an affordable fee generate sufficient revenue to provide desired stormwater services?
- ☐ Under what circumstances may a user fee be reduced?

Impacts of Poorly Managed Stormwater

- ❑ Flooding
- ❑ Sediment & Erosion
- ❑ Habitat Alteration
- ❑ Debris
- ❑ Nutrients, Pathogens & Toxic Contaminants
- ❑ Temperature Fluctuation
- ❑ Costs for Government & Homeowners

Stormwater Needs

Operations &
Maintenance

Capital
Improvements



Flood
Control

NPDES /
Water
Quality

Customer Service

The Team of Consultants

General Plan of Drainage:

- Grand River: Burgess & Niple
- Chagrin River: CT Consultants, Inc.
- Arcola Creek: GGJ, Inc.
- Lake Erie: Finkbeiner, Pettis & Strout, Inc.

Phase II Compliance Plan: Finkbeiner, Pettis & Strout, Inc.

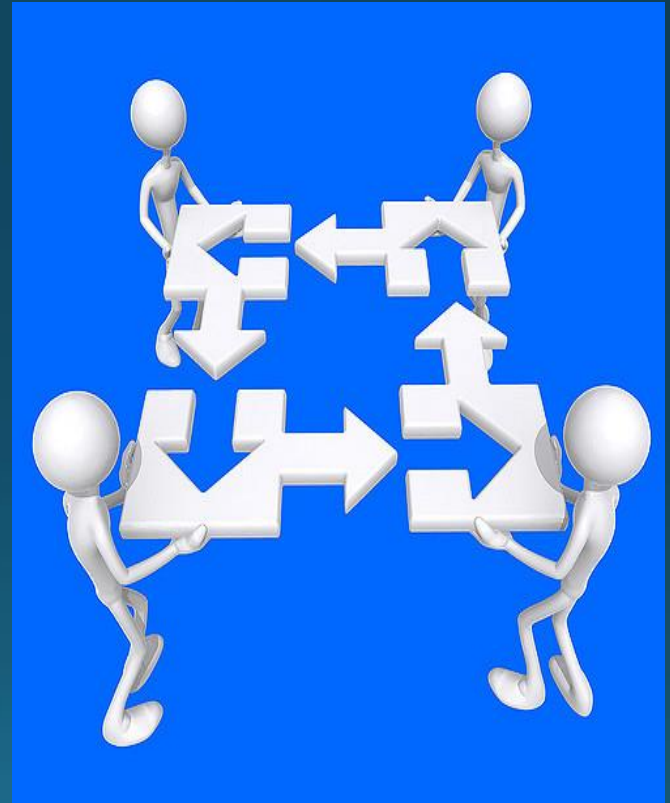
Funding Study: Camp Dresser & McKee

Public Involvement: McCormick Taylor & Assoc. / GGJ, Inc.

Steps Involved:

➤ COMPLETE:

- General Plan of Drainage
- Stormwater Permit
- Phase II Plan
- Funding Study



The Phase II Compliance Plan

During the interviews for General Plan of Drainage, information will be gathered for Phase II Compliance Plan.

The SMP will ultimately identify capital improvements and other items required to achieve goals of Stormwater Phase II regulations.

