SUPERIOR COURT OF NEW JERSEY LAW DIVISION - CAPE MAY COUNTY DOCKET NO. CPM-L-415-16

Civil Action

SANDRA SMITH, INDIVIDUALLY EXECUTRIX OF THE ESTATE OF GEORGE BRADLEY SMITH, AND AS GUARDIAN AD LITEM FOR HER CHILDREN KOLE SMITH AND BRANDY SMITH, NICOLE GAETA, KYLE SMITH

Plaintiffs,

CITY OF NORTH WILDWOOD and, : STATE OF NEW JERSEY

V. 🗉

Defendants.

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DEFENDANT STATE'S OPPOSITION TO PLAINTIFFS' ORDER TO SHOW CAUSE FOR A PRELIMINARY INJUNCTION

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PRELIMINARY STATEMENT

Plaintiffs, the surviving family members of a man who drowned in the Hereford Inlet on July 27, 2012, seek to force the State and the City of North Wildwood ("City") to close an entire beach area in the City via a preliminary injunction. Plaintiffs' claims cannot be sustained against the State as to a municipally owned and operated beach.

Plaintiffs fail to meet any of the four required prongs by and convincing evidence needed preliminary for a clear See Crowe v. DeGoia, 90 N.J. 126, 132-134 (1982). injunction. Plaintiffs' sole legal claim is that the waters off the unprotected Hereford Inlet beach in the City constitute a public However, under the Tort Claims Act, the State is nuisance. immune from any liability associated with an unimproved public property such as the municipal beach and the Hereford Inlet. N.J.S.A. 59:4-8 and 59:4-9. Thus, Plaintiffs' claim fails. Further, Plaintiffs neither have standing nor can demonstrate a "conduct" perpetuated by the State to sustain a public nuisance claim for which damages may be sought. Additionally, the State does not control the municipally owned and operated beaches 2008 Borough of Avalon v. Department of the pursuant to Environmental Protection Appellate Division case. For these reasons, Plaintiffs cannot demonstrate a likelihood of success on the underlying legal claim.

Further, with regard to irreparable harm, Plaintiffs have not alleged any irreparable harm to themselves if the injunction is not issued and the balance of the equities tips squarely in favor of the State. Finally, the grant of a preliminary injunction would serve as a mandamus order that would improperly interfere with the State's and the City's discretion in connection with public access to beaches.

For all of these reasons, Plaintiffs' request for a preliminary injunction must be denied.

STATEMENT OF FACTS AND PROCEDURAL HISTORY

The City of North Wildwood owns and manages an extensive set of municipal beaches. The City owns and operates beaches on the Atlantic Ocean side of the City as well as along the Hereford Inlet. <u>See</u> Exhibit 1 to Miles Cert. The area below and seaward of the mean high water line is tidally flowed. It is the State's understanding that the City provides lifeguards for many, but not all of its beaches. Rosenello Transcript at 69:12-70:4.¹ However, the City does not provide lifeguards for the beach along the Hereford Inlet northwest of Surf Avenue because it is a large area that includes endangered species habitat restrictions and an area that is popular with fishermen.

^{&#}x27;Plaintiffs have also filed a parallel tort claim action against the municipality and the State which has been the subject of depositions during discovery. <u>Smith v. City of North Wildwood</u>, et al, Docket No. CPM-L-331-14.

Id. at 70:13-75:12; <u>see also</u> Cavalier Transcript at 141:17-24. The City's mayor also unequivocally testified that it is unsafe for people to be in the water off of an unguarded beach due to the natural conditions of an ocean and inlet. Rosenello Transcript at 84:4-85:17.

Since the City conducts beach raking in some areas of its beaches, the City applied for and obtained a beach and dune maintenance general permit from the Department in 2005. See The current permit will expire in Exhibit A to Jones Cert. July, 2017 pursuant to the Permit Extension Act. Permit Extension Act of 2016, P.L. 2016, Ch. 14. According to the plans submitted with the permit application, the City conducts maintenance along its oceanic-fronting beaches and along those portions of the beach on Hereford Inlet until Surf Avenue. Exhibit B to Jones Cert. Northwest of Surf Avenue, the endangered piping plover has nesting sites on the Hereford Inlet beach, so that beach area cannot be raked from April 1 until August 15. Exhibit A to Jones Cert. Neither the piping plover area nor the beach area further northwest of it are guarded by Thus, the City does not rake or maintain those lifequards. beaches either. Exhibit B to Jones Cert.

A rock revetment serves as a boundary between the beach and upland properties along much of Hereford Inlet. <u>See e.g.</u> Cavalier Transcript, Exhibit 3, November 17, 2009 map (depicting

rock wall). The revetment's purpose is to ensure that the Inlet's ongoing erosion does not affect upland property. Farrell Transcript 65:19-66:23; 85:8-19. However, with the exception of one area where the revetment protects a parking lot that juts into the Inlet, the revetment does not affect the natural currents in the Inlet. Exhibit 2 to Miles Cert.; <u>see</u> <u>also</u> Farrell Transcript 85:10-86:22; 145:17-146:19, attached as Exhibit 3 to Miles Cert.

