



United States Department of Agriculture



## AQUATIC PATHOGEN TESTING IN NAHLN LABORATORIES UPDATE

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U.S. DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE  
VETERINARY SERVICES  
NATIONAL ANIMAL HEALTH LABORATORY  
NETWORK  
STAS  
OCTOBER 2016



# National Animal Health Laboratory Network

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- Formed in 2002
- Purpose
  - Early detection
  - Rapid response
  - Appropriate recovery
- Is a **partnership** between:
  - USDA (APHIS and NIFA)
  - AAVLD
  - NAHLN Laboratories

# Founding Principles and Features of NAHLN

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Quality standards

Competency of laboratory personnel

Standardized protocols and equipment

Adequate biosafety/biosecurity

Secure electronic communications and reporting

Assessment of preparedness through scenario testing



# NAHLN Laboratory Qualification Checklist For Membership of a Veterinary Diagnostic Laboratory

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## Annual renewal

### Agree to meet requirements of the NAHLN

- Quality Management
- Foreign Animal Disease (FAD) Assays and Investigations
- Sample Handling
- Communication and Reporting
- Administrative and Financial Requirements

### Request any changes to disease/agent approvals

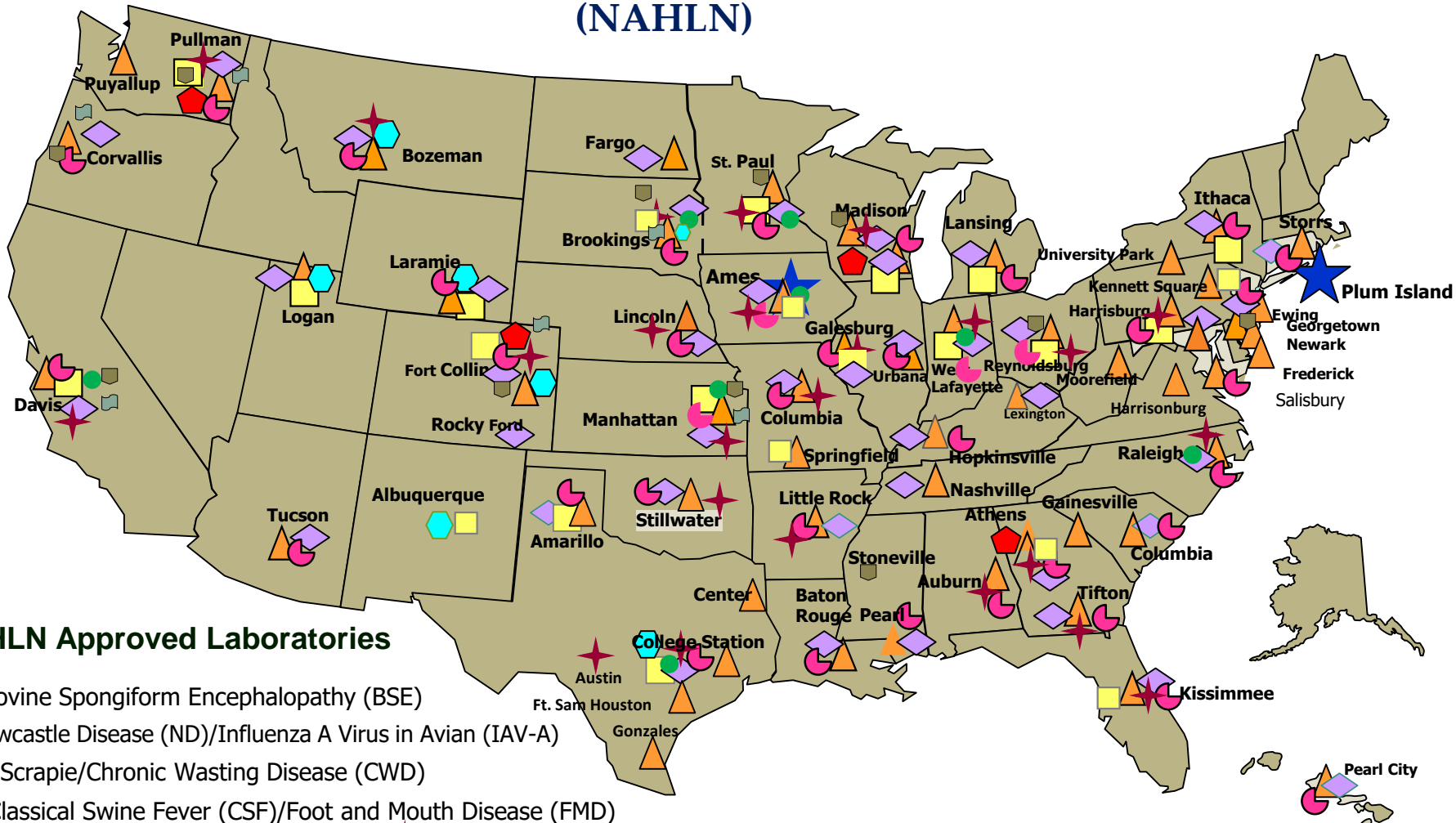
Signatures needed from State (SAHO, etc.) and Federal representative (DD or AD)

