



Michigan Section, American Water Works Association

MDEQ Water Sector Security Contracts Update

Kewadin Casino Hotel, Sault Ste. Marie

Friday September 14, 07









A satellite view of Earth from space, showing a large body of water (likely the Great Lakes) and surrounding landmasses. The Earth's curvature is visible against the blackness of space. In the upper left corner, a portion of a satellite or space station is visible, including a large white thermal blanket and various instruments.

Bob Babcock
Security and Emergency Response
Coordinator



State of Michigan
Department of
Environmental Quality

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Thank You

- Michigan Section, American Water Works Association for your *long term commitment to stewardship of the drinking water program.*
- The people of Michigan for supporting a secure public water supply.

Acknowledgements

- Contractor participants:
 - VA CIP: CDM Michigan: Barry Sarin, Janice Skadsen
 - TTT/TTX: Patriot Services: Steve Potter, Robert House

Why drinking water security?



- Malevolency...akin to malignancy...not a fun subject...but yet, reality

Security

- freedom from danger, risk, safety; something that secures or makes safe; protection; defense.

Preparedness

- State of readiness
- Possession of adequate armed forces, industrial resources and potential, especially as a deterrent to an enemy attack

TAKE HOMES

- 1. You are a first responder
- 2. The majority of security improvements have been completed (VA CIP contract)
- 4. Tabletop Exercises are useful in preparing you for terrorist acts/all hazards. (TTT/TTX contract)
- 5. WARN is useful to be a part of
- 6. Chlorine risk/benefit needed (2 contracts)
- 7. All hazards includes terrorism (CBRNE/cyber)

Hot Topics

- New federal law: PL – 053: 9/11 Commission Act of 2007
 - voluntary preparedness stds. & certification
 - national database identifying critical infrastructure
- Nat'al Commission on Infrastructure bill
- Water Security grants bill...aka Water Security Act of 2007
 - \$245 M for water & wastewater security

MDEQ Water Bureau Initiatives

- Gas Chlorine reduction
- VA CIP follow – up
- TTT-TTX
- 2 FTX's funded for FY 08
- WARN



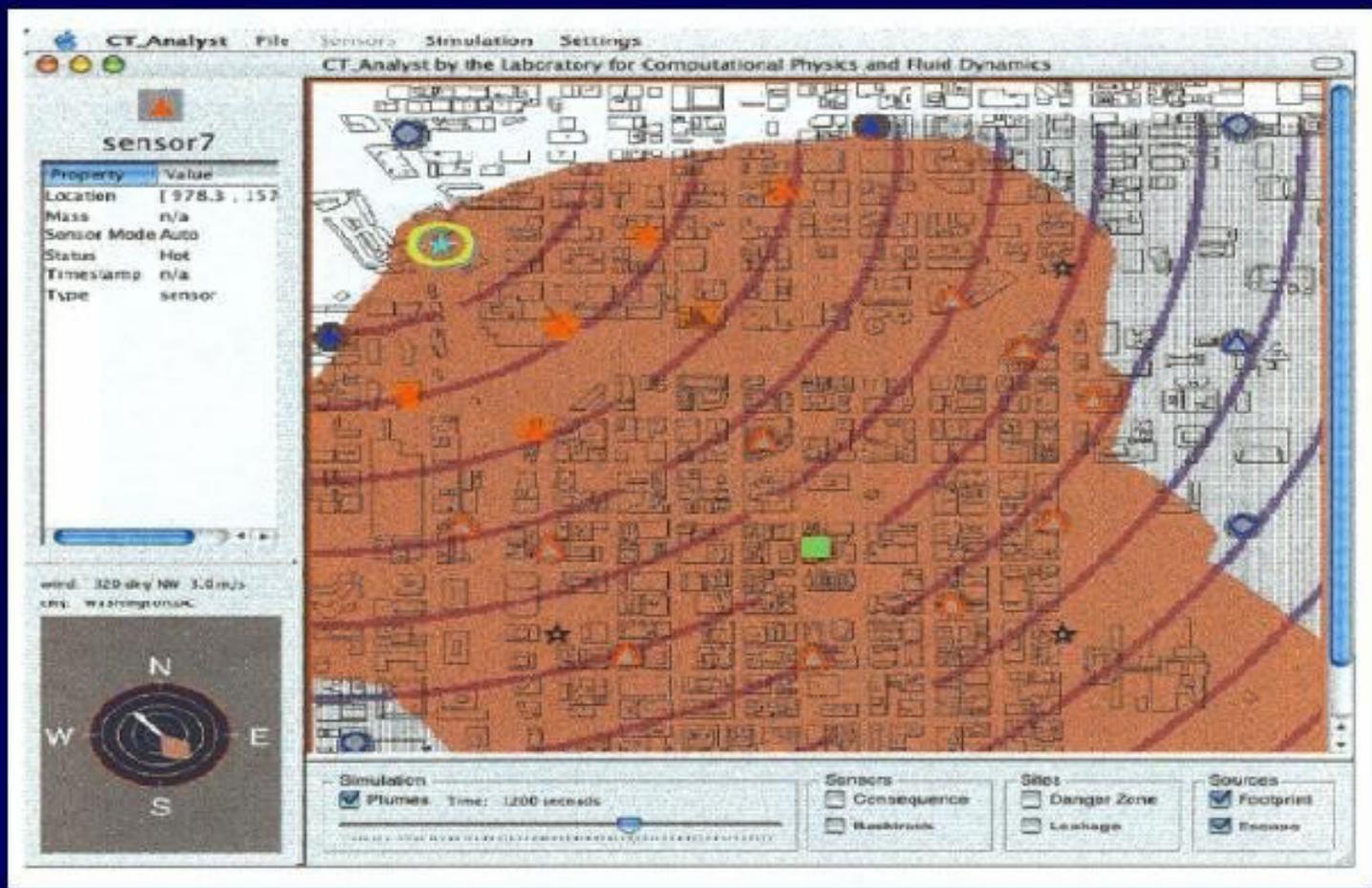
Gas Chlorine Conversion Project

- New MDEQ project to provide utilities with risk/benefit information for making an informed decision on the continued use of gaseous chlorine
- 117 largest water & wastewater facilities that use gaseous chlorine
- Provide practical decision making to assess cost of conversion
- Initial MDEQ & contractors meeting held 8/22/07

Gaseous Chlorine Project

- Prein & Newhoff contractor for the outstate facilities: non-UASI area: 95 facilities: 73 water and 22 wastewater
- CDM – Michigan contractor for the southeast michigan urban area – UASI: urban area security initiative: City of Detroit, Wayne, Oakland, Macomb, St. Clair, Washtenaw, and Monroe counties: 22 facilities: 13 water and 9 wastewater

U.S. Naval Research Lab: Worst Case Scenario: 100,000 dead in 1/2 Hour



Gaseous Chlorine: New York City

- **Police on Alert As Chlorine Hits Iraq: NYPD Begins Tracking Shipments**
- NYPD is concerned about dangerous materials that are stored in or transited through the city. [May 1, 2007]

Bioterrorism Act of 2002:
population > 3,300

- Vulnerability Assessments (VA's)
- Emergency Response Plans (ERP's)

What is a Vulnerability Assessment?

- Vulnerability Assessments evaluate water systems' susceptibility to potential threats and identify corrective actions that can reduce or mitigate the risk of serious consequences from adversarial actions.



What is an Emergency Response Plan (ERP)

- An Emergency Response Plan is a process which describes actions, procedures and equipment which can prevent or significantly lessen the impact of terrorists' attacks or other malevolent acts on the water system.



