

Secretary's Order No.: **2007-F-0044**

RE: Proposed Amendments to Delaware's
Horseshoe Crab Regulations as follows:

- 3203 – Seasons and Area Closed to Taking Horseshoe Crabs
- 3207 – Horseshoe Crab Dredging Restrictions
- 3210 – Horseshoe Crab Reporting Requirements
- 3211 – Horseshoe Crab Commercial Collecting Permit Eligibility
and Renewal Requirements
- 3214 – Horseshoe Crab Annual Harvest Limit

Date of Issuance: October 15, 2007

Effective Date of the Amendment: November 11, 2007

I. Background:

A public hearing was held on Monday, September 24, 2007, in the Richardson and Robbins Auditorium of DNREC, 89 Kings Highway, to receive public comment on proposed amendments to Delaware's horseshoe crab regulations. Emergency horseshoe crab harvest and limit regulations, which were originally set to expire September 8, 2007, were extended by the adoption of new emergency regulations (Order No. 2007-F-0037) effective September 7, 2007. These emergency regulations extend the time period for the annual harvest limits of 100,000 male-only crabs for an additional 90 days, through December 5, 2007, or until regulations are implemented by the Department that eliminate the need

for an emergency order. With the formal promulgation of amendments to Delaware's horseshoe crab regulations, there is no further need for any additional emergency orders to be enacted by the Secretary in order to keep Delaware in compliance with federal requirements concerning the harvesting of this species.

Numerous members of the public attended this hearing on August 23, 2007, and a voluminous amount of public comment was received by the Department during all phases of this regulatory process regarding this proposed action. Proper notice of the hearing was provided as required by law.

II. Findings:

The Department has provided appropriate reasoning, scientific analysis, and sound conclusions with regard to the drafting of these regulation amendments and consideration of the public comments received, as reflected in the Hearing Officer's Report of October 13, 2007, which is attached and expressly incorporated into this Order. Moreover, the following findings and conclusions are entered at this time:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;
2. The Department provided adequate public notice of the proceeding and the public hearing in a manner required by the law and regulations;

3. The Department held a public hearing in a manner required by the law and regulations;
4. The Department considered all timely and relevant public comments in making its determination;
5. The Department has reviewed this proposed amendment in the light of the Regulatory Flexibility Act, and believes the same to be lawful, feasible and desirable, and that the recommendations as proposed should be applicable to all Delaware citizens equally;
6. Formal promulgation of these proposed amendments would update Delaware's current regulations, so that Delaware will be in compliance with Addendum IV to the Interstate Fishery Management Plan for Horseshoe Crab, issued by ASMFC;
7. These amendments will prohibit the harvest and landing of all horseshoe crabs in Delaware from January 1 through June 7, 2008, and will also prohibit the harvest and landing of all female horseshoe crabs in Delaware for two years, as required by the ASMFC Plan;
8. Furthermore, these amendments will allow the harvest of 100,000 male-only horseshoe crabs June 8 through December 31, 2007, and again for the 2008 calendar year;

9. Beach collecting of male-only horseshoe crabs will be allowed Monday through Friday, June 8-30, 2008, from Port Mahon Road and private beaches where collecting is presently legal. This measure will allow beach collectors to harvest male horseshoe crabs under the proposed quota system more efficiently during the period when harvesting is permitted;
10. These amendments shall also require all horseshoe crab collectors to phone-in a daily report and submit a monthly log listing the dates and locations horseshoe crabs were harvested;
11. Permit renewal requirements are proposed and in line with other shellfish licenses with annual renewal by December 31 of each calendar year in order to retain eligibility;
12. The Department has an adequate record for its decision, and no further public hearing is appropriate or necessary;
13. The Department's proposed regulation, as published in the September 1, 2007 *Delaware Register of Regulations* and set forth within Attachment "A" hereto, is adequately supported, not arbitrary or capricious, and is consistent with the applicable laws and regulations. Consequently, it should be approved as a final regulation, which shall go into effect ten

days after its publication in the next available issue of the *Delaware Register of Regulations*;

14. The Department shall submit the proposed regulation as a final regulation to the Delaware Register of Regulation for publication in its next available issue, and shall provide written notice to the persons affected by the Order.

