

**Attachment 1A**  
**Meeting Summary**  
**JOINT MEETING OF**  
**DIRECTORS OF UTILITIES COMMITTEE**  
**DIRECTORS OF HEALTH**  
**June 3, 2015**  
**Virginia Beach**

*The June 3, 2015 joint Meeting of the Directors of Utilities Committee and the Health Directors was held at the Chesapeake Bay Foundation's Brock Environmental Center in Virginia Beach. The agenda was amended to allow discussion of business in the order listed below.*

**1. Potable Use of Harvested Rainwater**

The Brock Environmental Center uses rainwater for all its water needs, including drinking water. Mr. Paul Willey, Chesapeake Bay Foundation (CBF), briefed the group on the Center's rainwater harvesting system and the design and approval process for permitting a rainwater harvesting system for potable use. A copy of the presentation slides is included as Attachment 1C.

The Brock Environmental Center has the first code compliant public drinking water system supplied by rainwater in the lower 48 states. It was designed to meet the standards of the Living Building Challenge (LBC), a green building certification program, which requires the facility to have "net zero" impact on the environment and use rainwater for indoor water supply.

CBF worked with the VDH Office of Drinking Water to permit the drinking water system. The system is designed to meet the Center's water demands through a 21-day drought. Indoor potable water demands are much lower than conventional buildings due to the use of composting toilets. The system's rainwater treatment process consists of a spun fiber cartridge, a charged membrane filter, UV treatment, and chlorine treatment to provide for particle removal and cyst and virus inactivation. Tanks beneath the building provide storage capacity. An ozone pump is also run 4 to 6 hours a day, depending on the amount of pollen in the rainwater. Turbidity meters are run as needed and water is directed back into the system to avoid waste. Water sampling is conducted for bacteria and nitrate, as required for transient non-community systems. A consultant is currently serving as the certified water system operator; a CBF staff member will eventually become the certified operator.

CBF worked with the City of Virginia Beach Health Department to permit the disposal of greywater and leachate from the building. Greywater is directed to a portion of the outdoor landscaping with a root-fed dosing system. Because of the location in the flood plain, black water leachate cannot be composted or disposed of via surface application. Leachate from the composting toilets is captured in a holding tank before it is trucked to the Nansemond Wastewater Treatment Plant. CBF had initially estimates that 1,300 gallons of leachate would be transported to the Nansemond Plant a maximum of 4 times

per year, but these estimates appear to be very conservative based on leachate generated to date. There is an alarm system that notifies CBF staff of holding tank levels, and there is an overflow connection to the sewer line as a precaution.

**ACTION:** No action.

## **2. Tour of the Brock Environmental Center**

The group toured the facility and was briefed on the building's sustainable design features.

**ACTION:** No action.

## **3. Summary of the May 6, 2015 Meeting of the Directors of Utilities Committee**

There were no comments on, or revisions to the summary of the May 6, 2015 meeting of the Directors of Utilities Committee.

**ACTION:** The May 6, 2015 meeting summary was approved.

## **4. Summary of December 3, 2014 Joint Meeting of the Directors of Utilities Committee and Health Directors**

There were no comments on, or revisions to the summary of the December 3, 2014 joint meeting of the Directors of Utilities Committee and Health Directors.

**ACTION:** The June 4, 2014 meeting summary was approved.

## **5. Public Comment**

There were no public comments.

## **6. Regulatory Update**

Mr. Dan Horne, VDH Office of Drinking Water (ODW) Southeast Virginia Field Office Director, provided an update on regulatory issues, including the content and schedule for proposed revisions to the Waterworks Regulations, and EPA's cyanobacteria health advisories and forthcoming guidance documents. A copy of Mr. Horne's summary is provided as Attachment 1D and is outlined below:

- **Proposed revisions to the Waterworks Regulations:** The direct incorporation of the federal Revised Total Coliform Rule is being accomplished through the "APA exempt" process. Input from the Regulatory Advisory Panel (RAP) is being incorporated prior to initial APA review in late June 2015. VDH anticipates that internal review will be completed in September 2015, followed by publication of

the proposed regulations in the Virginia Register in October/November 2015, and the implementation of regulations in January 2016.

The general revisions to the Waterworks Regulations will follow the full APA process. VDH is preparing to publish the NOIRA in December 2015. The proposed regulations will replace the entire existing regulations. Following internal VDH review in February 2016, the agency anticipates presenting the proposed regulations to the Board of Health in March 2016 and publication in the Virginia Register for public comment in April 2016.

