

Dear GAO,

I have reviewed the draft portions of the GAO report on “Efforts to Strengthen Critical Infrastructure.” I reviewed all the pages I was provided, pages 1-12.

Small and rural communities’ comments are provided below. Please contact me with any questions and thank you for the opportunity to participate in the study and comment on these pages.

We would like to make these comments available to the public. Please let us know if you think this would violate our agreement not to release the contents of the study. If you believe it does, we will hold the release of our comments until the report is final.

Thank you again for allowing us to participate,
Mike Keegan (rural water)

COMMENTS

Page 2, “How do the chemical and water sectors’ perceive the role of the federal government.”

Comment: the perspective of small and rural water supplies does not seem to be included in the report. The report mentions an assessment of the views of 8 various-sized water systems as interpreted by GAO analysts. The perspective of the National Rural Water Association (which represents over 24,000) is available if you desire to include it in the report. This perspective is largely covered in the following documents:

1. Letter to DHS: <http://www.ruralwater.org/securityplan.pdf>
2. Survey of 240 Small Communities: <http://www.ruralwater.org/securitysurvey.pdf>
3. Letter to Senator Inhofe: <http://www.ruralwater.org/s1039letter.pdf>

Page 3, Use of the term “freshwater supply”

Comment: consider using the more familiar term within the drinking water society of “drinking” water supply.

Page 3, “...and about half are privately owned.”

Comment: If GAO is referring to privately owned “for-profit” water companies, which is how this terminology is commonly used – the percentage of private for-profit water systems (as a percentage of community water systems) is far less than half. Probably only a small fraction of community water supplies are for-profit private systems.

Page 4, “few federal requirements specifically address the security of drinking water”

Comment: “few” is not how we would characterize EPA’s authority under the Bio-Terrorism Act to require all water systems over 3,300 person to conduct a vulnerability assessment. Perhaps concluding that this mandate is only a “few” requirements shows

GAO's particular perspective on the relationship between the federal government and local government – which may be meritorious. However, we (representing local government) would conclude that the mandate on small communities to complete vulnerability assessment to be “significant,” “increased,” or something with a different import than the term “few.” It seems difficult to objectively characterize which adjective to use to describe the amount of federal requirements – but we would not consider it “few.”

Page 5, Bullet points covering, “Information Sharing” and Training and Exercises”

Comment: These items listed by the report include: the Information Sharing and Analysis Center, EPA guidance, EPA technical assistance on technology advances, EPA's water security group under the NDWAC, and EPA training course. The report characterizes these efforts as the federal involvement for water systems. While all of the efforts identified *are* federal involvement, all have been largely irrelevant to small communities in completing vulnerability assessments and protecting their supplies. For example, most of the Threat Assessment documents that EPA was required to deliver to water systems never made it to the small systems through EPA's initial attempt. In October of 2002, EPA mailed water systems a letter detailing how they could gain access to EPA's Threat Assessment material. Systems were told to reply to the letter by faxing or emailing a request for a password to download the Threat Assessment from the water-ISAC or having it mailed to the system. Our experience (and EPA's own findings) show that many small systems did not receive EPA's letter in October for a number of reasons: many of EPA's addresses were incorrect, the letters never made it to the correct local officials upon delivery, many systems could not get the fax to go through and stopped trying after a number of attempts, after having replied to the letter by fax, many systems did not receive a follow-up password, or received a password that did not function, or could not access the document on the internet, etc.

Perhaps the items listed in this section are from the EPA's perspective on involvement with water systems. However the main federal involvement assistance smaller communities with water security came from Congressional funding support earmarked in the EPA budget for state rural water associations' assistance to provide ON-SITE assistance to communities (appropriately \$2.0 million in FY2004). Through this funding state rural water associations were able to provide the necessary assistance to complete vulnerability assessments and emergency response plans for most of the small and rural towns serving more than 3,300 people. State rural water associations walked 80% of small communities through completion of their vulnerability assessment (we have the list of communities that participated with rural water). Also important to note is that these systems relied on the rural water software (the SEMS model) to complete their vulnerability assistance (most found the other EPA and DOE software models unworkable for their communities). Using the Congressionally appropriated funding state rural water associations provided 147 of security training workshops and 2,400 on-site visits. (see example in Utah: <http://www.ruralwater.org/report2003/chapter4.pdf> - page 11)

Page 6, “Although the water sector has not generated a specific industry code.”

Comment: small communities have generated an industry code called SEMS (http://www.voltaenterprises.com/sems_suite.php). This software was developed in consultation with the state drinking water administrators and it has been approved by EPA to complete vulnerability assessment. It has been distributed to small communities with training for relatively no charge and it being updated by USDA for wastewater systems. Most every small community that conducted vulnerability assistance used this model. We have asked EPA how many communities used SEMS to comply with the vulnerability assessment mandate in order to gauge, which federal efforts have been used and are effective. However, EPA replied that they were not interested in such an assessment.