III. Order:

Based on the record developed, as reviewed in the Hearing Officer's Report dated October 13, 2007, and expressly incorporated herein, it is hereby ordered that the proposed amendments to State of Delaware Horseshoe Crab Regulations as follows: 3203 – Seasons and Area Closed to Taking Horseshoe Crabs; 3207 – Horseshoe Crab Dredging Restrictions; 3210 – Horseshoe Crab Reporting Requirements; 3211 – Horseshoe Crab Commercial Collecting Permit Eligibility and Renewal Requirements; and 3214 – Horseshoe Crab Annual Harvest Limit - be promulgated in final form in the customary manner and established rule-making procedure required by law.

IV. Reasons:

The promulgation of the amendments to Delaware's Regulations regarding the harvesting of horseshoe crabs is a reasonable action for the Department to take at this time, as it will bring Delaware into compliance with Addendum IV to the Interstate Fishery Management Plan for

Horseshoe Crabs, issued by ASMFC. Failure to amend the existing horseshoe crab harvesting regulations would result in federal sanctions being taken against Delaware, including, but not limited to, the federal government closing Delaware's horseshoe crab fishery. Such actions would result in economic detriment to Delaware's fishermen, and therefore it is reasonable to enact these regulatory amendments at this time to prevent such detriments to Delaware's economy from occurring.

Conservation measures with regard to the harvesting of the horseshoe crab began to be applied in Delaware by ASMFC starting in 1999. Over the years subsequent to those measures being implemented, there are data indicating that the horseshoe crab population has begun to stabilize. The proposed harvest of 100,000 male horseshoe crabs would result in a taking of a very small percentage of this species' overall population, and thus it is believed to not be detrimental to the overall population of this species.

In developing this regulation, the Department has balanced the absolute environmental need for the State of Delaware to promulgate regulations concerning this matter with the economic interests and public concerns surrounding the same, in furtherance of the policy and purposes of 7 Del. C., Ch. 60.

/s/ John A. Hughes
John A. Hughes
Secretary

HEARING OFFICER'S REPORT

REGARDING: Proposed Amendments to Delaware's
Horseshoe Crab Regulations as follows:

- 3203 – Seasons and Area Closed to Taking Horseshoe Crabs
- 3207 – Horseshoe Crab Dredging Restrictions
- 3210 – Horseshoe Crab Reporting Requirements
- 3211 – Horseshoe Crab Commercial Collecting Permit Eligibility
and Renewal Requirements
- 3214 – Horseshoe Crab Annual Harvest Limit

Lisa A. Vest
Hearing Officer

October 13, 2007

1. Background Findings:

A public hearing was held on Monday, September 24, 2007, in the Richardson and Robbins Auditorium of DNREC, 89 Kings Highway, to receive public comment on proposed amendments to Delaware's horseshoe crab regulations. Emergency horseshoe crab harvest and limit regulations, which were originally set to expire September 8, 2007, were extended by the adoption of new emergency regulations (Order No. 2007-F-0037) effective September 7, 2007. These emergency regulations extend the time period for the annual harvest limits of 100,000 male-only crabs for an additional 90 days, through December 5, 2007, or until regulations are implemented by the Department that eliminate the need for an emergency order. The Department is proposing to now formally promulgate these amendments to Delaware's horseshoe crab regulations, thereby ending the need for any additional emergency orders to be enacted by the Secretary in order to keep Delaware in compliance with federal requirements concerning the harvesting of this species.

To serve as a brief review of these regulations, and the Department's need to update said regulations by the proposed amendments currently on the table, it is important to understand the history behind the same. The Atlantic States Marine Fisheries Commission (hereinafter referred to as ASMFC) passed an Interstate Fishery Management Plan for the management of horseshoe crabs back in 1998. With this action, ASMFC assumed responsibility for the health and well being of this resource, and to guarantee it in perpetuity for the benefit of the ecosystem and all concerned with this particular resource. When ASMFC passes such a plan (which they are authorized to do by act of Congress), it then becomes mandatory for states and jurisdictions to implement

the provisions of that fisheries management plan. It is important to note that states and jurisdictions may be more restrictive than the ASMFC plan, but they cannot be less restrictive. Delaware, by virtue of a Compact mandated by Title 7, Chapter 15 of the Delaware Code, is required to comply with the terms set forth by the ASMFC.

