



2009 Water Sector Measures Analysis

Prepared for
The Water Sector Coordinating Council & WaterISAC

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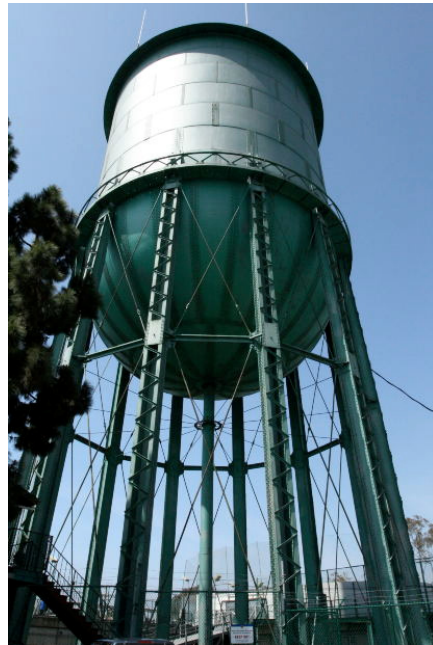
Table of Contents

Introduction	1
Analysis	3
Trends and Findings	3
Reducing Vulnerabilities and Securing Hazardous Chemicals	4
Preparedness & Responsiveness	4
Resiliency	5
Risk Understanding and Threat Awareness	5
Water Contamination Detection	6
Comparison with 2008 Reporting	6
Attachment A: Results by Measure	8
Attachment B: The Measures and Reporting Questions.....	45
Attachment C: Measures and Reporting Methodology and Data Limitations.....	49
Attachment D: State Drinking Water Program National Measures of Success for 2009	51

2009 Water Sector Measures Analysis

Introduction

In December of 2003, Homeland Security Presidential Directive 7 (HSPD-7)¹ organized the nation's critical infrastructures and key resources (CIKR) into specific sectors. Tied together through the National Infrastructure Protection Plan, each sector has worked to promote security. Working under a voluntary framework, the drinking water and wastewater sector, as one of the 18 CIKRs, has been proactive in advancing its security posture. In 2008 the sector initiated a process to report its security progress through a series of security-related measures. The water sector was the first of the 18 sectors to develop and roll out a security measurement process.

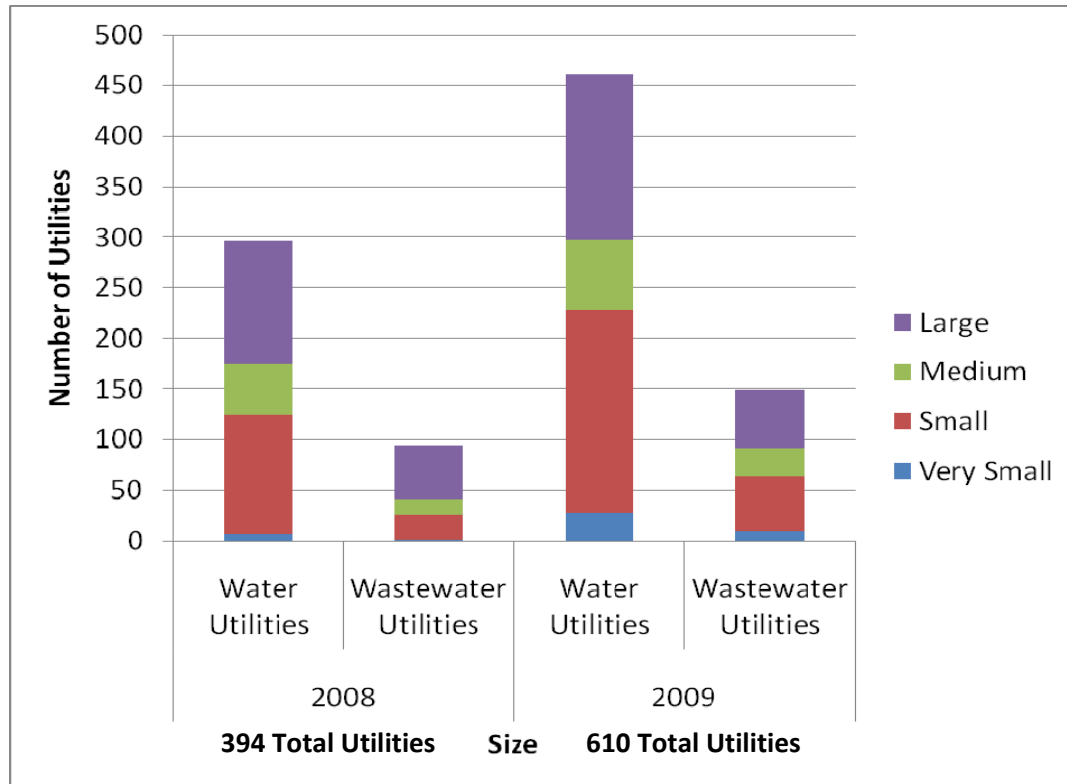


Drinking water and wastewater systems are critical to the security of the United States, delivering drinking water and providing wastewater collection and treatment services to millions of Americans. The water sector supports many vital services, including fire suppression and health care that rely on stable, high quality water supplies. An attack or even a credible threat of an attack on water infrastructure can seriously jeopardize the public health and economic vitality of a community.

The water sector developed its security measures over a period of several years. The measures are intended to provide a picture of the sector's progress in protecting this vital infrastructure. This report covers the second (2009) reporting cycle for these measures. For 2009, there were 610 total responses of which 461 responses were from drinking water utilities and 149 responses from wastewater utilities. This response rate represents a substantial increase from the 394 responses in 2008 of which 297 were from drinking water and 94 from wastewater utilities.

¹ Abstract and full text of Homeland Security Presidential Directive 7 are available at: http://www.dhs.gov/xabout/laws/gc_1214597989952.shtm

These numbers are in ranges reflecting the size categories used in reporting – i.e., very small = less than 3,300 customers, small = 3,300 to 49,999, medium = 50,000 to 99,999, and large = 100,000 or more. The following chart displays the number of responses by size and compares the response profile in 2008 and 2009.



The responses were gathered through a voluntary reporting process administered by the WaterISAC. Attachment A contains a complete list of the 22 measures including results by measure, responses, and graphs. Attachment B provides a complete list of the measures and the associated reporting questions, and Attachment C provides background on the measures and reporting methodology. Attachment D contains a summary of the information collected by the Association of State Drinking Water Administrators (ASDWA) from state drinking water programs in support of the national measures of success initiative for water security.

Analysis

Trends and Findings

Water Sector respondents to the 2009 reporting effort indicate substantial attentiveness to preparedness, awareness, and resiliency from potential security threats and natural disasters. The data collected reflect a sector that is committed to meeting requirements and continuing to make progress implementing voluntary security and resiliency practices. Overall, drinking water and waste water system responses reflect a high degree of similarity (i.e., for most questions, a similar percent of “yes” and “no” responses were seen between drinking water and wastewater). The responses across all utility sizes show over 80 percent of both water and wastewater utilities indicated “yes” for the following measures.



- Eighty-seven percent of responding water and 85 percent of responding wastewater utilities have integrated security and preparedness into budgeting, training, and manpower responsibilities (measure 1).
- Eighty-eight percent of responding water and 85 percent of responding wastewater utilities receive screened, validated, and timely security threat information from one or more sources (measure 8).
- Eighty-two percent of responding water and 72 percent of responding wastewater utilities have physical or procedural controls in place to safeguard hazardous chemicals (measure 11).
- Ninety-three percent of responding water and 92 percent of responding wastewater utilities secure and monitor the perimeter of areas containing hazardous materials (measure 11a).
- Ninety-four percent of responding water and 94 percent of responding wastewater utilities secure and monitor the shipping, receipt, and storage of hazardous materials for the facility (measure 11c).
- Ninety percent of responding water and 84 percent of responding wastewater utilities have evaluated their disinfection methods considering water quality, public health, and security issues (measure 13).

- Ninety-seven percent of responding water and 93 percent of responding wastewater utilities have an emergency response plan (ERP) (measure 15).
- Ninety percent of responding water and 89 percent of responding wastewater utilities review and update their ERP (measure 15c).

Reducing Vulnerabilities and Securing Hazardous Chemicals

Respondents have been highly attentive to reducing vulnerabilities, as well as securing hazardous chemicals. This response profile is consistent with the 2008 report.

- Over 70 percent of all respondents said they had incorporated security into planning and design programs applying to all assets and facilities (measure 2).
- Over 90 percent of all respondents indicated that they secure and monitor perimeters and have physical and procedural controls in place to safeguard chemicals (measures 11 and 11a).
- Over 70 percent of all respondents control access to restricted areas within the facility by screening and/or inspecting individuals and vehicles as they enter (measure 11b).
- Ninety-four percent of all respondents secure and monitor the shipping, receipt, and storage of hazardous chemicals (measure 11c).



Preparedness & Responsiveness

Respondents have been highly attentive to preparing for potential security threats and natural disasters. The response profile for preparedness-related questions indicates a similarly high level of engagement consistent with the 2008 report.

- Over 85 percent of responding utilities have integrated security and preparedness into budgeting, training, and manpower responsibilities (measure 1).
- Over 90 percent of responding utilities have developed emergency response plans (measure 15).

- A majority of respondents are training, exercising, reviewing, and updating their emergency response plans (measures 15a, 15b, and 15c).
- Approximately three-quarters of both water and wastewater respondents have done networking for collaborative response to be used in the event of an incident (measure 22).

Demonstrating progress on several voluntary fronts, over three-quarters of the respondents (75 percent water, 79 percent wastewater) have adopted the National Incident Management System (measure 16). Almost all respondents are signatories, or are in the process of becoming signatories, to written agreements for requesting aid or assistance, such as mutual aid or assistance agreements or Water/Wastewater Agency Response Network (WARN) membership (measures 17 and 17a).



Responses point to two areas for future improvement. Half of the respondents said they have a business continuity plan (measure 14). Forty-two percent of responding water and 45 percent of responding wastewater utilities do not have crisis communication plans (measure 21).

Resiliency

Respondents have been highly attentive to building resiliency into their systems.

- Roughly 86 percent of the responding utilities have backup power capabilities for at least 24 hours. About half of the responding water and wastewater utilities can provide backup power for 96 hours (4 days) or more (measure 19).
- Two thirds of responding water utilities can provide 91–100 percent of minimum daily demand for water for up to 24 hours (measure 20).
- Almost a third of responding water utilities can provide 91–100 percent of minimum daily demand for 72 hours (measure 20).

Risk Understanding and Threat Awareness

Over 88 percent of water utilities and 85 percent of wastewater utilities indicate they are receiving screened, validated, and timely security threat information from one or more sources. Seventy percent of respondents are getting information from WaterISAC (measure 8).

The majority of responding utilities are reviewing and updating their Vulnerability Assessments on a regular basis.

- Fifty-two percent of water and 41 percent of wastewater utilities responded that they are reviewing their vulnerability assessments (VA) annually (measure 7).
- Roughly 50 percent of respondents indicated that they update their VA every 1-to-3 years (measure 7a).

Water Contamination Detection

Responses on various aspects of water contamination detection reflect sector progress, while progress remains constrained as the sector develops technology, protocols, and partnerships in this area.

- Ninety-three percent of water and 81 percent of wastewater utilities responded that they monitor and evaluate customer complaints for indications of water quality or other security threats (measure 5).
- Seventy percent of all respondents have established protocols for interpreting and responding to indications of water quality anomalies (measure 6).
- Approximately 60 percent have established relationships with public health networks to interpret public health anomalies for the purpose of identifying waterborne public health impacts (measure 4).
- Roughly half of respondents indicated that they are conducting supplemental water quality monitoring (measure 3).

Comparison with 2008 Reporting

The response profile across measures for 2009 closely mimics reporting in 2008. It is important to keep in mind, however, that results for 2008 and 2009 are not directly comparable. The reporting process is fully anonymous, constraining the ability to understand the degree of consistent participation from year-to-year.

Many measures do show strong similarity between the 2008 and 2009 reporting years, with most 2009 results landing within a range of from zero to ten percent difference with 2008. For example, for measure 1, 2008 responses indicated that 90 percent of responding water and wastewater utilities have integrated security and preparedness into budgeting, training, and manpower responsibilities. While in 2009, responses indicated that 87 percent and 85 percent of water and wastewater utilities answered this measure in the affirmative.

This similarity holds across all measure areas with only one marked exception. The percentage of facilities with physical and/or procedural controls in place to safeguard hazardous chemicals (measure 11) changed from 98 percent in 2008 to 82 percent for drinking water utilities and from 95 to 72 percent for wastewater utilities.

Looking at the results between 2008 and 2009, a couple of areas remain consistently underdeveloped. In both 2008 and 2009, less than two-thirds of responding utilities indicated they have plans to handle communications during a crisis (measure 21). Also in both 2008 and 2009, less than half of the responding utilities indicated they review their vulnerability assessments annually, and update their assessments at least every 1-3 years (measure 7 and 7a).

Attachment A: Results by Measure

The following section presents the raw statistics used to report on the 2009 measures above. For each measure, the data have been broken out by utility type and size and presented in terms of percentages for easy comparison.

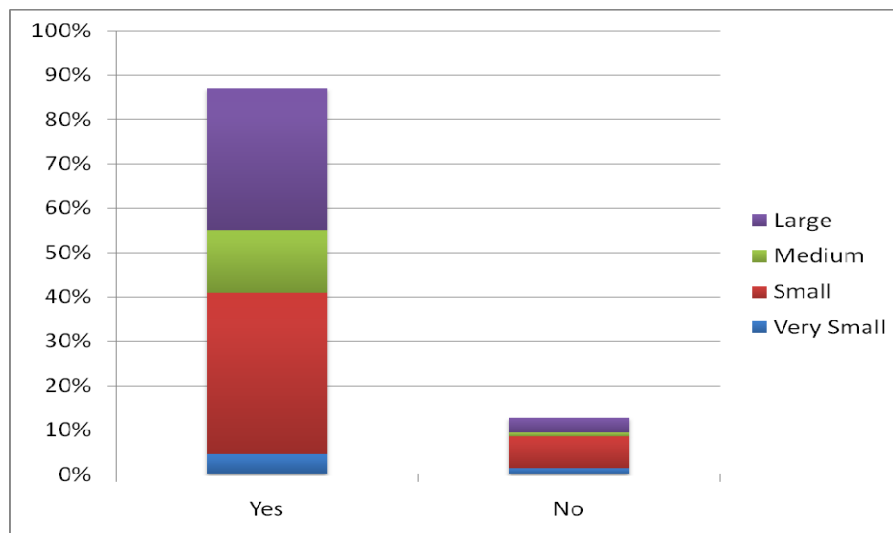
Please Note: The response totals are presented in terms of all utilities that responded a particular way, regardless of size. For convenience, the data tables identify the percentage of utilities in each size category that chose a particular answer relative to the total number of utilities that chose the particular answer. To illustrate this distinction, the table immediately below (for Measure 1) indicates that 32 percent of respondents who selected 'Yes' were large utilities. *This does not indicate that 32 percent of large utilities selected 'Yes'.*

Measure 1: Number and percentage of utilities that have integrated security and preparedness into budgeting, training, and manpower responsibilities.

Question 1: Have you integrated security and preparedness into budgeting, training, and manpower responsibilities?

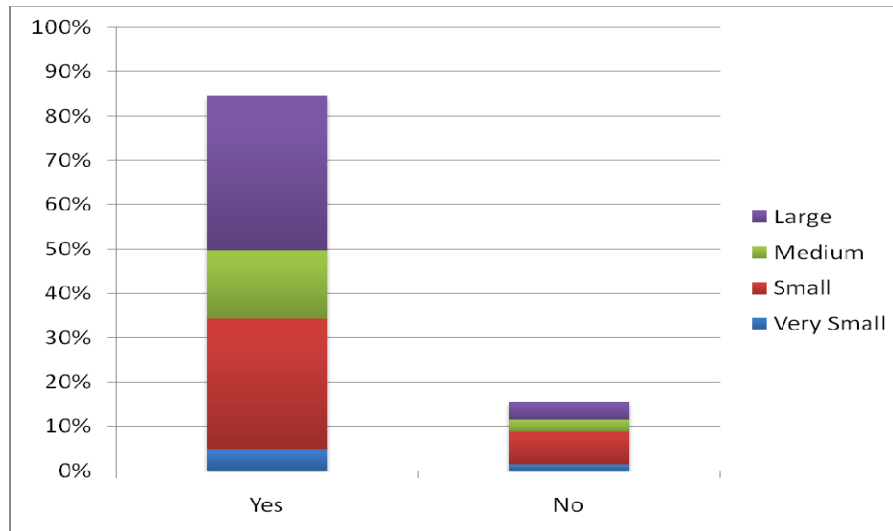
Drinking Water Utility Responses

Response	Very Small	Small	Medium	Large	Total
Yes	5%	36%	14%	32%	87%
No	1%	7%	1%	3%	13%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	5%	30%	15%	35%	85%
No	1%	7%	3%	4%	15%

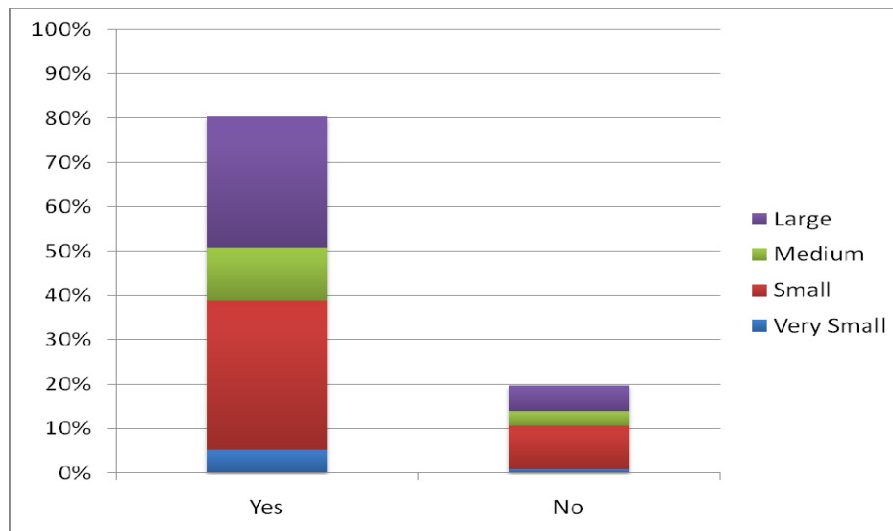


Measure 2: Number and percentage of utilities that incorporate security into planning and design protocols applying to all assets and facilities.

Question 2: Have you incorporated security into planning and design protocols applying to all assets and facilities?

