

	<b>Proposal for Task Force Consideration at the ISSC 2027 Biennial Meeting</b> <i>(Tab to go to next field)</i>	1. a. <input checked="" type="checkbox"/> Growing Area b. <input type="checkbox"/> Harvesting/Handling/Distribution c. <input type="checkbox"/> Administrative
2. Submitter	ISSC Laboratory Committee	
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10. Proposal Subject	Modify Approved Laboratory Methods Table In Guidance Documents	
11. Specific NSSP Guide Reference	Section IV – Guidance Documents, Ch. III – Laboratory, @.02 Methods, .01 Approved NSSP Laboratory Tests	
12. Text of Proposal/ Requested Action	See Attached	
13. Public Health Significance	<p>The ISSC Laboratory Committee (LC) circulated a questionnaire to ISSC Membership in 2022 requesting feedback on the existing Approved Laboratory Methods Table included in the Guidance Documents section of the NSSP Guide. Based on the responses to that questionnaire, the LC has been working since that time to update and improve the Lab Methods Table to make it more accurate and user friendly.</p> <p>The updated Methods Table has been reorganized by method application, as most questionnaire responses indicated that determining the application/approved uses of laboratory methods was the primary reason why this table was utilized. Additionally, the following changes were made to the table in response to feedback received:</p> <ol style="list-style-type: none"> <li>1) Method names were updated for consistency purposes and to match the terminology used in the Laboratory Evaluation Checklists.</li> <li>2) The associated indicators and approved matrix categories were updated and corrected to match original approvals.</li> <li>3) Limitations and conditions of use for each method have been more clearly spelled out in the updated table.</li> <li>4) Method references have been corrected and refined, and additional details have been added to make them easier to access.</li> <li>5) An introduction was added providing information on how to use the table, where to access pertinent program documentation, and how to access original copies of the method reference documents via the ISSC website.</li> <li>6) Method applications for biotoxin methods were updated to match the Biotoxin Management Strategies described in the Model Ordinance text.</li> <li>7) The market shellfish application was removed, as there are no longer any market shellfish standards included in the Model Ordinance.</li> <li>8) The <i>Vibrio cholera</i> method (qPCR for CTX Gene) was removed from the table, as it was never officially adopted by the ISSC.</li> </ol>	
14. Cost Information	N/A	

**Proposal No.** 27-100  
**Date Received:** \_\_\_\_\_

Action by 2025 Executive Board	Adopted the recommendation of 2025 Laboratory Committee. Interim Approval on October 15, 2025.
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## NSSP Laboratory Methods Table

All laboratory methods to be used within the NSSP must be validated, reviewed, and found to be fit for purpose following the procedures described in the ISSC Constitution, Bylaws, and Procedures – Procedure XV. Once they have been reviewed and adopted by the ISSC, these laboratory methods are included in the table below, and may be used for the analysis of shellfish, shellfish growing waters, shellfish harvest waters, or wastewater as described in Model Ordinance Ch. III, @.02. Prior to newly adopting any of these methods within a laboratory, that laboratory is required to conduct a method verification, as described in Section IV – Guidance Documents, Ch. III, @.02 - Methods, .02.

The table below describes which laboratory methods can be used for each different program application, as well as what matrix and other use limitations might be in place for each particular method. Shellfish matrix categories, as described in the “Approved Matrix Categories” column, can be found in Section IV – Guidance Documents, Ch. III, @.02 - Methods, .03. The references included in the “Source Method Reference” column can be accessed on the ISSC website at <https://www.issc.org/laboratory-method-references>.