The original management plan for the horseshoe crabs has been amended several times over the years, however, it was Addendum IV, passed in June of 2006, that ultimately created the need for the public hearing on September 24, 2007. In pertinent part, Addendum IV limits the harvesting of horseshoe crabs in the states of New Jersey and Delaware to 100,000 horseshoe crabs per state, per year, for the harvesting seasons of 2007 and 2008. It further limits that harvest to only male horseshoe crabs. No female horseshoe crabs may be harvested in New Jersey and Delaware, according to the provisions of the aforementioned addendum. There may also be no harvest of male horseshoe crabs between January 1 through June 7 of each specified year. Thus, all harvests of male horseshoe crabs must occur after June 8 through the end of that calendar year. These provisions are to be put in place for a two-year period, commencing October 1, 2006 to September 30, 2008. Should Delaware fail to implement its provisions, then Delaware is subject to federal sanctions, up to and including the federal government closing Delaware's horseshoe crab fishery.

In 2006, Delaware acted upon Addendum IV by proposing amendments to its existing regulations, and a public hearing was held concerning the same on September 28, 2006. There were two options proposed at this hearing: Option #1 was the ASMFC-required 100,000 male harvest scenario; and Option #2 was a total harvest moratorium. Subsequent to that hearing, the Hearing Officer prepared a report and submitted the same

to DNREC Secretary Hughes for action. Secretary Hughes accepted the Hearing Officer's report, but whereas the Hearing Officer recommended the ASMFC-required male-only harvest scenario of 100,000 males between June 8 and the end of the year, the Secretary ordered the adoption of Option #2 provided by the Hearing Officer, a total harvest moratorium, which was then implemented by the Department at that time.

Subsequent to that implementation, Secretary Hughes' action was challenged in an appeal directly to Delaware's Superior Court. On June 8, 2007, the Court ruled that the Department's action was improper, and as a result, the Secretary's total harvest moratorium order was vacated by the Court. This left in place at that time Delaware's regulations from the previous year, namely, the harvest of 150,000 horseshoe crabs of either sex with no January 1 through June 7 closure dates.

Once the Department received the Court's Order on June 8, 2007, action had to be taken quickly in order to be in compliance with the requirements of ASMFC's Addendum IV (as the previous regulations were not in compliance with the new addendum). Therefore, the Department implemented, by emergency Order, temporary regulations which would be in effect for 90 days, so as to avoid any federal sanctions for non-compliance. These emergency regulations were adopted by DNREC on June 11, 2007. In order for the Department to have time to act by its normal regulatory process (and avoid the possibility of Delaware being declared "out of compliance" at any time prior to formal permanent regulations being promulgated), a second emergency Order was enacted by DNREC on September 7, 2007, thereby extending the aforementioned emergency regulations by another 90 days.

The Department is now attempting to formally promulgate permanent amendments in this matter, so that Delaware will remain in compliance with ASMFC's requirements subsequent to the expiration of the aforementioned temporary regulations regarding the harvesting of horseshoe crabs in this State.

It should be noted that the record became quite voluminous once the public became aware of yet another hearing being held by the Department regarding this matter. Several hundred emails were received by this Hearing Officer, both prior to and subsequent to the public hearing on September 24, 2007. Additionally, numerous environmental groups, as well as individual citizens, forwarded documentation to the Department prior to the record closing on September 30, 2007, which became part of the record in this case as well. All such documentation, along with the public comment received at the hearing, will be discussed in greater detail below. Proper notice of this hearing was provided, as required by law.

