Iowa Department of Natural Resources

Leading Iowans in caring for our natural resources

Eric A. Evans – Clean Watershed Needs Survey Coordinator

WHAT IS THE CLEAN WATERSHED NEEDS SURVEY AND WHY HELP

CWNS 2012 Does:

- FULFILL LEGISLATIVE REQUIREMENTS OF THE CLEAN WATER ACT
  - http://cfpub.epa.gov/npdes/cwa.cfm?program_id=45
- USE FEDERAL MONEY TO DOCUMENT CLEAN WATER:
  - NEEDS
  - COSTS
- PROVIDE A REPORT TO CONGRESS
  - http://water.epa.gov/scitech/datait/databases/cwns/2008reportdata.cfm

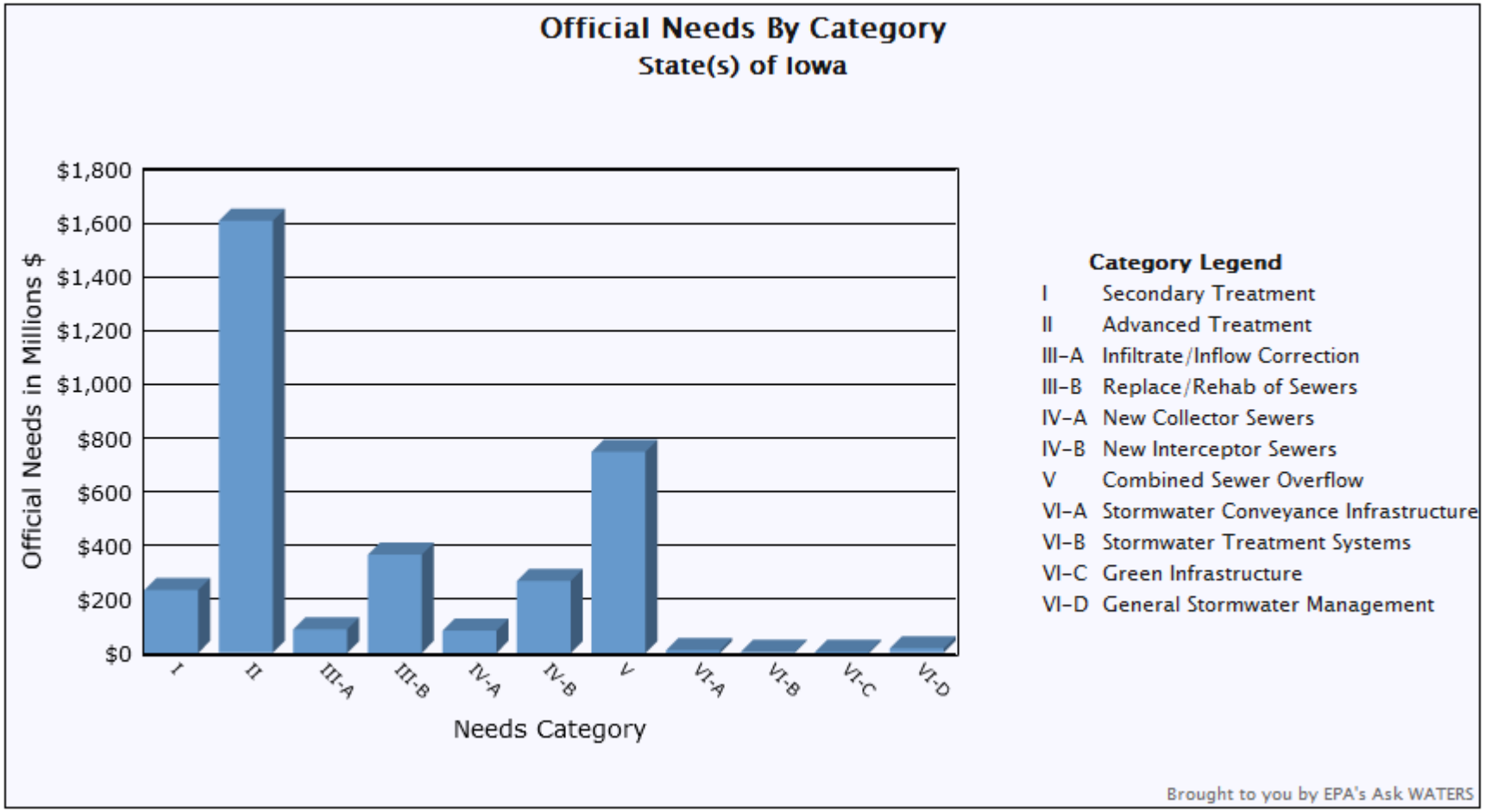
CWNS DOES NOT