On July 27, 2012, the accident that prompted this action and two additional lawsuits occurred. George Bradley (Brad) Smith was wading with his daughter, Brandy Smith, and his friend, Scott Sunderland, and Scott's daughter, along the Hereford Inlet shoreline where the water meets the beach. Scott Sunderland Transcript 22:4-15. According to Mr. Sunderland's testimony, the four people were walking in calfdeep water. <u>Id.</u> at 35:5-35:10; 113:18-22. The group began their walk near the Surf Avenue and First Avenue lifeguarded beach area and walked northwest along the Hereford Inlet beach until they reached a point approximately 100-200 feet away from the rock wall, then turned around and walked back southeast. Id. at 23:11-24:3.

While wading in the water, Mr. Sunderland testified that they suddenly lost their footing, as though there was nothing beneath their feet. Id. at 36:16-37:11. According to Mr.

Sunderland, the accident southeast of Central Avenue and southeast of the parking lot area. Sunderland Dep., Exhibit 10; Sunderland Transcript 13:7-15:24. All four people were swept into the Inlet's waters and although Mr. Sunderland was able to swim back to the beach with his daughter on his back, Mr. Smith and Brandy were both pulled further into the Inlet. Sunderland Transcript 37:10-18, 38:11-19, 39:9-42:12. Brandy was saved by someone on a jet ski. <u>Id.</u> at 46:12-20. Unfortunately, Mr. Smith drowned and his body was found three days later.

On July 23, 2014, Sandra Smith filed a wrongful death suit against the City of North Wildwood, Cape May County, and the State of New Jersey individually and also as Mr. Smith's executrix. <u>Sandra Smith v. City of North Wildwood, et al.</u>, Docket No. CPM-L-331-14. That action originally included a count which sought to close the unguarded portion of the Hereford Inlet beach in North Wildwood. The parties in that action have agreed to dismiss the injunctive count.

After extensive discovery in the wrongful death action, the parties agreed that Mrs. Smith's beach closure claim should be the subject of a separate action. Thus, Plaintiff filed her complaint in this case on October 4, 2016. On the same date, Plaintiff also filed an Order to Show Cause, seeking a permanent injunction to close the unguarded municipal beach along Hereford Inlet in North Wildwood. The original return date for the Order

to Show Cause was November 9, 2016, but was adjourned for a month on the consent of the parties.

The return on the Order to Show Cause is scheduled to be heard on December 9, 2016.

ARGUMENT

POINT I

PLAINTIFFS FAIL TO MEET THE STANDARD FOR A PRELIMINARY INJUNCTION AND, AS SUCH, THEIR REQUEST MUST BE DENIED

Plaintiffs' request for a preliminary injunction must be denied for failure to meet the four prongs for such extraordinary equitable relief.

A. Standard of Review

Plaintiffs' Order to Show Cause demanding a preliminary injunction must be denied because they fail to meet the fundamental conditions required for such an extraordinary remedy. A party seeking emergent injunctive relief must demonstrate by clear and convincing evidence 1) reasonable probability of ultimate success on the merits; 2) irreparable injury unless relief is granted; 3) that the balance of hardships favors granting the relief; and 4) the public interest supports granting the injunctive relief. <u>See Crowe v. DeGioia</u>, 90 N.J. 126, 132-134 (1982).

Injunctive relief is "an extraordinary equitable remedy

utilized primarily to forbid and prevent irreparable injury, and one that must be administered with sound discretion and always upon consideration of justice, equity, and morality in a given case." Zoning Bd. of Adjustment v. Serv. Elec. Cable Television, 198 N.J. Super. 370, 379 (App. Div. 1985) (citing N.J. State Bar Ass'n v. N. N.J. Mortgage Assocs., 22 N.J., 22 N.J. 184, 194 (1956)). Each requirement must be proven by clear and convincing evidence. Waste Management of N.J. v. Union County Utilities Authority, 399 N.J. Super. 508, 520 (App. Div. 2008); Subcarrier Communications, Inc. v. Day, 299 N.J. Super. 634, 639 (App. Div. 1997).

Importantly, "[e]specially where governmental action is involved, courts should not intervene unless the need for equitable relief is clear, not remote or speculative." In re <u>Resolution of State Comm'n of Investigation</u>, 108 <u>N.J.</u> 35, 46 (1987) (quoting <u>Eccles v. Peoples Bank</u>, 33 <u>U.S.</u> 426, 431 (1948)).

Plaintiffs fail to meet this heavy burden; thus, the request for emergent relief must be denied.