# NAHLN restructure












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- Level 1
  - Large testing capacity
  - Fully accredited
  - BSL3 facilitates
  - LIMS/messaging
  - Trainers
  - Test development and validation
- Level 2
  - Similar, but reduced capacity
  - Provisionally accredited
  - No BSL 3 requirements
- Level 3
  - Surveillance testing
- Affiliate Labs
  - Publically funded that occasionally perform NAHLN related-testing
- Private Labs
  - Specific, needed capability to perform testing
  - Relationship with NAHLN lab and SAHO
  - Written, approved plan to avoid conflicts of interest
- Reference Labs provide
  - Oversight
  - Training
  - SOPs
  - Reference material
  - Proficiency testing

# National Animal Health Laboratory Network (NAHLN)



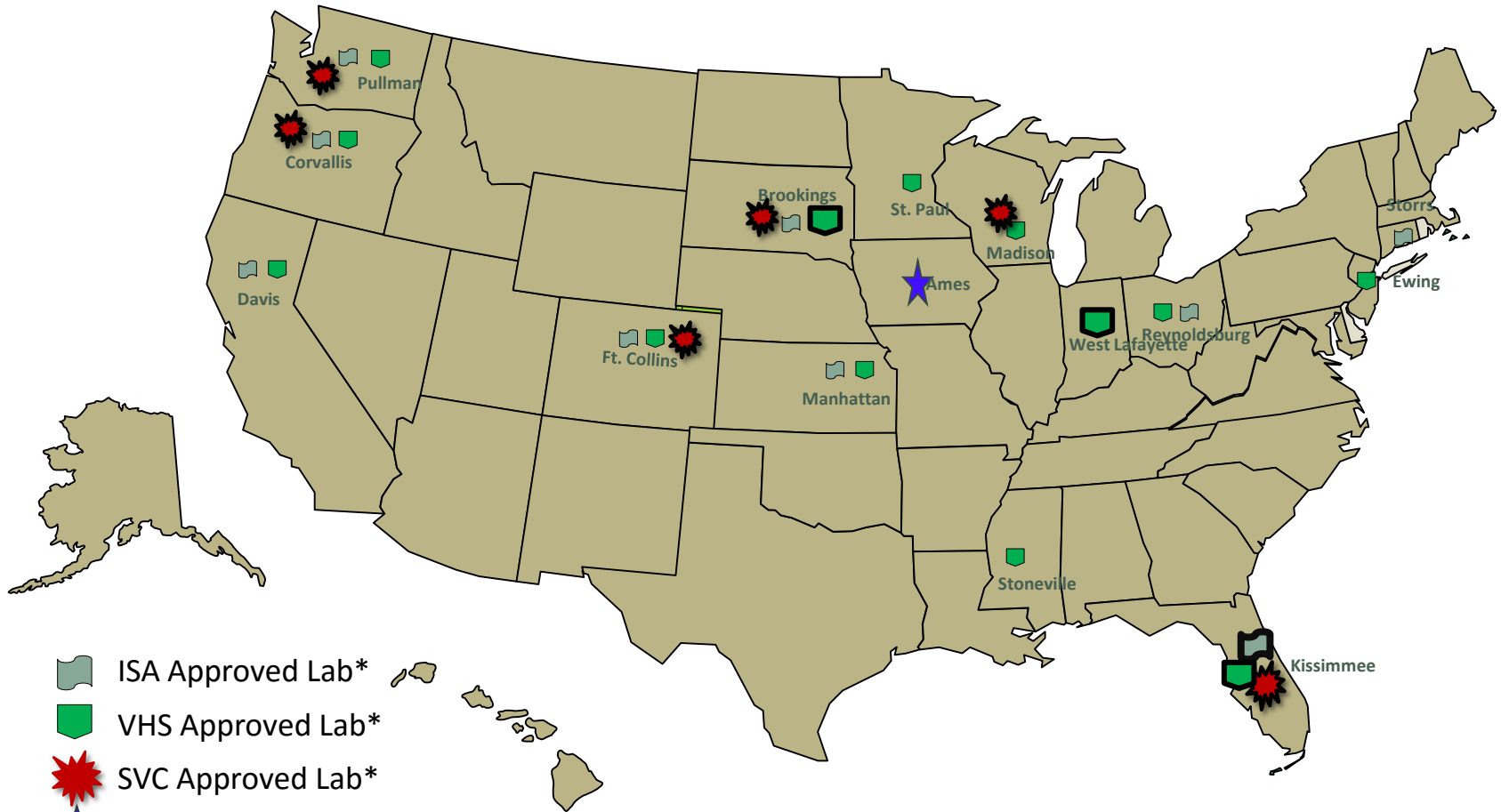
## NAHLN Approved Laboratories

-  \*Bovine Spongiform Encephalopathy (BSE)
-  Newcastle Disease (ND)/Influenza A Virus in Avian (IAV-A)
-  \*\*Scrapie/Chronic Wasting Disease (CWD)
-  \*Classical Swine Fever (CSF)/Foot and Mouth Disease (FMD)
-  Influenza A Virus in Swine (IAV-S)
-  Vesicular Stomatitis (VS)
-  African Swine Fever
-  Viral hemorrhagic septicemia (VHS)
-  Infectious salmon anemia (ISA)
-  SVC Approved Lab\*
-  National Veterinary Services Laboratories

\*For specified agents, not all laboratories are currently participating in surveillance testing  
 \*\*Multiple assays conducted for this agent, refer to specific disease map/list for assay options..

July 20, 2016

