Major Response Activities

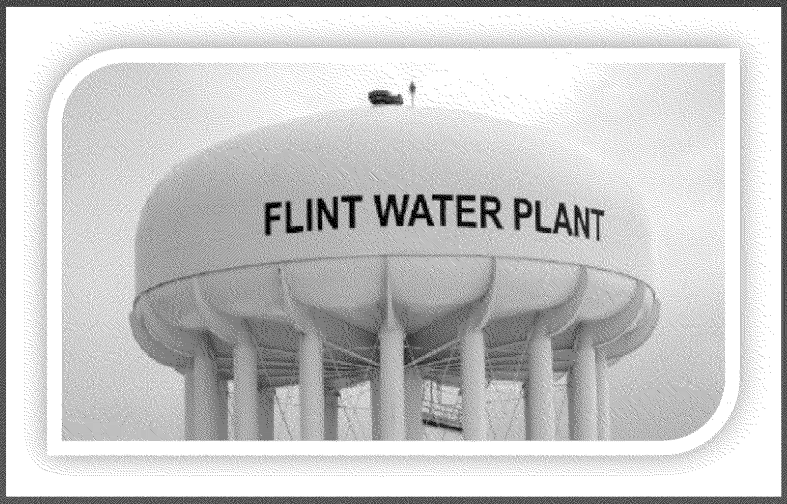
Working with 3rd Parties
Flint Drinking Water Response
1/20/16 – Present

RRT Region 5

April 5, 2017

Basic History

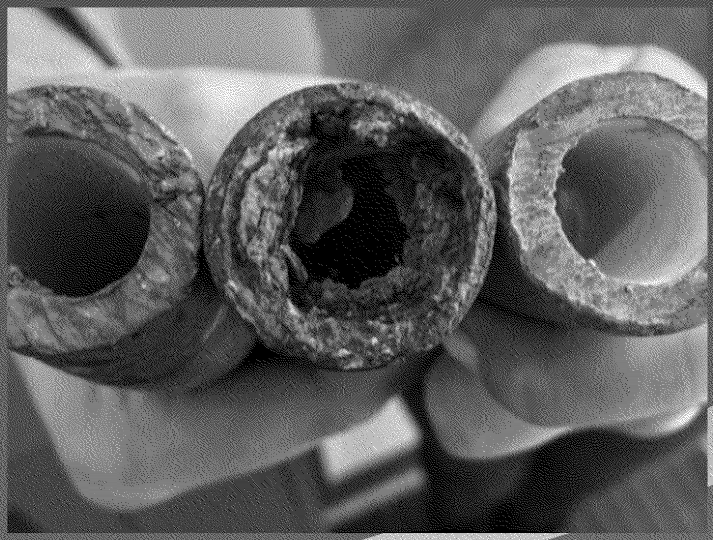
- Switch Drinking Water Sources 4/2014
- No Corrosion Control
- Water Chemistry
- High level of Cl used
- Dissolved scale – 70-80% lead
- Corroding the pipes
- 80%+ of Main-Curb are Lead
- Federal agencies hit the ground on 1/20/16



FEMA / State Commodity Mission

Federal Response

- Major issues related to water quality
  - Lead
  - Chlorine
  - “Rashes”
  - Filters
  - Bacteria



