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ENVIRONMENTAL PROTECTION

LAND USE MANAGEMENT

Coastal Permit Program rules, N.J.A.C. 7:7

Coastal Zone Management rules, N.J.A.C. 7:7E

Adopted Amendments: N.J.A.C. 7:7-1.3, 2.1, 2.3, 7.2, 7.13, 7.29 and 7:7E-1.7, 1.8, 3.2, 3.6, 3.15, 3.16, 3.22, 3.27, 3A, 4.2, 4.10, 4.19, 7.3, 7.12, and 8.2.

Adopted Repeals: N.J.A.C. 7:7E-7.11

Adopted New Rules: N.J.A.C. 7:7-7.32, 7.33, 7.34, 7.35, and 7.36 and 7:7E-4.23 and 7.11.

Proposed:	May 6, 2013 at 45 N.J.R. 1141(a)
Adopted:	by Bob Martin, Commissioner, Department of Environmental Protection
Filed:	, 2013 as R.2013 d , with substantive and technical changes not requiring additional public notice and comment (see N.J.A.C. 1:30-6.3)
.Authority:	N.J.S.A. 13:1D-1 et seq.; 13:1D-29 et seq.; 12:5-3; 13:9A-1 et seq.; and 13:19-1 et seq.
DEP Docket Number:	04-13-04
Effective Date:	
Expiration Date:	

The Department of Environmental Protection (Department) is readopting amendments to the Coastal Permit Program rules at N.J.A.C. 7:7 and the Coastal Zone Management (CZM) rules at N.J.A.C. 7:7E that were which were first adopted through emergency rulemaking on April 16,

2013. The emergency adoption and concurrent proposal was published on May 6, 2013. The comment period closed on June 5, 2013.

Summary of Hearing Officer's Recommendation and Agency Response

The Department held a public hearing on the proposal on May 22, 2013, at 5:30 P.M., at the City of Long Branch Municipal Building. Chief Advisor to the Commissioner Ray Cantor was the hearing officer. Sixteen attended and five gave testimony. The hearing officer recommended that the amendments, repeal and new rules be adopted with the changes described in the responses to comments and the Summary of Agency-Initiated Changes. The Department accepts the recommendation.

The hearing record is available for inspection in accordance with applicable law by contacting:

Office of Legal Affairs

Attention: DEP Docket No. 04-13-04

Department of Environmental Protection

401 East state Street, 4th floor

Mail Code 401-04L

P.O. Box 402

Trenton, NJ 08625-0402

Summary of Public Comments and Agency Responses

The Department accepted comments on the proposal through June 5, 2013. The following individuals provided written and/or oral comments:

1. Sam Berman

2. Ryan Brower

3. David Charette, Langan Engineering and Environmental Services, Inc.

4. Elizabeth George-Cheniara, Esq., New Jersey Builders Association

5. Barbara Conover

6. Melissa Danko, Marine Trades Association of New Jersey

7. Tim Dillingham, American Littoral Society

8. William Dix

9. Sean Dixon, Clean Ocean Action

10. Patty Doerr, The Nature Conservancy

11. Neil Forte

12. Elkins Green, New Jersey Department of Transportation

13. Debbie Mans, NY/NJ Baykeeper

14. Louise Neal, Holgate Taxpayers Association, LBT

15. David Pringle, New Jersey Environmental Federation

16. Jean Public

17. Elizabeth Radovich

18. Mark Renna, Evergreen Environmental LLC

19. Nancy Smith

20. Sharon Stoneback

21. Jeff Tittel, New Jersey Sierra Club

22. Edson Udson

23. David Vickery

24. The following 77 individuals submitted form letters requesting that the Department not adopt the proposed changes to the Coastal Permit Program rules, N.J.A.C. 7:7 and CZM rules, N.J.A.C. 7:7E.

Salim Ali

Barbara Andrew

Patricia Anton

Jose Arce

Terry Asbury

Curtis Baker

Karen Berman

Steven Boldt

Sharon Boxley

Charline Brock

Mark Canright

Margaret Casagrande

Anthony Casazza

Douglas Clark

Sherri Cook

John Coyle

Jane Davidson

Ruth Deitz

Patrician Dempsey

Marisa Dipola

Peter and Patricia Dragunas

Florence Eaise

Fred Fall

Mark Ferraz

Julie Fox

Matthew Frank

Kris Glover

Lascinda Goetschius

Bhagirath Gopinath

Susan Hanlon

Marcia Heard

Michael Hilton

Harry Hudson

Catherine Hunt

Sherwood Inderlied, Jr.

Adine Johnson

Marwa Khurshid

Ms. LC

Luc LeNoir

Rosemary Lontka

Laura Lynch

Denise Lytle

Joshua Maizel

Patricia Marino

Judith Martin

Timothy McBride

Michael McDonald

Janice McHane

Eileen McMenamin

Vince Mendieta

Maki Murakami

Ralph Notaro

Arlene Oswald

Alexis Pagoulatos

Karrin Pearson

Carl Pflug

Stephan Plummer

Pam Prichard

Rita Raftery

Lisa Riggiola

S. Rothhauser

O. Ruiz

Thomas Rule

Marie Russell-Barker

Deb Sargisoff

Sharon Shinas

Monica Smith

David Snope

Patricia Soteropoulos

Jessica Tatton

Candace Tice-Tomasik

Debbie Tremel

Ann VanHise

Patricia Wong

Darene Yersak

Melissa Zikas

The timely submitted comments and the Department's responses are summarized below. The number(s) in parentheses after each comment identifies the respective commenter(s) listed above.

General

1. COMMENT: The amendments are strongly supported as they not only facilitate the rebuilding of marinas, but ensure the future health and recovery of the recreational boating industry in New Jersey. (6)

2. COMMENT: The commenter supports the recovery efforts and expedited permit process. (18)

3. COMMENT: The rules relating to the facilitation of dredging and removal of sand and other materials; the availability of dredged material disposal and placement sites; the beneficial use of

dredged material, including use in the establishment of living shorelines; vertical wave or wake attenuation structures; and the facilitation of the renovation or reconstruction of existing marinas and construction of new marinas are supported. (12)

4. COMMENT: The amendments and new permits-by-rule are supported. In addition, the newly created living shoreline policy and the Department's allowance for impacts to special areas associated with the establishment of a living shoreline are also supported. (3)

5. COMMENT: The Christie Administration's rebuilding efforts following Superstorm Sandy are supported. Regulatory changes are necessary steps in the State's recovery and the Department is strongly encouraged to take all necessary steps in that direction (4)

RESPONSE TO COMMENTS 1 THROUGH 5: The Department acknowledges these comments in support of the rules.

6. COMMENT: The rules should improve existing homes, businesses and infrastructure and should not enrich developers. Developers should not be allowed to develop wetlands in Holgate that were silted in with beach sand as a result of Superstorm Sandy. (14)

RESPONSE: The adopted amendments, repeals and new rules are intended to facilitate the rebuilding of more resilient coastal communities and coastal-related industries, and to help the

recovery of the coastal ecosystem. The adopted amendments, repeals and new rules do not allow the filling of wetlands to create developable land.

7. COMMENT: Unavoidable environmental impacts associated with the recovery efforts should be mitigated. Mitigation should include the compensatory replacement of lost waters of the United States and wetlands with wetland mitigation via mitigation sites or mitigation bank credits. (18)

RESPONSE: The Department believes that minimization and mitigation are important tools to reduce and compensate for impacts to resources in appropriate circumstances. However, the Department believes what is required should take into account the circumstances and the level of impact to the resource. For example, the rules at N.J.A.C. 7:7-7.2(a)8 allow for the construction of stairs or an ADA-compliant ramp within wetlands or other special areas provided the structure is constructed only for access to a residential or commercial development required to be elevated pursuant to the New Jersey Uniform Construction Code, N.J.A.C. 5:23, in accordance with the Flood Hazard Area Control Act rules, N.J.A.C. 7:13 and there is no feasible alternative location that would not impact the wetlands or other special resource. This permit-by-rule is only applicable if the area to be impacted is 400 square feet or less. As a result of changes in flood elevations reflecting the best available scientific information, many homeowners sustaining significant damage during Superstorm Sandy are required to elevate their homes. Where the conditions present on the site make it impossible to construct access to the elevated structure without impacting a wetland or other special area, the Department believes that it would be

inappropriate to require the owner to incur additional expenses to provide for mitigation for an unavoidable impact to an area that is already immediately adjacent to a structure, especially where the need to elevate the structure and the resulting need for additional area to access the structure is the result of a circumstance beyond the owner's control.

8. COMMENT: There is no reason for an emergency rule. (21)

9. COMMENT: Some of the changes proposed are not necessarily in response to the emergency (i.e. to address immediate needs of reconstruction). There is concern that some of the amendments reflect long-standing policy debates and the regulated community's desire to change Department policies and standards. For example, the new permit-by rule at N.J.A.C. 7:7-7.2(a)8 allows for the reconstruction and expansion of residential and commercial developments and the amendments to the general permit at N.J.A.C. 7:7-7.13 for the construction of support facilities at legally existing and operating marinas reduce the setback requirements for marinas. (7).

RESPONSE TO COMMENT 8 AND 9: As indicated more fully in the summary of the emergency adoption and concurrent proposal, the Department has determined that these amendments, repeal, and new rules are necessary in view of the significant adverse social, economic, and environmental impacts associated with Superstorm Sandy. The adopted rules support the rebuilding and economic recovery of New Jersey's coastal areas in an expeditious and resilient manner.

Many single family homes sustained damage as a result of Superstorm Sandy. In some cases, the damage was so significant that the single family home must be demolished and reconstructed or replaced. It has been the Department's experience in working with single family homeowners since the storm, that, in some instances, single family homeowners want to replace the damaged or destroyed home with a modular home that does not have the same exact footprint as the previous home. The new permit-by-rule at N.J.A.C. 7:7-7.2(a)8 will accommodate such changes in the footprint by allowing an increase in the footprint of the development by no more than 400 square feet.

In other instances, homeowners or business owners have indicated that, since they are rebuilding as a result of the storm damage, they want to take the opportunity to reconfigure the footprint of their home or business which may result in a slight expansion of the footprint. The permit-by rule at N.J.A.C. 7:7-7.2(a)8 allows for the expansion provided it is not located closer to the tidal water, is not on a beach, dune or wetland (with limited exception for access stairs and ramps in certain circumstances as discussed in response to comment 7 above), and complies with the CZM rules' flood hazard area rule, N.J.A.C. 7:7E-3.25. These requirements will ensure that the redevelopment does not adversely affect special areas, and that it is constructed in a manner which is consistent with the Department's standards for elevation and flood proofing.