- Prioritize Improvements
- Assign implementation schedule

City of Willowick Stormwater Issues

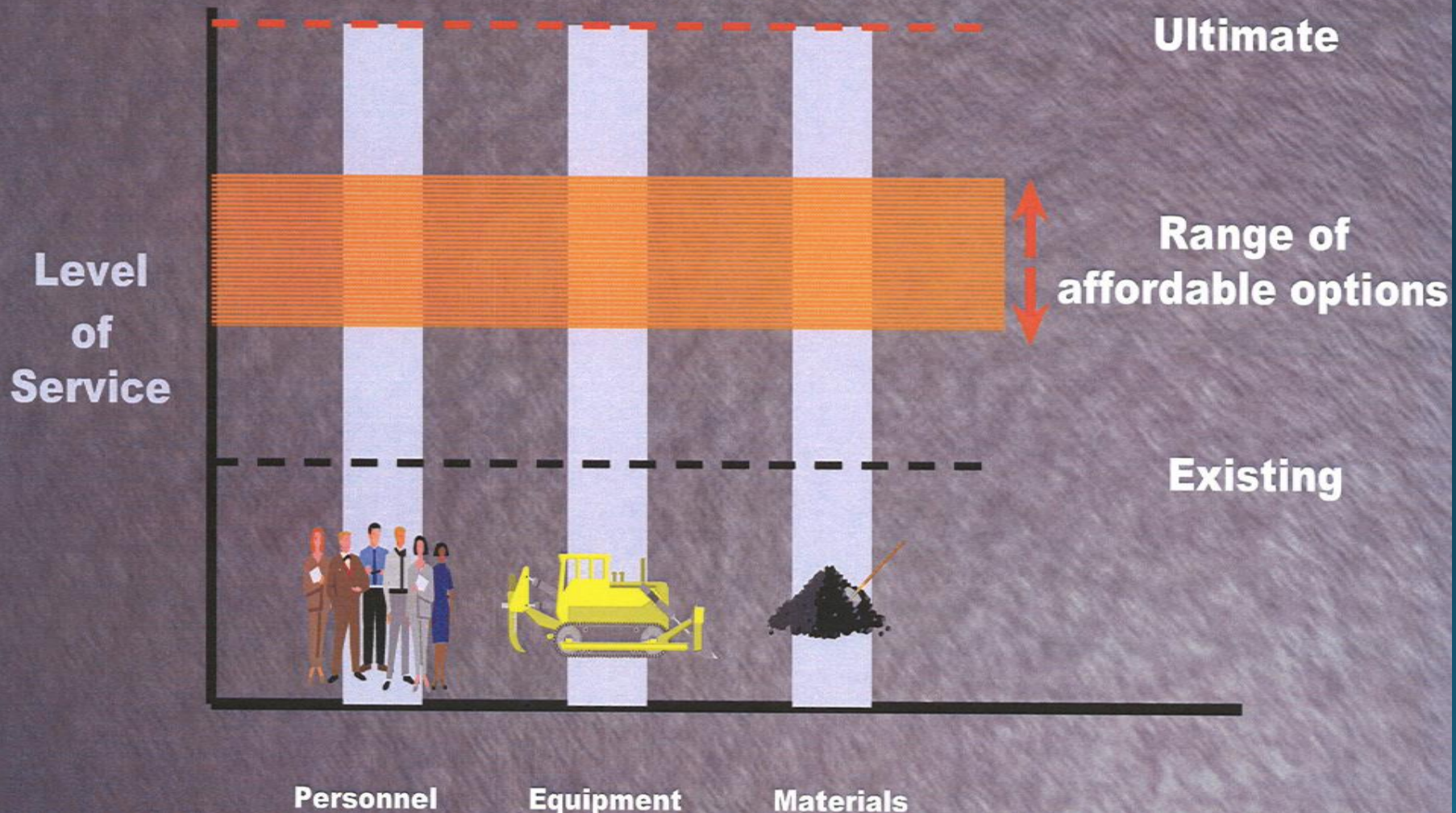
No.	Stormwater Issue	Location	Suggested CIP	Type of Issue	Estimated Cost
1	Sedimentation/lack of capacity	Lakeland Blvd. / SR 2	Detention O&M	Regional	\$150,000
2	Flooding/capacity issues	E 288 St	Storm sewer	Regional	\$900,000
3	Flooding/capacity issues	E 305 St.	Storm sewer	Regional	\$1,100,000
4	Flooding/capacity issues	Shoregate	Outfall sewer	Regional	\$500,000

Regional stormwater improvements in the within Willowick include the following:

- Dredging of the detention basin at Lakeland/SR 2 to remove sediment build-up.
- Construction of a relief sewer or replacement of the existing trunk sewer on E 288 Street to increase capacity and reduce the chances of upstream flooding.
- Construction of a relief sewer or replacement of the existing undersized trunk sewer on E 305 Street to increase capacity and reduce the chances of upstream flooding.
- Construction of a larger outfall sewer opposite Shoregate Plaza to increase capacity and reduce the chances of upstream flooding.

The total estimated cost for regional CIPs in the City is projected as \$2,650,000. No local CIPs have been identified for Willowick.

Stakeholder involvement establishes an affordable level of service



A Countywide Approach Best Addresses Community Needs

- Address inter-jurisdictional needs within watersheds
- Provide consistent rules across County
- Develop regional approach to Phase II permit compliance
- Respond to development pressures
- Achieve economies of scale
- Develop fair and equitable revenue sources

What are the...

Advantages of a Regional Approach?

