

# **Pennsylvania Fish and Boat Commission Fish Health Inspection Protocol for Importation into the Commonwealth and Introduction into Waters of this Commonwealth**

Pennsylvania Fish and Boat Commission  
Division of Fish Production Services  
1735 Shiloh Road, State College, PA 16801  
(814) 355-4837

The Pennsylvania Fish and Boat Commission's (PFBC) Fish Health Inspection Protocol (Protocol) provides the procedures required to import fish or fish eggs into the Commonwealth of Pennsylvania (Commonwealth), or to introduce fish into the waters of this Commonwealth as indicated in Title 58, Chapter 71a of the Pennsylvania Code. This Protocol applies specifically to the importation and introduction of fish listed on the PFBC's Species by Watershed Approved for Open System (Flow Through) Propagation and Introductions list:

<https://www.fishandboat.com/Fishing/All-About-Fish/Documents/speciesapp.pdf>

The detection of certain pathogens may warrant additional actions from other state or federal agencies.

Exemptions for importation fish health requirements can be found in 58 Pa. Code § 71.6a(d)(1).

Any updates to this Protocol will follow the procedures found in 58 Pa. Code § 71.6a(b) and include publishing the Protocol as a Notice in the *Pennsylvania Bulletin*, as well as notifying the Pennsylvania Department of Agriculture of any changes.

Participation in recognized programs for the official health inspection of fish and other aquatic livestock that are under the supervision of the United States Department of Agriculture (USDA) can be used as an alternative equivalent of this Protocol to certify that aquatic animals are sourced from operations that meet the health requirements for importation into this Commonwealth and the introduction into waters of this Commonwealth.

## **Fish Health Certification Requirements for the Importation of Fish into this Commonwealth**

A fish health inspection report or certification document indicating that the shipping facility meets the requirements in this Protocol must accompany all fish being imported into the Commonwealth.

Fish must be obtained from a facility, source, or from a lot of fish that have been certified free of the pathogens and parasites listed in Table 1 of this Protocol. Specific requirements may vary depending on the species of fish, location of the shipping facility or source, and the designated end use of the fish being imported into this Commonwealth. Fish being imported for direct stocking into waters of this Commonwealth must also comply with the Fish Health Testing Requirements for the Introduction of Fish

into Waters of this Commonwealth section of this Protocol. Fish being imported into this Commonwealth from facilities or waterbodies within the Great Lakes basin must adhere to the PFBC's VHS regulation (58 Pa. Code § 71a.7), in addition to the requirements in this Protocol.

Additional testing will be required if the importing facility has received fish or fish eggs from a facility or source that has not met the minimum testing or certification requirements that are outlined in Table 1 of this Protocol.

Certification is not required if the shipping facility received fish or fish eggs from a facility that is within a zone enzootic for the specific pathogens and parasites found in Table 1 of this Protocol, and the original source or facility has met the minimum testing requirements for the pathogens and parasites found in Table 1 of this Protocol.

Documentation of fish health certification from the original source shall remain with the shipment in addition to the documentation of the shipping facility's fish health testing. Shipping facilities shall retain all importation records for a minimum of seven (7) years.

Additional testing may be required by the Pennsylvania Department of Agriculture or the U.S. Department of Agriculture for Closed System Aquaculture Facilities.

**Table 1.** Pennsylvania Fish and Boat Commission Fish Health Certification Requirements for the Importation of Fish into the Commonwealth of Pennsylvania.

<b>Pathogen</b>	<b>Certification Requirements for Shipping Facility or Waterbody</b>
<b>Viral Hemorrhagic Septicemia (except IVb) (VHSv)</b>	Facility or source certification is required for all species of fish or fish eggs imported into this Commonwealth which are listed as a susceptible host species by the World Organization of Animal Health (WOAH) Aquatic Manual ( <a href="https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3">Codes and Manuals - WOAHA - World Organisation for Animal Health</a> <a href="https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3">https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3</a> ) and listed on the PFBC's Species by Watershed Approved for Open System (Flow Through) Propagation and Introductions list: <a href="https://www.fishandboat.com/Fishing/All-About-Fish/Documents/speciesapp.pdf">https://www.fishandboat.com/Fishing/All-About-Fish/Documents/speciesapp.pdf</a> and are imported from or having originated in Alaska, Washington, Idaho, Oregon, California, British Columbia (Canada), New Brunswick (Canada) and Nova Scotia (Canada).
<b>Viral Hemorrhagic Septicemia IVb</b>	Fish originating from sources within the Great Lakes basin must comply with 58 Pa. Code § 71.a7.
<b>Infectious Hematopoietic Necrosis Virus (IHNv)</b>	Facility or source certification is required for all salmonids and salmonid eggs imported from facilities or having originated in the geographical range of the pathogen identified in the most recent edition of the American Fisheries Society (AFS) Fish Health Section Blue Book: Suggested Procedures for the Detection and Identification of Certain Finfish and Shellfish Pathogens (U.S. Fish & Wildlife Service

