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ENVIRONMENTAL PROTECTION

WATER RESOURCE MANAGEMENT

Shellfish Growing Water Classification Rules

Adopted Recodification with Amendment: N.J.A.C. 7:12-9.4 as 9.7

Adopted Repeals and New Rules: N.J.A.C. 7:12-5.1, 9.2, 9.3, 9.5, 9.11, 9.12, and 9.13

Adopted New Rules: N.J.A.C. 7:12-8, 9.4, 9.14, and 9.15

Adopted Amendments: N.J.A.C. 7:12-1.1, 1.2, 1.4, 1.5, 2.1, 3.2, 4.1, 4.2, 7, 9.1, 9.7, 9.8, and 9.10

Adopted Repeals: N.J.A.C. 7:12-1.3, 2.2, 3.1, 9.6, and 9.9

Proposed: November 16, 2015, at 47 N.J.R. 2697(a).

Adopted: August 17, 2016, by Bob Martin, Commissioner, Department of Environmental Protection.

Filed: August 25, 2016, as R.2016 d.115, **with non-substantial changes** not requiring additional notice or public comment (see N.J.A.C. 1:30-6.3).

Authority: N.J.S.A. 2C:64-1 et seq., 4:27-1 et seq., 13:1D-9, 23:2B-1 et seq., 50:1-5 et seq., and 58:24-1 et seq.

DEP Docket Number: 11-15-10.

Effective Date: September 19, 2016.

Expiration Date: April 10, 2022.

The Department of Environmental Protection (Department) is adopting amendments, repeals, and new rules to the Shellfish Growing Water Classification rules at N.J.A.C. 7:12, to

bring the rules into conformance with current National Shellfish Sanitation Program (NSSP) standards, add new permits for various growing and harvesting activities, amend and update existing permits, modify the delineations of the various classifications of the State's shellfish growing waters to reflect the most current sanitary water quality testing data, and update and streamline the rules generally.

Summary of Public Comments and Agency Responses:

The Department accepted comments on the notice of proposal through January 15, 2016. The following persons timely submitted written comments on the proposal:

1. Acquafredda, Dan
2. Alderson, Carl
3. Anderson, Arthur
4. Andrzejczak, Bob, New Jersey Assemblyman, 1st District, joined by: Jeff Van Drew, New Jersey Senator, 1st District
5. Armm, Edward
6. Avery, William
7. Bailey, Scott, NJ Shellfisheries Council, Delaware Bay Section
8. Blumenthal, Becky, Berkeley Carroll School
9. Bowes, Michael, Hackensack Riverkeeper
10. Burke, Thomas, Sloop Point Oyster Co.
11. Butler, Betty
12. Butto, Eric, New Jersey League of Conservation Voters
13. Calvo, Lisa, Haskin Shellfish Research Laboratory, Rutgers University

14. Canright, Rebecca
15. Casagrande, Margaret
16. Chismar, Nancy
17. DAmato, Russ
18. de Castro, Brian, New Jersey League of Conservation Voters
19. De Luca, Michael, New Jersey Agricultural Experiment Station, Rutgers University,
joined by: Dave Bushek, Haskin Shellfish Research Laboratory, Rutgers University
20. Delaney, Thomas
21. DeWitt, Joel
22. Dresdner, Katherine, New Jersey League of Conversation Voters
23. Drumm, Philip
24. Elkin, James
25. Elkins, Willis, Newtown Creek Alliance
26. Elms, Wade
27. English, Beverly, NY/NJ Baykeeper
28. Fall, Fred
29. Feil, Marvin
30. Feldberg, Sharon
31. Fenyk, Heather, Lower Raritan Watershed Partnership
32. Ferrell, Meg
33. Finnegan, Robert
34. Flimlin, Gef, Commercial Fisheries and Aquaculture, Rutgers Cooperative Extension
35. Fox, Patsy

36. Frega, Doreen
37. Garrison, Margo
38. Gioseffi, Edith
39. Gochfeld, Linda
40. Gore, Uta
41. Gorski, Stan
42. Grant, Joyce
43. Great Bay Oyster, LLC
44. Green, Jonathan
45. Greenstein, Ana
46. Gregg, Matt, Forty North Oysters
47. Gregg, Robert, Keyport Yacht Club
48. Hall, Janice
49. Hanan, Eric
50. Hauck, Karen
51. Jeffrey, Paul
52. Kaban, Amy
53. Kappes, Leslie
54. Karameros, Ludmila
55. Kavanaugh, Dennis, Sandy Hook Waterman's Alliance
56. Kofman, Boris
57. Kornoelije, Joanne
58. Kostik, Peter

59. Leshak, Andrea, Staff Attorney, NY/NJ Baykeeper and Hackensack Riverkeeper,
joined by: Deborah A. Mans, Baykeeper and Executive Director, NY/NJ Baykeeper;
Meredith Comi, Oyster Program Director, NY/NJ Baykeeper; and Captain Bill
Sheehan, Riverkeeper and Executive Director, Hackensack Riverkeeper
60. Levinton, Jeffery, Distinguished Professor, Stony Brook University
61. Lyon, Leonard
62. Martinez, Edith
63. Massoni, Sheila
64. Maxwell, John
65. Maxwell, John, on behalf of the New Jersey Shellfisheries Council, Atlantic Coast
Section
66. McConnell, Ellen
67. McKeefry, Paul
68. Mehrkens, Norbert
69. Mickley, Mitch
70. Miller, Marilyn
71. Moffatt, George
72. Morgginstin, Harvey, Passaic River Boat Club
73. Muller, Hetty, Hackensack Riverkeeper
74. Nelson, Russel, Riverkeeper
75. New Jersey League of Conservation Voters on behalf of 666 individuals
76. Ni, Tony
77. Ott, Edward

78. Pumphrey, Eugene
79. Reilly, Joseph, New York City Parks Department
80. Reskakis, George
81. Revesz, Mr. and Mrs. Bruce
82. Rose, John
83. Saad, Dayle
84. Sandler, Jay
85. Savacool, Rich
86. Schpok, Irwin
87. Scott-Harris, Nicole
88. Shaw, Judy
89. Shibla, Julia
90. Sileo, Thomas
91. Slaman, Ray
92. Soja, Anita
93. Solomeno, Vincent
94. Sporkin, David
95. Steimle, Frank, American Littoral Society and NY/NJ Baykeeper
96. Urbsaitis, Janice, New Jersey League of Conservation Voters
97. Vanstrien, R.
98. Vasslides, James, Barnegat Bay Partnership
99. Walker, Carol
100. Wechselblatt, Marylin

101. Wells, Thomas, The Nature Conservancy
102. Wenczel, Amanda, New Jersey Aquaculture Advisory Council
103. White, Dawne
104. Windeknecht, Adrienne
105. Wishner, Frederick B., Hofstra University
106. Woodruff, Carol
107. Zipf, Cindy, Executive Director, Clean Ocean Action, joined by:
Zachary Lees, Ocean and Coastal Policy Attorney, Clean Ocean Action
108. The following 130 people submitted an identical form letter:
Acquafredda, Michael
Artzt, Alice
Aulm, Calvin
Banks, Preston
Barrett, Kirk
Basralian, Joe
Blackwell, Marcia
Blades, Brian, NY/NJ Baykeeper
Block, Iris
Bol, Carolee
Boren, Frank
Boxley, Sharon
Brincka, Frank A.
Brown, Ryan

Bucci, Suzin
Cadden, Frank
Cahill, William
Campbell, David
Canright, Winifred
Canright, Lois
Canright, Mark
Carola, Hugh
Carter, Illia
Casagrande, Margaret
Celentano, Maria
Celeste, Loreen
Chase Jr, Theodore
Chester, Claire
Choi, Kelly
Comi, Meredith, NY/NJ Baykeeper
Crelin, Julianne
D'Amico, John, Chairman, NY/NJ Baykeeper Trustee Board
Decker, Julian
DeMarco, Meredith
DiMartino, William
Dzubak, Cheryl
Edmundson, Melinda

Eidman, Paul, Anglers Conservation Network

English, John

Evans, Michael W.

Evans Farkas, Dan, Hackensack Riverkeeper

Ferara, Eileen

Gfrorer, John

Gigon, Robert

Glazer, Gertrude

Golze Desmond, Lena

Goodrich, Russell

Grabowski, Thomas, NY/NJ Baykeeper

Green, Joan

Green, Don

Grillo, Audrey

Grillon, Brett

Hamersky, Steve

Handel, Rob

Hansen, Alex

Hansen, Christian

Hansen, Amy

Haut, Nathalie

Hengesbaugh, Matt

Hunt, Catherine

Jarvis, Maggie
Johanson, Erica
Johnson, Kenneth W.
Kachadoorian, Nicole
Kelly, Brian
Kelly, Mary, Hoboken Quality of Life Coalition, Inc.
Kitze, Annette
Kostis, Steven
Lauer, Rich
Lavender, David
Lytle, Denise
Marshall, Stephen
Matusaitis, Vita
McBride, Timothy
McClure, Stephanie
McCullough, Daniel
Meyers, Paul
Morgado, Sylvana
Morris, Jeremy
Morris, Carrington
Mosher-Smith, Katie
Murakami, Maki
Olle, Stephanie

Ortiz, C.
Patel, Alpa
Paul, Caroline
Person, Wayne
Pesin, Sam, Friends of Liberty State Park
Petrosillo, Jeff
Pilato, Benjamin
Pitzer, Ted
Popolizio, R. John
Puzzo, Frank L.
Puzzo, Frank
Raftery, Rita
Ramos, Joann
Ratmeyer, Una
Reynolds, Rebecca
Reynolds, Joseph, Bayshore Regional Watershed Council
Ritter, Daniel, Free the Water Coalition
Roser, James
Rycroft, Steve, Hackensack Riverkeeper
Sarhage, Lorraine, NY/NJ Baykeeper
Sauter, Elizabeth
Schade, Corey
Semple, Robert

Simmons, William
Sobanski, Sandra
Spiegel, Robert, Edison Wetlands Association
Steiner, Cyndi
Stires, Anne
Sverdlove, Ronald
Sytzko, Victor
Tomczyk, James and Joan
Tomczyk, James
Townsend, Lauren
Tucker, Alice
Turner, Ellen
Vogel, Nathalie
Webber, Bonnie, Sierra Club
Weber, Marissa
Weiss, Cynthia Weiss
Wilder, Suzanne
Wilhem, Scot
Woods, Christine
Wright, David
Zarcone, Jennifer
Zarcone, Jen
Zerfis, Alexandra

Zimet, Steve

A summary of the timely submitted comments and the Department's responses follows. The number(s) in parentheses after each comment identifies the commenter(s) listed above.

Public Comment Process

1. COMMENT: More time for submitting comments is requested. (6)

RESPONSE: A 60-day public comment period was provided, consistent with the requirements of the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq. In addition to publication of the notice of proposal in the New Jersey Register, the Department provided notice of the notice of proposal on its website, to media outlets in the Statehouse, by e-mail to the Department's rulemaking listserv, and by press release. Further, the Department conducted extensive stakeholder outreach in developing this notice of proposal. The Department believes there was sufficient opportunity to provide comments and discuss the rulemaking.

2. COMMENT: The Department should hold a public hearing on the notice of proposal. (4, 9, 13, 19, 37, 38, 52, 59, and 108)

RESPONSE: While the Department believes there was sufficient opportunity to provide comments and discuss this particular rulemaking, the Department continues to engage the various shellfish stakeholders, including both the research and restoration interests, as well as the shellfish industry, in reviewing these rules, as well as the overall shellfish statutory and regulatory framework. Importantly, the Department will conduct a public hearing in the context of the community engagement process contemplated by P.L. 2015, c. 237 (S2617) in

the near future. The Department anticipates that this process may produce further changes to shellfish regulation in the State.

Supportive Comments

3. COMMENT: The following improvements to the shellfish rules are supported: the amendments at N.J.A.C. 7:12-1.4(d) including the bacterium *Vibrio vulnificus* along with *Vibrio parahaemolyticus* in the Department's annual risk assessment of illness from consumption of shellfish that the Department conducts; the amendments modifying N.J.A.C. 7:12-1.4(e) to provide that, in addition to the means of notice already specified, any notice of harvest suspension will also be posted on the Bureau of Marine Water Monitoring's website; the new rule and amendments updating permits related to depuration and relay; the amendments modifying the delineations of the various classifications of the State's shellfish growing waters to reflect the most current sanitary water quality testing data; the amendments at N.J.A.C. 7:12-1.4 to match the various shellfish classification terms with those used in the NSSP Guide; the new rule at N.J.A.C. 7:12-9.2 requiring that any person engaged in shellfish hatchery, nursery, and/or aquaculture activities apply for a permit before undertaking these activities; and the new rule at N.J.A.C. 7:12-8.3 requiring that each harvesting vessel have installed an appropriate marine sanitation device and prohibiting the discharging of human waste into shellfish growing waters. (107)

RESPONSE: The Department acknowledges the comment in support of the amendments and new rules.

4. COMMENT: The Department's statements regarding the positive social, economic, and environmental impacts of adding, updating, and streamlining the Shellfish Growing Water Classification rules are supported. The protection, restoration, and enhancement of shellfish resources are a critical component of a vibrant New Jersey coastal environment and economy. Bringing the Department's Shellfish Growing Water Classification rules into conformance with current NSSP standards; adding, amending, and updating existing permits; modifying the delineations of various classifications of the State's shellfish growing waters to reflect the most current sanitary water quality testing data; and updating and streamlining of the rules generally are supported. (101)

RESPONSE: The Department acknowledges this comment in support of the amendments and new rules.

5. COMMENT: The Department's amendment of a Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved is supported. There is hope that this permit will catalyze more programs, projects, and funding aimed at restoring shellfish populations in New Jersey. (19 and 101)
6. COMMENT: The Department's acknowledgement that some areas that are most appropriate for shellfish restoration, due to substrate availability, temperature, salinity, and so on, may also be located in water considered Prohibited for harvest is supported. The Department's willingness to consider shellfish as a tool to improve water quality in degraded waters through natural filtration is also supported. (98)

RESPONSE TO COMMENTS 5 AND 6: The Department acknowledges the comments in support of the Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved, N.J.A.C. 7:12-9.11.

Subchapter 1. General Provisions and Procedures for Classification of Shellfish Waters

7. COMMENT: Any proposed rule that exceeds the standards outlined in the ISSC Model Ordinance guidelines, which are nationally recognized guidelines created through cooperation with the ISSC and state and Federal agencies, shellfish industries, and academic institutions, is not supported. The New Jersey shellfish industry and the State management programs have proved to be exemplary in meeting the ISSC standards, which is reflected in their successful sanitation records. Given that track record, those proposed exceedances are not necessary and in fact will impose undue burden on the shellfish industry. (7)
8. COMMENT: Given that Federal standards are exceeded by the proposed State regulations, the rulemaking should include a Federal standards analysis as specified in Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65). The Department should comply with Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65). (13)

RESPONSE TO COMMENTS 7 AND 8: The Department has complied with the cited requirements regarding the analysis of the new and amended rules and any standards imposed by Federal law. As noted in the Federal Standards Statement in the notice of proposal, the new and amended rules were developed under public health control procedures of the NSSP, which is a cooperative program consisting of the member states, the shellfish industry, and the U.S. Food and Drug Administration. As a shellfish producing State

participating in the NSSP, New Jersey must establish rules consistent with the shellfish sanitary control procedures in the NSSP Guide. The NSSP guide sets minimum requirements.

The new and amended rules were drafted to fit into the existing framework of N.J.A.C. 7:12. As provided at N.J.A.C. 7:12-1.1(k), the individual NSSP Guide provisions become part of N.J.A.C. 7:12 through rulemaking. Where the NSSP Guide provisions lack specificity necessary for implementation, the Department's rules include sufficient detail to ensure that the requirements are clear and enforceable. The Department does so in accordance with the NSSP Guide's requirements that the State's rules be enforceable, as well as the Department's statutory mandates to prohibit the taking of shellfish from condemned places without a permit, N.J.S.A. 58:24-3, to exercise full control and direction of the shellfish industry and resource in consultation with the appropriate bodies, N.J.S.A. 50:1-5, and to fulfill its responsibilities as the lead State agency with respect to regulation of aquaculture activities in the waters of the State, N.J.S.A. 4:27-6.

9. COMMENT: Unlike other coastal states with streamlined management systems that support robust shellfish aquaculture industries, New Jersey has relied upon a complex patchwork of regulations and laws not specifically designed for shellfish aquaculture. This patchwork runs counter to the directives of the New Jersey Aquaculture Development Act of 1997. The proposed changes to N.J.A.C. 7:12 place additional, unnecessary regulations on the industry, researchers, and others working with shellfish. In many cases, the proposed changes duplicate existing requirements. The proposed changes to the rules will have negative economic impacts on this nascent industry that has so much potential to expand, create new

economic benefits and jobs, and provide much needed environmental benefits to New Jersey coastal waters and habitats. Rather than impose additional restrictions on the industry, an industry that has a strong track record in ensuring that shellfish are safe for human consumption, the Department should adopt the NSSP Guide, an existing Federal guidance document that many states have adopted in its entirety to protect public health. The NSSP guide contains a rigorous set of national standards and practices in the form of a Model Ordinance. The proposed new rules unnecessarily exceed these national standards, complicate the existing State regulatory framework further, and will stifle development of this beneficial green industry. (19)

10. COMMENT: The proposed rules create a patchwork fix that adds additional permits and misplaces the authority for aquaculture, an agricultural pursuit, in the Department of Environmental Protection and presents an overburdening approach to governing shellfish aquaculture. Existing permits, leases, and licensing for aquaculture include: Shellfish Lease, Tidelands License, Land Use Permit, Aquatic Farmers License, Commercial Shellfish License, as well as Federal permit from the U.S. Army Corps of Engineers and, finally for some, a Shellfish Shipper Certification. The proposed rules will add Consolidated Application Permit, and Shellfish Aquaculture Permit, and for some persons, Hatchery and Nursery, Seed, Relay, and Transplant permits. This confusing and cumbersome suite of permits presents duplicative permissions and fees and an even more challenging system to navigate, which could increase the likelihood of inadvertent non-compliance. Compliance would best be fostered by clear and reasonable regulations and permits presented under a single authority, preferably the Department of Agriculture or the Bureau of Shellfisheries in the Department of Environmental Protection.