VA CIP Follow-up

- Vulnerability Assessment Capital Improvement Plan (VA CIP) follow-up
- CDM Michigan contractor

VA-CIP Project Goals

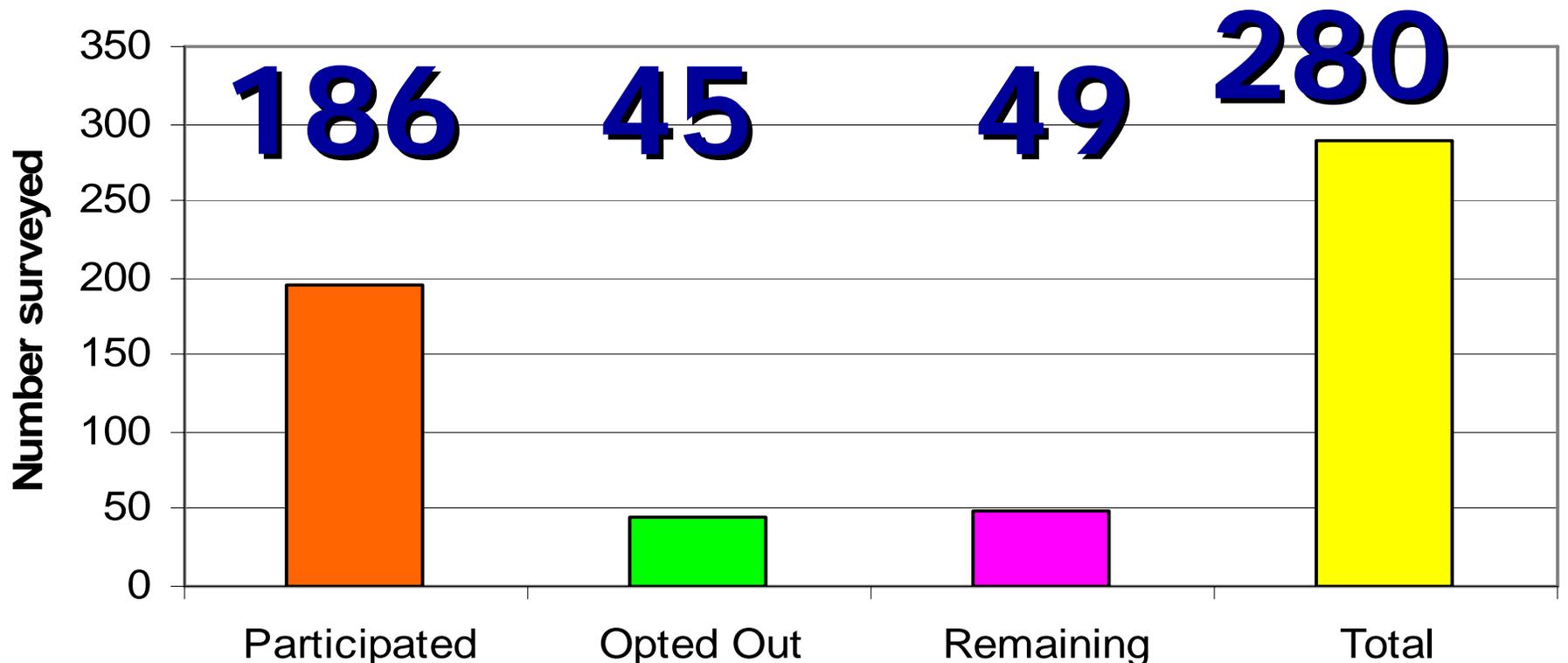
- Assess status of capital projects identified in Utility Vulnerability Assessments
- Identify remaining project needs

VA-CIP Survey

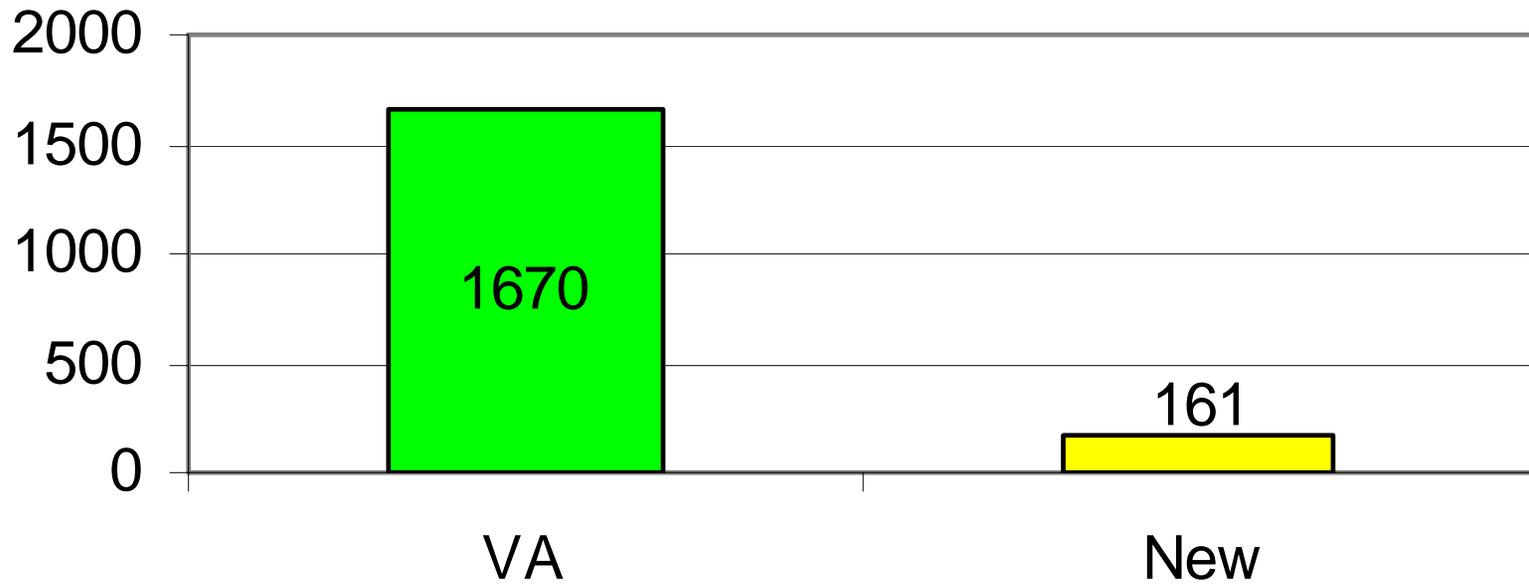
- Completed by utility – interview, fax, mail or phone;
- Survey Questions:
 - VA projects ID'd/VA projects done
 - Timeline for completion of remaining projects
 - Projects identified post-VA
 - Projects completed post-VA
 - Changes in policies & procedures
 - Changes in emergency response plans