- OBLIGATE USE OF FUNDS
- CONTRIBUTE TO ENFORCEMENT
- MANDATE PROJECTS
  - PLANNING
  - DESIGN
  - CONSTRUCTION

Issues Facing Communities

- Unsewered areas
- Combined Sewers, Infiltration and Inflow
- Existing infrastructure old, needs replaced
- High per capita, per household costs
- High administrative cost
- Needs are under-reported, don't get attention
- Advanced & new treatment needs
- Needs to meet growth of population and industry

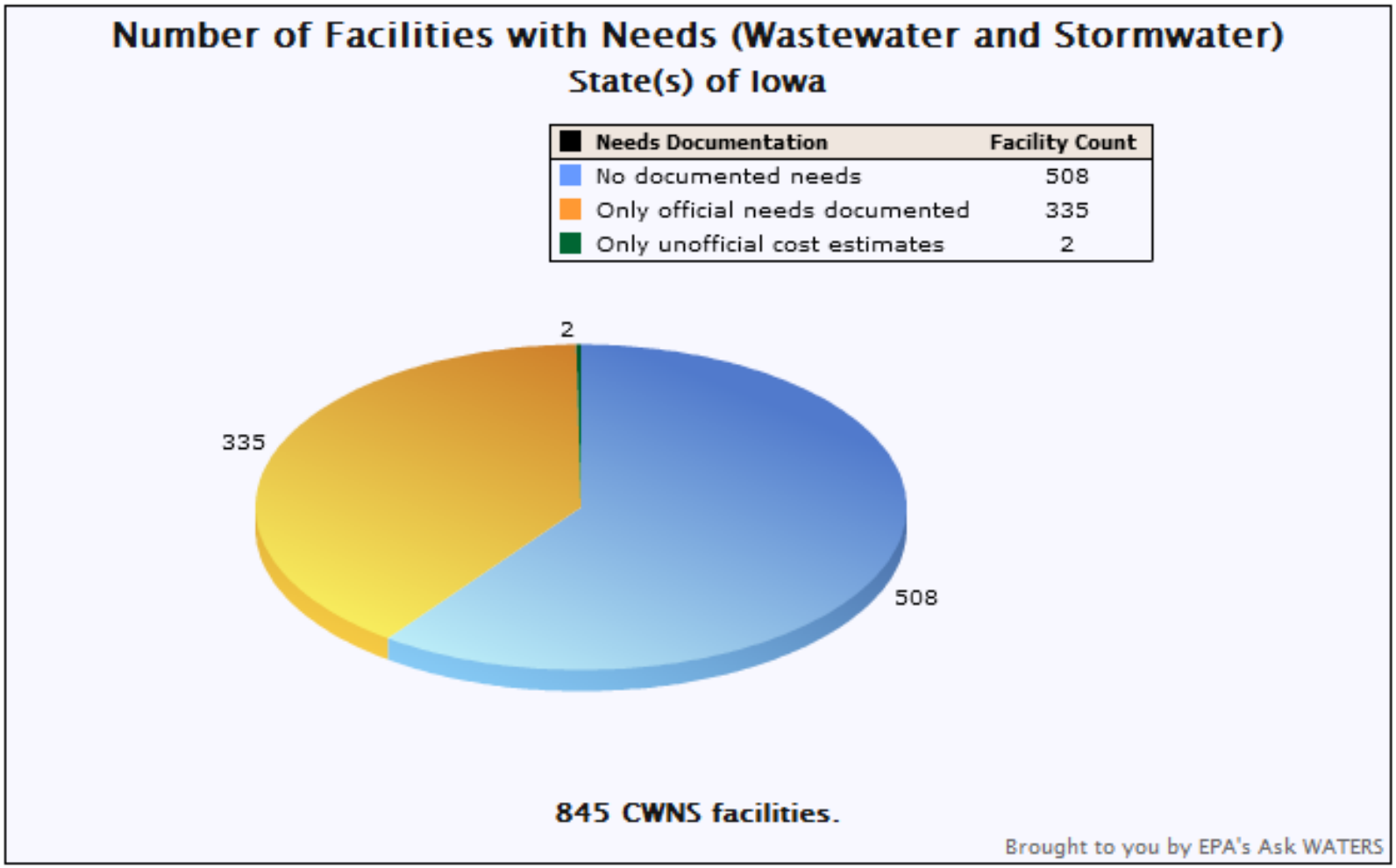
2008 Clean Watershed Needs Survey Review



Why is community contribution important?