II. Summary of Record:

In order to ensure an accurate preservation of the record developed in this case, the following is an itemized listing of all materials entered into the record at the time of the hearing:

A. Department's Exhibits:

Roy Miller, Administrator of the Fisheries Section with the Department's Division of Fish and Wildlife, introduced the Department's exhibits into the record at the public hearing on September 24, 2007, as follows:

1. Copy of Fishery Management Report Number 32d of the Atlantic States Marine Fisheries Management Plan for Horseshoe Crabs, Addendum IV, dated June 2006;
2. Copy of the emergency regulation for horseshoe crabs establishing an annual harvest limit, enacted by Secretary Hughes, dated June 11, 2007;
3. Copy of Start-Action Notice #2007-15, notifying all concerned of the Department's intent to amend Delaware's Shellfish Regulations 3203, 3207, 3210, 3211, and 3214;
4. Copy of the Notice to the State of Delaware Register of Regulations, dated August 7, 2007;
5. Copy of affidavit of publishing legal notice of this hearing, and the intent and purpose of this hearing, published in the Delaware State News as of August 16, 2007;
6. Copy of affidavit of publishing said legal notice in the Wilmington News Journal, dated August 16, 2007;
7. Copy of the proposed amendments to the aforementioned Shellfish Regulations;
8. Copy of the second emergency regulation enacted by Secretary Hughes dated September 7, 2007, to extend the aforementioned emergency regulations by another 90 days, so as to provide the Department time to act by its normal regulatory process and avoid the possibility of Delaware being declared "out of compliance" at any time prior to formal permanent regulations being promulgated in this matter;

9. Copy of the public notice of this public hearing, issued on September 7, 2007.

Mr. Miller took time at the public hearing to provide the public with a brief history of these horseshoe crab regulations, and how the Department got to the hearing held that night on September 24, 2007. He also went through each and every proposed amendment to the aforementioned Delaware Shellfish Regulations, thus making sure that everyone in attendance at the hearing was fully aware of what was being proposed by the Department with regard to these matters.

Mr. Miller explained that, on June 25, 2007, a new Start-Action Notice (SAN #2007-15) was circulated by the Department. SAN #2007-15 notified all concerned that the Department intended to amend Delaware's Shellfish Regulations 3203 (Seasons and areas closed to the taking of horseshoe crabs), 3207 (horseshoe crab dredging restrictions, 3210 (horseshoe crab reporting requirements), 3211 (horseshoe crab commercial collecting permit eligibility renewal requirements), and 3214 (horseshoe crab annual harvest limit). Accordingly, the Department provided notice to the State of Delaware Register of Regulations that the aforementioned amendments were being proposed, to wit:

- Prohibit the harvest and landing of all horseshoe crabs in Delaware Jan. 1 – June 7, 2008, as required by the ASMFC Interstate Fishery Management Plan for horseshoe crabs, as amended;
- Prohibit the harvest and landing of female horseshoe crabs in Delaware for two years, as required by the ASMFC Plan;

- Allow the harvest of 100,000 male-only horseshoe crabs June 8 – December 31, 2007, and again for the same period in calendar year 2008;
- Allow beach collecting of male-only horseshoe crabs Monday through Friday June 8 – 30, 2008, from Port Mahon Road and private beaches where collecting is presently legal. This measure will allow beach collectors to harvest male horseshoe crabs under the proposed quota system more efficiently during the period when harvesting is permitted.

The proposed regulations also require that all horseshoe crab collectors must phone-in a daily report and submit a monthly log listing the dates and locations horseshoe crabs were harvested. Permit renewal requirements are proposed and in line with other shellfish licenses with annual renewal by December 31st of each calendar year in order to retain eligibility.

For the Secretary's review, a copy of the Department's exhibits as outlined above, which include the proposed amendments (see Dept. Ex. #7) are attached hereto as Attachment "A", and are expressly incorporated herein.

B. Public's Exhibits:

As noted above, there were numerous exhibits offered into the record by various members of the public at the hearing of September 24, 2007. Additionally, this Hearing Officer continued to receive hundreds more emails from the public, as well as supplemental documentation from various environmental groups, during the post-hearing phase of this matter (the records for receiving public comment ended September 30, 2007). Despite the volume of public comment, however, all comments received by the public ultimately would

up in two basic categories: (1) support for the Department's proposed amendments; and (2) support for a complete 100% moratorium on the harvesting of Delaware Bay horseshoe crabs. Those comments will now be addressed herein.