Number of Public Water Systems Surveyed

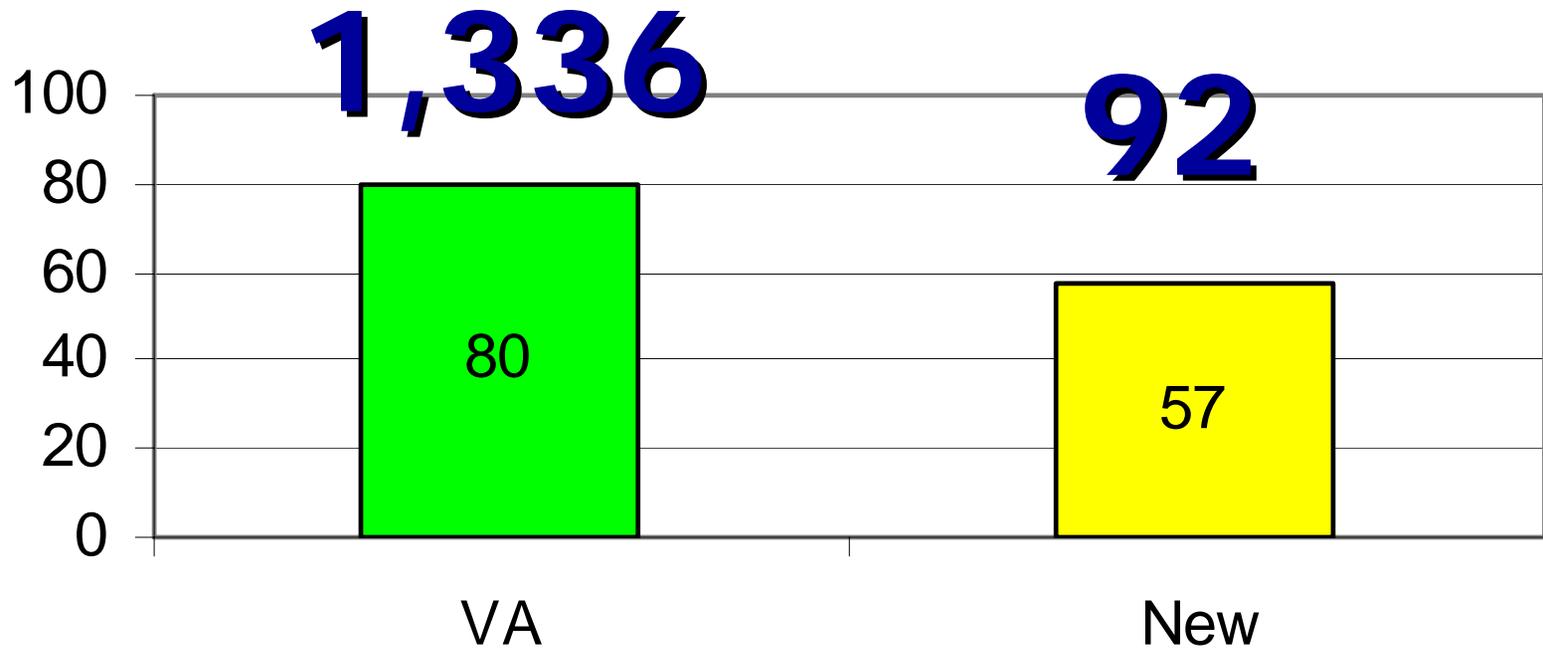
Number of Utilities Surveyed



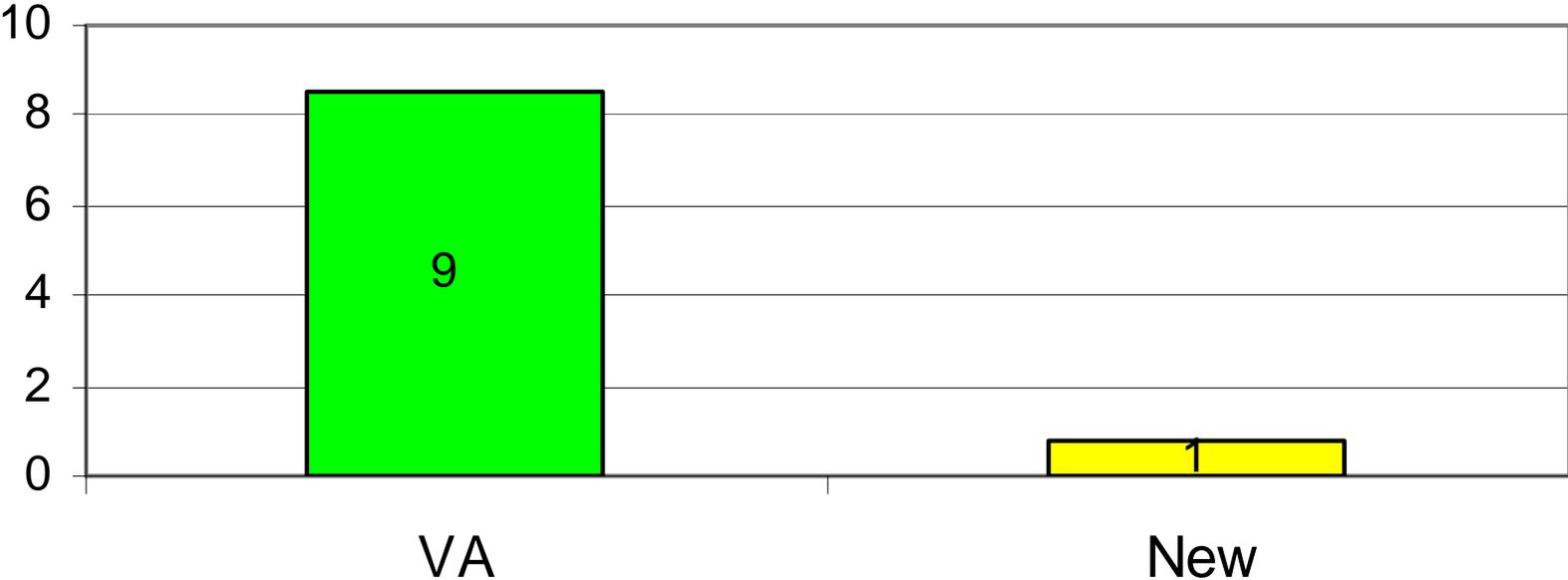
Number of Projects Identified



Percent of Projects Completed



Average Projects per Utility



CIP Project Costs

- >\$25M total
- Range
 - Min \$100 new locks
 - Max \$5M new backup generators

Typical Projects

- Locks
- Fences
- Cameras
- Card key



Innovative Projects

- New water plant
- Grease gun on top of external pipe to keep critters off
- Others??

Policy & Procedures

- Almost all utilities modified policies and procedures



Emergency Response Plans

- Almost all utilities modified ERPs based on VA assessment



Conclusions

- Utilities have completed the majority (1,336/1670 = 80 %) of the security related projects ID'd in their VA's
- The attention to and implementation of security projects in Michigan has been excellent
- Security projects remain uncompleted & need funding to complete

Next Steps in VA-CIP Project

- Annual assessment of changes
 - Contact all utilities
 - Brief questionnaire on new activities
 - 2007
 - 2008

Tabletop Exercises

- Patriot Services, Inc.,
Walled Lake, MI.
- Contract started
9/15/06

TTX's

- Perform 10 Train the Trainer conferences for to instruct how to conduct tabletop exercises
- Perform 30 tabletops at 20 public water systems, 5 wastewater treatment plants, and 5 non community water systems on a population priority basis

TTT/TTX status

- 9 TTT's held with 110 participants
- 6 TTX's held with 99 participants
- Overall evaluation: time well spent
- All TTT materials available on MDEQ Water Bureau Water & Wastewater web site

TTX's: Tabletop Exercises

- Improves Relationships and puts faces to names
- Raises the awareness of the importance of the water system and it's vulnerability



Who Do You Invite to a TTX?

- Identify stakeholders that you may want to invite to participate in the exercise.
- Stakeholders may include representatives from public safety (e.g., police and fire), elected officials (e.g., city council members, city manager, and mayor), public health, wastewater, and county emergency management organizations.