- Improves the accuracy of the survey
- Assists Congress and state legislatures to develop **BUDGETS** and set policy
  - Support public and academic research
  - Provide the community documentation needed to seek **FUNDING** (State Revolving Fund (SRF) loans, grants, tax revenue)
- Draws attention to the community's **NEEDS**
- Provides data to use in community planning and reporting efforts

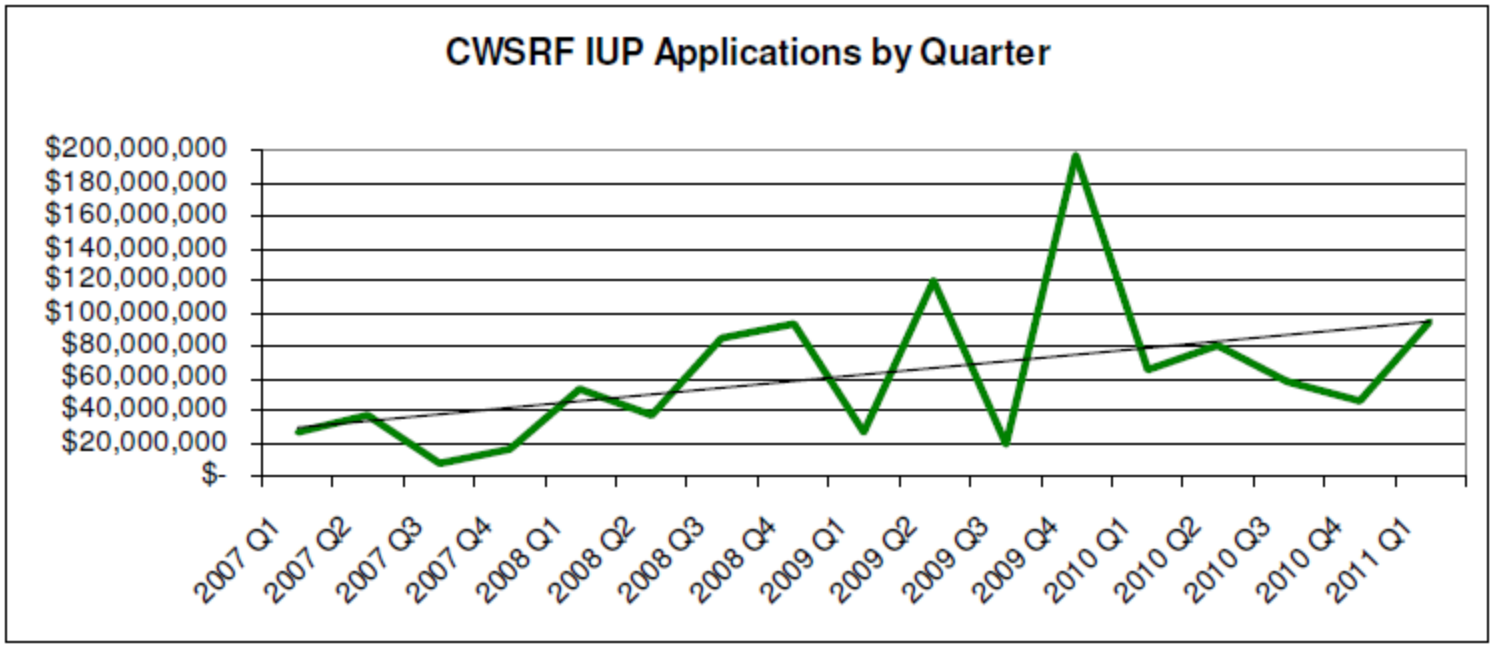