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& American Fisheries Society-Fish Health Section) [BLUE BOOK | AFS Fish Health Section \(fisheries.org\)](#)

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**Infectious Salmon Anemia Virus (ISAv).**

Includes both the highly polymorphic region (HPR)-deleted ISAv, or the HPRO (non-deleted highly polymorphic region) ISAv. Certification is only required for species listed as a host species by the WOAHA Aquatic Manual ([Codes and Manuals - WOAHA - World Organisation for Animal Health, https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3](#)) and also listed on the PFBC's Species by Watershed Approved for Open System (Flow Through) Propagation and Introductions list: <https://www.fishandboat.com/Fishing/All-About-Fish/Documents/speciesapp.pdf> and eggs of these species imported from, or having originated in the geographical range of the pathogen identified in the most recent edition of the American Fisheries Society (AFS) Fish Health Section Blue Book: Suggested Procedures for the Detection and Identification of Certain Finfish and Shellfish Pathogens (U.S. Fish & Wildlife Service & American Fisheries Society-Fish Health Section) [BLUE BOOK | AFS Fish Health Section \(fisheries.org\)](#)

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**Spring Viremia of Carp Virus (SVCv)**

Facility or source certification is required for all species of fish imported into this Commonwealth which are listed as a susceptible host species by the WOAHA Aquatic Manual ([Codes and Manuals - WOAHA - World Organisation for Animal Health, https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3](#)) and also listed on the PFBC's Species by Watershed Approved for Open System (Flow Through) Propagation and Introductions list: <https://www.fishandboat.com/Fishing/All-About-Fish/Documents/speciesapp.pdf>.

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***Tetracapsuloides bryosalmonae* (PKD)**

Certification is required for all salmonids imported into this Commonwealth from or having originated in the geographical range of the pathogen as identified in the most recent edition of the American Fisheries Society (AFS) Fish Health Section Blue Book: Suggested Procedures for the Detection and Identification of Certain Finfish and Shellfish Pathogens (U.S. Fish & Wildlife Service & American Fisheries Society-Fish Health Section) [BLUE BOOK | AFS Fish Health Section \(fisheries.org\)](#). Testing is not required for the importation of disinfected eggs from within the geographical range of the pathogen. Acceptable disinfection protocols for salmonid egg disinfection include protocols found in the WOAHA Aquatic Code: [Codes and Manuals - WOAHA - World Organisation for Animal Health, https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3](#).

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***Ceratomyxa shasta* (CS)**

Facility or source certification is required for all salmonids being imported into this Commonwealth from or having originated in the geographical range of the pathogen as identified in the most recent edition of the American Fisheries Society (AFS) Fish Health Section Blue Book: Suggested Procedures for the Detection and Identification of Certain Finfish and Shellfish Pathogens (U.S. Fish & Wildlife Service & American Fisheries Society-Fish Health Section) [BLUE BOOK | AFS Fish Health Section \(fisheries.org\)](#) certification is not required for the importation of disinfected eggs from within an identified geographical range for the pathogen. Acceptable disinfection protocols for salmonid egg disinfection include protocols found in the WOAHA Aquatic Code: [Codes and Manuals - WOAHA - World Organisation for Animal](#)

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Health, <https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3>.

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<b>Parasitic Copepods belonging to the genus <i>Salmincola</i>*</b>	Certification is required for all Rainbow Trout ( <i>Oncorhynchus mykiss</i> ) and Brook Trout ( <i>Salvelinus fontinalis</i> ) imported into this Commonwealth. This includes all color variants, strains, and hybrids of Rainbow Trout and Brook Trout, including but not limited to Golden Trout, Albino, and Tiger Trout.  *Testing is not required for the importation of eggs.
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\*<https://www.fishandboat.com/Fish/FishingRegulations/Documents/GillLiceCertificationProtocol.pdf>

### **Fish Health Certification Requirements for the Introduction of Fish into Waters of this Commonwealth**

When required, a fish health inspection report or certification document indicating that the shipping facility meets the requirements in this Protocol must accompany all fish being introduced into any waterbody designated as a water of this Commonwealth. Specific testing requirements may vary depending on the species, origin, and final location of fish being introduced into waters of this Commonwealth. Fish originating from sources within the Great Lakes basin must comply with the PFBC VHSv regulations.

