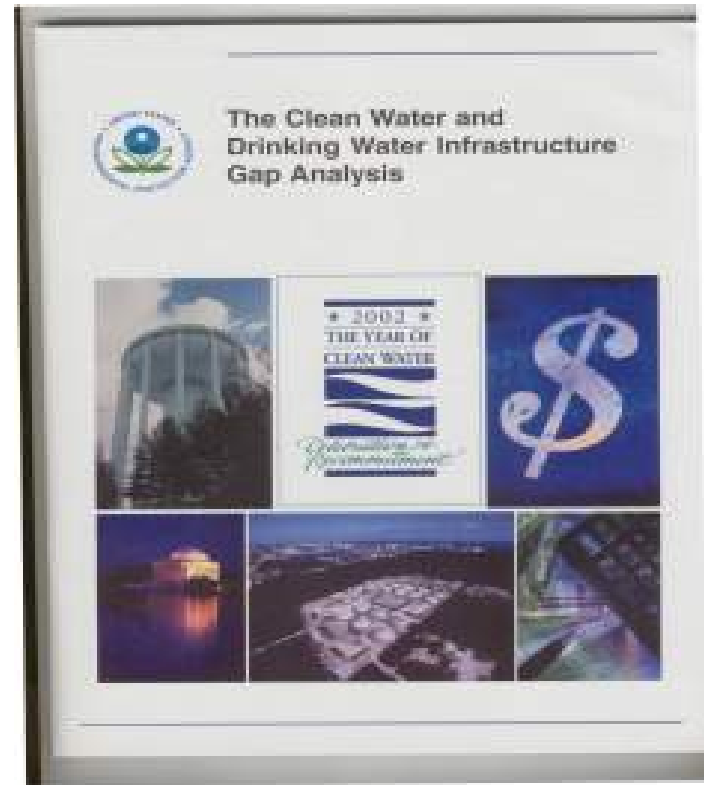

The Need for Gap-Based Strategies in SRF Programs

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2002 National Gap Report

The “Gap” is the difference between the revenues that systems are expected to collect, and the cash needs of those systems for O&M, debt retirement, new capital and replacement capital.



<http://www.epa.gov/owm/gapreport.pdf>

The questions to answer...

1. Is there a state-level recognized expectation of how high user rates should be before subsidies should be expected?
2. Does the state have enough subsidy money to satisfy all the needs that are above that affordability threshold?
3. Is the use of your subsidies part of a statewide strategy to satisfy all needs?

What information do we have to deal with the three questions?

- ❑ National 2002 Gap Study Data: Not state-specific
- ❑ National Needs Surveys (2004 CW, 2007 DW) measure *CIP-documented capital* only (they do not collect O&M, or needed-but-unplanned capital improvements).

Not much. We generally have only a vague idea of how to deal with the gap.

What is a Gap-Based Approach?

Distributing subsidies to the right communities and in the right amounts to get the most overall work done.

Assumes:

- ❑ Needs far outstrip subsidies
- ❑ User rates can (must?) fill most of the void

Requirements:

1. Knowing how the gap is reduced as user rates increase
2. Estimating available subsidy dollars
3. Making policy judgments on user charge affordability
4. Distributing subsidies to fill the remaining gap

Let's focus on those 4 "requirements"

1. Understanding the gap at varying rates

For an individual utility, estimate gap by calculating 20-year needs (capital, O&M and debt service) and subtracting 20-year revenues at current rates.

If a gap exists at current rates, you assume increases in rates up to (for example) 2.5% of MHI). Make record of gap at each level of user charge. Stop when needs are met.

Do for a sample of utilities, and extrapolate statewide.

"Presto," you know the gap at varying user charges

2. Estimate of available subsidy dollars

- ❑ Calculate the cash benefit provided by loan dollars over the coming 20 years.
- ❑ List, for the coming 20 years, the grant dollars that are expected...and add to the above.

3. Policy judgments on user charge

AFFORDABILITY

In PA the gap, at existing rates, is \$43.8 B

The total available subsidy is \$2.1 B.

Clearly, a large part of the solution will involve higher user fees. How?

Affordability

The Problem:

Costs are usually considered affordable only if they are low and are never increased

Affordability

You are nevertheless going to need to set some standard of affordability, like, for example, utilities are expected to have rates of up to 1.5% of MHI before subsidies can be expected.

4. Distributing subsidies to fill the gap

Develop policies which, statewide, eliminate subsidies to those projects which are considered affordable without it.

Are the SRFs designed to put dollars into the gap?

Not entirely.

The SRFs are water quality/public health programs, not infrastructure building programs. Dollars are expected to go to projects with higher documented benefits, regardless of whether those projects could have proceeded without the assistance.