With respect to the reduction in the setback requirements for buildings at N.J.A.C. 7:7-7.13(b)1ii, this change is intended to allow flexibility in the design of new water-dependent marinas and, reconstruction or renovation of existing marinas. The 100-foot setback was intended to preserve that portion of the site having direct water access for water dependent activities. Because a marina is a water dependent activity, it is appropriate to allow marina

related support facilities to be constructed within this area. The general permit at N.J.A.C. 7:7-7.13(c)2 requires that public access be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7E-3.50 and the public access rule, N.J.A.C. 7:7E-8.11. No changes to this requirement were proposed. As discussed in the general summary, New Jersey's recreational boating industry was also severely impacted by Superstorm Sandy, with docks, marine equipment, buildings and boats significantly damaged or destroyed. As marinas seek to rebuild, it is appropriate that the regulations include mechanisms to allow the marina owners to rebuild quickly, better, with more resiliency, and in a manner that is cost effective and economically viable. These regulatory changes will also help marina owners take advantage of grants and loans that will become available to them as part of the Superstorm Sandy recovery effort.

10. COMMENT: These rules were written behind closed doors without public input and are being rushed out and automatically adopted to get around public review. (5, 15)

RESPONSE: The Administrative Procedure Act (APA) at N.J.S.A. 52:14B-4(c) sets forth a process whereby a State agency can adopt regulations on an emergency basis, provided certain conditions are met. All requirements of the APA were fulfilled through this rule adoption. In accordance with the requirements of the APA, Commissioner Martin and Governor Christie determined that these amendments, repeal, and new rules are necessary in view of the significant adverse social, economic, and environmental impacts associated with Superstorm Sandy and in support of the rebuilding and economic recovery of New Jersey's coastal areas in an expeditious

and resilient manner. The Commissioner's determination was certified by the Governor and the amendments became effective for sixty days upon acceptance for filing by the Office of Administrative Law pursuant to N.J.A.C. 1:30-6.6(b). Concurrently, the Department proposed the amendments for public comment pursuant to the rulemaking requirements of the APA. Accordingly, as required by the APA, the Department provided a 30-day comment period and provided additional notice of the proposal on the Department's website, to the media outlets in the Statehouse, and by email to the Department's rulemaking listserv. In addition to the APA requirements, the Department held a public hearing and publicized the rulemaking by press release.

11. COMMENT: The Department should not adopt the proposed amendments to the Coastal Permit Program rules, N.J.A.C. 7:7 and the CZM rules, N.J.A.C. 7:7E. The proposed amendments continue the practices of the past that resulted in so much destruction from Superstorm Sandy. One commenter indicated that as a result of Superstorm Sandy, we know that wetlands and dunes provide the best protection. The Department should instead incorporate changes into these rules that will protect New Jersey's coastal communities and environment from future impacts of sea level rise through the implementation of planning on a regional basis that allows adaptation to climate change and increasing coastal storm surges.

New Jersey needs rules that restrict rebuilding in environmentally sensitive and high hazard areas. Areas that were protected through natural systems and did not allow for overdevelopment fared better in the storm. People and property should not be located in harm's way.

Changes to this proposal are also needed to allow for more public input, oversight and transparency in the rebuilding process. (1, 2, 6, 9, 10, 11, 17, 20, 21, 22, 23, 24)

12. COMMENT: The summary explains that the coastal management program, through the coastal rules, will continue to steer development away from naturally hazardous and sensitive areas, protect estuarine and marine environments from adverse impacts, and promote resource conservation and designs sensitive to the environment. The rules do not always achieve these desired outcomes and in some cases threaten water quality and the coastal environment. (9)

13. COMMENT: The commenter opposes the rules. We can and should rebuild, but need to do so in a more resilient manner. The rules do not acknowledge, and should take into account climate change and sea level rise; until they do that they will continue to put people in harm's way. (15)

RESPONSE TO COMMENTS 11 THROUGH 13: The amendments and new rules consider resiliency as well as impacts to water quality. The majority of New Jersey's sheltered coastline consists of tidal marshlands and a few narrow sandy beaches, all of which naturally migrate inland from various environmental factors, Tidal wetlands are a major component of the coastal ecosystem that provides multiple ecosystem services, as well as a first defense against storm surge. As the State rebuilds after Superstorm Sandy and seeks to become more resilient and do so in an ecologically beneficial manner, it is important to allow options such as living shorelines to be used as a shore protection measure. Putting provisions for living shorelines in place

immediately will provide greater flexibility with respect to rebuilding a more resilient, diverse, and environmentally protective shoreline. Living shorelines are a means to protect, restore or enhance water quality and special areas such as wetlands, shellfish habitat, and submerged vegetation. Living shorelines will assist in restoring special areas that have been lost and can be designed to adapt to changing environmental conditions.

The amendments also enable municipalities to increase the longevity of shore protection/storm damage reduction projects. The amendments to the dune and beach special area rules at N.J.A.C. 7:7E-3.16 and 3.22, respectively, and the new standards for beach and dune maintenance activities at N.J.A.C. 7:7E-3A, will make it easier for municipalities to maintain engineered dune systems. In addition, the amendments allowing maintenance of engineered beaches and dunes to the design template, and allowing removal of accumulated sand beneath a boardwalk, as well as placement of temporary sand fencing during the winter months, will assist municipalities in maintaining the beach and dune system. A permit-by-rule at N.J.A.C. 7:7-7.2(a)16 is also added for the placement of sand fencing to create or sustain a dune.

The existing CZM rules contain provisions that limit development in sensitive and high hazard areas such as wetlands, N.J.A.C. 7:7E-3.27, overwash areas, N.J.A.C. 7:7E-3.17, coastal high hazard areas, N.J.A.C. 7:7E-3.18, and erosion hazard areas, N.J.A.C. 7:7E-3.19. The existing rules and amendments also contain provisions to mitigate against potential hazards. For example, in certain situations the CZM rules require development to comply with the flood hazard area rule, N.J.A.C.7:7E-3.25, which, in the case of the reconstruction of substantially damaged single family homes, requires the elevation of homes to one foot above the flood hazard design elevation.

The Department adopted these amendments on an emergency basis because New Jersey suffered extraordinary levels of damage to homes, businesses, and infrastructure as well as unprecedented damage to the coastal environment as a result of Superstorm Sandy. With the summer season approaching, it is vital that residents and businesses begin the process of rebuilding immediately not only for their enjoyment, but for the economic wellbeing of the State, and more important, for the safety and welfare of residents and visitors. Therefore, the Department adopted these rules on an emergency basis as explained in response to comment 10, and provided for a 30-day public comment period and a public hearing. The Department is not sure whether the commenters' reference to need for changes to allow for more public input, oversight and transparency in the rebuilding process refers to the transparency in the rule development process or transparency in the permitting process. To the extent the commenters are referring to the rulemaking process, see response to comment 10. To the extent the commenters believe the rules themselves should allow more public input on permitting decisions, the public is afforded the opportunity to provide comments on applications for authorization under a general permit or on an individual permit. With respect to permits-by-rule, the Department has determined individual comments for each activity proposed to be undertaken under the permits-by-rule is not necessary since the activities are discrete with a low potential to cause an adverse impact to the environment. The opportunity for the public to provide comment on a permit-by-rule is afforded through the rulemaking process.

14. COMMENT: In addition to requiring structures to be elevated, limits on impervious cover, improvements to stormwater management and stronger and greener building codes must be implemented. (1, 2, 6, 9, 10, 11, 17, 20, 21, 22, 23, 24)

RESPONSE: The CZM rules limit the amount of impervious cover, require preservation or planting of vegetation, and require compliance with the Stormwater management rules, N.J.A.C. 7:8 (see N.J.A.C.7:7E-5, 5A and 5B with reference to impervious cover and preservation and/or planting of vegetation, and N.J.A.C. 7:7E-8.7 with reference to stormwater management). The CZM rules' flood hazard area rule, N.J.A.C. 7:7E-3.25, requires development to conform with the applicable design and construction standards of the Uniform Construction Code, N.J.A.C. 5:23 which addresses building standards. Building codes are implemented and enforced at the local level.

15. COMMENT: The rules should ban the use of tropical woods on boardwalks. (5)

RESPONSE: The reconstruction of a boardwalk in place is exempt from CAFRA. Accordingly, the Department does not have the opportunity to review or impose conditions on this reconstruction as no permit is required. This adoption does not address the construction of new boardwalks.

16. COMMENT: The rules should consider the birds that nest on the beach. (19)

RESPONSE: The amendments to the beach and dune maintenance standards at N.J.A.C. 7:7E-3A.1 and 3A.2 do consider beach nesting shorebirds. Specifically, a new provision was added at N.J.A.C. 7:7E-3A.1(b) which requires that any beach and dune maintenance activity subject to the subchapter must also comply with any applicable management plan for the protection of State and Federally listed threatened and endangered species, approved by the Department and U.S. Fish and Wildlife Service. This provision ensures that these shorebird species are protected. In addition, the standards applicable to routine beach maintenance at N.J.A.C. 7:7E-3A.2 have been amended to include Black Skimmers in the list of examples of threatened or endangered beach nesting shorebirds whose habitat is protected under this rule to clarify that this is a species found in the State to which the protections of this section are applicable and thus assure that impacts to this species are considered. Further, to reflect current science and for consistency with the U.S. Fish and Wildlife's current recommendations for piping plover, the time period in which beach raking, other mechanical manipulation, and the use of non-emergency vehicles are prohibited is expanded from April 1 through August 15 to March through August 15 to March 15. This ensures added protection.

17. COMMENT: The rules further reinforce the bad beach access rules. (5)

RESPONSE: The amendments, repeals and new rules do not relate to public access provisions of the CZM rules.

18. COMMENT: The commenter is disappointed that the Department did not address in this rulemaking its previous recommendation that the coastal high hazard areas rule, N.J.A.C. 7:7E-3.18, should be amended because the rule will directly negatively impact reconstruction. (4)

RESPONSE: For the purposes of the CZM rules, coastal high hazard areas include areas subject to high velocity waters (V-zones). The Department acknowledges that the extent of the V-zones depicted on FEMA Advisory Base Flood Elevation maps may impact redevelopment within areas of the coast considered V-zones. The Department understands that FEMA will be releasing revised maps which will likely refine the extent of the V-zone. The Department is evaluating the extent of the areas potentially mapped as V-zones and whether additional regulatory changes might be necessary.

Chapter 7. Coastal Permit Program rules

7:7-1.3 Definitions

19. COMMENT: Steel should be deleted from the definition of non-polluting material. Steel may corrode in seawater and it is not an inert substance. More specifications are needed to possibly allow for certain types of steel that may be designed to be resistant to corrosion, and field data needs to be provided to demonstrate long-term corrosion resistance to support this designation. (9)

RESPONSE: The CZM rules have historically allowed for the use of steel in the construction of bulkheads. The Department has not found any studies that indicate steel is a polluting material.

20. COMMENT: A definition of "dredged material management area" should be included in the rules. Without a clear definition, there are concerns that "existing dredged material management area" may be interpreted too broadly allowing historically used areas that are not in current use and that provide important coastal habitat to be rehabilitated.(9)

RESPONSE: The term "dredged material management area" is self-explanatory. It is an area used for the management of material associated with a dredging activity. An existing dredged material management area is an area that has historically been used for the placement of dredged material. N.J.A.C. 7:7-2.1(b)13iii provides that the rehabilitation or use of an existing dredged material management area is limited to its existing footprint. The Department will review the potential impacts of rehabilitating each dredged material management area on a case-by-case basis through the application for the proposed dredging activity under a waterfront development permit and through the review of the water quality certificate under Section 401 of the Federal Clean Water Act, 33 U.S.C. §1341.