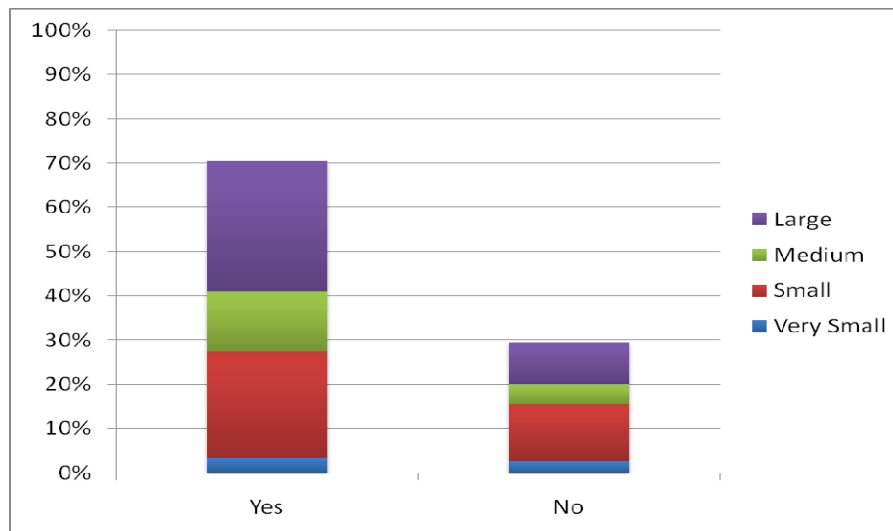
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	5%	34%	12%	30%	80%
No	1%	10%	3%	6%	20%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	24%	13%	30%	70%
No	3%	13%	5%	9%	30%

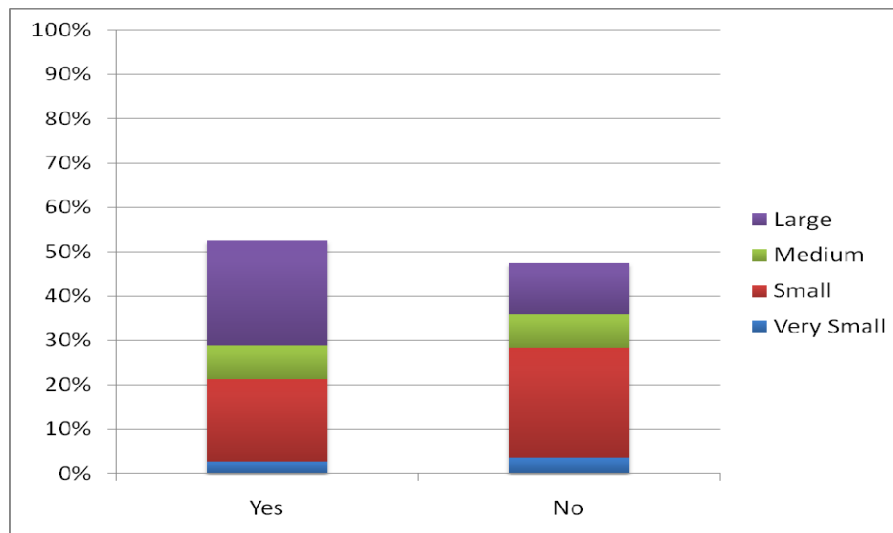


Measure 3: Number and percentage of utilities that routinely conduct supplemental monitoring or more in-depth analysis beyond what is required to identify abnormal water quality conditions.

Question 3: Do you routinely conduct supplemental monitoring or more in-depth analysis beyond what is required to identify abnormal water quality conditions?

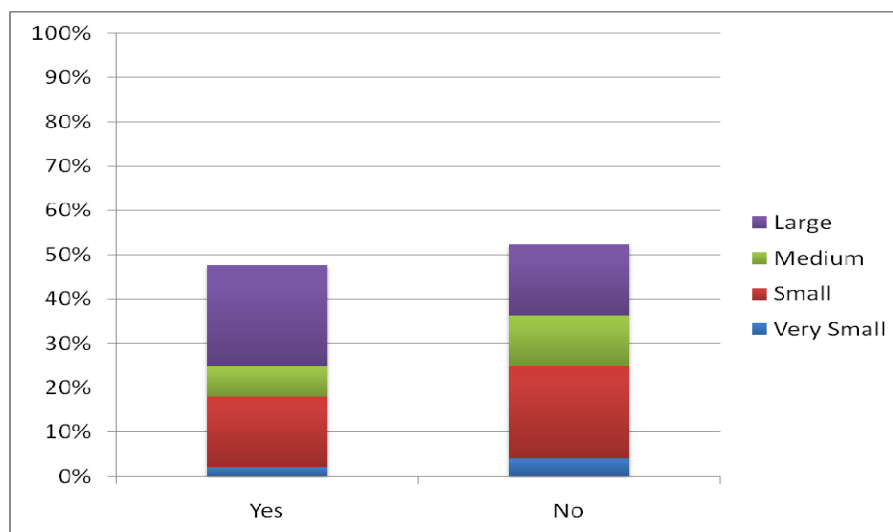
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	19%	8%	24%	52%
No	3%	25%	8%	12%	48%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	2%	16%	7%	23%	48%
No	4%	21%	11%	16%	52%

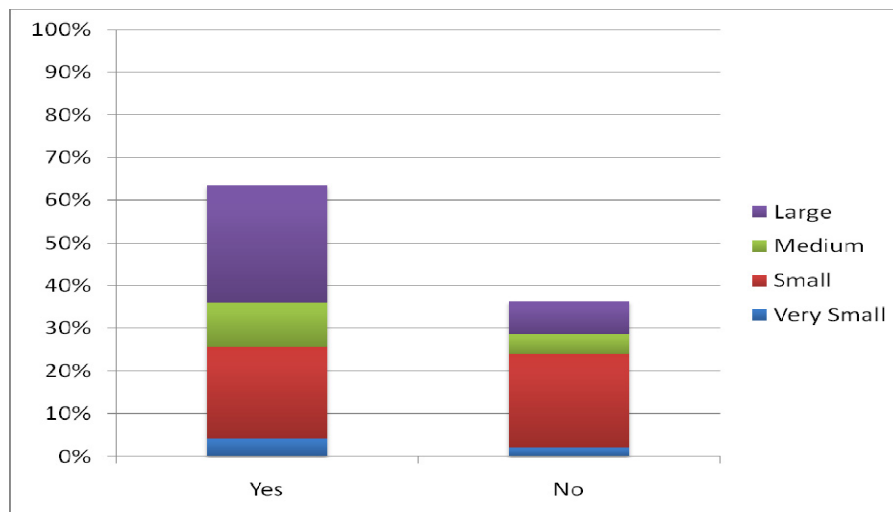


Measure 4: Number and percentage of utilities that have established relationships with public health networks to interpret public health anomalies for the purposes of identifying waterborne public health impacts.

Question 4: Have you formed established relationships with public health networks to interpret public health anomalies for the purposes of identifying waterborne public health impacts?

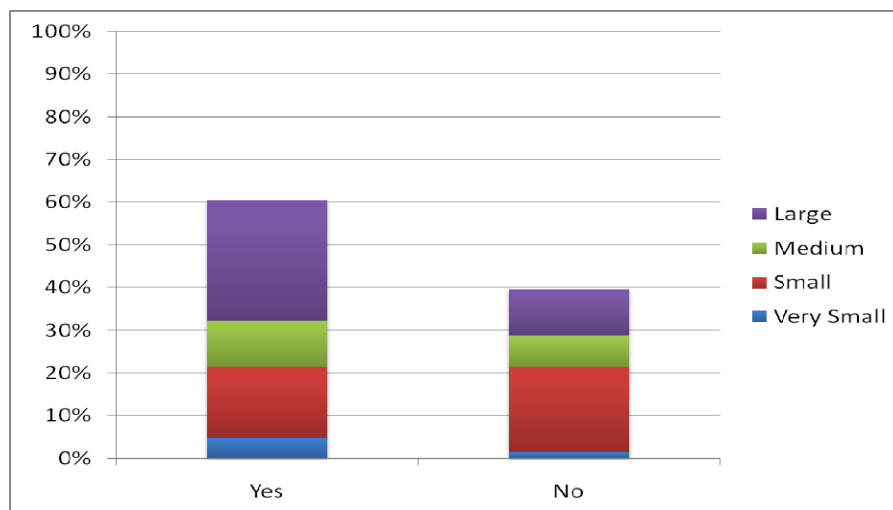
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	21%	10%	28%	64%
No	2%	22%	5%	8%	36%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	5%	17%	11%	28%	60%
No	1%	20%	7%	11%	40%

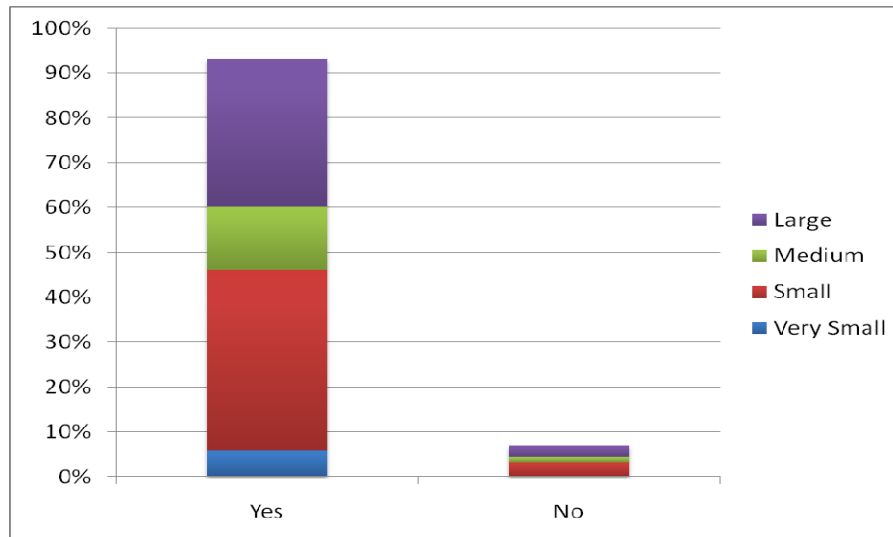


Measure 5: Number and percentage of utilities that monitor and evaluate customer complaints for possible indications of water quality or other security threats.

Question 5: Do you monitor and evaluate customer complaints for possible indications of water quality or other security threats?

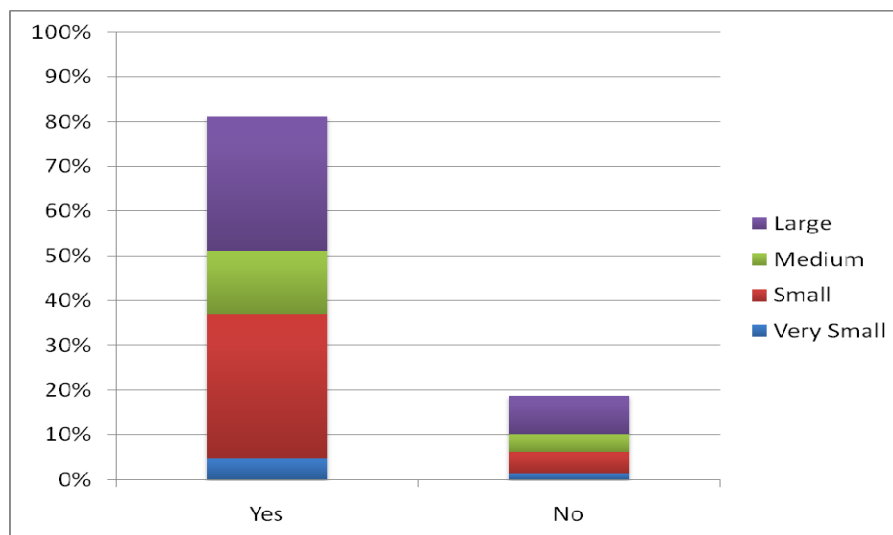
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	6%	40%	14%	33%	93%
No	0%	3%	1%	3%	7%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	5%	32%	14%	30%	81%
No	1%	5%	4%	9%	19%

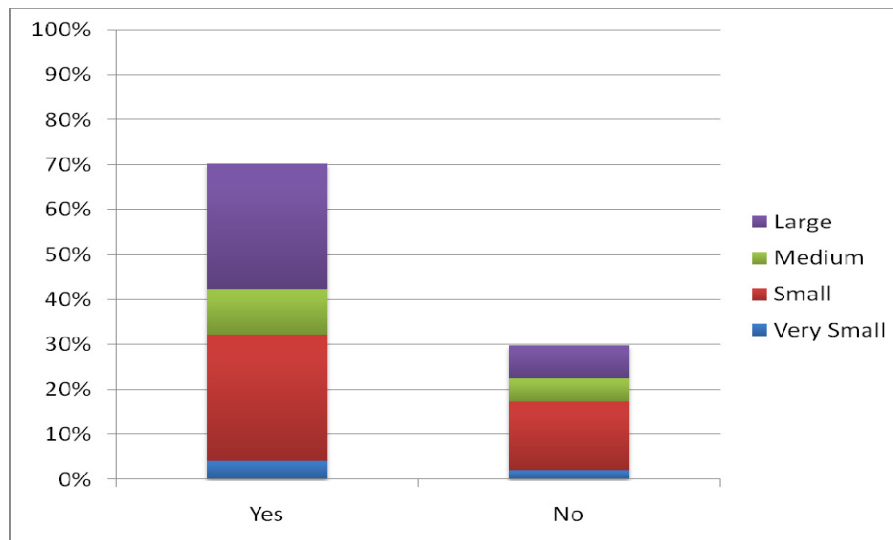


Measure 6: Number and percentage of utilities that have established protocols (e.g., consequence management plans) for interpreting and responding to indications of water quality anomalies.

Question 6: Have you established protocols for interpreting and responding to indications of water quality anomalies?

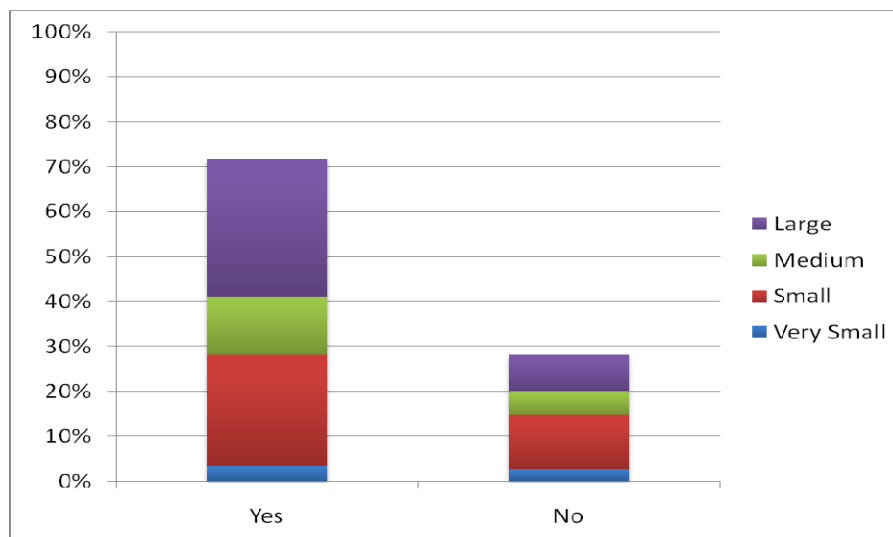
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	28%	10%	28%	70%
No	2%	15%	5%	7%	30%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	25%	13%	31%	72%
No	3%	12%	5%	8%	28%

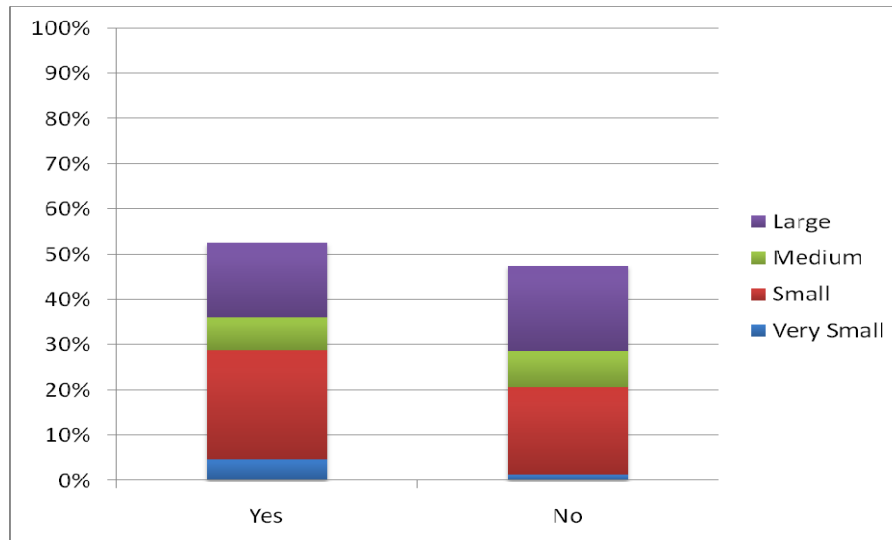


Measure 7: Number and percentage of utilities that annually review and periodically update vulnerability assessments.

Question 7: Do you review your vulnerability assessment (VA) annually?

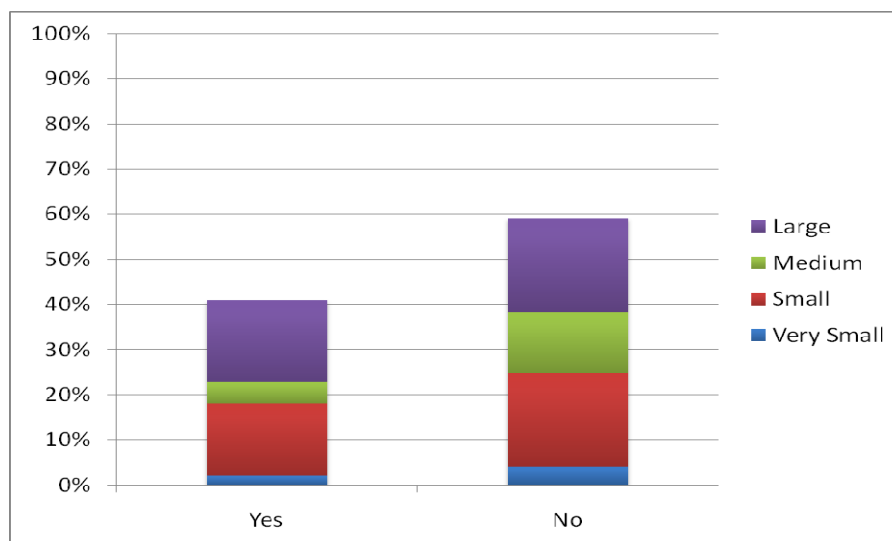
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	5%	24%	7%	16%	52%
No	1%	19%	8%	19%	48%



Wastewater Utility Responses:

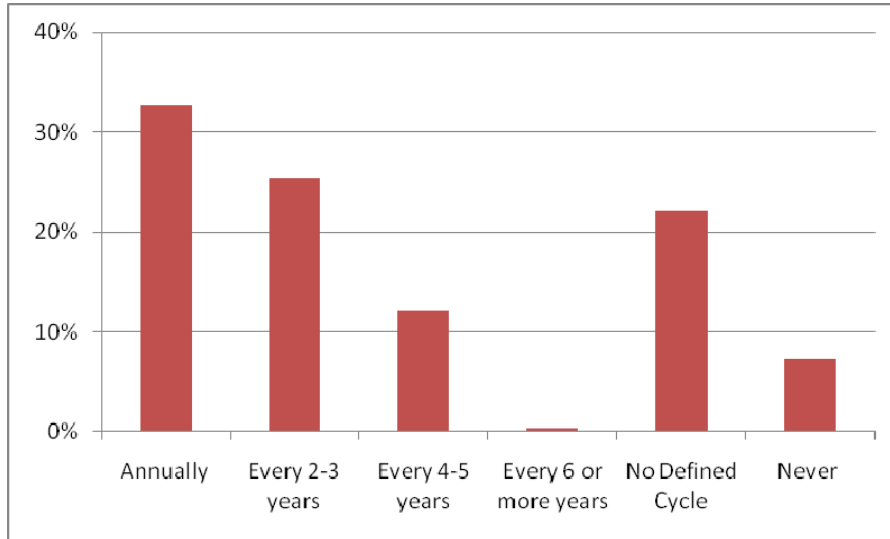
Response	Very Small	Small	Medium	Large	Total
Yes	2%	16%	5%	18%	41%
No	4%	21%	13%	21%	59%



Question 7a: How frequently do you update your VA to adjust for changes in your system that may alter the risk profile of your utility?