The State should develop a single shellfish aquaculture permit, accompanied by a joint permitting process and associated memoranda of agreement with the necessary regulating and enforcement authorities. This would clarify and streamline the permit process, reduce confusion for both regulators and industry members, promote compliance, reduce red tape, and promote industry growth. (13)

RESPONSE TO COMMENTS 9 AND 10: The Department recognizes the need to streamline and update shellfish statutes, permits, and rules, but this cannot be accomplished only through revisions to the Shellfish Growing Water Classification Rules at N.J.A.C. 7:12. Prior to and throughout this rulemaking process, the Department discussed the changes to these rules with representatives from the Department of Health, the Department of Agriculture, the Aquaculture Advisory Council, and the Shellfisheries Council. In implementing the rules as revised, the Department will coordinate with other agencies when feasible, and will work toward the goal of streamlining and updating shellfish statutes, rules, and permits; these adopted rule changes are the first step.

As explained in the Economic Impact and Jobs Impact statements in the notice of proposal, the Department anticipates that the rules will have an overall positive economic impact on the shellfish industry and will result in the net generation or continuation of jobs. For the aquaculture industry in particular, the Commercial Shellfish Aquaculture Permit will ensure New Jersey's compliance with the requirements of the NSSP Guide and, by doing so, will allow persons in aquaculture to continue and possibly expand their aquaculture activities in the State.

The Department anticipates that the cost to the regulated industry to comply with the rules will be low. Most of the required recordkeeping and planning is already part of the best

management practices for the industry. Additional costs may include the establishment of an operational plan, which while new to the Department's rules, is not new to the State's aquaculturists. An operational plan is required as part of the Department of Agriculture's Aquatic Farmer License, which most aquaculturists have already obtained. The Department of Agriculture's Office of Aquaculture Coordination, as well as the Department of Environmental Protection's Bureau of Marine Water Monitoring, will provide assistance in completing operational plans.

11. COMMENT: The recordkeeping and inspection provisions do not appear reasonable in that they greatly exceed that which is necessary for safety. The change for unannounced inspections at any time or place seems unnecessary and confrontational. The shellfish industry in New Jersey by and large fully understands that protection of the public from foodborne illness is necessary to maintain growth and sustain profitability. Allowing government agents to have unbridled discretion regarding inspections is unreasonable and unnecessary and can only lead to undue conflict. The Department should revise these rules. Similarly, while recordkeeping is undoubtedly important to protect the industry and growers, the proposed regulations impose an excessive burden out of proportion to any benefit that may be achieved. (10)
12. COMMENT: The Department is proposing a provision stating its authority to inspect any record being kept under these rules. Under what conditions can inspection occur (when, where, and with what notification)? These conditions should be reasonable and explained. (13)

RESPONSE TO COMMENTS 11 AND 12: Under N.J.S.A. 58:24-7, the Department has access to all places where shellfish are grown, stored, and possessed with intent to distribute or sell. The Department recognizes it is important that inspections be conducted at a time and in a manner that does not unduly disrupt the industry. As for records, under N.J.S.A. 23:2B-9 the Department may inspect required records at a reasonable time. N.J.A.C. 7:12-1.1 incorporates the tenets of these statutes in the rules.

13. COMMENT: The proposed rule Summary states, “The definition of ‘Department maintained markers’ is modified to update the terminology referring to the Department and shellfish growing waters.” There is no new status; Department maintained markers are the ones the Department is putting out marking prohibited areas. (6)

RESPONSE: The commenter is correct in that the changes to the definition do not affect how the Department maintained markers are used. The markers indicate the boundaries of the shellfish growing water areas.

14. COMMENT: Seed is defined for a limited number of species. The Department should adopt provisions for allowing cultivation of additional species, thereby enabling innovation with respect to the commercialization of species that are not traditionally cultivated. Efforts to culture surf clams and ribbed mussels are under way. (13)

RESPONSE: As explained in the Summary of the notice of proposal, in the definition of “seed,” the shellfish seed sizes are established based on the known growth rate for each species in order to ensure that the minimum six-month grow-out in Approved waters will have occurred before the shellfish are harvested for market. If adequate information

regarding the growth rates of the species the commenter identifies is available, and there is sufficient interest in cultivating these species in New Jersey, then the Department can consider including seed sizes for other shellfish species in the definition through rulemaking.

15. COMMENT: The term harvest should be defined as “the removal of shell stock from approved waters for human consumption.” (13)

RESPONSE: Harvest is defined as “the act of removing shellfish from a growing water and its placement on or in a manmade conveyance or other means of transport.” Apart from substituting the word shellfish for shellstock and the phrase a growing water for growing areas, the definition is identical to the NSSP definition. The suggested definition for harvest is too limited because shellfish can be harvested from Approved waters or from waters other than Approved. Examples of harvest from waters other than Approved include activities undertaken under a Permit for Harvest of Surf Clams from Prohibited Waters for Bait and a Permit for the Harvest of Seed Oysters and/or Seed Clams from Restricted Waters and Transplant to Approved Waters.

16. COMMENT: The proposed definition of harvest is too broad and loosely used. As proposed to mean the movement of shellfish out of growing waters and their placement onto a man-made conveyance, harvest could include an act of husbandry—a tactic of crop maintenance currently used by growers within the State. Harvest should mean the harvest of shellfish to landing or the harvest of shellfish to direct market. Changing the definition of harvest as suggested would provide protection for growers when conducting husbandry, as well as clarification for enforcement. (102)

RESPONSE: The Department recognizes the definition of harvest could include certain husbandry and maintenance activities and has, therefore, included in the Commercial Shellfish Aquaculture Permit at N.J.A.C. 7:12-9.15 an exemption for activities relating to the care and rearing of shellfish and the maintenance of the equipment used for those activities. Such activities are not considered harvest.

17. COMMENT: Small seed and reset/wet stock should be excluded from the definition of harvest because they are not sold for human consumption. (76)

RESPONSE: While the Department is not certain what the commenter means by reset/wet stock, the definition of harvest includes the harvest of seed because seed is a life-stage of shellfish and harvest, as defined at N.J.A.C. 7:12-1.2 and based on the definition of the term in the NSSP Guide (as explained in the Response to Comment 14), means “the act of removing shellfish from a growing water and its placement on or in a manmade conveyance or other means of transport.”

18. COMMENT: Shellfish gardening should be included in the definitions list. (13)

RESPONSE: The term “shellfish gardening” is not used in the rules. It is, therefore, not necessary to define the term.

19. COMMENT: Notice of shellfish harvest suspensions and restrictions should be sent to permit holders, in addition to representatives of agencies or organizations affected by a harvest suspension or restriction. (13)

RESPONSE: Each issued permit states that it is the permittee’s responsibility to harvest only from waters specified in the permit. N.J.A.C. 7:12-1.4(e), provides that notice of harvest

suspension or restriction will be posted in areas where those harvesting shellfish would be likely to enter the water, and also will be posted on the Department's website at www.nj.gov/dep/bmw.

Subchapters 2 through 5. Shellfish Growing Water Classifications

20. COMMENT: Under the proposed water classification changes, recreational clamming opportunities will be eliminated in the majority of areas presently open on a conditional basis. (41)

RESPONSE: Only those water areas classified as Approved or Conditionally Approved (previously termed Seasonally Approved) are open to recreational harvesting for all or some part of the year. Of the approximate 19,293 acres of water that had been classified as Seasonally Approved and, therefore, were open to recreational harvesting during the open season, a total of 10 acres (Delaware Bay – Cherry Tree Creek) have been reclassified to Restricted, such that they are closed to recreational harvesting. Approximately 81 percent of New Jersey's waters are classified as Approved or Conditionally Approved and, therefore, are open for recreational harvesting.

21. COMMENT: More and more water has been downgraded and very little upgraded and considered appropriate for the reintroduction of shellfish. The Department should actively improve the quality of water that has been downgraded and encourage shellfish aquaculture as part of the effort. (57 and 89)

22. COMMENT: New Jersey must begin to substantively address the issues that continue to downgrade New Jersey's water quality – including stormwater runoff, combined sewer

overflows, excessive development, and inadequate enforcement of unpermitted discharges.
(59)

23. COMMENT: The decline in waters approved for shellfish growing is a negative trend that will impact jobs and the economic and environmental benefits produced by the shellfish aquaculture industry. The Department is responsible for improving water quality, not just monitoring it. Efforts must be undertaken to reduce, mitigate, or control stormwater and contaminant inputs to coastal waters suitable for shellfish aquaculture. (19)

24. COMMENT: The proposed rule changes include updated classifications for shellfish waters, which will result in the downgrading of 12 areas, amounting to 5,199.5 acres. While upgrades for 951.4 acres of shellfish waters is a positive step, the majority of the classifications reflect a reduction in water quality. This is a disturbing and unacceptable trend in the wrong direction for the State's ecology and economy. The Department should mobilize its numerous programs to address water quality issues and restore these important economic and ecological resources. The Department should undertake track-down and abatement to identify and stop sources of bacterial pollution, identify and fund critical abatement and track-down activities, and disseminate this information to the public. The Department should give these actions a high priority as public health, safety, economic interests, and the environment depend upon water quality improvements. (107)

RESPONSE TO COMMENTS 21 THROUGH 24: The Department implements many programs and rules intended to improve water quality generally, including, but not limited to, wastewater discharge permits under the New Jersey Pollutant Discharge Elimination System (NJPDES) program, 319(h) grants (that is, Federal pass-through grants for restoration projects to improve impaired waters), various land use permitting programs, stormwater

management, and water quality management planning. The Bureau of Marine Water Monitoring conducts source tracking work to identify sources of pollution. The Bureau is currently involved in several source tracking projects around the State. Remedial actions to address identified sources have included, for example, the removal of sanitary sewer cross-connections, resulting in improved water quality at Wreck Pond in Spring Lake and the Navesink River in Red Bank (Monmouth County), and the Toms River in Beachwood Township (Ocean County).

Since the 1970s there has been a steady trend of improving marine water quality. In 2015, 78 percent of the State's shellfish growing waters were classified as Approved for the harvest of shellfish for direct market and raw consumption. However, due to the dynamic nature of water and changes in land use that can affect water quality, shellfish growing water classifications will continue to be subject to some degree of flux over time.

Shellfish growing waters with levels of pathogens above NSSP Guide standards must be classified appropriately to protect public health and safety. In 2012, the Department began to use the fecal coliform indicator, rather than the total coliform indicator for purposes of delineating shellfish growing waters to better protect public health. The presence of fecal coliform indicates pathogens that originate specifically in the intestinal tract of warm blooded animals, whereas total coliform indicate pathogens, as well as other non-pathogenic bacteria. This change in standard may have contributed to some of the downgrades, in addition to the factors affecting water quality mentioned above.

25. COMMENT: According to the notice of proposal Summary, the proposed amendments to update the delineations of shellfish growing waters classifications “reflect [] data the

Department has collected through annual assessments conducted in accordance with the NSSP Guide in which thousands of water samples are collected and actual and potential sources of pollution are inventoried.” This robust source of water quality data has not been released in conjunction with the proposed rules. In order to fully evaluate the proposed rules, sources of pollution found through this program and the underlying monitoring data, including the frequency and quality assurance requirements of such monitoring, must be available to the public. (107)

26. COMMENT: The Department should make its water quality testing data available online to aid the shellfish industry and ensure transparency. (10)

RESPONSE TO COMMENTS 25 AND 26: Monitoring data and all shellfish growing water quality results are available from the Department’s website at <http://www.nj.gov/dep/bmw/>. The user can open the NSSP Data map link and zoom in to view the monitoring stations and associated data.

27. COMMENT: At this time, there are no current monitoring programs administered by the Department to survey levels of chemical contaminants in shellfish meat (other than blue crab and lobsters) in New Jersey’s waters, even though there is reason to believe that chemical contamination of shellfish poses a risk to human health. This is particularly crucial since consumers typically eat the whole animal. The Department should consider assessing shellfish, such as bivalves, for levels of contaminants of concern including metals, pesticides, PCBs, PBDEs, dioxins and furans, and polycyclic aromatic hydrocarbons. Existing and new advisory levels (of contaminant levels in edible tissue) based on the latest Federal guidance by the Environment Protection Agency (EPA) and the Food and Drug Administration (FDA)

should be used to assess whether or not shellfish is safe for human consumption. Surveys and screening should be used to identify areas of concern, establish shellfish consumption advisories, modify classifications of shellfish growing waters, and reduce pollution. (107)

RESPONSE: In accordance with the NSSP Guide, the State must evaluate the levels of toxic substances, including heavy metals, chlorinated hydrocarbons, and naturally occurring toxins, that may be present in shellfish against regulatory tolerance limits or action levels, and determine what action, if any, should be taken if such levels are found to be exceeded. From 2005 to 2011, the Department tested clams and oysters for pesticides, polycyclic aromatic hydrocarbons (PAHs), and metals. The results showed no exceedances of action levels. The Department will continue to monitor toxic substances in shellfish as required by the NSSP Guide.

28. COMMENT: State-of-the-art and regular testing of the State's shellfish growing waters is important to address safety in a way that allows for aquaculture activities, including harvesting, when the water quality meets the appropriate standard. This could support opening of waters classified as Prohibited or Restricted when appropriate. (10)

RESPONSE: The NSSP Guide sets minimum requirements for testing shellfish growing waters. The Authority (which, in New Jersey, is the Department) must conduct a sanitary survey of shellfish growing waters, including a survey of the bacteriological quality of the waters, at least once every 12 years. The growing area classifications and the data supporting such classifications must be reviewed at least once every three years. The sanitary survey must be updated at least once every year to reflect changes in the conditions of the growing water areas.

The Department uses advanced microbiological water testing techniques, such as coliphage, antibiotic resistance, quantitative polymerase chain reaction (qPCR), and pulsed field gel electrophoresis to assist in source tracking and to identify corrective actions, thereby reducing pollutants in shellfish growing areas. The Department collects more than 12,000 coliform bacteria samples each year for shellfish growing water classification. Each year the data is incorporated into the Department's existing shellfish growing water quality database and each growing area is reassessed.

If any annual reevaluation of a growing water area shows that conditions have changed such that a classification of a water area must be downgraded, the Department takes immediate action to begin the process of reclassifying the water area. Pursuant to N.J.A.C. 7:12-1.4(b), the Department immediately suspends harvest in any water that, at the time of sampling, does not meet the standards for the particular water's classification. However, the reclassification of shellfish growing waters (upgrades or downgrades) and the establishment of the boundaries of the shellfish growing waters must be accomplished through rulemaking.

29. COMMENT: What is the rationale for downgrading so many of the shellfish growing water areas to Prohibited? Has there been a significant increase in reported illness resulting from shellfish consumption? Has monitoring in these formerly Approved or Seasonally Approved waters shown an increased threat? The New Jersey coastal estuaries have always been a major shellfish growing area, and the Department should strive to keep it that way. The majority of areas have been downgraded, but there seems to be little rationale for this. (41)
- RESPONSE: The downgrades are not based on reports of illness. They are based on the results of water quality testing and the NSSP Guide's shellfish growing water classification

standards, which are designed to prevent illness from the consumption of harvested shellfish. As reflected in Table 1 in the notice of proposal Summary, the waters were downgraded based on increases in fecal coliform levels. Waters downgraded to Conditionally Approved in the closed status, Restricted, and Prohibited do not meet the NSSP standards to allow for the safe harvest of shellfish directly to market for human consumption.

As explained in Response to Comments 21 through 24, the data assessment is based on multiple years of data. The Department conducts source tracking initiatives to identify and mitigate potential sources of bacterial pollution in an attempt to improve water quality and prevent classification downgrades.

30. COMMENT: Shellfish growing water areas classified as Restricted should be on a map to avoid confusion. (41)

RESPONSE: The shellfish growing water classification delineations for Restricted waters are set forth at N.J.A.C. 7:12-3. Charts showing Restricted waters, as well as all other shellfish growing water classifications, are available from the Bureau of Marine Water Monitoring (at the address in N.J.A.C. 7:12-1.1(l)) and on the Department's website, www.nj.gov/dep/bmw.

31. COMMENT: Why were 565.7 acres of waters in the Navesink River west of the Oceanic Bridge downgraded from Restricted to Prohibited? The Navesink River is emblematic of the issues plaguing the Municipal Stormwater Program, total maximum daily load (TMDL) implementation, and downgraded shellfishing waters across the State of New Jersey. Looking at this shellfish classification downgrade in the Navesink, coupled with the systemic failures of the Municipal Stormwater Program, and the ineffective implementation of the

Navesink TMDL, it is clear a rapid and holistic effort is needed in addressing these water quality issues, both locally for the Navesink River, as well as Statewide. (65 and 107)

RESPONSE: The Department downgraded 565.7 acres in the Navesink River from Restricted to Prohibited as a result of water quality testing using samples from eight sampling stations that showed levels of fecal coliform higher than the criteria set in the NSSP Guide. The data indicate that bacterial levels are influenced by precipitation, which carries pollution from non-point sources, such as pet waste and leaking sanitary sewers into the water. Based on the data, the Department determined these waters no longer meet the criteria required for the Restricted shellfish growing water classification. The Department will be conducting a source tracking initiative on the Navesink River to identify and potentially mitigate sources of pollution. The Department's source tracking efforts are described in more detail in Response to Comments 21 through 24.

32. COMMENT: Why did the Department downgrade 2,174.5 acres in the ocean waters off Seaside Park to a Prohibited classification? (65)

RESPONSE: The Department downgraded 2,174.5 acres of ocean waters off Seaside Park from Approved to Prohibited as a result of water quality data indicating that levels of fecal coliform found in these waters were higher than the criteria for Approved classification set in the NSSP Guide. This downgrade of 2,174.5 acres of ocean waters off Seaside Park is adjacent to the existing Ocean County Utilities Authority (OCUA) central wastewater treatment plant outfall, but based on Discharge Monitoring Report (DMR) data is unrelated to the OCUA wastewater discharge. The data do, however, indicate that levels of fecal

coliform in these waters is decreasing, and the Department will continue to reassess the water quality annually.