7:7-2.1 CAFRA

21. COMMENT: N.J.A.C. 7:7-2.1(b)13iii, which provides that the rehabilitation and use of an existing dredged material management area within the same footprint is not an activity requiring a CAFRA permit, should be limited to legally existing facilities. Additionally, there should be some limitations and/or provisions to address potential impacts to threatened and/or endangered

species may be present, such as timing restrictions, habitat conservation plans and/or forest preservation and restoration requirements. (13)

RESPONSE: In its review of an application for dredging activities, the Department evaluates the material and area to be dredged, as well as the area in which the dredged material will be placed. In addition to requiring a waterfront development permit, these activities also require a water quality certificate under Section 401 of the Federal Clean Water Act, 33 U.S.C. §1341. The CZM rules are used to review the permit application and certification request. For example, the CZM rules' wetlands rule at N.J.A.C. 7:7E-3.27(g) sets forth the standards for the reuse of dredged material management areas that require a waterfront development permit. The water quality rule at N.J.A.C. 7:7E-8.4(a) requires compliance with the Surface Water Quality Standards at N.J.A.C. 7:9B. As applicable, the Department ensures a permit is obtained for activities affecting freshwater wetlands in accordance with the Freshwater Wetlands Protection Act rules at N.J.A.C. 7:7A, and requires timing restrictions to minimize impacts to threatened or endangered wildlife or plant species habitats or critical wildlife habitat.

7:7-2.3 Waterfront development

22. COMMENT: By eliminating the requirement that the repair, replacement, renovation, or reconstruction of docks or piers be at the same height, the Department will facilitate reconstruction at lower heights which will potentially increase shading of shallow water habitat, submerged vegetation habitat and shellfish habitat. The original intention of the law was to allow reconstruction in exactly the same dimensions. (13)

RESPONSE: The Waterfront Development Law at N.J.S.A. 12:5-3b (P. L. 1981, c.315, commonly referred to as the Zane amendment) authorizes reconstruction of certain waterfront structures provided the reconstruction does not increase the size of the structure. The CZM rules address shading by setting a minimum height requirement for docks or piers over wetlands. Where wetlands are present, the height of the dock is required to be a minimum of four feet above the wetland substrate and the width of the dock cannot exceed six feet. For all other water areas, such as submerged vegetation and shellfish habitat, the rules address shading by limiting the width of the dock to eight feet and minimizing the total water area covered by structures.

23. COMMENT: The amendments to N.J.A.C. 7:7-2.3(d)6 and 7 do not require improvements to building codes, site design, or resiliency. With a "same location and size" requirement, many of the bad planning decisions that left vulnerable buildings destroyed and communities ravaged will be perpetuated. Further, the changes concerning "length and width" at N.J.A.C. 7:7-2.3(d)6i and N.J.A.C. 7:7-2.3(d)7 will lead to increases in water quality endangerment through increases in use intensity. Allowing permanent structures where none existed before is a significant change not related to the purpose of this emergency rule; resilient recovery. The Department should require updated planning, codes, and design for the construction, reconstruction, alteration, expansion or enlargement of structures, and require individual permits for the construction of permanent structures in place of temporary or seasonal ones. (9)

RESPONSE: The amendments to these provisions do not obviate the need to obtain all necessary approvals, including local approvals that assure that structures are constructed to satisfy all building code requirements. Further, the amendments do not allow the replacement of a temporary building with a permanent structure. Instead, the amendments primarily refine how the size of certain structures is determined in order to facilitate a resilient recovery of the shore. As more fully explained in the emergency adoption/concurrent proposal, the rules continue to require the height of a dock or pier over wetlands, and the height of a building over wetlands or water, to be taken into account because an increase in height could adversely impact those special areas by decreasing the amount of sunlight penetration. Accordingly, the amendments do not allow the enlargement of structures over water. However, where the structure is a dock, wharf, pier, or bulkhead, or building not over water or wetlands, the amendments provide that the size of the original structure that is to be repaired, replaced, renovated, or reconstructed in the same location and size is to be measured only in length and width since the height of these structures will not adversely affect special areas. The changes do, however, authorize replacement of a floating dock with a fixed dock and vice versa. Such a change will have no adverse impact to the water area.

7:7-7.2 Permits-by-rule

24. COMMENT: Permits, which include review by the Department, should be required for the activities authorized under the new permits-by-rule. (23)

25. COMMENT: A permit-by-rule is not a permit, it is a waiver. The authorization of certain activities under a permit-by-rule may slow down reconstruction because banks want assurances that their investment is going to be protected. The Department needs to review all reconstruction activities. (21)

RESPONSE TO COMMENTS 24 AND 25: A permit-by-rule is not a waiver of compliance. An activity is authorized under a permit-by-rule only if it meets the conditions set forth in the permit-by-rule. In promulgating each permit-by-rule, the Department determines that the regulated development will cause only minimal adverse environmental impacts when performed separately, will have only minimal cumulative adverse impacts on the environment, and follows the legislative intent to protect and preserve the coastal area from inappropriate development. See N.J.A.C. 7:7-7.1(c). Each permit-by-rule contains specific criteria intended to minimize the environmental impacts of the authorized activity.

The Department is promulgating permits-by-rule at N.J.A.C. 7:7-7.2(a)7 and 8 for the reconstruction of residential and commercial developments to help expedite reconstruction activities in certain circumstances where the Department has determined that the environmental impacts are minimal. How financial institutions assess risk in granting construction loans is not within the purview of Department's environmental protection mandate under the coastal rules.

26. COMMENT: Under the new permits-by-rule, property owners will be allowed to rebuild existing structures in the same footprint where they were destroyed by Superstorm Sandy, instead of restoring natural systems. In addition, more structural and engineered projects, such

as sea walls and the rebuilding of bulkheads, will be allowed along the coast instead of restoring natural systems. In some cases, property owners can expand or relocate existing structures without the need of a permit. This permitting process could jeopardize FEMA funding since FEMA will only reimburse lawful projects that do not violate environmental laws. (5, 21)

RESPONSE: The Department agrees that restoration of natural systems is important. Accordingly, the amendments include various provisions that encourage the establishment of living shorelines in appropriate circumstances. Living shorelines are a shoreline management practice that addresses the loss of vegetated shorelines and habitat in the littoral zone by providing for the protection, restoration, or enhancement of these habitats. The shoreline management practice provides "living space" for organisms through the strategic placement of plants, sand, or other structural and organic materials. . Under CAFRA, reconstruction of any development that was damaged in whole or in part by fire, storm, natural hazard or act of God is exempt. The Department believes that allowing the footprint of the reconstructed development to be shifted to a location that is not any closer to the water will allow flexibility while not increasing risks to public health, safety and welfare. Similarly, as more fully explained in the emergency adoption/concurrent proposal, the Department believes that limited expansion is appropriate provided certain conditions are satisfied. Particularly, the expansion must be located in an area other than a beach, dune or wetland and cannot result in additional impacts to special areas except for structures such as stairs or an ADA-compliant ramp, which are constructed only for access to a residential or commercial development required to be elevated pursuant to the New Jersey Uniform Construction Code in accordance with the Flood Hazard Area Control Act

rules; there can be no increase in the number of dwelling units, if it is a residential development, or in the number of parking spaces, if it is a commercial development; the expansion or relocation must meet the flood hazard area rule at N.J.A.C. 7:7E-3.25 and riparian zone rule at N.J.A.C. 7:7E-3.26. Provided these conditions are satisfied, the Department believes that the construction standards contained in the New Jersey's Uniform Construction Code, including building elevation requirements from the Department's Flood Hazard Area Control Act rules, provide appropriate safeguards.

FEMA requires a demonstration that the proposed development is consistent with New Jersey's Coastal Management Program. Development constructed in accordance with the permit-by-rule is consistent with New Jersey's Coastal Management Program.

The permits-by-rule at N.J.A.C. 7:7-7.2(a)7 and 8 do not authorize the reconstruction of sea walls or bulkheads. The new rules and amendments do, however, authorize establishment of living shorelines which will assist in the State's recovery of a more resilient shoreline.

27. COMMENT: To facilitate the repair, reconstruction, and/or in-kind replacement of public infrastructure (such as roads and bridges) that was damaged or destroyed as a result of a storm or other event, the permit-by-rule at N.J.A.C. 7:7-7.2(a)7 should be expanded to include public development. The Department's Administrative Orders regarding Hurricane Irene (AO 2012-09) and Hurricane Sandy (AO 2012-13) exemplify the importance of being able to restore public infrastructure in a timely manner after such a catastrophic event. (12)

RESPONSE: The Department acknowledges that public infrastructure was damaged as a result of Superstorm Sandy. As indicated by the commenter, Administrative Order 2012-13 addressed the response to that damage. However, public infrastructure projects such as roads and bridges are large projects that may have environmental impacts that are not minimal and therefore are not appropriately covered by a permit-by- rule.

28. COMMENT: The permit-by-rule at N.J.A.C. 7:7-7.2(a)8 allows for the expansion or relocation landward or parallel to the mean high water line of the footprint of a legally constructed residential development provided that the proposed expansion or relocation does not result in additional impacts to special areas as defined at N.J.A.C. 7:7E-3. Because this activity will not be formally reviewed by the Department, and given the technical difficultly in defining the limits of special areas, how does the Department expect individual property owners to identify and define the limit and extent of special areas? Further, given the reduced number of coastal enforcement staff and inspections, how will Department enforce these provisions to ensure that environmental resources are not impacted? (7, 13)

RESPONSE: The expansion or relocation of a residential or commercial development governed by this permit-by-rule will be undertaken on lots where development already exists. In general, the special areas that may occur on such redevelopment sites will be beaches, dunes and wetlands. Part of the local review prior to issuance of a building permit includes determining whether conditions are present that would require any other approval prior to construction is necessary, including the presence of special areas as defined in the Coastal Zone Management

rules. Any violation of the permit-by-rule observed or reported will be handled by the Department in the same manner as any other violation of these rules, including a compliance inspection and enforcement action as necessary.