B. <u>Plaintiffs Are Unlikely to Succeed on the Merits of Their</u> Case

Based on current, well-settled law and the underlying facts, Plaintiffs will likely fail to succeed on the merits of their public nuisance claim.

Temporary relief in the form of a preliminary injunction should not issue if the "legal right underlying plaintiff's claim is unsettled." Crowe v. DeGioia, 90 N.J. 126, 134 (1982). are controverted," the material facts "all Likewise, if preliminary injunction should not be granted. Ibid. These factors are combined and ask whether "the material facts are in dispute ... and whether the applicable law is settled" so the plaintiff will likely succeed on the merits of their claims. Waste Management of N.J., Inc. v. Union County Utilities Authority, 399 N.J. Super. 508, 528 (App. Div. 2008)(citations omitted).

Plaintiffs' sole claim for a preliminary injunction alleges that the Hereford Inlet and its accompanying beach constitute a public nuisance. However, Plaintiffs cannot meet the elements of a public nuisance, never mind by clear and convincing evidence. New Jersey has adopted the Restatement (Second) of Torts iteration of public nuisance, which defines a public nuisance as:

 (1) A public nuisance is an unreasonable interference with a right common to the general public. Circumstances that may sustain a holding that an (2)interference with a public right is unreasonable include Whether the conduct involves а the following: (a) significant interference with the public health, the public safety, the public peace, the public comfort or the public convenience, or (b) whether the conduct is proscribed by a statute, ordinance or administrative regulation, or (C) whether the conduct is of a continuing nature or has produce a permanent or long-lasting effect and, the as

actor knows, or has reason to know, has a significant effect upon the public right. Restatement (Second) of Torts § 821B (1979) <u>see also In re</u> Lead Paint Litig., 191 <u>N.J.</u> 405, 424-25 (2007).

In New Jersey, a public nuisance "is related to conduct, performed in a location within the actor's control, which has an adverse effect on a common right." <u>In re Lead Paint Litig.</u>, 191 N.J. 405, 429 (2007).

It is also well-settled that public nuisance claims may only be sustained by private parties in limited circumstances. The Restatement explains:

(1) In order to recover damages in an individual action for a public nuisance, one must have suffered harm of a kind different from that suffered by other members of the public exercising the right common to the general public that was the subject of interference. (2) In order to maintain a proceeding to enjoin a public nuisance, one must (a) have the right to recover damages, as indicated in Subsection (1), or (b) have authority as a public official or public agency to represent the state or a political subdivision in the latter, or (c) have standing to sue as a representative of the general public, as a citizen in a citizen's action or as a member of a class in a class action. Restatement (Second) of Torts, § 821C

In other words, for a private party to sustain an action to enjoin an alleged public nuisance, that party must have suffered a special injury entitling them to seek damages under a public nuisance claim. <u>In re Lead Paint Litig.</u>, 191 <u>N.J.</u>, <u>supra</u> at 429.

Plaintiffs can neither meet the required standing nor the definitional elements of showing a public nuisance for the same

reason: the State is immune under these circumstances pursuant to the Tort Claims Act. When determining claims under the Tort Claims Act, courts "should [determine] whether an immunity applies and if not, should liability attach." <u>Troth v. State</u>, 117 <u>N.J.</u> 258, 265-66 (1989) (emphasis in original). Therefore, if an immunity applies, the State is not liable and Plaintiffs cannot succeed on the merits of their claim.

The State's tort immunity is embodied in <u>N.J.S.A.</u> 59:4-9, which states "[n]either a public entity nor a public employee is liable for any injury caused by a condition of the unimproved and unoccupied portions of the tidelands and submerged lands, and the beds of navigable rivers, streams, lakes, bays, estuaries, inlets and straits owned by the State."

The comment to this provision explains that this section:

reflect[s] the policy determination that it is desirable to permit the members of the public to use public property in its natural condition and that the burdens and expenses of putting such property in a safe condition as well as the expense of defending claims for injuries would probably cause many public entities to close such areas to public In view of the limited funds available for the use. acquisition and improvement of property for recreational purposes, it is not unreasonable to expect persons who voluntarily use unimproved public property to assume the risk of injuries arising therefrom as part of the price to be paid for benefits received. ... The exposure to hazard and risk involved is readily apparent when considering all the recreational and conservation uses made by the public generally of [publically-owned] acreages, both land and Thus, in sections 59:4-8 and 59:4-9 a water oriented. public entity is provided an absolute immunity irrespective of whether a particular condition is a dangerous one. Comment to 59:4-9 (emphasis added).

The comment further explains that the term "unimproved public property" is to be liberally construed. Id.

Public property "is no longer 'unimproved' when there has been substantial physical modification of the property from its natural state, and when the physical change creates hazards that did not previously exist and that require management by the public entity." <u>Troth v State</u>, <u>supra</u> at 269-270. Here, the beach and the water remain unimproved.