2008 Clean Watershed Needs Survey



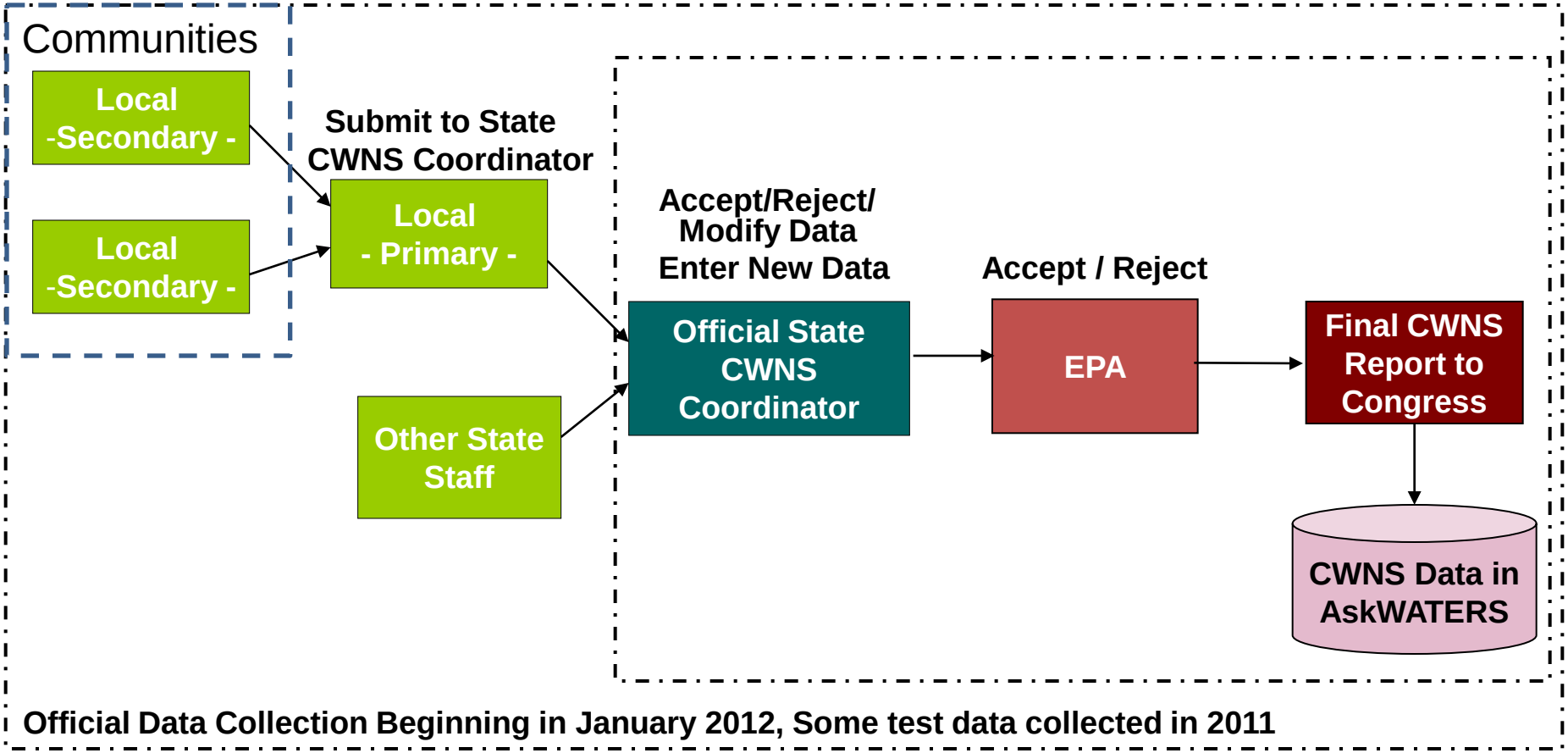
Iowa CWNS and CWSRF Quick Facts

- 2008 CWNS - $111 Million in unofficial needs costs

- 2010 CWSRF –
  - 656 small communities out of 689 communities supported
  - $107M supported small communities out of $208M total support



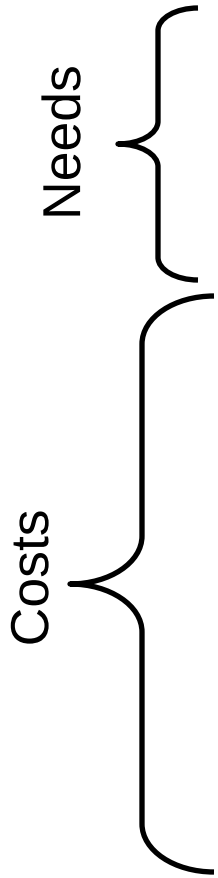
CWNS Overall Process



What data is collected – What type of projects?