29. COMMENT: The permit-by-rule at N.J.A.C. 7:7-7.2(a)8 allows construction of structures such as stairs or an ADA-compliant ramp on a beach, dune, wetland, or other special area where there is no feasible alternative location. These access structures may individually or cumulatively negatively affect the environment, water quality, and resiliency. Therefore, the relocation or expansion of a footprint should be conditioned on access structures not being unavoidably placed on beaches, dunes, or wetlands and this determination should be made before a footprint is moved or expanded. (9)

RESPONSE: N.J.A.C. 7:7-7.2(a)8viii allows construction of access stairs or a ramp on a beach, dune, wetland or other special area only in very limited circumstances. Particularly, as discussed in response to comment 7 above, such a structure is allowed only where it is constructed solely for access to a residential or commercial development required to be elevated pursuant to the New Jersey Uniform Construction Code, N.J.A.C. 5:23, in accordance with the Flood Hazard Area Control Act rules, N.J.A.C. 7:13 and there is no feasible alternative location that would not impact the wetlands or other special resource. Further, this permit-by-rule is only applicable if the area to be impacted is 400 square feet or less. Where it would be possible to construct access to the structure utilizing part of the site that would not impact a special resource, this provision would not be applicable and the stairs or ramp would be required to be constructed

outside of the special area. However, where the conditions present on the site make it infeasible to construct access to the elevated structure without impacting a wetland or other special area, the Department believes that it is appropriate to allow for an unavoidable impact to an area that is already immediately adjacent to a previously existing structure, especially where the need to elevate the structure and the resulting need for additional area to access the structure is the result of a circumstance beyond the owner's control.

30. COMMENT: The permit-by-rule at N.J.A.C. 7:7-7.2(a)16 which requires sand fencing be placed on the landward side of the dune rather that the seaward side or on the dune itself will limit the natural accretion and growth of the dune height and seaward growth which are important to the overall protection afforded by the dune. This provision should be amended to allow for and encourage the placement of sand fencing seaward of the dune in order to trap wind-blown sand and to enhance dune growth and protection and to protect dune vegetation. (7)

RESPONSE: Based on the State's recent experience with the impacts of Superstorm Sandy, robust beach and dune systems helped to protect lives and property. This permit-by-rule provides property owners, such as homeowners and business owners, as well as municipalities, with the ability to install sand fencing on their property to allow for the development of dunes. Because this activity is authorized through a permit-by-rule, the Department has limited the location in which the sand fencing can be located to ensure that threatened and endangered wildlife and plant species are not adversely impacted. The placement of sand fencing on the

seaward side of the dune is subject to the beach and dune maintenance general permit at N.J.A.C. 7:7-7.6.

31. COMMENT: The permit-by-rule for the construction and/or installation of a pumpout facility and/or pumpout support facilities at N.J.A.C. 7:7-7.2(a)20 only requires that if the pumpout is located on a dock, the sewer line cannot extend below the stringer of the dock. Pumpout facilities or other infrastructure that could pose a risk to water quality should comply with construction codes that address flood resistant construction techniques. Requirements to ensure protection of facilities and sewer lines are needed to reduce vulnerability and ensure resiliency. Currently, 50 percent of pumpout facilities are still not functional. (9)

RESPONSE: As noted by the commenter, the permit-by-rule requires that, when located on a dock, the sewer line shall not be located below the stringers of the dock. Authorization under the permit-by-rule does not obviate the need to comply with all applicable Federal, State and local requirements or codes, including those governing flood-resistant construction techniques.

32. COMMENT: The permit-by-rule for sediment sampling allows for this activity without review by the Department. Many of the dredged spoils may be contaminated after the storm. Dredging and moving this material and not disposing of it properly may cause problems later. (5)

33. COMMENT: The permit-by-rule at N.J.A.C. 7:7-7.2(a)21 will allow property owners, regardless of their expertise and technical capabilities, to implement a sediment sampling plan for dredging activities and remedial investigations with no formal review by the Department. This lack of Departmental oversight is likely to result in inaccurate and non-compliant results, with the potential to adversely impact public health and the environment. Without any Department review, how will the Department ensure that the sampling is done in accordance with the referenced technical guidance? (13)

RESPONSE TO COMMENTS 32 AND 33: The permit-by-rule for sediment sampling at N.J.A.C. 7:7-7.2(a)21 addresses sediment sampling for the purpose of characterizing the physical and chemical composition of sediments in two instances: when performed as part of a dredging or dredged material management activity or when performed as part of a remedial investigation of a contaminated site.

Typically, sampling cores are collected using a device that pulls a sample of substrate approximately six to eight inches in diameter from a particular sample location. Once the substrate is removed from the sampling location, the hole naturally fills back in. Thus, the environmental impacts from sediment sampling are temporary in nature and result in minimal disturbance to the substrate during the sampling event.

The sampling plans in a water area for purposes of characterizing the sediments that may be removed as part of a dredging or dredged material management activity subject to authorization under this permit-by-rule must be approved in writing by the Department's Office of Dredging and Sediment Technology. Further, sampling of sediments during a remedial

investigation of a contaminated site subject to authorization under this permit-by-rule must be prepared in accordance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E, and must be approved by the Department or certified by a Licensed Site Remediation Professional in accordance with the Administrative Requirements for the Remediation of Contaminated Sites (ARRCS), N.J.A.C. 7:26C. This permit-by-rule does not authorize dredging or site remediation activities, only sampling in accordance with the approved plans.

34. COMMENT: The permit-by-rule at N.J.A.C. 7:7-7.2(a)21 addresses the implementation of a sediment sampling plan for sampling in a water area as part of dredged material management activity or as part of a remedial investigation of a contaminated site. The general permit at N.J.A.C. 7:7-7.27 for geotechnical survey borings addresses borings or excavations for the purpose of obtaining information on subsurface conditions for the purpose of determining the presence or extent of contamination in subsurface soils or groundwater. The new permit-by-rule at N.J.A.C. 7:7-7.2(a)21 should include all sediment and groundwater investigations whether for dredging, contamination or general characterization purposes regardless of whether the activity is occurring above or below the mean high water line. (3)

RESPONSE: As stated in response to comments 32 and 33 above, the permit-by-rule at N.J.A.C. 7:7-7.2(a)21 addresses sampling in two instances: when performed as part of a dredging or dredged material management activity or when performed as part of a remedial investigation of a contaminated site. Because sampling plans that are part of a dredging or dredged material management activity are reviewed and approved by the Department pursuant to the CZM rules,

review of the plans as part of an application for authorization under the geotechnical borings general permit would be duplicative. Likewise, because sampling plans that are part of a remedial investigation are reviewed and approved by the Department or certified by a Licensed Site Remediation Professional, reviewing the same plans to obtain an authorization under the geotechnical borings general permit is unnecessary.

However, for general characterization purposes and groundwater investigations, the Department has determined that it is necessary to review such sampling through a general permit. For example, it has been the Department's experience when conducting groundwater investigations that applicants may need to construct accessways to install the monitoring devices. In such case, the Department must review and approve the extent of the impact of the activities.

35. COMMENT: Dredging activities should not be subject to authorization under a permit-by-rule. Oversight by the Department is needed. (21)

36. COMMENT: It is not clear how in a permit-by-rule situation, where there is no review and interaction with the Department, how a person would determine that the dredged material is of an appropriate quality for the chosen method of disposal. (7)

RESPONSE TO COMMENTS TO 35 AND 36: The Department did not adopt permits-by-rule for dredging and dredged material management. The permit-by-rule at N.J.A.C. 7:7-7.2(a)21 is for sediment sampling in a water area to characterize the sediments that may be removed as part of a dredging or dredged material management activity. Because the sediment sampling plan

must be approved in writing by the Department's Office of Dredging and Sediment Technology, Department review of the sampling plan will occur prior to the initiation of sampling.

Dredging and dredge material management activities to address the removal of material deposited as a result of a storm event in which the Governor declared a State of Emergency are governed by three new general permits at N.J.A.C. 7:7-7.32, 7.33 and 7.34, which do require Department review.

7:7-7.13 Coastal general permit for the construction of support facilities at legally existing and operating marinas

37. COMMENT: The reduction in the setback requirements for marina support facilities is opposed. Given the significant damage incurred as a result of Superstorm Sandy, it does not make sense to allow structures to be placed even closer to the coastline where they will be subject to greater damages from wave action and flooding. This change to long-standing regulations is not needed to accommodate post-Sandy rebuilding and actually promotes future damages by encouraging structures to be located within 15 feet to 25 feet of the shore.

Further, the reduction in the setback requirement will create a public safety hazard with buildings and associated operations conflicting with public access and pedestrian use of the public trust waterfront lands. The original 100 foot setback was intended to promote enhanced public access to and along all waterfronts, as required by CAFRA. However, the effect of this provision will be reduced public access to public trust lands.

The CAFRA statute specifically requires the Department to protect and enhance scenic views of tidal waters and adjacent shorelines, which are public trust lands. The reduction in the

setback from 100 feet to 15 feet will obstruct existing scenic views and further degrade the aesthetics of the coastal zone.

The rule prior to these amendments included a provision allowing the Department to reduce the setback where the Department determined that there was no alternative. That provision provided the necessary regulatory flexibility which has now been deleted in favor of a new provision that will threaten the public safety, encourage storm damage to structures, adversely impact public access to the waterfront and further degrade coastal viewsheds and aesthetics. (13)

38. COMMENT: The reduction in the setback requirements for marina support facilities should be reversed. The reduced setbacks will increase the vulnerability of marinas and the surrounding ecosystems; not enhance the protection of those ecosystems. (7, 9)

RESPONSE TO COMMENT 37 AND 38: As explained in the summary, the 100-foot setback was intended to preserve that portion of the site with direct water access for water dependent activities. Because a marina is a water dependent activity, it is appropriate to allow marina related support facilities to be located within this area. The setback was not intended to address storm or flooding issues. Any proposed development under this general permit must also comply with current construction codes which will address flood resistant construction techniques.

The general permit at N.J.A.C. 7:7-7.13(c)2 requires that public access be provided in accordance with the lands and water subject to public trust rights rule, N.J.A.C. 7:7E-3.50, and

the public access rule, N.J.A.C. 7:7E-8.11. No changes have been made to this provision. Further, N.J.A.C. 7:7-7.13 (b)1i limits the height of the support building to no more than one story in order to protect views.

Prior to these amendments, the general permit at N.J.A.C. 7:7-7.13(b)2iii allowed for a deviation from the setback requirements where there was no alternate location for restrooms. Therefore, the Department only had regulatory flexibility with respect to the siting of restrooms, not other marine support facilities identified at N.J.A.C. 7:7-7.13(b).

7:7-7.29 Coastal general permit for habitat creation, restoration, enhancement, and living shoreline activities

39. COMMENT: The inclusion of a general permit for the establishment of living shorelines is supported. It is critical that this activity be allowed throughout the State, in order to ensure equal opportunities to implement natural solutions to address erosion, management of polluted runoff, flood protection, preserving, creating or maintaining habitat for aquatic flora and fauna, restoring critical feeding and nursery habitat for aquatic flora and fauna, providing wildlife access to the coastline, increasing carbon sequestering marshland vegetation, and potentially providing a less costly alternative to structural stabilization.(13)

40. COMMENT: The use of nature-based solutions, such as living shorelines, to improve health and resiliency of New Jersey’s critical coastal and tidal habitats is strongly supported. (10)

RESPONSE TO COMMENTS 39 AND 40: The Department acknowledges these comments in support of the rule.