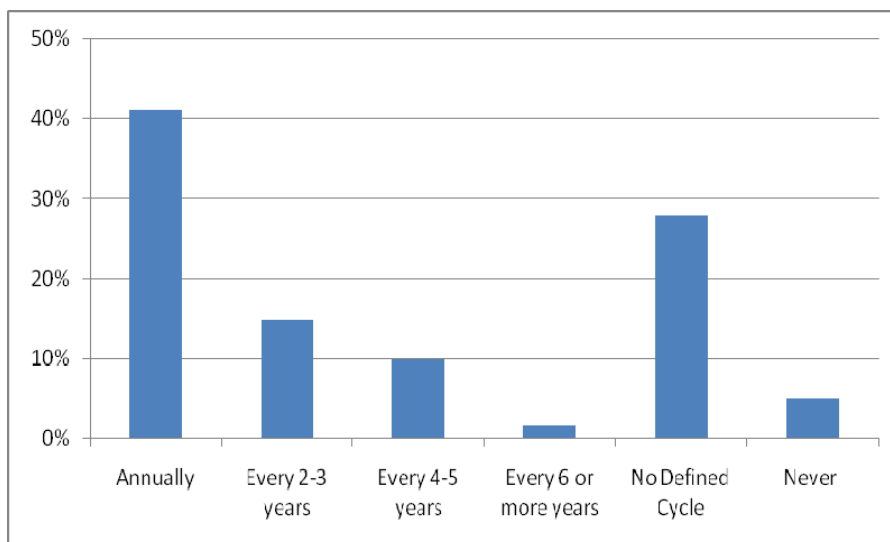
Drinking Water Utility Responses:

	Annually	2-3 years	4-5 years	6 or more years	No Cycle	Never
Responses	33%	25%	12%	0%	22%	7%



Wastewater Utility Responses:

	Annually	2-3 years	4-5 years	6 or more years	No Defined Cycle	Never
Responses	41%	15%	10%	2%	28%	5%

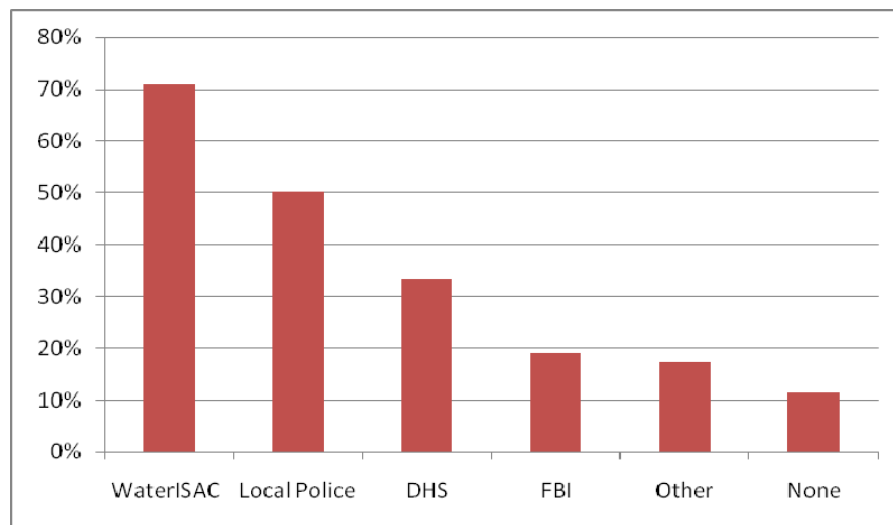


Measure 8: Number and percentage of utilities that receive screened, validated, and timely (e.g., in time to inform decisions or take action) threat information from one or more trusted sources such as WaterISAC, the FBI, local police, or DHS.

Question 8: Does your utility receive screened, validated, and timely (e.g., in time to inform decisions or take action) security threat information from one or more of the following sources?

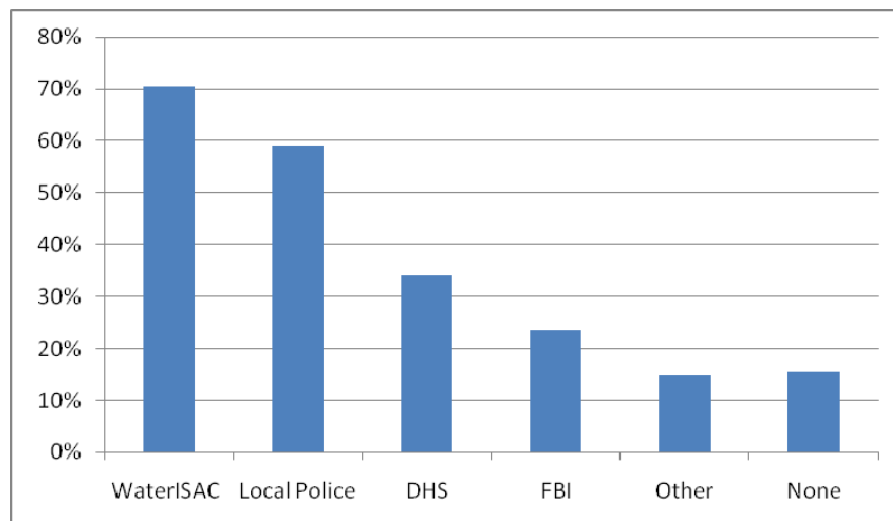
Drinking Water Utility Responses:

WaterISAC	Local Police	DHS	FBI	Other	None
71%	50%	33%	19%	17%	12%



Wastewater Utility Responses:

WaterISAC	Local Police	DHS	FBI	Other	None
70%	59%	34%	23%	15%	15%

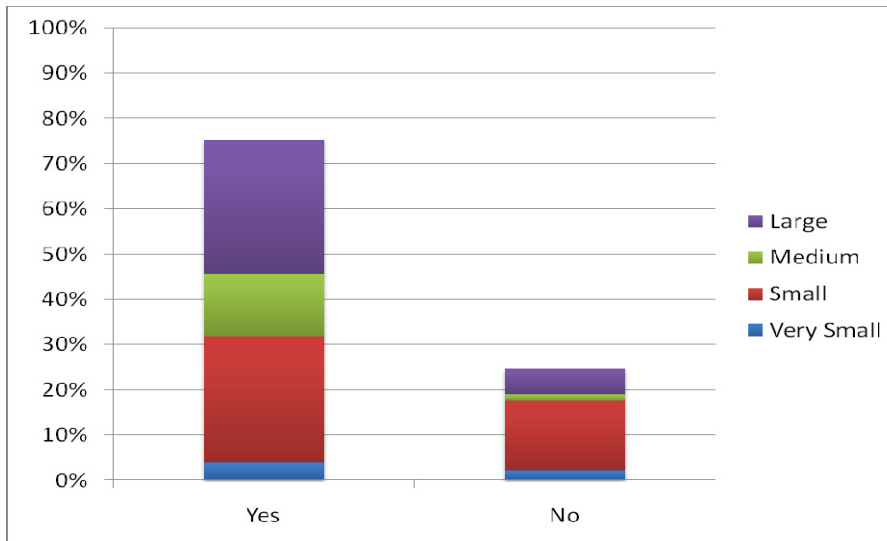


Measure 9: Number and percentage of utilities that have a plan in place to increase utility security in response to a threat.

Question 9: Do you have a plan in place to increase utility security in response to a threat?

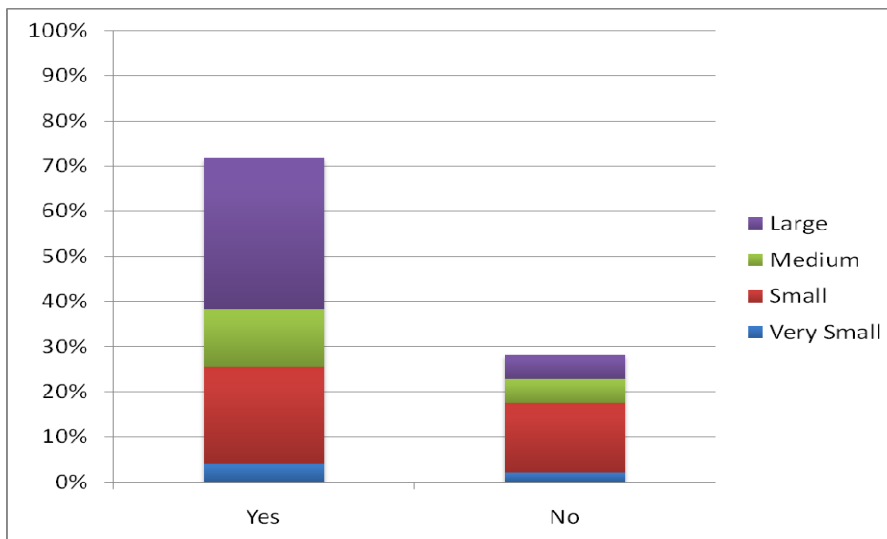
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	28%	14%	30%	75%
No	2%	15%	2%	6%	25%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	21%	13%	34%	72%
No	2%	15%	5%	5%	28%

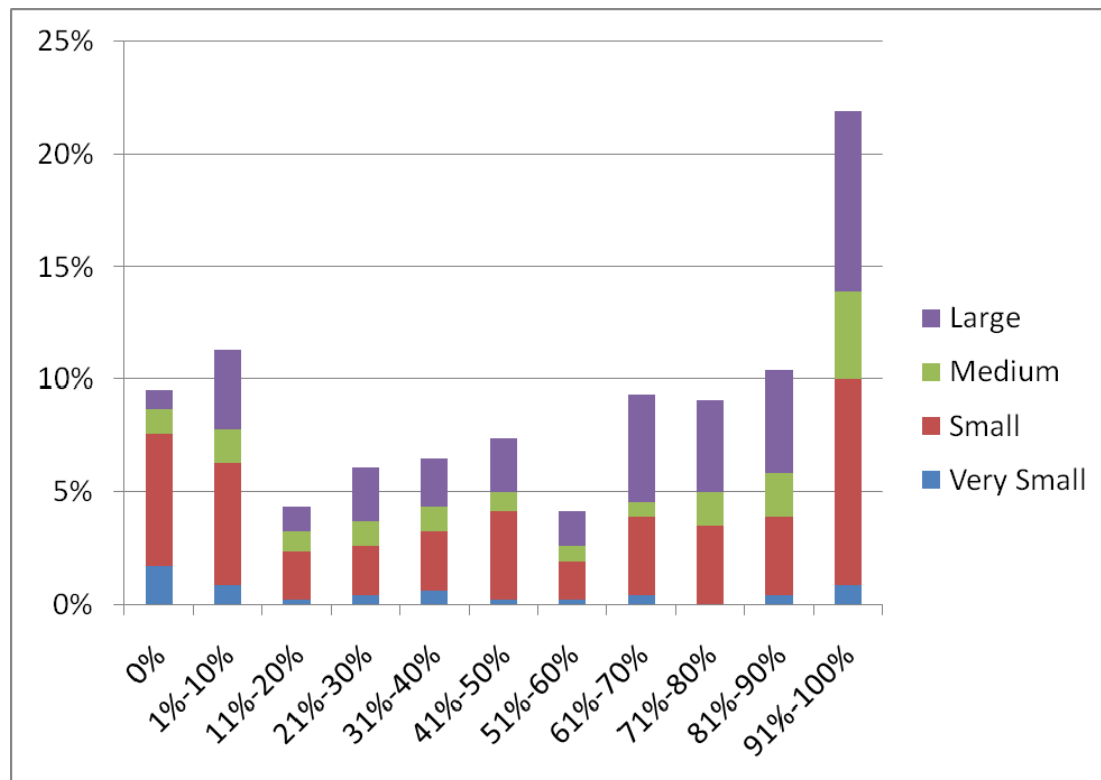


Measure 10: Percent of critical assets with enhanced capability to detect intruders.

Question 10: What percent of your critical assets are protected by enhanced detection capability?

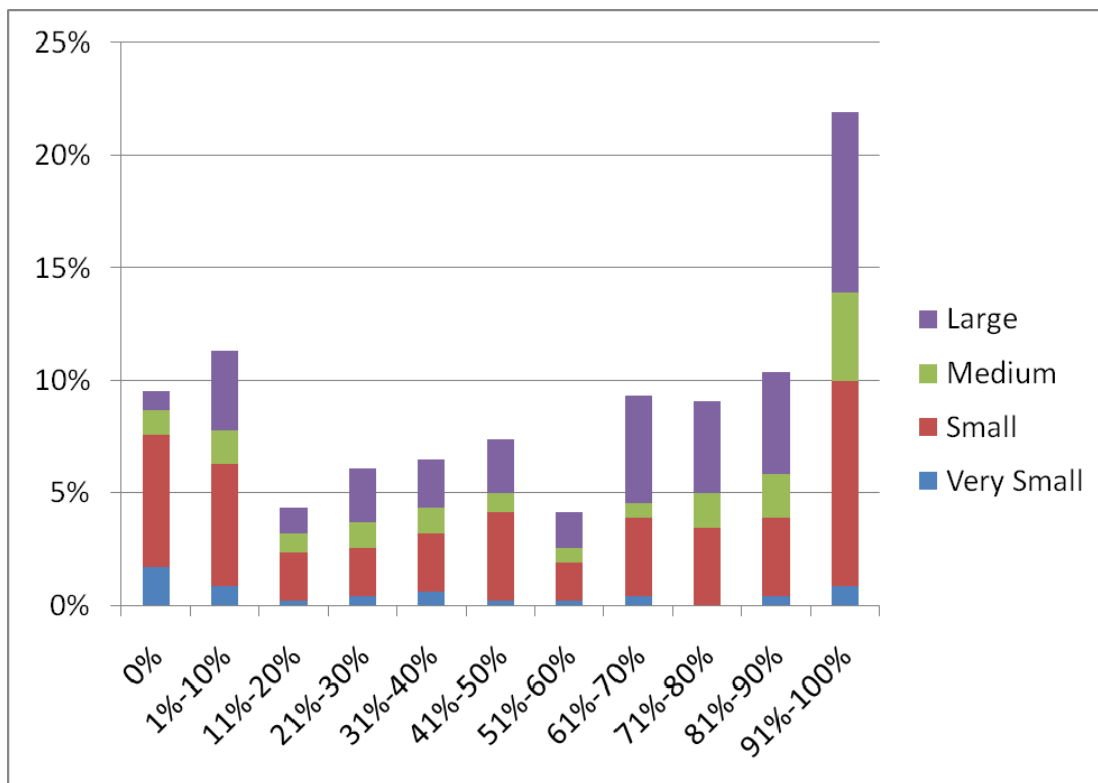
Drinking Water Utility Responses:

Percentage	Very Small	Small	Medium	Large	Total
0%	2%	6%	1%	1%	10%
1%-10%	1%	5%	2%	3%	11%
11%-20%	0%	2%	1%	1%	4%
21%-30%	0%	2%	1%	2%	6%
31%-40%	1%	3%	1%	2%	7%
41%-50%	0%	4%	1%	2%	7%
51%-60%	0%	2%	1%	2%	4%
61%-70%	0%	3%	1%	5%	9%
71%-80%	0%	3%	2%	4%	9%
81%-90%	0%	3%	2%	5%	10%
91%-100%	1%	9%	4%	8%	22%
Total	6%	43%	15%	35%	100%



Wastewater Utility Responses:

Percentage	Very Small	Small	Medium	Large	Total
0%	1%	6%	1%	0%	8%
1%-10%	1%	4%	3%	4%	12%
11%-20%	0%	1%	1%	4%	6%
21%-30%	1%	3%	1%	2%	6%
31%-40%	0%	1%	3%	3%	7%
41%-50%	0%	3%	3%	3%	9%
51%-60%	2%	3%	0%	1%	5%
61%-70%	0%	3%	1%	5%	9%
71%-80%	1%	5%	2%	5%	12%
81%-90%	0%	2%	2%	3%	7%
91%-100%	1%	6%	2%	9%	18%
Total	6%	36%	18%	39%	100%

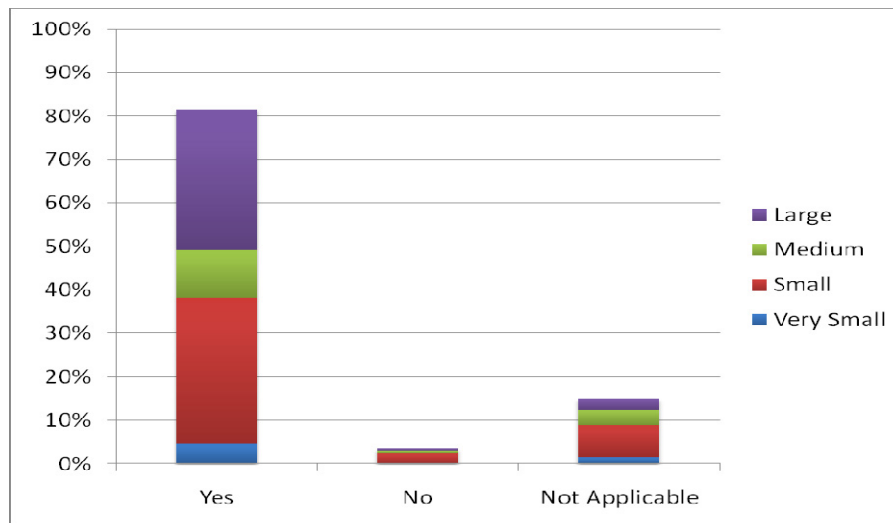


Measure 11: Number and percent of utilities with physical and/or procedural controls in place to safeguard hazardous chemicals.

Question11: If you use hazardous chemicals, do you have physical or procedural controls in place to safeguard them?

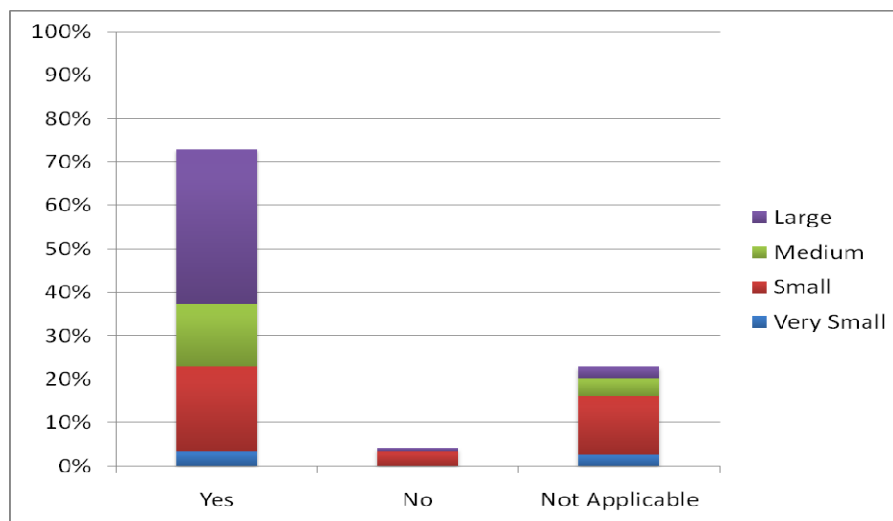
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	5%	33%	11%	32%	82%
No	0%	2%	1%	0%	3%
Not Applicable	2%	7%	3%	3%	15%



Wastewater Utility Responses:

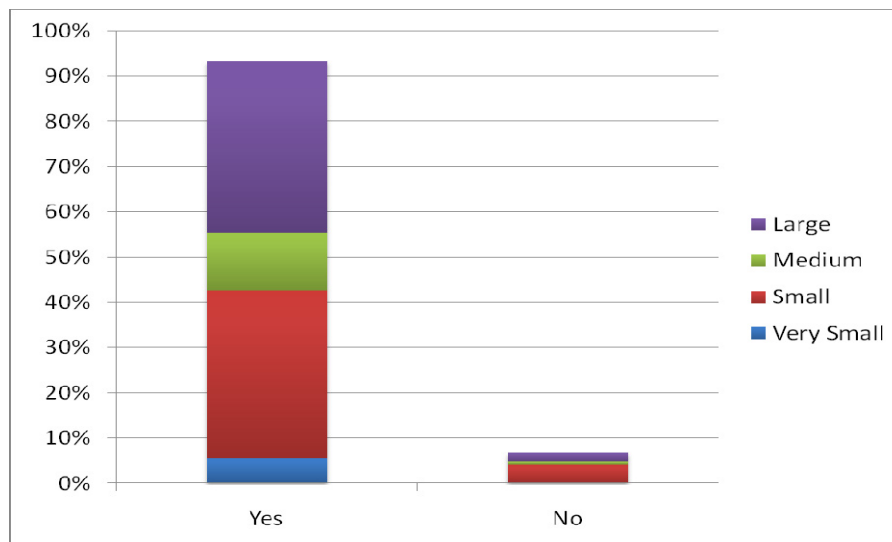
Response	Very Small	Small	Medium	Large	Total
Yes	3%	19%	14%	36%	72%
No	0%	3%	0%	1%	4%
Not Applicable	3%	13%	4%	3%	23%



Question 11a: Have you secured and do you monitor the perimeter of areas containing hazardous chemicals?

