

Coming to Terms with Affordability



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Session Objectives

- Overview of “affordability” terminology and criteria currently in use
- Analysis of key differences among common approaches
- Provide range of options for funders interested in reviewing/modifying or expanding criteria
- Discuss criteria for establishing criteria?

Coming to Terms

1. Overview of basic concepts
2. EPA regulations, guidance and terminology
3. USDA approaches and terms
4. HUD approaches and terms

Legislative Definition Example: Senate Bill 3443

(2) AFFORDABILITY- The term ‘affordability’ means, with respect to payment of a utility bill, a measure of whether an individual customer or household can pay the bill without undue hardship or unreasonable sacrifice in the essential lifestyle or spending patterns of the individual or household, as determined by the Administrator.

1. Select Your Utility Rate Structure:

2. Select Type of Bill (5,000 Gallons/Month):

- Water Bills
- Sewer Bills

\$60.20

Rates: FY 2007-08

3. Select Your Comparison Criterion:

Revenue Group

\$0.5M to \$1M

Operating Revenues:
\$0.5M to \$1M

56 rate structures compared



[Click for more data](#)

Sewer Bill for 5,000 GPM



Conservation Pricing Signal



Price (\$/1000 gallons) for sewer at 10,000 GPM

Operating Ratio (FY07)



Water & sewer oper. rev./oper. expenses for the utility, LAST YEAR

Sewer Bills as % MHI



Expenditures for 5,000 GPM as % Median Household Income of wn

EPA Concepts and Terms

- Affordability
- Financial capability
- Affordability justified variance
- Affordability justified exemption
- Disadvantaged community

Are Drinking Water Regulations Affordable?

THE ABILITY OF CUSTOMERS TO PAY THE COST OF NEW DRINKING WATER REGULATIONS HAS BEEN A CRITICAL AND CONFUSING ISSUE EVER SINCE ENACTMENT OF THE SAFE DRINKING WATER ACT (SDWA).

Consider the following floor exchange during debate on the SDWA, which took place on Nov. 19, 1974 (Cong. Rec., 1974):

Mr. Kazen: . . . I am wondering what would happen in some of the small communities in this country when the [US]EPA comes in and says, 'Your water is not safe under our guidelines, and you are going to have to upgrade your water plant in this community.' But say that that community has already used up all of its bonding authority, and does not have the money to be able to upgrade its water plant; what do the people in that community do?

Mr. Latta: Let me answer that by saying to the gentleman from Texas that I do not have an answer. That is my objection. May I say I

AFFORDABILITY AND DRINKING WATER REGULATIONS

Affordability is not only a small-system issue. Existing and future regulations as well as replacement of aging infrastructure are forcing utilities to increase water rates—water bills have generally increased at a rate greater than the consumer price index. At the same time, real incomes of the poor have decreased, and household energy costs (natural gas, electricity, gasoline) have increased dramatically.

Affordability can be assessed at several levels. Household affordability is the most basic level. Can a household afford to pay its water bill? What must a household sacrifice in order to pay a higher water bill? What is the effect on the customers' willingness and/or ability to pay higher water bills if other costs (e.g., energy,

EPA Concept #1: Affordability Small System Variance Technology

- SDWA Provision (1415 (e))
- Water Systems serving 10,000 or fewer
- Long term implications
- “Infrequent” and controversial
- National Level Test (1998)
 - Cost of water treatment with additional treatment technology exceed **2.5 % of MHI**

Devil is in the Details

- 2.5% Test

- National expenditure plus EPA's estimated compliance cost

- National averages

- Median Household Income

- Aggregate of aggregate across multiple households and multiple systems

Is the Current Approach Broken?

- 2002 – Congressional requirement to review
- NDWAC Reviews
 - Tinker with caution
 - Move to incremental approach with high threshold (1%)
- Science Advisory Board (SAB) Reviews
 - Methodologically sound
 - 2.5% probably too high in some situations

Application #2: Affordability Exemptions

- Temporary
- “More time”
- Guard against Unreasonable Risk to Health (URTH)
- State defined tests/evaluation

Application #3: Financial Capability Guidelines for Combined Sewer Overflows (CSO)

- Measures financial burden
- Determines Long Term Control Plan Calendar
- Based on costs not rates (and taxes)
- Incorporates community level financial information

Financial Capability Indicators

Indicator	Strong	Mid-Range	Weak
Bond Rating	AAA-A (S&P) or Aaa-A (Moody's)	BBB (S&P) Baa (Moody's)	BB-D (S&P) Ba-C (Moody's)
Overall Net Debt as a percent of Full Market Property Value	Below 2%	2% - 5%	Above 5%
Unemployment Rate	More than 1 percentage Point Below the National Average	± 1 Percentage Point of National Average	More than 1 Percentage Point Above the National Average
Median Household Income	More than 25% Above Adjusted National	± 25% of Adjusted National	More than 25% Below Adjusted National
Property Tax Revenues as a % of Full Market Property Value	Below 2%	2% - 4 %	Above 4%
Property Tax Collection Rate	Above 98%	94% - 98%	Below 94%