TTX/FTX's

- Suggest annual TTX
 - 'use it' or 'lose it' concept
- FTX's: Field training exercises
 - Equipment & personnel mobilized and used

TTX's concepts

- Hopes and Fears
- Bootstraps
- Hearts and Minds
- Relationships
- Partnerships
- uniforms

TTX concept: Partnerships

- It's important to have as many partners at the table necessary to assist your water system meet its missions.



TTX's Lessons Learned

1. Emergency Response Plan [ERP]: use it to train staff, police, and fire depts and Emergency Operations Center (EOC)
2. 800 megahertz radios allow comms
3. isolation/containment/investigation
4. MANG 51st CST in ERP
5. Reverse 911 using GIS public notification



TTX's: lessons learned(cont'd)

6. public not as familiar w/ 'do not drink', 'do not use' notices as they are w/ 'boil water advisories'
7. The 'canary' is people on the distributed water
8. If you deal with all six modes of terrorism [CBRNE & cyber] annually in a TTX, you will be better prepared.



TTX: Lessons Learned: 51st Civil Support Team (CST)

- Michigan Army National Guard
 - Augusta, MI
 - Fort Custer
- ALL ERP's should have the 51st CST listed in event of terrorist attack



TTX: Lessons Learned: Michigan National Guard 51st WMD Civil Support Team

- Michigan National Guard
 - 51st Weapons of Mass Destruction (WMD) Civil Support Team
 - 2750 27th Street, Augusta, MI 49012 – 9205
 - Lt. Col. Clark D. Hinga, Commander
 - Cell: 269 420 3861 // direct line: 269 731 6531
fax: 269 731 6449
 - Unit: 269 731 6522
 - E mail: clark.hinga@mi.ngb.army.mil



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WMD

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Weapons of Mass Destruction Civil Support Teams



In a commencement address at the U.S. Naval Academy in May 1998, President Bill Clinton announced that the nation would do more to protect its citizens against the growing threat of chemical and biological terrorism. As part of this effort, he said, the Department of Defense would form 10 teams to support state and local authorities in the event of an incident involving weapons of mass destruction.

The WMD Civil Support Teams were established to deploy rapidly to assist a local incident commander in determining the nature and extent of an attack or incident; provide expert technical advice on WMD response operations; and help identify and support the arrival of follow-on state and federal military response assets. They are joint units and, as such, can consist of both Army National Guard and Air National Guard personnel, with some of these units commanded by Air National Guard lieutenant colonels.

The mission of Weapons of Mass Destruction Civil Support Teams (WMD-CST) is to support local and state authorities at domestic WMD/NBC incident sites by identifying agents and substances, assessing current and projected consequences, advising on response measures, and assisting with requests for additional military support.

The WMD civil support teams are able to deploy rapidly, assist local first-responders in determining the nature of an attack, provide medical and technical advice, and pave the way for the identification and arrival of follow-on state and federal military response assets. They provide initial advice on what the agent may be, assist first responders in that detection assessment process, and are the first military responders on the ground, so that if additional federal resources are called into the situation, they can serve as an advance party that can liaise with the Joint Task Force Civil Support.

The units provide critical protection to the force, from the pre-deployment phase of an operation at Home Station through redeployment. They ensure that strategic national interests are protected against any enemy, foreign or domestic, attempting to employ chemical, biological, or radiological weapons - regardless the level of WMD/NBC threat. They are a key element of the Department of Defense's overall program to provide support to civil authorities in the event of an incident involving weapons of mass destruction in the United States.

They maintain the capability to mitigate the consequences of any WMD/NBC event, whether natural or man-made. They are experts in WMD effects and NBC defense operations.

These National Guard teams provide DoD's unique expertise and capabilities to assist state governors in preparing for and responding to chemical, biological, radiological or nuclear (CBRN) incidents as part of a state's emergency response structure. Each team consists of 22 highly skilled, full-time National Guard members who are federally resourced, trained and exercised, and employs federally approved CBRN response doctrine.

These units derive their origins in guidance from the US Congress which stated the need to "establish and equip small organizations in each of the 44 states not receiving initial RMD (Rapid Assessment and Initial Detection) element in 1999 to provide limited chemical/biological response capability"

Units

- 1st WMD CST [MA NG] - Natick
- 2nd WMD CST [NY NG] - Scotia
- 3rd WMD CST [PA NG] - Annville
- [4th WMD CST](#) [GA DOD DJO]
- 5th WMD CST [IL NG] - Bartonville
- [6th WMD CST](#) [TX NG]
- [7th WMD CST](#) [MO NG]
- [8th WMD CST](#) [CO NG]
- [9th WMD CST](#) [CA NG]
- 10th WMD CST [WA NG] - Tacoma
- [11th WMD CST](#) [ME NG]
- [13th WMD CST](#) [RI NG]
- 14th WMD CST [CT NG]
- 15th WMD CST [VT NG]
- 21st WMD CST [NJ NG]
- 22nd WMD CST [PR NG] - San Juan
- 23rd WMD CST [VI NG] - St Croix
- 31st WMD CST [DE NG]
- 32nd WMD CST [MD NG]
- 33rd WMD CST [DC NG]
- 34th WMD CST [VA NG] - Blackstone
- 35th WMD CST [WV NG] - St. Albans
- 41st WMD CST [KY NG] - Louisville
- [42nd WMD CST](#) [NC NG]
- 43rd WMD CST [SC NG] - Eastover
- 44th WMD CST [FL NG] - Starke
- 45th WMD CST [TN NG] - Smyrna
- 46th WMD CST [AL NG] - Montgomery
- [47th WMD CST](#) [MS NG]
- [51st WMD CST](#) [MI NG] - Augusta
- [52nd WMD CST](#) [OH NG]
- 53rd WMD CST [IN NG]
- [54th WMD CST](#) [WI NG]
- 55th WMD CST [MN NG] - St Paul
- 61st WMD CST [AR NG] - Little Rock
- 62nd WMD CST [LA NG] - Carville
- [63rd WMD CST](#) [OK NG]
- 64th WMD CST [NM NG] - Santa Fe

WARN

- Water and Wastewater Agency Response Network

WARN

- Intrastate
Utilities Helping
Utilities

WARN

- Web based list of credentialed personnel, ie, certified operator, licensed electrician, and specific equipment available to assist other utilities



- POSTED FILES**

- REPORT AN INCIDENT**

- UPGRADE TO WaterISAC**

- ABOUT US** >

Water/Wastewater Agency Response Network (WARN) systems facilitate a utilities-helping-utilities approach to providing assistance during times of crisis. By establishing mutual aid agreements before a crisis occurs, WARN participants pave the way for member utilities within (and outside) of their respective states to send valuable aid in a quick and efficient manner.

WARN participants can access specialized resources to assess and assist water and wastewater systems until such time as the system can develop a permanent operating solution.

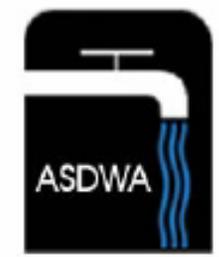
Update:

There are now six states with final agreements pending signatures and about 12 others in close pursuit. By mid-year 2007 all 50 states will have had the opportunity to participate in the Utilities Helping Utilities workshop series and by year end there could easily be another 6-15 WARN states up and running, in addition to the four existing WARNs in CA, FL, TX and most recently LA.