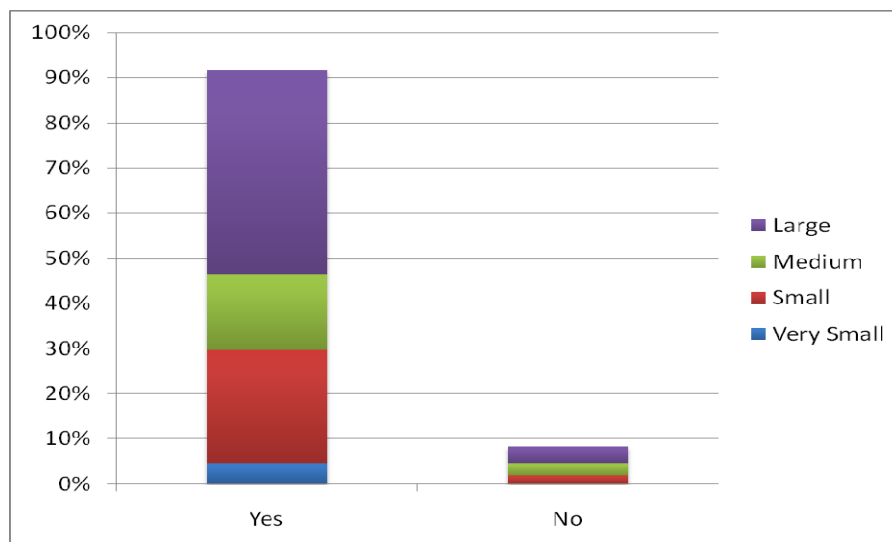
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	6%	37%	13%	38%	93%
No	0%	4%	1%	2%	7%



Wastewater Utility Responses:

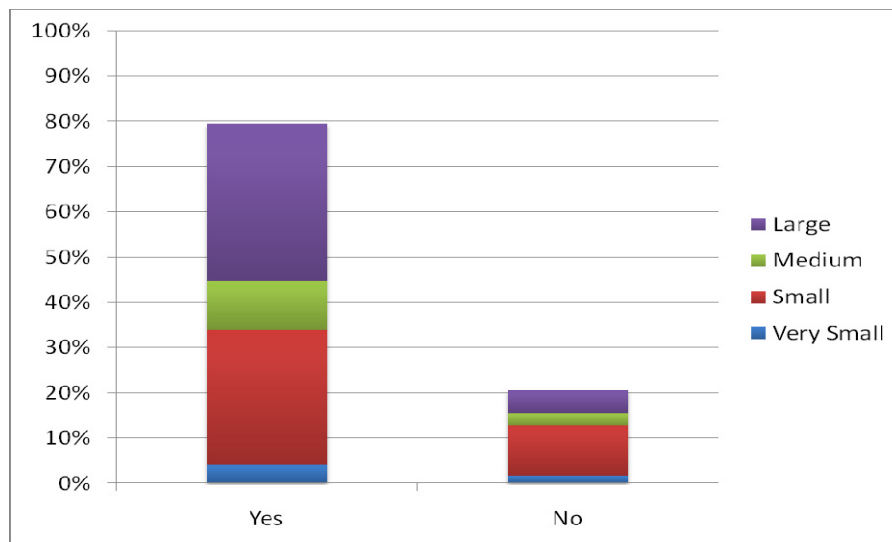
Response	Very Small	Small	Medium	Large	Total
Yes	5%	25%	17%	45%	92%
No	0%	2%	3%	4%	8%



Question 11b: Have you controlled access to restricted areas within the facility by screening and/or inspecting individuals and vehicles as they enter?

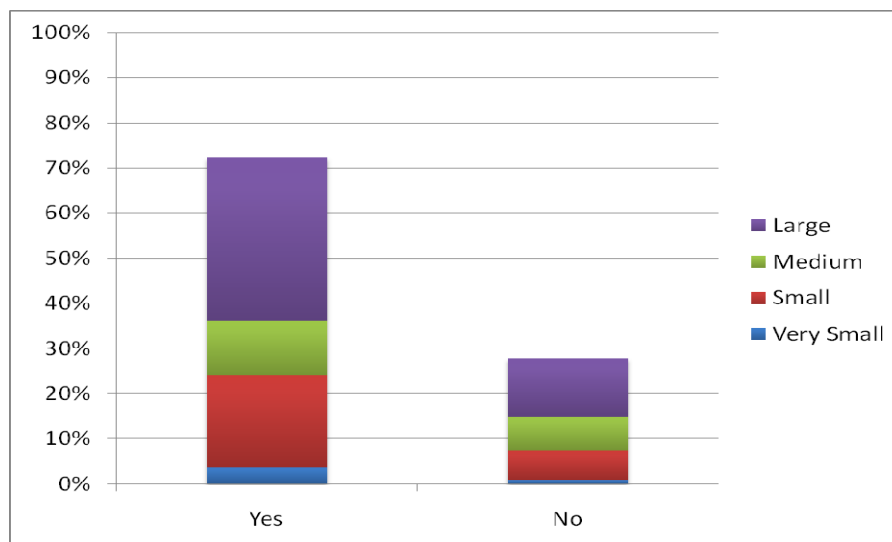
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	30%	11%	35%	79%
No	2%	11%	3%	5%	21%



Wastewater Utility Responses:

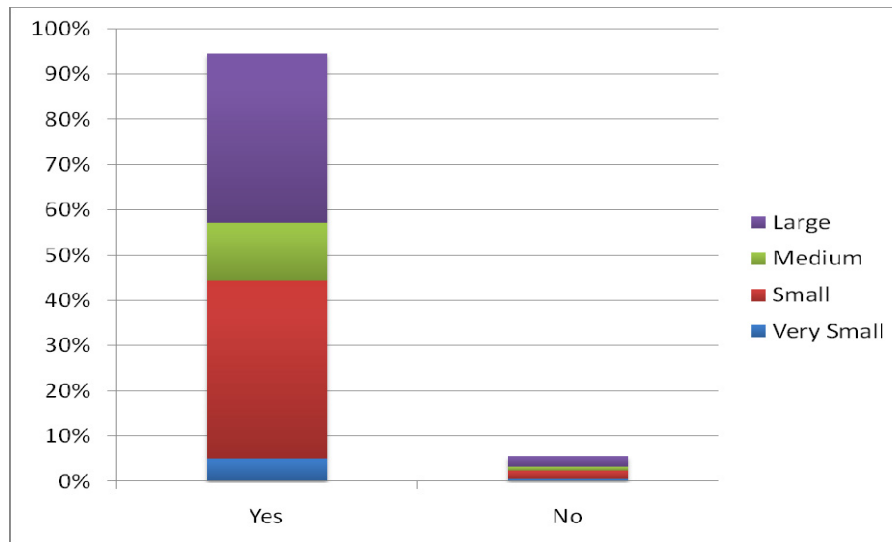
Response	Very Small	Small	Medium	Large	Total
Yes	4%	20%	12%	36%	72%
No	1%	6%	7%	13%	28%



Question 11c: Do you secure and monitor the shipping, receipt, and storage of hazardous materials for the facility?

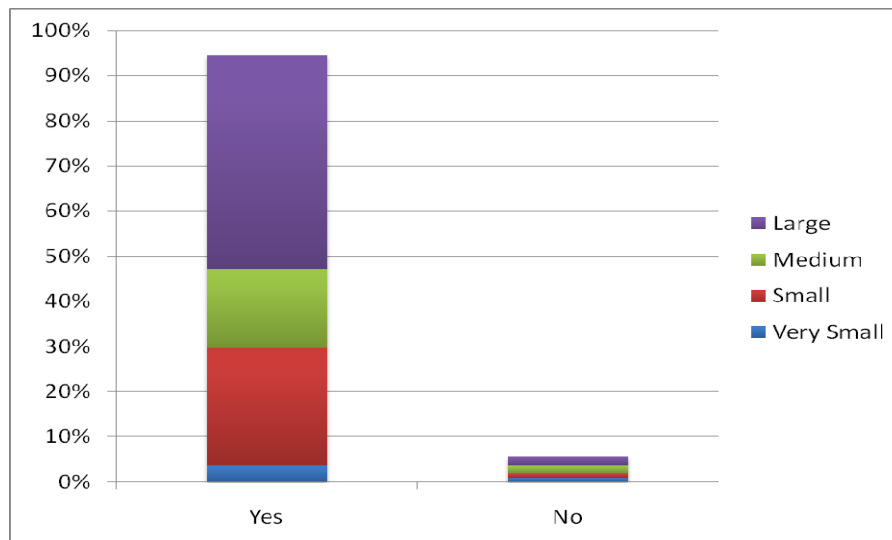
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	5%	39%	13%	37%	94%
No	1%	2%	1%	2%	6%



Wastewater Utility Responses:

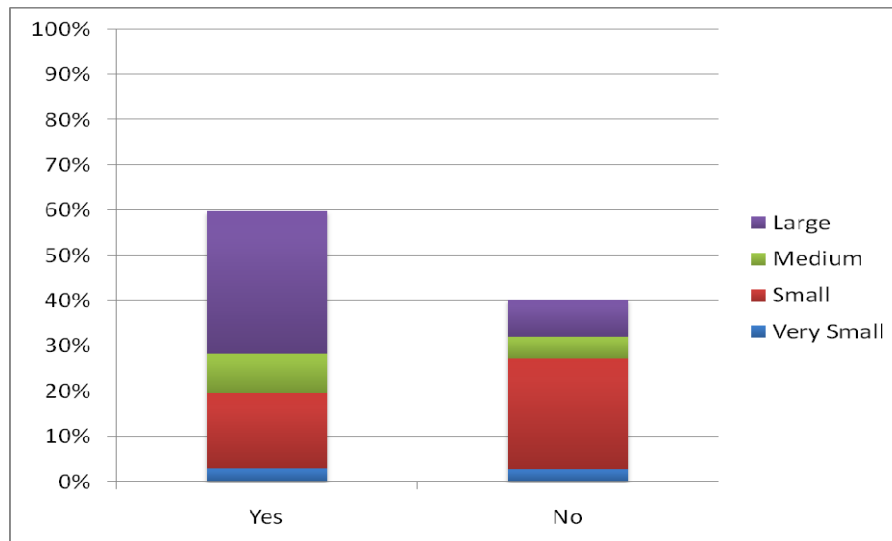
Response	Very Small	Small	Medium	Large	Total
Yes	4%	26%	18%	47%	94%
No	1%	1%	2%	2%	6%



Question 11d: Do you escalate the level of protective measures for periods of elevated threat?

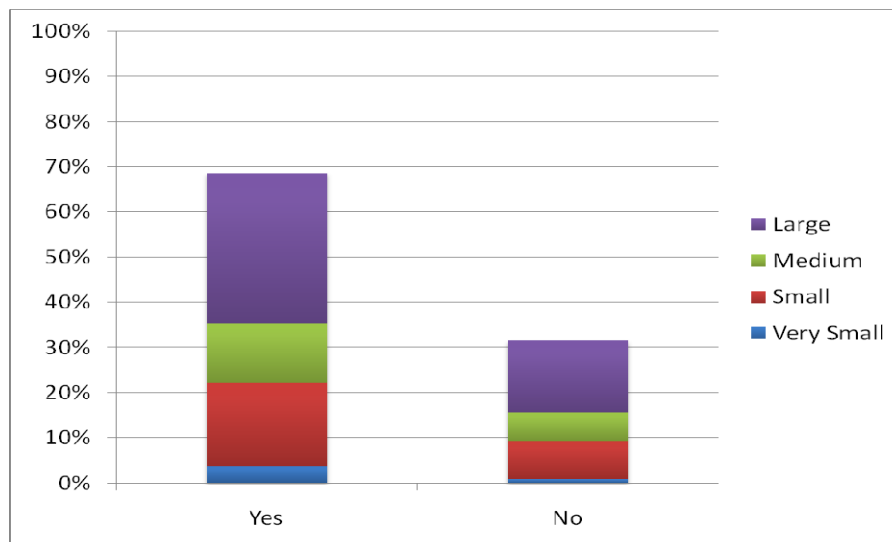
Drinking Water Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	17%	9%	31%	60%
No	3%	25%	5%	8%	40%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	19%	13%	33%	69%
No	1%	8%	6%	16%	31%



Question 11e: Do your physical and/or procedural controls include other physical or procedural controls not identified in the previous questions?

Utilities that responded with addition physical or procedural controls not identified in the previous questions included the following.

Water additional responses, Question 11e:

- Use of GPS to track chlorine deliveries, two-way communications and protocols for regular status checks with chlorine drivers.
- More "in person" visits at off-site / unmanned facilities.
- The program requires testing of incoming chemical shipments before deliveries are permitted to enter the perimeter.
- Canine Patrol.
- Vendor coordination of all received materials locked and sealed delivery vessels.
- Routine testing of chemical deliveries for toxicity.
- All chemical deliveries performed in presence of company employee.
- Tanker deliveries are kept outside gates until contents are tested to verify actual desired chemical is contained.
- Chemical sensors, cameras, and entry alarms.
- Any delivery must have drivers name and copy of driver's license provided to District by fax from supplier prior to delivery.
- We require that all chemical deliveries fax the required documents to us prior to the delivery so that we can verify security tags, driver, truck and trailer number, etc.
- Our chemical storage area is covered by video cameras and has restricted access.
- Fenced area with security guards only allowing access to site to approved visitors.
- On site security officers.
- Testing specific chemicals to insure they are what we ordered.
- First Responder procedures.
- Joint Emergency Exercises.
- Training Plans.
- Personal Protection Equipment Procedures.
- In-house Security call-in procedures.
- Silver Shield Data Call.
- Fill ports are required to be sealed. Seal numbers, shipper identification and operator info is required prior to delivery. Info must match or shipment is refused.
- Online continuous monitoring water quality analyzers throughout the plan and distribution system.
- Review of driver information prior to delivery and confirmation that it is the same person.
- Pre-schedule deliveries and identify drivers prior to deliveries.
- Implement total facility lockdown during periods of threats.
- Background checks for contract employees and subs.

- Cyber security, ERP, Table top Drills.
- Video Surveillance, Canine Security.
- Continual video surveillance of complete exterior of water treatment facility. Facility-wide security system (doors, windows, glass break, etc...).
- Driver ID.
- Deliveries always scheduled.
- Call plant before delivery.
- Tank levels remotely monitored 24/7.
- Day tanks used.
- Alarmed hatches, barbed wire fences, police monitoring, cameras.
- Alarms on both the doors, bars on windows and alarms on equipment feed if it should be interrupted during use or start up on demand.
- All hazardous materials stored in only one locked and controlled location.
- Police train at this facility.
- Canine and SWAT.
- Other forms of unannounced, unscheduled (no est. routine) inspections.
- Sampling of material from each truckload.
- Quarterly Reports to Health Department, Fire Department, DEP, EPA.
- Community Watch.

Wastewater additional responses, Question 11e:

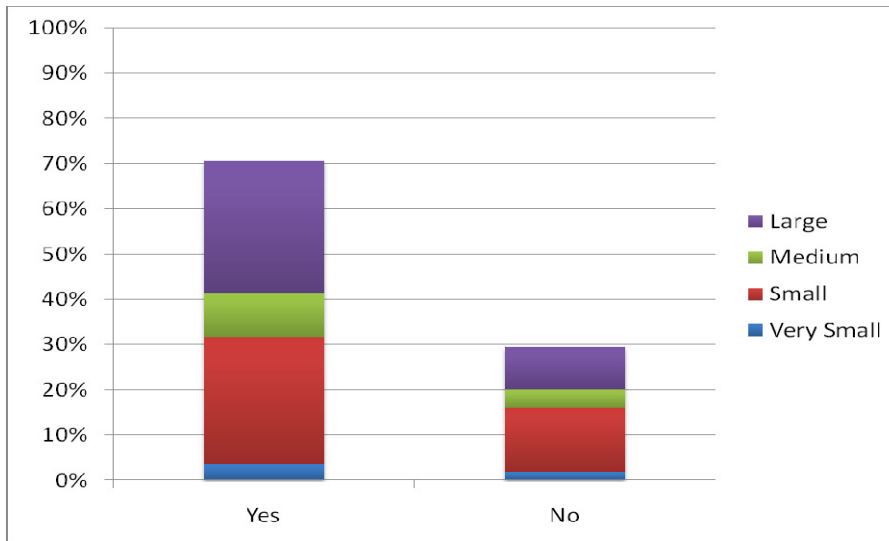
- Police escorts for deliveries.
- Prior notification of drivers with faxed licenses.
- Agency wide emergency response plan in development. Scheduled for buffer zone protection assessment by DHS and Cal-EMA.
- The Safety Manager is a Special Deputy which is a sworn law enforcement officer approved by the County Sheriff. He has received previous training and certification from another state. The requirement is to maintain training in order to respond to the threat.
- Security Officers on duty.
- 24 hour armed guard patrols; chemical containment in case of vandalism or accidental release.

Measure 12: Number and percentage of utilities that include gaseous chlorine in their hazardous chemicals use.

Question 12: If you use hazardous chemicals, does your chemical use include gaseous chlorine?