- Information about:
  - Publicly Owned Treatment Works (POTW)
    - Wastewater facilities
    - Stormwater management projects
    - Combined sewer overflow (CSO) control
  - Non-point source(NPS) pollution control projects
  - Decentralized wastewater treatment systems

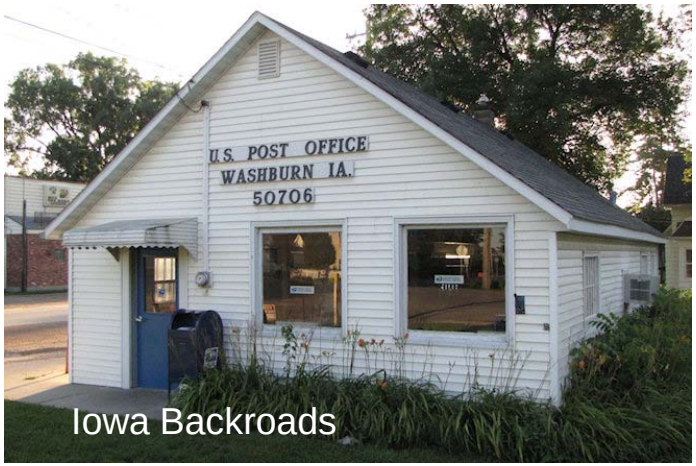
“Official Needs” Eligibility Criteria (documentation for each project)



1. Description of the water quality or public health problem
2. Location of the problem
3. Solution to the problem
4. Cost of the solution
5. Basis for the cost
6. Total cost
7. Current Documentation

Facility Specific Data

- Description of water quality or water quality related-public health problem
- Estimated needs to correct problem
- Location and contact information
- Solution to the problem and cost of solution
- Facility present and projected: population served, flow, and effluent
- Unit process and best management practices (BMPs) data
- Proper certification of data; signatures



Iowa Backroads


Main Street Adams County

familyoldphotos.com; Keokuk, IA

SMALL COMMUNITY PARTICIPATION

Why do EPA/IDNR want small communities to participate in CWNS?

- Improve the accuracy of the survey.
  - Five states (PA, MN, WV, NY & IN) reported 33.9% of the small community needs in 2008.
  - Small community facilities are a large majority of the total number of publicly owned facilities in each State.
    - **90+% of facilities** in four States (**IA**, KA, NE & WV) serve small communities.
    - 80 -90% of facilities in eight additional States serve small communities
  - **Less than 40%** of small communities have documented needs compared to 60% of non-small communities

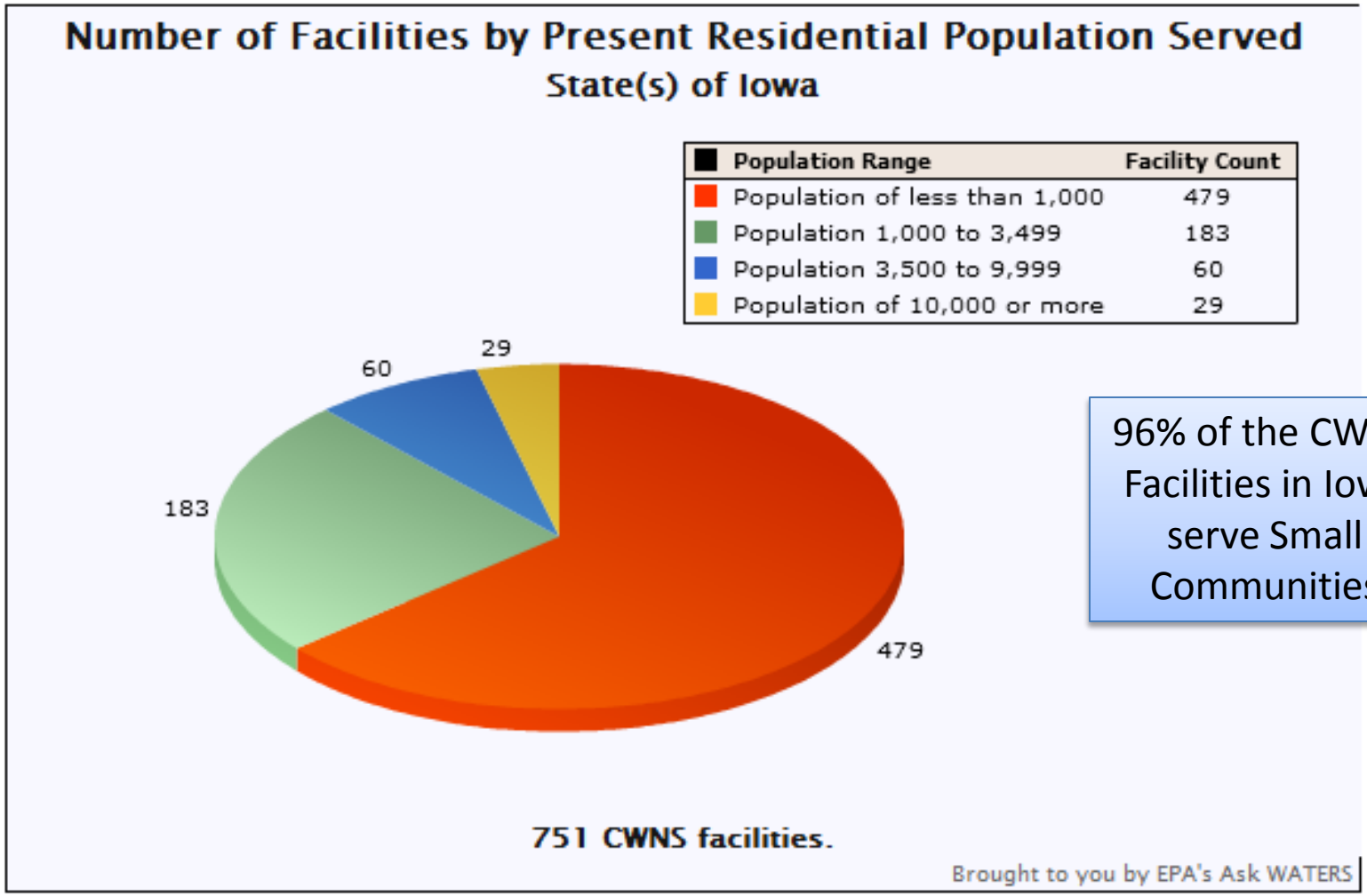
What is a Small Community?