# NAHLN Laboratories Approved to Conduct Aquatic Pathogen Surveillance Testing



ISA Approved Lab\*

VHS Approved Lab\*

SVC Approved Lab\*

NVSL Lab Site

\* Pending successful completion of the PT

September 27, 2016

NAHLN Laboratories approved for  
ISAV Surveillance Testing by RT real-time PCR

	State	Laboratory Address
1	California	California Animal Health & Food Safety Laboratory University of California, School of Veterinary Med 620 West Health Science Drive Davis, California 95616 Phone: 530-752-8709
2	Colorado	Colorado State University Veterinary Diagnostic Laboratory 300 West Drake Road, Building C Fort Collins, Colorado 80523-1644 Phone: 970-297-1281
3	Connecticut	Connecticut Veterinary Medical Diagnostic Laboratory University of Connecticut, Unit 3089 61 North Eagleville Road Storrs, Connecticut 06269-3089 Phone: 860-486-3738
4	Kansas	Kansas State Veterinary Diagnostic Laboratory Kansas State University, CVM L232 Mosier Hall, 1800 Dennison Ave Manhattan, Kansas 66506-5611 Phone: 785-532-5650
5	Ohio	Animal Disease Diagnostic Laboratory Ohio Department of Agriculture 8995 East Main St., Bldg. # 6 Reynoldsburg, Ohio 43068-3342 Phone: 614-728-6220
6	Oregon	Oregon State University Veterinary Diagnostic Lab Magruder Hall 134 Corvallis, Oregon 97331-8628 Phone: 541-737-3261
7	South Dakota	Animal Disease Research & Diagnostic Laboratory South Dakota State University Box 2175, N. Campus Dr. Brookings, South Dakota 57007-0001 Phone: 605-688-5171
8	Washington	Washington Animal Disease Diagnostic Laboratory Bustad Hall, Rm 155-N Pullman, Washington 99164 Phone: 509-335-9696

