

# Update from the Jody Connor Limnology Center (JCLC)

- VLAP 30<sup>th</sup> year
- Cyanobacteria
- Lake trophic survey
- New Staff
- Long term status reports
- Exotic species grants
- Beach Modeling Project



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# 30 Years of VLAP!!!!

## History

- Began in 1985
- Brainchild of Jody Connor
- Founded on the premise that citizens had a vested interest in tracking water quality in local waterbodies
- One of the first and longest running volunteer programs in the country
- Program has matured over the years to include sophisticated sampling approaches

## VLAP coordinators

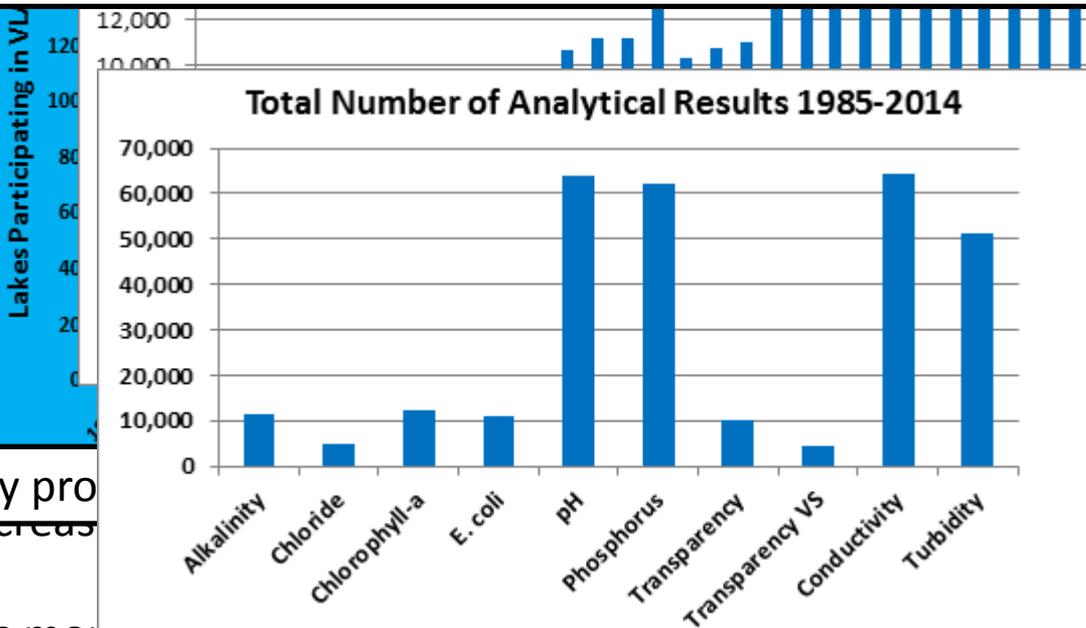
- Natalie Landry
- Stephanie Bowser
- Andrea LaMoreaux
- Sara Steiner



# What **YOU** have accomplished in 30 years?

Some very impressed totals over 30 years....

- Over 60,000 pH, phosphorus, conductivity results
- >50,000 turbidity results
- 10,000+ results for other commonly measured parameters



Regularly pro

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That's more take

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ers in 5 years

# Thank you for:

- **the use of your boats**
- **the collection of thousands of water samples**
- **persevering through the good and bad weather**
- **NOT just sampling lakes**
- **supporting DES and the JCLC**
- **providing suggestions for program improvement**
- **your commitment to monitoring and protecting our state's waterbodies**
- **all that you have done over the past 30 years!**

**What a fantastic accomplishment...YOU are huge part of our ability to assess the condition of the state's surface waters!**

# Cyanobacteria

Cyanobacteria produce biotoxins

Toxins stored in cells are released when cell dies

Health effects: Liver and nerve damage

## EPA region 1 pilot project

- Began summer 2014
- DES supplied equipment, sample bottles, and protocols to VLAP participants as requested
- 32 waterbodies sampled, 129 samples total
- Sample results are still being verified
- Efforts to continue in 2015

- EPA Health Advisory Issued for Certain Cyanotoxins – 5/6/2015

- DES continues to monitoring blooms when reported and issues lake advisories when needed based on microscopic cell counts



## **THE WALL STREET JOURNAL.**

U.S.