Upon occasion public properties may be partially improved and partially unimproved, whereupon courts examine the specific area where an injury occurred. Kowalsky v. Long Beach Twp., 72 F.3d 385, 389 (3d Cir. 1995) (following Troth). Thus, where the injury is caused by an alleged dangerous condition that is a natural element of the unimproved land, the public entity remains immune from liability. Aversano v. Palisades Interstate Parkway Comm'n, 363 N.J. Super. 266, 270 (App. Div. 2003); see also Fleuhr v. City of Cape May, 159 N.J. 541. 545 (1999) (finding a surfer's injuries were caused only by ocean waves, which were a natural condition); Kowalsky v. Long Beach Twp., 72 F.3d, supra at 390 (finding that injuries to swimmers were caused by ocean waves, which were "acts of nature"). Yet, even if the property had been partially improved, the public entity would not be liable absent a "causal connection" between the alleged injury and the improvement. Troth v. State, 117 N.J.,

supra at 270.

Here, the unimproved property immunity applies because the area where Mr. Smith's accident occurred is unimproved and is publicly owned. Per the title report prepared on behalf of the City of North Wildwood by Hathaway Abstract Co., the City owns the upland beach area subject to the State's underlying riparian rights below mean high tide. See Exhibit 1 to Miles Cert. Regardless of how the location is characterized tort immunity applies to the upland beach under <u>N.J.S.A.</u> 59:4-8 and/or the tidally flowed area under <u>N.J.S.A.</u> 59:4-9.

The record is equally clear that Mr. Smith and his companions were wading in the water along the Inlet coast, rather than walking along the dry beach sand. Likewise, the parties agree that there are no overt developments in the waterline between the dry sand and the deeper Inlet waters. Thus, the area where the incident occurred, which is the appropriate geographic area to consider pursuant to <u>Troth</u>, is clearly unimproved.

Even if one considers the broader general area in the vicinity of the accident, the area is still unimproved and the immunity applies. For instance, although the City of North Wildwood holds a Coastal Area Facilities Review Act ("CAFRA") permit to conduct beach maintenance and raking, the City cannot conduct any maintenance west of the last lifeguard station on

Surf Avenue due to endangered species habitat restrictions. Exhibit A to Jones Cert. Mayor Rosenello confirmed during his deposition that the City complies with the permit restrictions and does not conduct raking or maintenance in the unguarded beach area. Rosenello Transcript, 62:12-63:13.

is a stone revetment which Similarly, although there parallels the Hereford Inlet, the revetment itself is upland and shoreline where the accident and removed from the water Farrell Transcript, 134:23-136:4. Furthermore, Dr. occurred. Stewart Farrell is the only expert to testify in this case regarding the possible effect of the revetment on the water currents in the Inlet. Exhibit 2 to Miles Cert. Dr. Farrell testified clearly and unequivocally that the revetment had no impact on the Inlet's current in the accident's immediate vicinity; the revetment is simply too far a distance away. Farrell Transcript, 145:8-146:19. Plaintiffs never disputed Dr. Farrell's report or testimony. Thus, there is nothing in the record to contradict either of these factors.

Because the State is immune from liability pursuant to the unimproved property provisions of the Tort Claims Act, N.J.S.A. 59:4-8 and 59:4-9, Plaintiffs cannot sustain an action in damages against the State.² Therefore, pursuant to the

² Although Plaintiffs actually have sued both the State and the City of North Wildwood in the separate wrongful death action

Restatement and <u>In re Lead Paint Litig.</u>, Plaintiffs cannot sustain an action seeking an injunction against the State. Restatement (Second) Torts, § 821B.

Likewise, Plaintiffs' primary claim of public nuisance fails because there has been no conduct by the State that gave rise to the accident. <u>Contra</u> Restatement (Second) Torts, § 821B(2) (explaining each circumstance that could sustain a public nuisance claim requires an inquiry of the "conduct" involved): Simply put, the accident, tragic though it was, occurred as a result of the natural conditions of the currents in the Hereford Inlet. Plaintiffs admit as much in their own filings: "[h] owever, hidden at the water's edge is a public nuisance created by the unique tides that eat away at the beach every time the tide retreats." Pl. Br. At 5 (emphasis added). Similar to the accidents that occurred due to natural circumstances in both <u>Kowalsky</u> and <u>Fleuhr</u>, Plaintiffs' claim here is equally unviable.

It should be noted that even if the State were not immune under the Tort Claims Act, obtaining an injunction to force the State to close the unguarded beach would be inappropriate as the State does not own or operate that municipal beach.

which seeks monetary damages, Plaintiffs chose not to include a public nuisance claim there. There is therefore a question as to whether their pleading choices in that matter bar them from seeking an injunction under a public nuisance theory in this case.