33. COMMENT: If the sewer pipe is leaking in Stites Sound tributaries, it should be fixed and this area restored to Approved. (6)

RESPONSE: The Department downgraded 93.8 acres from Approved to Conditionally Approved (meaning, open for harvesting November through April) in the Stites Sound Tributaries because of elevated levels of bacteria in the warmer months. The shoreline surveys the Department conducted and the water quality results do not indicate an obvious source for the contamination, but the Department will continue to monitor the water quality in the area.

Subchapter 7. Sanctuaries

34. COMMENT: The rule regarding shellfish sanctuaries should specify that the Shellfisheries Council and the Department's Bureau of Shellfisheries have joint authority in establishing shellfish sanctuaries. Also, why is the sanctuaries rule in the Shellfish Growing Water Classification rules? Creating sanctuaries to reestablish shellfish population does not address compliance concerns related to the NSSP and is outside the scope of the Shellfish Growing Water Classification rules. (65)

RESPONSE: The rule regarding shellfish sanctuaries was first included in the Shellfish Growing Water Classification rules in 1986, for purposes of a hard clam spawner sanctuary program under development at that time. See 18 N.J.R. 784(a); 1275(a). The provision was promulgated as part of the Shellfish Growing Water Classification rules because it

contemplated that shellfish from waters other than Approved would be relocated to Approved waters, and the relocation site closed to harvest. The Department established two spawner sanctuary sites in 1986 and 1987 through public notices delineating two areas of Approved waters where “contaminated shellfish” were being moved, condemning those waters under N.J.S.A. 58:24-1 et seq., and prohibiting harvest of all shellfish from those areas. See 18 N.J.R. 1000(a) and 19 N.J.R. 569(a). In 1987, the sites were incorporated into the sanctuaries rule itself as delineated spawner sanctuaries. See 19 N.J.R. 1129(a); 2136(a). In 1991, the Department deleted the two delineated spawner sanctuaries from the rule because the research had been completed and the areas were no longer off-limits to harvesting. See 23 N.J.R. 2993(a); 3751(a).

As explained in the notice of proposal Summary, with this rulemaking, the Department is updating the description of shellfish sanctuaries, broadening the purpose for which sanctuaries may be established, providing that should a sanctuary be established, the boundaries for it will be specified in the sanctuaries rule, and clarifying that, rather than per se classifying the waters where the sanctuary is located as Prohibited in order to prevent harvest of the shellfish, there will simply be a prohibition on harvest no matter what the growing water classification within the sanctuary actually is. Since it is still possible that the establishment of a sanctuary will involve relocating shellfish from waters other than Approved, and since the larger effort to review, update, and consolidate and/or streamline the shellfish regulatory programs implemented by the Department and other agencies (see the Response to Comments 9 and 10 regarding this effort) is being initiated, it is appropriate at this time for the sanctuaries rule to continue in place in the Shellfish Growing Water Classification rules.

As to the concern that the Shellfisheries Council and the Department's Bureau of Shellfisheries must be involved in the establishment of shellfish sanctuaries, the Department acknowledges that, pursuant to N.J.S.A. 50:1-5, the Department must consult with the Shellfisheries Council before adopting any rule necessary for the preservation and improvement of the shellfish industry and shellfish resource. The obligation is imposed by statute, and consequently the Department will consult with the Council before establishing a shellfish sanctuary under this rule. As it is the Commissioner of the Department who will promulgate the rule establishing any specific sanctuary, the element(s) within the Department responsible for managing the shellfish resource will necessarily be involved. There is no need to explicitly include in the sanctuaries rule reference to the roles of the Shellfisheries Council or the Department's shellfisheries program(s).

35. COMMENT: The establishment of sanctuaries both for the purpose of re-establishing shellfish populations and to allow for restoration and research projects within delineated sanctuaries is supported. (59)

RESPONSE: The Department acknowledges the commenter's support for the rule as amended.

36. COMMENT: While the sanctuaries rule at N.J.A.C. 7:12-7 allows the Department to close areas for conservation purposes, adding or removing a sanctuary area as conditions change could be a lengthy process since rulemaking is required. The Department should have a mechanism for short- to long-term closures of specific areas of limited size to protect vulnerable shellfish populations, including restored oyster reefs, recently seeded beds, or

high density broodstock biomass. This is currently done in the Delaware Bay pursuant to N.J.A.C. 7:25A-2.4(b). Under that rule, the Division of Fish and Wildlife, in consultation with the Shellfish Advisory Council and with the advice of the Haskin Shellfish Research Laboratory, may open or close certain areas of the natural oyster seed beds to harvest, as may be necessary for the conservation of the oyster resource and the preservation of the oyster industry. Notice of the opening or closure is mailed to license holders participating in the direct market harvest program and posted at the Division's Delaware Bay Office. Areas of the State's natural oyster seed beds are often closed when oyster stocks are low. N.J.A.C. 7:25A-2.4(b) also specifies that the Division will provide license holders with geographic coordinates delineating the boundary lines of closed areas. (98)

RESPONSE: The Department will consider whether a mechanism similar to that established in the Oysters rules at N.J.A.C. 7:25A for closing the natural oyster seed beds in Delaware Bay for conservation purposes is appropriate for the shellfish sanctuaries contemplated by N.J.A.C. 7:12-7.1 in the context of the larger effort to review, update, and consolidate and/or streamline the shellfish regulatory programs implemented by the Department and other agencies. See the Response to Comments 9 and 10 regarding this effort.

37. COMMENT: Broadening the definition of sanctuary to include the purposes of re-establishing shellfish populations, as a means of research or to manage the resource, is strongly supported. If developed in New Jersey, sanctuaries would be one way to increase the State's oyster populations. Living shoreline projects that utilize shellfish also provide benefits of reduced shoreline erosion, as well as enhancements to shellfish and finfish habitat and populations. Since a goal of a living shoreline project may be to enhance local shellfish

populations, these projects should be considered “sanctuaries” and not be subject to harvest. In addition, many living shoreline projects are located where the method of mechanical dredging is not possible; therefore, designating a living shoreline project as a sanctuary would not limit commercial harvest. (101)

RESPONSE: A living shoreline project could be designated a sanctuary to prevent the harvest of shellfish from the living shoreline, since the harvest of shellfish from a living shoreline would likely reduce the effectiveness of this best management practice. However, the boundaries of a sanctuary must be established through rulemaking, which requires consultation with the Shellfisheries Council pursuant to N.J.S.A. 50:1-5, and consideration of leasing rights, shellfish resource management, and the commercial value of shellfish harvest from the area of the proposed sanctuary.

38. COMMENT: That the Department views sanctuaries in a broad context and considers them a useful tool not only for research, but also for the purpose of re-establishing shellfish populations is supported. It is hoped that recent research into the hydrodynamic connectivity within Barnegat Bay and other shellfish producing areas will allow for increased utilization of sanctuaries as a means of restoring shellfish communities. However, given that these areas may serve a research purpose, scientific sampling under a scientific collection permit should be allowed. (34 and 98)

RESPONSE: Depending on the specific circumstances and conditions applicable to the sanctuary should the Department establish one pursuant to N.J.A.C. 7:12-7.1, the Department will consider allowing harvest for the purpose of research under an appropriate permit.

Subchapter 8. Shellfish Harvest, Handling, and Transport Requirements for Shellfish License Holders

N.J.A.C. 7:12-8.1 Scope and applicability

39. COMMENT: The rule at N.J.A.C. 7:12-8.1(b) states that any person who violates any requirements of the subchapter may be subject to prosecution and/or penalties, including the forfeiture of shellfish, which may be seized and returned to the water or destroyed. What is the Department's constitutional authority to confiscate, seize, or destroy livestock that is the personal property of a farmer? The process by which penalties are imposed should be clearly explained and a hearing process should be allowed. (13)

RESPONSE: Ensuring the sanitation of shellfish is a joint agency effort between the Department of Environmental Protection and the Department of Health. The Department of Environmental Protection's Conservation Officers are empowered to enforce all of the laws of the State. N.J.S.A. 58:24-4 provides that the distribution, sale, offering for sale, or having in possession with intent to distribute or sell, any oysters, clams, or other shellfish shall be prima facie evidence that such shellfish were intended for use as food. Department of Health rules enforced by the Department of Health and Conservation Officers provide for the condemnation, destruction, and disposal of any unwholesome food to make it impossible to be used as food under N.J.S.A. 24:4-11. Alleged violators are prosecuted in municipal court as petty disorderly or disorderly persons. If the person is found guilty, he or she may be subject to the penalties in the Criminal Code. Further, if convicted, N.J.S.A. 58:24-10.1 mandates a license or permit suspension. In addition, alleged violators may be subject to monetary penalties pursuant to N.J.S.A. 23:2B-14 as determined in a proceeding overseen by a municipal or superior court judge.

N.J.A.C. 7:12-8.2 Shellfish harvester training requirements

40. COMMENT: Recreational harvesters should also complete shellfish harvester training. (65)

41. COMMENT: Does this training requirement apply to recreational clamming permits? (41)

RESPONSE TO COMMENTS 40 AND 41: The shellfish harvester training is required under the NSSP Guide. The standards in the NSSP Guide are for purposes of promoting and improving the sanitation of shellfish that are introduced into interstate commerce. As such, the standards in the NSSP Guide apply only to persons who commercially harvest shellfish. For that reason, recreational harvesters are not required to undertake shellfish harvesting, handling, and transportation training. However, interested recreational harvesters may take the training on their own initiative, as it is available at no cost and is easily accessible online at <http://www.nj.gov/dep/bmw/>.

42. COMMENT: The shellfish harvester training has a two-year lifespan, since “every applicant for a shellfish license (which have a one-year term) must certify as part of the application that he or she has completed the Department’s shellfish harvester training within the past two years.” How will the Department enforce this certification of training completion? Does the Department’s shellfish harvester training have to be taken every two years? (34 and 102)

RESPONSE: The shellfish harvester training must be taken by commercial shellfish license holders at least once every two years. The Department issues a certificate to each harvester who completes the training, and the Department maintains a list of those who have completed it. In order to obtain a shellfish license, an applicant must certify that he or she has completed the training.

N.J.A.C. 7:12-8.3 Requirements for vessels used to harvest and/or transport shellfish

43. COMMENT: The requirement regarding effective coverings should be consistent with the NSSP Guide. Rather than state, “Effective coverings shall be provided on harvest boats to protect shellfish,” it should state, “When necessary, effective coverings shall be provided on harvest boats to protect shellfish,” as in the model ordinance. (13)

44. COMMENT: The requirement regarding effective coverings should be rewritten as to only be applicable to the oyster fishery's *Vibrio parahaemolyticus* season. (7)

RESPONSE TO COMMENTS 43 AND 44: The rule does not require that effective coverings be used at all times, but rather that vessels provide for such coverings, so that they are available to be used to protect harvested shellfish from exposure to hot sun, birds, and other adverse conditions. Accordingly, the rule is not inconsistent with the NSSP Guide and no change to it is necessary. From June 1 through September 15, the Department of Health’s rules at N.J.A.C. 8:13-1.7 require tarping be used on vessels to cover oysters from when harvesting begins until unloading begins at dockside.

45. COMMENT: Has the New Jersey Department of Health noted any illnesses stemming from on-board shellfish holding techniques to date? The need for this regulation should be supported by a statement quantifying past records of illness due to poor on-board handling of shellfish from the Department of Health. (34 and 102)

RESPONSE: The state health officials of the state where any illness associated with New Jersey shellfish occurs are responsible for investigating such illnesses and tracing the shellfish back to the harvest area. The state health officials report the results of the

investigation to the Centers for Disease Control (CDC). The CDC estimates that, in 2013, for each confirmed case of *Vibrio parahaemolyticus* (Vp) illness reported to it, there are 142 other cases that are not diagnosed. The reporting system does not account for other illnesses that may be attributable to the mishandling of shellfish.

In 2012, there were three confirmed Vp illnesses linked to a single harvest area in New Jersey, which, in accordance with the NSSP Guide criteria in effect at the time, required the closure of the Shell Rock growing area in the Delaware Bay to harvest of oysters. In 2013, there were three confirmed Vp illnesses that required the closure of the Shell Rock growing area. In 2014, there were two confirmed Vp illnesses directly linked to oysters harvested in New Jersey waters; under the NSSP Guide, no closure of a growing area was required. In 2015, there were three confirmed Vp illnesses that did not require the closure of a growing area.

As explained in the notice of proposal Summary, the shellfish harvest, handling, and transport requirements, including the Vp Control Plan time to temperature control requirements, are intended to minimize the multiplication of Vp in oysters after harvest and thereby lessen the risk of Vp illness.

46. COMMENT: What are the means and effectiveness of enforcement related to the requirement that storage containers be thoroughly cleaned between uses when going from other than Approved waters to Approved waters? (102)

RESPONSE: The conditions of N.J.A.C. 7:12-8.3(a)7 are a requirement of the NSSP Guide pertaining to shellfish harvesting and handling. The provisions will be enforced through routine patrols of the designated enforcement units. The required shellfish harvester training

will help ensure that harvesters are aware of these requirements. There is also an expectation that harvesters will self-police in order ensure a wholesome product.

47. COMMENT: Are culling trays included in the requirements at N.J.A.C. 7:12-8.3, since multiple groups of clams may be dumped on a culling board and the water from successive rakes will technically be water “from overboard” contacting the shellfish? (34)

RESPONSE: The Department acknowledges that successive rakes of shellfish will result in water from the growing area coming into contact with harvested shellfish on culling trays on the vessel. However, the NSSP Guide, and the provision at N.J.A.C. 7:12-8.3(a)1, are focused on preventing “polluted overboard water” from coming into contact with harvested shellfish on the vessel, such as when, for instance, seawater sprays over the side of the vessel during transport through waters other than Approved.

48. COMMENT: Please provide specific instances documented by the Department of Health where untreated fecal material from shellfish farmers has contaminated a harvest and caused sickness in the consumer population. (34 and 102)

RESPONSE: The Department is not aware of any specific instances of illness attributable to untreated fecal matter in shellfish waters in New Jersey. However, outbreaks of seafood-associated illness linked to polluted waters have been caused by calici virus, hepatitis A virus, and *Salmonella enterica* serotype Typhi. Identified sources of seafood contamination have included overboard sewage discharged into shellfish growing water areas, illegal harvesting from sewage-contaminated waters, and sewage runoff from points inland after heavy rains or flooding. M. Iwamoto, The American Society for Microbiology,

Epidemiology of Seafood – Associated Infections in the United States, 2010.

49. COMMENT: All boats, regardless of size, that are moving through or stopped in Approved shellfish waters should also be required to have a Type III marine sanitation device since the State experiences tides, and in the event that a non-shellfish farmer might “discharge untreated sewage” overboard, there is the potential for the tides to carry that fecal contamination to shellfish aquaculture areas. (34 and 102)

RESPONSE: N.J.A.C. 7:12-8.3 regulates only those vessels being used for shellfish harvesting, and the requirement for such vessels to have an approved marine sanitation device is mandated by the NSSP Guide.

50. COMMENT: Will the requirements for vessels used to harvest and/or transport shellfish be enforced by the Department of Environmental Protection or the Department of Health? (34)

RESPONSE: Designated enforcement unit(s) is defined in N.J.A.C. 7:12-1.2 and means the Department’s Division of Fish and Wildlife, Bureau of Law Enforcement, Marine Region; Division of Water Monitoring and Standards, Bureau of Marine Water Monitoring; Division of Water and Land Use Enforcement, Water Compliance and Enforcement Program; and the Department of Law and Public Safety, Division of State Police, Marine Services Bureau. Each of these entities has jurisdiction to enforce the requirements for vessels used to harvest and/or transport shellfish as allowed by law.

51. COMMENT: What section of the NSSP specifically calls for a Marine Sanitation Device on

a vessel? (34)

RESPONSE: The requirements for the disposal of human sewage from harvest vessels, including the requirement for a marine sanitation device, are located at Chapter VIII, section .02, subsection D of the NSSP Guide.

N.J.A.C. 7:12-8.5 Requirement to tag containers of shellfish

52. COMMENT: Regarding bulk tagging, when harvesting from one location on a single day by a single license holder, the harvester should not be required to wrap product on a pallet in order to use a bulk tag. This is not practical or necessary. What is the perceived commingling risk in this situation? The NSSP allows for the bulk tagged product to be in a tote, net brailer, boat, or other container. (13)

53. COMMENT: As it is currently written, this proposed regulation does not make sense for many growers and is fraught with poor understanding of the harvest delivery process. First, none of the clam growers could have a pallet onto which totes of shellfish could be stacked, wrapped in plastic (which would also likely increase the temperature of the clams en route), and then removed from the skiff at the dock. The grower could not estimate the weight, and the counting of the shellfish typically takes place at the dock or dealer's with a sorting machine. The bulk tagging process requires greater clarification, including items such as location (for example, onboard versus at the dock/processing facility), point in time within the harvest process (for example, tag on vessel versus tag at dock), and if this form of shellfish movement is required or optional. Bulk tagging is an efficient form of shipping shellstock; however, the rule as written currently does not appear to only be for shippers/certified dealers. (34 and 102)

54. COMMENT: Clarification of the use of a bulk tag is suggested. The proposed rule change at N.J.A.C. 7:12-8.5 probably was implemented for the Delaware Bay direct market fishery and is not feasible on the Atlantic Coast. Shellfish containers stored and shipped in bulk on the Atlantic Coast are typically from multiple harvesters with product from multiple locations.
(65)

RESPONSE TO COMMENTS 52 THROUGH 54: The requirements in Subchapter 8, including the tagging requirements for containers of shellfish at N.J.A.C. 7:12-8.5, establish in the rules, the procedures and requirements from the NSSP Guide for ensuring the safety of shellfish commercially harvested for human consumption. In consideration of the commenters' concerns that the bulk tagging requirement at N.J.A.C. 7:12-8.5(d) does not align with the bulk tagging provision in the NSSP Guide and is too restrictive, since the NSSP Guide allows multiple containers of shellfish to be covered by a single bulk tag in containers other than a wrapped pallet, the Department is modifying the rule on adoption to include the other types of containers that the NSSP Guide specifies can be used under a bulk tag.