- Total Present Resident Population fewer than 10,000 persons
- According to 2010 Census
  - Iowa
    - 1,009 communities
    - 971 small communities

96% small communities!!

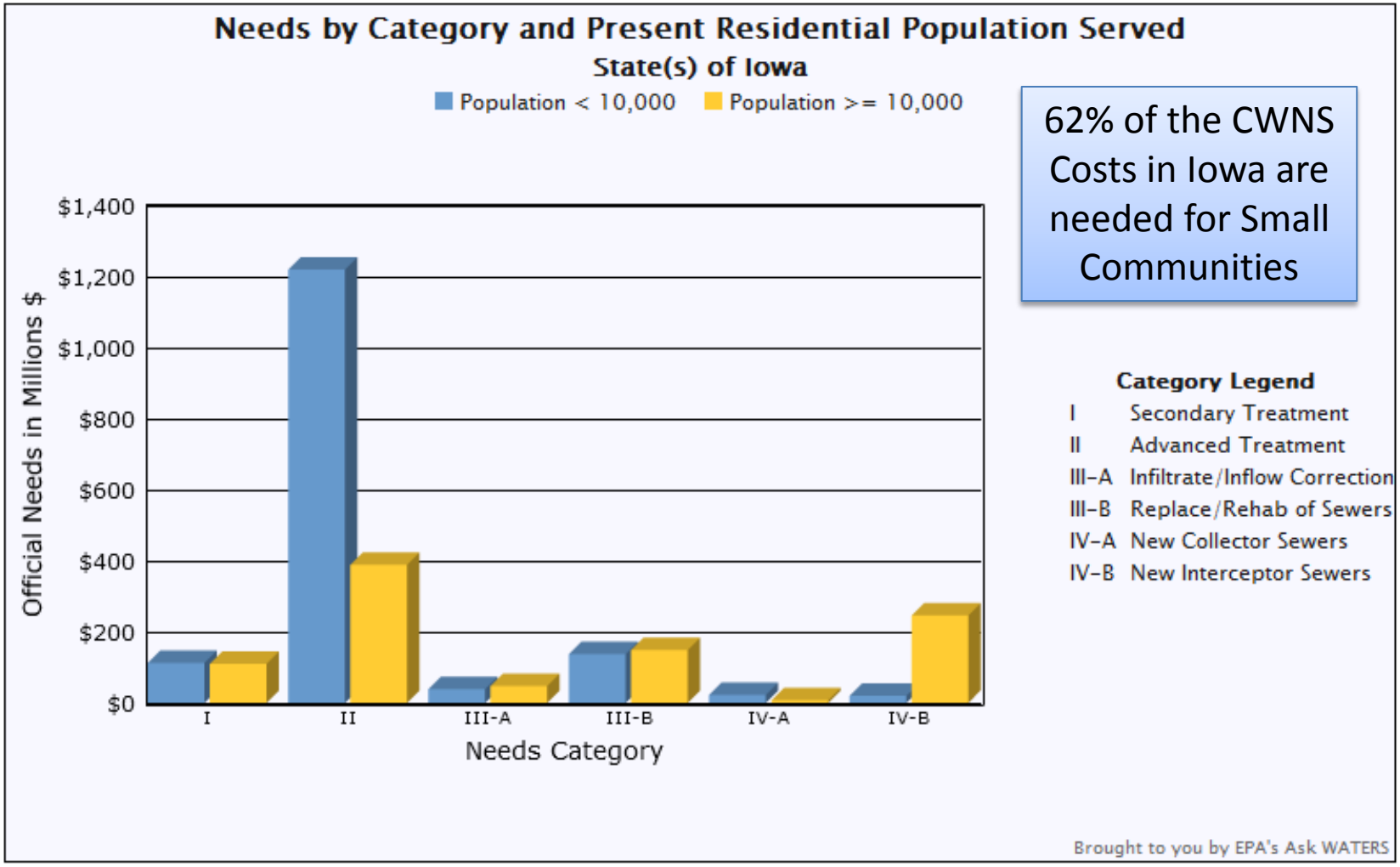
Total Resident Population	=	present resident population receiving collection and centralized treatment	+	present resident population serviced by onsite wastewater treatment systems	+	present resident population not receiving wastewater treatment