The Department of Environmental Protection ("DEP") is authorized by the Legislature to oversee via its permitting authority numerous aspects of land development and use when such development may have an impact on a natural resource of interest such substantive permitting area the One to the State. Department oversees is development and/or use of land in coastal zones, pursuant to the Coastal Area Facilities Review Act, or CAFRA. N.J.S.A. 13:19-1, et seq. CAFRA defines "development" to include "the grading, excavation or filling on beaches or dunes" addition to the layperson's understanding of building · in construction. N.J.S.A. 13:19-3. Therefore, DEP holds general oversight of any action that constitutes a development on a beach or dune in the State of New Jersey.

One of the substantive elements that DEP considers when any entity submits an application for a permit to "develop" a beach or dune area is whether the proposed development will have any impact on the public's access to the waterfront. <u>N.J.S.A.</u> 13:19-10(h). The DEP's consideration incorporates the longstanding Public Trust Doctrine, wherein land flowed by tidal waters is owned by the State for the public's use for "navigation, fishing and recreational uses, including bathing, swimming and other shore activities." <u>Matthews v. Bay Head</u>, 95 <u>N.J.</u> 306, 312 (1984). The DEP's general consideration of permits for beach and dune incorporates a general promotion on a

nondiscriminatory basis and to the extent practicable public access to and use of the State's tidal waterways and their beaches. N.J.A.C. 7:7-16.9(a) and (b).

However, the DEP also recognizes that public access may be tempered so access does not create conditions that may reasonably be expected to endanger public health or safety. Jones Cert. ¶ 12. Indeed, the Public Trust doctrine itself has always been balanced by consideration of public safety. <u>See</u> <u>Neptune City v. Avon-By-The-Sea</u>, 61 <u>N.J.</u> 296, 311 (1972) (noting coastal municipalities may "very properly regulate and limit . . .the number of persons allowed on the beach at any one time in the interest of safety."). Therefore, the DEP permits public access restrictions on a seasonal, hourly, activity or other scope as necessary due to conditions on the ground. <u>N.J.A.C.</u> 7:7-16.9(b)(4). Jones Cert. ¶¶ 12-13.

A limitation to the DEP's specific public access oversight arises when municipalities submit applications for beach maintenance permits. Since raking and grading beaches and/or dunes are considered "development" pursuant to CAFRA, any coastal municipality that wishes to maintain their beach need to apply for a beach maintenance general permit. <u>N.J.A.C.</u> 7:7-6.2.

It is well settled that the State cannot require a municipality to keep a municipally-owned beach open if the municipality decides, pursuant to its police power, that the

beach should be closed. <u>Borough of Avalon v. Dep't of Envtl</u> <u>Prot.</u>, 403 <u>N.J. Super.</u> 590 (App. Div. 2008). As Judge Skillman stated, coastal municipalities hold "exclusive control over municipally-owned beaches" because:

the municipality, not the DEP, that owns and [i]t is therefore bears responsibility the for and operates The municipality must provide management of its beaches. such police services as may be required to maintain public safety during the hours a beach is open to the public. In addition, the municipality must provide whatever emergency services may be required if a swimmer or other person using the beach suffers a personal injury. Id. at 599-600 (citing N.J.S.A. 40:61-22.20 and Fleuhr v. City of Cape May, 159 N.J., supra).

Given this unambiguous limitation upon the DEP's authority, the agency's policy is to work with coastal municipalities during permitting determinations to identify maintain and existing public access areas while balancing other concerns. Thus, if a municipality such as the City of North Wildwood sought to close a portion of its waterway or beach area upon showing that an unreasonable risk to public safety exists, the DEP would not object to the municipality's decision. Jones Indeed, the DEP's public access regulations 15. Cert. • specifically denote that municipally-owned beaches can be closed by the municipality due to public safety concerns. N.J.A.C. 7:7-16.9(b)(4). Therefore, obtaining an injunction against the State to close the City of North Wildwood's beach in whole or in part would be inappropriate, as the City is the public entity

with the authority to make that determination.

For all of the above reasons, Plaintiffs are not likely to succeed on the merits of their claim against the State.

C. <u>Plaintiffs Have Failed to Demonstrate Irreparable Harm That</u> Is Not Speculative or Likely to Recur to Plaintiffs

Plaintiffs have failed to show a likelihood of irreparable harm if the unguarded beach along Hereford Inlet is not closed.³

will suffer they demonstrate that must Plaintiffs "substantial, immediate and irreparable harm" that does not have an adequate remedy at law. Subcarrier Communications, Inc. v. Day, 299 N.J. Super. 634, 638 (App. Div. 1997). The harm must not be speculative, given the clear and convincing evidence standard of review. See In re Resolution of State Comm'n of Investigation, 108 N.J. 35, 46 (1987) (quoting Eccles v. Peoples Bank, 33 U.S. 426, 431 (1948)), Waste Management of N.J. v. Union County Utilities Authority, 399 N.J. Super. 508, 520 (App. Div. 2008). Finally, "the applicant must establish that he will suffer irreparable injury if the relief is denied." Ispahani v. Allied Domecq Retailing United States, 320 N.J. Super. 494, 498

³ Because Plaintiffs' brief in support of their Order to Show Cause does not address the <u>Crowe v. DeGoia</u> factors, it fails to address what Plaintiffs believe their irreparable harm might be or how the balance of the equities would weigh in their favor. The State's opposition therefore attempts to address Plaintiffs' positions on these questions as best as possible based on Plaintiffs' brief. The State respectfully reserves the right to request additional briefing should Plaintiffs' reply brief raise arguments on these points that were not raised in the original brief in support of the Order to Show Cause.