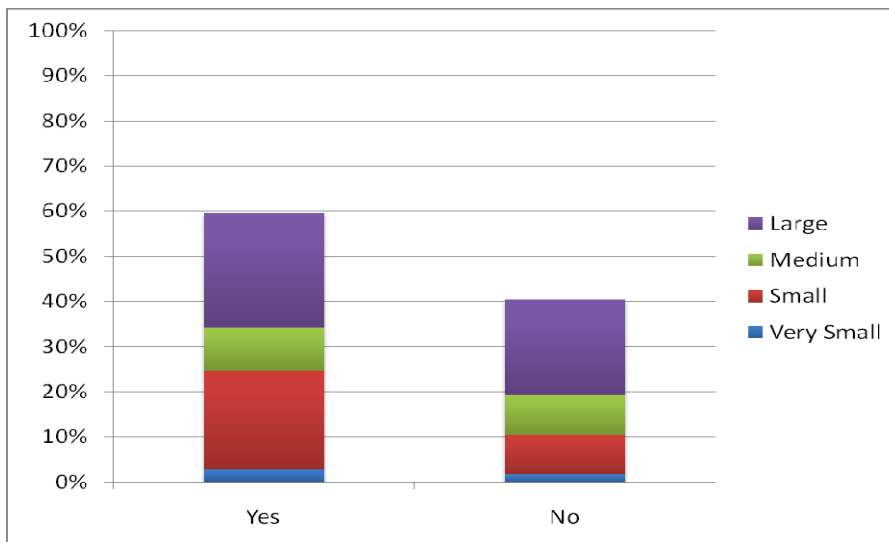
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	28%	10%	29%	71%
No	2%	14%	4%	9%	29%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3 %	22%	10%	25%	60%
No	2%	9%	9%	21%	40%

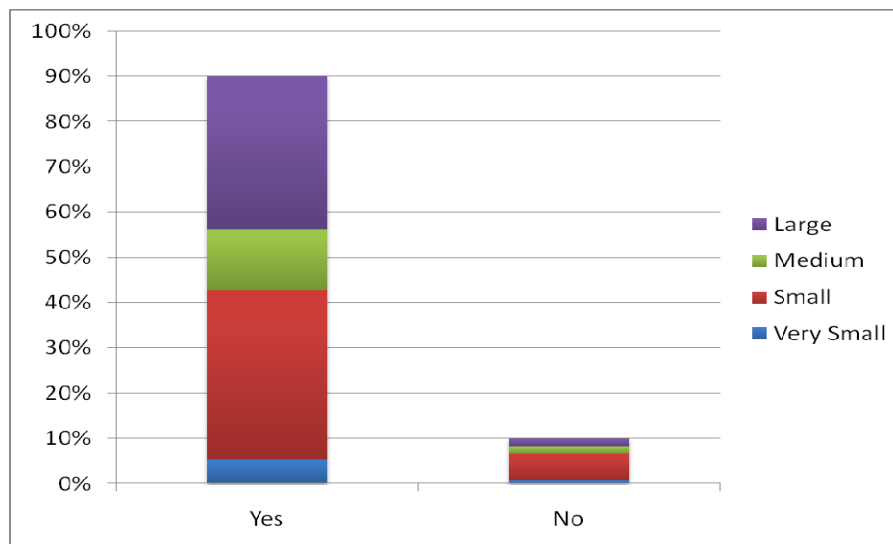


Measure 13: Number and percentage of utilities that have evaluated their disinfection methods considering water quality, public health, and security issues.

Question 13: Have you evaluated your disinfection methods considering water quality, public health, and security issues?

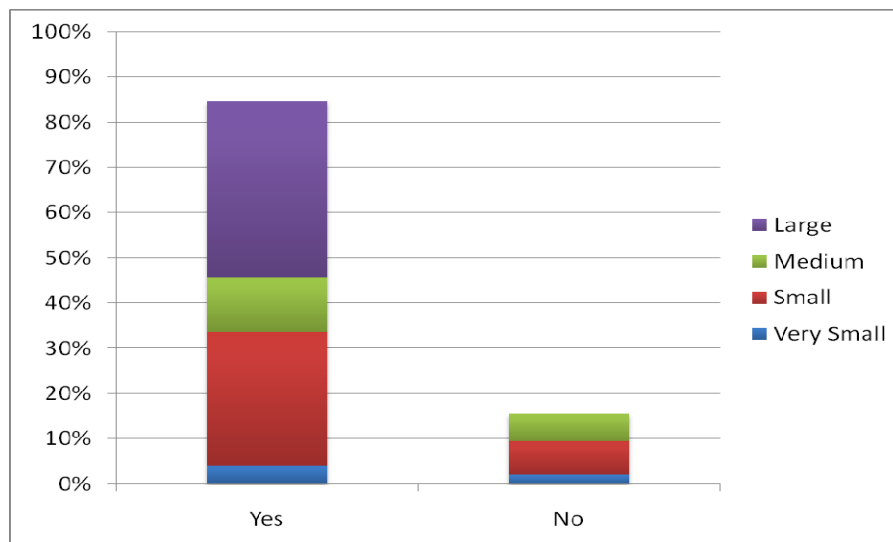
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	5%	37%	13%	34%	90%
No	1%	6%	2%	2%	10%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	30%	12%	39%	85%
No	2%	7%	6%	0%	15%

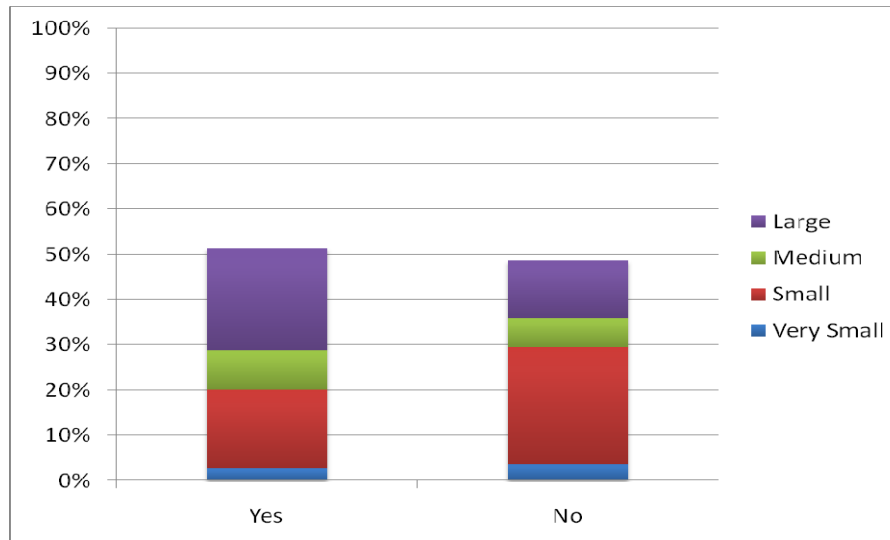


Measure 14: Number and percentage of utilities that have a written business continuity plan.

Question 14: Do you have a written business continuity plan?

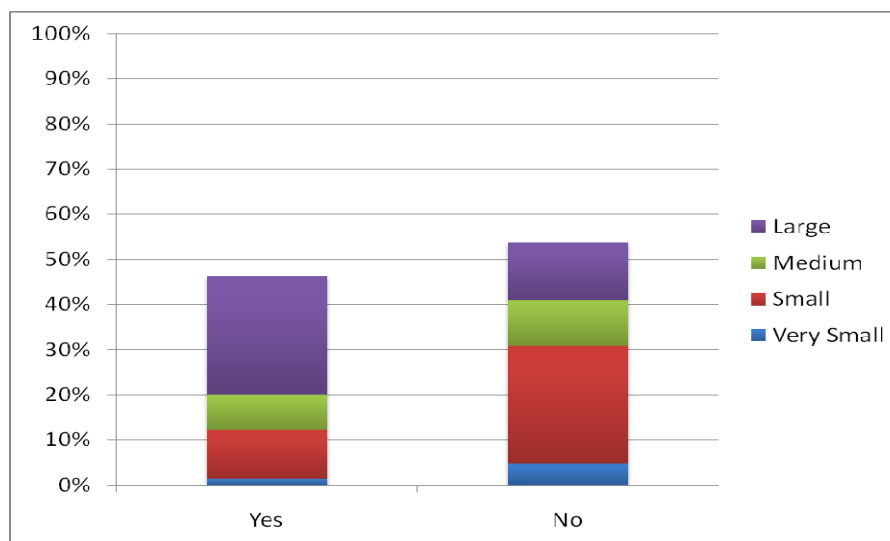
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	17%	9%	23%	51%
No	3%	26%	6%	13%	49%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	1%	11%	8%	26%	46%
No	5%	26%	10%	13%	54%



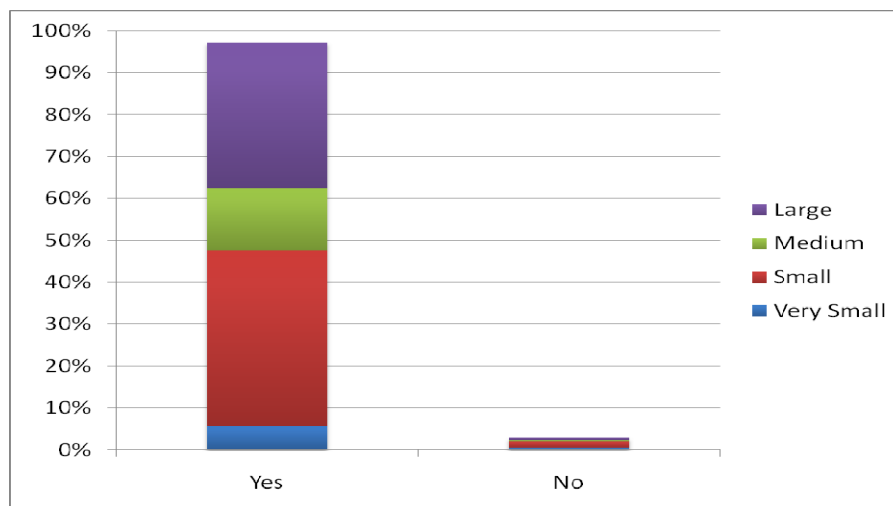
Measure 15: Number and percentage of utilities that:

- **Have an emergency response plan (ERP)**
- **Conduct training on their ERP**
- **Carry out exercises on their ERP**
- **Review and update their ERP on a periodic basis**

Question 15: Do you have an emergency response plan (ERP)?

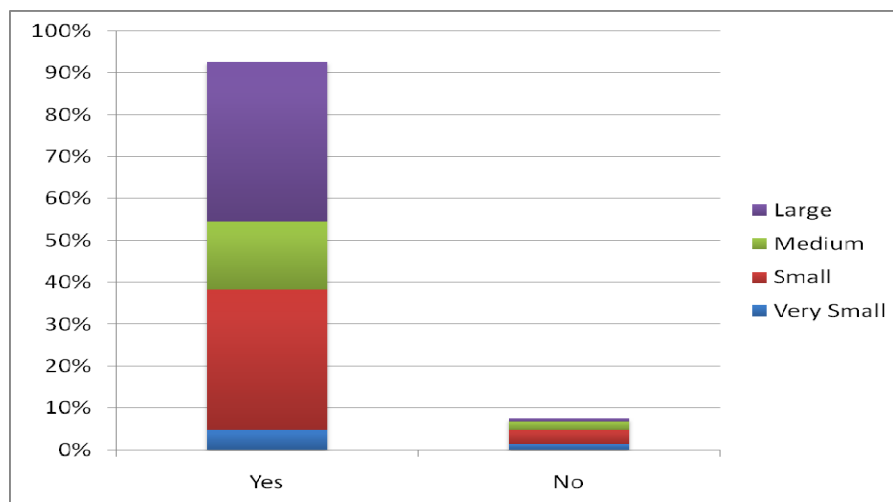
Drinking Water Utility Response:

Response	Very Small	Small	Medium	Large	Total
Yes	6%	42%	15%	35%	97%
No	0%	2%	0%	0%	3%



Wastewater Utility Responses:

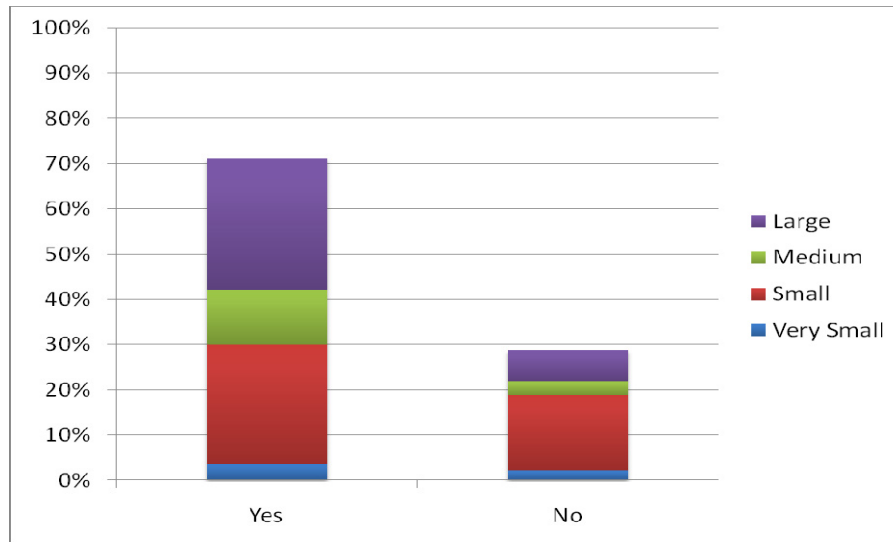
Response	Very Small	Small	Medium	Large	Total
Yes	5%	34%	16%	38%	93%
No	1%	3%	2%	1%	7%



Question 15a: Do you conduct training on the ERP?

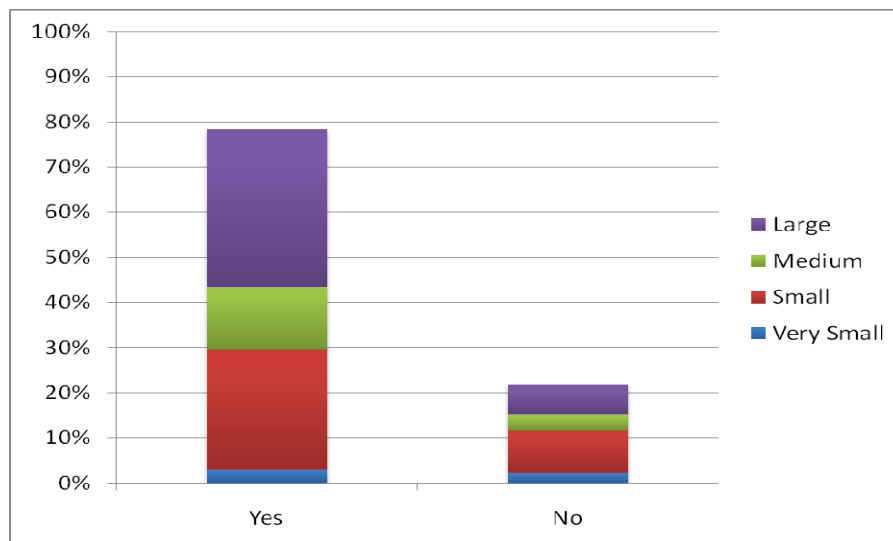
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	26%	12%	29%	71%
No	2%	17%	3%	7%	29%



Wastewater Utility Responses:

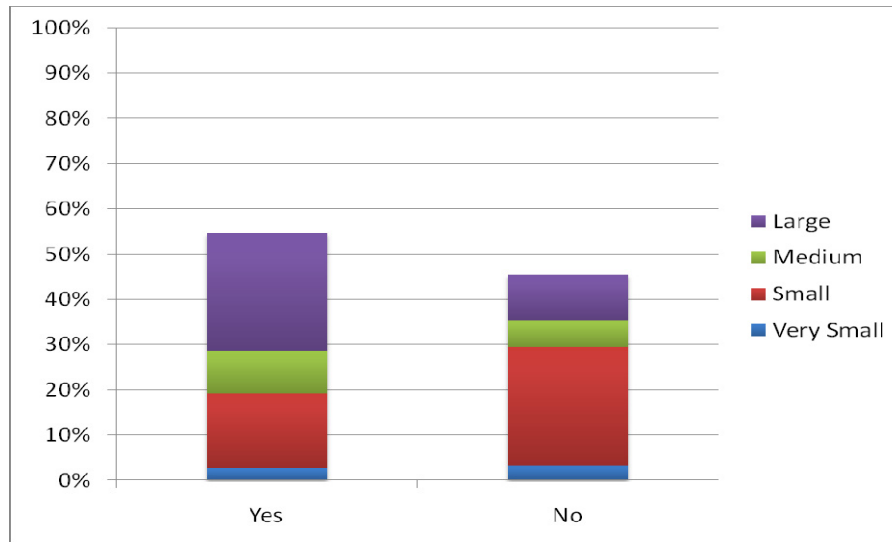
Response	Very Small	Small	Medium	Large	Total
Yes	3%	27%	14%	35%	78%
No	2%	9%	4%	7%	22%



Question 15b: Do you carry out exercises on the ERP?

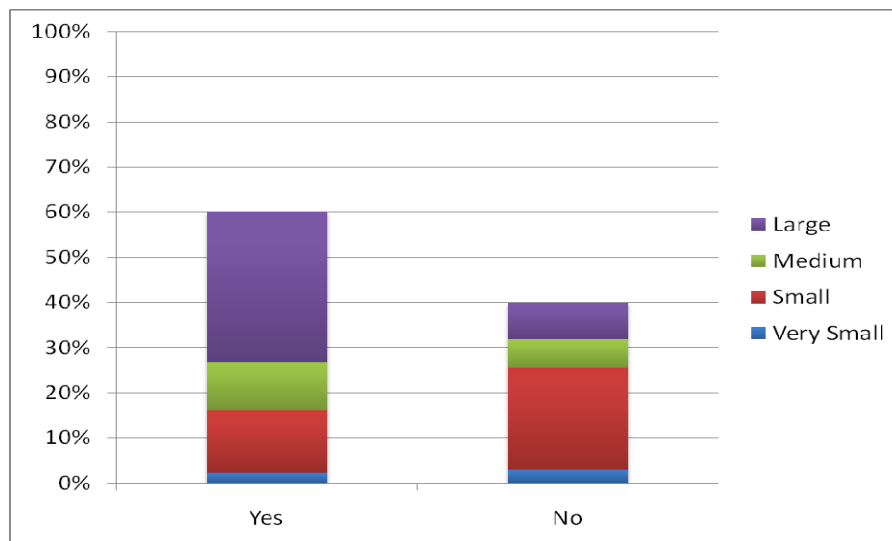
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	17%	9%	26%	55%
No	3%	26%	6%	10%	45%



Wastewater Utility Responses:

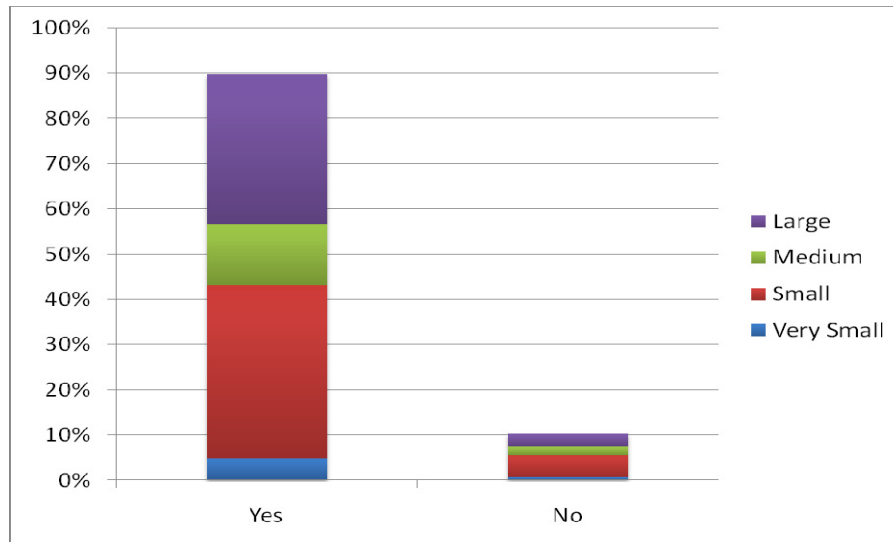
Response	Very Small	Small	Medium	Large	Total
Yes	2%	14%	11%	33%	60%
No	3%	22%	7%	8%	40%



Question 15c: Do you review and update the ERP?