- **Cyanobacteria:** Concern continues to mount regarding the potential harmful side effects of cyanobacteria. The EPA held a stakeholders meeting on May 11, 2015 to gather input on guidance documents that are expected to be released soon. EPA health advisories were issued on May 6, 2015 for two cyanotoxins (microcystin and cylindrospermopsin) that identify trigger levels of toxins at which the EPA expects waterworks and states to take action. The AWWA issued a [free 18-page guide for water managers](#); a technical resource document is pending publication.

Mr. Horne also briefed the group on the ODW's partial reorganization effective July 1, 2015. The ODW will be providing more information and contact information to water systems.

**ACTION:** No action.

## 7. *Legionella* and Drinking Water Systems

Ms. Ana Colón, VDH Regional Epidemiologist, and Mr. Dan Horne, VDH ODW Southeast Virginia Field Office Director, provided presentations on *Legionella* occurrence in the region and in Virginia and concerns related to drinking water, including regulatory implications of secondary treatment systems marketed to large facilities like hospitals and hotels. Copies of the presentation slides are included as Attachments 1E and 1F.

More cases of Legionnaires disease are being observed in recent years. *Legionella* is an aquatic organism that causes pneumonia-like symptoms. Middle-aged, elderly, COPD, smokers, alcoholics and those with weak immune systems are especially at risk. *Legionella* can regrow in building water systems, especially large systems where biofilms, dead ends, low chlorine residuals, and warm temperatures provide a suitable environment. Secondary treatment systems are being marketed to health care facilities, hotels, and other large facilities to reduce the risk of exposure to *Legionella*.

Under current regulations, if a water system customer like a hospital provides water treatment, the customer then becomes a regulated waterworks. The customer who installs the treatment system is unlikely to be aware of the regulations and is unlikely to

have an operator on staff to ensure proper maintenance. System failure can have significant impacts on at-risk populations and the general public at the facility.

The EPA is considering modifying the regulatory definition of “treatment” and has organized a task force to develop guidance documents for *Legionella*. The guidance will incorporate the results of studies regarding the effectiveness of various treatment methods. The VDH ODW is trying to assess the market penetration of these secondary treatment systems and is contacting system vendors. The agency is applying a risk-based approach to inventory facilities that have installed these systems. Hospitals and medical care facilities will be contacted first; hotels and other facilities or campuses with large distribution systems are of concern.

**ACTION:** No action.

## **8. Roundtable Discussion**

The Directors of Utilities Committee and Health Directors had the opportunity to discuss matters of mutual interest. HRPDC staff briefed the group on a recently formed Mid-Atlantic Stakeholders Group for coastal issues, including beach closures, bacteria source tracking, and policy. HRPDC staff will share the future meeting information with the group. Virginia Beach Public Utilities summarized bacteria source tracking experience in Back Bay and concluded that much improvement is needed before biological source tracking methods can produce conclusive results.

**ACTION:** No action.

**BREAK (5 minutes)** The joint meeting of the Directors of Utilities Committee and Health Directors concluded at the break. After the break, Directors of Utilities Committee business was discussed.

## **9. Grease Haulers Letter**

HRPDC staff presented a draft regional letter to be sent to grease haulers to encourage best practices in servicing food service establishments. The letter was drafted by the askHRgreen.org FOG Education Subcommittee for signature by HRSD and HRPDC. The Committee endorsed the letter.

**ACTION:** The Committee endorsed the regional letter to grease haulers.

## **10. Fats, Oils, and Grease (FOG) Ordinances**

The Committee discussed the status of local fats, oils, and grease (FOG) ordinances. Based on a 2008, regional initiative to adopt local FOG ordinances, 9 localities have adopted ordinances and 6 localities have not. As FOG problems vary across localities, utilities have implemented or plan to implement programs as appropriate to address

commercial and residential FOG sources. Some localities have experienced significant benefits since adoption of the FOG ordinance. Some localities are moving toward ordinance development. Other localities have implemented cleaning schedules to suit their needs.

HRPDC staff has been contacted by a vendor selling a non-chemical treatment device for odor control and FOG. The vendor had heard from localities that they should contact the Capacity Team to present their product. Also, the vendor mentioned interest in finding partners for a demonstration project. The Committee agreed that this is should not be on the Capacity Team agenda and that the vendor should contact localities individually. HRPDC staff will forward the vendor contact and any information on potential demonstration projects to the Committee.

**ACTION:** No action.

## 11. Groundwater Update

The Committee discussed the structure of the state Groundwater Advisory Committee, which is anticipated to have two tiers. The first tier would be composed of approximately 20 members who would meet quarterly; the second tier would include working subcommittees. HRPDC staff noted that although the legislation establishing the committee included a moratorium on permits cuts until December 31, 2015, the Advisory Committee's report is not due until August 1, 2017.