(App. Div. 1999)(emphasis added). In other words, the irreparable injury must occur directly to the applicant.

Despite the tragic outcome of the accident, Plaintiffs will not suffer irreparable harm if an injunction is not granted. There is nothing in the voluminous record that indicates Plaintiffs plan to return again to North Wildwood and to use the unguarded beach. Indeed, all statements Plaintiffs have made are to the contrary, i.e., that they never intend to return to North Wildwood. Pl. Br. At 6. While Plaintiffs' position is understandable given the accident, it also means that they will not directly suffer an irreparable injury if the beach is not closed. Therefore, they cannot meet this prong of the inquiry.

Plaintiffs' argument that an injunction must issue to avoid another similar accident, while admirable, is insufficient to meet the standard of clear and convincing burden of proof. Indeed, the facts weigh against Plaintiffs' argument as no one else has drowned in the Hereford Inlet near the unguarded beach since Mr. Scott's death. Exh. Gl to Pl.'s Brief.

Thus, Plaintiff cannot meet the irreparable injury prong.

D. The Balance of Harms Tips in Favor of the State, As Well As to the Public If the Beach Is Closed.

Finally, the balance of harms tips in favor of the State, rather than Plaintiffs.

The final factor considered in a preliminary injunction

inquiry is "the relative hardship to the parties in granting or denying relief." <u>Crowe v. DeGioia</u>, 90 <u>N.J.</u> 126, 134 (1982). Although it is the final factor, it can outweigh the other three factors if the public interest "is greatly affected." <u>Waste</u> <u>Management of N.J., Inc. v. Union County Utilities Authority</u>, 399 <u>N.J. Super.</u> 508, 520 (App. Div. 2008).

Here, Plaintiffs champion harm to the greater public if the beach is not closed but ignore the harm to several policies that protect the public in the process.

At the outset, Plaintiffs' request seeks to improperly legislatively set balance between upset the careful and public entities and the public's potential liability of recreational enjoyment of unimproved areas. When drafting the Tort Claims Act provisions regarding unimproved public property, the Legislature was faced with the competing interests of permitting the public to use public property to its fullest in its natural state while also ensuring such recreation is safe. Natural settings, while beautiful and offering thrilling activities, can also be quite dangerous; the number of cases regarding swimmers who have drowned, hikers who have fallen off paths, and boaters who have capsized is an indicator of the inherent conflict unimproved public property can pose. The Legislature understood these clear risks, yet the Legislature decided to immunize public bodies to encourage the public to

recreate on unimproved public property, recognizing explicitly in its comments that a failure by the Legislature to do so would encourage public entities to shut down such properties to the public.

An injunction here to close the unguarded beach along the Hereford Inlet flies in the face of this well understood, carefully considered and crafted public policy. The grant of an injunction in this case would expose the State and other public entities to future lawsuits to close other potentially dangerous natural areas to the public. Not only would the State have to defend itself against such lawsuits, but it could also set dangerous precedent that exposes public entities to liability for unimproved public properties. Moreover, the public itself stands to lose the most, as both the public fisc would be burdened by additional lawsuits and the public would be left with fewer and fewer public lands to enjoy.

Ultimately, the balance of the equities favor the State such that Plaintiff's request for an injunction must be denied.

POINT II

PLAINTIFFS'REQUESTFORINJUNCTIONINAPPROPRIATELYSEEKSANORDEROFMANDAMUSAGAINSTTHESTATEFORDISCRETIONARYACTION

Plaintiffs mistakenly seek an order of mandamus to close the unguarded beach along Hereford Inlet, but such relief is unavailable when the government, as here, is entitled to

exercise its discretion. <u>I.H.R.A.C. v. Diamond Shamrock Chem.</u>, 216 N.J. Super. 166, 175-176 (App. Div. 1987).

The common law remedy of mandamus is only available to require the State to exercise non-discretionary, mandatory functions, "where the right to performance of a ministerial duty is clear and certain." <u>In re Commissioner's Failure to Adopt 861 CPT Codes</u>, 358 <u>N.J. Super.</u> 135, 149 (App. Div. 2003). A ministerial duty is one that is absolutely certain and imperative, involving merely the execution of a set task, and when the law which imposes it prescribes and defines the time, mode and occasion of its performance with such certainty that nothing remains for judgment and discretion. <u>In re Failure by the Dept. of Bank. and Ins. to Transmit a Proposed Dental Fee</u>, 336 N.J. Super. 253, 262 (App. Div. 2003).