Is there a disconnect?

To a degree, yes

- ❑ We should be concerned about overall water quality in a state, not just the benefits of the projects we fund.
- ❑ If some projects are unable to proceed due to lack of funding, and others, funded, could have proceeded on their own, are benefits of subsidy money maximized?

PA Gap Study

Data Collection and Analysis

- Representative sample 354 systems (196 WW, 158 DW)
- All 6 State drainage basins
- Large and small systems, public and private
- Data collected onsite by state staff, using computerized questionnaire

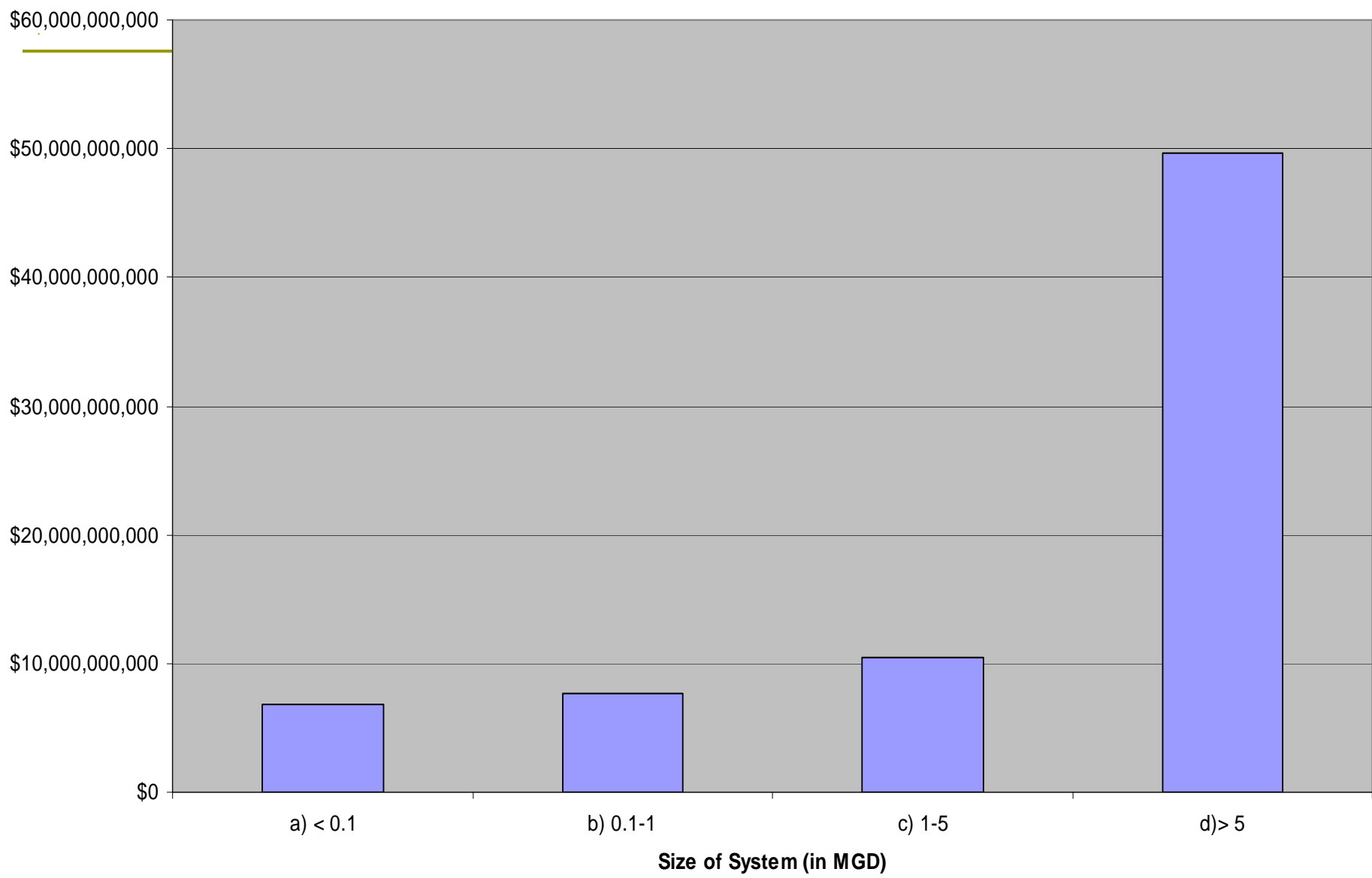
PA Gap Study Status

- ❑ First phase of data collection done (50% of planned sample)
- ❑ First analyses now becoming available

PA Gap Study Wastewater Findings

- o Capital needs higher than previously estimated
- o Gap is heavy in big systems
- o Gap is reduced substantially if rates increase as needed, disappearing for most systems at 1.5% of MHI.