The Committee discussed the expenditure of \$10,000 of reserve funds to support the FY16 work plan for the Mission H2O Groundwater Subgroup. Committee members present voted in favor of approving the reserve fund expenditure.

**ACTION:** HRPDC staff will follow up with absent localities to complete the voting.

## 12. Staff Reports

Staff reports included the following items:

- **Dutch Dialogues:** The Committee was briefed on the Dutch Dialogues workshop in Hampton Roads, which will be held from June 19 through June 23, 2015. There are two case studies being conducted: Newmarket Creek Site (Hampton) and Tidewater Drive Site (Norfolk). HRPDC staff will distribute the agenda to the Committee.
- **Hampton Roads Water Quality Response Plan:** The annual update of the Emergency Contact list for the Hampton Roads Water Quality Response Plan is underway. (*The 2015 update was distributed on June 8, 2015*).

- **Safe Drinking Water Act (SDWA) Dashboard:** This new EPA website presents data about public water system violations and compliance status: <http://echo.epa.gov/trends/comparative-maps-dashboards/drinking-water-dashboard>.
- **Water Utility Response On-the-Go:** This EPA mobile website consolidates tools that water utility operators and their response partners may need during an emergency: <http://watersgeo.epa.gov/responseotg/>. Users can: identify and contact emergency response partners; monitor local and national severe weather; review and complete incident-specific checklists; and populate, save, and email generic damage assessment forms and FEMA Incident Command System forms.

### 13. Other Business

There was no discussion of other business.

**ACTION:** No action.

Directors of Utilities Committee Meeting Sign-In Sheet  
June 3, 2015

Attachment 1B

Locality/Agency	Representative	Representative	Representative	Representative
HRSD	Ted Henifin			
Chesapeake	David Jurgens			
Franklin				
Gloucester	Chris Dawson			
Hampton	Tony Reyes			
Isle of Wight	Donald Jennings			
James City County	Doug Powell			
Newport News	Reed Fowler			
Newport News	Kofi Boateng			
Newport News				
Norfolk	Kristen Lentz			
Poquoson				
Portsmouth	Bryan Foster			
Smithfield				
Southampton				
Suffolk	Craig Ziesemer			
Surry				
Virginia Beach	Tom Leahy			
Williamsburg				
Windsor	Michael Stallings			
York				
HRPDC	Whitney Katchmark	Katie Cullipher	Rebekah Eastep	Tiffany Smith
HRPDC				
New Kent				
DEQ				
EPA				
USGS				
VDH	John Aulbach	Dan Horne	Ana Colon	
VDH	Nancy Welch	Jay Duell	Clifton D. Horne	Amy Pemberton
VDH	Demetria Lindsay			
Emergency Managers				
Emergency Managers				
Emergency Managers				
AECOM				
AquaLaw				
Arcadis				
Brown & Caldwell				
CH2M-Hill				
Chesapeake Bay Foundation	Paul Willey	Chris Gore		
Golder Associates				
HDR				
Hurt & Proffitt, Inc.				
McGuire Woods				
Rice Associates				
REMSA				
Troutman Sanders				
Virginia Fusion Center				
Virginia WARN				
URS				
Whitman, Requardt & Assoc.				
Private citizens				



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*Saving a National Treasure*

**SAVE THE BAY**



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Arthur Sherwood Education Center 1973

FIRST - USGBC LEED PLATINUM



CHESAPEAKE BAY FOUNDATION  
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Philip Merrill Environmental Center 2000



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Brock Environmental Center



First code compliant rainwater drinking system in the lower 48



CHESAPEAKE BAY FOUNDATION  
Saving a National Treasure

Brock Environmental Center

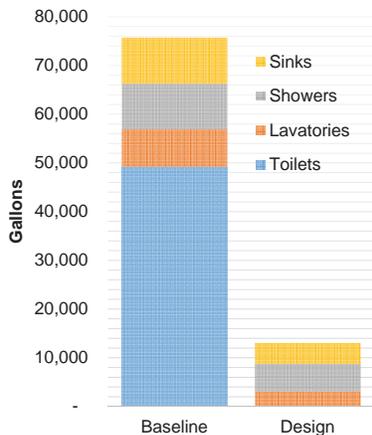
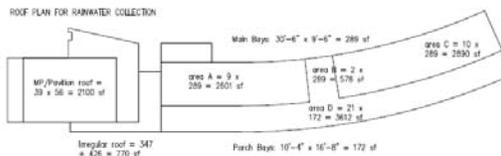
## What would you like to use rain water for?