C. Discussion of Public Comments:

To individually discuss each and every comment received from the public as a result of the hearing on September 24, 2007 would cause this report's pages to number into the hundreds. Therefore, for brevity's sake, the points raised within those commenting groups will now be highlighted for the Secretary's understanding and review.

As noted above, the hundreds of comments and documentation provided to this Hearing Officer from members of the public can easily be grouped into two categories: (1) those that support the Department's proposed amendments of the horseshoe crab regulations; and (2) those that wish for the Department to enact a complete moratorium on horseshoe crab harvesting. Let us discuss the latter category of comments first.

Support for a Complete Harvesting Moratorium on Horseshoe Crabs

Given the voluminous amount of emails that were received from the public with regard to support of a complete moratorium on harvesting the horseshoe crabs in Delaware, it is suffice to say that there is a great deal of passion in the public sector with regard to this issue. According to the comments received by this Hearing Officer during all phases of this hearing record, one of the main reasons behind the desire for this 100% moratorium is to save the Red

Knot, as well as other shorebirds that frequent the Delaware Bay. Documentation has been provided from various environmental groups concerning the plight of these shorebirds, the Red Knot in particular, and how it is in jeopardy of becoming extinct in the near future. Those who champion the plight of the Red Knot state that the primary cause of this species' population decline is the diminished supply of horseshoe crab eggs spawned on Delaware Bay beaches. Red Knots, according to this documentation, rely on these eggs to give them the sustenance they need to complete the last leg of their migration from the Delaware Bay to their breeding grounds in the Canadian Arctic. Many of these birds migrate from as far south as the tip of South America.

Those in support of this complete moratorium also assert that such action makes good economic sense, as they believe that Delaware receives a greater economic benefit from a healthy shorebird population than it does from the small population of fishermen who harvest horseshoe crabs, as well as fishing other species, to make a living. They further state that studies done by the New Jersey Department of Environmental Protection and the USFWS show that Delaware Bay ecotourism and the non-lethal biomedical value of horseshoe crabs is worth six times more than eel and conch fisheries. Both of these fisheries rely primarily on horseshoe crabs as the preferred bait.

In sum, the public comments falling into this category supported Secretary Hughes' imposition of a moratorium on the annual horseshoe crab take last year, and ask the Department once again take that path with regard to enacting its permanent regulations in this matter at this time. To serve as an example of these

comments, attached hereto as Attachment “B” and expressly incorporated herein for the Secretary’s review are copies of two form emails received (literally) in the hundreds by this Hearing Officer, which summarizes the plight of such shorebirds as the Red Knot, and asks the Department to not only impose a complete moratorium on the harvesting of horseshoe crabs here in Delaware, but also take additional actions to save the Red Knot, including, but not limited to, listing that species under the federal Endangered Species Act.

Attached as Attachment “C”, also being expressly incorporated into this Hearing Officer’s report at this time, is the documentation provided to this Hearing Officer jointly by the Delaware Audubon Society, the American Bird Conservancy, the American Littoral Society, the Defenders of Wildlife, the Delaware River Keeper Network, the National Audubon Society, and the New Jersey Audubon Society, which is a large binder filled with reports and other documentation asserting the importance of the horseshoe crab eggs to the red knots and other migratory shorebirds. These environmental groups believe that the call for a 100% moratorium is a “risk averse strategy” which will not only maximize the opportunities to increase the number of horseshoe crab eggs available for these migratory shorebirds, but also will aid in restoring the population of horseshoe crabs themselves.

Attachment “C” further asserts that a moratorium is within the statutory authority of the Department, and that DNREC has an obligation to establish such a moratorium, given the scientific data they provide with regard to the horseshoe crab-shorebird connection, the present depleted status of the Red Knot, and the

opinions provided previously to the ASMFC and the Shorebird Technical Committee that the scarcity of eggs is the main reason for the Red Knot's population decline.