Mandamus will not lie "if the duty to act is a discretionary one and the discretion has been exercised." U.S. Trust Co. of New York v. State, 69 N.J. 253, 259 (1976), rev'd on other grounds, 431 U.S. 1, 97 S.Ct. 1505, 52 L.Ed.2d 92 (1977). The key question to determine whether an action for mandamus may proceed is whether the agency has acted, not whether Plaintiff believes the discretionary action by the agency would be the correct one. See Loigman v. Township of Middletown, 297 N.J. Super. 287, 299 (App. Div. 1997) (mandamus a proper remedy only to compel a specific action when the duty is

ministerial and wholly free from doubt, and to compel the exercise of discretion, but not in a specific manner); <u>Bordentown Township Board of Health v. Interstate Waste</u>, 191 <u>N.J. Super</u>. 128, 141 (Law Div. 1983). Mandamus cannot be used "to interfere with or control the mode and manner of its exercise or to influence or direct a particular result." <u>Switz</u> <u>v. Middletown Twp.</u>, 23 <u>N.J.</u> 580, 587 (1957).

Here, Plaintiffs ask this court to compel the DEP and the City of North Wildwood to close the unguarded beach along Hereford Inlet. This would be a wholly discretionary decision. The DEP's consideration of public access pursuant to its CAFRA permitting actions incorporates a fact-sensitive balancing of considerations, including the type of development proposed, whether the access can be on or off-site, and whether the access runs afoul of other public policy considerations. N.J.S.A. 13:19-10. All of these elements require discretion in their The DEP exercises its discretion in working with application. coastal municipalities on public access concerns along the shore and weighs public safety and public resource concerns. See Jones Cert. ¶ 15. This case directly illustrates the fiscal issues, as a full beach closure would require significant public resources to implement and enforce. See Lindsay Transcript, 46:1-14, 51:25-52:10 (noting need for fences, "guard dogs 24/7," and "military state" to keep beach closed).

In sum, Plaintiffs improperly ask the court to intervene and substitute its judgment for that of the Department's and the City's, the latter of which operates and maintains the beach. Given settled law, however, Plaintiffs' request must be denied.

CONCLUSION

For the reasons set forth herein, Plaintiffs' motion for a preliminary injunction must be denied.

CHRISTOPHER PORRINO ATTORNEY GENERAL OF NEW JERSEY

By:

Kristina Miles Deputy Attorney General

Dated: November 28, 2016

CHRISTOPHER S. PORRINO ATTORNEY GENERAL OF NEW JERSEY Attorney for Defendant New Jersey Department of Environmental Protection Hughes Justice Complex 25 Market Street P.O. Box 093 Trenton, New Jersey 08625

By: Kristina Miles Deputy Attorney General (609) 633-2038 Attorney No. 003282011

SANDRA SMITH, INDIVIDUALLY AND AS EXECUTRIX OF THE ESTATE OF GEORGE BRADLEY SMITH, AND AS GUARDIAN AD LITEM FOR HER CHILDREN KOLE SMITH AND BRANDY SMITH, NICOLE GAETA, KYLE SMITH, Plaintiffs,	: SUPERIOR COURT OF NEW JERSEY CAPE MAY COUNTY - LAW DIVISION DOCKET NO. CPM-L-415-16 Civil Action
v. CITY OF NORTH WILDWOOD, and STATE OF NEW JERSEY,	: : Certification of : Kristina Miles, : Deputy Attorney General :
Derendancs.	•

1. I am a Deputy Attorney General within the New Jersey Division of Law, Office of the New Jersey Attorney General in the State of New Jersey. I have personal knowledge of the facts stated herein.

2. I have served as a Deputy Attorney General for the Environmental Permitting and Counseling section for over three and a half years.

3. I make this Certification in Support of Defendant New Jersey Department of Environmental Protection's Opposition to Plaintiffs' Order to Show Cause submitted on October 18, 2016.

4. Attached hereto as Exhibit 1 is a true and accurate copy of a title abstract from Hathaway Abstract Co. for the relevant portion of the unguarded beach in the matter of <u>Smith v. City of</u> <u>North Wildwood, et al.</u>, Docket No. CPM-L-331-14.

5. Attached hereto as Exhibit 2 is a true and accurate copy of the June 23, 2016 report by Dr. Stewart Farrell of Stockton University's Coastal Research Center in the matter of <u>Smith v. City</u> of North Wildwood, et al., Docket No. CPM-L-331-14.

6. Attached hereto as Exhibit 3 is a true and accurate copy of the transcript from the June 29, 2016 deposition of Dr. Stewart Farrell in the matter of <u>Smith v. City of North Wildwood, et al.</u>, Docket No. CPM-L-331-14.