When properly implementing the tagging requirements there is no commingling risk because, as a commenter points out and the rules require, the shellfish are to be harvested from one harvest location on a single day by a single license holder.

The rule, in conformance with the NSSP Guide, requires that the harvester tag show quantity information. Quantity is the amount of shellfish, which can be a volume measure, such as bushel. Harvester tags, including bulk tags, must be affixed to the container at the harvest location, meaning onboard the vessel at the time of harvesting not at the dock. The use of harvester tags is mandatory; however, the use of bulk harvester tags is optional.

The harvester tag requirements apply to shellfish harvesting in all waters, including Delaware Bay and Atlantic coastal waters. The storage and shipment of properly tagged shellfish “in bulk” by certified dealers is not governed by these rules.

55. COMMENT: What is meant by the term landing? Does it mean offloading at a dock or placing product in a harvest vessel? Typically shellfish are placed in containers on a vessel during harvesting and tagged prior to offloading at a dock. (65)

RESPONSE: Although the commenter’s letter suggests this comment relates to N.J.A.C. 7:12-8.5, which sets forth tagging requirements for containers of harvested shellfish, the Department notes that the term “landing” is not used in that rule. However, landing is defined at N.J.A.C. 7:12-1.2 and means, “the time or place at which shellfish is put on land or a dock.” Landing does not include the placing of shellfish onto a harvest vessel at the harvest location. Tagging of shellfish containers is required at the harvest location, prior to landing.

56. COMMENT: The tagging system does not account for movement of shellfish at market size from farmer to farmer, a practice that is commonly employed to season product before final sale. The Department should clarify how the tagging system applies to the sale of market shellfish to other authorized shellfish growers within the State. (102)

RESPONSE: N.J.A.C. 7:12-8.5 requires the shellfish license holder to attach harvester tags to the containers of harvested shellfish at the harvest location. The properly tagged harvested shellfish can be sold to another shellfish license holder for purposes of wet storage (to “season” the shellfish before final harvesting for market) only if that shellfish license holder

is a certified dealer because, under the NSSP Guide, only certified dealers can conduct wet storage. The tagging of shellfish at or by the certified dealer is governed by the Department of Health's rules, which, at N.J.A.C. 8:13-1.4, incorporates by reference the dealer tag requirements of the NSSP Guide at Chapter X .05.

N.J.A.C. 7:12-8.6 *Vibrio parahaemolyticus* Control Plan time to temperature control requirements for harvesting oysters

57. COMMENT: The start time of 6:00 A.M. during the time period of the *Vibrio* Control Plan should be adjusted to legal sunrise (Trenton). The 6:00 A.M. start time contradicts N.J.S.A. 50:2-11. If the 6:00 A.M. start time was implemented for the Delaware Bay direct market harvest, harvest on the Atlantic Coast should be excluded from this requirement as harvest is not set on a quota basis, but rather on market demands. (65)

RESPONSE: As explained in the notice of proposal Summary, the harvest timeframes for subtidal shellfish harvesting during the *Vibrio parahaemolyticus* (Vp) season at N.J.A.C. 7:12-8.6(a) ensure that harvest will occur during the coolest part of the day during the warmer months when the bacteria grow and multiply most rapidly and when New Jersey has historically experienced the most cases of reported Vp illness. The proposed fixed start time in the rule was not related to the quota system for direct market harvest in the Delaware Bay. The fixed start time was intended to simplify compliance and enforcement because it would ensure that all harvesters were off the waters the same time each day. However, the Department acknowledges that N.J.S.A. 50:2-11 requires that the start of harvest be no earlier than sunrise. Because at certain times of the summer 6:00 A.M. is earlier than sunrise, the Department is modifying N.J.A.C. 7:12-8.6(a) on adoption to establish sunrise as the start

time for harvest. The rule is also modified to provide that the time of sunrise is the time of sunrise in Trenton, New Jersey, as set forth in the timetable published in the Division of Fish and Wildlife's NJ Hunting and Trapping Digest. The use of the Trenton timetable for this purpose corresponds to its use at N.J.A.C. 7:12-9.1(i) for purposes of permits for shellfish harvest in Subchapter 9.

58. COMMENT: Recent studies conducted by the FDA and the Department demonstrate that ice is more effective in controlling the growth of *Vibrio*; yet, the New Jersey *Vibrio* Control Plan does not permit icing in place of mechanical refrigeration when post-harvest overland transport exceeds one hour. Per the NSSP Model Ordinance, temperature control is defined as "the management of the temperature of shellstock by means of ice, mechanical refrigeration or other approved means necessary to lower and maintain the temperature of the shellstock to comply with Chapters XI, XIII, or XIV." The need for 'mechanical refrigeration' should be changed to the need to 'cool product' as it relates to the NSSP Model Ordinance. Additional requirements for tracking and monitoring temperature are unnecessary and burdensome. Data needed for this purpose is readily available from all the other recordkeeping requirements for harvest. (13 and 46)

RESPONSE: The commenters' concerns do not relate to the time to temperature control requirements at N.J.A.C. 7:12-8.6, which apply when shellfish are being harvested. The Department of Health regulates the overland transport of shellfish to the certified dealer after harvest. The referenced requirement for refrigeration when overland transport of harvested shellfish exceeds one hour in New Jersey's Vp Control Plan conforms with the Department of Health's rules at N.J.A.C. 8:13-1.7(b)2.

59. COMMENT: The requirement for shellfish license holders to provide the Bureau a copy of harvest journals each year is unnecessary and excessive. The journals are available for inspection. Harvests are routinely monitored and inspections are routinely performed by the Department of Health. Information needed for tracking temperature abuse violations is provided by other recordkeeping and tagging processes and reviewed by the Department of Health. Why is this necessary? How will it help regulators? Will the notebooks even be reviewed? (13)

RESPONSE: As explained in the notice of proposal Summary, the information recorded in the journal by the harvester of daily harvest start time, time of refrigeration, and shell temperature at the time of off-loading is used to help determine if a reported Vp illness or outbreak was the result of post-harvest handling issues or temperature abuse by the harvester (for instance, not having kept the shellfish shaded from the sun on the vessel), for the annual Vp risk assessment, and the development of additional best management practices to reduce Vp growth.

All data from the journals will be entered into the Department's database and reviewed as part of the Department's annual risk assessment that is conducted, in accordance with the NSSP Guide, to determine the risk of Vp illness resulting from the consumption of shellfish harvested from shellfish growing waters. The Department also conducts annual studies on the levels of Vp in shellfish in State waters. The harvest and off-loading time and shell temperature information recorded in the journals provides the Department with valuable field measurements.

The Department of Health only inspects and requires recordkeeping by certified dealers. See N.J.A.C. 8:13. The requirements of N.J.A.C. 7:12-8.6 apply to harvesters. The Department notes that the recordkeeping journal is currently part of New Jersey's Vp Control Plan required by the NSSP Guide.

60. COMMENT: "Please make time frame shellfish from water to shadow, because any shellfish harvest from water, it must take time from water to shadow and various methods, someone dredge from deep water with conveyor, someone from low tide to small car, someone from water to load small boat to conveyor with shortest time to shadow." (76)

RESPONSE: The Department interprets the comment as suggesting that the time to temperature control requirement for harvesting oysters should take into account the period from when the shellfish are removed from the water to when they are placed in shade, or covered, and that the method of harvest should also be considered. However, the Department is unable to further address the comment because it is not clear how the commenter is suggesting this period be accounted for under the rule.

Subchapter 9. Shellfish Permits for Harvest from Water Other Than Approved; Research; Restoration and Enhancement; Toxins Monitoring; and Aquaculture

N.J.A.C. 7:12-9.1 General provisions for shellfish permits

61. COMMENT: The age restrictions as written at N.J.A.C. 7:12-9.1(b) could conflict with the Department of Agriculture farming age restrictions. (7)

62. COMMENT: The ability for a person between the ages of 14 and 18 years to be permitted to harvest shellfish while under the supervision of an adult (18 years of age or older) has been removed from these rules. The Department should clarify how this may affect the industry.

For some growers, working within the shellfish aquaculture industry is a family tradition; it is a heritage that is passed onto the next generation. Many times teenage family members may join the primary farmer on leased grounds or a harvest vessel. It is unclear at this time if the new permits will be directly associated with the lease, business, or individual operating within the lease (for example, everyone working the lease, even within the same business, will need a permit). The Department should clarify how the permit applies to an aquaculture operation. (102)

RESPONSE TO COMMENTS 61 AND 62: The adopted rule, without the provision regarding issuance of permits to those aged 14 to 18, does not prohibit members of the permittee's family from working under the permittee's supervision. The applicability of State child labor laws for agricultural employment is not affected by the rule.

63. COMMENT: The Depletion program should not be eliminated without making provisions for the continuation of some program to facilitate the harvest of oysters and mussels from areas affected by intermittent pollution sources. (10)

RESPONSE: As noted in the notice of proposal Summary, the Depletion program rule was repealed as part of the effort to streamline the rules and focus resources on permitting shellfish activities that are in demand. At this time, there is not a demand for a Depletion permit program.

N.J.A.C. 7:12-9.3 Application for and issuance of a permit

64. COMMENT: It is unclear if the application fee covers an individual, a formal shellfish restoration program, and the certified shellfish gardeners in it, a specific research facility and

its employees, or whether a \$25.00 permit would be required for each person, even if they were on a scientific collecting permit already issued by the Department. (34)

RESPONSE: Applicants for the Permit for Shellfish Research in Waters Other Than Approved (N.J.A.C. 7:12-9.10), the Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved (N.J.A.C. 7:12-9.11), and the Permit for Growing Seed in Waters Other Than Approved by a Non-profit Organization or Government Agency (N.J.A.C. 7:12-9.12) are required in their application to list the names of all individuals who will participate in the project for which the permit is being sought and the participants' roles and responsibilities. Only a single \$25.00 application fee is required. Individuals listed as project participants in projects permitted under these permits are not required to pay an application fee. All other permits require each individual who seeks to conduct activities under the permit to submit a permit application accompanied by a \$25.00 application fee, except for those individuals applying for a Commercial Shellfish Aquaculture Permit because activities conducted under that permit are undertaken in Approved waters and are thus not governed by N.J.S.A. 58:24-3, which imposes a \$25.00 fee to take shellfish from waters other than Approved. The Scientific Collecting Permit issued by the Division of Fish and Wildlife (DFW) pursuant to the DFW's rules at N.J.A.C. 7:25-4.6 authorizes the collection of marine and estuarine organisms for scientific purposes; any permit fee associated with that permit is separate from permit fees required under this rule.

N.J.A.C. 7:12-9.5 Soft clam and/or hard clam depuration plant permit

65. COMMENT: The Department should change the wording on the Soft Clam and/or Hard Clam Depuration Plant Permit back to the original text that required a counting by number

and size of the clams coming into the plant, and to give the clammer a receipt for his landed clams including the number and market category of each. He should also see how many fall-throughs do not get included, and they should be documented and sequestered to be returned to the wild. Without that, the biosecurity for the depuration plants is totally non-existent, since there is no way of knowing how many clams of what size are in the half-bushel baskets that go into the depuration tanks, and whether the numbers reported to the State at the end of the process are correct. (55)

66. COMMENT: N.J.A.C. 7:12-9.5(c)5 states, “The depuration plant shall time and date stamp each Harvester Allocation Tag at the completion of off-loading, and enter on the tag the depuration harvester's permit number and the number of clams, by size, in that container. These Harvester Allocation Tags shall be affixed to the containers in which the clams are depurated.” This part of the regulation necessitates that the original Soft Clam and/or Hard Clam Depuration Plant Permit, which had specific wording that required basic recordkeeping for biosecurity, be rewritten to its original form. In the depuration regulations issued in 1990, N.J.A.C. 7:12-9.7(a)8v said, "Upon landing at the designated landing site(s), the harvester shall complete a State provided receipt in triplicate containing at least the following information: harvester's name, date, harvest area, total number of containers, and TOTAL NUMBER OF CLAMS. Receipts shall be date and time stamped." Since this has not been done since the inception of the hard clam depuration process, and has led to under-reporting of actual landings, and since this verbiage was struck from the Permit in 1999, it must be reinstated. (34 and 102)

RESPONSE TO COMMENTS 65 AND 66: As noted in the notice of proposal Summary, the depuration plant permit at N.J.A.C. 7:12-9.5 and the depuration harvester permit at

N.J.A.C. 7:12-9.6 continue most of the existing requirements applicable to depuration plants and depuration harvesters under the prior rules at N.J.A.C. 7:12-9.2 and 9.7. Under N.J.A.C. 7:12-9.5(c)5, as proposed, the depuration plant must enter the number of clams, by size, on the Harvester Allocation Tag on each container of shellfish received at the plant. Entering the number, by size, of the clams on the tag was not required under prior N.J.A.C. 7:12-9.7. Earlier rules, in effect until February 2000, had required that the number of clams be recorded, but not the size. The Department has determined to modify N.J.A.C. 7:12-9.5(c)5 on adoption, so that only the number of clams must be recorded on the Harvester Allocation Tag, not also the size of the clams. Recording the number of clams is consistent with the Department of Health's recordkeeping requirements at N.J.A.C. 8:13-2.23(a) regarding lots of clams brought to the depuration plant. The Department of Health rule requires that process batch records be kept for each lot of clams, including the number of bushels and number of clams culled in the plant before and after depuration. The culling process is required by the NSSP Guide, and removes dead or unsafe (for example, broken) clams before and after depuration to ensure that shellfish that are not fit for human consumption will not be sold for market. The depuration plant sorts the clams by size after the depuration process for purposes of paying the harvester based on the market name for various size classes of clams, for example, littlenecks, topnecks, cherrystones, and chowder clams.

67. COMMENT: The Department should expand the Soft Clam and/or Hard Clam Depuration Plant Permit and the Soft Clam and/or Hard Claim Depuration Harvest Permit to include opportunities for similar activities regarding other species of shellfish, including oysters, scallops, and mussels. (10)

RESPONSE: Depuration of shellfish is restricted to clams of the species approved by the Department of Health under its rules at N.J.A.C. 8:13 (see N.J.A.C. 8:13-2.3). Only hard and soft shell clams are currently approved by the Department of Health for depuration. In order to expand depuration to other shellfish species, should there be sufficient interest in doing so, the Department of Health and the Department of Environmental Protection would work together and with stakeholders to develop the appropriate requirements to be promulgated in their respective regulations.

N.J.A.C. 7:12-9.8 Permit for the Harvest of Hard Clams or Oysters from Restricted Waters and Relay to Approved Waters

68. COMMENT: The 5a and 5b relay permits should not be eliminated, as doing so inhibits participation in the relay program. The past relay program had harvesters (5b permit holders) selling to planters (5a permit holders). (65)

RESPONSE: The Department modified the relay program to ensure that the shellfish harvested from Restricted waters are necessarily planted on the relay lease in Approved waters of the relay permit holder. The new Permit for Harvest of Hard Clams or Oysters from Restricted Waters and Relay to Approved Waters, N.J.A.C. 7:12-9.8, does allow a harvester who does not have a relay lease but wishes to harvest for relay to do so if he or she is working with a harvester who has a relay permit. As noted in the notice of proposal Summary, the Department is not currently issuing relay permits because there has not been interest among harvesters in conducting relay activities in recent years.

69. COMMENT: The use of cages for the relay program should be allowed and included in these rules. This issue had been raised in the past and should be explored further. Other states, such as New York, utilize cages for their relay programs. (65)

RESPONSE: The requirement to use bushel bags for shellfish harvested for relay is continued from the prior rule. The Department has not evaluated the use of cages for relay, and as noted in the Response to Comment 68, is not currently issuing relay permits because there has not been interest among harvesters in conducting relay activities in recent years. However, should there be sufficient interest in the relay program, the Department can consider modifying the rule to allow the use of cages instead of or in addition to bushel bags.

70. COMMENT: There is a 30-day purge period for hard clam planted on relay lots before direct market harvest in New Jersey but only two weeks is required for harvesters in Connecticut. This requirement seems to be an undue economic burden on this industry and should be shortened to two weeks. This criterion exceeds the NSSP Guide's Model Ordinance, which cites a minimum 14-day purge period requirement. The Department should require hard clams to be held on the relay lease for 14 days after planting, rather than the current 30 days. This change would minimize losses of clams planted on the relay lease, allow more harvest flexibility, and allow a faster return on investment of planted product. This could be vital to resurrecting the relay program as a viable harvest option. (34, 65, and 102)

RESPONSE: The 30-day purge period is continued from the prior relay permit rule. Under the NSSP Guide the 14-day purge period is the minimum. If there is demonstrated stakeholder interest in undertaking shellfish relay harvesting, the Department will consider conducting a species-specific contaminant reduction study to assess the critical values for

water temperature, salinity, and other environmental factors that may affect the natural pathogen purging process in the growing area to which shellfish will be relayed. Based on the findings of the study, the Department would determine whether to modify the relay purge period through future rulemaking.