### Microbiological Methods

<b>Application: Growing Area Classification and Management</b>				
Method Name	Indicator	Approved Matrix Categories	Limitations and Conditions of Use	Source Method Reference
Multiple Tube Fermentation Technique for Seawater (APHA Decimal Dilution MPN)	Total Coliforms	Seawater	None	American Public Health Association (APHA). 1970. <i>Recommended Procedures for the Examination of Sea Water and Shellfish</i> , 4th Edition. APHA; Media: pp. 7-15, Method: pp. 28-32
Multiple Tube Fermentation Technique for Seawater (12-tube single dilution MPN)	Total Coliforms	Seawater	Per NSSP Interpretation 23-III-@.02-100, Cannot Be Used With Systematic Random Sampling Strategy	A Simpler Multiple Fermentation Tube Test for Monitoring the Bacteriological Quality of Shellfish Harvest Waters, Proceedings of the 8th National Shellfish Sanitation Workshop (1974), pp. 123-126
Multiple Tube Fermentation Technique for Seawater using MA-1 (Decimal Dilution MPN)	Fecal Coliforms	Seawater	None	AOAC Official Methods of Analysis, 15th Ed., Association of Official Analytical Chemists (1990), pp. 436 - 437
Multiple Tube Fermentation Technique for Seawater using MA-1 without salicin (Decimal Dilution MPN)	Fecal Coliforms	Seawater	Any lab adopting this method must complete a study demonstrating equivalency to original A-1 method using a minimum of 120 samples, collected across seasons (i.e. 4 sets of 30 samples: winter, spring, summer, fall). Results must not be significantly different as shown by a T-Test, and data must be submitted to FDA for concurrence before adopting.	Karolus J, Cumbo M, Boehler S, Savina L. (2003). Modification of an approved medium for fecal coliform detection in seawater: A-1 medium minus salicin. <i>J Food Prot.</i> 66(1):120-1.
Multiple Tube Fermentation Technique for Seawater using MA-1 (12-tube single dilution MPN)	Fecal Coliforms	Seawater	Per NSSP Interpretation 23-III-@.02-100, Cannot Be Used With Systematic Random Sampling Strategy	National Shellfish Sanitation Program Guide for the Control of Molluscan Shellfish Section VIII - FDA Manual of Interpretations, Interpretation # 23-III-@.02-100
Multiple Tube Fermentation Technique for Seawater or Shellfish (APHA Decimal Dilution MPN)	Fecal Coliforms	Seawater, All Shellfish	None	American Public Health Association (APHA). 1970. <i>Recommended Procedures for the Examination of Sea Water and Shellfish</i> , 4th Edition. APHA; For Seawater - Media: pp. 8-15, Method: pp. 35-36 For Shellfish - Media: pp. 8-15, Method: pp. 40-46
Multiple Tube Fermentation Technique for Seawater (12-tube single dilution MPN)	Fecal Coliforms	Seawater	Per NSSP Interpretation 23-III-@.02-100, Cannot Be Used With Systematic Random Sampling Strategy	National Shellfish Sanitation Program Guide for the Control of Molluscan Shellfish Section VIII - FDA Manual of Interpretations, Interpretation # 23-III-@.02-100
Membrane Filtration Technique for Seawater using mTEC	Fecal Coliforms	Seawater	None	Rippey, Scott, R, Adams, Willard, N, and Watkins, William, D. (1987). Enumeration of fecal coliforms and <i>E. coli</i> in marine and estuarine waters: an alternative to the APHA-MPN approach, <i>Journal WPCF</i> , 59(8).
Standard Plate Count for Shellfish Meats	All Bacteria	All Shellfish	None	American Public Health Association (APHA). 1970. <i>Recommended Procedures for the Examination of Sea Water and Shellfish</i> , 4th Edition. APHA; Media: pp. 7-15, Method: pp. 40-44, 46