Fish being introduced into waters of this Commonwealth must originate from facilities, lots, or sources that are certified free of the pathogens and parasites listed in Table 2 of this Protocol. Additional requirements may be in place if fish are being imported into this Commonwealth for direct stocking (Table 1).

**Table 2.** Pennsylvania Fish and Boat Commission Fish Health Certification Requirements for the Stocking/Introduction of Fish into Waters of Commonwealth of Pennsylvania.

Stocking or Introduction Location	Fish Health Certification Requirements
Introduction of all Rainbow Trout ( <i>Oncorhynchus mykiss</i> ) and Brook trout ( <i>Salvelinus fontinalis</i> ) into all waters of this Commonwealth	Fish obtained from a PA Department of Agriculture Registered Propagator, PA Department of Agriculture Registered Dealer, PFBC State Fish Hatchery, or PFBC Cooperative Nursery must be certified gill lice free, following the PFBC’s Gill Lice Certification Protocol*. Certification may be for a specific lot or shipment.
Includes all color variants, strains, and hybrids of Rainbow Trout and Brook Trout; this includes but is not limited to Golden Trout, Albino, and Tiger Trout	Facilities are exempt from this requirement if they meet the PA Department of Agriculture’s definition of a closed system facility and can document that any Rainbow and Brook trout introduced into the facility were obtained from sources certified to be gill lice free or were introduced to the facility as eggs.
Stocking of fish into the Lake Erie and Lake Ontario watersheds (includes portions of Erie, Crawford, and Potter Counties)	<p>Fish must be obtained from a facility or be from a lot of fish that have been certified free of the following pathogens and parasites following the PFBC’s Protocol:</p> <p>Infectious Pancreatic Necrosis Virus (IPNV) - All Species</p> <p>Spring Viremia of Carp Virus (SVCv) - Species listed as a susceptible host species by the WOAHA Aquatic Code (<a href="https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3">Codes and Manuals - WOAHA - World Organisation for Animal Health, https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3</a>) and also listed on the PFBC’s Species by Watershed Approved for Open System (Flow Through) Propagation and Introductions list</p> <p>Koi Herpes Virus (KHV) - Carp only (Including Koi)</p> <p>Viral Hemorrhagic Septicemia Virus (VHSV) - Species listed as a susceptible host species by the WOAHA Aquatic Code (<a href="https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3">Codes and Manuals - WOAHA - World Organisation for Animal Health, https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3</a>) and also listed on the PFBC’s Species by Watershed Approved for Open System (Flow Through) Propagation and Introductions list</p> <p>Largemouth Bass Virus (LMBV) - <i>Centrarchids</i> only  <i>Aeromonas salmonicida</i> (AS) - All Species  <i>Yersinia ruckeri</i> (YR) - All Species  <i>Renibacterium salmoninarum</i> (BK) - Salmonids  <i>Myxobolus cerebralis</i> MC (Whirling Disease) - Salmonids only</p>

\*<https://www.fishandboat.com/Fishing/Regulations/Documents/GillLiceCertificationProtocol.pdf>

## **Fish Health Inspection Protocol**

Fish health inspections that are conducted using procedures that are not approved by the PFBC will not be accepted. All procedures referenced in this Protocol are considered PFBC approved. If a laboratory wishes to use procedures that are not referenced in this Protocol, laboratory management should consult with the PFBC prior to initiating the inspection process.

If a fish health inspection is conducted for a specific lot or group of fish from a facility, biosecurity measures must be in place to ensure the lot or group of fish remains isolated from the untested fish at the facility.

All fish health inspections must be conducted by a PFBC Recognized Official.

- **Recognized Officials**

- An Accredited and Licensed Veterinarian (the Veterinarian must be licensed in the state where the facility is located).
- American Fisheries Society Certified Fish Pathologist or Aquatic Animal Health Inspector.
- Government employees, university or college personnel, and private laboratory personnel employed to carry out aquatic animal health work.
- An individual appointed by the state's competent authority (in PA the PA Department of Agriculture) for animal health or by the PFBC.

- **Inspection Frequency**

- A facility inspection is applicable for one calendar year (365 days) from the date of the inspection.