[WARN Central FAQs](#) **NEW**

Water Sector Support Statement
[Joint Policy Statement](#)

Established Programs
[California WARN](#)
[Florida FlaWARN](#)



Utilities Helping Utilities

Joint Policy Statement on Mutual Aid & Assistance Networks

WARN

- Mutual Aide Agreement (MAA)
 - Specifies details on arrangements for assistance

Mutual Aid Agreement (MAA)

The screenshot shows a Microsoft Internet Explorer browser window. The address bar contains the URL: http://www.deq.state.mi.us/documents/deq-wb-wws-06_AWWA_Mutual_AidUtilitiesHelpingUtilities.pdf. The browser's menu bar includes File, Edit, Go To, Favorites, and Help. The toolbar features navigation buttons (Back, Forward, Stop, Refresh, Home), a search box, and icons for Favorites, Print, and Mail. The address bar also includes a 'Go' button and a 'Links' dropdown. The browser's status bar at the bottom shows 'Done' and 'Unknown Zone'.

The PDF document content is displayed in the main window. At the top, a large grey box contains the word **DRAFT**. Below this, the title **Sample Mutual Aid and Assistance Agreement** is centered. The text of the document is as follows:

This Model Agreement contains procedures and standards for a water and wastewater utility Mutual Aid and Assistance Program. The Model is based on existing water and wastewater utility Mutual Aid and Assistance agreements implemented in California, Florida, Texas, and Washington. While the Model shares some similarities with each of the four agreements, it is a unique document in and of itself.

Creating an agreement for Mutual Aid and Assistance involves a number of policy decisions. The Model Agreement proposes specific approaches to Mutual Aid and Assistance Program issues; however, reasonable minds will differ as to whether the approaches presented in the model are the best. Accordingly, notes are included for each provision of the Model Agreement. These notes highlight significant issues that arise in the drafting of a mutual aid and assistance Program and how the Model Agreement approaches those issues. The notes also explain why certain provisions are included in the Model Agreement.

Representatives of the water and wastewater industry can use this Model Agreement as a tool to facilitate discussion on drafting an Intrastate Mutual Aid and Assistance agreement that best illustrates their needs. However, while each intrastate steering committee may revise portions of

At the bottom of the document viewer, a navigation bar shows '23 of 40' pages. The Windows taskbar at the very bottom includes the Start button, several application icons, a system tray with a clock showing 2:15 PM, and a search box.

Mutual Aid Agreement (MAA)

http://www.deq.state.mi.us/documents/deq-wb-wws-06_AWWA_Mutual_AidUtilitiesHelpingUtilities.pdf - Micro...

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**ARTICLE I.
PURPOSE**

Recognizing that emergencies may require assistance in the form of personnel, equipment, and supplies from outside the area of impact, the signatory utilities established an Intrastate Program for Mutual Aid and Assistance. Through the Mutual Aid and Assistance Program, Members coordinate response activities and share resources during emergencies. This Agreement sets forth the procedures and standards for the administration of the Intrastate Mutual Aid and Assistance Program.

Note on Article I

Article I briefly describes why water and wastewater utilities established a Program for Mutual Aid and Assistance and the purpose of the Agreement. Inclusion of this Article recognizes the spirit and intent of the Mutual Aid and Assistance Program.

**ARTICLE II.
DEFINITIONS**

A. Emergency—A natural or manmade event that is, or is likely to be, beyond the control of the services, personnel, equipment, and facilities of a Mutual Aid and Assistance Program Member.

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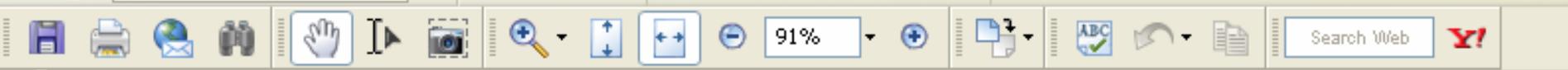
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Water Sector Specific Plan

- One of 17 sectors identified by the National Response Plan: food, defense, energy, health, national icons, banking, drinking water/wastewater treatment, chemical, commercial, dams, emergency services, nuclear reactors, information technology/telecommunications, postal/shipping, transportation, government

National Response Plan

- Response to
What?...exactly



National Infrastructure Protection Plan

Drinking Water and Water Treatment Systems Sector

Homeland Security Presidential Directive 7 (HSPD-7) identified 17 critical infrastructure and key resources (CI/KR) sectors and designated Federal Government Sector-Specific Agencies (SSAs) for each of the sectors. Each sector is responsible for developing and submitting Sector-Specific Plans (SSPs) and sector-level performance feedback to the Department of Homeland Security (DHS) to enable national cross-sector CI/KR protection program gap assessments. SSAs are responsible for collaborating with public and private sector security partners and encouraging the development of appropriate information-sharing and analysis mechanisms within the sector.

Navigation toolbar with icons for Open, Save, Print, Email, Copy, Paste, Hand, Rotate, Crop, Zoom In, Zoom Out, and a search box containing "Search Web" and a "Y!" logo.



Vertical sidebar on the left with tabs for "Pages", "Attachments", and "Comments".

Navigation bar at the bottom of the document viewer showing page navigation icons and the text "1 (1 of 134)".

Windows taskbar at the bottom of the screen, including the Start button, application icons, a system tray with a security notification, and the time "9:17 AM".