Operations

Lead Federal Official
Dr. Nicole Lurie, HHS

Operations

Water Quality Task Force
EPA, ATSDR

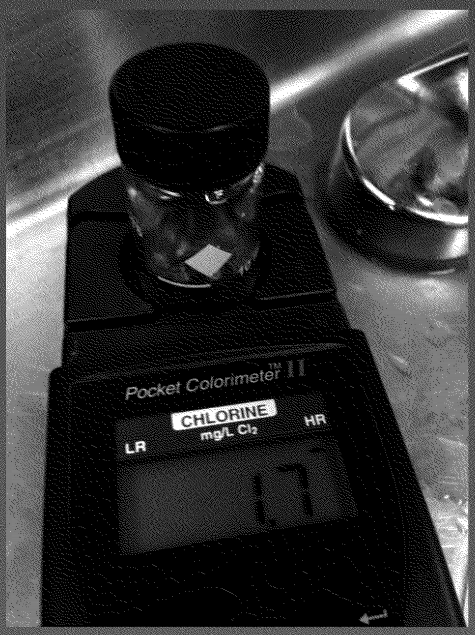
Human Services Task Force
HHS

Nutrition & Education Task Force
USDA

Health & Medical Task Force
HHS, CDC

Public & External Affairs Task Force
HHS, EPA, FDA, FEMA, CDC

Initial Community Outreach



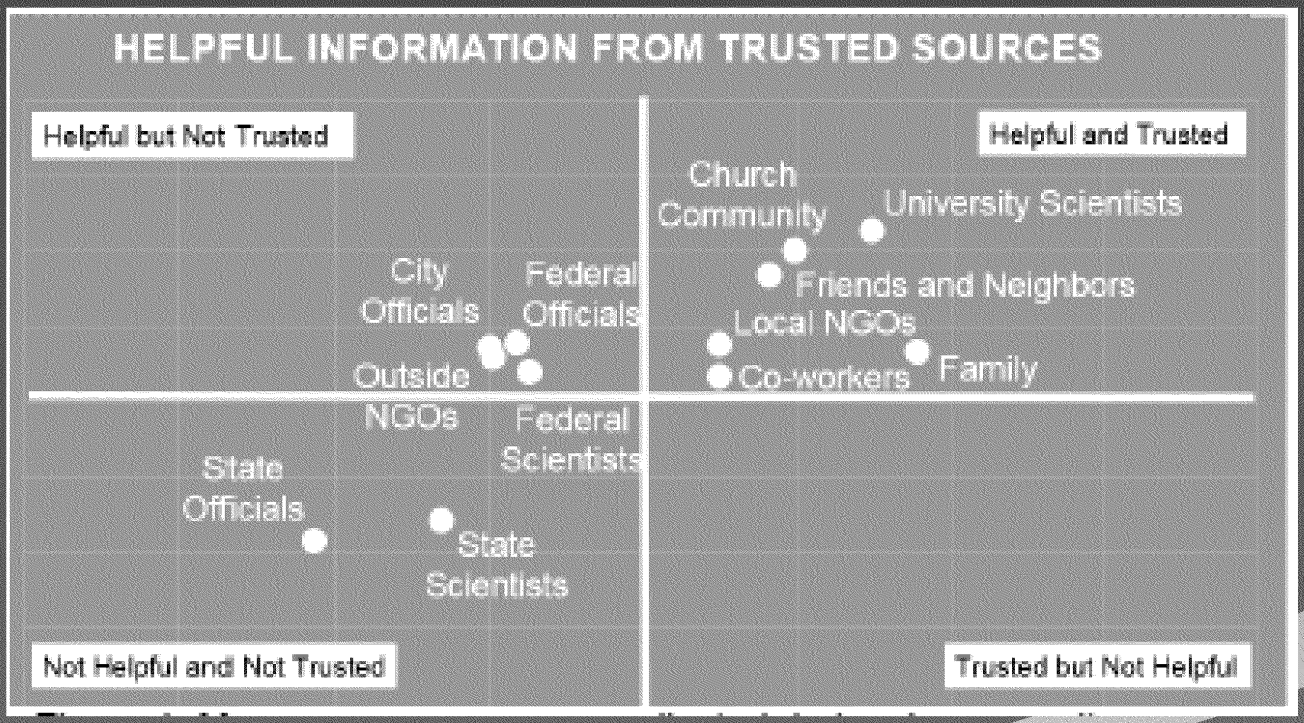
Reach out to local government

- Health Department
- Medical Society
- Key citizens
- Water treatment plant
- County Emergency Operations Center
- Mayor's office

Initial Community Feedback

- No trust in Government
- Strong emotions about State Government
- Where to get information
  - 211 system
  - Points of distribution (PODs)
  - Community Centers / Churches
- Unique demographic challenges
  - Economically challenged
  - Low tech (need for door-to-door canvassing)
  - Undocumented residents