Two Step Process

Permittee Financial Capability Indicators Score (Socioeconomic, Debt and Financial)	Residential Indicator (Cost Per Household as % of MHI)		
	Low (Below 1.0%)	Mid-Range (Between 1.0 and 2.0%)	High (Above 2.0%)
Weak (Below 1.5)	Medium Burden	High Burden	High Burden
Mid-Range (Between 1.5 and 2.5)	Low Burden	Medium Burden	High Burden
Strong (Above 2.5)	Low Burden	Low Burden	Medium Burden

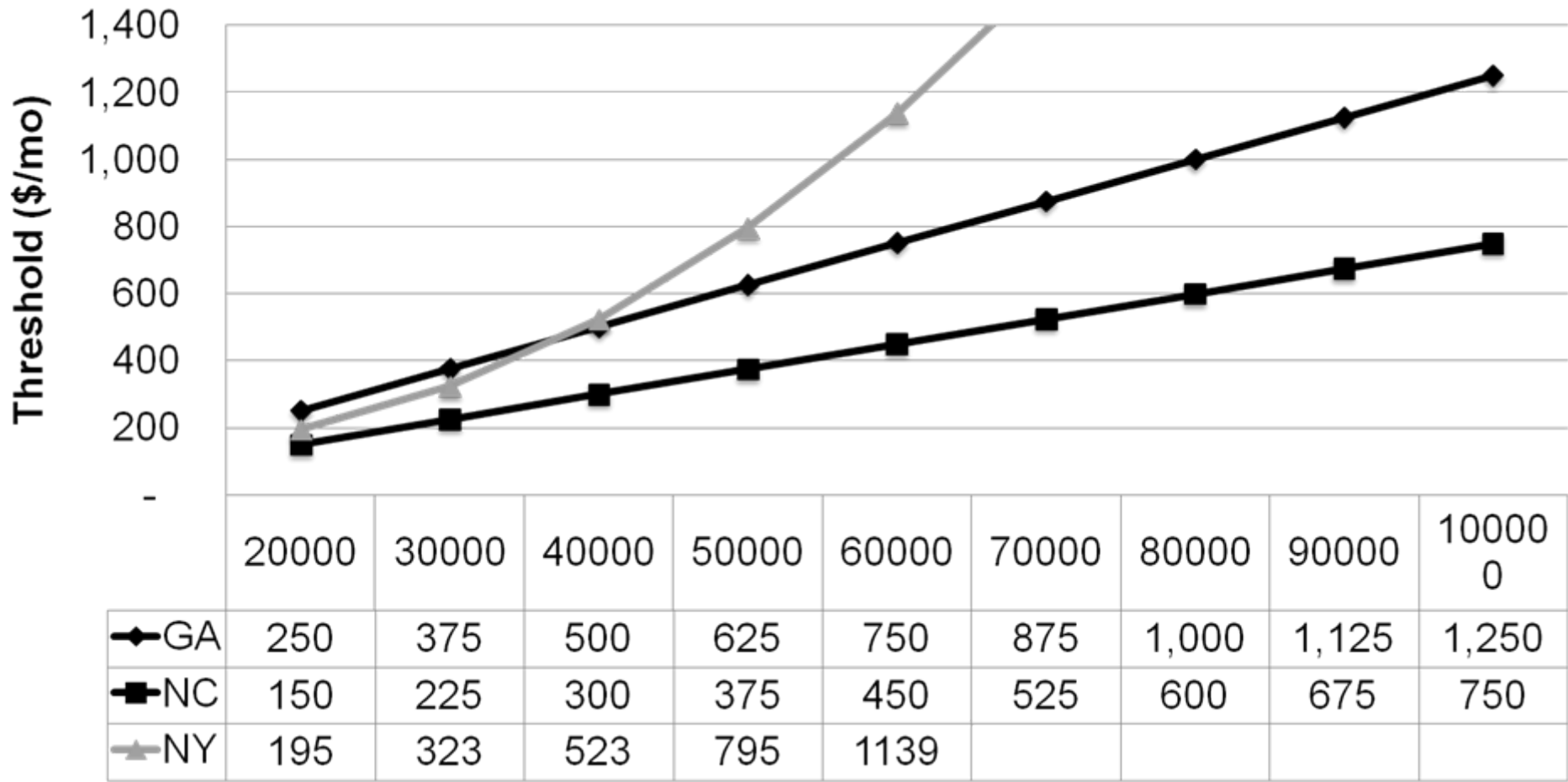
Application #4: Special Appropriation Local Match Waiver

- Financial capability guidelines are used to evaluate request for local waivers for EPA special appropriation project grants

Application #5: Disadvantaged Community Designation

- Gateway to special assistance (grants, longer term loans)
- State determined criteria

Affordability Rate Thresholds (GA, NY, NC)





COLORADO WATER RESOURCES &
POWER DEVELOPMENT AUTHORITY

What Criteria did we come up with?