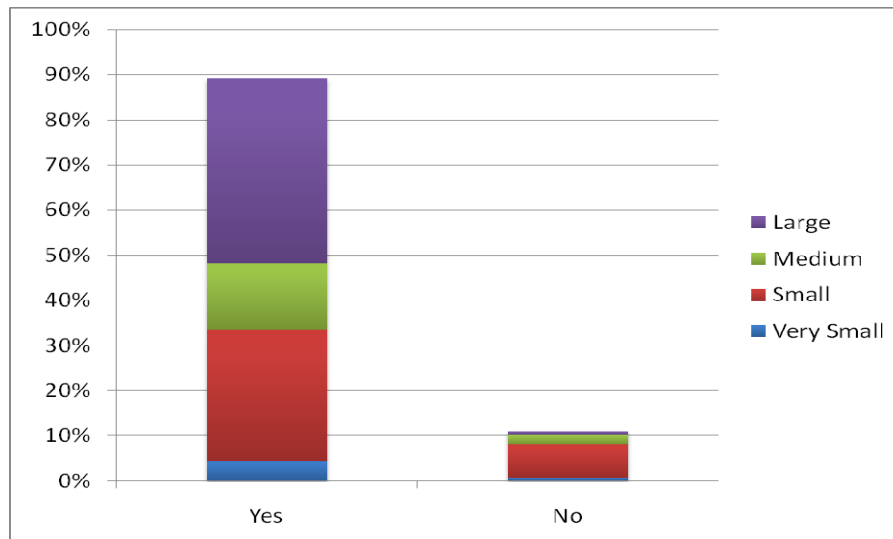
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	5%	38%	13%	33%	90%
No	1%	5%	2%	3%	10%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	29%	15%	41%	89%
No	1%	7%	2%	1%	11%

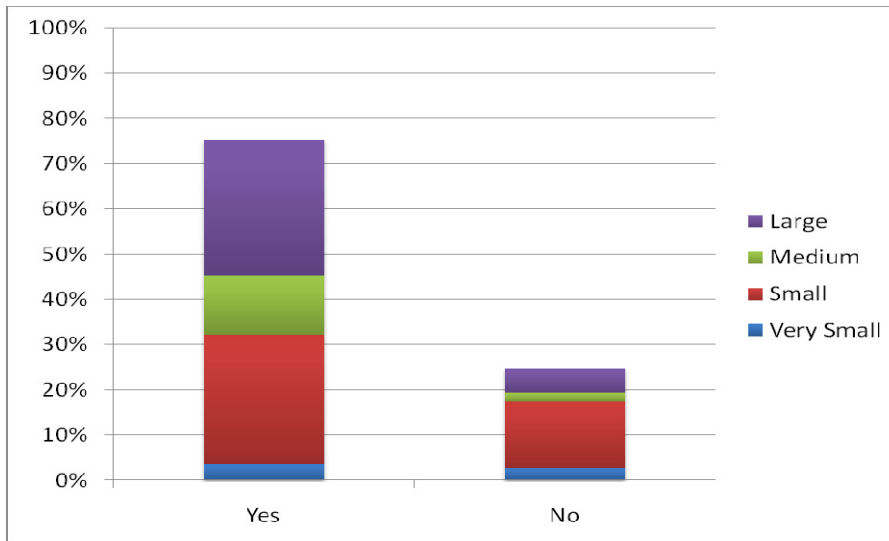


Measure 16: Number and percentage of utilities that have adopted the National Incident Management System (NIMS).

Question 16: Has your utility adopted the National Incident Management System (NIMS)?

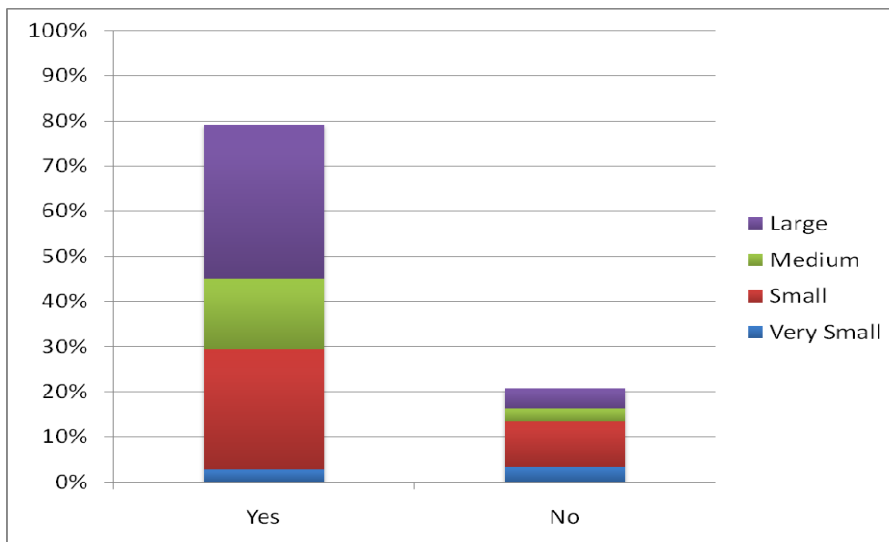
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	29%	13%	30%	75%
No	3%	15%	2%	5%	25%



Wastewater Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	27%	15%	34%	79%
No	3%	10%	3%	5%	21%

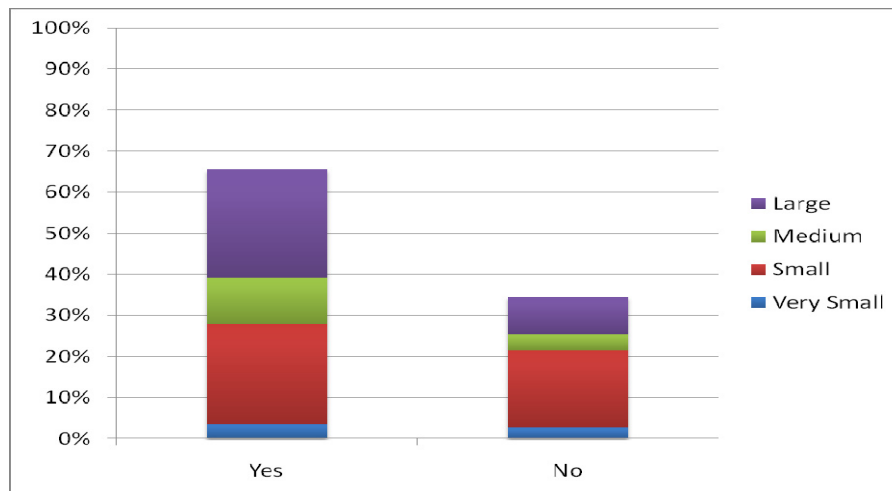


Measure 17: Number and percentage of utilities that are signatories, or are in the process of becoming signatories, to written agreements for requesting aid or assistance, such as a mutual aid or assistance agreement or a Water/Wastewater Agency Response Network (WARN) membership.

Question 17: Is your utility a signatory to written agreements for requesting aid or assistance, such as a mutual aid or assistance agreement or Water/Wastewater Agency Response Network (WARN) membership?

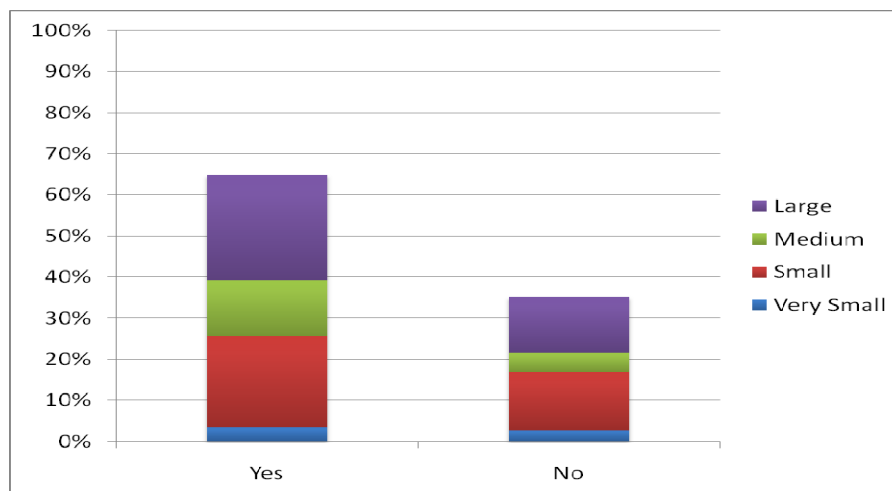
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	25%	11%	26%	66%
No	3%	19%	4%	9%	34%



Wastewater Utility Responses:

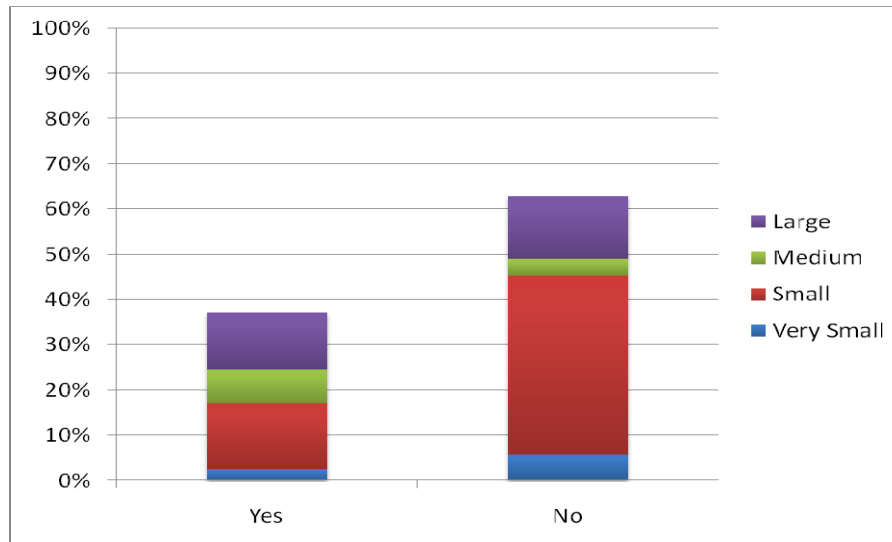
Response	Very Small	Small	Medium	Large	Total
Yes	3%	22%	14%	26%	65%
No	3%	14%	5%	14%	35%



Question 17a: If no, are you in the process of creating an agreement?

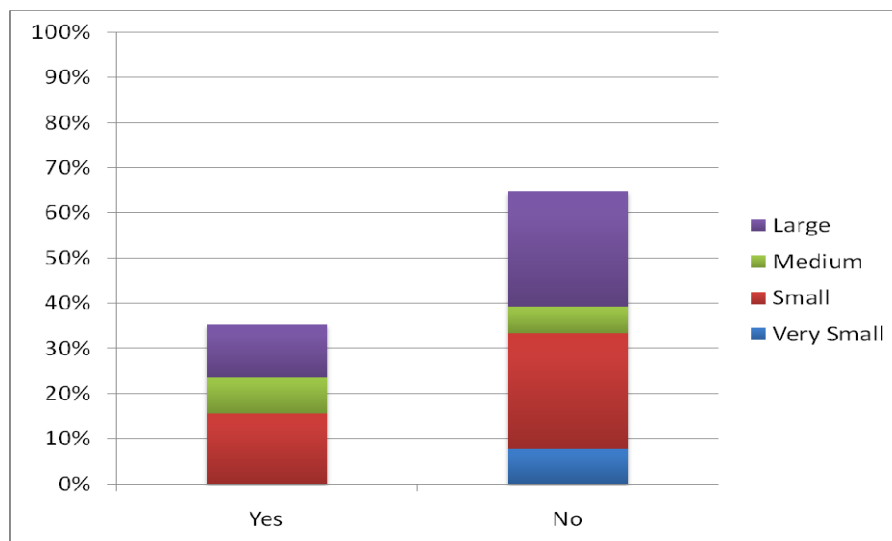
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	14%	8%	13%	37%
No	6%	40%	4%	14%	63%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	0%	16%	8%	12%	35%
No	8%	25%	6%	25%	65%

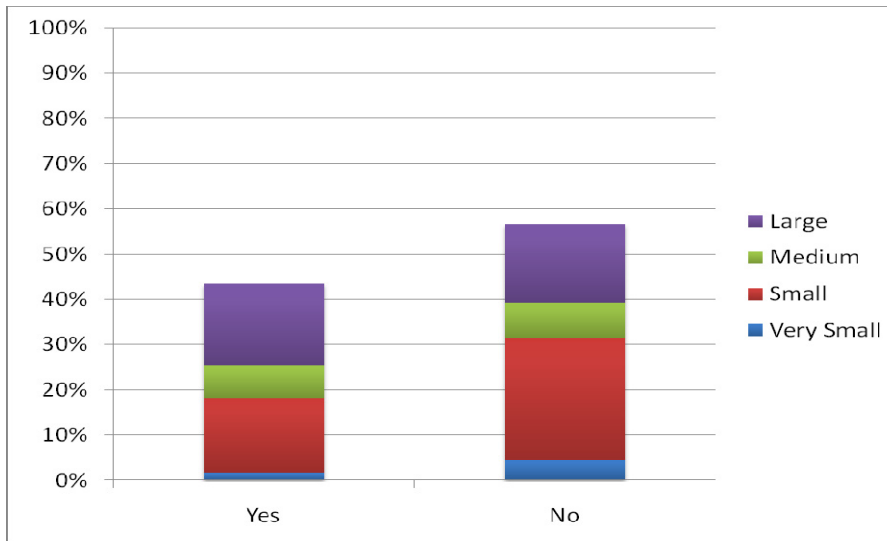


Measure 18: Number and percentage of utilities that have responded to an emergency request to provide mutual aid and assistance.

Question 18: Has your utility responded to an emergency request to provide mutual aid and assistance?

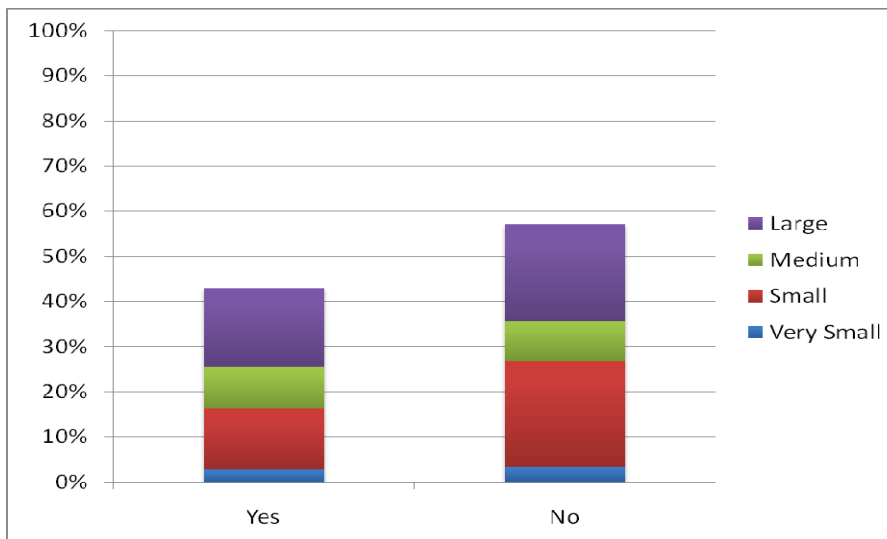
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	2%	16%	7%	18%	43%
No	4%	27%	8%	17%	57%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	13%	9%	17%	43%
No	3%	23%	9%	21%	57%

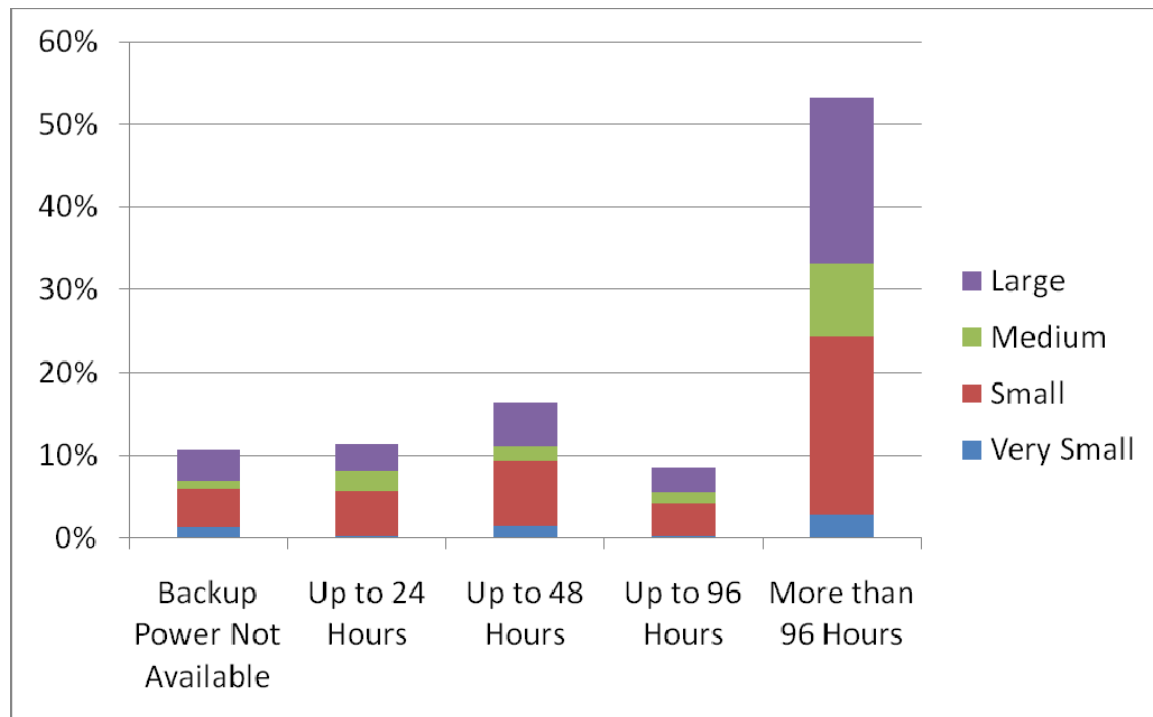


Measure 19: Percent of utilities that have backup power for critical operations.

Question 19: For what period of time does your utility have backup power?