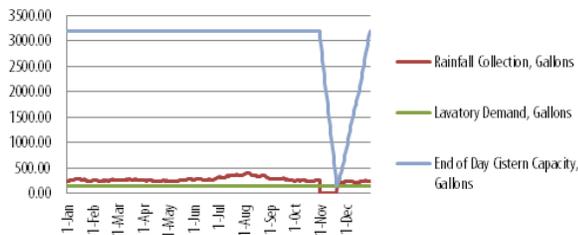
CHESAPEAKE BAY FOUNDATION  
Saving a National Treasure

Brock Environmental Center

calculate resource availability & catchment areas



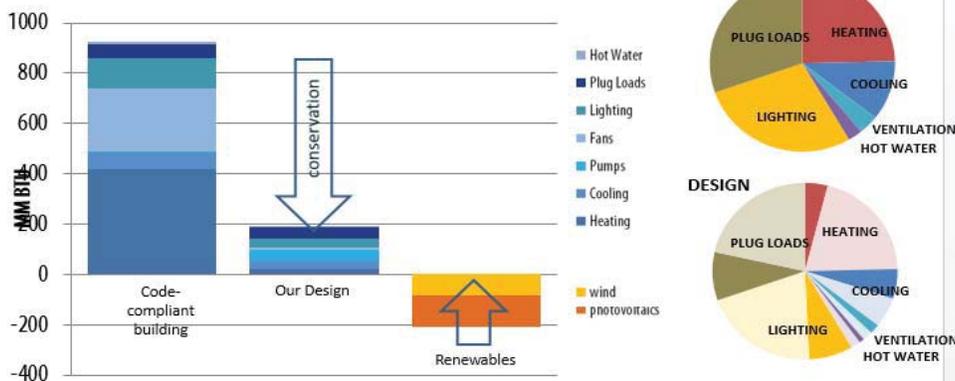
### Avg. Occupancy - Building Water Balance 3300 gal Cistern - 21 Day Drought



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Brock Environmental Center

### Getting to Net Zero Energy



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**Brock Environmental Center**



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**ONE OF THE GREENEST  
BUILDINGS IN THE WORLD**

Chris Gorri

**VDH – Office of Drinking Water  
Update Items for HRPDC Meeting  
3 June 2015**

1. **Revisions to *Waterworks Regulations***
  - **Incorporation of Revised Total Coliform Rule**
    - Will be following the “APA exempt” process
    - ODW RTCR team complete work, submit draft to EPA for review June 2015
    - Looking to submit for internal VDH review Sept 2015
    - Looking to submit for publication in the *Virginia Register* Oct 2015
    - Potential publication Nov 2015 – 30 day adoption period
  - **General revisions, to cover everything**
    - RAP process is completed – input & comments being incorporated
    - Will be following the full APA process
    - **Moving to the NOIRA stage**
      - Looking to develop draft NOIRA this fall for internal VDH and Executive Branch review
      - Looking to publish NOIRA in the *Virginia Register* in December 2015
    - **“Proposed regulation” stage**
      - Looking to submit for internal VDH review Feb 2016
      - Potential presentation to Board of Health Mar 2016
      - Potential publication in the *Virginia Register* in April 2016 for public comment
      - Followed by Executive Branch review, response to public comments
  
2. **Cyanobacteria – old name was blue-green algae**
  - Lots of activity continues
  - EPA issued Health Advisories on 6 May for two specific cyanotoxins.
    - Developed as 10-day exposure levels, not 1-day or chronic
    - Microcystin (infants/children under 6): 0.3 µg/L
    - Microcystin (older children, adults): 1.6 µg/L
    - Cylindrospermopsin (infants/children under 6): 0.7 µg/L
    - Cylindrospermopsin (older children, adults): 3.0 µg/L
    - Both affect liver and kidneys (hepatotoxins)
  - Guidance documents (including best practices for response, monitoring practices, analytical methods, etc.) are expected any day now.
  - Health Advisories are NOT regulatory standards, but do identify the levels at which EPA expects waterworks and States to take action
  - EPA held a Stakeholders Meeting on 11 May to present some info, gather input on what should go into the guidance documents
  - AWWA issued a “Water Utility Managers Guide” in late April – it’s free

# Overview of Legionellosis

Ana Colón, MPH  
Eastern Region Epidemiologist  
Division of Surveillance and Investigation  
HRPDC Joint Directors Meeting  
June 3, 2015