Application: Growing Area Classification and Management (Continued)				
Method Name	Indicator	Approved Matrix Categories	Limitations and Conditions of Use	Source Method Reference
Male Specific Coliphage for Wastewater	MSC	Wastewater	Can only be used to test wastewater, including influent, pre-treatment effluent, and final effluent	SLV - Proposal 15-114, as approved at the 2023 ISSC Biennial Meeting
Male Specific Coliphage for Shellfish Meats	MSC	Oysters, Hard Clams, Soft Clams	Can only be used to test shellfish from areas impacted by wastewater treatment plant outfalls or sewage spills	SLV Oysters/Soft Clams - Proposal 05-114, as approved at the 2009 ISSC Biennial Meeting SLV Hard Clams - Proposal 13-120, as approved at the 2013 ISSC Biennial Meeting
MPN Real-time PCR method for pathogenic <i>Vibrio parahaemolyticus</i> detection	<i>Vibrio parahaemolyticus</i> (tdh & trh)	Oysters	For reopening of growing areas closed as a result of V.p. illnesses	Kinsey TP, Lydon KA, Bowers JC, Jones JL. (2015). Effects of Dry Storage and Resubmersion of Oysters on Total <i>Vibrio vulnificus</i> and Total and Pathogenic (tdh+/trh+) <i>Vibrio parahaemolyticus</i> Levels. <i>J Food Prot.</i> 78(8):1574-80. SLV - Proposal 15-111, approved at the 2015 ISSC Biennial Meeting
MPN Real-time PCR method for total <i>Vibrio parahaemolyticus</i> detection	<i>Vibrio parahaemolyticus</i> (tlh)	Oysters	For reopening of growing areas closed as a result of V.p. illnesses	Kinsey TP, Lydon KA, Bowers JC, Jones JL. (2015). Effects of Dry Storage and Resubmersion of Oysters on Total <i>Vibrio vulnificus</i> and Total and Pathogenic (tdh+/trh+) <i>Vibrio parahaemolyticus</i> Levels. <i>J Food Prot.</i> 78(8):1574-80. SLV - Proposal 15-113, approved at the 2015 ISSC Biennial Meeting
Alkaline Phosphatase Probe method for <i>Vibrio parahaemolyticus</i> detection	<i>Vibrio parahaemolyticus</i> (tlh, tdh)	All Shellfish	For reopening of growing areas closed as a result of V.p. illnesses.  This method only tests for tlh and tdh, it does not test for trh; NSSP Model Ordinance requires both tdh and trh results for reopening.	Direct Plating Procedure for the Enumeration of Total and Pathogenic <i>Vibrio parahaemolyticus</i> in Oyster Meats. David W. Cook, Angelo DePaola, and Susan A. McCarthy, Published by the ISSC in 1999  Bacteriological Analytical Manual United States Food and Drug Administration Chapter 9, Procedures, Other <i>Vibrios</i> - <i>V. parahaemolyticus</i> - A(1-2) & B(4)

Application: Controlled Relaying				
Method Name	Indicator	Approved Matrix Categories	Limitations and Conditions of Use	Source Method Reference
Multiple Tube Fermentation Technique for Seawater or Shellfish (APHA Decimal Dilution MPN)	Fecal Coliforms	All Shellfish	None	American Public Health Association (APHA). 1970. <i>Recommended Procedures for the Examination of Sea Water and Shellfish</i> , 4th Edition. APHA; Media: pp. 8-15, Method: pp. 40-46
Male Specific Coliphage for Shellfish Meats	MSC	Oysters, Hard Clams, Soft Clams	Can only be used to test shellfish from areas impacted by wastewater treatment plant outfalls or sewage spills	SLV Oysters/Soft Clams - Proposal 05-114, as approved at the 2009 ISSC Biennial Meeting SLV Hard Clams - Proposal 13-120, as approved at the 2013 ISSC Biennial Meeting