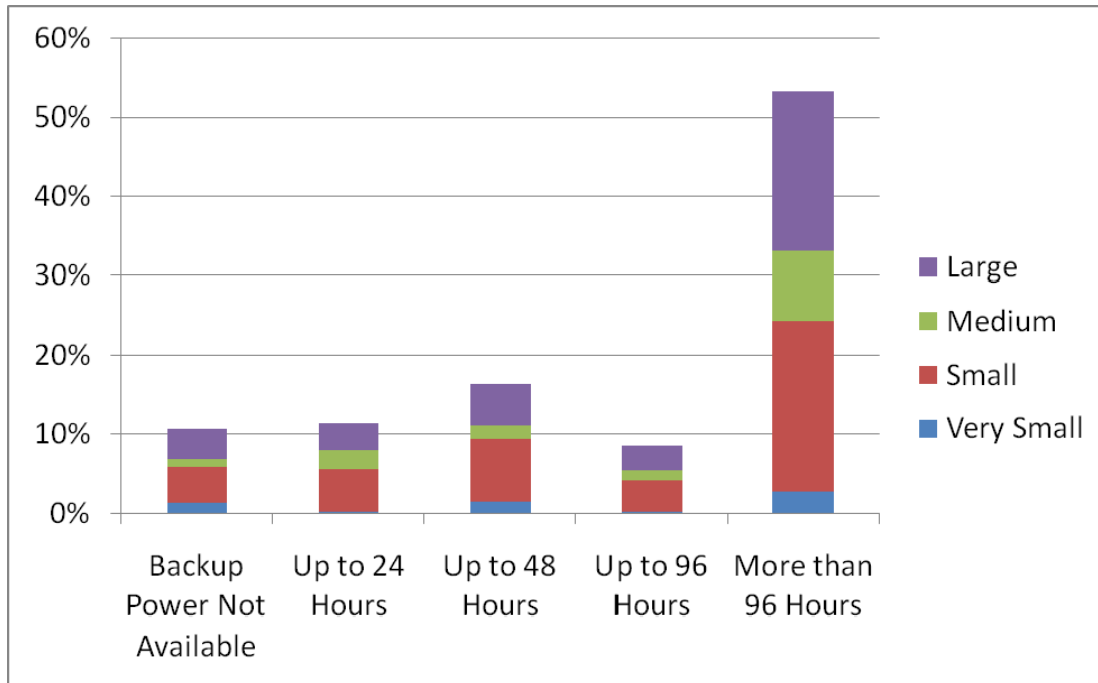
Drinking Water Utility Responses:

	Very Small	Small	Medium	Large	Total
Backup Power Not Available	1%	5%	1%	4%	11%
Up to 24 Hours	0%	5%	2%	3%	11%
Up to 48 Hours	2%	8%	2%	5%	16%
Up to 96 Hours	0%	4%	1%	3%	9%
More than 96 Hours	3%	22%	9%	20%	53%
Total	6%	43%	15%	35%	100%



Wastewater Utility Responses:

	Very Small	Small	Medium	Large	Total
Backup Power Not Available	1%	4%	2%	7%	14%
Up to 24 Hours	0%	6%	3%	5%	14%
Up to 48 Hours	2%	6%	5%	5%	18%
Up to 96 Hours	0%	5%	2%	6%	13%
More than 96 Hours	3%	16%	7%	16%	42%
Total	6%	37%	18%	39%	100%

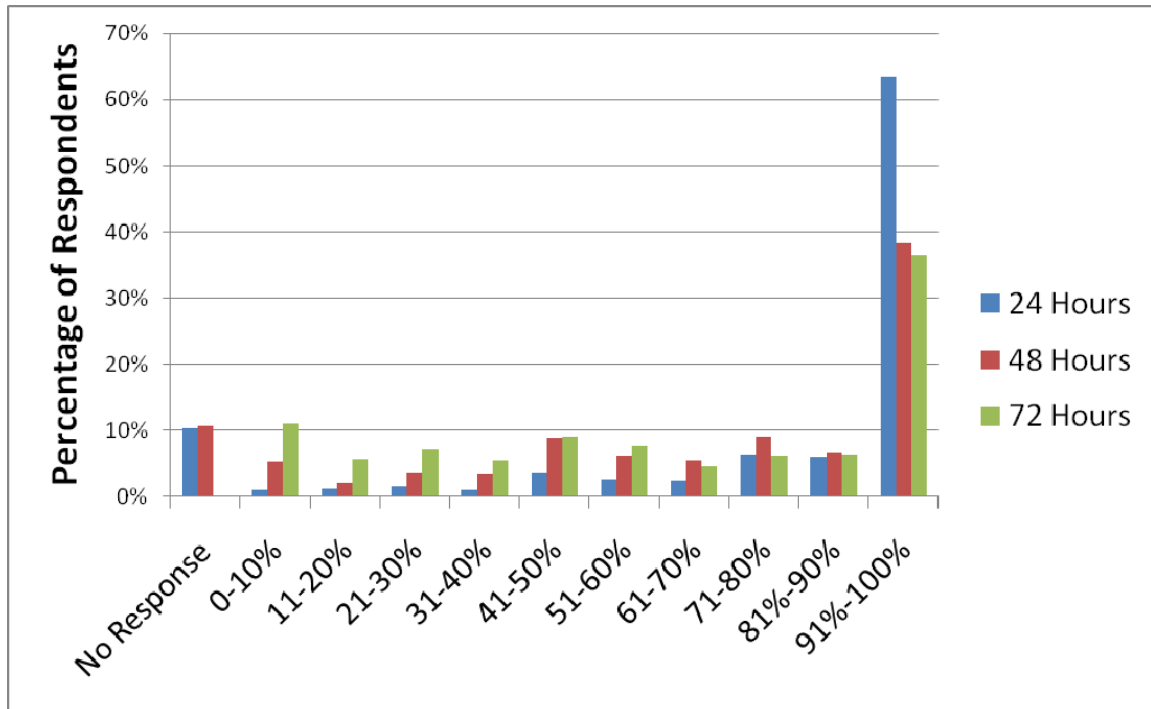


Measure 20: Percent of utilities that can meet minimum daily demand with their primary production/treatment plant non-functional.

Question 20: What percent of minimum daily demand can your utility meet (approaches to meet minimum daily demand could include use of stored finished water, arrangements with alternative finished water supply sources, etc) with your primary production/treatment plant shut down for: 24 hours, 48 hours, 72 hours.

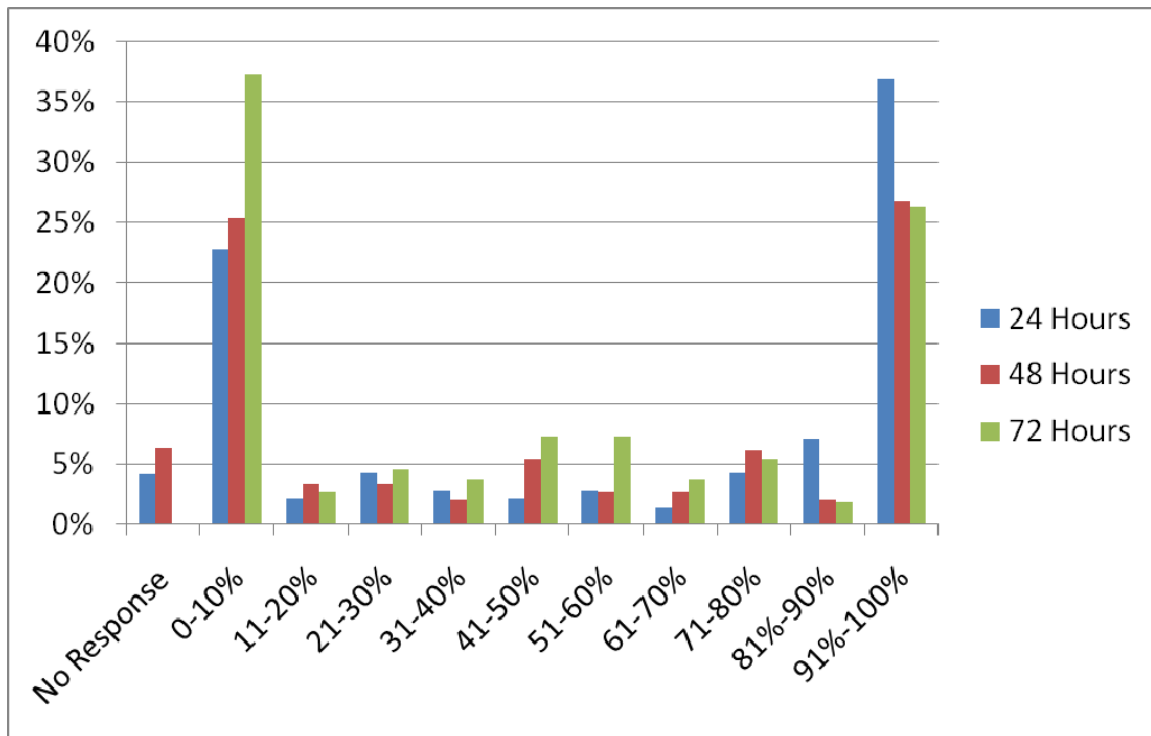
Drinking Water Utility Responses:

	No Response	0-10%	11-20%	21-30%	31-40%	41-50%
24 Hours	10%	1%	1%	2%	1%	4%
48 Hours	11%	5%	2%	4%	3%	9%
72 Hours	0%	11%	6%	7%	5%	9%
	51-60%	61-70%	71-80%	81%-90%	91%-100%	
24 Hours	3%	2%	6%	6%	63%	
48 Hours	6%	6%	9%	7%	38%	
72 Hours	8%	5%	6%	6%	37%	



Wastewater Utility Responses:

	No Response	0-10%	11-20%	21-30%	31-40%	41-50%
24 Hours	4%	23%	2%	4%	3%	2%
48 Hours	6%	25%	3%	3%	2%	5%
72 Hours	0%	37%	3%	5%	4%	7%
	51-60%	61-70%	71-80%	81%-90%	91%-100%	
24 Hours	3%	1%	4%	7%	37%	
48 Hours	3%	3%	6%	2%	27%	
72 Hours	7%	4%	5%	2%	26%	

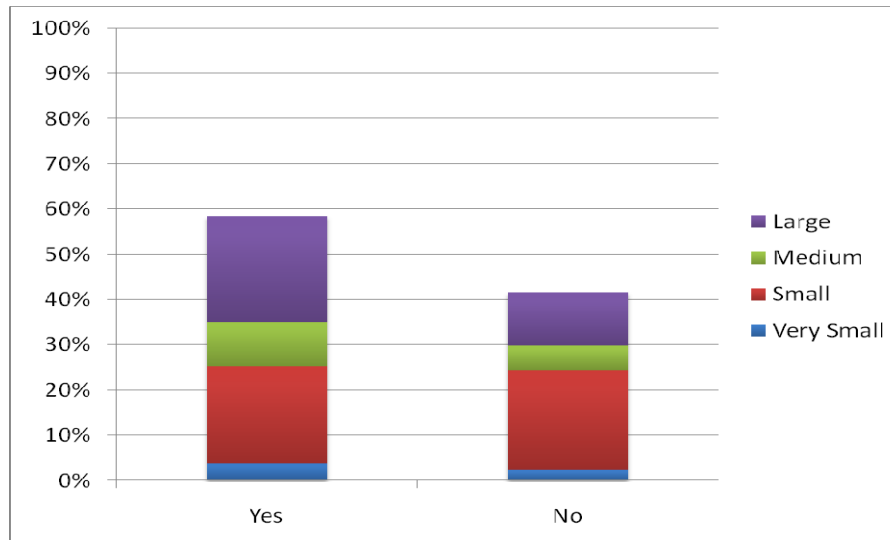


Measure 21: Number and percentage of utilities that have plans to handle communications during a crisis.

Question 21: Do you have a crisis communication plan?

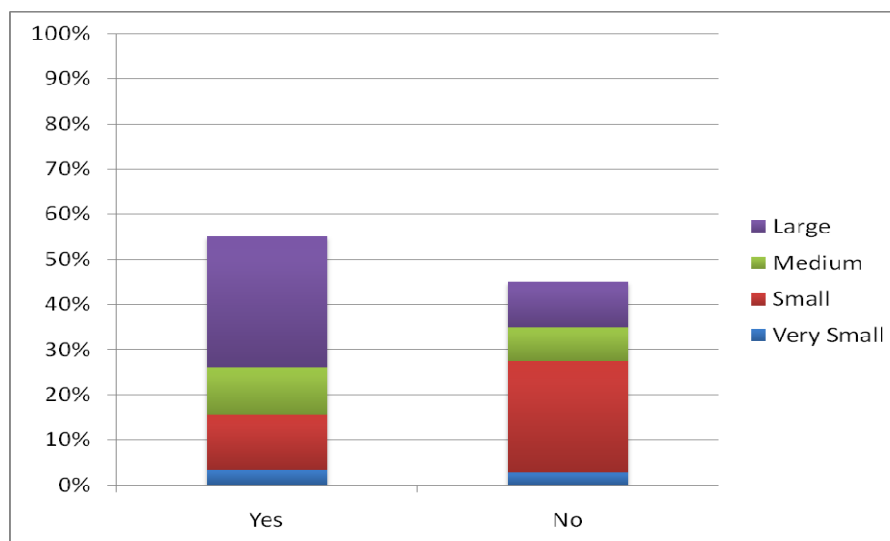
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	22%	10%	23%	58%
No	2%	22%	5%	12%	42%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	3%	12%	11%	29%	55%
No	3%	25%	7%	10%	45%

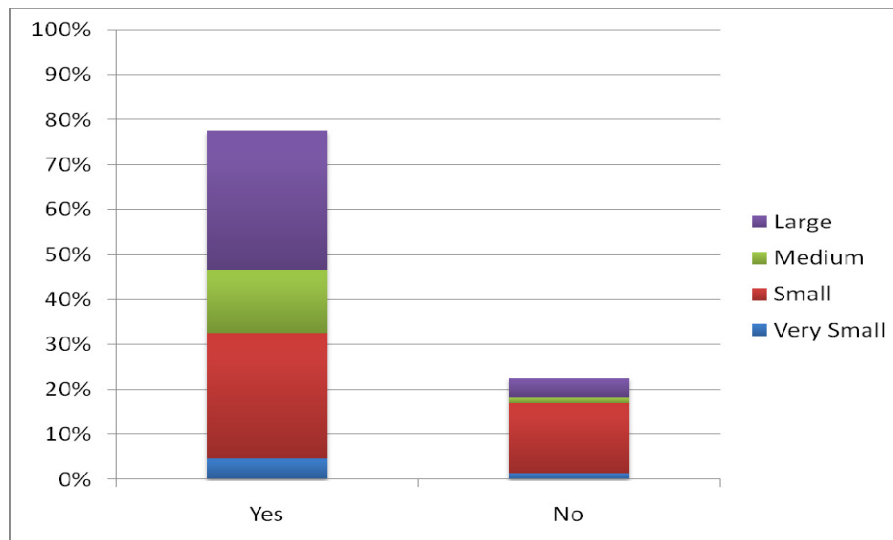


Measure 22: Number and percentage of utilities that engage in networking activities regarding emergency preparedness and collaborative response in the event of an incident.

Question 22: Do you engage in networking activities regarding emergency preparedness and collaborative response to be used in the event of an incident?

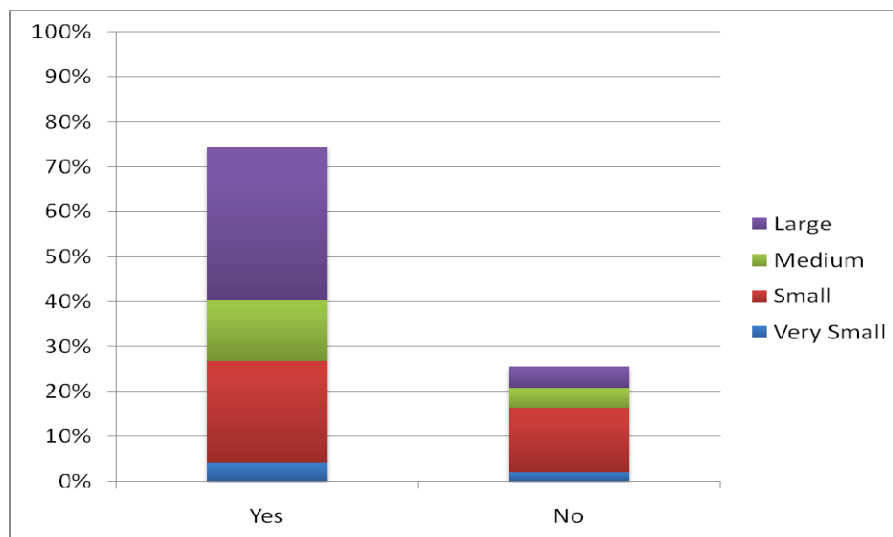
Drinking Water Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	5%	28%	14%	31%	77%
No	1%	16%	1%	4%	23%



Wastewater Utility Responses:

Response	Very Small	Small	Medium	Large	Total
Yes	4%	23%	13%	34%	74%
No	2%	14%	5%	5%	26%



Attachment B: The Measures and Reporting Questions

Measure 1: Number and percentage of utilities that have integrated security and preparedness into budgeting, training, and manpower responsibilities.

Question 1: Have you integrated security and preparedness into budgeting, training, and manpower responsibilities (Y/N)?

Measure 2: Number and percentage of utilities that incorporate security into planning and design protocols applying to all assets and facilities.

Question 2: Have you incorporated security into planning and design protocols applying to all assets and facilities (Y/N)?

Measure 3: Number and percentage of utilities that routinely conduct supplemental monitoring or more in-depth analysis beyond what is required to identify abnormal water quality conditions.

Question 3: Do you routinely conduct supplemental monitoring or more in-depth analysis beyond what is required to identify abnormal water quality conditions (Y/N)?

Measure 4: Number and percentage of utilities that have established relationships with public health networks to interpret public health anomalies for the purposes of identifying waterborne public health impacts.

Question 4: Have you formed established relationships with public health networks to interpret public health anomalies for the purposes of identifying waterborne public health impacts (Y/N)?

Measure 5: Number and percentage of utilities that monitor and evaluate customer complaints for possible indications of water quality or other security threats.

Question 5: Do you monitor and evaluate customer complaints for possible indications of water quality or other security threats (Y/N)?

Measure 6: Number and percentage of utilities that have established protocols (e.g., consequence management plans) for interpreting and responding to indications of water quality anomalies.

Question 6: Have you established protocols for interpreting and responding to indications of water quality anomalies (Y/N)?

Measure 7: Number and percentage of utilities that annually review and periodically update vulnerability assessments.

Question 7: Do you review your vulnerability assessment (VA) annually (Y/N)? How frequently do you update your VA to adjust for changes in your system that may alter the risk profile of your utility? (Never update; annually; every 2-3 years; every 3-5 years; every 5-10 years; no defined cycle)?

Measure 8: Number and percentage of utilities that receive screened, validated, and timely (e.g., in time to inform decisions or take action) threat information from one or more trusted sources such as WaterISAC, the FBI, local police, or DHS.

Question 8: Does your utility receive screened, validated, and timely (e.g., in time to inform decisions or take action) security threat information from one or more of the following sources (Y/N)?

Please check all that apply.

- WaterISAC
- FBI
- Local police
- DHS

Measure 9: Number and percentage of utilities that have a plan in place to increase utility security in response to a threat.

Question 9: Do you have a plan in place to increase utility security in response to a threat (Y/N)?

Measure 10: Percent of critical assets with enhanced capability to detect intruders.

Question 10: What percent of your critical assets are protected by enhanced detection capability?

Measure 11: Number and percent of utilities with physical and/or procedural controls in place to safeguard hazardous chemicals.

Question 11: If you use hazardous chemicals, do you have physical or procedural controls in place to safeguard them(Y/N)?

If yes, do they include some or all of the following? (Please identify all that apply)

- A. Restrict Area Perimeter. Have you secured and do you monitor the perimeter of areas containing hazardous chemicals (Y/N)?
- B. Screen and Control Access. Have you controlled access to restricted areas within the facility by screening and/or inspecting individuals and vehicles as they enter (Y/N)?
- C. Shipping, Receipt, and Storage. Do you secure and monitor the shipping, receipt, and storage of hazardous materials for the facility (Y/N)?
- D. Elevated Threats. Do you escalate the level of protective measures for periods of elevated threat (Y/N)?
- E. Other physical or procedural controls (Y/N)? (Please specify)

Measure 12: Number and percentage of utilities that include gaseous chlorine in their hazardous chemicals use.

Question 12: If you use hazardous chemicals, does your chemical use include gaseous chlorine (Y/N)?