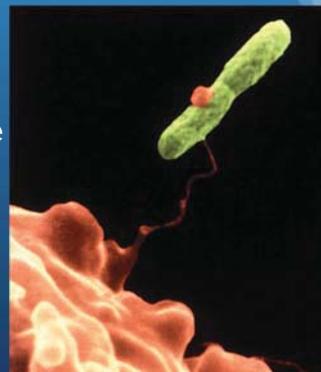
## Quick Facts of Legionnaire's disease

- Named after an outbreak in 1976
- Estimated 8,000 to 18,000 hospitalizations in the U.S. each year
- *Legionella* bacteria are found naturally in the environment
- Not transmitted from person to person.



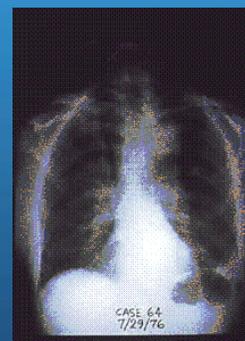
## Legionella

- Motile, gram-negative, aerobic rod bacteria of the genus *Legionella*
- ~ 40 species in genus, over half implicated in human disease
- About 90% of legionellosis cases are caused by *Legionella pneumophila*
- Ubiquitous aquatic organism, thrives in temperatures between 25 and 45 °C (77 and 113 °F) with an optimum temperature of 35 °C (95 °F)
- It resides in biofilms



## Legionnaires Disease Symptoms

- Early symptoms include lethargy, headaches, high fever, chills, muscle aches, and anorexia. Some may experience diarrhea, nausea, and vomiting.
- Dry, hacking cough, shortness of breath and pneumonia develop shortly after
- Can be fatal in 10%-15% of cases
- Symptom onset occurs 2-14 days after exposure



# Pontiac Fever Symptoms

- Milder than Legionnaires' disease
- Presents as an influenza-like illness, with fever, headache, and myalgias, but no signs of pneumonia
- Can affect healthy people, as well as those with underlying illnesses
- Symptoms occur within 72 hours of exposure

# Laboratory Testing for Diagnosis

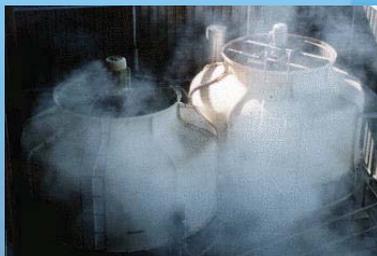
- Clinical tests
  - ❖ antigens/antibodies
  - ❖ urine and serology
- Culture
  - ❖ Live bacterial cells
  - ❖ lung biopsy, respiratory secretions, sputum
- Fluorescent antibody staining
  - ❖ bacterial antigens
- Gene probes
  - ❖ bacterial DNA
- PCR
  - ❖ bacterial DNA

# Who are at risk

- Opportunistic Disease: underlying illness/weak immune system
- Healthcare associated infections are major concerns
- Middle-aged, elderly, COPD, smokers, alcoholics and immune susceptible