N.J.A.C. 7:12-9.9 Permit for the Harvest of Seed Oysters and/or Seed Clams from Restricted Waters and Transplant to Approved Waters

71. COMMENT: Requiring that no more than three percent of the number of shellfish harvested and transplanted shall be larger than seed (seed for oyster being one and one-half inches) is an unreasonable burden in the Mullica River estuary. It would be difficult to abide with the rule by planting oysters in the traditional dredging and broadcasting method. Every piece of ground is different and there may be a greater abundance of larger oysters on some of the leases than on others. There should be a higher percentage of allowable oysters over an inch and a half that is more realistic based on the natural set of seed oysters, or the Department should incorporate separate language for the Mullica River. (64 and 65)
72. COMMENT: The rules for the harvest and transplant of seed from Restricted to Approved waters establish an unreasonably low threshold for seed size variability that will greatly limit the industry's ability to transplant. The proposed changes state that "[n]o more than three percent of the number of shellfish harvested and transplanted shall be larger than seed." This is a very low threshold and difficult to measure with statistical accuracy. In addition, growth rates may vary considerably from year to year, further complicating compliance with this requirement. A higher, science-based percentage should be used to govern the harvest of seed from Restricted waters and transplant to Approved waters. (13)

73. COMMENT: The three percent rule for the transplant program (N.J.A.C. 7:12- 9.9(c)4) is unreasonable given current, approved practices of oyster seed transplant from the Mullica River using traditional methods. To expect growers to stay within the three percent larger than seed range (one and one-half inches) will not work as sizes from one-half inch to three inches may be dredged and transplanted. It is also likely, given the variability of natural set, that three percent will be within the sampling error of anyone examining the amount of shellfish moved under this permit. It is not reasonable to use a measure, such as this, and is setting up the growers for noncompliance with the rule as it is presently written. There should be an increase in the percentage above seed allowed, or an exemption for traditional seed transplant aquaculture should be provided. (102)

74. COMMENT: The new transplant permit contains verbiage for oyster seed size at one and one-half inches with a requirement that no more than three percent of oyster seed harvested and transplanted may be larger than seed and rescinding special permit 6 (prior N.J.A.C. 7:12-9.9 Transfer program). Traditional oyster culture involves dredging large volumes of seed from a lease and planting them on the bottom of another lease without any protection from predation. The only protection from predators the oysters have is they are larger in size and are clustered together. The oyster seed we harvest is a natural oyster. The oysters are not genetically manipulated for fast growth. Our oysters require a longer grow out period than a hatchery reared, genetically manipulated single seed. Special permit 6 allowed for the transfer of shellfish from a lease in waters other than Approved to a lease in Approved waters. The notice of proposal states that there were no permits previously issued. Historically, there was no need to obtain special permit 6 because we worked under special permit 7 (prior N.J.A.C. 7:12-9.10, Transplant program). The removal of the transfer permit

and the established seed size for the transplant permit will destroy decades of establishing and maintaining fertile shellfish beds because the new regulation would make it impossible to transplant seed.

Special permit 6 should remain in place for the Mullica River oyster leases, or an exemption for the seed size for Mullica River leases. The Mullica River oyster leases can be easily patrolled by the Bureau of Law Enforcement due to the fact that they are on waters adjacent to the main law enforcement building and are easily observed from land. Harvesters currently notify the Bureau of Law Enforcement 24 hours prior to each day's harvest as per the stipulations on permit 7. The proposed changes to the regulations are more applicable to modern aquaculture practices involving hatchery reared seed and not the traditional natural seed fishery. The new transplant permit allows for seed to be grown in waters that are not on leases. This is great for establishing new operations, but is crippling to the historic Mullica River Oyster Lease fishery. (43)

RESPONSE TO COMMENTS 71 THROUGH 734: As noted in the notice of proposal Summary, the activity authorized under the repealed Transfer permit, formerly at N.J.A.C. 7:12-9.9, was a form of relay, but the permit lacked the safeguards against potential illegal diversion of the transplanted shellfish that are in the relay permit (as recodified and amended at N.J.A.C. 7:12-9.9) and which are necessary to meet the requirements of the NSSP Guide. The Permit for Harvest of Seed Oysters and/or Seed Clams from Restricted Waters and Transplant to Approved Waters, as adopted at N.J.A.C. 7:12-9.9, will facilitate transplant of seed directly to a lease in Approved waters without a period of grow-out or purging that would otherwise be necessary, and without the tracking, recordkeeping, and bacteriological testing, as required by the NSSP Guide, are associated with relaying market size shellfish.

To minimize the risk that market size or near market size shellfish transplanted along with seed will be harvested from the lease before they are naturally purged of pathogens, the rule establishes the three percent limit on the number of shellfish transplanted that may be larger than the applicable seed size (set in the definition of “seed” at N.J.A.C. 7:12-1.2).

Also, as explained in the notice of proposal Summary, this three percent tolerance is implemented for purposes of enforcing the minimum harvest size for hard clams under the Division of Fish and Wildlife rules at N.J.A.C. 7:25-9.5. The Department will evaluate transplant activities in the field under the new permit as implemented and, if necessary, reevaluate the three percent tolerance to determine if changes should be made through future rulemaking.

Contrary to the commenter’s assertion, the permit does require that seed be planted on leased lots for grow-out. Also, the permit is not for planting hatchery-reared seed; it is only for the harvest of seed from natural seed beds such as those in the Mullica River and transplanting that seed to leased lots.

As to the concern that the three percent limit on the numbers of harvested market-sized shellfish that may be harvested and transplanted is an unreasonable burden for the Mullica River shellfish industry, the relay permit at N.J.A.C. 7:12-9.8 as adopted allows for the relay of oysters. Therefore, Mullica River shellfishermen who believe they cannot comply with the three percent limit in the transplant permit may have an opportunity to relay both seed and market-size shellfish under the relay permit, with some adjustment of their current practices to meet the relay permit conditions.

75. COMMENT: The application of the transplant regulations to hard clam culture is unclear since hard clam aquaculture does not typically use restricted waters for a field nursery function. It is common practice that seed from a land based nursery using restricted waters be placed for grow out into approved water, but this is commonly for three to four times the six-month period to market size mentioned in the proposed regulation. There should be greater clarification on the application of this rule and permit to the State's hard clam growers. (34 and 102)

RESPONSE: What the commenter describes as hard clam aquaculture, that is, growing seed obtained from land-based hatcheries or nurseries and placing the seed for grow-out in Approved waters, is not the process to which the transplant permit at N.J.A.C. 7:12-9.9 applies. The hard clam growers would not need the transplant permit to continue to conduct such aquaculture; they would need the commercial aquaculture permit at N.J.A.C. 7:12-9.15.

N.J.A.C. 7:12-9.10 Permit for Shellfish Research in Waters Other Than Approved

76. COMMENT: The Department's efforts to provide clear and consistent guidance to researchers wishing to work with shellfish in waters other than Approved is supported. (98)

RESPONSE: The Department acknowledges the comment in support of the rule.

77. COMMENT: The application, conditions, and reporting requirements for the Permit for Shellfish Research in Waters Other Than Approved are largely duplicative of the information required as part of an application for a Division of Fish and Wildlife's Scientific Collecting Permit, which is needed to collect shellfish from any waters of the State. This duplication of effort is burdensome and contrary to the Department's goal of streamlining paperwork

requirements. It is not clear how the results and analysis of a scientific investigation will help the Department evaluate whether shellfish collected for the research will be at risk of being consumed, which is the purpose of this rule. (19 and 98)

RESPONSE: The Scientific Collecting Permit for marine waters issued by the Division of Fish and Wildlife authorizes the collection of marine and estuarine organisms for scientific purposes. The purpose of the Permit for Shellfish Research in Waters Other Than Approved at N.J.A.C. 7:12-9.10 is to enable researchers to collect shellfish from waters other than Approved in order to achieve a particular research objective that is dependent on the data obtained from the study or use of such shellfish. While there is some overlap in the information required to be provided in the application for each permit, the project description in the application for the Permit for Shellfish Research in Waters Other Than Approved focuses on why the research specifically requires the use of shellfish from waters classified as other than Approved as opposed to shellfish from other locations. Examples of research that might require this permit include research concerning the bioaccumulation of metals in shellfish located within a marina basin (which is classified as Prohibited under N.J.A.C. 7:12-2.1(a)) or the identification of viral contaminants in shellfish tissue within waters classified as Prohibited around a wastewater treatment plant outfall.

A person seeking to conduct research using shellfish harvested from Approved waters may do so under the Division of Fish and Wildlife's Scientific Collecting Permit, and would not be required to obtain a Permit for Shellfish Research in Waters Other Than Approved under these rules.

It is not the purpose of the Shellfish Growing Water Classification rules generally, or the purpose of the Permit for Shellfish Research in Waters Other Than Approved specifically,

that the research conducted be intended to help the Department determine if the shellfish collected will be at risk of being consumed. Under N.J.S.A. 58:24-1 et seq., which is implemented through the Shellfish Growing Water Classification rules at N.J.A.C. 7:12, the Department is responsible for inspecting and determining the sanitary condition of waters from which shellfish are taken for human consumption. If the sanitary condition of shellfish growing waters is such that the shellfish cannot be safely consumed when taken from the water, meaning the waters are classified as other than Approved under N.J.A.C. 7:12, then the taking of the shellfish is prohibited unless the Department has issued a permit allowing it.

With this rulemaking, the Department has established several new permits that allow shellfish to be taken from waters other than Approved for certain specified purposes and under certain specified conditions, including the Permit for Shellfish Research in Waters Other Than Approved. As explained in the notice of proposal Summary, the requirements and conditions of the permit minimize the potential risk to public health from consumption of shellfish, which exists any time shellfish are taken from the water.

78. COMMENT: The requirements for the Permit for Shellfish Research in Waters Other Than Approved are excessive and will stifle research. Under the proposed new rule, an applicant for a shellfish research permit must demonstrate that the research activity must “have a beneficial effect on the conservation of the species, the public welfare, or the environment.” Research does not begin with a demonstrable or guaranteed outcome, a requirement that may impede or stifle research. The existing requirement of a Scientific Collecting Permit and notification of research activity has proven sufficient to date. (13 and 19)

RESPONSE: The language quoted by the commenters is not part of the application requirements for the Permit for Shellfish Research in Waters Other Than Approved under these rules. It is part of the application requirements for the Scientific Collecting Permit issued by the Division of Fish and Wildlife (DFW) pursuant to the DFW's rules at N.J.A.C. 7:25-4.6. Obtaining that permit is a prerequisite to applying for the Permit for Shellfish Research in Waters Other Than Approved at N.J.A.C. 7:12-9.10 because the DFW is responsible for managing and ensuring the protection and conservation of all forms of wildlife in the State, including shellfish, and does so through, in addition to other means, its various permitting programs.

N.J.A.C. 7:12-9.11 Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved

79. COMMENT: The benefits that oysters provide are numerous and have been the subject of extensive study. In addition to being valued as a fishery commodity, oysters provide a host of non-market ecosystem services, including water filtration and water quality improvement; habitat for epibenthic invertebrates; nutrient sequestration; augmented fish production; stabilization of adjacent habitats and shoreline; and diversification of the landscape and ecosystem. When such ecosystem services are valued in economic terms, a conservative estimate of the economic value of oyster reef services – excluding oyster harvesting – ranges from \$5,500 to \$99,000 per hectare per year.

Given the far-reaching benefits and economic value of oyster reef habitat there is strong interest in oyster restoration for the purpose of maximizing the ecosystem services that oyster reefs provide. However, the proposed permit imposes unnecessarily strict security

requirements on shellfish restoration projects, thereby preventing very valuable shellfish restoration efforts from occurring.

The required security plan is onerous and cost prohibitive and the result would be to make restoration and research activities in restricted and prohibited waters nearly impossible. The rules make it unfeasible for permittees to implement shellfish research and restoration programs in New Jersey public waters other than secure waters such as Naval Weapon Station Earle, a secure U.S. Navy facility in Raritan Bay. Due to water classifications, the rules leave thousands of acres of public waters off limits to university students and non-profit organizations for crucial research and restoration unless they can meet the security requirements. There is no evidence of the general public tampering with such projects. The Department does not understand the benefits of shellfish and should re-evaluate the proposed rules in the interest of New Jersey's coast and communities. (1-5, 8, 9, 11, 13 through 33, 35 through 40, 42, 44, 45, 47 through 56, 58 through 63, 66 through 74, 77 through 94, 96, 97, 99 through 101, and 103 through 108)

RESPONSE: The Department is aware of the many benefits that may be derived from shellfish restoration and/or enhancement projects conducted in the State's waters. N.J.S.A. 58:24-3 prohibits persons from taking shellfish from waters classified as other than Approved without first obtaining a permit issued by the Department. The Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved is intended for restoration activities or projects at a single site in waters classified as other than Approved conducted by a non-profit organization or government agency for purposes of restoring or enhancing the shellfish resource or enhancing water quality, and not for human consumption. The shellfish restoration project must comply with certain requirements, including a security plan that

ensures adequate controls are in place to prevent the unauthorized harvest of shellfish. The minimum requirements for such a security plan include continuous surveillance and patrol of the project site; where the surveillance and patrol are provided by an entity other than the permittee, evidence that the entity has entered into a legally binding agreement with the permittee to provide the surveillance and patrol; provisions requiring immediate notification of law enforcement in the event of any security breach or emergency; and other security measures based on site-specific circumstances, such as signs, fencing, or structures that limit access to the site or to the shellfish.

Although the Department is not aware of any specific instances of tampering with shellfish restoration projects in waters other than Approved in New Jersey, the security requirements of the permit are intended to protect the public health by ensuring that shellfish are not illegally harvested from waters other than Approved.

How an applicant proposes to meet the permit's standards for security would be detailed in the security plan submitted as part of its application for the permit. The Department will review the proposed security plan and provide comments to the applicant if the Department finds the security plan does not meet the minimum requirements. The Department will work with the applicant to resolve any deficiency in its proposed security plan.

Persons who wish to conduct restoration activities in Approved waters are not required to obtain the Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved and are, therefore, not subject to the security requirements. However, such activities may be subject to other regulations. For instance, a coastal permit from the Department's Division of Land Use Regulation or a Scientific Collecting Permit from the Division of Fish and Wildlife may be necessary. More than 75 percent of New Jersey waters

are classified as Approved. Accordingly, restoration activities are not restricted in the majority of New Jersey waters.

80. COMMENT: The combination of the large-scale downgrading of Approved waters to Prohibited, Restricted, or Conditionally Approved and the strict security plan for shellfish restoration projects will effectively ban shellfish restoration projects in the very waters that need restoration the most. While prevention of the unauthorized harvest of shellfish is a valid objective, why does the Department impose unnecessary and expensive around-the-clock surveillance and patrol of restoration projects? Instead of the proposed security measures, the Department should impose alternative security measures that have been implemented in other states and/or identified as Best Management Practices for Shellfish Restoration as recommended by the Shellfish Restoration Committee of the Interstate Shellfish Sanitation Conference. The Department should look to adjacent states, which provide examples of how to secure waters against illegal harvesting activities: use of security monitoring system or other law-enforcement or security surveillance equipment to monitor projects; increased penalties for illegal harvesting to act as a deterrent; placement of oysters in closed water no-harvest sanctuaries (where commercial harvesting is not allowed) to make enforcement even easier, as anyone harvesting would be committing an illegal act; train and empower local law enforcement or local shellfish officers to enforce regulations and supplement patrols; implement water quality improvement projects and improve permits to allow upgrades of shellfish water classifications. Why did the Department not work with the restoration community? (16, 25, 27, 31, 39, 52, 59, 61, 63, 75, 95, and 108)

RESPONSE: In developing the amendments, repeals, and new rules at N.J.A.C. 7:12, the Department conducted stakeholder meetings that included members of the shellfish restoration community. The Department will conduct a further stakeholder process to determine if any changes to shellfish restoration rules would be practicable and will review pertinent shellfish restoration and/or enhancement policies and regulations of other coastal states.

The security plan requirements in the Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved align with many of the Best Management Practices for Shellfish Restoration as recommended by the Shellfish Restoration Committee of the Interstate Shellfish Sanitation Conference (Dorothy Leonard and Sandra MacFarlane, Best Management Practices for Shellfish Restoration, Prepared for the Interstate Shellfish Sanitation Conference, Oct. 1, 2011, available at <http://www.issc.org/publications/ShellfishRestorationDocuments.aspx>).

As noted in the Response to Comment 79, the purpose of the permit is not to prevent restoration and/or enhancement activities in New Jersey's waters, but to allow those activities in a way that will prevent the poaching, harvesting, or sale for human consumption of shellfish taken from waters classified as other than Approved.

81. COMMENT: The requirements of N.J.A.C. 7:12-9.11 are extremely overbearing, especially if the shellfish used in the project are significantly smaller than market-sized. There should be a separate category for the use of seed, which would be planted or broadcast at the end of the first year, and one category for multi-year growout efforts. (34)
82. COMMENT: Does the Department expect the project proponents to provide security on the site past the initial restoration activities? If so, for how long? What if the restoration activity

involves the placement of seed? Is surveillance required immediately, or not until the shellfish grow to market size? (98)

RESPONSE TO COMMENTS 81 and 82: The Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved requires that the Security Plan be implemented prior to conducting activities under the permit, and the Security Plan applies for all projects using any size shellfish. The Security Plan must be in place for the full term of the permit.

While the Security Plan must be approved as part of the issued permit and must be implemented when activities begin, a permit applicant may request that its Security Plan include a phasing-in of the continuous surveillance and patrol aspect of the Security Plan at the point when the shellfish seed being used in the project reach a predetermined (in the plan) size that is less than market-sized. As implied by the commenter's question, the surveillance must be implemented before the shellfish reach market size because the risk that shellfish might be poached is greatest when shellfish are large enough to sell for market and consumption. The details of how and when the continuous surveillance and patrol requirements will be phased-in must be identified at the time of application and approved through the permit in order to ensure the Security Plan's controls are adequate to prevent the unauthorized harvest of shellfish, as required at N.J.A.C. 7:12-9.11(b)2xii.