- **Facility Fish Health Inspection**

- Facility is defined as the physical location or street address of the fish being certified. A facility inspection will consist of all lots of fish located at the facility being certified.
- If multiple facilities are owned by a single entity, a separate inspection must be completed for each facility.
- A facility fish health inspection is the representative sampling of all fish lots from a facility for the applicable pathogens.
- Sample size (Total Number of Fish Sampled) for a fish health inspection shall be determined using methods detailed in the most recent editions of the American Fisheries Society (AFS) Fish Health Section Blue Book: Suggested Procedures for the

Detection and Identification of Certain Finfish and Shellfish Pathogens (U.S. Fish & Wildlife Service & American Fisheries Society-Fish Health Section) ([BLUE BOOK | AFS Fish Health Section \(fisheries.org\)](#), <https://units.fisheries.org/fhs/fish-health-section-blue-book-2016/>) or the Manual of Diagnostic Tests for Aquatic Animals (–WOAH) ([Codes and Manuals - WOAHA - World Organisation for Animal Health](#), <https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3>).

- When following the AFS’s recommended protocols, at minimum, all lots should be sampled at the 5% Assumed Pathogen Prevalence Level (APPL) (Table 4).
- Facilities that choose to use the WOAHA inspection protocol typically sample 150 fish per farm. Facilities that choose to follow this protocol and culture both salmonid species and non-salmonid species, shall test a minimum of 150 non-salmonids and 150 salmonids for the pathogens of concern, thus ensuring that a minimum of 150 salmonids are tested.
  - The following Salmonids are approved for introduction into waters of this Commonwealth:
    - Brook Trout - *Salvelinus fontinalis*,
    - Brown Trout - *Salmo trutta*,
    - Rainbow Trout, Steelhead, Kamloops - *Oncorhynchus mykiss*,
    - Golden Rainbow Trout - *Oncorhynchus mykiss*,
    - Tiger Trout - *Salmo trutta x Salvelinus fontinalis*,
    - Albino Trout - All Species; and
    - Coho Salmon - *Oncorhynchus kisutch* (only Erie and Genesee basins).
  - All other species of fish approved for introduction into waters of this Commonwealth are Non-Salmonids and can be found on the PFBC’s Species by Watershed Approved for Open System (Flow Through) Propagation and Introductions list:  
<https://www.fishandboat.com/Fishing/All-About-Fish/Documents/speciesapp.pdf>
- Based on the number of species and the age groups present at a facility, additional fish may need to be inspected to comply with the PFBC’s Gill Lice Certification Protocol:  
<https://www.fishandboat.com/Fishing/Regulations/Documents/GillLiceCertificationProtocol.pdf>
- Fish are to be assigned to one of three (3) groups, based on either size or age (Table 3).
- When sampling is required at the 2% or 5% APPL with a 95% confidence level, Table 4 should be referenced.

- **Lot Definition**

- For this Protocol, a lot is defined as either a Broodstock Lot, Non-Broodstock Lot, Baitfish Lot, or Wild Fish Lot. Definitions for these categories are provided below.
- Lot (Broodstock): a group of sexually mature fish of the same species that share a common water source and are specifically designated as brood.
- Lot (Non-Broodstock): a group of non-brood fish of the same species and age group that have continuously shared a common water source throughout their life history.
- Lot (Baitfish): a pooled sample of a single species that is held in a self-contained holding structure. A new lot will be formed anytime untested fish are added to an existing lot. When distinct lots are combined, a new lot is formed. The addition of fish from another inspected/tested lot will not result in the creation of a new lot.
- Lot (Wild Fish): a pooled sample of a single species that is obtained from a discrete spawning population collected from a body of water. The lot may contain various age groups that can be combined into a single lot.

**Table 3.** Size and Age Categories for Grouping Fish for Sample Collection.

<b>Designation</b>	<b>Total Length</b>	<b>Age</b>
Fingerling	2 – 6 cm. (0.79 – 2.36 in.)	< 12 months of age
Yearling/Adult	> 6 cm. (2.36 in.)	Non-brood fish greater than 12 months of age
Broodstock	> 6 cm. (2.36 in.)	Sexually mature fish greater than 12 months of age and used as broodstock

**Table 4.** Sample Number Based on an Assumed Pathogen Prevalence Level (APPL) in the Population of 2% or 5%.

<b>Lot Size (number of fish)</b>	<b>Number of Fish Required to Sample</b>	
	<b>5% APPL</b>	<b>2% APPL</b>
50	35	50
100	45	75
250	50	110
500	55	130
2,000	60	145
>100,000	60	150



## **Fish Health Inspection Report**

At a minimum, a Facility Fish Health Inspection Report shall include the following:

- Name and location of the facility
- Name of the facility owner
- Name of the facility contact person
- Facility contact's phone number
- Inspection date
- Dates of three (3) prior inspections, if applicable
- Water source, if applicable (name of stream/lake)
- Type of water source (open/closed/protected)
- Lot information
  - Species
  - Approximate number in lot
  - Number sampled
  - Lot designation/name
  - Lab ID number
- Pathogens Tested for
  - Results (Positive/Negative)
  - Protocol used (AFS/OIE/other)
- Name and contact information of the Recognized Official collecting the fish
- Name/Address/Phone of lab conducting the testing
- Signature of the laboratory official or laboratory manager

A sample form is included at the end of this document and can be used, if needed.