# RISK AREAS

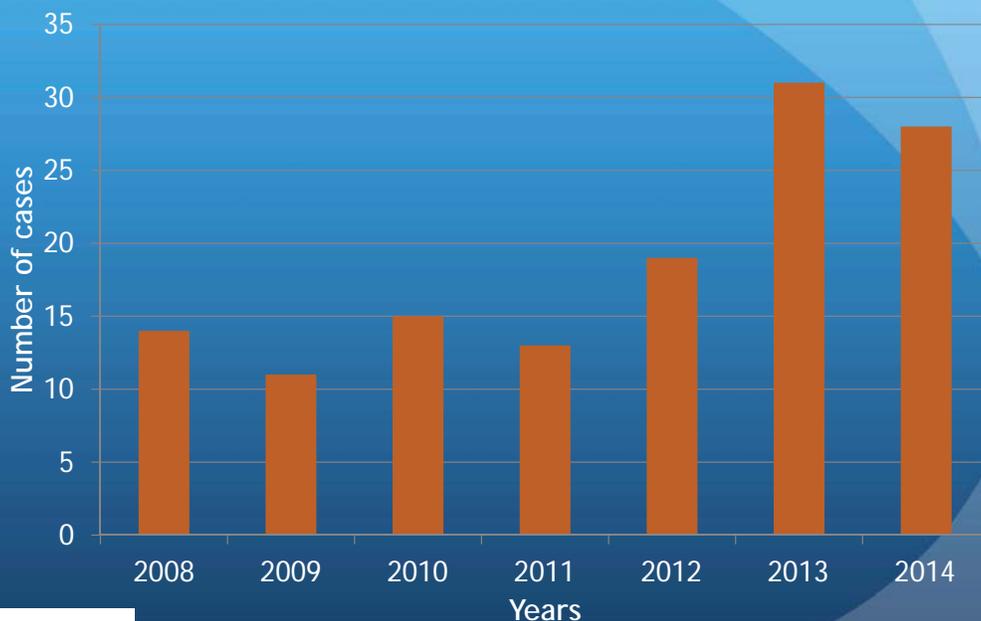


# Treatment

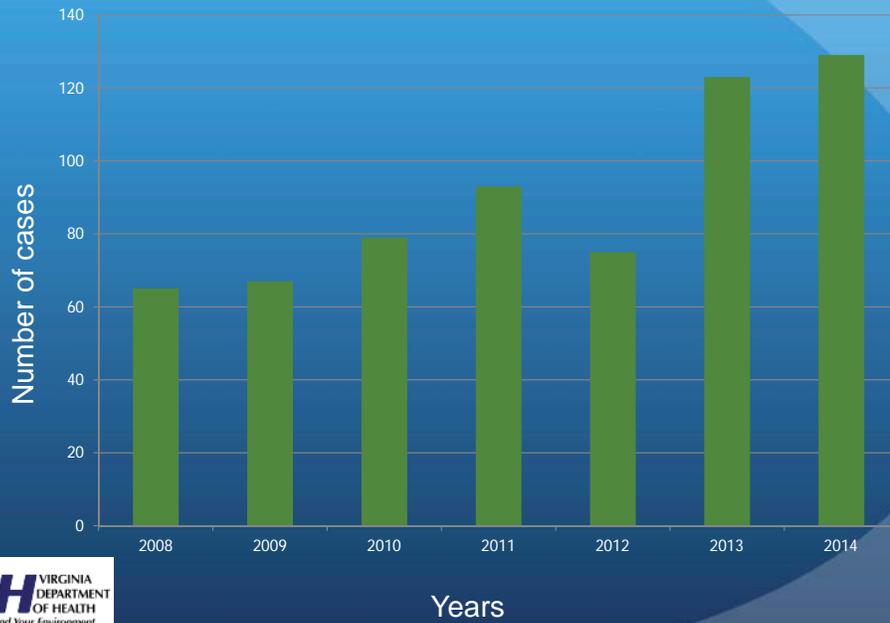
- Wide-range antibiotics to treat pneumonia (doxycycline and clarithromycin)
- Fluoroquinolones (levofloxacin)
- Macrolides (azithromycin)
- Rifampicin in combination with a quinolone or macrolide



## Eastern Region Legionellosis Cases 2008-2014



## Virginia Legionellosis Cases 2008-2014



## Number and Incidence of Legionellosis by MMWR Year and Region Virginia, 2008-2015

MMWR Year	Region			
	Eastern		Other	
	Cases	Incidence*	Cases	Incidence*
2008	7	0.38	59	0.91
2009	7	0.38	60	0.93
2010	13	0.71	66	1.02
2011	12	0.65	81	1.26
2012	16	0.87	60	0.93
2013	36	1.96	87	1.35
2014	28	1.52	101	1.57
2015**	8	0.44	25	0.39



\*based on 2013 US Census data population estimates  
\*\*year to date

# Surveillance

- Legionellosis is reportable disease
- Case Classification
  - **Suspected** - clinically compatible case that meets at least one of the presumptive (suspected) laboratory criteria.
  - **Confirmed** - A clinically compatible case that meets at least one of the confirmatory laboratory criteria.
  - **Travel-associated:** a case that has a history of spending at least one night away from home, either in the same country of residence or abroad, in the ten days before onset of illness.



# Epidemiologic Investigation Tools

- Confirm the diagnosis
- Completed case report
- A more detailed questionnaire is customized to outbreak situations
- Environmental Assessment and Sampling
- Remediation (for example decontamination of affected water systems)

Patient's Name: \_\_\_\_\_ Telephone Number: \_\_\_\_\_ Hospital: \_\_\_\_\_  
LAST FIRST MI NUMBER STREET # apt NO CITY STATE ZIP CODE Patient Chart No.