- ▶ **Population Size – Governmental Agencies with a population of 5,000 or less.**
- ▶ **Median Household Income (MHI) as compared to the State MHI.**
- ▶ **Two Categories of Disadvantaged Communities.**

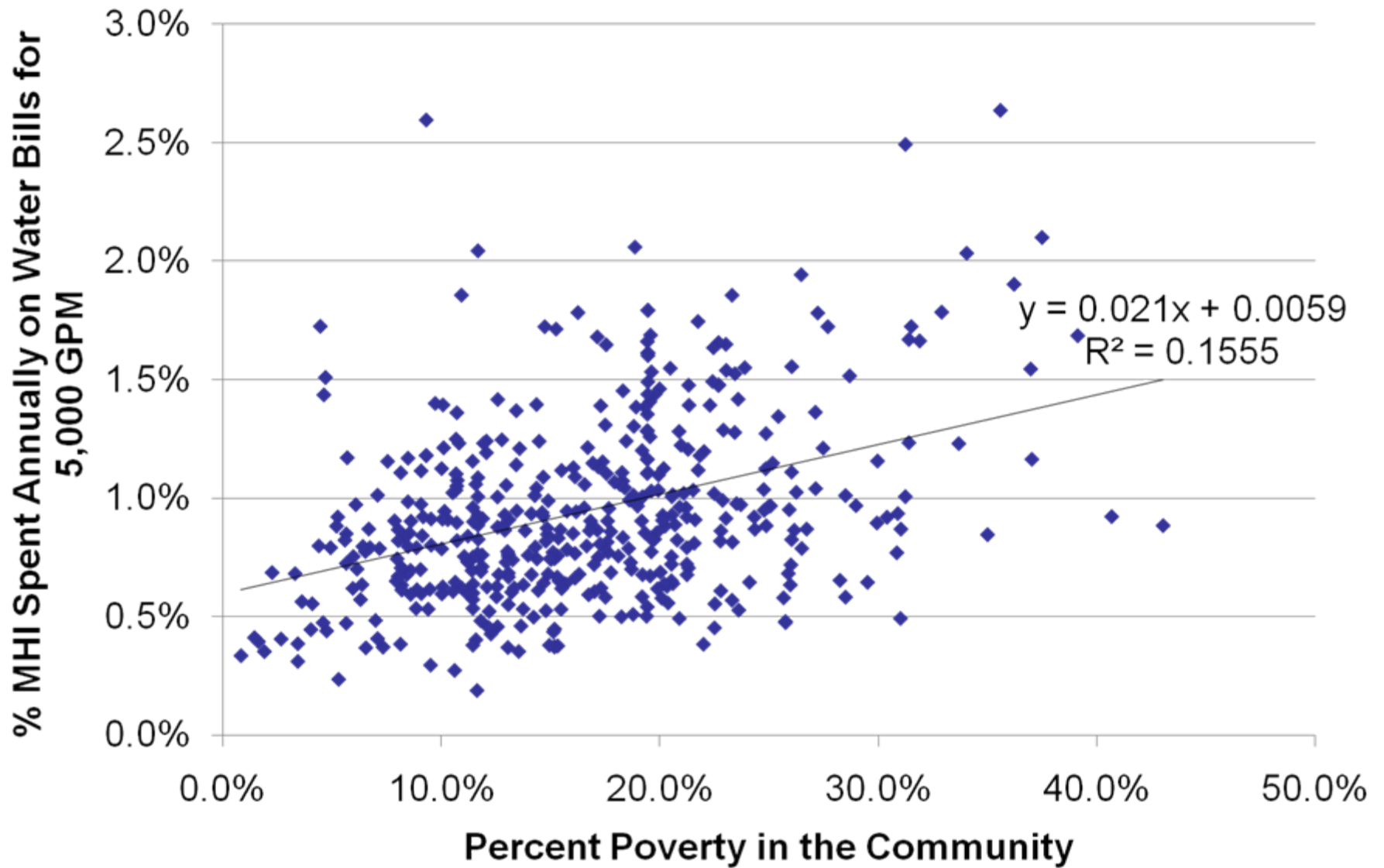


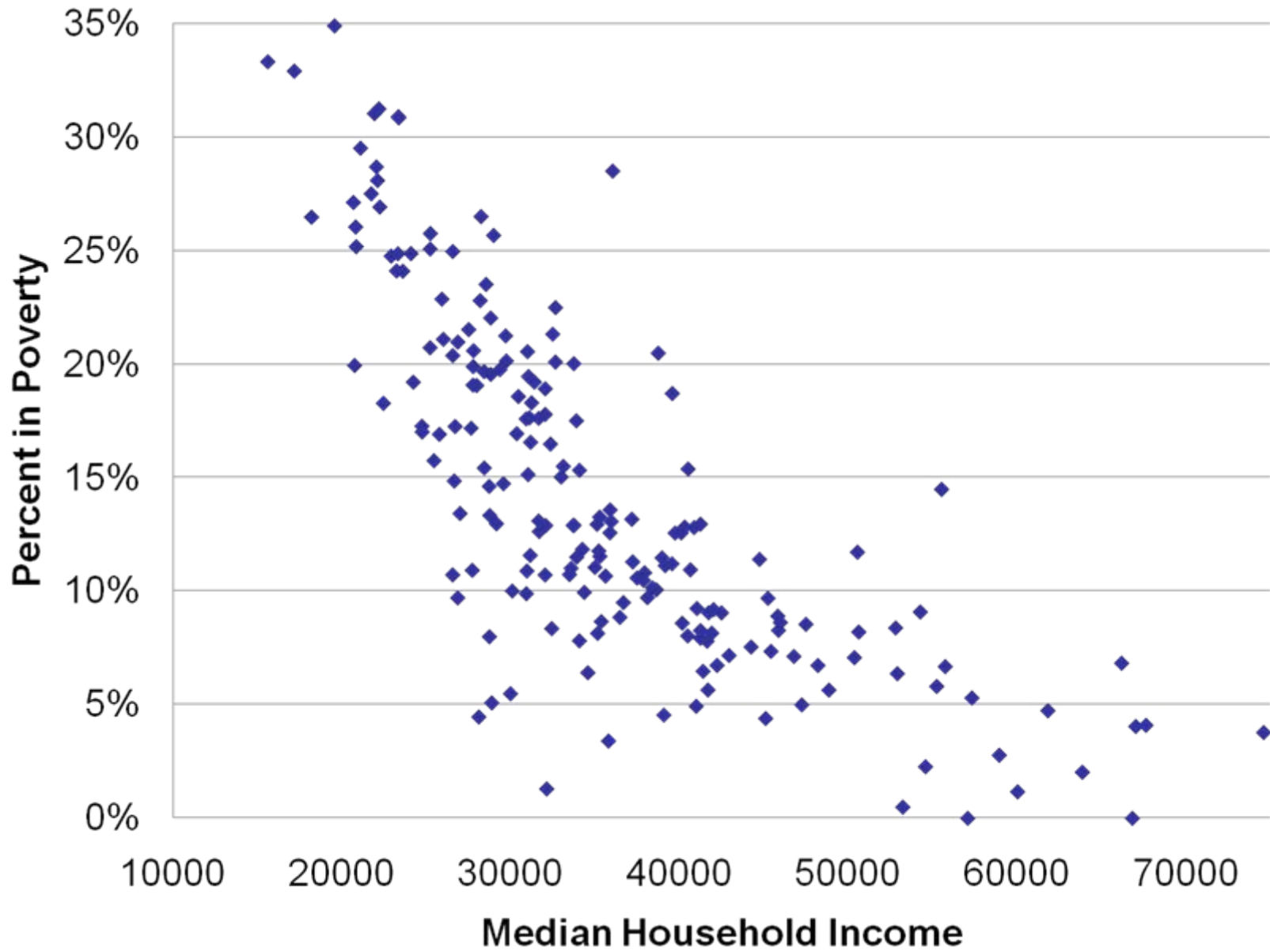
Application #6: Funding Priority

SDWA 1452 (b) (3) (A)

- (A) In general.—An intended use plan shall provide, to the maximum extent practicable, that priority for the use of funds be given to projects that—
- (i) address the most serious risk to human health;
 - (ii) are necessary to ensure compliance with the requirements of this title (including requirements for filtration); and
 - (iii) assist systems most in need on a per household basis according to state **affordability criteria**.

% MHI Spent on Water Bills and % Poverty in 465 Communities





EPA Study of 1986 SDWA Amendments

Affordability to Households

- Pre-amendment drinking water costs: 7.5 percent of households nationwide (annual income of less than \$10,000)
- Post SDWA amendments: 11 percent of households

Key Questions

- Single step vs. multi-step
- Should criteria look at incremental or aggregate impacts?
- What should be included in assessment?
- Should focus be on system, sub-system, or household?
- How many will qualify?

Other Applications

- USDA
- HUD
- Household Level Application