**Application: Wet Storage**

Method Name	Indicator	Approved Matrix Categories	Limitations and Conditions of Use	Source Method Reference
Multiple Tube Fermentation Technique for UV treated process water (10-tube, 10 mL portions, single dilution MPN)	Total Coliforms	Seawater	UV Treated Seawater Only; Single Dilution, Ten Tubes, 10-mL of sample in each tube	American Public Health Association (APHA). 1992. <i>Standard Methods for the Examination of Water and Wastewater</i> , 18th Edition. APHA/AWWA/WEF; 9221 - Multiple Tube Fermentation Technique for Members of the Coliform Group; pp. 9-45 - 9-51
Membrane Filtration Technique for UV Treated Process Water using mEndo Agar LES	Total Coliforms	Seawater	UV Treated Seawater Only	American Public Health Association (APHA). 1998. <i>Standard Methods for the Examination of Water and Wastewater</i> , 20th Edition. APHA/AWWA/WEF; 9222B - Standard Total Coliform Membrane Filter Procedure  SLV - Proposal 11-111, as approved at the 2011 ISSC Biennial Meeting
Nephelometer Turbidity	Turbidity	Seawater	UV Treated Seawater Only; Method is not evaluated	American Public Health Association (APHA). 1970. <i>Recommended Procedures for the Examination of Sea Water and Shellfish</i> , 4th Edition. APHA.

**Application: Depuration**

Method Name	Indicator	Approved Matrix Categories	Limitations and Conditions of Use	Source Method Reference
Multiple Tube Fermentation Technique for UV treated process water (10-tube, 10 mL portions, single dilution MPN)	Total Coliforms	Seawater	UV Treated Seawater Only	American Public Health Association (APHA). 1992. <i>Standard Methods for the Examination of Water and Wastewater</i> , 18th Edition. APHA/AWWA/WEF; 9221 - Multiple Tube Fermentation Technique for Members of the Coliform Group; pp. 9-45 - 9-51
Membrane Filtration Technique for UV Treated Process Water using mEndo Agar LES	Total Coliforms	Seawater	UV Treated Seawater Only	American Public Health Association (APHA). 1998. <i>Standard Methods for the Examination of Water and Wastewater</i> , 20th Edition. APHA/AWWA/WEF; 9222B - Standard Total Coliform Membrane Filter Procedure  SLV - Proposal 11-111, as approved at the 2011 ISSC Biennial Meeting
Multiple Tube Fermentation Technique for Shellfish Meats (APHA Decimal Dilution MPN)	Fecal Coliforms	All Shellfish	Zero Hour Shellfish Only	American Public Health Association (APHA). 1970. <i>Recommended Procedures for the Examination of Sea Water and Shellfish</i> , 4th Edition. APHA; Media: pp. 8-15, Method: pp. 40-46
Multiple Tube Fermentation Technique for Shellfish Meats (12-tube single dilution MPN)	Fecal Coliforms	All Shellfish	End Product Shellfish Only	National Shellfish Sanitation Program Guide for the Control of Molluscan Shellfish Section VIII - FDA Manual of Interpretations, Interpretation # 23-III-@.02-100
Elevated Temperature Coliform Plate Method for Clams	Fecal Coliforms	Hard Clams, Soft Clams	None	Cabelli VJ, Heffernan WP. (1970). Accumulation of <i>Escherichia coli</i> by the Northern Quahaug. <i>Applied Microbiology</i> . 19(2).
Male Specific Coliphage for Shellfish Meats	MSC	Oysters, Hard Clams, Soft Clams	Can only be used to test shellfish from areas impacted by wastewater treatment plant outfalls or sewage spills	SLV Oysters/Soft Clams - Proposal 05-114, as approved at the 2009 ISSC Biennial Meeting  SLV Hard Clams - Proposal 13-120, as approved at the 2013 ISSC Biennial Meeting

