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

- 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

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

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

• 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
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)
- Pseudorabies Virus (PRV)
- Viral hemorrhagic septicemia (VHS)
- Infectious salmon anemia (ISA)
- African Swine Fever

*SVC Approved Lab*

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
NAHNLN Laboratories Approved to Conduct Aquatic Pathogen Surveillance Testing

*Pending successful completion of the PT
<table>
<thead>
<tr>
<th>State</th>
<th>Laboratory Address</th>
<th>RT PCR</th>
<th>VI</th>
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<tbody>
<tr>
<td>California</td>
<td>California Animal Health &amp; Food Safety Laboratory University of California, School of Veterinary Med 620 West Health Science Drive Davis, California 95616 Phone: 530-752-8709</td>
<td>X</td>
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</tr>
<tr>
<td>Colorado</td>
<td>Colorado State University Veterinary Diagnostic Laboratory 300 West Drake Road, Building C Fort Collins, Colorado 80523-1644 Phone: 970-297-1281</td>
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</tr>
<tr>
<td>Connecticut</td>
<td>Connecticut Veterinary Medical Diagnostic Laboratory University of Connecticut, Unit 3089 61 North Eagleville Road Storrs, Connecticut 06269-3089 Phone: 860-486-3738</td>
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</tr>
<tr>
<td>Kansas</td>
<td>Kansas State Veterinary Diagnostic Laboratory Kansas State University, CVM L232 Mosier Hall, 1800 Dennison Ave Manhattan, Kansas 66506-5611 Phone: 785-532-4605</td>
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<tr>
<td>Ohio</td>
<td>Animal Disease Diagnostic Laboratory Ohio Department of Agriculture 8995 East Main St., Bldg. # 6 Reynoldsburg, Ohio 43068-3342 Phone: 614-728-6220</td>
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<tr>
<td>Oregon</td>
<td>Oregon State University Veterinary Diagnostic Lab Magruder Hall 134 Corvallis, Oregon 97331-8628 Phone: 541-737-3261</td>
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<tr>
<td>South Dakota</td>
<td>Animal Disease Research &amp; Diagnostic Laboratory South Dakota State University Box 2175, N. Campus Dr. Brookings, South Dakota 57007-0001 Phone: 605-688-5171</td>
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<tr>
<td>Washington</td>
<td>Washington Animal Disease Diagnostic Laboratory Bustad Hall, Rm 155-N Pullman, Washington 99164 Phone: 509-335-9696</td>
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<tr>
<td>Wisconsin</td>
<td>Wisconsin Veterinary Diagnostic Laboratory 445 Eastarly Lane Madison, Wisconsin 53706 Phone: 608-262-5432 Fax 608-263-8085</td>
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Testing numbers

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

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

• 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?