Support for the Proposed Horseshoe Crab Reg. Amendments

The other category of public comment received in this matter can be categorized as those who support the Department's intentions to formally promulgate the proposed amendments on Delaware's horseshoe crab regulations as set forth above (and specifically, in the Delaware Register notice listed as Dept. Exh. #7 contained within Attachment "A" attached hereto). Scientific data was provided to this Hearing Officer by the public which supported the Department's proposed amendments in this matter. Carl N. Shuster, Jr., Ph.D., Adjunct Professor of Marine Science, Virginia Institute/School of Marine Science, The College of William & Mary, offered his support for the Department's actions in this matter. The salient points of his argument, supported by scientific data noted in his submission (attached hereto as Attachment "D" and expressly incorporated into this report), are as follows:

- A closed season on the taking of males-only from January 1 to June 7 of each year, as proposed by the Department, accomplishes two beneficial goals: (1) it will not disturb the migratory shorebirds, because most will leave the Delaware Bay area by June 7th; and (2) it will allow the crabs to spawn without interference through the peak of the spawning season.

- A 100,000 male-only harvest quota per year is a small fraction of the estimated 12 million mature crabs, and data collected over the past two years indicates that all segments of the horseshoe life cycle are increasing. Moreover, limiting the collection to only 100,000 males may actually decrease any disturbance that the spawning females may incur;
- Hand-harvesting is relatively straight forward to regulate and to monitor via uniform licensing and daily phone-in reports, coupled with roving Department observers during the open season, and increasing hand-harvesting to 5 days per week (from June 8 through December 31 each year) should hasten the collection of the 100,000 males;
- The male-only harvest does not impact egg production, as only one amplexed male per female is required to promote egg-laying and to fertilize the eggs;
- The taking of males-only will not demonstrably impact the gene pool of the Delaware Bay area crabs because this population is genetically homogenous. Male-only harvesters tend to take mostly satellite males because they are easier to grab, and these satellite males tend to be older, thinner-shelled, more injured and diseased, feebler, and less active.

Additional note-worthy written comments (with scientific data attached) was received from Rich Robins, on behalf of Bernie's Conchs, LLC, and Chesapeake Bay Packing, LLC. Again, for brevity's sake and for the Secretary's full review and understanding, Mr. Robin's written comments are being expressly incorporated herein and are attached hereto as Attachment "E". Pertinent excerpts of his comments are as follows:

- Both major horseshoe crab surveys have been updated, and both show substantial improvements in the abundance of mature female horseshoe crabs in the Delaware Bay region. Specifically, the Delaware Bay Spawner Survey showed a 20% increase in the Baywide Index of Spawning Activity (which measures mature female spawning abundance) from 2005 to 2006. Additionally, the Virginia Tech Benthic Trawl Survey showed substantial and statistically significant increases (by one statistical test) in newly mature and multiparous horseshoe crabs in the Delaware Bay, and also showed continued improvement in sub-adult crabs in 2006.
- Improvements in both juvenile and sub-adult abundance spilling over into the critical, mature component of the population is encouraging and indicates a delayed response (consistent with the ~10 year time to maturity of the American Horseshoe Crab) to the ASMFC management plan, which cut harvesting by over 75% from the late 1990's through 2004.

- Shorebird advocates at the public hearing ignored recent available data indicating that the Delaware Bay horseshoe crab population has shown strong improvements in juvenile and sub-adult abundance in recent years, and substantial improvements in horseshoe crab populations in 2006.
- The issue of genetic impacts should be considered relative to the proposed rate of removal of males from the population. According to DNREC scientists' testimony at the September 28, 2006 public hearing on this same issue, the proposed harvest of 100,000 males would remove less than one percent of the estimated population of mature male horseshoe crabs in the Delaware Bay, and thus the impact of such a harvest can be considered negligible.
- Scientific data indicates that one attached male horseshoe crab is capable of fertilizing all of the female's eggs, and there is "ample evidence" that sperm is not limiting in the Delaware Bay horseshoe crab population.
- The management, biological and ecological aspects of the male-only harvest have been fully vetted through the ASMFC Horseshoe Crab Technical Committee, the ASMFC Horseshoe Crab Management Board, and subjected to rigorous judicial review, and with interstate support, the ASMFC voted 14-3 in support of the male-only harvest in Delaware Bay over and against the full moratorium option.