Community Perception

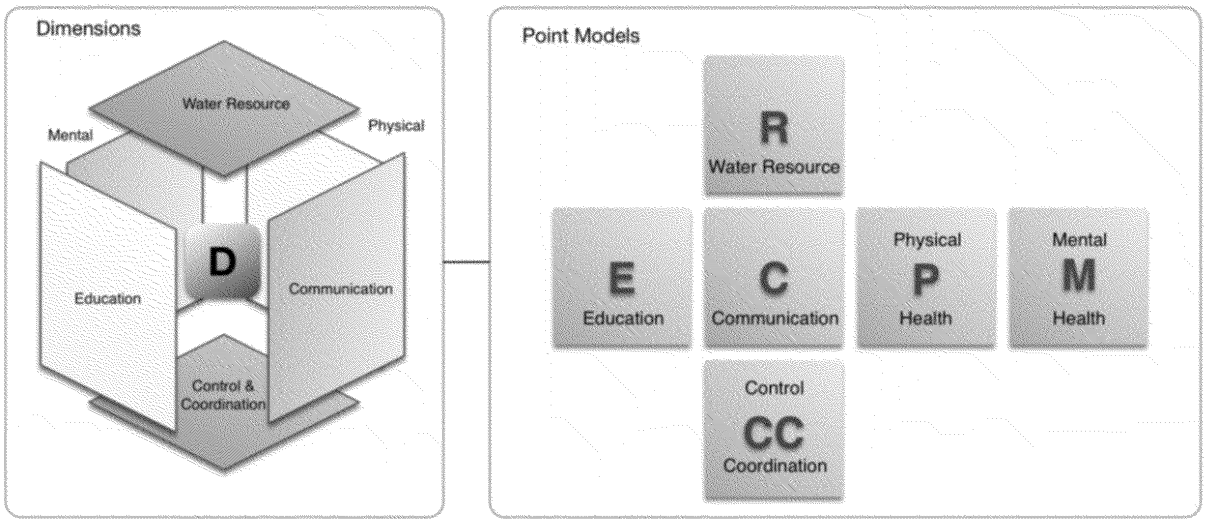


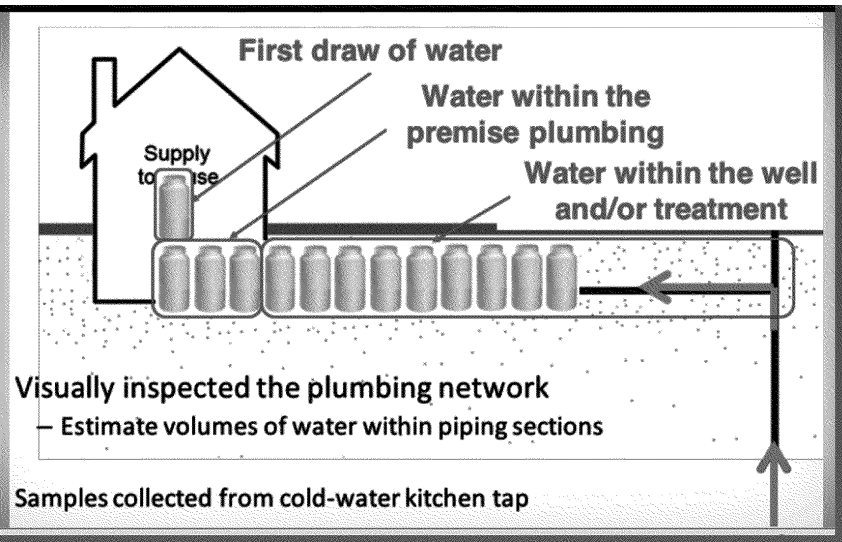
Voices of Flint Project: Research Summary

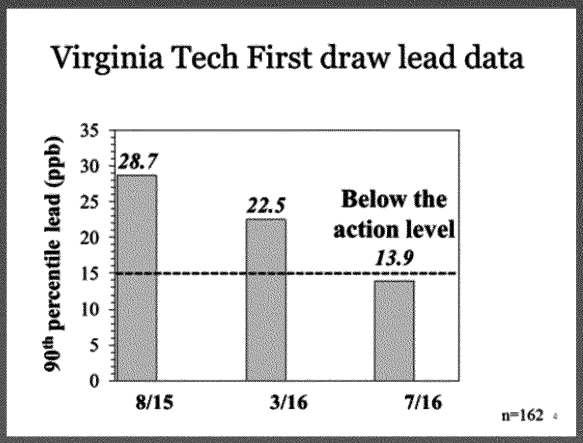
Community Foundation of Greater Flint
Michigan State University, Department of Community Sustainability and Office of Outreach and Engagement