**Application: Post Harvest Processing Samples**

Method Name	Indicator	Approved Matrix Categories	Limitations and Conditions of Use	Source Method Reference
<i>Vibrio</i> MPN (with biochemical or Probe Confirmation)	<i>Vibrio vulnificus</i>	All Shellfish	For confirmation, may use method described in BAM, method described in Wright et al, or additional method that Laboratory can demonstrate is equivalent.	Bacteriological Analytical Manual, United States Food and Drug Administration, Chapter 9, Procedures, Other <i>Vibrios</i> - <i>V. vulnificus</i> - A(1-4) & B(1-3)  Wright et al., (1993). Rapid identification of <i>Vibrio vulnificus</i> on nonselective media with an alkaline phosphatase-labeled oligonucleotide probe. <i>Appl Environ Microbiol</i> 59: 541–546.
<i>Vibrio</i> MPN (with biochemical or Probe Confirmation)	<i>Vibrio parahaemolyticus</i>	All Shellfish	For confirmation, may use method described in BAM, method described in McCarthy et al, or additional method that Laboratory can demonstrate is equivalent.	Bacteriological Analytical Manual, United States Food and Drug Administration, Chapter 9, Procedures, Other <i>Vibrios</i> - <i>V. parahaemolyticus</i> - A(1-5) & B(1)  McCarthy SA, DePaola A, Cook DW, Kaysner CA, Hill WE. (1999). Evaluation of alkaline phosphatase- and digoxigenin-labelled probes for detection of the thermolabile hemolysin (tlh) gene of <i>Vibrio parahaemolyticus</i> . <i>Lett Appl Microbiol.</i> Jan;28(1):66-70.
<i>Vibrio</i> MPN (with PCR Confirmation)	<i>Vibrio parahaemolyticus</i>	All Shellfish	Following method described in BAM and in Bej et al, or additional method that Laboratory can demonstrate is equivalent.	Bej AK, Patterson DP, Brasher CW, Vickery MC, Jones DD, Kaysner CA. (1999). Detection of total and hemolysin-producing <i>Vibrio parahaemolyticus</i> in shellfish using multiplex PCR amplification of tl, tdh and trh. <i>J Microbiol Methods.</i> Jun;36(3):215-25.  Bacteriological Analytical Manual United States Food and Drug Administration Chapter 9, Procedures, Other <i>Vibrios</i> - <i>V. parahaemolyticus</i> - A(1-5) & B(4a11)
MPN Real-time PCR method for pathogenic <i>Vibrio parahaemolyticus</i> detection	<i>Vibrio parahaemolyticus</i> (tdh & trh)	Oysters	None	Kinsey, Thomas P., Lydon, Keri A., Bowers, John C., Jones, Jessica L. (2015). Effects of Dry Storage and Resubmersion of Oysters on Total <i>Vibrio vulnificus</i> and Total and Pathogenic (tdh+/trh+) <i>Vibrio parahaemolyticus</i> Levels, <i>Journal of Food Protection</i> , 78(8). Pages 1574-1580.  SLV - Proposal 15-111, as approved at the 2015 ISSC Biennial Meeting
MPN Real-time PCR method for total <i>Vibrio parahaemolyticus</i> detection	<i>Vibrio parahaemolyticus</i> (tlh)	Oysters	None	Kinsey, Thomas P., Lydon, Keri A., Bowers, John C., Jones, Jessica L. (2015). Effects of Dry Storage and Resubmersion of Oysters on Total <i>Vibrio vulnificus</i> and Total and Pathogenic (tdh+/trh+) <i>Vibrio parahaemolyticus</i> Levels, <i>Journal of Food Protection</i> , 78(8). Pages 1574-1580.  SLV - Proposal 15-113, as approved at the 2015 ISSC Biennial Meeting
MPN Real-time PCR method for <i>Vibrio vulnificus</i> detection	<i>Vibrio vulnificus</i>	Oysters	None	Kinsey, Thomas P., Lydon, Keri A., Bowers, John C., Jones, Jessica L. (2015). Effects of Dry Storage and Resubmersion of Oysters on Total <i>Vibrio vulnificus</i> and Total and Pathogenic (tdh+/trh+) <i>Vibrio parahaemolyticus</i> Levels, <i>Journal of Food Protection</i> , 78(8), Pages 1574-1580.  SLV - Proposal 19-126, as approved at the 2019 ISSC Biennial Meeting