41. COMMENT: While the living shorelines program would allow for the restoration of natural systems, it seems to conflict with the section of the rules on engineering and automatic rebuilding. The living shoreline program is voluntary and there is not an overall plan for restoring such natural systems along the coast. (5, 15)

RESPONSE: Under this rulemaking, the Department is encouraging the use of living shorelines through the changes to the general permit for habitat creation, restoration, enhancement, and living shoreline activities at N.J.A.C. 7:7-7.29, and to the CZM rules for shellfish habitat, N.J.A.C. 7:7E-3.2; submerged vegetation habitat, N.J.A.C. 7:7E-3.6; intertidal and subtidal shallows , N.J.A.C. 7:7E-3.15; wetlands, N.J.A.C. 7:7E-3.27; filling, N.J.A.C. 7:7E-4.11; coastal engineering, N.J.A.C. 7:7E-7.11; and marine fish and fisheries, N.J.A.C. 7:7E-8.2. In addition, a new general water area rule at N.J.A.C. 7:7E-4.23 for living shorelines has been added.

The coastal engineering rule, N.J.A.C. 7:7E-7.11 has been revised to emphasize and clarify the Department's shore protection and/or storm damage reduction priorities, and to facilitate the rebuilding of a more resilient shoreline in the aftermath of Superstorm Sandy. To that end, the rule establishes a hierarchy of the shore protection and/or storm reduction measures that can be implemented, with non-structural measures considered first, then hybrid measures, then structural measures. Further, the rule supports the rebuilding of New Jersey's shoreline in an

ecologically beneficial manner through the use of shoreline stabilization measures such as living shorelines.

42. COMMENT: The Department is commended for its policy on living shorelines. However, it is not clear in the rule whether a hard structure without vegetation would be considered a living shoreline. Without a clear connection to the other aspects of living shorelines there is concern that the definition of living shoreline would be used to justify the creation of structural shoreline protection in inappropriate circumstances, and in special areas where such structures are currently prohibited. (7)

RESPONSE: The Department acknowledges this comment in support of the rule. The general permit at N.J.A.C. 7:7-7.29 authorizes habitat creation, restoration, enhancement and living shoreline activities necessary to implement a plan for the restoration, creation, enhancement or protection of the habitat, water quality function and values of wetlands, wetland buffers and open water areas. To qualify for the general permit, the activity must be sponsored by a Federal or State agency or university or college. A living shoreline project is a habitat protection, restoration or enhancement project that will result in a net gain of habitat functions and values. Habitat includes, for example intertidal shallows, submerged vegetation, shellfish and wetlands. In some cases, hard structures, such as breakwaters, groins or revetments are required to facilitate the establishment of vegetation and/or beach areas. The placement of structures, such as breakwaters, groins or revetments to establish a living shoreline must be designed and constructed in accordance with the requirements of the general permit. Living shoreline projects

will be evaluated on a case-by-case basis for compliance with those requirements. However, the construction of breakwaters, groins or revetments that do not provide for enhancement or protection of habitats such as wetlands and beaches are not considered living shoreline activities.

43. COMMENT: The general permit at N.J.A.C. 7:7-7.29 should be amended to allow for conservation based non-governmental organizations (NGOs) to be eligible to lead demonstration projects that will advance the level of knowledge in regard to living shorelines in New Jersey. In order to maximize the ecological and social benefits of living shoreline projects in the future, this provision should not be limited to Federal, State or county agencies and should also take into account project areas that include multiple applications. NGOs should be exempt from the one-acre size limit set forth at N.J.A.C. 7:7-7.29(f)1. As the science behind living shorelines continues to improve, the likelihood of larger projects increases, including those that incorporate multiple smaller components that add up to greater than one acre. In addition, NGO conservation organizations with large landholdings may also have a desire to implement larger projects adjacent to their lands and they should not be excluded from larger projects if such a project is deemed to be the most effective means by which to meet their goals.

The requirement for a Federal or State agency to sponsor a living shoreline project is duplicative and unnecessary given the Federal and State permitting processes. (10)

RESPONSE: Under these amendments a living shoreline project designed by an NGO will be able to receive an approval either through an authorization under the general permit or an individual coastal permit. At N.J.A.C. 7:7-7.29(a), the description of a “sponsor” was amended

to enable more persons and entities to apply for authorization under this general permit while still ensuring oversight of the activities by the Federal and/or State experts or colleges/universities conducting research who are responsible for the plans identified at N.J.A.C. 7:7-7.29(b). As amended, a sponsor is an entity that endorses the proposed activities in writing, meaning that the entity has reviewed the project and concurs that the proposed project is suitable for its intended purpose. "Sponsor" does not mean that the entity is funding or partially funding the project. Accordingly, an NGO is able to apply for authorization under this general permit for the establishment of a living shoreline provided it has obtained a qualified sponsor. The Department does not anticipate an NGO will have difficulty obtaining appropriate sponsorship.

The size of a living shoreline project that can be authorized under the general permit is limited to no more than one acre, unless the applicant is a Federal or State agency that demonstrates that a larger project size is necessary to satisfy the goals of the project. In this case, the Department has determined that a Federal or State agency has the expertise and staff to undertake a larger scale project. Often, larger scale projects have undergone an extensive environmental review process, including in some cases, the development of an Environmental Impact Statement In addition, this process often involves a public comment period.

If an NGO is unable to obtain sponsorship or proposes a project that exceeds the one acre size limit (which would make the project ineligible for authorization under the general permit), the NGO could apply for an individual permit. The application would be reviewed under the new general water area rule at N.J.A.C. 7:7E-4.23, living shorelines. The individual permit review process allows the Department to review the living shoreline design and its ability to address the loss of vegetated shoreline and habitat in the littoral zone as well as the project's

ability to improve or maintain the values and functions of the ecosystem. The Department through this process will also coordinate with appropriate Federal agencies for their expertise in determining compliance with the standards in the new special area rule.

7:7-7.32 Coastal general permit for the dredging of sand from a man-made lagoon deposited as a result of a storm event for which the Governor declared a State of Emergency

7:7-7.33 Coastal general permit for the dredging of material from a waterway at a residential or commercial development deposited as a result of the failure of a bulkhead as a result of a storm event for which the Governor declared a State of Emergency

7:7-7.34 Coastal general permit for dredging and dredged material management of material from a marina that was deposited as a result of a storm event for which the Governor declared a State of Emergency

44. COMMENT:N.J.A.C. 7:7-7.32(a) and 7.33 allow for the dredging of sand from man-made lagoons and the dredging of material from a waterway at a residential or commercial development deposited as a result of the failure of a bulkhead as a result of a storm event for which the Governor declared a State of Emergency. The general permits require that the volume of sand or material to be dredged be limited to that which was deposited as a result of the storm or resulted from the failure of the bulkhead. However, the Department has no way of determining compliance with this requirement since the rule does not require submission of pre- and post-storm bathymetric data for the dredging area.

In addition, the dredging general permits at N.J.A.C. 7:7-7.32, 7.33 and 7.34 do not require the installation of turbidity controls to mitigate impacts of sedimentation into other areas, including shallow water habitat, shellfish habitat, submerged vegetation habitat and boat mooring areas. In addition, the general permit at N.J.A.C. 7:7-7.34 requires that the upland disposal facility be operated and maintained in a manner to minimize the discharge of dredged material into the adjacent surface waters and wetlands but does not include any standards for how that will be accomplished.

Further, the dredging general permits require that dredged material be placed on an upland site, dewatered as necessary within a temporary dewatering area and capped with a six-inch layer of clean fill and stabilized. However, the general permits do not include standards for how the material is placed, how it is stabilized, how it is dewatered, or where the dewatering discharge is to be located. The standards of the dredging general permits are vague and need to be clarified. The general permits should also allow for the beneficial use of dredged material. (13)

RESPONSE: This general permit is intended to return the area impacted by the storm to pre-storm conditions. Therefore, N.J.A.C. 7:7-7.32(a)1 and 2 require, respectively, that the volume of sand to be dredged be limited to that which was deposited as a result of the storm and that the area to be dredged be limited to that where the sand was deposited as a result of the storm event. The general permits do require submission of pre-and post-storm bathymetry of the area to be dredged if available. The Department may also review bathymetry from previous dredging operations as well as aerial photographs to assist in determining the appropriate area to be

dredged and the volume of sand to be dredged. The Department will review the adequacy of the information submitted with the general permit authorization application and determine compliance with the general permit criteria on a case-by-case basis.

The Coastal Permit Program rules at N.J.A.C. 7:7-7.1(e)1 provide that the Department may add special conditions which must be met in order for specific proposed developments to qualify for authorization under a general permit. Accordingly, through its review of the application for authorization under the three dredging general permits, the Department will add conditions concerning minimization of turbidity as well as other impacts to water quality specific to the material to be removed, the extent of the area to be dredged, the method of dredging, the location of the dredged material management site, the water quality controls that will be necessary during the dewatering of the dredged material, and site's proximity to special areas. Further, the Department will evaluate the dredged material management site on a case-by-case basis in consideration of the above listed factors.

The Department encourages the beneficial use of dredged material. It is the long-standing policy of the State to treat dredged material as a resource and to beneficially use dredged material in appropriate applications rather than relying on disposal of dredged material in confined disposal facilities. The new general permits for certain dredging activities do encourage the beneficial use of dredged material. For example, the general permit at N.J.A.C. 7:7-7.33 requires that the material removed from a waterway as a result of the failure of a bulkhead must be placed on the upland portion of that site. Therefore, this material is being beneficially used as fill behind the replacement bulkhead. The general permit at N.J.A.C. 7:7-7.34(d) provides that the final placement site for material determined to be sand, must be

approved by the Department and specifically states that the beneficial use of the sand is encouraged. In addition, the Department has amended the dredged material management on land rule to encourage and facilitate the recovery of coastal waterways through the beneficial use of the dredged material.

45. COMMENT: Given that most confined disposal facilities are located within close proximity to waterways, floodplains, and wetlands, whether on-site at a marina or not, they are inherently vulnerable to storms such as Superstorm Sandy. As such, confined disposal facilities should first be designed and engineered to ensure that their features can protect surrounding ecosystems and effectively allow for safe dewatering and/or storage before they are used for dredged material management. These rules generally assume that sand or other fill deposited with marinas, next to bulkheads, or within lagoons deleteriously affect habitat and ecosystems, yet, in some cases, this material may in fact have created valuable new habitat. The Department should address whether at least some of this sand or fill should remain where it was deposited. If sand as defined in the general permits is free from contamination, beneficial uses should be considered and supported. (9)

RESPONSE: The scope of dredging activities that may be authorized under the general permits at N.J.A.C. 7:7-7.32, 7.33 and 7.34 is limited to the removal of material deposited as a result of a storm event for which the Governor declared a State of Emergency at existing marina basins, lagoons and areas adjacent to failed bulkheads. Dredging in these situations is necessary to maintain navigability and restore property that was lost. The removal of the material deposited

as a result of the storm will assist in the recovery of special areas such as shellfish and submerged vegetation habitat by restoring pre-storm elevations and sediment structure. As such, the Department considers dredging in these limited circumstances to be restoration. As discussed in response to comment 44 above, the dredging general permits do encourage the beneficial use of dredged material.