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**YDH** VIRGINIA DEPARTMENT OF HEALTH  
**VIRGINIA LEGIONELLOSIS CASE REPORT**  
(Adapted from CDC's Legionellosis Case Report (CDC 12-16 (E), January 2014))

Interviewer's Name: \_\_\_\_\_ Affiliation: \_\_\_\_\_ Telephone No.: \_\_\_\_\_

PATIENT INFORMATION				
1. VEDSS ID: _____	2. Reporting State: _____	3. County of Residence: _____	4. State of Residence: _____	5. Occupation: _____
6a. Date of Birth: _____	6b. Age: _____ <small>1: Days 2: Mos 3: Year</small>	7. Sex: _____ <small>1: Male 2: Female</small>	8. Ethnicity: _____ <small>1: Hispanic/Latino 2: Not Hispanic/Latino 3: Unknown</small>	9. Race: check all that apply <small>1: American Indian/Alaska Native 2: Black or African American 3: Native Hawaiian or Other Pacific Islander 4: Asian 5: White 6: Unknown</small>

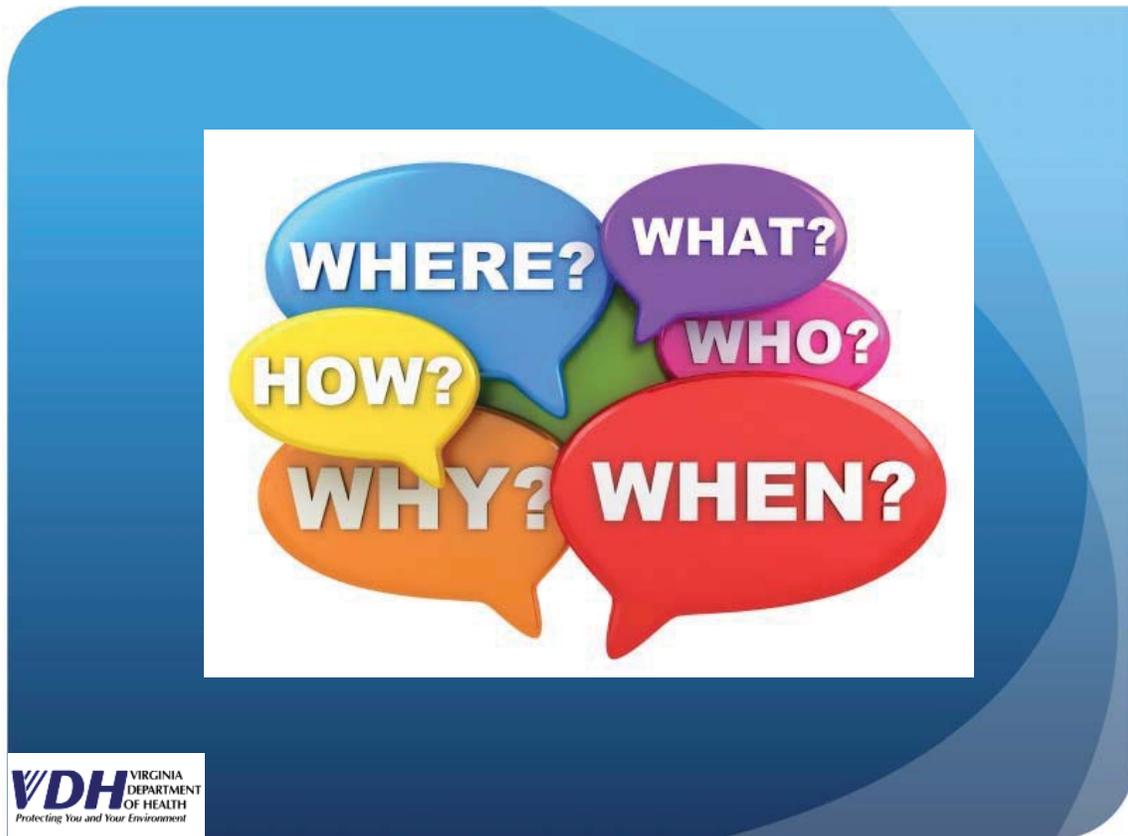
CLINICAL ILLNESS		
10. Diagnosis: (check one) <small>1: Legionnaires' Disease (pneumonia, clinical or X-ray diagnosed) 2: Pontiac Fever (fever and myalgia without pneumonia) 3: Other (e.g., endocarditis, sepsis, infection)</small>	11. Date of symptom onset of Legionellosis: _____ <small>Mo. Day Year</small>	12. Date of first report to Public Health at any level: _____ <small>Mo. Day Year</small>
13. Was patient hospitalized? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, date of admission: _____ Hospital Name: _____ <small>Mo. Day Year City, State</small>	14. Outcome of illness: <small>1: Survived 2: Died 3: Still at 4: Unknown</small>	