- The male-only harvest regulations currently proposed by the Department will effectively manage the relevant risks for the direct benefit of migratory shorebirds by fully protecting the female component of the horseshoe crab population.

III. Findings and Conclusions:

It is the purpose of this Department to protect Delaware's natural resources throughout the State of Delaware. In the matter currently before the Secretary, however, a careful balance must be made between actions taken by the Department to protect our natural resources and actions taken to protect Delaware's economic interests and the concerns of those citizens whose livelihood is derived from the fishing industry and the harvesting of horseshoe crabs.

This matter must also be reviewed in the light of the recent history surrounding the Department's desire to update their current regulations while simultaneously maintaining Delaware's compliance with Addendum IV to the Interstate Fishery Management Plan for Horseshoe Crab, issued by ASMFC, so as to avoid any possibility of Delaware suffering federal sanctions for infractions of that Plan. As a result of the appeal taken by Bernie's Conchs, LLC & Charles Auman against DNREC last year, the issue of a full and complete moratorium was scrutinized rigorously by the Superior Court, and discussed at length in the Court's decision dated June 8, 2007. At that time, the Court found that "...the moratorium Regulations do not have a rational basis in fact, and are consequently invalid". *Bernie's Conch, LLC, et al., v. DNREC, Memorandum Opinion, June 8, 2007, p.16.* The Court found that (1) it cannot be reliably known

whether a full moratorium would actually make a difference in horseshoe crab egg availability over a limited harvest (*Id.*, pg.14), and that (2) the harm to the fishermen with a full moratorium in effect has a reasonable basis (*Id.*, pg. 16). The above Court further noted in its June 8, 2007 memorandum opinion that, “If facts were supported by substantial evidence and the legal conclusions were reasonable, then a regulation would be upheld as having a ‘reasonable basis’” (*Id.*, pg.7). It is that “reasonable basis” standard, as well as the substantial evidence test also referenced by the Court earlier this year, with which this Hearing Officer reviewed the record concerning this regulatory matter (and the public comments that were received).

The regulations as proposed by the Department at this time are reasonable. Delaware must formally update its current regulations by amending them to come into compliance with Addendum IV to the Interstate Fishery Management Plan for Horseshoe Crab, issued by ASMFC. Failure to do so would result in federal sanctions being suffered by Delaware, which could potentially include the federal government closing Delaware’s horseshoe crab fishery. Such actions would result in economic detriment to Delaware’s fishermen, and therefore it is reasonable to take such steps as are being proposed at this time to prevent such actions from occurring. The question then becomes how stringent Delaware’s regulations should be in order to protect the natural resource which is the subject of this promulgation, namely, the horseshoe crab.

Conservation measures began to be applied in Delaware by ASMFC starting in 1999. Before the full moratorium was implemented by DNREC in 2006, 150,000 male and female horseshoe crabs could be taken. Since that time, however, the record indicates that the horseshoe crab population has stabilized, and that a proposed harvest of

100,000 male horseshoe crabs would only represent 0.7% of the Delaware Bay population of adult males (*Id.*, pg.10). Given that the proposed harvest of 100,000 male horseshoe crabs would result in a miniscule percentage of the overall population, and that such limits would allow Delaware to become compliant with the current federal requirements enacted by Addendum IV to the Interstate Fishery Management Plan for Horseshoe Crab issued by ASMFC, it is the belief of this Hearing Officer that such a proposed harvest would not be detrimental to the overall population of this species, and is a reasonable step for the Department to take in this matter at this time.

Much of the scientific data provided to the Department as a result of the public hearing of September 24, 2007 mirrored that which was already reviewed rigorously by the Court in its aforementioned June 8, 2007 memorandum opinion. And one cannot review the record generated in this matter without acknowledging that the Court did not find the full moratorium implemented by the Department last year to have a rational basis. Instead, the Court found regulations in favor of the moratorium to be speculative and, ultimately, invalid. Thus, it is illogical for the Department to go down that same path again at this juncture.