Measure 13: Number and percentage of utilities that have evaluated their disinfection methods considering water quality, public health, and security issues.

Question 13: Have you evaluated your disinfection methods considering water quality, public health, and security issues (Y/N)?

Measure 14: Number and percentage of utilities that have a written business continuity plan.

Question 14: Do you have a written business continuity plan (Y/N)?

Measure 15: Number and percentage of utilities that:

- **Have an emergency response plan (ERP)**
- **Conduct training on their ERP**
- **Carry out exercises on their ERP**
- **Review and update their ERP on a periodic basis**

Questions 15: Do you have an emergency response plan (ERP) (Y/N)?

If yes, do you:

- Conduct training on the ERP
- Carry out exercises on the ERP
- Review and update the ERP on a periodic basis

Measure 16: Number and percentage of utilities that have adopted the National Incident Management System (NIMS).

Question 16: Has your utility adopted the National Incident Management System (NIMS) (Y/N)?

Measure 17: Number and percentage of utilities that are signatories, or are in the process of becoming signatories, to written agreements for requesting aid or assistance, such as a mutual aid or assistance agreement or a Water/Wastewater Agency Response Network (WARN) membership.

Question 17: Is your utility a signatory to written agreements for requesting aid or assistance, such as a mutual aid or assistance agreement or Water/Wastewater Agency Response Network (WARN) membership (Y/N)?

If no, are you in the process of creating an agreement (Y/N)?

Measure 18: Number and percentage of utilities that have responded to an emergency request to provide mutual aid and assistance.

Question 18: Has your utility responded to an emergency request to provide mutual aid and assistance (Y/N)?

Measure 19: Percent of utilities that have backup power for critical operations.

Question 19: Does your utility have backup power for critical operations for:

- 24 hours?
- 48 hours?
- 96 hours?

Measure 20: Percent of utilities that can meet minimum daily demand with their primary production/treatment plant non-functional.

Question 20: What percent of minimum daily demand can your utility meet with your primary production/treatment plant non-functional for:

- 24 hours?
- 48 hours?
- 96 hours?

Measure 21: Number and percentage of utilities that have plans to handle communications during a crisis.

Question 21: Do you have a crisis communication plan (Y/N)?

Measure 22: Number and percentage of utilities that engage in networking activities regarding emergency preparedness and collaborative response in the event of an incident.

Question 22: Do you engage in networking activities regarding emergency preparedness and collaborative response to be used in the event of an incident (Y/N)?

Attachment C: Measures and Reporting Methodology and Data Limitations

Reporting Methodology

The Water Information Sharing and Analysis Center (WaterISAC) hosted the secure, on-line tool for utilities to report on the measures. The questions contained in the reporting tool were identical to the set of questions used during the 2008 reporting process. These questions enabled utilities to provide information on their performance on each of the water sector measures. Unlike the 2008 reporting process, respondents were not required to provide contact information or use a personal identification number (PIN) in order to complete the questions. Although the 2008 reporting process was structured to ensure complete anonymity for responses, this change for 2009 was designed to allay any concerns that reporting is anything less than completely anonymous.

Respondents provided attribute data (state/territory location, population served/size, utility type, and source/receiving water) before responding to the 22 questions and sub-questions. Respondents were not required to provide an answer to all 22 questions before submitting their answers. The vast majority of respondents did, however, fully complete all questions.

The reporting tool provided definitions of key terms used in the questions with the goal of clarifying question intent and creating more consistency in utility responses. A group of volunteer utility managers beta tested the definitions, the questions, and the reporting tool prior to reporting tool roll-out to the sector in 2008. A technical assistance hotline and e-mail supported the reporting process. The reporting tool administrators received very few (less than 10) calls and e-mails.

For 2009, there were 610 responses of which 461 responses were from drinking water utilities and 149 responses from wastewater utilities. There were responses from drinking water utilities in 48 states and wastewater utilities in 36 states. Twenty-six states had at least five responses from drinking water utilities, and ten states had at least five wastewater utility responses. One hundred and sixty-three large, 70 medium, 200 small, and 28 very small drinking water utilities responded. Fifty-eight large, 27 medium, 55 small, and 9 very small wastewater utilities responded.

Respondents submitted their data through an online website, and the data were compiled in a data base. When the reporting period closed, the reporting tool administrators transferred the data to electronic spreadsheets for analysis. An independent contractor conducted the data analysis for the WaterISAC.

Data Limitations

The 2009 reporting process followed the same set of strict data management rules as in 2008. These rules, designed to address concerns about potential security sensitive information, guided the data analysis and display of results. The rules, in particular, limit data aggregation by utility attribute to ensure displays with fewer than five respondents were not created. These rules were designed to prevent a data sort from inadvertently revealing the identity of an individual utility. Consistent with

these rules, the number of responses per state has prohibited data aggregation by state and size of utility. The sector anticipated and discussed this potential limitation.

In addition to the specific measures, the sector also developed recommendations for how data on the measures would be reported. These recommendations were incorporated into the 2009 reporting process, with the addition of respondent anonymity.

- Reporting of data will be voluntary.
- Reporting will be completely anonymous.
- All water and wastewater utilities (and combined utilities) of all sizes and types will be invited to report.
- Reporting will be at no cost to the utility.
- Data transmission and storage will be secure.
- Data will be released to the public at the national level only in aggregate form.
- Data will be submitted to EPA anonymously through a third party in aggregated form.
- State location, population served (size), utility type (drinking water, wastewater, combined), and utility source/receiving water type will be collected as attribute data.
- Specific requirements for data banding and/or other data management rules will protect inappropriate combinations/reporting of attribute data (to protect the identity of individual utilities).

The reporting tool and all subsequent data management have operated in strict accordance with these requirements.

A final data limitation that is important to mention relates to the respondents: as with the previous year's reporting, participation has been completely voluntary. As a result, all respondents are self-selected.

Attachment D: State Drinking Water Program National Measures of Success for 2009

Summary

Background: During the month of October 2009, ASDWA invited all state drinking water programs, the Navajo Nation, and non-Tribal direct implementation programs (Puerto Rico, the District of Columbia, and territories) to provide updated information about their individual program progress in supporting and meeting the goals of the Water Sector Specific Plan. This plan becomes part of the larger National Infrastructure Protection Plan that creates the Federal framework for all planning, response, and recovery efforts to ensure resiliency against all hazards (natural and intentional) across all 18 Federally designated critical infrastructures.

This is the second time that state drinking water programs have participated in this voluntary information sharing effort. In 2008, ASDWA gathered information from 42 state primacy agencies in response to 8 basic “yes-no” questions. This year, 46 states and one direct implementation program have shared information about their progress in response to 18 questions, many of which included multi-part responses.

Overview of Responses: Sorted by EPA Regional boundaries, the responding 47 state drinking water programs reflect the following:

Region 1:	<i>6 of 6 programs responded</i>	Region 6:	<i>5 of 5 programs responded</i>
Region 2:	<i>2 of 2 programs responded</i>	Region 7:	<i>3 of 4 programs responded</i>
Region 3:	<i>6 of 6 programs responded</i>	Region 8:	<i>6 of 6 programs responded</i>
Region 4:	<i>6 of 8 programs responded</i>	Region 9:	<i>4 of 4 programs responded</i>
Region 5:	<i>6 of 6 programs responded</i>	Region 10:	<i>3 of 4 programs responded</i>

Summary of Response Highlights: Further analysis of responses from the 47 participating programs shows:

- **100% -- Support for WARN:** All responders are actively engaged in developing, participating, and/or supporting WARN or mutual aid initiatives. 25 states provided direct financial support; 31 provided in-kind support; and 13 states support both WARN and Mutual Aid Networks.
- **96% -- Targeted Assistance and Initiatives:** Most states have provided targeted assistance activities and initiatives to help drinking water utilities to develop or enhance an all hazards/ security response program (a 10% increase over 2008). Most support comes through state provided technical assistance followed closely by security-specific operator training and tabletop exercises.
- **94% -- Collaborative Efforts:** Relative to collaborative efforts, 44 states have formed established relationships with their public health agency counterparts, principally to collaborate during emergencies with staff and labs (85%) but also to share information and notification technologies (72%); partner on taskforces and to interpret public health anomalies to identify waterborne public health impacts (60%).
- **66% -- Outreach/Training for Small Systems:** Most of the responding programs (31) had participated in specific outreach or training for drinking water system vulnerability assessments for small (<3300) systems. The most frequently used approach was to take advantage of 3rd party training materials and to partner with

water utility organizations. However, nearly 2/3 of respondents designed templates for systems' use and/or provided web pages with compendiums of available tools and information.

- **94% -- Trained State Staff:** A significant majority (44) of responding states do have staff with appropriate training to support water system needs within the Incident Command Structure and 37 of them also facilitate NIMS/ICS training opportunities for water systems.
- **91% -- Outreach/Training on ERPs:** Most state drinking water programs do conduct specific outreach or training for water utilities on the importance and need for an emergency response plan (either state hosted or in concert with a water community partner) and a majority of respondents specifically selected continuity of operations planning as a principal training focus. Other noted training efforts included risk communication, contingency planning, pandemic flu planning, and infrastructure resiliency.
- **83% -- Invitations to or Participation in Emergency Response Exercises:** While 39 states responded "yes" when asked if they had been invited to and/or participated in some type of emergency response exercise in which the Water Sector was a focus; in contrast, only 30 states (64%) noted that they had undertaken one or more emergency response exercise specifically for their water utilities.

Special Challenges: State drinking water programs also noted some interesting challenges that arise from working with their utilities to enhance security considerations in a non-regulatory environment:

- 53% of respondents said that they can/do require physical or procedural controls for water systems that use hazardous chemicals.
- 43% require periodic review of utility emergency response plans.
- 70% do have the ability to identify (security) needs for water utilities such as inventory and resource typing.
- 32% of respondents conduct a statewide assessment of water utilities' security enhancements and future needs.

The attached document aggregates all responses provided. Please note that not every respondent answered each question. Additional information has been provided by a number of states to help highlight other programmatic efforts that have been undertaken.

Responses

**Please Note: N = 47 but not all states responded to every question;
46 States and One Direct Implementation Program Provided Responses**

SSP Goal 1: Sustain Protection of Public Health and the Environment

The nation relies on a sustained amount of safe drinking water and on the treatment of wastewater to maintain public health and environmental protection. To help better protect and secure public and environmental health, the water sector will work to ensure the continuity of both drinking water and wastewater services.

Question 1:

- Has your state drinking water program provided broadly targeted assistance activities/initiatives to help water utilities develop or enhance an all hazards/security response program (Y/N)?

45 YES

2 NO

96%

Please select all that apply:

32 tabletop exercises

38 technical assistance

14 funding

31 ERP templates

24 resources website

37 security specific operator training

29 communication network

4 other (please specify):

- ✓ Included in operator training events and sanitary surveys
- ✓ WARN and mutual aid support
- ✓ NIMS training and certification opportunities
- ✓ Annual water security summits

Question 2:

- Has your state drinking water program integrated security and preparedness into its budgeting, training, and manpower responsibilities? (Y/N)

41 YES

6 NO

87%

Question 3:

- Has your state drinking water program formed established relationships with your public health agency? (Y/N)

44 YES

3 NO

94%

Please select all that apply:

28 to interpret public health anomalies to identify waterborne public health impacts

34 to share information and notification technology

28 to partner on taskforces or committees

10 to take advantage of funding or program availabilities

40 to collaborate during emergencies with staff and labs

7 other (please specify):

- ✓ To partner to mitigate waterborne disease outbreaks
- ✓ To provide sampling kits for public health and first responder partners
- ✓ To conduct tabletop exercises and document review
- ✓ To develop incident response kits and linked response protocols with public health lab
- ✓ To reach out to county health agencies
- ✓ The primacy program is in the state health department

SSP Goal 2: Recognize and Reduce Risks in the Water Sector

With an improved understanding of the vulnerabilities, threats, and consequences, owners and operators of water sector utilities can continue to thoroughly examine and implement risk-based approaches to better protect, detect, respond to, and recover from manmade and natural events.

Question 4:

- Has your state drinking water program participated in specific outreach or training on drinking water system vulnerability assessments for systems serving <3300 (Y/N)?

31 YES

66%

16 NO

Please select all that apply regarding formulation of training materials:

13 designed new

20 used existing

28 used 3rd party

2 other (please specify):

✓ Targeted for upcoming year

✓ Worked to ensure that small systems completed VAs (statewide goal)

Please select all that apply regarding training vehicle:

20 state-hosted

23 with water partner organizations

15 tasked TA providers

5 other (please specify)

✓ Part of emergency planning template and info posted on security website

✓ Through TA provider, worked one-on-one with very small systems

✓ Used non-TA provider contract

Please select all that apply regarding type of material used:

1 designed expert online systems for water systems' use

19 provided web pages with compendium of available tools and information

20 designed templates for systems' use

4 other (please specify):

✓ Used contractor generated materials

✓ Used AWWA workbooks/threat preparedness manuals

✓ Included info and tools access at operator schools

✓ Used existing EPA/DHS tools and templates

Question 5:

- Does your state drinking water program require physical or procedural controls for water systems that use hazardous chemicals? (Y/N)

25 YES

53%

21 NO

SSP Goal 3: Maintain a Resilient Infrastructure

The water sector will investigate how to optimize continuity of operations to ensure the economic vitality of communities and the utilities that serve them. Response and recovery from an incident in the water sector will be crucial to maintaining public health and public confidence.

Question 6:

- Does your state drinking water program have staff with appropriate training to support water system needs within the Incident Command Structure (Y/N)?
44 YES **94%**
3 NO

Question 7:

- Does your state drinking water program facilitate NIMS/ICS training opportunities for water systems (Y/N)?
37 YES **79%**
10 NO

Question 8:

- Has your state drinking water program performed specific outreach or training for water utilities on the importance and need for an emergency response plan (Y/N)? **91%**
43 YES
4 NO

Please select all focus areas that apply:

- 14** business continuity planning
- 33** continuity of operations planning
- 13** other (please specify):
 - ✓ ICS/NIMS structure and response
 - ✓ Risk communication, infrastructure resiliency and protection
 - ✓ Pandemic flu planning
 - ✓ Specific plan templates, WebEOC training, other exercises on COP
 - ✓ Emergency response plans
 - ✓ Incident templates
 - ✓ Contingency planning (per state requirements)
 - ✓ Emergency management planning (specific state requirement)
 - ✓ Initiated standard operating plans program with systems

Question 9:

- Does your state require periodic review of utility ERPs? (Y/N)

43%

20 YES

27 NO

Please select one:

6 annually

2 biannually

3 every five years

12 other (please specify):

✓ Many states incorporate as part of sanitary survey process (every 2-3 years)

✓ Working toward required review

✓ Several states "recommend" rather than "require" review

Question 10:

- Does your state drinking water program participate in and/or support development of a WARN or mutual aid initiative (Y/N)?

100%

47 YES

0- NO

Please select one structure:

32 WARN Only

1 other Mutual Aid Network Only,

13 both WARN and Other Mutual Aid Network

0 no program available yet

2 other (please specify)

✓ Although the state supports it, at present only the utilities participate

✓ State participates in the Upper MS Emergency Warning Monitoring Network

Please select all support types that apply:

31 provide in-kind support

25 provide direct financial support

13 other (please specify):

✓ Provide technical assistance and information to WARN

✓ Provide logistical and facilitation support

✓ Support contractor for WARN development, membership, and website

✓ Organizational support

✓ Managing contract for WARN support

✓ Assist with planning needs

Question 11:

- Does your state drinking water program have the ability to identify needs for water utilities (inventory/resource typing)? Y/N **70%**
 - 31** YES
 - 16** NO

Please select all that apply:

- 24** through a WARN
- 5** through a Mutual Aid Network
- 8** independently
- 3** other (please specify):
 - ✓ Sanitary surveys
 - ✓ Electronic sanitary survey query of codes for security needs
 - ✓ Case by case via ERPs; site visits; operator data; infrastructure data

Question 12:

- Does your state drinking water program identify and review critical functions that must be maintained or reestablished following a disaster? (Y/N) **68%**
 - 32** YES
 - 15** NO

Question 13:

- Does your state drinking water program provide information about Sector interdependencies (Y/N)? **66%**
 - 31** YES
 - 16** NO

Please select all Sectors that apply:

- 26** Public Health/Health Care
- 24** Emergency Services
- 12** Food & Agriculture
- 14** Energy
- 13** Transportation
- 7** other (please specify):
 - ✓ Law Enforcement
 - ✓ Chemical Suppliers
 - ✓ Equipment Suppliers
 - ✓ Communications (voice, email, SCADA)
 - ✓ Local fire/safety/first responder information
 - ✓ Local and state emergency management agencies
 - ✓ Statewide infrastructure protection partnership provides broad coordination

Please select all formats that apply:

- 23 tabletop exercises
- 9 web pages
- 8 memberships
- 6 FAQs
- 23 training
- 3 other (please specify):
 - ✓ Newsletter
 - ✓ Water Sector Security Best Practices
 - ✓ Development of a state sector specific plan

Question 14:

- Does your state drinking water program conduct a statewide assessment of your water utilities security enhancements and future needs? (Y/N) **32%**
 - 15 YES
 - 32 NO

Please select one:

- 9 do conduct
- 3 planning to conduct this year
- 10 not planning to conduct
- 9 other (please specify):
 - ✓ Security elements have been incorporated into the sanitary survey
 - ✓ Under consideration
 - ✓ Does apply for DWSRF applicants
 - ✓ Can query security needs through ESS coding system
 - ✓ Require only for CWS greater than 10,000 population
 - ✓ Limited assessment on case by case basis
 - ✓ Do conduct for large systems; contracting to complete for small systems

Question 15:

- Does your state drinking water program have its own security program? (Y/N) **83%**
 - 39 YES
 - 8 NO

Please select all that apply:

- 30 emergency response plan
- 30 continuity of operations plan
- 31 staff training/exercise program
- 17 coordination agreement with state security agency
- 8 other (please specify):
 - ✓ We do not have a drinking water specific plan, but our agency does
 - ✓ A response team was organized in 2002 but since then, security has been incorporated into various program elements and normal operations
 - ✓ We have a water support team
 - ✓ We are part of a larger statewide emergency response program

SSP Goal 4: Increase Communications, Outreach, and Public Confidence

Safe drinking water and water quality are fundamental to everyday life. An incident in the sector could have significant impacts on public confidence. Fostering and enhancing the relationships between utilities, government, and the public can mitigate negative perceptions in the face of an incident.

Question 16:

- Has your state drinking water program been invited to and/or participated in any emergency response exercise in which the water sector was a focus (Y/N)? **83%**
 - 39 YES
 - 8 NO

Please select all that apply:

- 22 Federal exercise
- 16 multi-state exercise
- 26 statewide exercise
- 18 county/parish/other jurisdiction exercise
- 3 other (please specify):
 - ✓ We have participated in a federally required functional exercise for a local oil refinery in which a massive oil spill threatened drinking water intakes and other users.
 - ✓ Vigilant Guard
 - ✓ Water was element of hurricane exercise; rad incident exercises; and dirty bomb exercise

Question 17:

- Has your state drinking water program undertaken one or more emergency response exercises for water utilities (Y/N)? **64%**
 - 30 YES
 - 17 NO

Please select all that apply:

- 14 hosted
- 25 sponsored/coordinated with water partners
- 7 tasked TA providers
- 3 other (please specify):

- ✓ Contractor supported exercises
- ✓ Funding for tabletops in rural areas
- ✓ Business continuity and H1N1 exercises

Question 18:

- Does your state drinking water program have a crisis communication plan? (Y/N)

70%

33 YES

14 NO