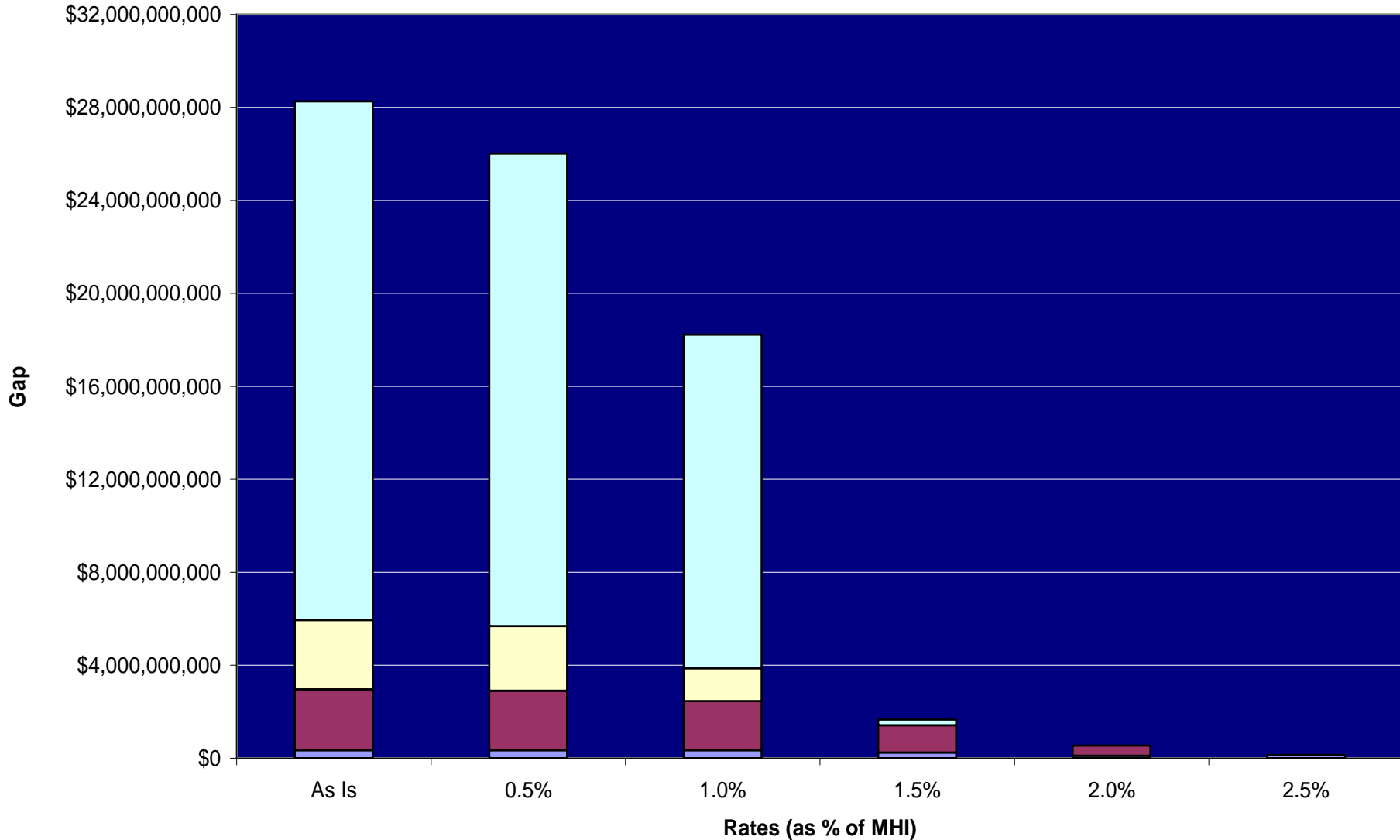
Total Wastewater Needs Over 20 Years Assuming a 2% Increase in Operating & Maintenance Costs Annually



Wastewater Facilities - Gap vs Rates (2% Increase in O&M Annually)

Total Gap for Facilities Processing:

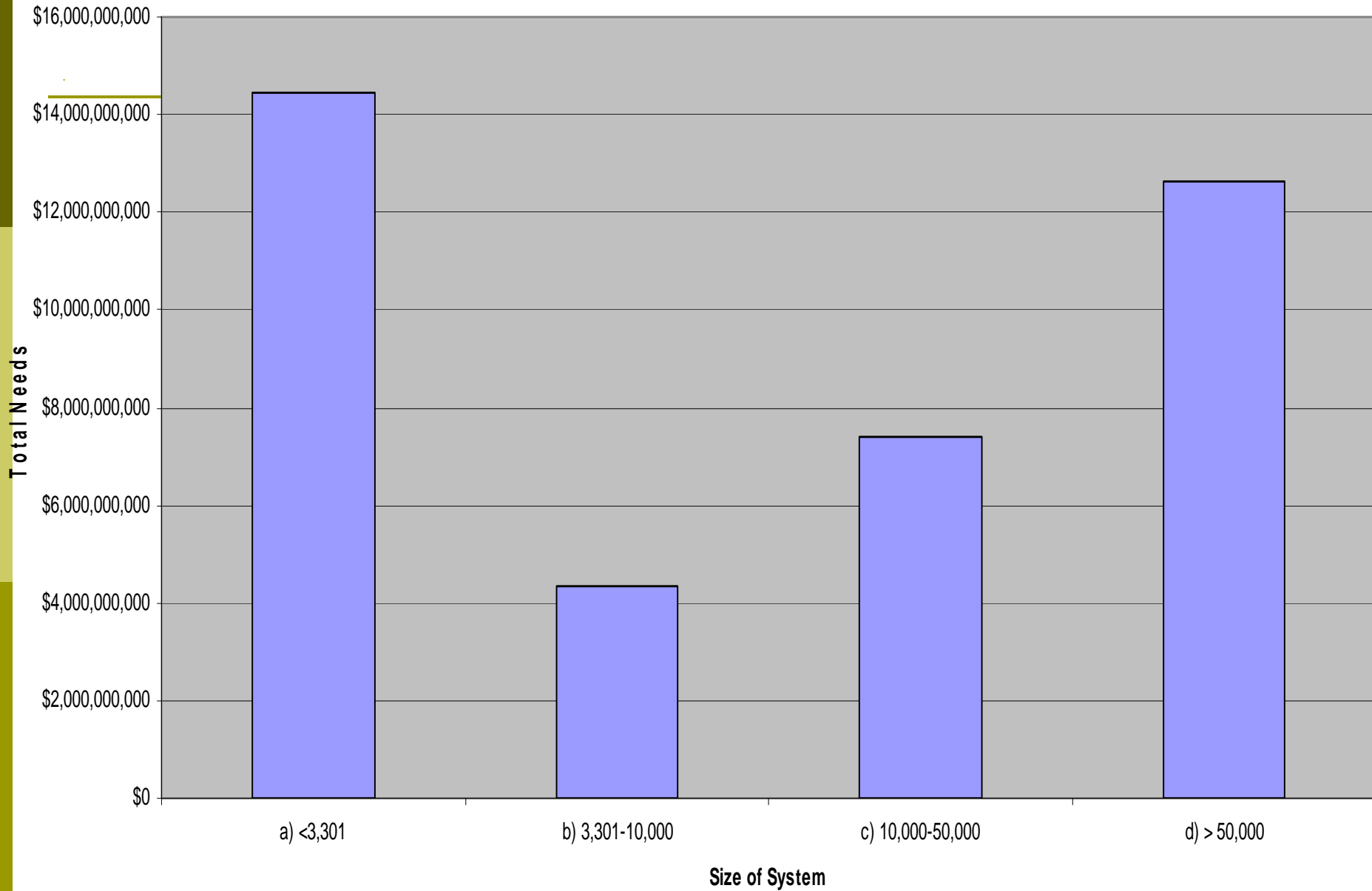
a) < 0.1 MGD b) 0.1 - 1.0 MGD c) 1.0 - 5.0 MGD d) > 5 MGD



PA Gap Study Drinking Water Findings

- o Needs are heaviest in small systems
- o Gap is heavy in small systems
- o Gap is reduced substantially if rates increase as needed; continued problem in small systems