83. COMMENT: The Department should explain why it is only imposing strict security measures on restoration projects, and not on other permits, such as permits for relay projects. Relaying is defined as "the movement of shellfish from waters classified as Restricted to waters classified as Approved for the purpose of reducing pathogens ... that may be present

in the shellfish by using the ambient water as the treatment process.” Why would shellfish undergoing the relay process not need to be as heavily secured as shellfish utilized for restoration purposes? The Department should explain why it is only imposing strict security measures on restoration projects, when shellfish used in relay projects could also be poached when they are still unsafe for human consumption. (59 and 107)

RESPONSE: Relay harvest activities conducted under the Permit for the Harvest of Hard Clams or Oysters from Restricted Waters and Relay to Approved Waters, N.J.A.C. 7:12-9.8, are limited to Restricted waters specifically designated by the Department in the issued permit. The relay permit includes requirements for Department oversight that are not incorporated into the Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved, including notification, tagging, transportation, and minimum shellfish temperature requirements, the sealing by the Department’s Division of Fish and Wildlife, Bureau of Law Enforcement, Marine Region, of the vehicle used to relay the shellfish prior to transport, minimum purging times, written permission prior to re-harvest, vessel markings, and receipt forms.

The Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved Shellfish authorizes restoration activities in any waters classified as other than Approved, including waters classified as Prohibited. Shellfish from Prohibited waters pose the highest threat to human health when consumed. Unlike shellfish harvested for relay, which are placed in Approved waters and immediately begin reducing pathogens and viruses through the purging process, shellfish at restoration projects conducted under the Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved remain in waters

classified as other than Approved. The risk associated with consuming that product is never reduced.

84. COMMENT: The proposed rule makes it so that northern communities of New Jersey are unable to improve water quality through shellfish restoration efforts or to develop resiliency projects involving shellfish, such as the multi-million dollar “Living Breakwater” project off the South Shore of Staten Island. This project has already received \$60 million from the Federal government. Unfortunately, communities along the Raritan Bayshore and New York-New Jersey Harbor, densely populated areas hit hard by Hurricane Sandy, will not be able to take advantage of innovative resiliency measures under the proposed rule. The end result is that these front-line communities who have suffered from the most pollution and who would benefit the most from shellfish restoration projects are unable to pursue the restoration projects that would help clean up their communities, improve water quality, and increase storm resiliency. (59)

RESPONSE: Shellfish growing waters are classified according to the guidance and criteria as set forth in the NSSP Guide and incorporated by reference at N.J.A.C. 7:12-1.3, and are based on water quality (coliform) sampling results. Sampling results from waters in the northern and more populated parts of the State have historically shown higher coliform values. As a result of the higher coliform values, a greater percentage of waters in the northern and more populated parts of the State do not meet the criteria for the Approved classification than in the southern and less populated areas of the State.

Persons who wish to conduct resiliency projects such as establishing a living shoreline in water classified as Approved are not required to obtain a permit under the Shellfish Growing Water Classification rules at N.J.A.C. 7:12, but might need other permits for the placement

of those structures from the Department's Division of Land Use Management. If the resiliency project is located in water classified as other than Approved and does not involve placement of shellfish, including spat on shell, on the structures, the project will not require a permit under N.J.A.C. 7:12. However, the placement of shellfish, including spat on shell, in waters classified as other than Approved as part of a living shoreline or other resiliency project does require the Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved under N.J.A.C. 7:12.

85. COMMENT: The proposed permit language at N.J.A.C. 7:12-9.11 prevents the use of shellfish in "living shoreline" restoration techniques, which are a widely accepted means of shoreline protection and restoration throughout the Atlantic and Gulf coasts. The inclusion of non-commercial species in the definition of shellfish severely limits the ability of restoration practitioners to holistically restore a site. Other programs within the Department are promoting the use of artificial oyster reefs to serve as breakwaters or sills in high energy environments. The proposed rule would prevent the use of oyster reefs in the areas that would benefit the most. (98)

86. COMMENT: This rule proposal is in conflict with the U.S. Army Corps of Engineers recommendation to promote and establish shellfish reefs to protect shorelines from storm surge and erosion. (21)

RESPONSE TO COMMENTS 85 AND 86: The Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved permit, N.J.A.C. 7:12-9.11, does not prevent the implementation of resiliency projects, such as living shorelines for shoreline protection and restoration. A living shoreline in waters classified as Approved will not require a permit

under the Shellfish Growing Water Classification rules at N.J.A.C. 7:12. However, other permits may be required, for example, a coastal permit from the Department's Division of Land Use Regulation or a Scientific Collecting Permit from the Division of Fish and Wildlife. Living shoreline projects conducted in waters classified as Approved may incorporate the use of any type of shellfish, commercial or non-commercial.

For living shorelines located in waters classified as other than Approved, the living shoreline may incorporate structures to act as breakwaters or sills in high energy environments, as long as the placement of those structures is permitted through the Department's Division of Land Use Management. These structures may include substrate such as shell, rip rap, oyster castles and other hard surfaces or habitat which may attract the natural set of oyster spat or other shellfish. The natural set of oyster or other shellfish on these structures is not regulated. However, persons who wish to place shellfish, including spat on shell, in waters classified as other than Approved as part of a living shoreline must obtain a Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved, N.J.A.C. 7:12-9.11.

87. COMMENT: Law enforcement has been informed several times about breaches in areas where Barnegat Bay Shellfish Restoration Programs, Rutgers, has been operating, and the response has been lackluster. If a complaint is called in, enforcement needs to make sure there will be a timely response that day. The notice of proposal Summary states, "In addition, to help protect the larger community, if there is any theft of shellfish, tampering with structures, or significant shellfish mortality, the permittee must immediately telephone WARN DEP in order that the Department can take appropriate steps to try to prevent the

unsafe shellfish from reaching consumers.” “Can” and “will” are two separate things. Either the wording needs to be stronger to guarantee enforcement, or the language needs to be dropped because the risk is actually extremely small. (34)

RESPONSE: The language the commenter points to in the Summary merely describes the purpose of the rule’s requirement that the permittee immediately telephone the 24-hour DEP hotline at 1-877-WARN-DEP about the theft of shellfish, tampering with structures, or significant shellfish mortality. The purpose of the requirement is to give the Department information as promptly as possible, so that appropriate steps can be taken to try to prevent the unsafe shellfish from reaching consumers. Any risk that unsafe shellfish may reach consumers must be minimized.

88. COMMENT: It is not clear whether the activity covered by this permit includes a single bag of shellfish, manmade shellfish structures, large reefs of shellfish, single shellfish, spat on shell, and so on. (34 and 102)

RESPONSE: The Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved, N.J.A.C. 7:12-9.11, is not limited to a specific type of restoration and/or enhancement activity. An applicant for the permit must submit a project overview that includes, among other things, a description of the design of the project, a description of the type of structure(s), or proposed alterations or enhancements to the bottom, and the species and size, and estimated number of shellfish to be used over the course of the project. The Department will review the proposed project to ensure that adequate controls will be in place under the applicant’s Security Plan to prevent the unauthorized harvest of shellfish in light of the scope of the project and components to be used in it.

89. COMMENT: The requirement for a Scientific Collecting Permit under proposed N.J.A.C. 7:12-9.11(b)1 will lead to confusion between projects undertaken for research purposes and those for restoration. The information the Department is requesting as part of the “project overview” largely duplicates that of the Scientific Collecting Permit. Thus, the Department should drop the Scientific Collecting Permit requirement from this section and rely on the information found in the project overview, so that the activity types remain distinct. (19 and 98)

RESPONSE: The Scientific Collecting Permit issued by the Division of Fish and Wildlife (DFW) pursuant to the DFW’s rules at N.J.A.C. 7:25-4.6 authorizes the collection of marine and estuarine organisms for scientific purposes. The Permit for Shellfish Restoration and/or Enhancement in Water Other Than Approved at N.J.A.C. 7:12-9.11 is intended for restoration activities or projects at a single site in waters classified as other than Approved conducted by a non-profit organization or government agency for purposes of restoring or enhancing the shellfish resource or enhancing water quality, and not for human consumption. While there is some overlap in the information required to be provided in the application for each permit, the project description in the application for the Permit for Shellfish Restoration and/or Enhancement in Water Other Than Approved requires detail regarding the project design, purpose, and Security Plan to minimize the potential risk to public health from consumption of shellfish from waters other than Approved.

90. COMMENT: If a project proponent is working on more than one site, would a separate permit be required for each site, or is there a way to combine multiple sites into a single permit? (34 and 102)

RESPONSE: The Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved, N.J.A.C. 7:12-9.11, authorizes a restoration and/or enhancement project at a single site only. Each permit is issued for a single site because the characteristics for each restoration or enhancement project are unique to the site and waters where the project will be conducted.

91. COMMENT: Why is the Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved available only to non-profit organizations or government agencies? It is not clear why individuals or for-profit organizations are discouraged from conducting restoration activities provided they can meet the conditions of the permit. (13 and 98)

RESPONSE: For-profit organizations or individuals interested in conducting restoration activities may seek to partner with a governmental or non-profit agency to apply for a Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved. To date, only nonprofit organizations have sought a permit for restoration activities in waters other than Approved. If significant interest in conducting restoration and/or enhancement projects is shown by individuals or for-profit organizations, the Department will consider expanding this permit to include them through rulemaking.

92. COMMENT: The Department should include Delaware Bay in this outreach for shellfish research and restoration; it is a valuable and delicate eco-balance system and sustainable resources. (12)

RESPONSE: The Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved can be used for projects in the Delaware Bay.

93. COMMENT: If the area is designated as a sanctuary (either before or after restoration activities take place), is surveillance still required? (98)

RESPONSE: During the duration of the permit for a restoration project under N.J.A.C. 7:12-9.11, the permittee is responsible for surveillance. Should the Department determine to designate an area as a shellfish sanctuary in accordance with N.J.A.C. 7:12-7.1, harvest of the shellfish in the sanctuary would not be allowed, and the Department would be responsible for enforcement.

N.J.A.C. 7:12-9.12 Permit for Growing Seed in Waters Other Than Approved by a Non-profit Organization or Government Agency

94. COMMENT: The Permit for Growing Seed in Waters Other Than Approved by a Non-profit Organization or Government Agency restricts applicants to nonprofit and government agencies. This should be expanded to include the academic and commercial sectors that are also engaged in restoration projects. (19)

95. COMMENT: Is an academic institution considered a government agency? If not, then “academic institution” should be added to the rule text. (34)

RESPONSE TO COMMENTS 94 AND 95: Persons from the commercial sector interested in growing seed in waters other than Approved can apply for a Permit for a Hatchery to Produce and Grow Seed or for a Nursery to Grow Seed, N.J.A.C. 7:12-9.14. Academic institutions, such as state colleges, universities, or public schools are considered government

entities. Those academic institutions that are neither affiliated with government nor have non-profit status may partner with a government or non-profit agency to apply for a Permit for Growing Seed in Waters Other Than Approved by a Non-profit Organization or Government Agency.

N.J.A.C. 7:12-9.13 Permit for Short-term Use of Shellfish for Toxins Monitoring in Waters Other Than Approved

96. COMMENT: Is there a need for a separate permit for this activity (Permit for Short-term Use of Shellfish for Toxins Monitoring in Waters Other Than Approved), especially since this activity is and should continue to be covered under the provisions and requirements for research governed by the Division of Fish and Wildlife's Scientific Collecting Permit. Aside from the contradictory and counterproductive requirements of this permit, it is duplicative, unnecessary and should be eliminated in its entirety. (19)

RESPONSE: As explained in the Response to Comment 77, the Scientific Collecting Permit for marine waters issued by the Division of Fish and Wildlife (DFW) authorizes the collection of marine and estuarine organisms for scientific purposes. The DFW's Scientific Collecting Permit, as well as the three permits issued under Subchapter 9 of the Shellfish Growing Water Classification rules for which a Scientific Collecting Permit must first be obtained (that is, the Permit for Shellfish Research in Waters Other Than Approved, N.J.A.C. 7:12-9.10; the Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved, N.J.A.C. 7:12-9.11; and the Permit for Growing Seed in Waters Other Than Approved by a Non-profit Organization or Government Agency, N.J.A.C. 7:12-9.12), authorize the collection of shellfish from waters where they are growing, and, in most cases,

the return of or relocation of the shellfish to waters where they will be dispersed into the environment and continue to grow. However, the Permit for the Short-term Use of Shellfish for Toxins Monitoring in Waters Other Than Approved at N.J.A.C. 7:12-9.13 authorizes the placement of shellfish into waters other than Approved for the purpose of monitoring the bioaccumulation by the shellfish of toxic chemicals or compounds from the water. Because they are being placed in water that is known or suspected to be contaminated with toxic chemicals or compounds, the toxins monitoring permit imposes strict conditions on how the shellfish may be placed and held in the water in containers or cages. The permit also requires that the shellfish be destroyed at the end of the toxins monitoring project because they will necessarily be unfit for human consumption and, having taken up toxins from the water, should not be dispersed into the environment. Thus, the permit is not duplicative of the DFW Scientific Collecting Permit, and the permit is necessary to facilitate the performance of approved and carefully controlled shellfish studies in support of the clean-up of contaminated sites located in or affecting waters other than Approved.

97. COMMENT: It is doubtful that the proposed Permit for Short-term Use of Shellfish for Toxins Monitoring in Waters Other Than Approved could result in the generation of jobs.

(34)

RESPONSE: The Jobs Impact statement represents the Department's informed estimate of the impact of the proposed rules on job creation or retention in the State. The Permit for Short-term Use of Shellfish for Toxins Monitoring in Waters Other Than Approved is a new permit that will, as noted in the Response to Comment 96, facilitate the performance of approved and carefully controlled shellfish studies in support of the clean-up of contaminated

sites located in or affecting waters other than Approved. To the extent those conducting site clean-ups employ persons to conduct shellfish toxin monitoring studies under the new permit, there is likely to be a positive impact on jobs.

N.J.A.C. 7:12-9.14 Permit for a Hatchery to Produce and Grow Seed or for a Nursery to Grow Seed

98. COMMENT: The proposed rules should include the NSSP Guide's Requirements for the Harvester/Dealer, .01 Exceptions, stating that "[t]he following activities are exempted from these requirements: A. Hatcheries; B. Nursery products which do not exceed ten (10) percent of the market weight; and C. Nursery products which are six (6) months or more growing time from market size." Exemption for nursery/hatchery activities is also possible due to N.J.S.A. 4:27-10, Review of laws, rules, regulations pertinent to aquaculture. (6)

99. COMMENT: According to the NSSP Guide, shellfish hatcheries are not required to be permitted for compliance. Nurseries containing seed that are six months or more from market size are also exempt from these regulations. The Department has posited that the new rules for hatcheries, nurseries, and aquaculture are a component of compliance with the NSSP Guide; however, this is inaccurate for the hatcheries and nurseries. The Department should provide additional information on why the permit for hatcheries and nurseries was developed, including reasoning for the significant restrictions to broodstock. Alternatively, the Department should remove the permit entirely from the new rules until further discussions ensue between the Department and hatchery operators. (102)

RESPONSE TO COMMENTS 98 and 99: Pursuant to N.J.S.A. 58:24-3, "the department shall prohibit the taking of oysters, clams or other shellfish from a place which has been

condemned by the department pursuant to this act, and shall also prohibit the distribution, sale, offering for sale or having in possession of any such shellfish so taken, without a permit so to take, distribute, sell, offer to sell, or have in possession, first obtained from the department, under such rules and regulations as it shall adopt.” The Permit for a Hatchery to Produce and Grow Seed or for a Nursery to Grow Seed, N.J.A.C. 7:12-9.14, authorizes a permittee to produce or grow seed at a single site in or using waters classified as other than Approved for sale or for relocation from such waters to Approved or Conditionally Approved waters. Consequently, notwithstanding the NSSP Guide’s provision of exceptions for hatcheries and certain nursery activities, the promulgation of the permit satisfies the statutory requirement that, in New Jersey, such activities in condemned waters, meaning, waters other than Approved, must be conducted pursuant to a permit from the Department.

As noted, the Permit for a Hatchery to Produce and Grow Seed or for a Nursery to Grow Seed is only for the production of seed that will be sold or relocated to Approved or Conditionally Approved waters where the shellfish seed will grow out to market size and be purged of pathogens during that grow-out period. Broodstock, which are sexually mature shellfish necessarily larger than seed, are essential to the operation of a hatchery. As explained in the notice of proposal Summary, the permit requirements and limitations lessen the risk that broodstock, which could be of market size, from waters other than Approved might be illegally diverted to market or used for human consumption.

Last, N.J.S.A. 4:27-10, Review of laws, rules, regulations pertinent to aquaculture, does not provide any exemption for the activities governed by the permit for hatcheries and nurseries. The New Jersey Aquaculture Development Act, N.J.S.A. 4:27-1 et seq., is intended to foster development of an aquaculture industry in New Jersey. See N.J.S.A. 4:27-

2, Legislative findings and declarations. The new permit facilitates aquaculture and helps ensure protection of the public health and safety by establishing conditions for conducting hatchery and nursery activities in waters other than Approved.

100. COMMENT: Requirements and conditions set forth in the hatchery and nursery permit are excessive and overly burdensome to achieve their goal. The proposed rule requires that shellfish hatcheries take certain precautions to limit access to their broodstock to reduce the potential that broodstock from waters other than Approved could be diverted to market or used for human consumption. Existing security measures have proved sufficient; existing hatcheries, some operating for more than 30 years, have lost no broodstock from theft. These hatcheries are properly managed and do not require additional restrictions. (13)

101. COMMENT: If broodstock are kept in a hatchery facility and not actually in Restricted coastal waters, the level of security required with this permit is not necessary. Hatchery operators often have a two-stage approach to broodstock. They may keep some in the field, sequestered until needed in the hatchery for ripening. During spawning season, the broodstock are brought in from the Approved waters where they are held (on a lease), and then they may remain at the hatchery until needed, possibly in a tank or raceway. There is already an inherent level of security from this process. Any restrictions on handling of broodstock for a hatchery, either private or public, are irrelevant since there has been no case of theft of such and sale of such for over 40 years of private handling of broodstock, and much longer for the handling and storage of broodstock for research purposes. (34 and 102)

RESPONSE TO COMMENTS 100 and 101: As explained in the Response to Comments 98 and 99, the Permit for a Hatchery to Produce and Grow Seed or for a Nursery to Grow Seed,

N.J.A.C. 7:12-9.14, satisfies the statutory requirement of N.J.S.A. 58:24-3 that the activities of shellfish hatcheries and nurseries in waters other than Approved must be conducted pursuant to a permit from the Department. The permit applies only to those producing and/or growing seed at a single site in waters classified as other than Approved or using such waters to produce seed that will be sold or relocated to Approved or Conditionally Approved waters. Since the broodstock for such hatcheries are necessarily exposed to waters other than Approved – whether on a lease in coastal waters or in a raceway or tank at the hatchery facility – the permit requires that the hatcheries take certain precautions to limit access to broodstock in order to lessen the potential that broodstock from waters other than Approved could be illegally diverted to market or used for human consumption.