## Biotoxin Methods

<b>Application: Growing Area Management (Strategy B: Routine Shellfish Toxicity Monitoring)</b>				
<b>Method Name</b>	<b>Biotoxin Type</b>	<b>Approved Matrix Categories</b>	<b>Limitations and Conditions of Use</b>	<b>Source Method Reference</b>
Paralytic Shellfish Toxins (PSP) by Mouse Bioassay Neurotoxic Shellfish Toxins (NSP) by Mouse Bioassay	PSP, NSP	All Shellfish	None	American Public Health Association (APHA). 1970. <i>Recommended Procedures for the Examination of Sea Water and Shellfish</i> , 4th Edition. APHA; For PSP - pp. 57-61 For NSP - pp. 61-65
Paralytic Shellfish Toxins (PSP) by Receptor Binding Assay	PSP	Mussels	None	SLV - Proposal 13-114, as approved at the 2013 ISSC Biennial Meeting
Paralytic Shellfish Toxins (PSP) by Receptor Binding Assay	PSP	Hard Clams, Scallops	Results can only be used for screening and precautionary closures	SLV - Proposal 13-114, as approved at the 2013 ISSC Biennial Meeting
Paralytic Shellfish Toxins (PSP) by HPLC-PCOX	PSP	Mussels, Soft-shell Clams, Oysters, Scallops	None	SLV - Proposal 09-104, as approved at the 2009 ISSC Biennial Meeting
Diarrhetic Shellfish Toxins (DSP) by LC MS/MS	DSP	Hard Clams	None	SLV - Proposal 17-103, as approved at the 2017 ISSC Biennial Meeting
Amnesic Shellfish Toxins (domoic acid, ASP) by HPLC-UV	ASP	All Shellfish	None	Quilliam, Michael A., Xie, Mie, Hardstaff, William R. (1995). Rapid Extraction and Cleanup for Liquid Chromatographic Determination of Domoic Acid in Unsalted Seafood, <i>Journal of AOAC International</i> , 78(2). Pages 543–554.
<del>Paralytic Shellfish Toxins (PSP) by Scotia Rapid Test<sup>1</sup></del>	<del>PSP</del>	<del>All Shellfish</del>	<del>a) Negative result can be used to maintain an area in the open status b) In an area that is in a closed status, method can be used as a screen to determine when to perform a Mouse Bioassay (i.e., reduce MBA use for samples that test positive by SRT) c) In an area in the open status, positive result shall be used for a precautionary closure.</del>	<del>SLV - Proposal 03-116, as approved at the 2003 ISSC Biennial Meetings SLV - Proposal 05-110, as approved at the 2005 ISSC Biennial Meetings</del>
<del>Amnesic Shellfish Toxins (domoic acid, ASP) by Reveal 2.0<sup>2</sup></del>	<del>ASP</del>	<del>Oysters, Hard Clams, Mussels</del>	<del>Results can only be used for screening and precautionary closures</del>	<del>SLV - Proposal 13-112, as approved at the 2013 ISSC Biennial Meeting</del>
Neurotoxic Shellfish Toxins (Brevetoxins, NSP) by MARBIONC ELISA	NSP	Oysters, Hard Clams	A negative result ( $\leq 1.6$ ppm for hard clams, $\leq 1.8$ ppm for oysters) can be used to support reopening of a growing area that was placed in the closed status.  A positive result ( $> 1.6$ ppm for hard clams, $> 1.8$ ppm for oysters) requires additional testing by Mouse Bioassay, or can be used to support the same management decision as a failed Mouse Bioassay result (i.e., the area remains closed to harvest).	SLV - Proposal 17-107, as approved at the 2017 ISSC Biennial Meeting

<sup>1</sup> Proposal 27-102: Request to rescind Scotia Rapid Test received Interim Approval on October 15, 2025

<sup>2</sup> Proposal 27-101: Request to rescind Reveal 2.0 received Interim Approval on October 15, 2025