- Funding for capital improvements
- Funding for the municipal operation and maintenance storm sewer system
- A comprehensive regional public education and public involvement program
- Grants and other funding is more likely to be awarded to a regional Stormwater Management Agency
- Integrity of water quality
- Member of a uniform cooperative agency to handle the main facilities that cross borders
- Cost savings to member Cities
- Single agency reporting to OEPA
- One annual fee to OEPA

Proposed Storm Water Management Goals for Lake County

- ❑ Comply with OEPA's Phase II Storm Water Permit
- ❑ Manage regional drainage systems:
 - Prevent "frequent" structure/roadway flooding
 - Eliminate property and habitat damage from erosion
 - Protect and enhance water quality
- ❑ Provide local assistance in managing drainage systems (as requested)
- ❑ Establish consistent county-wide policies, criteria, and regulations

WHAT IS THE PROPOSED FUNDING MECHANISM?

House Bill 549 allows Counties to place a new district (stormwater) over existing utility districts, or create a new one.

How will the “fee” be charged?

- ❑ All charges will be based on the amount of impervious area on each parcel of land.
- ❑ The base rate is proposed to be for an equivalent residential unit (ERU).
- ❑ Larger developments will be charged a fee based on the number of ERU's on their property as it relates to the amount of impervious area.

Equivalent Residential Unit (ERU) Base

Single Family
Multi-Family
Condominiums
Mobile Homes

= Flat Fee

Governmental
Commercial
Institutional
Industrial

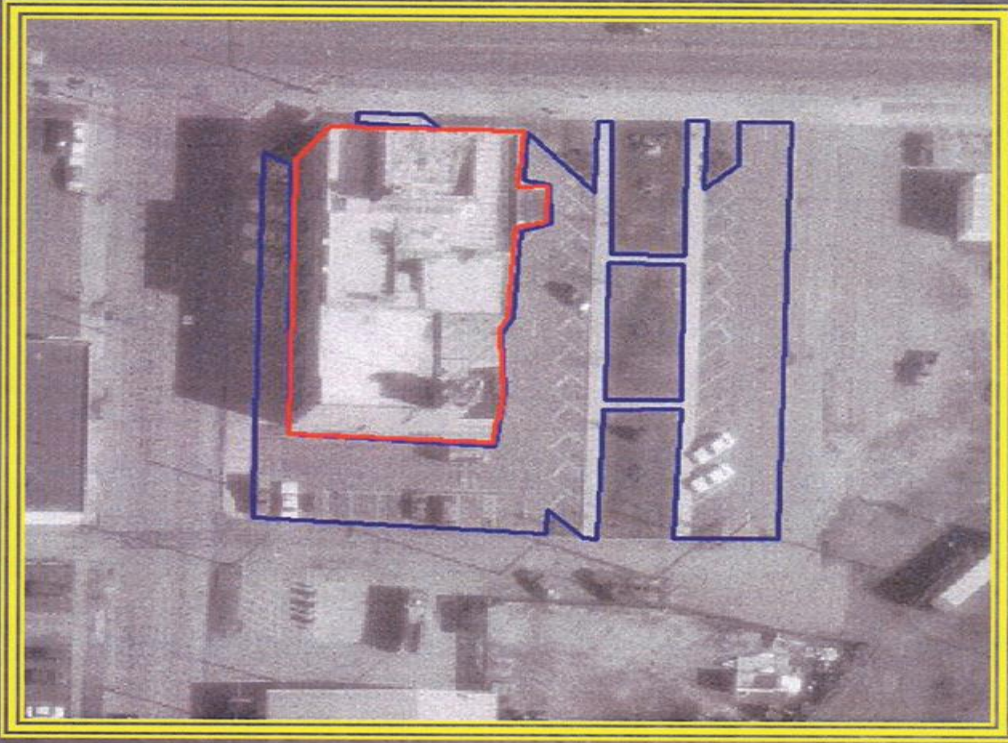
Parcel Impervious Area

ERU (Sq. Ft.)*

= Units

* Average — 1,500 to 3,000

Stormwater Service Fee Calculation Non-Residential Property



Paved
Area

Building
Area

10,000 Sq.Ft + 20,500 Sq.Ft.

3,050 Sq. Ft./ERU

= 10 ERUs

Excerpts from "The Land Use Issues and Concerns in Lake County Survey Dated May 9, 2002"

- *A majority of respondents (52%) would support a natural areas conservation easement program at the \$24.00 per year level.*

This eye-opening statement of local support for a fee-based natural areas program is even more Storm Water Agency related when specific questions from the Greenspace section of the survey are examined.