## **Accepted Testing Methods**

The PFBC requires that all surveillance, screening, and confirmatory testing be performed following the procedures described in this Protocol or the methods listed as recommended or suitable in the most recent editions of the following:

- American Fisheries Society Fish Health Section Blue Book: Suggested Procedures for the Detection and Identification of Certain Finfish and Shellfish Pathogens (US Fish & Wildlife Service (USFWS) & the American Fisheries Society-Fish Health Section (AFS-FHS)).  
[BLUE BOOK | AFS Fish Health Section \(fisheries.org\).](https://units.fisheries.org/fhs/fish-health-section-blue-book-2016/) <https://units.fisheries.org/fhs/fish-health-section-blue-book-2016/>.

- World Organization of Animal Health (WOAH): Manual of Diagnostic Tests for Aquatic Animals. [Aquatic Manual Online Access - WOAH - World Organisation for Animal Health, https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3](https://www.woah.org/en/what-we-do/standards/codes-and-manuals/#ui-id-3).
- PFBC Gill Lice Certification Protocol
  - When certifying that fish are free of parasitic copepods belonging to the family *Salmincola*, inspectors shall follow the PFBC's Protocol for Certification of Salmonids for the Presence of Gill Lice: <https://www.fishandboat.com/Fishing/Regulations/Documents/GillLiceCertificationProtocol.pdf>
- Whirling Disease Protocol
  - When screening for *Myxobolus cerebralis* (Whirling Disease), the sample should include a minimum of 60 specimens from the most susceptible lot on site.
- Bacterial Kidney Disease Protocol
  - When screening for *Renibacterium salmoninarum* (Bacterial Kidney Disease), the culture method using Selective Kidney Disease Media (SKDM) as described in the AFS Bluebook is acceptable as the initial screening process. If using SKDM as the initial screening process, confirmation must be done on the isolate using Fluorescent Antibody Test (FAT) or Polymerase Chain Reaction (PCR), as described in the AFS Blue Book.

If a laboratory wishes to use testing procedures not referenced in this document, laboratory management should consult with the PFBC to ensure that the test will be accepted by the PFBC prior to initiating the inspection process.

### **Demonstration of Freedom from a Pathogen if Detected at a Facility**

If a pathogen has been detected at a facility or lot, to be considered negative for that pathogen, the facility or lot must, at a minimum, complete an inspection without detection of the pathogen following the procedures found in this Protocol.

Prior to initiating an inspection to demonstrate freedom from a pathogen, the facility may take measures to eliminate the pathogen such as depopulation, treatment, and disinfecting facilities.

### **Importation of Fish from Other Facilities**

If fish are imported from another facility that is positive for a pathogen, the receiving facility will be considered positive for that pathogen. For the imported lot of fish to be considered negative for that pathogen, the fish must be held in isolation and undergo the appropriate testing, as previously described.

A facility will not be considered positive for a pathogen if the fish are imported from a facility that is located in the pathogen's enzootic zone and the shipping facility has met the required criteria to be certified free of the pathogen. This only applies to the fish being transferred. Fish health inspections may still be required for other groups of fish on site.

Facilities must maintain documentation, including applicable fish health inspection reports for all fish imported into the facility from outside sources for a minimum of seven (7) years. This documentation must be provided to the inspecting official.

All questions regarding this Protocol should be directed to:

PFBC Fish Health Unit Leader  
Phone: (814) 353-2223

Date of Issuance:

Facility Information		
Facility Name:	Owner:	County:
PA Dept Ag ID #:	Phone Number:	Email:
Address:		
Water source: ( ) Open ( ) Closed Name of source if Open:		
Species on site:		
Total # of Fish Collected:	Total # of Lots on Site:	
Have fish been imported into the Facility since the previous inspection ( ) Yes ( ) No If Yes, please provide fish health inspection reports for importing facilities.		
Comments:		

Fish Health Official Responsible for Collection of Fish Information	
Name:	
Phone:	Email: License Number If applicable:
Official Type:	( ) Accredited and Licensed Veterinarian , ( ) AFS Certified Fish Health Inspector or Pathologist ( ) Government employee, ( ) University/college personnel, ( ) Private Lab personnel, ( ) Individual Appointed by the PA Dept. of Ag. or PFBC
Address:	
Comments:	
Laboratory Information	