EXPOSURE INFORMATION								
15. In the 10 days before onset, did the patient spend any nights away from home (excluding healthcare settings)? (see note)								
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, please complete the following table:								
ACCOMMODATION NAME	ADDRESS	CITY	STATE	ZIP	COUNTRY	ROOM NUMBER	DATES OF STAY	
							start	end

\*If travel-related, was this case reported to CDC at [travel@cdc.gov](mailto:travel@cdc.gov)?  Yes  No  Unknown

16. In the 10 days before onset, was the patient exposed to a healthcare setting (e.g., hospital, long-term care/nursing home, clinic)? (see note)





**VDH** VIRGINIA  
DEPARTMENT  
OF HEALTH  
*Protecting You and Your Environment*

# ***Legionella & Drinking Water Systems***

**Daniel B. Horne, PE  
Office of Drinking Water**

**HRPDC  
Joint Directors Meeting  
3 June 2015**

1



2

## What We Used to Think About *Legionella* & Drinking Water

- It's really only found in cooling towers
- It's VERY RARELY found in mists from features like hot tubs & spas

3

## Regulatory Approach to *Legionella*

- *Legionella* is an Opportunistic Pathogen
  - No drinking water standard (level) specified by either regulation or health advisory
  - No monitoring required for drinking water systems

4

## Legionella Is “Winning”

- We’re tracking more cases of *Legionella*
- *Legionella* control poses new challenges



© Special Pathogens Laboratory

## MythBusters strike again: *Legionella* is everywhere!

- Published studies find 20-70% of buildings colonized with *Legionella*
- *Legionella* colonization is typically associated with:
  - Hot water temperatures < 122° F
  - Interruptions in water service



- Large buildings with extensive distribution piping

## Where Has *Legionella* Been Found?

- Hospitals
- Geriatric centers
- Hotels
- Casinos
- Single family residences ←

7

## Results of NJ DOH Study of Outbreak

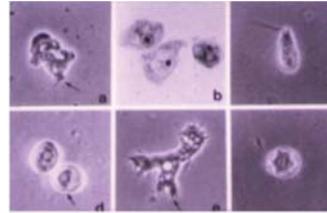
Investigation implicates poorly maintained  
storage tank and surrounding distribution  
system

- Low flow conditions, flow interruptions
- Low or no chlorine residual
- Little mixing in water storage tank
- No regular flushing of water mains

8

## Part of Larger Issue with Distribution System Regrowth Problems

- Conditions in distribution systems can lead to biofilm (organism) regrowth on pipe walls
- Protozoans grazing on bacteria in biofilms or pipe sediments can serve as hosts for *Legionella*



9

## Solution: “All You Have To Do Is:”

- Produce a biologically stable water.
- Use only non-reactive piping materials.
- Maintain a good disinfectant level through the whole distribution system.
- Prevent stagnation, high water age, sediment accumulation, “warm water conditions”.
- Eliminate intrusion by non-treated water.

This includes inside all buildings served by the water system (note: every building is a “dead end” situation).

10

## Certain Facilities Take Response Into Their Own Hands

- Which types of facilities?
  - Hospitals, VA Facilities, Casinos, Hotels
- What response?
  - “Semi-routine” Thermal shock
  - “Semi-routine” Chlorine shock
  - Secondary treatment
    - Point of Entry
    - Point of Use

11

## Typical On-site Treatment Systems

- Continuous free chlorine (2-4 mg/L)
- Continuous copper-silver ionization
- Continuous chloramines (1.5-3.0 mg/L)
- Continuous chlorine dioxide (0.5-0.8 mg/L)
- Point-of-use filtration (0.2  $\mu$ )



12

## Regulatory Problem

**Per the Safe Drinking Water Act, customer connections are not defined to be a waterworks, unless they:**

- **Sell the water past the meter connection; or**
- **Provide additional water treatment.**

**On-site treatment (on the premise plumbing system) means that the facility is no longer just a customer connection, but is now a regulated waterworks.**

13

## VDH Response

- **Educate VDH staff (ODW, OEHS, LHDs, others)**
- **Talk with manufacturers who are selling equipment**
- **Assess the size of the pending regulatory arena (how many hospitals, hotels, etc., have installed treatment, what kinds)**

14

## EPA Approach

- Multi-agency taskforce (EPA, CDC, various states) developed a guidance document, to evaluate treatment technologies
- Currently under “in-house review”
- Stakeholder meeting this year
- Publication later this year
  
- The “definition of treatment” to be addressed separately.
- *Legionella* was on CCL3, is on CCL4

15

## Questions?



16