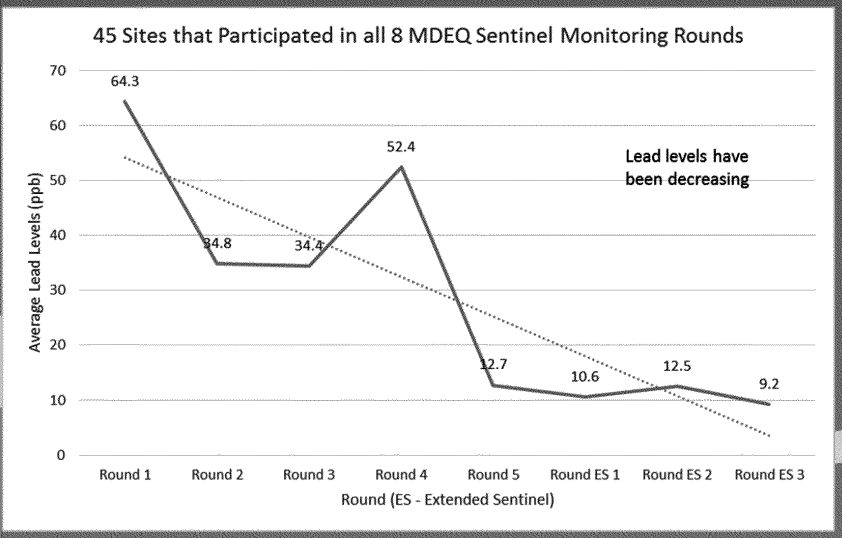
Local Recovery Plan
Non-profit organization leadership

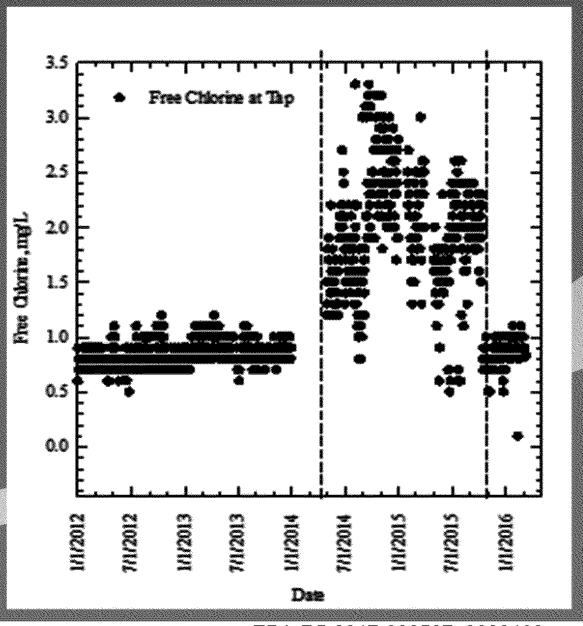
FLINT MI: Water Crisis - **Destination Recovery** Points / Dimensions / Models




First draw of water
Water within the premise plumbing
Supply to house
Water within the well and/or treatment
Visually inspected the plumbing network
– Estimate volumes of water within piping sections
Samples collected from cold-water kitchen tap


Virginia Tech First draw lead data
90th percentile lead (ppb)
28.7
22.5
13.9
Below the action level
8/15
3/16
7/16
n=162


45 Sites that Participated in all 8 MDEQ Sentinel Monitoring Rounds
Average Lead Levels (ppb)
64.3
34.8
34.4
52.4
12.7
10.6
12.5
9.2
Lead levels have been decreasing
Round 1
Round 2
Round 3
Round 4
Round 5
Round ES 1
Round ES 2
Round ES 3
Round (ES - Extended Sentinel)


Free Chlorine at Tap
Free Chlorine, mg/L
1/1/2012
7/1/2012
1/1/2013
7/1/2013
1/1/2014
7/1/2014
1/1/2015
7/1/2015
1/1/2016
Date

More Community Feedback

- "Well never trust this water again"
- Lead service line replacement: metaphor for justice
- Water is causing skin rashes
- Inconsistency in information being provided
- Intimidating presence at residents door
- 3rd party sampling **
- Help for adults (as well as children)
- Eroding trust in water filters
- Bacteria concerns

3rd Party Sampling

- Who?
  - Universities
  - City contractors
  - Residents
  - NGO's
    - Water Defense
- Challenges
  - Coordination
  - Communications
  - Trust

Use of the word "SAFE"

Lessons Learned – Government Perspective

- Recognize and engage all work by 3rd parties
- Establish meaningful communication strategy early in the process
- Openly describe where you are on common ground
- Clearly and openly describe where professional differences exist
  - Don't embellish
  - Don't offer opinions
  - Stick with facts and action items moving forward

Forward

- Medical & Health programs to continue
- Federal WIIN provides $100 Million (plus $20M match)
  - Lead service line replacement
  - Water plant and distribution system improvements
  - System optimization (disinfection/corrosion control)
- City leadership with State/Federal/NGO support
- Continued system assessment work (WQ & biological)
- Fast Start projection = 3-4 Years / 20,000 homes
- EPA's Emergency Order & transition to long term source.