2008 Clean Watershed Needs Survey – Small Community Facilities



96% of the CWNS Facilities in Iowa serve Small Communities

2008 Clean Watershed Needs Survey – Small Community Needs and Costs



What data is collected for small communities?

- Information collected includes:
  - Estimated needs (cost and technical information) – and DOCUMENTS
  - Location and contact information
  - Permit information and discharge data
  - Solution to the project/ best management practices (BMPs)
  - WWT facility population served, flow, effluent, and unit process data

Documentation Methods

- Standard Documentation – CIP, Facility Plan, etc.
- Simplified Methodology
  - Information from an Assistance Provider (72)
  - CUPSS (Check Up Program for Small Systems) Wastewater Asset Management Plan (73)
  - EPA-approved Small Community Survey (71)
  - State Form (12)

Simplified Methodology for Small Communities
Small Community Survey (71)

- Water quality or water quality related public health needs are documented by:
  - Written explanation of need
  - Certified by the **SIGNATURE** of a local official representing the community.
    - A local official can be an elected official (e.g., mayor) or other qualified official (e.g., public works manager).

Simplified Methodology for Small Communities Small Community Survey (71)

- Costs are documented by written explanation of costs
- Costs are certified by one of the following:
  - The **SIGNATURE** of a local professional engineer (PE) in the cost certification

    or

  - The **SIGNATURE** of a local government official in the cost certification AND a the **SIGNATURE** the State Professional Engineer (PE) to certify that the cost is reasonable after reviewing the estimate.

- If no cost certification signature is provided, cost curves generate estimated costs (if possible).

A local official's signature confirms the needs are accurate and a engineer's signature confirms the accuracy of the costs

SIGNATURE BOX #2	
Needs Certification (must be completed if you have provided information in Step 3)	
As the local official representing this community, I agree that the water quality needs and technical information described herein is accurate for this community. Note: A local official can be an elected official (e.g., mayor) or other qualified official (e.g., public works manager).	
Name:	
Title:	
Signature:	Date:
Cost Certification (complete if possible)	
There are three alternatives to estimate the costs, presented in order of preference: 1. A professional engineer (PE) signs the cost certification below. 2. A local government official signs the cost certification below and a State Professional Engineer (PE) certifies the cost as reasonable after reviewing the estimate. 3. No cost certification signature is provided; cost curves will be used, if possible, to generate estimated costs. To use cost curves for sewer replacement/ rehabilitation costs, complete the Alternative Cost Calculation for Sewer Replacement Costs box above.	
I certify that to the best of my knowledge the cost of the community's clean water needs described herein are accurate.	
Name:	
Title:	
Professional Engineer (PE): Yes ☐ No ☐	
Signature:	Date:
TO BE COMPLETED BY STATE	
State Professional Engineer (PE) (Signature):	Date:
Only needed if cost certification signature is not from a professional engineer (PE) Note to State: ***State engineers should not calculate community's costs, only validate them.***	

Summary

- 2012 CWNS Timeline
  - Pilot Data Collection: Begins soon
  - Official Data Collection: January 2012 through October 2012

- Community input essential
  - To accurately document wastewater needs
  - To secure funds for future wastewater projects