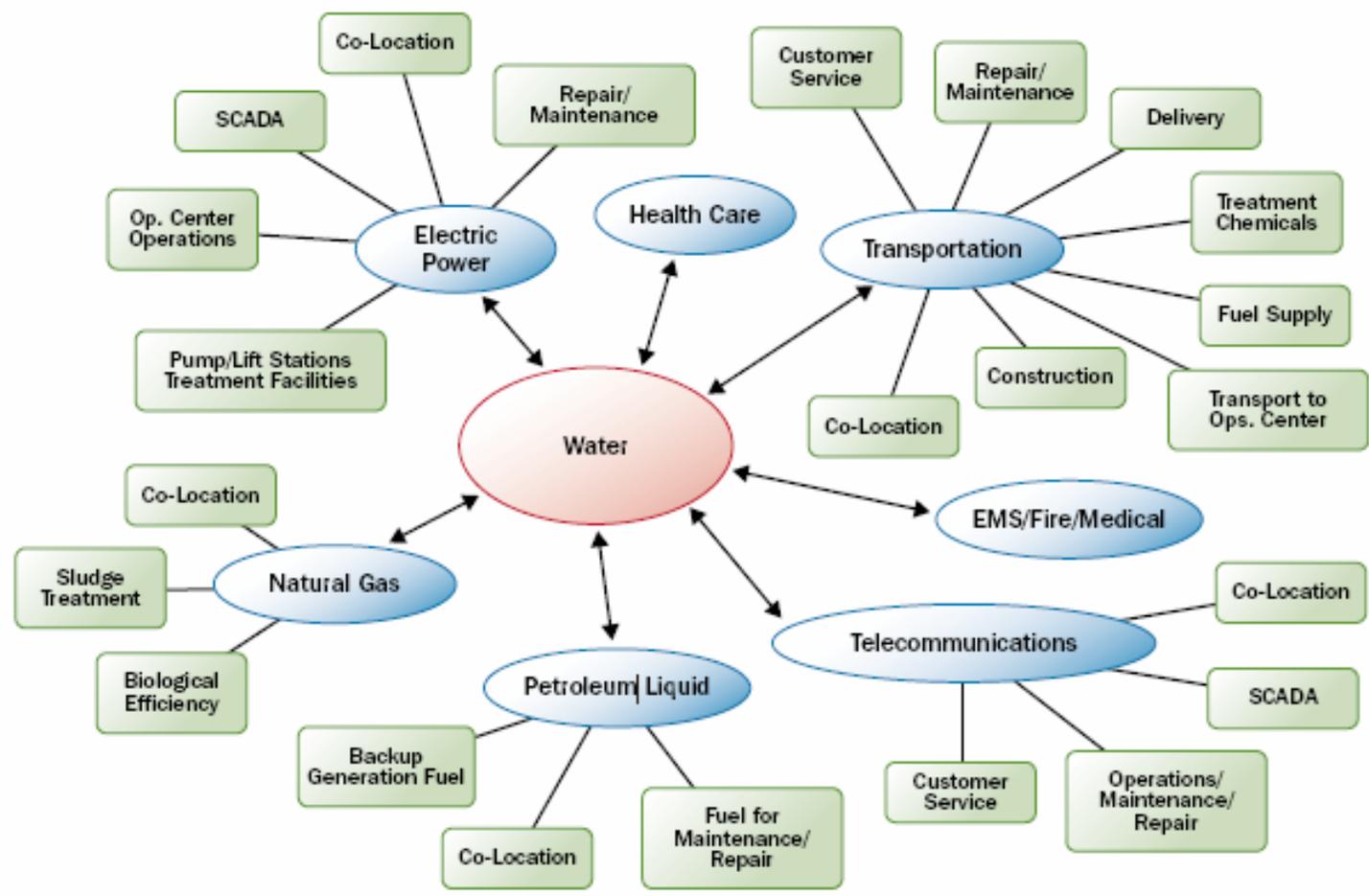
Water

Critical Infrastructure and Key Resources
Sector-Specific Plan as input to the
National Infrastructure Protection Plan

May 2007



Figure 3-2: Interdependencies With the Water Sector



TANS

- Threat Advisory Notification System (TANS)
- 747 email addresses maintained by MDEQ for the distribution of security information to drinking water and wastewater systems.

Michigan Dept of State Police

- The Michigan Department of State Police (MSP), along with local MSP districts/regions, will be working with your county local emergency planning coordinators (LEPC's) in implementing NIMS and ICS (Incident Command System) programs in your locales as a part of DHS funding and emergency management.

FEMA: Federal Emergency Management Agency

- DHS grant money will be assigned by regions = 8 Mich. State Police districts
- Utilities need to be NIMS compliant
- NIMS = National Incident Management System
- ICS = Incident Command Systems
- NRP = National Response Plan



Nat'al Incident Management System: FLOPAI

- Financing
- Logistics
- Operations
- Planning
- Administration
- Investigation



All Hazards

- Natural: Ice storms, power outages, tornadoes, floods
- Unnatural: Malevolent acts...6 modes of terrorism: CBRNE and cyber: Chemical, biological, radioactive, nuclear, explosive and cyber



Prepared for all hazards

- Natural Incidents
- C HEMICAL
- B IOLIGICAL
- R ADIOLOGICAL
- N UCLEAR
- E XPLOSIVE
- CYBER



ICE STORM



TORNADO



FLOODING



www.bryanmaxx.net/firms

Photo by Major Mike Challes

CHEMICAL



BIOLOGICAL



Flu Pandemic

- Due to the construct of the world, an influenza pandemic is likely at some point in the future.



RADIOLOGICAL



EXPLOSIVE





NUCLEAR

CYBER

WARNING!

The system is either busy or has become unstable. You can wait and see if it becomes available again, or you can restart your computer.

- * Press any key to return to Windows and wait.
- * Press CTRL+ALT+DEL again to restart your computer. You will lose unsaved information in any programs that are running.

Press any key to continue _



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Emergency Response for Releases to Water

Introduction to the Part 5 Rules - Spillage of Oil and Polluting Materials.



- > [Emergency Response Part 5 Presentation](#)
- > [Slug Discharges Presentation](#)

Emergency Response Announcements

- **21 Dec 05:** DHS chemical plant regulation bill introduced. > [View Story](#)

Information

- [Reporting Releases Per Part 5 Rules](#) PDF
- [EPA's Emergency Response Tabletop Exercises for Drinking Water and Wastewater Systems](#)
- [Water Bureau Part 5 Rules/PIPP Staff](#) PDF
- [Part 5 Rules Guidance Documents](#)
- [Emergency Response Photo Gallery](#)

Downloads

- [Options for Minimizing Environmental Impacts of Freshwater Spill Response](#) PDF
- [WMD Civilian Support Team Presentation, MAJ Awadi](#) PDF
- [Spill or Release Report Form \(EOP2465\) in PDF Format](#) PDF

Laws & Rules

- [Section 3115 of Part 31, Reporting](#) PDF
- [Section 3111b of Part 31, 911 and Local Health Dept. notification](#) PDF
- [Part 31 of Act 451 \(MDEA\)](#) PDF

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Water and Wastewater Security

[Homeland Security Activities and Contracts](#)

Due to terrorist attacks on September 11, 2001, and recent federal legislation and state authorizations, the Michigan Department of Environmental Quality (MDEQ), Water Bureau (WB), actively participates in numerous Infrastructure Security Program activities. The federal Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Bioterrorism Act) requires drinking water systems to comply with requirements by certain dates as a part of the nation's homeland security efforts. Read more and view recent Powerpoint Presentations.



> [More](#)

Information

- [8 Requirements of Bioterrorism Act](#)
- [EPA Security Guidance for Drinking Water Facilities](#)
- [Easy-to-read Summary of the Bioterrorism Act of 2002](#) PDF
- [Homeland Security Presidential Directives \(HSPD\) Index](#)
- [Instructions on sending your VA/ERP to EPA](#) PDF
- [MI FOIA Water Security Information Policy](#)
- [National Alert Status - Department of Homeland Security](#)
- [Safe Drinking Water Act Felony](#) PDF
- [Table Top Design, Train-the-Trainer Course Student Reference Materials](#)
- [Threat Advisory Notification System \[TANS\] Index](#)
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Threat Advisory Notification System [TANS] Index

TANS (Threat Advisory Notification System) is a controlled email distribution system, maintained by the Michigan DEQ Security Coordinator, and is utilized to periodically distribute security documents pertaining to water and wastewater systems and installations. Note: Many of the attachments can not be posted publicly due to For Official Use Only status.

For TANS mailing list additions, removals, and revisions, please contact Laura Smith (smithla3@mi.gov) via email.

Listed below are the TANS notices sent to date.

1. [TANS #1](#) To advise Michigan Public Water and Wastewater Officials Of National Threat Level Coverage, December 22nd, 2003
2. [TANS #2](#) To forward USEPA Water and Wastewater Guidance, December 29th, 2003
3. [TANS #3](#) To advise Michigan Public Water and Wastewater Officials of National Threat Level Change, January 9th, 2004
4. [TANS #4 - Emergency Preparedness Guide](#) To forward FEMA Fire and Fire and Emergency Services Preparedness Guide for the Homeland Security Advisory System, February 4th, 2004
5. [TANS #5](#) To forward the Internet Web Address for the National Defense University Poster Entitled "Coping with an Attack: A Quick Guide to Dealing with Biological, Chemical, and "Dirty Bomb" attacks"; and to forward joint DHS-FBI informational bulletin entitled "Potential Threats to Great Lakes Area" Dated 3/19/04, March 19th, 2004

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The Official State of Michigan Website

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Homeland Security Presidential Directives (HSPD) Index

Homeland Security Presidential Directives record and communicate presidential decisions about the homeland security policies of the United States. The following directives provide guidance or outline framework for public water system security.