NAHLN Laboratory approved for  
VHSV Surveillance Testing

	State	Laboratory address	RT PCR	VI
1	California	California Animal Health & Food Safety Laboratory University of California, School of Veterinary Med 620 West Health Science Drive Davis, California 95616 Phone: 530-752-8709 Fax 530-752-5680	X	
2	Colorado	Colorado State University Veterinary Diagnostic Laboratory 300 West Drake Road, Building C Fort Collins, Colorado 80523-1644 Phone: 970-297-1281 Fax 970-297-0320	X	
3	Kansas	Kansas State Veterinary Diagnostic Laboratory L232 Mosier Hall, 1800 Dennison Ave Manhattan, Kansas 66506 Phone: 785-532-4454 Fax 785-532-4039	X	
4	Minnesota	University of Minnesota Veterinary Diagnostic Laboratory 1333 Gortner Ave, 244 Vet D L St. Paul, Minnesota 55108 Phone: 612-625-8787 Fax 612-624-8707	X	X
5	Mississippi	National Warmwater Aquaculture Center 127 Experiment Station Rd Stoneville, Mississippi 38776 Phone: 662-686-3242		X
6	New Jersey	New Jersey DEPT of Agriculture, Division of Animal Health - Animal Health Diagnostic Laboratory, NJPHEAL 3 Schwarzkopf Drive Ewing, New Jersey 08628 Phone: 609-406-6999 Fax 609-671-6414	X	
7	Ohio	Ohio - Animal Disease Diagnostic Laboratory - Ohio Department of Agriculture 8995 East Main St., Bldg. # 6 Reynoldsburg, Ohio 43068 Phone: 614-728-6220 Fax 614-728-6310	X	X
8	Oregon	Oregon State University Veterinary Diagnostic Lab Magruder Hall 134 Corvallis, Oregon 97331 Phone: 541-737-3261 Fax 541-737-6817	X	X
9	South Dakota	Animal Disease Research & Diagnostic Laboratory South Dakota State University Box 2175, N. Campus Dr. Brookings, South Dakota 57007 Phone: 605-688-5171 Fax 605-688-6003	X	
10	Washington	Washington Animal Disease Diagnostic Laboratory Bustad Hall, Rm 155-N Pullman, Washington 99164 Phone: 509-335-9696	X	X
11	Wisconsin	Wisconsin Veterinary Diagnostic Laboratory 445 Easterday Lane Madison, Wisconsin 53706 Phone: 608-262-5432 Fax 847-574-8085	X	X



# Testing numbers

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## ISAV PT (RT- real time PCR)

- Total of 1100 PCR tests completed in FY2016
- One lab reported

## VHSV PT (VI or RT- real time PCR)

- Total of 134 PCR tests completed in FY2016
- Total of 6989 VI completed in FY2016
- Five labs testing

# Upcoming PTs

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## ISAV PT (RT- real time PCR)

- 9 labs eligible to take the PT

## VHSV PT (VI or RT- real time PCR)

- 13 labs eligible to take the PT

## SVC PT (VI)

- 6 labs eligible to take the PT

# Next steps

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- Complete proficiency testing for three aquatic pathogens under NAHLN scope
- NAHLN program staff will work with Aquaculture commodity staff and Reference Lab staff to determine if and when more aquatic pathogens should be added to NAHLN scope
- Continue to offer Quality Management System training that members of current and prospective NAHLN labs are welcome to attend

# Questions?