- *It is important to reduce the impact of residential development on local water quality.*

Strongly Agree 71%

Somewhat Agree 17%

Neither Agree nor Disagree 13%

Somewhat Disagree 2%

Strongly Disagree <1%

- *The water quality in our local rivers and streams should be improved.*

Strongly Agree 65%

Somewhat Agree 21%

Neither Agree nor Disagree 9%

Somewhat Disagree <1%

Strongly Disagree <1%

- *The water quality of Lake Erie should be improved.*

Strongly Agree 58%

Somewhat Agree 26%

Neither Agree nor Disagree 14%

Somewhat Disagree 1%

Strongly Disagree 1%

- *There should be increased wetland protection in Lake County.*

Strongly Agree 47%

Somewhat Agree 28%

Neither Agree nor Disagree 18%

Somewhat Disagree 6%

Strongly Disagree 2%

The survey establishes that voters are unsure whether Government officials in Lake County are well informed enough to make prudent land use decisions.³

The preferred method of funding a natural areas conversation easement program by the respondents was:

1) increase in sales tax – 44%; 2) some other method – 35%; 3) increased property tax – 21%

An interview with the survey's sponsor indicated that the West End of the County was more supportive of the annual fee program. This was attributed to a scarcity of greenspace in the urbanized areas creating a willingness to fund protection in rural areas.

If Lake County voters think beyond jurisdictional boundaries when it comes to water quality, isn't it time for local officials to embrace a regional approach to stormwater management?

Service Level 1

Countywide SWMP Administration

Administration, Regulation, & Enforcement

- Interagency/intercommunity coordination
- Illicit discharge surveillance and enforcement
- Regulatory compliance reporting

Public Education and Involvement

Budget and Finance

Estimated Annual Cost: \$1 M to \$1.5 M

Service Level 2

Regional Drainage System Management

- All elements of Service Level 1
- Management of regional drainage systems
 - ✓ Mapping
 - ✓ Planning studies
 - ✓ Priority capital improvements
 - ✓ Operation and maintenance
 - ✓ Regulation and enforcement
- Services to local communities
 - ✓ Employee training
 - ✓ Development/construction site reviews and inspection

Estimated Annual Cost: \$4 M to \$4.5 M

Service Level 3

Regional and local drainage system management

- ☐ All elements of Service Level 2
- ☐ Regional drainage system capital improvements
- ☐ Funding for high priority local drainage systems
- ✓ LCSMA contract operation and maintenance
- ✓ Return funding to local communities for critical drainage needs

Estimated Annual Cost: \$5.5 M to \$6.5 M

Service Level 4

Full service management of regional and local drainage systems

- ❑ All elements of Service Level 3
- ❑ Full local drainage system services
 - ✓ Operation and maintenance
 - ✓ Capital improvements

Estimated Annual Cost: \$18 M to \$22 M

ESTIMATED SERVICE FEE FOR ALTERNATIVE SERVICE LEVELS

Service Level	Estimated Annual Cost	Estimated Monthly Fee (\$/ERU)
1	\$1 M to \$1.5 M	\$0.50 to \$ 0.75
2	\$4 M to \$4.5 M	\$ 2.00 to \$2.30
3	\$5.5 M to \$6.5 M	\$2.80 to \$3.30
4	\$18 M to \$22 M	\$9.00 to \$11.00

Participating Communities

	Population	Area
Total Participating	126,870	176.46
County Totals	227,511	233.25
Percentage	56%	76%

Storm Water Advisory Board

- 7 Members
 - 2 City
 - 1 Village
 - 2 Townships
 - 2 At Large
- Signed MOU with all government units, partners and Lakeland Community College
- Negotiated Regional Facilities with each government unit.
- Meet with each unit annually and discuss project priorities
- 1st Permit Period – Annual Renewal
- Future Permit Periods – The Permit Period
- Credit Program for Non-Residential Customers
 - Variable Credit to Max 30%
- Created Design Manuals for acceptable BMP's.
- Created System Rules & Regulations
- Provide Inspection of Private Projects

System Stats

19 Government Units in Phase II

15 of 23 Government units joined

- 1 Government unit not in Phase II joined
- 3 Phase II exempt
- Since joining, 2 government units have gone from Level 1 to Level 2

4 Government units have dropped out of program

3 Government units have reversed and immediately returned to program

LEVEL 1 FEE: = \$0.80/month or \$9.60/year/ERU

LEVEL 2 FEE: = \$2.50/month or \$30.00/year/ERU

- ERU = 3050 SF paved area
- There are 3680 non-residential parcels in Utility
- Average cost/parcel = \$219/year

System Stats (2)

Looking at \$1,000 (7.3 acres of paved area):

- 117 parcels of 3,680 pay \$1,000 or more
- $117/3,680 = 3\%$ of System

Looking at commercial properties:

- There are 1,561 parcels
- Average Bill = \$160/parcel
- There are 1,049 owners
- Average bill = \$238/owner