When held in raceways or tanks in the hatchery facility, the broodstock may be co-located with the seed they are producing. Accordingly, it is important for Department inspectors inspecting the hatchery facility to know the species, number, and location of broodstock that should be present at the facility as stated in the description of the operation in the permit application on which issuance of the permit was based. The presence of market-sized shellfish of other species, in greater numbers, or at other locations would violate the requirements and conditions of the issued permit.

102. COMMENT: The new rules do not provide information related to shellfish farmers who operate both a hatchery and grow-out system on a commercial shellfish lease. The operational plan for these vertically integrated farms should show a seamless operation between the lease and the hatchery facility. The new rules, as written, do not allow for a single permit to account for these farmers. The need for dual permits to conduct historically

approved farming is inefficient and may work to stifle expansion and improvement of hatcheries. If a permit is necessary for hatchery or nursery operations, the permitting should be reviewed, approved, and supplied to the growers in one process that considers the entire growing operation. (102)

RESPONSE: A person operating a hatchery in waters other than Approved and growing out the shellfish on a commercial shellfish lease in Approved waters or Conditionally Approved waters would need to obtain two permits: The Permit for a Hatchery to Produce and Grow Seed or for a Nursery to Grow Seed, N.J.A.C. 7:12-9.14, and the Commercial Shellfish Aquaculture Permit, N.J.A.C. 7:12-9.15. To streamline the permitting process, the applications for both permits can be submitted together, so that the circumstances of the entire growing operation are reviewed at one time.

N.J.A.C. 7:12-9.15 Commercial Shellfish Aquaculture Permit

103. COMMENT: For the requirements of the Aquaculture Permit application, the GPS coordinates of each lease are already on file with the Department's Bureau of Shellfisheries and could be accessed by the Department's Bureau of Marine Water Monitoring whenever needed. The map and lease number of the lease area should be sufficient without requiring additional information from the applicant. (34 and 102)

RESPONSE: The rule at N.J.A.C. 7:12-9.15(c)3 requires the applicant to submit identification of the lease or Tidelands instrument for the site(s) where aquaculture activities will be conducted, which the Department can verify from its records. However, N.J.A.C. 7:12-9.15(c)2 requires the GPS coordinates of the boundaries of the site(s) where aquaculture activities will be conducted, which may be only a portion of a lease or may extend over

portions of several leases. The more specific information about the location of area(s) where the aquaculture activities will be conducted is necessary so that the Department can locate aquaculture activities when conducting inspections out on the water.

104. COMMENT: The Department's decision to not impose a fee for the Commercial Shellfish Aquaculture Permit is supported. (102)

RESPONSE: The Department acknowledges the commenter's support for the rule.

105. COMMENT: Since in New Jersey, by statute, aquaculture is agriculture, the Department of Agriculture should have final decision as to whether a new permit is required, whether the current Aquatic Farmer's License is adequate, or an aquaculture registry would be sufficient. This registry concept is currently under consideration by the New Jersey Aquaculture Advisory Committee. (34)

106. COMMENT: What problems have surfaced to require a shellfish farmer to have a permit to do what they have been doing successfully and without incident for over 40 years? This appears to be simply another layer of bureaucracy that is not needed. By statute, aquaculture is agriculture in New Jersey, and no land farmer needs a permit to farm; therefore, shellfish farmers should not have to operate under this level of permitting. The proposed new Commercial Shellfish Aquaculture Permit is another authorization in a string of recent changes required of shellfish growers within the State and adds to the uncertain future of the industry. The unstable policy environment of constantly changing permits is a detriment to the current industry and a clear obstacle to any industry growth. Growers have been using the

appropriate standards mandated by NSSP for decades. There is no better level of safety incorporated in the process by simply having a permit. (34 and 102)

107. COMMENT: Instead of issuing a Commercial Shellfish Aquaculture Permit, it would be more efficient for the industry to have a simple check-off on their Commercial Shellfish License if they were conducting either clam or oyster culture. Another permit is not needed, as long as there is some designation that the individual is conducting shellfish culture in some fashion, which is duly noted on his Shellfish License. The Commercial Shellfish License and the Commercial Shellfish Aquaculture Permit should eventually merge, so that only one proof of authorization is necessary for shellfish farmers. (34 and 102)
108. COMMENT: In reviewing the current authorizations required of shellfish growers within the State, the Department should consolidate any permit or license applications into one yearly renewal. At present, growers apply to the Department through the Bureau of Shellfisheries, the Division of Land Use, Bureau of Tidelands Management, and now the Bureau of Marine Water Monitoring. In addition to the other authorizations required of these growers, it seems logical and efficiently streamlined to develop a single Department application and suite of authorizations for shellfish aquaculturists. (102)
109. COMMENT: In the Social Impact, it is mentioned that no other permits exist for several activities including Hatchery and Nursery seed production and Commercial Shellfish Aquaculture. This statement is not entirely correct on the basis of several current authorizations already in place within the Department. These include the Commercial Shellfish License (provides authorization to harvest shellfish from the waters of the State), the Shellfish Lease (provides authorization for the use of State-owned seabed and water column for the production of shellfish), and the Land Use Permits (provide authorizations for

the structures, including those used in hatchery and nursery systems). In addition, through the Department of Agriculture, the Aquatic Farmer License provides proof of ownership over cultured shellfish. Collectively, these permits from the State provide the same role as the new Commercial Shellfish Aquaculture Permit. (102).

RESPONSE TO COMMENTS 105 THROUGH 109: The Department recognizes and appreciates the precautions shellfish growers have historically taken to ensure the safety and wholesomeness of their product. However, the NSSP Guide at Chapter VI .02 B. and C. provides that any person who performs aquaculture or operates an aquaculture facility to raise shellfish for human consumption must obtain a permit from the Authority, in this case, the Department, for the activity or for construction and functioning of the aquaculture facility, and that shellfish aquaculture must be practiced only in compliance with the provisions of the permit. Failure of the State to comply with the criteria specified in the NSSP Guide for regulating aquaculture activities could result in the State's Certified Shellfish Dealers being removed from FDA's Interstate Shellfish Shippers List, jeopardizing the sale and shipment of all New Jersey shellfish products. The Commercial Shellfish Aquaculture Permit will ensure New Jersey's compliance with the requirements of the NSSP Guide.

As noted by the commenter, each of the other cited permits serves a different purpose. None of them implements the standards for commercial shellfish aquaculture required by the NSSP Guide, including that aquaculture be conducted only in Approved or Conditionally Approved waters, that aquaculture be conducted in accordance with an approved operational plan, and that accurate records be kept.

Also, as to the Department's role and the Department of Agriculture's role, under N.J.S.A. 4:27-6, the Department of Environmental Protection is the lead State agency with respect to regulation of aquaculture activities in the waters of the State and, under N.J.S.A. 50:1-5, has full control and direction of the shellfish industry and resources and of the protection of shellfish throughout the entire State in consultation with the appropriate councils.

Finally, as explained in the Response to Comments 9 and 10, in implementing these rules, the Department will coordinate with other agencies when feasible, and will work toward the goal of streamlining and updating the shellfish statutes, rules, and permits. These adopted rule changes are the first step.

110. COMMENT: The separation of permitting for restoration and aquaculture does not inherently allow aquatic shellfish farmers to conduct restoration activities on or off commercial production leases. Through the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS), funding is available for farmers to implement conservation practices. For shellfish aquaculture, one of the promoted practices is restoration of native shellfish. The rules as written do not allow for this practice. It is requested that a farmer's ability to apply for and conduct approved NRCS practices be explicitly stated, so as to not negate any future potential restoration activities through the absence of such approving language. (102)

RESPONSE: The Commercial Shellfish Aquaculture Permit regulates the growing of shellfish in waters classified as Approved or Conditionally Approved and harvest for direct marketing. Restoration activities funded through the U.S. Department of Agriculture,

Natural Resource Conservation Service's Environmental Quality Incentives Program, such as the restoration or enhancement of bottom substrate, are not precluded. However, such activities may be subject to other regulations. For instance, a coastal permit from the Department's Division of Land Use Regulation may be necessary.

111. COMMENT: Any inspections of farms should be conducted in the most efficient manner for the grower and the State. Currently, all certified dealers are inspected twice a year by the Department of Health. It is recommended that any Department of Environmental Protection inspections be coordinated with the Department of Health to limit the number of days growers are removed from their business activities. Those growers who are not certified by the Department of Health will have only Department of Environmental Protection inspections. (102)

RESPONSE: As explained in the Response to Comments 11 and 12 under N.J.S.A. 58:24-7, the Department has access to all places where shellfish are grown, stored, and possessed with intent to distribute or sell. The Department recognizes it is important that inspections be conducted at a time and in a manner that does not unduly disrupt the industry. In implementing the rules, the Department will coordinate inspections with the Department of Health, when appropriate.

112. COMMENT: The Aquatic Farmer License was devised to show ownership over the product or crop being grown (for instance, clams, oysters, mussels). There is no mention that the new Commercial Shellfish Aquaculture Permit will serve the role of protecting farmed crops. The Department should work with the Department of Agriculture and the New Jersey

Aquaculture Advisory Council to determine how farmers can still receive this protection, while streamlining the process of obtaining the appropriate authorizations.

All shellfish being grown by an aquaculturist is owned by the grower and should be considered the private property of the grower/business. Much of the language throughout the new rules hints at or explicitly mentions how shellfish are a State resource, but this is not true for an aquacultured product. (6 and 102)

RESPONSE: The Commercial Shellfish Aquaculture Permit, N.J.A.C. 7:12-9.15, does not eliminate the distinct role of or benefits conferred by the Aquatic Farmer License issued by the Department of Agriculture under N.J.A.C. 2:89-2. Persons wishing to realize the benefits of the Aquatic Farmer License, which are outlined in the Department of Agriculture's rules at N.J.A.C. 2:89 Appendix A, are encouraged to obtain that license.

113. COMMENT: The Commercial Shellfish Aquaculture Permit should physically replicate the Commercial Shellfish License. A large paper, or multiple papers, cannot feasibly be maintained on or near a lease; however, a waterproof wallet-sized card is ideal. (102)

RESPONSE: To facilitate enforcement and inspection efforts, N.J.A.C. 7:12-9.15(d)1 requires that the issued permit document be in the permit holder's possession while harvesting, off-loading, and transporting shellfish from the aquaculture operation. The Department is considering incorporating into the issued permit document a card, such as the commenter suggests, which would identify the permit holder and issued permit number and expiration date, and which the permit holder could keep on his or her person while conducting aquaculture activities. However, the issued permit document would still need to be kept at hand, for instance, at the permit holder's facility or vessel.

114. COMMENT: If a Commercial Shellfish Aquaculture Permit were instituted would the Department have the manpower to maintain a database of commercial shellfish production? Will the current staffing levels at the Bureau of Marine Water Monitoring be sufficient to maintain the database created as result of these rules in addition to their current workload? The rules add another level of approval (via the permit) that may be delayed due to staff limitations. (34 and 102)

RESPONSE: The information required to be submitted by permittees under the Commercial Shellfish Aquaculture Permit will be entered into a Department database, which is currently being developed. As explained in the Economic Impact statement, the Department estimates its Bureau of Marine Water Monitoring will issue an additional 100 to 150 permits per year, including 80 to 100 new Commercial Shellfish Aquaculture Permits, but it will require no new permitting staff to do so.

115. COMMENT: While it is a good idea to have shellfish husbandry tags, N.J.A.C. 7:12-9.15(e)3i should be changed to allow the tags to be reusable without the requirement to be numbered. This tagging process can add a financial burden to the industry that is currently non-existent. (7)

RESPONSE: The permit requires that when conducting husbandry and maintenance activities outside the boundaries of the lot subject to the permittee's lease or Tidelands instrument, the permittee must affix to each individual shellfish container, cage, basket, bin, or bag a fluorescent orange, serially numbered, water-resistant shellfish husbandry tag that is clearly marked with the permittee's name or company name, and shellfish license number.

After completing husbandry and maintenance activities and the required recordkeeping requirements, the husbandry tag may be removed from the container and may be re-used. The numbers on the tags are entered in the journal and are necessary for tracking the containers of shellfish removed for husbandry and maintenance and returned to the lot. The tag numbers do not prevent re-use of the tags.

116. COMMENT: N.J.A.C. 7:12-9.15(e)3ii and iii should be reworded to the effect that recording information can be done at the time husbandry takes place outside of the lease. While the practice of recording the information in a journal is acceptable, the recording should not be required to be done prior to removing any shellfish container from the lot, and while returning any shellfish container. Recording information during these parts of the husbandry process on the water is impractical. (7)

RESPONSE: As explained in the notice of proposal Summary, the requirement to record the information when shellfish are removed from the lot for husbandry and maintenance activities and when they are returned to the lot ensures that harvest rules, including restrictions on time and day of harvest and shellfish size limits, are not circumvented and prevents the diversion of the shellfish directly to market rather than resubmerging them for 48 hours. The 48-hour period of resubmergence allows bacterial levels that may have increased while the shellfish were out of the water to fall to background levels prior to harvesting.

117. COMMENT: The reporting of shellfish harvested is not required by any other statute.

Lease holders are required to show the amount of days that they have used their lease but that

is all. There is no real documentation of use rule in the new lease policy being developed by the Shellfish Council in coordination with the Bureau of Shellfisheries. The use reporting required in the proposed rule does not coincide with other recent policy initiatives related to shellfish aquaculture. (34 and 102)

RESPONSE: The NSSP Guide, Chapter II Risk Assessment and Risk Management @. 03 Annual Assessment of *Vibrio vulnificus* (Vv) and *Vibrio parahaemolyticus* (Vp) Illnesses and Shellfish Production requires that the State authority must collect by month and report annually to the Interstate Shellfish Sanitation Conference (ISSC), the volume of shellfish harvested in the State. The report must include the volume of shellfish harvested for each species, including, if available, a volume breakdown by utilization type (raw, shucked, and so on). The volume of shellfish harvested in the State is used to calculate the risk per serving associated with Vv or Vp illness, which is used in determining the effectiveness of the previous year's Vp Control Plan pursuant to Chapter II, @.07 of the NSSP Guide. The harvest information reported by commercial shellfish aquaculture permittees will help ensure the accuracy and completeness of the shellfish harvest data that is compiled and used as noted for purposes of protecting the public health and safety.

118. COMMENT: Twenty-four hours a day, seven days a week husbandry activity on a clam lot violates sunrise to sunset rules. Twenty-four hours a day, seven days a week off-site activity for sorting and other purposes, is acceptable. (6)

RESPONSE: Husbandry and maintenance activities are those aquaculture activities relating to the care and rearing of shellfish and the maintenance of the equipment used for those activities, which, for purposes of the Commercial Shellfish Aquaculture Permit, are not considered harvest. However, as necessary, the Department will, pursuant to N.J.A.C. 7:12-

9.1(c) and based on the description of husbandry and maintenance activities in an applicant's proposed Operational Plan, include in the individual issued permit appropriate restrictions on husbandry and maintenance activities relating to area limitations (for instance, on or off the water) and time limitations (for instance, only during daylight hours) in order to facilitate enforcement and protection of the health, safety, and welfare of the public.

Summary of Agency-Initiated Changes

In addition to the changes on adoption discussed above in response to comments, the Department is modifying the rules on adoption to make the below-listed changes.

1. At N.J.A.C. 7:12-1.3(a), the Department is updating the incorporation by reference provision for the classification of shellfish waters to reflect the recent release of the 2015 amended NSSP Guide.

2. At N.J.A.C. 7:12-1.4(b), the Department is correcting references to growing water classifications. As noted in the notice of proposal Summary, the amended rules conform the descriptive designations of the various classifications of shellfish growing waters to the NSSP Guide classifications. Shellfish growing waters may be classified as Approved, Conditionally Approved, Restricted, Conditionally Restricted, or Prohibited.

3. In the heading of Subchapter 3, the plural use of "waters" is corrected to singular, for consistency with the headings of the other subchapters describing particular shellfish growing water classifications.

4. The shellfish growing water classification descriptions at N.J.A.C. 7:12-3.1(a)32i(1) and 4.1(a)14ii(1) and iii(1) are modified on adoption to correctly reflect a particular intersection point in the described boundaries. The identification of the buoy, "Flashing Green 2.5 second

"5"(Fl G 2.5 sec "5")" is replaced with GPS coordinates for its correct location and the angles of the lines (expressed in degrees) to that location are also corrected. In addition, at N.J.A.C. 7:12-3.1(a)32i(1) and 4.1(a)14ii(1), the GPS coordinates of the East Point Lighthouse are added for purposes of accuracy. These modifications are necessary to correctly reflect the boundaries of the shellfish growing water classifications based on the water quality data; they do not increase or decrease the acreage of waters in the respective shellfish growing water classifications.

5. In the application submittal requirements at N.J.A.C. 7:12-9.7(b)2 for the Permit for the Harvest of Surf Clams from Prohibited Waters for Bait, the Department is replacing vessel license with vessel State registration number because vessels used to harvest surf clams for bait in New Jersey do not have a license assigned to them; however, they do have State registration numbers.

6. At N.J.A.C. 7:12-9.10(b)1, 9.11(b)1, and 9.12(b)1, the Department is correcting the references to the permit issued by the Department's Division of Fish and Wildlife pursuant to N.J.A.C. 7:25-4.6 from Scientific Collection Permit to Scientific Collecting Permit.