While it may sound insensitive to the plight of the Red Knot and other migratory shorebirds known to the Delaware Bay, the Red Knot is not the subject of this regulatory action. Moreover, in his written comments submitted to the Department for consideration (and attached hereto as Attachment "E"), Rick Robins notes that, "[w]hile the *rufa* red knot population declined from its modern peak in the late 1980's, it has been comparatively stable in recent years" (see Attachment "E" p. 2). The Court noted this population leveling of the Red Knot in its Memorandum Opinion of June 8, 2007 as well.

It should also be noted that the Department has reviewed these proposed amendments in the light of the Delaware Regulatory Flexibility Act, and believes the same to be lawful, feasible and desirable, and that the amendments as proposed should be applicable to all Delaware citizens equally, so that Delaware will be in compliance with Addendum IV to the Interstate Fishery Management Plan for Horseshoe Crab, issued by ASMFC.

Based on the record developed in the course of this hearing, this Hearing Officer hereby concludes that the record does warrant, and that the Department has provided appropriate reasoning, regarding the need for the proposed amendments to the Delaware Shellfish Regulations regarding the harvesting of horseshoe crabs, and has thoroughly addressed the public's questions and/or comments provided during the various phases of the record developed in this matter.

IV. Recommendations:

While it is understood that not everyone will agree with the final action taken by the Department in this promulgation, this agency's obligation is not to eliminate all controversy, but rather to base its actions and decisions on substantial evidence and sound reasoning. Based on the above discussion, and for the reasons stated above, I hereby recommend promulgation of these proposed amendments to the Delaware Regulations regarding the harvesting of horseshoe crabs, in the customary manner provided by law. I also recommend that the following findings be made with regard to this matter:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;
2. The Department provided adequate public notice of the proceeding and the public hearing in a manner required by the law and regulations;
3. The Department held a public hearing in a manner required by the law and regulations;
4. The Department considered all timely and relevant public comments in making its determination;
5. The Department has reviewed this proposed amendment in the light of the Regulatory Flexibility Act, and believes the same to be lawful, feasible and desirable, and that the recommendations as proposed should be applicable to all Delaware citizens equally;
6. Formal promulgation of these proposed amendments would update Delaware's current regulations, so that Delaware will be in compliance with Addendum IV to the Interstate Fishery Management Plan for Horseshoe Crab, issued by ASMFC;
7. These amendments will prohibit the harvest and landing of all horseshoe crabs in Delaware from January 1 through June 7, 2008, and will also prohibit the harvest and landing of all female horseshoe crabs in Delaware for two years, as required by the ASMFC Plan;
8. Furthermore, these amendments will allow the harvest of 100,000 male-only horseshoe crabs June 8 through December 31, 2007, and again for the 2008 calendar year;

9. Beach collecting of male-only horseshoe crabs will be allowed Monday through Friday, June 8-30, 2008, from Port Mahon Road and private beaches where collecting is presently legal. This measure will allow beach collectors to harvest male horseshoe crabs under the proposed quota system more efficiently during the period when harvesting is permitted;
10. These amendments shall also require all horseshoe crab collectors to phone-in a daily report and submit a monthly log listing the dates and locations horseshoe crabs were harvested;
11. Permit renewal requirements are proposed and in line with other shellfish licenses with annual renewal by December 31 of each calendar year in order to retain eligibility;
12. The Department has an adequate record for its decision, and no further public hearing is appropriate or necessary;
13. The Department's proposed regulation, as published in the September 1, 2007 *Delaware Register of Regulations* and set forth within Attachment "A" hereto, is adequately supported, not arbitrary or capricious, and is consistent with the applicable laws and regulations. Consequently, it should be approved as a final regulation, which shall go into effect ten days after its publication in the next available issue of the *Delaware Register of Regulations*;
14. The Department shall submit the proposed regulation as a final regulation to the Delaware Register of Regulation for publication in its next available issue, and shall provide written notice to the persons affected by the Order.

In addition, I recommend issuing the attached Secretary's Order to effectuate this purpose and adopting the Hearing Officer's findings and conclusions as expressed hereinabove.

/s/Lisa A. Vest
LISA A. VEST,
Hearing Officer