CHAPTER 7E

COASTAL ZONE MANAGEMENT RULES

7:7E-3.2 Shellfish habitat

46. COMMENT: Allowing projects to occur in designated shellfish habitat will facilitate multi-faceted projects, such as the use of an oyster reef breakwater to reduce wave energy and marsh edge erosion while at the same time promoting three-dimensional reef habitat that will also provide an additional larval source for the State's commercially important oyster industry, help improve local water quality and serve as habitat for other commercially and recreationally important fisheries. (10)

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

47. COMMENT: N.J.A.C. 7:7E-3.2(c) allows for the construction of a dock or pier or the one-time replacement or reconstruction of a legally existing functioning bulkhead outshore of the existing bulkhead when located in waters that have been classified as prohibited for the purpose

of harvesting shellfish. This standard installs a two-tiered system of protection when it comes to New Jersey's waterways. It appears to allow for the new construction of a dock or pier in prohibited waters, regardless of whether there is existing shellfish habitat and provides for no mitigation of that impact.

Further, the allowance of a one-time replacement or reconstruction of a legally existing functioning bulkhead at N.J.A.C. 7:7E-3.2(i) outshore of the existing bulkhead, in some cases up to 24 inches, within shellfish habitat will permanently destroy a large area of shallow water shellfish habitat. How can the rule be promoting living shorelines and their benefits on one hand, and promote the filling and destruction of near-shore habitat on the other hand – especially for the replacement of bulkheads that are functioning. Has the Department addressed the cumulative impact on shallow water habitat and shellfish habitat that will be filled over time to assess the long-term impacts of this provision? (7, 13)

RESPONSE: Prior to this rulemaking, the rule at N.J.A.C. 7:7E-3.2(d)3 allowed for the construction of a single noncommercial dock, pier or boat mooring associated with a single family dwelling in shellfish habitat with mitigation. The rule at N.J.A.C. 7:7E-3.2(d)2 allowed for the construction of docks in waters that have been classified as prohibited without mitigation. The amendments to N.J.A.C. 7:7E-3.2(c) merely clarify the exceptions to the prohibition on development which would result in the destruction, condemnation or contamination of shellfish habitat. The Department has amended the exception to reference activities that are already described in the rule and to add reference to living shorelines. Further, this subsection is amended to make it clear that the construction of docks and piers and the one-time replacement

or reconstruction of a legally existing functioning bulkhead outshore of the existing bulkhead, when located in waters that have been classified as prohibited for the purpose of harvesting shellfish, are acceptable in accordance with (d)2 and (i).

The Department has historically allowed for the replacement of an existing bulkhead and the amendments to this rule balance the need to replace existing bulkheads while preventing future encroachments within shellfish habitat. Further, minimization of impacts to the shellfish habitat is accomplished by requiring that the bulkhead be constructed of non-polluting material; limiting the replacement to one-time only; and requiring a conservation restriction be placed on the property associated with the bulkhead. These requirements are intended to minimize any long term impacts to shellfish habitat and shallow water habitat.

As the State rebuilds after Superstorm Sandy and seeks to become more resilient in an ecologically beneficial manner, it is important to allow options such as living shorelines to be used as shore protection measures. The rules regarding living shorelines are essential to rebuilding a more resilient, diverse, and environmentally protective shoreline.

7:7E-3.16 Dunes

48. COMMENT: The rules call for a dune maintenance program which is not clearly defined. (5)

RESPONSE: The maintenance of dunes is addressed in the CZM rules under the dune special area rule at N.J.A.C. 7:7E-3.16 and the standards applicable to dune creation and maintenance at N.J.A.C. 7:7E-3A.4. The amendments to the dune rule at N.J.A.C. 7:7E-3.16 allow for the

maintenance of an engineered dune to its design template. Engineered dunes are part of shore protection projects intended to reduce storm impacts. Shore protection projects are designed to a specific height, width, slope, and length to provide storm damage reduction. Maintenance of the dune to its design template may be necessary to remove accumulated sand or replenish lost material to maintain the overall design template. These maintenance activities would be performed by the municipality with oversight by the Department's Division of Coastal Engineering under an individual coastal permit.

The standards for beach and dune activities at N.J.A.C. 7:7E-3A are referenced in various CZM rules and are the standards for the coastal general permit for beach and dune maintenance activities at N.J.A.C. 7:7-7.6. The rules at N.J.A.C. 7:7E-3A.4 set forth the standards for dune creation and maintenance activities. In general, municipalities, beach clubs, and homeowner associations seek authorization under this general permit in order to maintain their beaches and dunes. The coastal general permit requires compliance with the best management practices as defined at N.J.A.C. 7:7E-3A, provides that no beach or dune maintenance activities are to be conducted within wetlands, and requires public access to the beach be provided in accordance with the public access rule, N.J.A.C. 7:7E-8.11 and the lands and waters subject to public trust rights rule, N.J.A.C. 7:7E-3.50.

49. COMMENT: The inclusion of standards for the maintenance of engineered dunes at N.J.A.C. 7:7E-3.16(d) ignores the fact that artificially constructed dunes are natural features that are not static, and that maximum protection is achieved by encouraging dune growth over time through deposition of wind-blown sand on the dune face and dune crest. This process has been

well documented by the Department, the Richard Stockton College of New Jersey, and Steven's Institute of Technology.

The Department adopted these new standards to limit dune growth to avoid having to address dune height and view impacts, thereby minimizing the level of protection afforded by the newly created dune and increasing the storm and flood hazards to adjacent development. Dune creation projects in New Jersey, including Atlantic City, have demonstrably protected development because the dune heights and associated volumes were allowed to increase over time. Further, the placement of sand fencing and subsequent redistribution of the sand on the beach berm undermines the ability of the dune to reestablish and grow, thereby providing greater protection. This change reflects the desire to maintain views, and manage sand that blows onto properties.

The Department's rules should not encourage maintenance of the initial dune design template. The Department has never encouraged activities that limit dune growth and protection since it began regulating dune manipulation in all locations, and for the Department to now adopt such rules in the wake of Sandy is technically unsound and flies in the face of common sense. Maintaining the dune design template will jeopardize public health, safety, and welfare, and is inconsistent with CAFRA's legislative findings and intent. The amendments also contradict the findings of FEMA's damage assessment teams that documented the benefits of dunes which exceeded the design template, as well as the findings and recommendations in FEMA's Coastal Construction Manual, which documents the minimum dune volume required to provide protection against the 100-year storm, including storm surge. Dunes constructed by the US Army Corps of Engineers (USACE) are well below the design dune volume established by FEMA.

Because New Jersey has a static development line that precludes natural landward dune migration, the only way to achieve the needed protection is to allow dunes to grow in a seaward direction and vertically by installing sand fencing on the seaward toe and beach to accumulate sand and expand the dunes in that direction, and to encourage vertical growth in dune height.

What studies and technical data has the Department relied on to adopt regulatory provisions that minimize the protective capacity of newly created dunes and limit dune development over time? It is requested that the Department provide citations for all scientific and technical studies and reports it relied upon to weaken the existing beach and dune protection standards. (7)

RESPONSE: The protective capacity of an engineered beach and dune system is a function of the beach and dune design template which sets forth the specific height, width, length, and slope of the beach and dune. Where the sand from the berm is blown onto the dune, leaving the berm below the template design, the function provided by the berm in reducing the force of waves before they reach the dune is compromised. As a result, the dune may be subject to forces greater than it is designed to withstand. Accordingly, it is important that maintenance activities assure that the necessary balance between the beach berm and the dune is maintained. Based on discussions with experts from the Richard Stockton College of New Jersey, Steven's Institute of Technology, and the USACE, moving accreted sand which is above the design template and placing that sand within eroded portions of the template is an acceptable maintenance activity. The rule requires any vegetation disturbed in the process be replaced. Rather than protecting

views, the rules are designed to ensure that the beach berm and dune system are maintained in a manner that assures that people and property are protected.

The majority of the developed portions of New Jersey's Atlantic coast and Raritan Bay have been studied or are currently under study by the USACE in partnership with the Department to determine the project's design template. The areas covered by these studies are: Raritan Bay and Sandy Hook Bay Keyport; including Union Beach, Section 506, Port Monmouth, Leonardo, and Highlands, Sea Bright to Manasquan Inlet, Manasquan Inlet to Barnegat Inlet, Barnegat Inlet to Little Egg Harbor Inlet, Brigantine Inlet to Great Egg Harbor Inlet (Brigantine Island), Brigantine Inlet to Great Egg Harbor Inlet (Absecon Island), Great Egg Harbor Inlet-Peck Beach, Great Egg Harbor Inlet to Townsends Inlet, Townsends Inlet to Cape May Inlet, Herford Inlet to Cape May Inlet, Cape May Inlet to Lower Township, and Lower Cape May Meadows-Cape May Point. Copies of the completed studies may be obtained from USACE Philadelphia District, The Wanamaker Building, 100 Penn Square East, Philadelphia, PA 19107-3390, see www.nap.usace.army.mil/Missions/CivilWorks/CoastalStormDamageReductionProjects.aspx, or the USACE New York District, 26 Federal Plaza, New York, NY 10278, see www.nan.usace.army.mil/Missions/Civil Works/ProjectsinNJ.aspx . Copies may also be viewed by appointment only by contacting the Department's Coastal Engineering Office at 1510 Hooper Avenue, Toms River, NJ 08753, see www.nj.gov/dep/shoreprotection/ .The Department relies on the analyses contained in these studies to ensure the appropriate level of storm protection for the studied areas.

A commonly used technique to manage engineered beach and dune systems is "sand back passing." "Sand back passing" involves the removal or harvesting of sand from an area of the shore protection project that is experiencing an influx of sand (accretion) and moving it to an area of the project that is experiencing a loss of sand (erosion). Sand back passing is a means to efficiently manage limited sand resources and reduce the volume of sand needed during renourishment cycles, while ensuring that the storm damage reduction function for which the dune was designed is not compromised. In no case can the maintenance of the engineered dune reduce the dune to less than the dune design template.

The amendments to the standards for routine beach maintenance at N.J.A.C. 7:7E-3A.2(a)9, allow for winter sand management activities. Specifically, the rule allows for the placement of sand fencing on an existing beach which allows for the accumulation of sand during the winter months. The accumulated sand is then redistributed along the beach berm prior to the beach season. Prior to this amendment, this activity was performed by several communities under a CAFRA individual permit. The activities allow for the sand that accumulates each year under a boardwalk, alongside a home, or at street ends to be placed back onto the beach or dune in a manner that will assist in the maintenance of the beach and dune system, thus preserving that system's ecological and flood protection role. Based on the Department's experience, this management activity will have only minimal temporary impacts on the beach and dune system and may in fact provide additional storm protection during the winter months.