- [HSPD #5 Management of Domestic Incidents](#), February 28th, 2003
- [HSPD #7 Critical Infrastructure Identification, Prioritization, and Protection](#), December 17th, 2003
- [HSPD #8 National Preparedness](#), December 17th, 2003
- [HSPD #9 Defense of United States Agriculture and Food](#), January 30th, 2004

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- Water Security
Sound Bytes

Preparedness/Security = CIP 3

- Capital Improvement Plan
- Continuous Improvement Program
- Critical Infrastructure Protection



Human Water Needs: some #'s

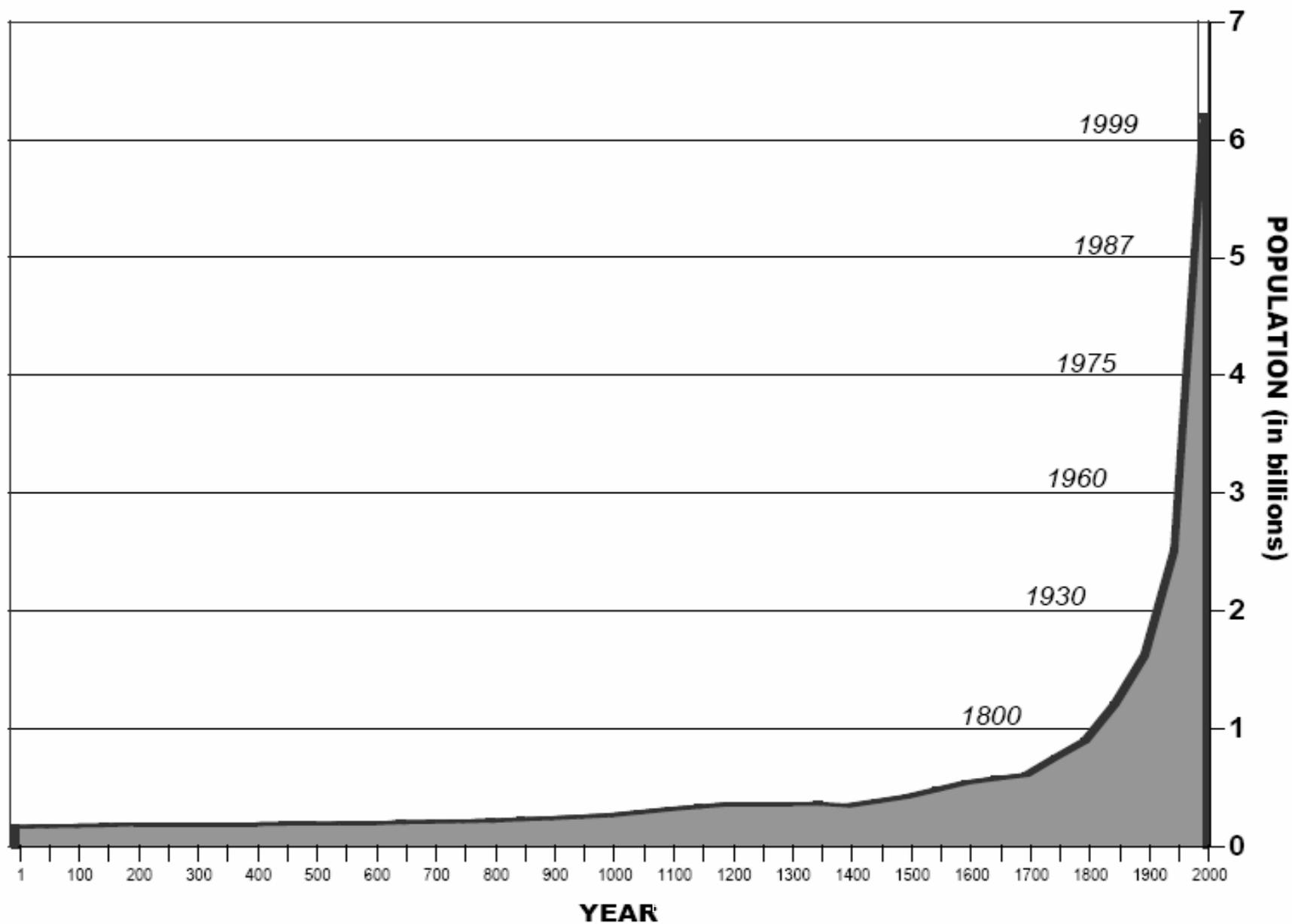
- 64 ounces of water per day recommended
- Body is approximately 65% water
- Highest water intake recommendation: 372 ounces for an adult male exercising in hot weather

How Many People ?

- MORE PEOPLE
- WHAT KIND OF PEOPLE ?



Human Population Growth Since 1 A.D.



Todd Beamer



"Let's Roll!"

- Nobody knows the courage, importance and impact of the sacrifices made by Todd Beamer, Jeffery Glick, Thomas Burnett Jr., and others aboard United Airlines Flight 93, Sept 11th, 2001.
- The terrorists planned to crash the plane into the U.S. Capitol



Todd Beamer



Security

- ...is active, not passive

Water program

- Our greatest strength is our greatest weakness...our success



Human Nature

- You don't know what you have until you don't have it.



Hurricane Katrina: we can't
predict...but, we can prepare



General Motors Global Security

- “you play like you practice”
- “protect people and profits” ...revenues in the case of a utility

Abstract Issues

- The more abstract the issue, the more important it is.

Abstract Issues More Important

- Security
- Hope...what several states presenting at the WARN conference said the water system provided after a disaster...hope

Plans

- "All plans are good...until the first shot is fired" – military maxim

Plans

- "everyone has a plan...until they're hit" - Mike Tyson

Semper Paratus

- US Coast Guard motto...always prepared
- US Coast Guard Admiral Thad W. Allen – Hurricane Katrina brief



www.KatrinaDestruction.com



Three Tough Questions

- If not you, who ?
- If not now, when ?
- Your bootstraps...who pulls them up?



6 P's

- Proper prior
planning
prevents poor
performance



The background is a deep blue gradient, transitioning from a lighter blue at the top to a darker blue at the bottom. A thin, bright white line representing a horizon is visible in the upper third of the image. On the left side, there is a bright, glowing light source, possibly the sun, which creates a shimmering effect on the surface below. The overall texture is smooth with subtle ripples.