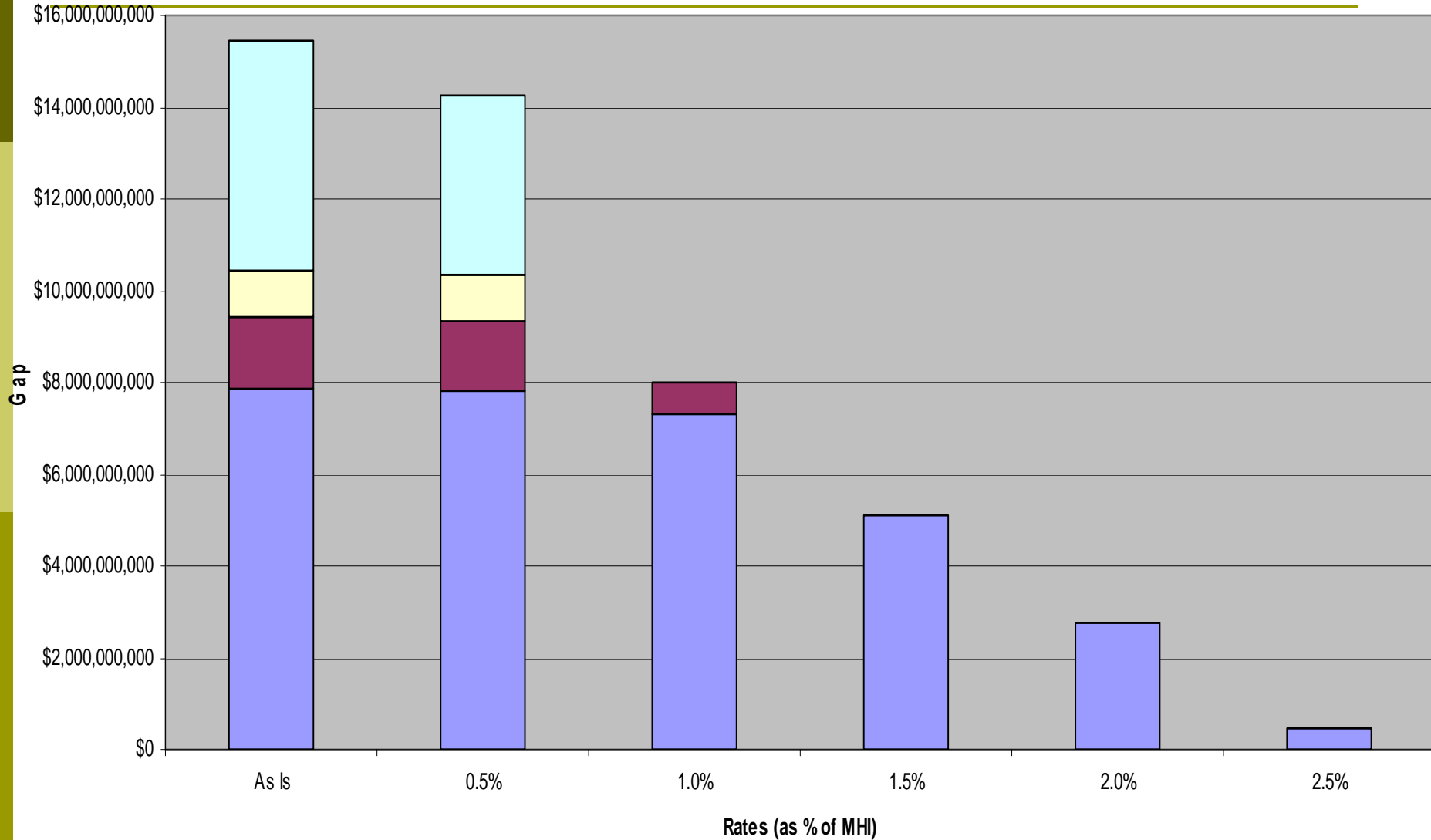
Drinking Water Needs Over 20 Years Assuming a 2% Increase in Operating & Maintenance Costs Annually



Drinking Water Facilities - Gap vs Rates (2% Increase in O&M Annually)

Total Gap for Facilities Serving Populations:

■ a) <3,301 ■ b) 3,301-10,000 ■ c) 10,000-50,000 ■ d) > 50,000



So what does this tell us?

- There is a total 20-year gap in PA of \$43.8B (\$28.3B WW, \$15.5B DW)
- Capital needs are \$36.5B (\$25B WW, \$11.5B DW)
- Total existing 20-year subsidy cash value for PA is \$2.1B

Policy Implications

- Use statewide gap results to help decide target user charge levels.
- Limit subsidies to those needed to achieve target user rates

So, how high must rates be to allow available subsidies to resolve the gap?

For example, at:

WW...with user charge expectation of up to 1.5%,
gap is \$1.7 B

DW...with user charge expectation of up to 2.0%,
gap is \$2.8B

Assumes subsidies available only after target user charges being paid locally

Total \$4.5B - \$2.1B = \$2.4B needed in additional subsidy or efficiencies

The questions from the beginning:

1. Is there a state-level recognized expectation of how high user rates should be before subsidies should be expected?
2. Does the state have enough subsidy money to satisfy all the needs that are above that affordability threshold?
3. Is the use of your subsidies part of a statewide strategy to satisfy all needs?

Thanks for your time!

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