- Iowa's CWNS team is here to help
  - Call with questions or comments
  - Call to obtain assistance in completing the survey

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Contracted to support DNR

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QUESTIONS

EXTRA SLIDES

CWNS Categories

I:	Secondary wastewater treatment
II:	Advanced wastewater treatment
III-A:	Infiltration/inflow correction
III-B:	Sewer replacement/rehabilitation
IV-A:	New collector sewers appurtenances
IV-B:	New interceptor sewers and appurtenances
V:	Combined sewer overflow correction
VI:	Stormwater management programs
VI-A:	Stormwater Conveyance Infrastructure
VI-B:	Stormwater Treatment Systems
VI-C:	Green Infrastructure
VI-D:	General Stormwater Management
X:	Recycled water distribution
XII:	Decentralized wastewater treatment systems

CWNS Categories

Category VII – Nonpoint Source Pollution Control

VII-A: Agriculture (cropland)
VII-B: Agriculture (animals)
VII-C: Silviculture
VII-E: Ground Water Protection
VII-F: Marinas
VII-G: Resource Extraction
VII-H: Brownfields
VII-I: Storage Tanks
VII-J: Sanitary Landfills
VII-K: Hydromodification
VII-M: Other Estuary Management Activities

CWNS Data Uses

- Allotment of Clean Water State Revolving Funds (CWSRF) funds
- Provides information to Congress and state legislatures for budget and policy purposes
- Informs the public and contributes to academic research

Small Community Needs Form (71)

- Not Cover Pages for other documents

Small Community Needs Form
January 31, 2012

Town: Needsville

Needs: SSOs
Cost: $1,000,000
(See Attachments)

Signatures: XXXXXX

Needsville
Capital Improvement Plan
March 1, 2005

Project 1:
Correct SSOs Problems.
Estimated Cost: $1,000,000

Project 2:
Rebuild High School.
Estimated Cost: $9,000,000

Form may be pre-populated if information is already available.

A representative of the community can add needs and costs not captured in the pre-populated form, or needs and costs can be corrected

Step 2: New Needs and Costs Information

If you do not have sufficient documentation (as described in Step 3), complete the following tables and questions to document new capital needs and costs in your community. Identify any water quality or public health-based capital needs not already described in Step 2. Needs must exist and not be funded as of January 1, 2012. They can include estimates for new infrastructure, sustaining current infrastructure, and/or meeting future growth needs (through December 31, 2031).

To complete:

- NEEDS: Identify the category(ies) of needs applicable for your community. Definitions of each of the needs categories are available at http://www.epa.gov/owns
- REASON: Mark the reason (public health problem [PH], water quality problem [WQ], or both).
- DESCRIPTION: Describe the needs and project benefits in as much detail as possible:
  - Provide units if applicable (e.g., length of sewer, capacity of pump, NPS or stormwater best management practices, etc).
  - Include discharge BOD limits and nutrient removal practices for Secondary and Advance Treatment needs
  - Include a description of the environmental benefits of the project/facility
  - Identify the target implementation year and projected end year of needs
  - Indicate if the needs are to improve energy efficiency and/or adapt for climate change.
- COSTS: If available, provide cost information for each need. Indicate the source (document name) and the base month and year of the cost information. Attach a copy of the source document. If no cost information is available, indicate NA in cost column.
- Add additional pages, if necessary.

NEEDS	REASON	DESCRIPTION	COSTS
Secondary Treatment (including sludge handling/disposal)	PH ☐ WQ ☐		
Advanced Wastewater Treatment	PH ☐ WQ ☐		
Infiltration/Inflow Correction	PH ☐ WQ ☐		
Sewer Replacement/ Rehabilitation **(see also Optional Cost Calculation for Sewer Replacement/ Rehabilitation Costs)**	PH ☐ WQ ☐		

CUPSS (Check Up Program for Small Systems) Wastewater Asset Management Plan (73)

- This document can only be used if the local community is using CUPSS
- CUPSS is a free, easy-to-use, asset management tool for small drinking water and wastewater utilities.
  - http://water.epa.gov/infrastructure/drinkingwater/pws/cupss/index.cfm
- Intention is to design a way for CUPPS reports to be exported to the CWNS DEP.

How is CWNS data available?

- Report to Congress (www.epa.gov/cwns)
- Ask WATERS allows data to be queried on various scales:
  - National
  - State
  - County
  - Watershed
  - Congressional District
  - Facility/ Project

  http://www.epa.gov/waters/tools/ask_waters/index.html