7. At N.J.A.C. 7:12-9.11(b)1 and 9.12(b)1, the Department is inserting the conjunction "and" before the second of the two elements in the list of additional items to be submitted as part of the application for these permits, consistent with the list style for the application requirements for the other permits in Subchapter 9.

8. The Department is correcting the spelling of "Conditionally" at N.J.A.C. 7:12-9.15(d)2i.

9. The Department is modifying the requirements in the Commercial Shellfish Aquaculture Permit relating to water quality sampling in a closed or recirculating operation prior to shellfish harvest to correct a contradiction between N.J.A.C. 7:12-9.15(d)5i and (d)5ii and iii.

The Department is modifying N.J.A.C. 7:12-9.15(d)5i to change the reference to “any one sample” of water to “all samples.” All water sample results must be below 14 Most Probable Number (MPN) or Colony Forming Units (CFU) per 100 ml before the shellfish in the tank can be harvested. This change is consistent with the description of the requirements in the notice of proposal Summary that state that water quality within a closed or recirculating operation must meet a standard of 14 MPN or CFU/100 ml before shellfish can be harvested for direct marketing, and if the water quality does not meet the standard, remedial measures must be taken and the water retested. It is also consistent with the requirement in N.J.A.C. 7:12-9.15(d)5iii that all water samples taken after the remedial measures are implemented must meet the 14 MPN or CFU per 100 ml standard prior to harvest.

10. The Department is modifying the requirements and conditions of the Commercial Shellfish Aquaculture Permit to add new N.J.A.C. 7:12-9.15(d)7, which will prohibit a commercial shellfish aquaculture permittee from making changes in its operations (for instance, using a different lease, or culturing a different species) after the permit is issued, unless approval from the Department is obtained first. The Operational Plan is essential to the Department’s decision to issue the permit, and any changes to the aquaculture operations that are not contemplated in the Operational Plan as approved at the time of permit issuance must be reviewed by the Department before implementation in order to ensure compliance with the rules and the NSSP Guide. A similar provision regarding changes to the operations of a hatchery or nursery is found at N.J.A.C. 7:12-9.14(c)2 in the Permit for a Hatchery to Produce and Grow Seed or for a Nursery to Grow Seed.

Federal Standards Statement

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65), require State agencies which adopt, readopt, or amend State regulations that exceed any Federal standards or requirements to include in the rulemaking a Federal standards analysis.

The amendments, repeals, and new rules are developed under public health control procedures of the National Shellfish Sanitation Program (NSSP). The NSSP is a tripartite cooperative program consisting of the states, shellfish industry, and the United States Food and Drug Administration (FDA). This cooperative program is managed through the Interstate Shellfish Sanitation Conference, which developed the sanitary control procedures defined in the Guide for the Control of Molluscan Shellfish. Each shellfish producing state has the responsibility to adopt laws and regulations consistent with the guidelines of the NSSP. The FDA is responsible for reviewing the State's shellfish control program to ensure that it is consistent with the national standards applicable to all other state shellfish control programs. These amendments, repeals, and new rules implement the NSSP guidelines and contain no standards or requirements that exceed the standards or requirements imposed by Federal Law. Accordingly, no further analysis is required.

Full text of the adopted amendments and new rules follows (additions to proposal indicated in boldface with asterisks ***thus***; deletions from proposal indicated in brackets with asterisks *[thus]*):

SUBCHAPTER 1. GENERAL PROVISIONS AND PROCEDURES FOR CLASSIFICATION
OF SHELLFISH WATERS

7:12-1.3 Classification of shellfish waters

(a) The Department shall classify the shellfish waters of the State for the purpose of harvesting shellfish. The classification of all shellfish waters shall adhere to the guidance and criteria contained within the NSSP Guide, *[2013]* ***2015***, incorporated herein by reference, as amended and supplemented, and available as provided at N.J.A.C. 7:12-1.1(k). Shellfish waters may be classified as Approved, Conditionally Approved, Restricted, Conditionally Restricted, or Prohibited. Classification of shellfish waters shall be determined based on the following factors:

1. – 5. (No change from proposal.)

(b)-(d) (No change from proposal.)

7:12-1.4 Immediate shellfish harvest suspensions and restrictions

(a) (No change.)

(b) The Department shall immediately suspend harvest in any waters that, at the time of sampling, do not meet the standards for the particular waters' classification, pending the establishment by rulemaking of the appropriate classification and boundaries of the waters as *[prohibited, special restricted, seasonal special restricted, seasonally approved or approved]* ***Prohibited, Restricted, Conditionally Restricted, Conditionally Approved, or Approved*** under this chapter.

(c)-(e) (No change from proposal.)

SUBCHAPTER 3. SHELLFISH GROWING WATER*[S]* CLASSIFICATION -

RESTRICTED

7:12-3.1 Shellfish growing waters that are classified as Restricted

(a) The following shellfish growing waters are classified as Restricted:

1.-31. (No change from proposal.)

32. Delaware Bay area (Note: A portion is also designated as Conditionally Approved.

See N.J.A.C. 7:12-4):

i. Maurice River and Maurice River Cove: Maurice River and tributaries thereof and that portion of Maurice River Cove between the following two lines:

(1) All of the water upstream of a line beginning at the East Point Lighthouse ***with coordinates of latitude 39 degrees 11 minutes 45.0 seconds N., longitude 75 degrees 1 minute 38.0 seconds W.,*** and bearing approximately ***[226]* *233*** degrees T to ***[Flashing Green 2.5 second "5" (Fl G 2.5 sec "5")]* *a point with coordinates of latitude 39 degrees 11 minutes 17.3 seconds N., longitude 75 degrees 2 minutes 16.08 seconds W.*** in the Maurice River Approach Channel then bearing approximately ***[323]* *320*** degrees T to a Department maintained marker at latitude 39 degrees 11 minutes 47.9 seconds N, longitude 75 degrees 2 minutes 41.6 seconds W, then bearing approximately ***[323]* *315*** degrees T to a Department maintained marker at latitude 39 degrees 12 minutes 16.7 seconds N, longitude 75 degrees 3 minutes 10.0 seconds W, then bearing approximately ***[323]* *315*** degrees T to a Department maintained marker at latitude 39 degrees 12 minutes 52.5 seconds N, longitude 75 degrees 3 minutes 45.2 seconds W on the western bank of the Maurice River Cove and terminating;

(2) (No change from proposal.)

ii.-xi. (No change from proposal.)

33. (No change.)

SUBCHAPTER 4. SHELLFISH GROWING WATER CLASSIFICATION ---
CONDITIONALLY APPROVED

7:12-4.1 Shellfish growing water classification --- Conditionally Approved

(a) The following shellfish growing waters are classified as Conditionally Approved, and are in the closed status from May 1 through October 31 are in the open status from November 1 through April 30:

1.-13. (No change from proposal.)

14. Delaware Bay:

i. (No change from proposal.)

ii. East Point area: Conditionally Approved – Restricted May 1 through October 31 yearly. Approved November 1 through April 30 yearly:

(1) All that portion of Delaware Bay contained within a line beginning at the East Point Lighthouse***with coordinates of latitude 39 degrees 11 minutes 45.0 seconds N., longitude 75 degrees 1 minute 38.0 seconds W.,*** and bearing approximately *[226]* ***233*** degrees T to *[Flashing Green 2.5 second "5" (Fl G 2.5 sec "5")]* ***a point with coordinates of latitude 39 degrees 11 minutes 17.3 seconds N., longitude 75 degrees 2 minutes 16.08 seconds W.*** in the Maurice River Approach Channel, then bearing approximately *[098]* ***95.4*** degrees T to the marker (Department maintained) on the point of land on the west shore at the mouth of West Creek and terminating.

iii. Maurice River Cove: Conditionally Approved - Restricted May 1 through October 31 yearly, Approved November 1 through April 30 yearly.

(1) All those waters inside of a line beginning at *[Flashing Green 2.5 second "5" (FL G 2.5 sec. "5")]* ***a point with coordinates of latitude 39 degrees 11 minutes 17.3 seconds N., longitude 75 degrees 2 minutes 16.08 seconds W.***, then bearing approximately 188 degrees T to flashing Green 4 second "3" (FL G 4 sec "3"), then bearing approximately *[171]* ***176*** degrees T to a point at latitude 39 degrees 10 minutes 23.32 seconds N., longitude 75 degrees 2 minutes 19.99 seconds W., then bearing approximately *[290.5]* ***285.9*** degrees T to a Department maintained marker at latitude 39 degrees 11 minutes 6 seconds N., Longitude 75 degrees 04 minutes 50 seconds W., then bearing approximately 013 degrees T to a Department maintained marker on the shoreline west of the mouth of the Maurice River, then along the shoreline in a northeasterly direction to another Department maintained marker at Latitude 39 degrees 12 minutes 52.5 seconds N., longitude 75 degrees 3 minutes 45.2 seconds W., then bearing approximately *[143]* ***135.4*** degrees T to a Department maintained marker at Latitude 39 degrees 12 minutes 16.7 seconds N., Longitude 75 degrees 3 minutes 10.0 seconds W., then bearing approximately *[143]* ***135.4*** degrees T to a Department maintained marker at Latitude 39 degrees 11 minutes 47.9 seconds N., Longitude 75 degrees 2 minutes 41.6 seconds W., then bearing approximately *[143]* ***140*** degrees T to *[Flashing Green 2.5 second "5" (FL G 2.5 sec. "5")]* ***a point with coordinates of latitude 39 degrees 11 minutes 17.3 seconds N., longitude 75 degrees 2 minutes 16.08 seconds W.***, and terminating; and

(2) (No change.)

iv.-xi. (No change from proposal.)

SUBCHAPTER 8. SHELLFISH HARVEST, HANDLING, AND TRANSPORT REQUIREMENTS FOR SHELLFISH LICENSE HOLDERS

7:12-8.2 Shellfish harvester training requirements

(a) Every shellfish license holder shall complete the Department's shellfish harvester training in accordance with (a)1 and 2 below. The shellfish harvester training covers shellfish harvest, handling, and transportation practices, and is available on-line at <http://www.nj.gov/dep/bmw/>.

1. Any person who, as of *[(the operative date of this rule)]* ***September 19, 2016***, possesses a valid shellfish license shall complete the shellfish harvester training by *[(90 days from the operative date of this rule)]* ***December 18, 2016***.

2. (No change from proposal.)

7:12-8.5 Requirement to tag containers of shellfish

(a)-(c) (No change from proposal.)

(d) When shellfish are harvested from one harvest location on a single day by a single shellfish license holder, the shellfish license holder may use a single tag, referred to as a bulk tag, on multiple containers on a wrapped pallet*, **in a tote, in a net brailer, in a single boat, vehicle, conveyance, or other container***, provided the bulk tag meets the requirements of (b) above, and, in addition, includes the number of individual containers under the bulk tag or an estimate of the total weight, volume, or count, as well as the following statement: "All shellfish under this bulk tag have the same harvest date and harvest location."

(e) (No change from proposal.)

7:12-8.6 *Vibrio parahaemolyticus* Control Plan time to temperature control requirements for harvesting oysters

(a) If a shellfish license holder is conducting subtidal harvesting of oysters, the

shellfish license holder shall comply with the following hours from harvest to refrigeration:

| <u>Dates of harvest</u> | <u>Maximum hours to refrigeration</u> ¹ | <u>Start of harvest</u> ^{*2*} | <u>*[Time by which oysters shall be in refrigeration²]*</u> |
|-------------------------|--|--|--|
| June 1 – June 14 | 7 | *[6:00 A.M.]* *Sunrise* | *[1:00 P.M.]* |
| June 15 - July 14 | 6 | *[6:00 A.M.]* *Sunrise* | *[12:00 P.M.]* |
| July 15 – August 31 | 7 | *[6:00 A.M.]* *Sunrise* | *[1:00 P.M.]* |

¹ Hours to refrigeration means the total number of hours (inclusive of any transport time) from the start of harvest until the oysters are placed in refrigeration.

^{*2} Oysters shall be in refrigeration no later than the time specified for the respective dates of harvest, even if harvest is started later than 6:00 A.M.]*

2. For purposes of the start of harvest under this subsection, sunrise shall mean the time of sunrise in Trenton, New Jersey. The sunrise time shall apply regardless of where a harvester intends to harvest or is harvesting shellfish. The Trenton sunrise timetable is included in the NJ Hunting and Trapping Digest available from the Department’s Division of Fish and Wildlife and on-line at <http://www.state.nj.us/dep/fgw>.

1. A shellfish license holder conducting subtidal harvesting who places harvested oysters directly in refrigeration on the vessel is not subject to the maximum hours to refrigeration

[and time by which oysters shall be in refrigeration] in the table at (a) above.

(b) – (d) (No change from proposal.)

SUBCHAPTER 9. SHELLFISH PERMITS FOR HARVEST FROM WATERS OTHER THAN APPROVED; RESEARCH; RESTORATION AND ENHANCEMENT; TOXINS MONITORING; AND AQUACULTURE

7:12-9.2 Hatchery, nursery, and/or aquaculture activities existing as of *[(the day prior to the operative date of this rule)]* **September 18, 2016***; requirement to apply for a permit

Any person who, as of *[(the day prior to the operative date of this rule)]* **September 18, 2016***, is engaged in shellfish hatchery, nursery, and/or aquaculture activities regulated under the permits at N.J.A.C. 7:12-9.14 and 9.15 shall apply for the applicable permit in accordance with N.J.A.C. 7:12-9.3 on or before *[(30 days after the operative date of this rule)]* ***October 19, 2016***. Any person whose permit application is denied may request an adjudicatory hearing in accordance with N.J.A.C. 7:12-9.4.

7:12-9.5 Soft clam and/or hard clam depuration plant permit

(a)-(b) (No change from proposal.)

(c) A Soft Clam and/or Hard Clam Depuration Plant Permit is subject to the following requirements and conditions:

1. -4. (No change from proposal.)

5. The depuration plant shall not accept any primary container that does not have attached to it a time and date stamped Harvester Allocation Tag. The depuration plant shall account for

assigned alternate containers and, after the harvester transfers the clams in the alternate containers to the corresponding primary containers, shall reassign the Harvester Allocation Tag on the primary containers to that harvester. The depuration plant shall time and date stamp each Harvester Allocation Tag at the completion of off-loading, and enter on the tag the depuration harvester's permit number and the number of clams*[, by size,]* in that container. These Harvester Allocation Tags shall be affixed to the containers in which the clams are depurated.

6.-10. (No change from proposal.)

7:12-9.7 Permit for the Harvest of Surf Clams from Prohibited Waters for Bait

(a) (No change from proposal.)

(b) In addition to the completed Consolidated Permit Application form and application fee required under N.J.A.C. 7:12-9.3, an applicant for a Permit for the Harvest of Surf Clams from Prohibited Waters for Bait shall submit:

1. A copy of a valid shellfish license; and
2. The vessel name *[and license]**, **State registration number**,* and mooring

location.

(c) (No change from proposal.)

7:12-9.10 Permit for Shellfish Research in Waters Other Than Approved

(a) (No change from proposal.)

(b) In addition to the completed Consolidated Permit Application form and application fee required under N.J.A.C. 7:12-9.3, an applicant for a Permit for Shellfish Research in Waters Other Than Approved shall submit:

1. A copy of a valid Scientific *[Collection]**Collecting* Permit issued by the Department's Division of Fish and Wildlife allowing the collection of the species for which the applicant seeks the Permit for Shellfish Research in Waters Other Than Approved; and

2. (No change from proposal.)

(c)-(d) (No change from proposal.)

7:12-9.11 Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved

(a) (No change from proposal.)

(b) In addition to the completed Consolidated Permit Application form and application fee required under N.J.A.C. 7:12-9.3, an applicant for a Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved shall submit:

1. A copy of a valid Scientific *[Collection]**Collecting* Permit issued by the Department's Division of Fish and Wildlife allowing the collection of the species for which the applicant seeks the Permit for Shellfish Restoration and/or Enhancement in Waters Other Than Approved; ***and***

2. A project overview that includes the following:

i.-xiii. (No change from proposal.)

(c)-(d) (No change from proposal.)

7:12-9.12 Permit for Growing Seed in Waters Other Than Approved by a Non-profit Organization or Government Agency

(a) (No change from proposal.)

(b) In addition to the completed Consolidated Permit Application form and application fee required under N.J.A.C. 7:12-9.3, an applicant for a Permit for Growing Seed in Waters Other Than Approved by a Non-profit Organization or Government Agency shall submit:

1. A copy of a valid Scientific *[Collection]****Collecting*** Permit issued by the Department's Division of Fish and Wildlife allowing the collection of the species for which the applicant seeks the Permit for Growing Seed in Waters Other Than Approved by a Non-profit Organization or Government Agency; ***and***

2. (No change from proposal.)

(c)-(d) (No change from proposal.)

7:12-9.15 Commercial Shellfish Aquaculture Permit

(a)-(c) (No change from proposal.)

(d) A Commercial Shellfish Aquaculture Permit is subject to the following specific requirements and conditions:

1. (No change from proposal.)

2. The growing of shellfish as part of an aquaculture operation shall be conducted in waters classified as Approved, or Conditionally Approved.

i. Source water for a closed or recirculating operation shall be water classified as Approved or *[Conditonally]* ***Conditionally*** Approved in the open status.

3.-4. (No change from proposal.)

5. Prior to harvesting shellfish from a closed or recirculating operation, the permittee shall collect and analyze three water samples from each tank over 14 days, with a minimum of

three days between samples. Each sample shall be analyzed for fecal coliform by an FDA approved laboratory using the method specified in the permittee's Operational Plan.

i. If the fecal coliform level in *[any one sample]* ***all samples*** is less than 14 Most Probable Number (MPN) or Colony Forming Units (CFU) per 100 ml, the permittee may harvest the shellfish for sale to a certified dealer for direct marketing.

ii.-iv. (No change from proposal.)

6. (No change from proposal.)

7. The permittee shall not make any changes to its operations without prior written approval from the Department.

(e) (No change from proposal.)