**In Toledo, Ohio, Residents Warned Water Unsafe to Drink**

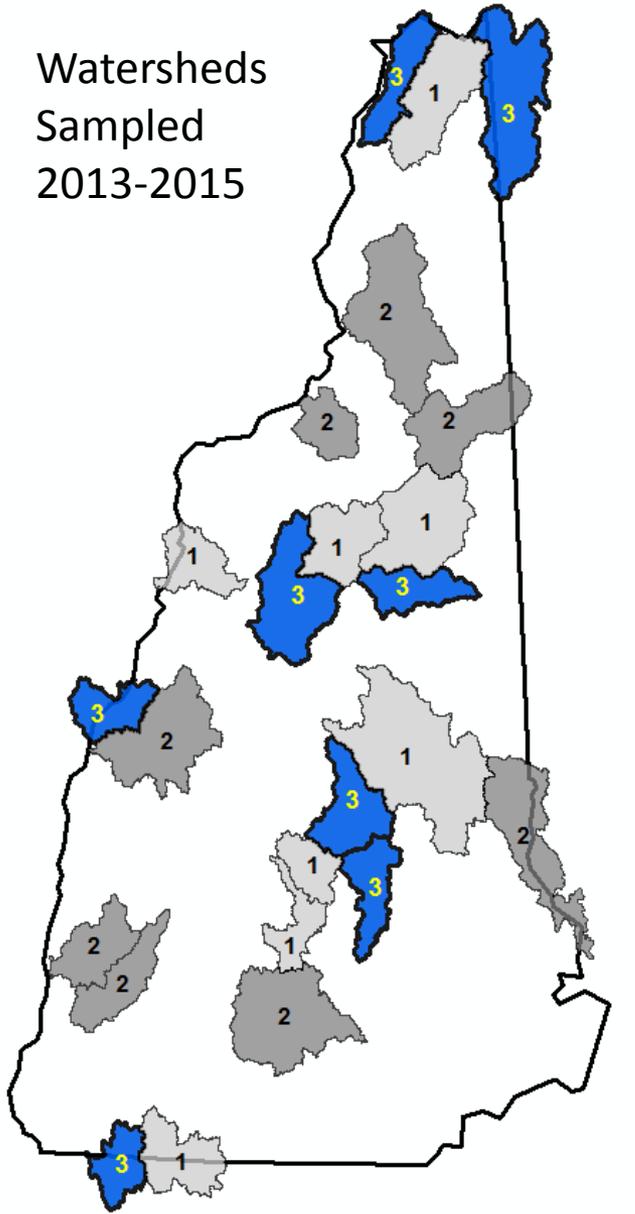
Gov. Kasich Declares State of Emergency in Two Area Counties



Sonya Carlson will provide details in dedicated session on how to become involved in pilot project

# Lake Trophic Surveys

Watersheds  
Sampled  
2013-2015



In 3<sup>rd</sup> year of re-initiated monitoring program

## 2015 Final Selections

Lake / Pond	Town
FALLS POND	ALBANY
SARGENT LAKE	BELMONT
ELLSWORTH POND	ELLSWORTH
ROCKY POND	GILMANTON
STORRS POND	HANOVER
COLLINS POND	FITZWILLIAM
MOUNTAIN POND	PITTSBURG
MIDDLE POND	PITTSBURG
SILVER LAKE	TILTON
ELBOW POND	WOODSTOCK

## Sampling Schedule

2015	2016	2017
<ul style="list-style-type: none"> <li>• Water Chemistry</li> <li>• Bathymetry</li> <li>• Plant Survey</li> </ul>	<ul style="list-style-type: none"> <li>• Water Chemistry</li> </ul>	<ul style="list-style-type: none"> <li>• Water Chemistry</li> </ul>

- In total, 31 lakes/ponds will be sampled in 2015; (10 from 2015 selection, 11 from 2014, 10 from 2013)

# New Staff

Kirsten Nelson – staff biologist

- BS from UNH
- Master's from U. Illinois
- Duties will include lake trophic surveys, river/stream biological monitoring, and general assistance to all biology programs
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# Long Term Monitoring Status Reports

## Acid precipitation monitoring and impacts

- Monitoring began in 1970s
- Includes precip. and lake monitoring
- Last summary report was 1996
- Stay tuned for details by Kirsten Nelson

## Mercury in fish tissue monitoring program

- Monitoring began in early 1990s
- To date 3,500+ specimens from >200 waterbodies processed
- Data used for update statewide fish advisory; last update 2008.
- Current report provides updates to concentrations for individual fish species, changes in concentrations over time, and geographic patterns
- Draft report undergoing internal review; final by end of summer

# Invasive Plant Management

- HB 292 increased boat reg. fee by \$2 and is estimated to result in an additional \$186,000 earmarked for control activities
- 45 control grants totaling \$200,000 were awarded in 2015
- 2 prevention grants totaling \$240,000 were awarded in 2015
- Currently 81 waterbodies infested with invasive plants
- Amy Smagula will have dedicated plant session(s) later today

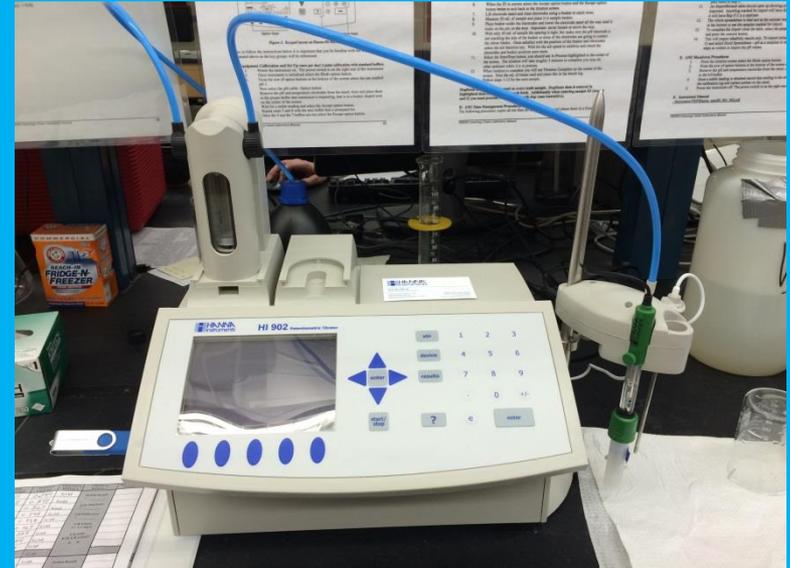
# New Equipment

## Depth Calibrated Temperature Meters



- Used to identify thermocline
- Stratified VLAP lakes are encouraged to obtain
- Use to pin-point sample depth collection

## Automated Titrator



- Used to determine Alkalinity
- Provides more consistent results
- Frees up staff for other work
- NOT for mixing drinks