Page 6, “92 percent of smaller systems have submitted their vulnerability assessments.”

Comment: We are not certain of the small communities compliance numbers. We have reports of communities that have submitted vulnerability assessment that have not been recorded by EPA. I can forward examples if you would like to review. It is common to find errors in EPA’s water compliance databases that may call into question the certainty of this numbers (for example see: IG report <http://www.epa.gov/oigearth/reports/2004/20040305-2004-P-0008.pdf>)

Page 8, “systems that we visited told us that they faced several obstacles.”

Comment: Perhaps it would be more accurate to use the term “realities,” rather than “obstacle” for this point. “Realities” is more reflective of our findings in our analysis of the several hundreds communities in discussing this point. As your report states, “officials... told us that they are consistently challenged to balance the need for rate increases to fund security...” This is true and consistency with our findings, however we believe that a challenge is not necessarily a problem - but a reality that could be good for determining the best possible public policy. On the other hand, an “obstacle” signifies something other than a challenge (in our opinion) – it signifies a problem that may precipitate new legal authorities to solve. This is something we don’t see as necessary or as promoting security. Another example of this point is the report’s finding that “the public... did not perceive the water system at risk.” This point is listed under the heading of “obstacles.” We believe in this context, federal policy makers could infer the point as a predicate for federal regulatory authorities to overcome such an “obstacle.” However small communities believe that such a federal regulatory solution would encourage more public apathy because it would replace local sovereignty and local responsible with compliance regime that is not accountable to local priorities. Therefore we believe it would be more accurate to label these points as challenges or realities.

Page 10, “For those systems we visited, the actions taken reflected the system’s own risk assessments and resource constraints.

Comment: It is unclear to us if GAO has a position on the merit of systems tending to their “own” risk assessments versus some other risk assessments (or if federal standards

are needed to ensure some level of protection). Does GAO think this is a problem? Providing more context may be helpful to readers because we believe this is perhaps the most important policy point for analysts and Congress to consider and answer. Our conclusion, based on empirical experience and principle, is that it is counter-productive to allow for federal uniform standards to override the priorities determined in local risk assessments. This conclusion seems to be understood by EPA – when we asked EPA what is the best way to respond to specific vulnerabilities in water systems, they replied: “[r]egarding a recommendation for a circumstance detailed in the question, EPA looks at this as being a system-by-system determination.” This point is not included in the GAO report and, contrary to EPA, doesn’t seem to be understood by the GAO authors of the report. The report lists a table (Table 2) that indicates the federal government requires a vulnerability assessment, but a risk reduction plan-implementation measures-and-verification is not required. It appears to my reading of the report that GAO is inferring, in this section of the report (especially Table 2), that the proper method to securing water is incomplete. We believe this missed the main lesson of advancing security; that it is better to increase the preparedness and competency of local officials than to increase uniform or regulatory requirements on them in the effort to have them best manage a crisis. We included the following anecdote to illustrate this point:

Kansas published in the Nov. 2002 issue of the Kansas Rural Water Lifeline [www.krwa.net/lifeline/]. In the actual incident, a small utility was warned by an anonymous call that the water district had been compromised. What to do? First, what not to do was follow the direction of the local sheriff’s office that requested that the system (that produces the water for a number of small systems) shut down and drain all treatment, storage and distribution systems.

The water systems contacted rural water immediately after calling the state primacy agency, the Kansas Dept. of Health and Environment (KDHE). The Kansas rural water technician arrived on the scene within two hours of the threat and about 15 minutes after the state environmental region’s engineer. When the rural water technician arrived, he found the local sheriff, and utility managers discussing the situation. He gave a quick review of the facilities and together they began checking the three systems for chlorine residual. All samples were within limits. The inspection of the facilities showed no apparent tampering with the distribution system, storage tanks or the city’s treatment plant.

Outside agencies attempting to command the situation threatened to make the situation worse. The sheriff wanted all three water systems to drain their water storage tanks and distribution systems and allow them to stand empty for two days. The rural water technician explained this was not prudent for a number of reasons including the threat of backflow and backsiphonage, much less the increased risks associated with having no fire protection.

The FBI was contacted during this event. However the main lessons from this real-life incident are: that in a real crisis each rural or small community itself is responsible, difficult decisions need be made **immediately** in order to protect the public health, and

there is no one resource (state or federal governmental agency) that has the best answer. According to the head of Kansas Rural Water, Elmer Ronnebaum, *“each public water system is liable for all operating decisions and only advice from qualified individuals, such as the state regulatory agency, should be considered by the utility in a situation of this nature. The system must consider all the facts and make intelligent decisions based on the information available considering the liabilities that may be associated with the action it takes... The more you plan ahead trying to anticipate situations, the easier your job will be to respond with appropriate actions.”*

It appears that only model for enhancing water security included in GAO’s report is the federal regulatory model (assess and have the federal government verify compliance under some uniform regulatory structure). We believe an alternative model works better - increasing the competence of every local community to respond to the specific vulnerabilities of their particular community. There is no uniform filter that can be applied to every community in the country to determine if they have taken all the best possible actions to secure their systems because (1) communities are too disparate for a uniform review, and (2) only local experts (police, mayors, councils, city managers, long-term community leaders, etc.) can identify the most pressing vulnerabilities in a given community. Some vulnerabilities can be as specific as where an extra set of keys is hanging – and the possibilities are infinite. EPA agrees with this conclusion and stated to us that they can’t determine the best “specific” security plan for any given community.