Application: Pre-Harvest Shellfish Toxicity Testing (Strategy C)				
Method Name	Biotoxin Type	Approved Matrix Categories	Limitations and Conditions of Use	Source Method Reference
Paralytic Shellfish Toxins (PSP) by Mouse Bioassay Neurotoxic Shellfish Toxins (NSP) by Mouse Bioassay	PSP, NSP	All Shellfish	None	American Public Health Association (APHA). 1970. <i>Recommended Procedures for the Examination of Sea Water and Shellfish</i> , 4th Edition. APHA; For PSP - pp. 57-61 For NSP - pp. 61-65
Paralytic Shellfish Toxins (PSP) by Receptor Binding Assay	PSP	Mussels	None	SLV - Proposal 13-114, as approved at the 2013 ISSC Biennial Meeting
Paralytic Shellfish Toxins (PSP) by HPLC-PCOX	PSP	Mussels, Soft-shell Clams, Oysters, Scallops	None	SLV - Proposal 09-104, as approved at the 2009 ISSC Biennial Meeting
Diarrhetic Shellfish Toxins (DSP) by LC MS/MS	DSP	Hard Clams	None	SLV - Proposal 17-103, as approved at the 2017 ISSC Biennial Meeting
Amnesic Shellfish Toxins (domoic acid, ASP) by HPLC-UV	ASP	All Shellfish	None	Quilliam, Michael A., Xie, Mie, Hardstaff, William R. (1995). Rapid Extraction and Cleanup for Liquid Chromatographic Determination of Domoic Acid in Unsalted Seafood, <i>Journal of AOAC International</i> , 78(2). Pages 543–554.
Neurotoxic Shellfish Toxins (Brevetoxins, NSP) by MARBIONC ELISA	NSP	Oysters, Hard Clams	A negative result ( $\leq 1.6$ ppm for hard clams, $\leq 1.8$ ppm for oysters) can be used for management decisions for shellfish toxicity testing. A positive result ( $> 1.6$ ppm for hard clams, $> 1.8$ ppm for oysters) requires additional testing by Mouse Bioassay, or can be used to support the same management decision as a failed Mouse Bioassay result (i.e., the area remains closed to harvest).	SLV - Proposal 17-107, as approved at the 2017 ISSC Biennial Meeting

Application: Shellfish Lot Testing (Strategy D)				
This strategy can be used when growing areas are in controlled access status.				
Method Name	Biotoxin Type	Approved Matrix Categories	Limitations and Conditions of Use	Source Method Reference
Paralytic Shellfish Toxins (PSP) by Mouse Bioassay Neurotoxic Shellfish Toxins (NSP) Mouse Bioassay	PSP, NSP	All Shellfish	None	American Public Health Association (APHA). 1970. <i>Recommended Procedures for the Examination of Sea Water and Shellfish</i> , 4th Edition. APHA; For PSP - pp. 57-61 For NSP - pp. 61-65
Paralytic Shellfish Toxins (PSP) by Receptor Binding Assay	PSP	Mussels	None	SLV - Proposal 13-114, as approved at the 2013 ISSC Biennial Meeting
Paralytic Shellfish Toxins (PSP) by HPLC-PCOX	PSP	Mussels, Soft-shell Clams, Oysters, Scallops	None	SLV - Proposal 09-104, as approved at the 2009 ISSC Biennial Meeting
Diarrhetic Shellfish Toxins (DSP) by LC MS/MS	DSP	Hard Clams	None	SLV - Proposal 17-103, as approved at the 2017 ISSC Biennial Meeting
Amnesic Shellfish Toxins (domoic acid, ASP) by HPLC-UV	ASP	All Shellfish	None	Quilliam, Michael A., Xie, Mie, Hardstaff, William R. (1995). Rapid Extraction and Cleanup for Liquid Chromatographic Determination of Domoic Acid in Unsalted Seafood, <i>Journal of AOAC International</i> , 78(2). Pages 543–554.
Neurotoxic Shellfish Toxins (Brevetoxins, NSP) by MARBIONC ELISA	NSP	Oysters, Hard Clams	A negative result ( $\leq 1.6$ ppm for hard clams, $\leq 1.8$ ppm for oysters) can be used for management decisions for lot testing. A positive result ( $> 1.6$ ppm for hard clams, $> 1.8$ ppm for oysters) requires additional testing by Mouse Bioassay, or can be used to support the same management decision as a failed Mouse Bioassay result (i.e., the product is not released).	SLV - Proposal 17-107, as approved at the 2017 ISSC Biennial Meeting

**Application: Pre-Harvest Shellfish Toxicity Screening and Lot Testing (Strategy E: formerly Onboard Screening/Dockside Testing Program)**

These strategies can be used when growing areas are in controlled access status.