EPILOGUE

Bath, Michigan Explosion

On May 18, 1927, Andrew Kehoe detonated 500 pound of dynamite at the Bath Community Consolidated Schools in mid-Michigan, killing 37 children and 7 adults. Fifty others were injured. This was the worst act of terrorism in the United States until the Oklahoma City bombing. [80th anniversary]



Oklahoma City Bombing



On April 19TH, 1995, Timothy McVeigh parked a rented Ryder truck with explosives in front of the Alfred P. Murrah Federal Building complex and, at 9:02am, a massive explosion occurred which sheared the entire north side of the building, ***killing 168 people.***



2005 Water Security Congress: Oklahoma City



Oklahoma City National Memorial
Site of Murrah Federal Building

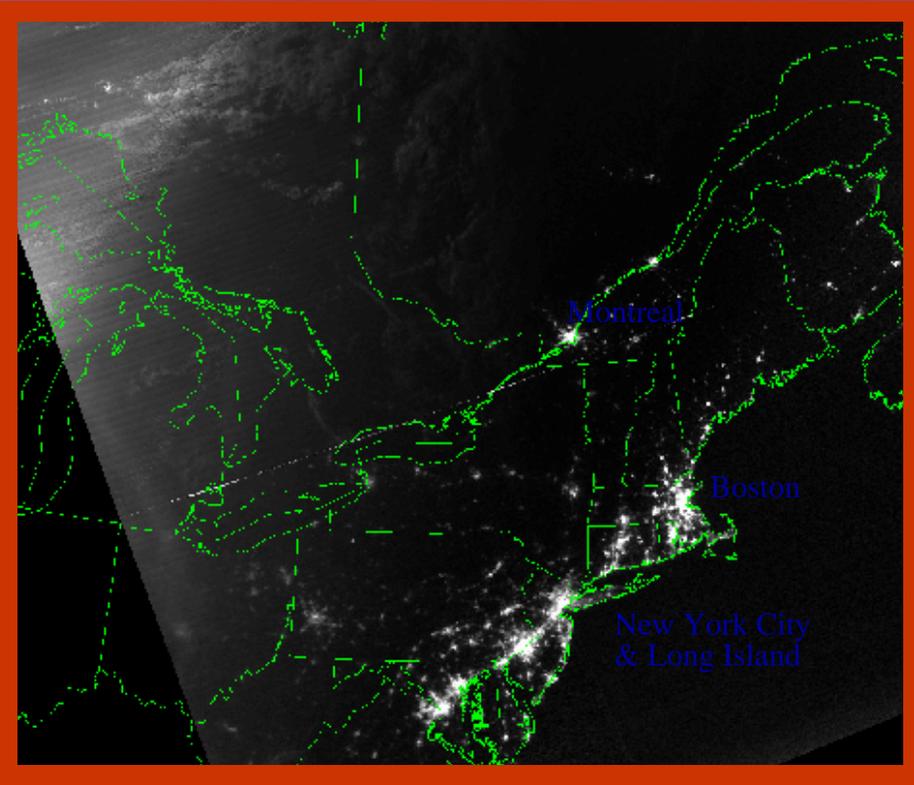
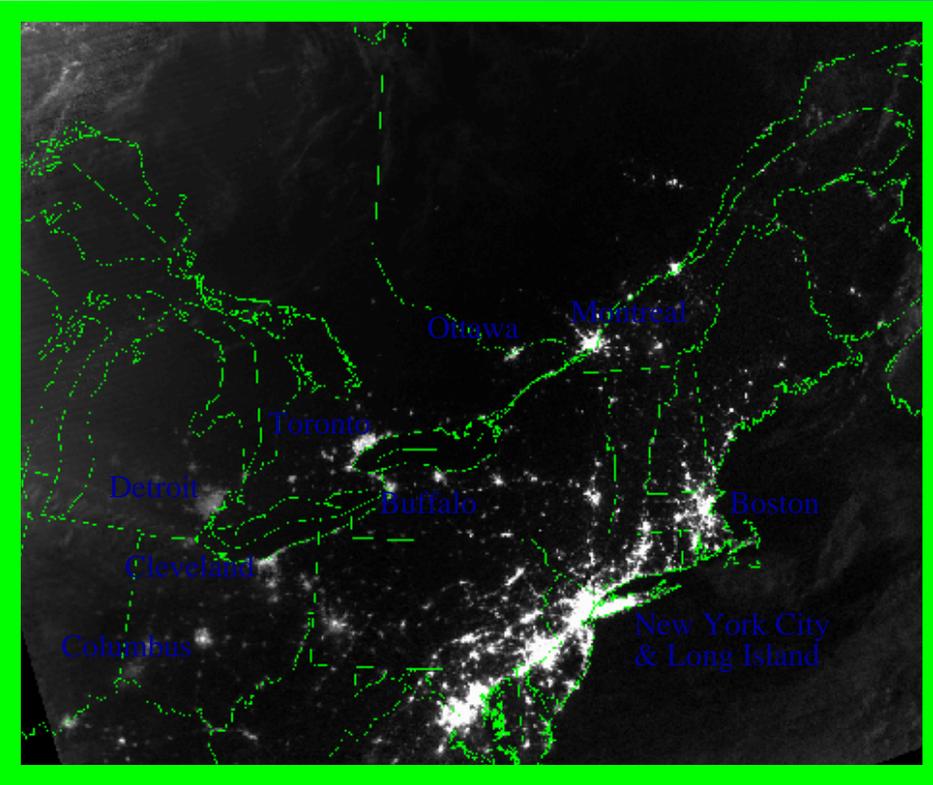
- Concepts at the conference
 - Canaries
 - Technology
 - Relationships
 - Evolving
 - Real-Time Monitoring



BLACKOUT 2003 – August 14 ~ 4:15 PM EDT

August 13 – 8:29 PM
~ 20 hours BEFORE

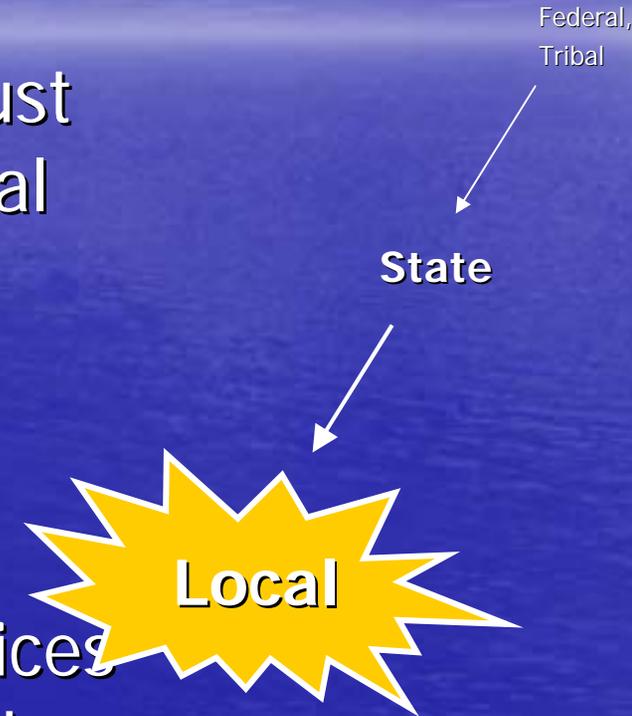
August 14 – 8:14 PM
~ 4 hours AFTER



Local actions are the most important

- During the power outage of August 2003, it wasn't the state or federal government that minimized the negative impact of the power outage...

It was the local utility and public safety officials who kept the services to the community going as best they could.





Ignorant men may sneer at the pretensions of sanitary science; weak and timorous men may hesitate to commit themselves to its principles, so large in their application; selfish men may shrink from the labor of change, which its recognition must entail; and wicked men may turn indifferently from considering that which concerns the health and happiness of millions of their fellow-creatures; but in the great objects which it proposes to itself, in the immense amelioration which it proffers to the physical, social, and indirectly, to the moral condition of an immense majority of our fellow-creatures, it transcends the importance of all other sciences; and in its beneficent operation, seems to embody the spirit, and to fulfil the intentions, of practical Christianity.”*

* "Report on the Sanitary Condition of the City of London," p.38 by Dr. John Simon, Officer of Health, presented Nov. 6, 1849.

Greatest Medical Milestone since 1840 [167 yrs]...British Medical Journal

- Improved sewage disposal and clean water supply systems, which have reduced diseases such as cholera, was the overwhelming favorite of 11,341 people worldwide who voted in a 2006 survey conducted by the British Medical Journal.