42% parcels are above \$100/year

25% parcels are above \$200/year

15% parcels are above \$300/year

10% parcels are above \$500/year

System Stats (3)

- Agricultural properties are always of concern:
 - 860 agricultural parcels in system
 - Average Bill = \$46/year/parcel
 - \$16.00/year more than residential

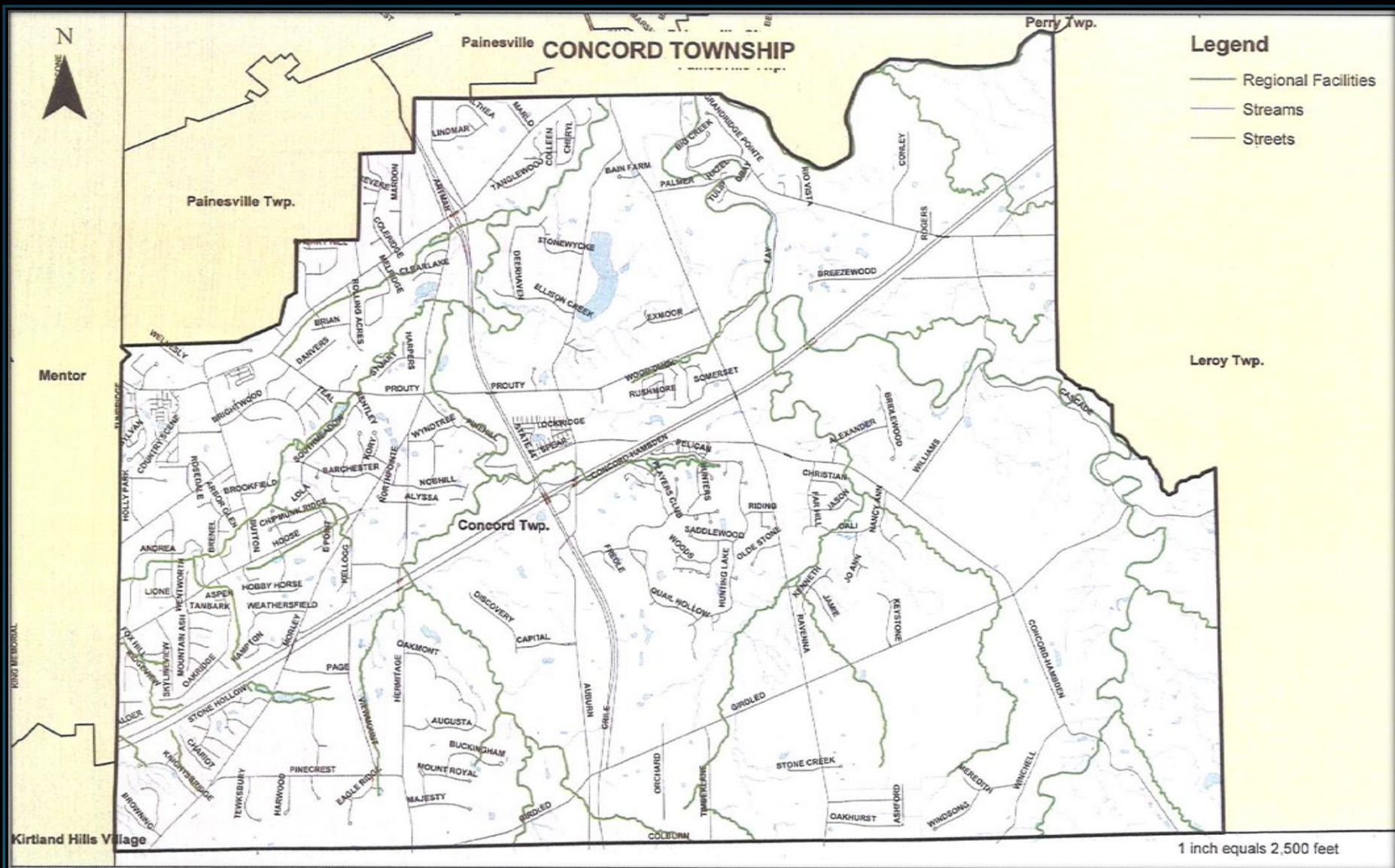
Initial complaints: Less than 1/3 % or approximately 200 households

❖ (Most of these were people who did not understand what the fee was for)

Annual average: Approximately 30±

Billing: Ohio allows billing through the County Auditor.
Thus —————> utility fee is on tax bill.
We have approx. 3% delinquencies.

Concord Township Regional Facilities



Willowick Regional Facilities