In another anecdote, a small mobile home park in rural Maine placed a concrete sewer pipe and concrete cap over their well versus putting up a fence because gaining access is more difficult and it was cheaper. What type of compliance regiment could measure if a small community should put up a fence, place sewer caps on wellheads, increase padlocks on doors, or collect old keys from delivery personal? The unintended consequence of uniformity is that it would serve as disincentive for local innovation in responding to the most pressing needs in any given community.

In another example of this point, a rural water volunteer manager in a western state provided the training for approximately 40 towns serving more than 10,000 people and approximately 30 towns serving less than 10,000 people. In addition he personally provided one-on-one assistance to 3 cities helping them complete their vulnerability assessment. From the vast amount of exposure this manager has had with all levels of government and system vulnerabilities he indicated that neighboring utilities and rural water technical assistance has had the most impact with improving drinking water security – he explained that this is the most effective means to helping water utilities because they are friends and neighbors. The types of folks who need help are on the same level as those providing the instructions – this goes a lot further than any government official telling them how to do business. He concluded by saying that if he needed help with securing his water system the first people he would turn to would be the rural water circuit riders and friends in the water trade association. In his opinion if you asked every town in his state, they would all say the same thing. He told us that every utility is in a unique circumstance and will approach security differently based on existing countermeasures, local priorities, and local threats. Every system he worked

with had different weak links and different solutions to harden the utility against threats. Some of the examples are provided below:

- Increase employee awareness to understand vulnerabilities and weaknesses
- Change internal policies (locking vehicles, controlling keys, contractor control)
- Educate board to initiate budgeting process for more redundancies
- Change gate configuration to allow public access. Gates blocked 4-wheeling access and stopped them at water tower – which resulted in much vandalism to tower.
- Providing access to ranchers – Cowboys cut gate locks and rode horses to water tower because it was the highest point to look for cattle.
- Block public access to reservoir
- When faced with protection of multiple, select the few priority sites for detection devices.
- Educate neighbor and they stop anyone who goes towards the facility (only access point)
- Install layer of sand around bottom of water tower to detect intrusion – monitor footprints in sand
- Homemade double doors on all well houses
- Install screens on vents and skylights

Page 10, “actions take by water systems is unknown.”

Comment: The actions taken are “unknown” by GAO but they are known by many including the local communities (which makes them publicly available), and many other sources including state rural water association experts (who can be interviewed). Local community plans could be collected by most anyone including GAO. It would be time consuming, however, it may be more accurate to conclude that the actions taken by water system are “uncollected by GAO (or EPA/DHS)” than to concluded they are unknown. Additionally, it could be argued that since the main objective of security enhancements is the increase the competency of local officials – measuring actions taken is not the key indicator of increased security.

Page 11, “water systems said the would like the federal government to establish security standards to guide actions for the water sector.”

Comment: the report identifies this conclusion for only four communities. We can provide GAO with the policy of our association. This policy represents the organized and elected trade association leaders of over 24,000 small communities. We believe it should be included in the report along with the GAO interpreted comments of these four communities. Also, it would be helpful to have the exact comments from all of the utilities included in the report – as opposed to the interpreted comments by the report’s authors. We think the people interviewed would believe that would allow their thoughts and recommendations to be presented more clearly and in the best context to their meaning.

General Comments on the Portion of the Report:

- Most every small water system relied on their state rural water associations to enhance security, receive training, complete their vulnerability assistance, and review EPA compliance information as illustrated in examples provided. This effort represents only a small fraction of the federal assistance provide through the EPA and DHS – shouldn't the effectiveness of federal efforts be examined in order to prioritize successful efforts?
- The report doesn't distinguish between public and private sector entities in applying security laws, regulations, or policies. Unlike a business enterprise, security in small communities is more of a resource problem than a regulatory problem. Businesses have no self-governing democratic structure to represent their citizens (consumers) like local governments. This is the reason for governmental regulations of business enterprises and, conversely, the sovereignty provide to local governments. Because local consumer "own" the water supply is can only be accountable to its citizens. Small and rural communities are self governing, non-profit organizations. They are not businesses, they have no incentive not take all security actions possible, since they own and operate the water supply and their families drink the local water. By their very nature, they strive to take every possible action to protect consumers -- themselves.