50. COMMENT: Pursuant to Executive Order 2, copies of the required cost benefit analyses that demonstrate the new rule will provide for benefits that exceed costs, taking into consideration long-term dune growth and protection to developed property over time must be provided. (7)

RESPONSE: As indicated in the summary of the amendments made as part of the emergency rulemaking, as well as the responses above, the benefits provided by a beach and dune system in protecting public safety, property and the environment are not measured by dune height alone. Instead, the protection provided depends upon maintaining both the dune and the beach berm to assure that neither falls below the design template determined to be necessary to provide the protection required. As discussed in the emergency adoption/concurrent proposal and reiterated in response to comment 49 , the amendments made as part of this rulemaking with reference to dunes will assist in assuring that the necessary design templates of both the beach berm and dune are maintained and public safety protected. In addition to detailing the benefits to be achieved by the adopted amendments related to beach and dune maintenance, the proposal included an economic impact statement. As indicated there, it is anticipated that the amendments relating to the maintenance of engineered beaches and dunes will have a positive economic impact on shore protection/storm damage reduction projects. Maintenance activities between renourishment cycles have the potential to reduce the volume of material needed when accreted sand is transferred from areas that have expanded above the design template to areas that have experienced increased erosion. Beaches and/or dunes that are part of a shore protection project are designed to a specific height, width, slope and length for purposes of shore protection and/or storm damage reduction. Maintenance of engineered beaches and/or dunes to the design

template will ensure that the level of protection for which the beach and/or dune was designed is provided in the event of a storm. Additionally, the process to develop the beach and dune template includes a cost-benefit analysis that results in formulation of the design template. Maintaining the dunes and beach berms to the final design template ensures that the anticipated positive benefit continues to be achieved.

51. COMMENT: N.J.A.C. 7:7E-3.16(d)2 requires that a New Jersey licensed professional engineer certify that alteration of the dune will not compromise the beach and dune system. However, there is no standard which defines what constitutes such a compromise. The standards relating to the maintenance of a dune to the design template include a vague and undefined standard that applicants cannot comply with and that the Department cannot enforce. The rule should be revised to include a requirement that the licensed engineer certification be consistent with the specific National Flood Insurance Program (NFIP) standard at 44 CFR 60.3(e)(7) that prohibits man-made alteration of sand dunes and mangrove stands within Zones V1-30, VE, and V on the community's Firm Insurance Rate Map (FIRM) which would increase potential flood damage.(7)

RESPONSE: In order to demonstrate that maintenance is required, an applicant must demonstrate through pre- and post- construction surveys overlaid on the dune design template that the existing dune is not consistent with the dune design template. The applicant must also demonstrate that the proposed alteration of the dune will not result in the reduction of any portion of the dune below the design template. Each shore protection project is customized for a

specific location. A New Jersey licensed engineer must certify that the maintenance will not compromise the beach and dune system below the design template for that specific location. The protective capacity of a dune is a function of the dune design template which sets forth the specific height, width, length, and slope of the dune. Any proposed maintenance of an engineered dune must demonstrate that these detailed engineering specifications are not compromised. In addition, the applicant must also demonstrate the activity will be conducted in accordance with the State Aid Agreement. Therefore, the rule does contain standards which an applicant, as well as the Department, will use in evaluating whether or not the proposed maintenance activity will compromise the storm protection measures provided by the engineered shore protection project. The purpose of this amendment is to allow the Department and municipalities to undertake maintenance activities consistent with the USACE design and not the NFIP standards.

52. COMMENT: N.J.A.C. 7:7E-3.16(d)5 allows for disturbance of dune vegetation and requires that the vegetation be restored in accordance with the dune construction planting specifications in the Federal consistency determination or Department permit for the engineered dune. A number of USACE projects were approved many years ago and the original Federal consistency determination information is not readily available. If the Department requires that the planting be restored to that specification, then the Department must ensure that those specifications are available to every town that does work under the permit.

Allowing alteration of dune vegetation will adversely impact the ability of the dune to resist erosion and protect landward development. By allowing for such alteration, this provision

encourages activities that minimize dune protection and the taxpayer investment in the dune projects. Since existing dune vegetation provides greater stability to the dune structure than newly planted dune vegetation, the Department must identify the studies or technical data it relied upon to determine that destruction of existing mature dune vegetation and replacement with newly planted vegetation maintains the same level of stability and protection. (7)

RESPONSE: Every engineered dune has specific design plans and specifications as to the species of vegetation, spacing of plants and fertilization. The project design plans and specifications are provided to every municipality within the project area. In addition, the design plans are available from the USACE and the Department at the Office of Engineering and Construction and the Division of Land Use Regulation. The vegetation planted on these dunes is generally shallow rooted grass species which spread quickly within a single growing season. The Department has determined that maintenance of the dune and berm system to the design specifications is necessary to ensure that the system provides the protection it was designed to achieve, justifying the temporary disturbance of vegetation allowed by this provision. The Department relies upon the dune design template engineered by the USACE to determine the specifications necessary to ensure the stability of the dune will not be compromised.

53. COMMENT: The amendments to the rule rationale at N.J.A.C. 7:7E-3.16(e) include statements that are technically and factually inaccurate. Specifically, the amendments state that engineered dunes may capture sand and grow beyond their design template. This is true and, contrary to the implication that this is not a good result, it is, in fact, a positive result in

establishing and enhancing the level of protection afforded by the newly created dunes. The goal of a dune project is not to create a new dune and preclude its natural accretion and enhanced protection; rather it is to create a new dune and facilitate dune management practices that will enhance the level of protection afforded by the dune as it grows over time.

The amendments to the rationale provide that maintenance of the dune to its design template may be necessary to minimize the effects that an influx of sand can have on infrastructure, access and public safety, but do not identify the alleged impacts. The Department's past practice has been to work cooperatively with permittees to address maintenance issues that arise from dune growth, while still protecting the functions and values of the dunes and encouraging dune growth. This proven practice has worked well in municipalities such as Seaside Park, Lavallette, Berkeley Township and other towns that have well-developed dunes that protected people and property during Sandy. (7)

RESPONSE: N.J.A.C. 7:7E-3.16 allows a municipality to move sand from locations where sand has accreted above the design template to a portion of the project where sand is deficient. The intent, as described in the rationale, is to maintain the design template and to ensure the system continues to provide storm protection. The Department will continue to work cooperatively with municipalities to maintain their beaches and dunes. The existing dunes in Seaside Park, Lavallette, and Berkeley Township are not engineered as defined by the rule. Should these municipalities participate in a shore protection project in the future, they would be able to maintain the dunes and beaches under this rule.

7:7E-3.22 Beaches

54. COMMENT: The amendments to the beach special area rule at N.J.A.C. 7:7E-3.22(b)10 allow for the mechanical redistribution of sand from the upper beach to the lower beach, which is contrary to accepted dune enhancement practices. The effect of this activity will be to limit the natural growth and accretion of the dunes located landward of the beach, and a reduction in storm protection over time. Allowing the beach profile to be flattened will result in increased dune erosion, dune overwash and associated storm damages. As sea level rises and storm induced erosion increases in the future, this rule will limit the ability of the dunes to grow in response to these hazards and will threaten the public health, safety, and welfare. (7)

RESPONSE: Redistribution of sand from the upper beach to the lower beach can only occur when the upper beach elevation exceeds the design template. Maintaining the project's design template will not negatively impact the design dune or the project's storm damage reduction capability. Maintaining the project's design will increase the longevity of the storm protection provided for by the shore protection project, thus protecting the public's health, safety and welfare as designed.

7:7E-7.3 Resort/recreational use

55. COMMENT: The wording is N.J.A.C. 7:7E-7.3(d)10ii is confusing and should be clarified to make it clear that the restriction of the use of non-polluting materials pertains only to bulkhead sheathing and planking and dock planking and does not include pilings. (12)

RESPONSE: N.J.A.C. 7:7E-7.3(d)10ii provides that, with the exception of pilings, bulkhead sheathing and planking, and dock planking shall be constructed of non-polluting materials. Pilings are excepted from the requirement of being constructed of a non-polluting material.

7:7E-7.11 Coastal engineering

56. COMMENT: The Department's explicit guidance for determining when non-structural approaches to shoreline engineering are appropriate has been a long-standing need and is strongly supported. (7)

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

57. COMMENT: Given that it is the State's policy that beach replenishment sand, at minimum, consist of 90 percent or greater sand particles by weight retained on a 0.0625 mm sieve, it is important that this policy be formalized in these rules to protect the health of New Jersey's beaches, ecosystems, and public health.(9)

RESPONSE: Under this rulemaking, the Department defined "sand" for the purposes of the dredging general permits in order to develop appropriate standards for the removal of the material and its ultimate placement site. With respect to beach replenishment projects, the appropriateness of a given material for the placement on a beach is determined on a case-by-case basis in consideration of the existing composition of the beach and borrow area.

58. COMMENT: New Jersey needs to find a better approach to replenishing its beaches instead of the cookie cutter approach taken by the U.S. Army Corps of Engineers. (2)

RESPONSE: Many of New Jersey's beaches, especially along the Atlantic Ocean, have been nourished through the State's Shore Protection Program. These beaches are designed for shore protection and/or storm damage reduction purposes. Each project's beach design template (that is the height, width, slope and length of the beach berm) is the result of comprehensive analysis and is designed to reduce storm damages. The analysis leading to the beach design template includes a cost/benefit analysis. Specifically, it must be demonstrated that the benefit of the proposed project outweighs its cost. Accordingly, the design of each project is customized for that specific project location.

59. COMMENT: There is concern that under this rule, many coastal towns are going to be pushing for the construction of sea walls and other engineered projects. Sea walls may cause more beach erosion. Engineered dunes do not necessarily work well; dune systems need to be resilient and not just be a big pile of sand. (21)

RESPONSE: Among other rules, the construction of a sea wall would have to comply with the CZM rules' coastal engineering rule, N.J.A.C. 7:7E-7.11. The current coastal engineering rule continues the standards that were contained in the rules prior to this rulemaking, with the standards reorganized to emphasize and clarify the Department's shore protection and storm damage reduction priorities. To that end, the Department has added at new N.J.A.C. 7:7E-

7.11(b), a hierarchy of the shore protection and/or storm damage reduction measures that can be implemented. This hierarchy provides that nonstructural measures are to be considered first, then hybrid measures, then structural measures. In addition, if the construction of a sea wall was funded by Shore Protection Fund monies and/or any other Department monies, the rule at N.J.A.C. 7:7E-7.11(g) requires that various conditions must be demonstrated before the project can qualify for funding. First, it must be demonstrated that the structure is essential to protect water dependent uses or heavily used public recreation beach areas in danger from tidal waters or erosion, the structure is essential to protect existing structures and infrastructure in developed shorefront areas threatened by erosion, or the structure, (for example, a retained earthen berm) is essential to mitigate the projected erosion in an erosion hazard area along a headland and provide erosion protection for a development that is otherwise acceptable under the CZM rules. In addition to demonstrating the need for the project, it must be demonstrated that the structure will not cause significant adverse impacts on local shoreline sand supply, the structure will not create net adverse shoreline sand movement down drift, including erosion or shoaling, the structure will cause minimum feasible adverse impact to living marine and estuarine resources, the structure is consistent with the State's Shore Protection Master Plan, and, if the proposed project requires filling of a water area, the filling is consistent with filling rule, N.J.A.C. 7:7E-4.10, and all other applicable CZM rules. These requirements are the same as the rule codified at N.J.A.C. 7:7E-7.11(e) prior to this rulemaking.