Method Name	Biotoxin Type	Approved Matrix Categories	Limitations and Conditions of Use	Source Method Reference
Paralytic Shellfish Toxins (PSP) by Abraxis Shipboard ELISA	PSP	Hard Clams	Pre-harvest screening only; Method can only be used in conjunction with the extraction method described in Proposal 05-111, and only as part of the onboard screening/dockside testing program in the Northeast Region.	Extraction SLV - Proposal 05-111, as approved at the 2011 ISSC Biennial Meeting Method SLV - Proposal 09-107, as approved at the 2011 ISSC Biennial Meeting
<del>Paralytic Shellfish Toxins (PSP) by Scotia Rapid Test<sup>1</sup></del>	<del>PSP</del>	<del>All Shellfish</del>	<del>Pre-harvest screening only</del>	<del>SLV - Proposal 03-116, as approved at the 2003 ISSC Biennial Meetings SLV - Proposal 05-110, as approved at the 2005 ISSC Biennial Meetings</del>
<del>Amnesic Shellfish Toxins (domoic acid, ASP) by Reveal 2.0<sup>2</sup></del>	<del>ASP</del>	<del>Oysters, Hard Clams, Mussels</del>	<del>Pre-harvest screening only</del>	<del>SLV - Proposal 13-112, as approved at the 2013 ISSC Biennial Meeting</del>
Paralytic Shellfish Toxins (PSP) by Receptor Binding Assay	PSP	Hard Clams, Scallops	Pre-harvest screening only	SLV - Proposal 13-114, as approved at the 2013 ISSC Biennial Meeting
Paralytic Shellfish Toxins (PSP) by Receptor Binding Assay	PSP	Mussels	Pre-harvest screening and lot testing	SLV - Proposal 13-114, as approved at the 2013 ISSC Biennial Meeting
Neurotoxic Shellfish Toxins (Brevetoxins, NSP) by MARBIONC ELISA	NSP	Oysters, Hard Clams	Pre-harvest screening and lot testing	SLV - Proposal 17-107, as approved at the 2017 ISSC Biennial Meeting
Paralytic Shellfish Toxins (PSP) by Mouse Bioassay Neurotoxic Shellfish Toxins (NSP) Mouse Bioassay	PSP, NSP	All Shellfish	Pre-harvest screening and lot testing	American Public Health Association (APHA). 1970. <i>Recommended Procedures for the Examination of Sea Water and Shellfish</i> , 4th Edition. APHA; For PSP - pp. 57-61 For NSP - pp. 61-65
Paralytic Shellfish Toxins (PSP) by HPLC-PCOX	PSP	Mussels, Soft-shell Clams, Oysters, Scallops	Pre-harvest screening and lot testing	SLV - Proposal 09-104, as approved at the 2009 ISSC Biennial Meeting
Diarrhetic Shellfish Toxins (DSP) by LC MS/MS	DSP	Hard Clams	Pre-harvest screening and lot testing	SLV - Proposal 17-103, as approved at the 2017 ISSC Biennial Meeting
Amnesic Shellfish Toxins (domoic acid, ASP) by HPLC-UV	ASP	All Shellfish	Pre-harvest screening and lot testing	Quilliam, Michael A., Xie, Mie, Hardstaff, William R. (1995). Rapid Extraction and Cleanup for Liquid Chromatographic Determination of Domoic Acid in Unsalted Seafood, <i>Journal of AOAC International</i> , 78(2). Pages 543-554.

<sup>1</sup> Proposal 27-102: Request to rescind Scotia Rapid Test received Interim Approval on October 15, 2025

<sup>2</sup> Proposal 27-101: Request to rescind Reveal 2.0 received Interim Approval on October 15, 2025