With respect to engineered dunes, many of New Jersey's Atlantic coast dunes are engineered dunes. Based on observations by Richard Stockton College of New Jersey, those municipalities with engineered dune systems or wide and well-developed natural beach and dune

systems suffered less damage during Superstorm Sandy than those without such protections. As stated in response to comment 49, engineered dunes are designed to a specific height, width, slope, and length, known as the dune design template, to provide storm damage reduction in addition to the beach berm. Each project's beach design template (that is the height, width, slope and length of the beach berm) is the result of comprehensive analysis and are designed to reduce storm damages, which also includes a cost/benefit analysis. They are designed to be resilient to a specific storm event.

60. COMMENT: The changes to the coastal engineering rule will facilitate the hardening of the coastline. Further, the change to the rule increasing the distance between the replacement bulkhead and existing bulkhead from 18 inches to 24 inches is not necessary to be made as an emergency rulemaking. (7)

RESPONSE: The amendments to the coastal engineering rule do not facilitate the hardening of the coastline. As explained in the summary of the changes to the coastal engineering rule, while the Department has repealed and put in place a new coastal engineering rule, the new rule continues the standards from the repealed rule with changes to the organization of the rule and changes to emphasize and clarify the Department's shore protection and/or storm damage reduction priorities and to facilitate a more resilient shoreline. The examples of the coastal engineering measures at N.J.A.C. 7:7E-7.11(a) are expanded to include living shorelines in recognition of their importance as a shoreline stabilization measure. Further, a hierarchy of the shore protection and storm damage measures that can be implemented has been included at

N.J.A.C. 7:7E-7.11(b) to make it clear that non-structural measures are considered first, then hybrid measures, then structural measures.

The standards for the maintenance or reconstruction of an existing bulkhead including the distance between the replacement bulkhead and existing bulkhead at N.J.A.C. 7:7E-7.11(a)2 are not new. These standards were formerly codified at N.J.A.C. 7:7E-7.11(e) in the prior rule.

In addition to the changes discussed above, the Department amended the general permit at N.J.A.C. 7:7-7.29 for habitat creation and enhancement, and the CZM rules for shellfish habitat, N.J.A.C. 7:7E-3.2; submerged vegetation habitat, N.J.A.C. 7:7E-3.6; intertidal subtidal shallows, N.J.A.C. 7:7E-3.15; wetlands, N.J.A.C. 7:7E-3.27; and filling, N.J.A.C. 7:7E-4.10 as well as added a new general water area rule, living shorelines at N.J.A.C. 7:7E-4.23 to facilitate the rebuilding of a more resilient, diverse, and environmentally protective shoreline.

61. COMMENT: The new coastal engineering rule does not allow sufficient flexibility to use various shoreline stabilization measures. The guidance document does not rank the order of importance on how the Department will consider which stabilization measure is appropriate at the site, nor does it take into consideration wave action or FEMA flood plain mapping. (3)

RESPONSE: The new coastal engineering rule recognizes that under some circumstances structural shore protection and/or storm damage reduction measure may be the only feasible solution for a site. The worksheet entitled, “Guidance for Appropriate Shoreline Protection and/or Storm Damage Reduction Measures for a Site” is merely a tool which is intended to assist an applicant in determining the feasibility of a shore protection and/or storm damage reduction

measure for a given site. However, the determination of the appropriate measure will be made on a case-by-case basis in consideration of the type of waterway on which the site is located, the distance to the navigation channel, the width of the waterway, the water depth at the toe of bank, bank orientation, shoreline slope, fetch, erosion rate, the amount of sunlight received, substrate composition and presence of shellfish habitat, submerged vegetation and wetlands at the site. The Department did not specifically include wave action as a factor because wave action is a product of the factors identified above. With respect FEMA floodplain mapping, the rule does address the construction of bulkhead within a v-zone by requiring the structure to be designed and certified by a profession engineer.

7:7E-8.2 Marine fish and fisheries

62. COMMENT: Should the reference in the second paragraph of the rule rationale concerning dissolved oxygen be to 4 ppm (parts per million) rather than the existing “4 pm”? (12)

RESPONSE: Activities which may interfere with marine fish and fisheries include the reduction of summer dissolved oxygen level below 4 ppm (parts per million) stimulating anoxic phytoplankton blooms. The Department is amending the rule rationale on adoption to correct the typographical error in reference to the dissolved oxygen standard.

Summary of Agency-Initiated Changes:

N.J.A.C. 7:7-7.2(a)17

The Department proposed a permit-by-rule for the placement of land-based upwellers and raceways, including intakes and discharges, for aquaculture activities. As indicated in the summary for this amendment, an upweller is a flow-through system that is used for growing shellfish seed contained in compartments where water, which is drawn from the adjacent water body, flows through the system to carry nutrients to the seed. A raceway is a long rectangular flow-through system in which shellfish seed can be grown to a sufficient size for planting (see, 45 N.J.R. 1145). The Department is adding "shellfish" to make it clear that this permit-by-rule is applicable to shellfish aquaculture activities.

Federal Standards Statement

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. require State agencies that adopt, readopt or amend State regulations that exceed any Federal standards or requirements to include in the rulemaking document a Federal standards analysis. The Federal Coastal Zone Management Act, 16 U.S.C. §§1451 et seq. (Federal CZMA) does not set specific regulatory standards or requirements for development in the coastal zone; rather, it provides broad guidelines for states developing coastal management programs. The general requirements for what a state coastal management program must include are found at 15 C.F.R. Part 923. The requirements do not specifically address the review standards that should be applied to new coastal development in order to preserve and protect coastal resources and to concentrate the pattern of coastal development. The guidelines simply provide a planning and management process, without establishing development standards for development in the coastal area. Therefore, the adopted

amendments, repeal, and new rules do not exceed any Federal standards or requirements of the Federal CZMA.

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

CHAPTER7

COASTAL PERMIT PROGRAM RULES

SUBCHAPTER 7. GENERAL PERMITS AND PERMITS-BY-RULE

7:7-7.2 Permits-by-rule

(a) This section details the activities authorized by a permit-by-rule.

1. – 16.(No change from proposal.)

17. The placement of land-based upwellers and raceways, including intakes and discharges, for ***shellfish*** aquaculture activities. Activities that qualify for this permit-by-rule also qualify for a water quality certificate pursuant to Section 401 of the Federal Clean Water Act, 33 U.S.C. §§1251 et seq. The aquaculture activities shall comply with the following:

i. – iii.(No change from proposal.)

18. – 21.(No change from proposal.)

(b) – (c) (No change.)

CHAPTER 7E

COASTAL ZONE MANAGEMENT RULES

SUBCHAPTER 8. RESOURCE RULES

7:7E-8.2 Marine fish and fisheries

(a) – (c) (No change from proposal.)

(d) Rationale: Finfish (freshwater, estuarine, and marine) and shellfish resources, and the habitats that support these resources provide significant recreation experiences for residents of New Jersey and interstate visitors. These resources also help the State's economy, by leading to expenditures of approximately $1.4 billion per year (US Department of Commerce, National Marine Fisheries Service, 2008). The Department also estimates that 1.2 million people participated in marine/estuarine recreational fishing in 2010 in New Jersey. (US Department of Commerce, National Marine Fisheries Service, 2011) The value of and participation in recreational saltwater fishing is underestimated here as these figures only include finfish data and do not include recreational crabbing and clamming, which are important activities in New Jersey. Commercial landings for all finfish and shellfish in New Jersey during 2010 were 161,831,909 pounds, valued at $177 million dockside, according to US Department of Commerce statistics (2011). The total ripple effect on the State economy is estimated at $2.6 billion, with recreational fishing yielding $1.6 billion and commercial fishing yielding $1.06 billion. (US Department of Commerce, National Marine Fisheries Service, 2008 and 2011).

Activities which may interfere with marine fish and fisheries include blockage of diadromous finfish spawning runs, reduction in the critical capacity of estuaries to function as finfish nursery or spawning areas, reduction of summer dissolved oxygen level below 4 *[pm]*

ppm stimulating anoxic phytoplankton blooms, introduction of heavy metals or other toxic agents into coastal water, rise in ambient water temperature regime especially during summer and fall periods, unacceptable increase in turbidity levels, siltation, or resuspension of toxic agents, excavation of marine substrate to obtain sand resources or to install submarine cables and pipelines, and introduction of effluents from domestic and industrial sources.

Water presently condemned for shellfishing may not be directly or immediately important to human economics although these areas have been used as resource recovery programs, relay and depuration, source areas. These areas however serve for restocking fishable areas through production of motile larvae. Shellfish in condemned waters also are not lost to estuarine ecological food-webs, but serve as a food source to other species of wildlife.

Sand mining for the purpose of beach nourishment has the potential to impact marine fish and fisheries by altering the contours of the water bottom (bathymetry) within borrow areas or by covering fishery resources and/or habitat through the placement of sand, thereby reducing the productivity of these areas. Measures to minimize and compensate for impacts to marine fish and fisheries may include, but are not limited to, modifying the location and dimensions of proposed borrow areas, creating and/or enhancing habitat at or near the borrow site, requiring timing restrictions on sand mining activities, limiting frequency of borrow activities, and reducing allowable sand mining volumes.

Shorelines lost due to erosion eliminate intertidal habitat, reduce the amount of sandy beach, and decrease the amount of organic matter necessary to maintain tidal wetlands. This erosion results in the degradation of the coastal environment through impacts to natural habitats, such as tidal wetlands and spawning grounds. Coastal states are seeking natural solutions, such

as the creation of living shorelines, to address erosion as an alternative that adds diversity to other shore protection measures. Living shorelines are a shoreline management practice that addresses the loss of vegetated habitats by providing for their protection, restoration or enhancement.

Fishery Management Plans are developed by the Regional Fisheries Management Councils, National Marine Fisheries Service and Atlantic States Marine Fisheries Commission in accordance with the Federal Fisheries Conservation and Management Act of 1976, P.L. 94-265, as amended or the Federal Atlantic Coastal Fisheries Cooperative Management Act, P.L. 103-206, as amended. Fishery Management Plans are also developed by the Department pursuant to the State's Marine Fisheries Management and Commercial Fisheries Act**,** [pursuant to]N.J.S.A. 23:2B-1 et seq. Fishery Management Plans are intended to prevent overfishing of marine fish and to achieve optimal yield from each fishery on a continuing basis. These Plans are adopted on a regional basis and provide for long-term viability of marine fish and fisheries. This rule provides the Department the ability to ensure that Fishery Management Plans, as well as developmental and other activities, will not adversely affect New Jersey's recreational and commercial marine fisheries.