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements is willfully false, I am subject to punishment

Kristina Miles, Deputy Attorney General

November 28, 2016

Exhibit 1



Hathaway Abstract Go. 345 Marshallville Boud Woodfrine, N.J. 08270

e-mail: hathawayabstractgmail.com phone: 609 217 6809 fax: 609 701 0127

Report on Title North Wildwood Block 254 Lot 1 formerly Lots 26,28,30, 32,100-115 Title vests into the City of North Wildwood in DB719 pg 405 (½ of lot104, ½ of lot 105, p/o lot 100, p/o lot 102 and all of lots 101 and 103) Remainder of title in Final Judgement in DB891 pg 439 Final Judgement Amended in DB1055 pg 194 No Easements or restrictions

Block 255 Lot 1 formerly lots 34, 36,38,40,100-115

Title vests into City of North Wildwood in DB1349 pg 168 No easements or restrictions

Riparian Grants

Grants for premises in question are found in DB193 pg 1 to Henry Ottens and DB193 pg 95 to Eliza Mace, estate

Vacation of Roads

I find no vacation of Roads for the Premises in question

Cover date 2/27/2015

N. Wildwood000226





その第二年の時代

Smith v. North Wildwood

Smith v. North Wildwood



Riparian Grants
-193-1 The State of New Jersey: To all to whom these Oresents pliace Come, or may concern Greeting Whereas, Pursuant to an and of the Legislative of said State, approved March a1 st, 1871, entitled. a further supplement to an act entitled an ace to ascertains the rigerts of the State and of Reparian ormers in the lands liquing inider the waters of the bay of new york and elsewhere in this state," approved april eleventer, one thousand eigent lundred and Sixty gour, and other asts and joint resolutions of the Regislature of paid & tate, Henry 28. Bettere of the Dorouge. if Wildwood in the County of Cape May and State of new gersey being the owner of lands fronting on Heregord I relate in anglesson in the bounty of loope May and state of new gersey, which lie alove high water mark and in grant of which the lands under water hereinagter described are situated, has applied to the aparian Commissioners of said State gos a grant of the said lands under water, and to liance the paid Commiss inners fix the boundaries of the said lands under water, and determine the price or compensation to be paid to the said State dueregor, and the terms and conditions of said grant ! and whereas, the said Reparian Commissioners, to wint; Franklin Murphy, Governor Willard le. Fisk, William Coloke, Jolin A. scolt and John J. Farrell having due regard to the interest of mangation and the interests of the State, have agreed to grant the lands under water hereinafter mentioned upon the terms bereins set gorthy and have determined the sum of Six Hundred "%, vo (# 6 00. "/100) Dellais as see price or reasonable compensation to he paid to the state for the said lands. Nour I lieregore, the said & tate of new Jursey, by the paid Riparian Commissioners, the Governors approving, in consideration of the promises, the termis and conditions hereinagter contained, and the paid pur of sig stundard or (#600, "oo", vo) Dollars duly paid by the said Henry No Obstins to the paid & tate, the receipt where of is hereey acknowledged does hereby grant, bargain, seel and sonvey. Puljest to the terms, covenants, conditions and limitations herein contained, unto the said being 26. Attens! and to live heirs and assigns goverer all these two tracts of land flowed by tide water, lifing N. Wildwobd000231 E.

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Smith v. North Wildwood at anglesea, in the County of loope May and State of new Jersey described as goelows; I he Tirst Frace : Beginning at a point in the light water since of the materly plane of Heregond Inlet, where the pame is intersected by the division line between lits numbered eigert (P) and the (10) in Block I wo lundred and eigerty two (282) in anglesea, and from thence montheasterly in line; wiele paid division line extended & is lundred and pixty peren 37,0 (667. 57,0) feat to the Exterior Wharf Rine established by the Commissioners appointed under the authority of the act entitled "an act to accentain the nights of the State and of Reparian owners in the land lying under the waters of the loay of them york and elsewhere in this States", spyrined april 11th a. D. 18 6 4. and the pupplements therets, there pour erey along paid Exterior Williang Line as plumin on the map liesets annexed. nenetien hun the and gorty (1940) gest to the mostleasterey line of lands under water granted by the & zation to slearry ob. Betterre Between Dode, 1902 nortennesterey along the mortheasterly line of said grant & ourteen liundred and thenty two 43/100 (1422 49/100) fact to the poutererly line of Surg avenue: thence puriterestary along the porterery line of Sing arenne to the liger mater line of the mesterly plane of Hereford Inlet; thence northerey along said The Second Inset : Beginning at a point mi the high mater line of the mesterey pluse og de eregend Inlet where the same is interseet ly the pertore line of Pennsylvania arence, and from dience northeasterly in eine with the said centre time extended, Six hundred and pipty (660) geet to the Exterior Whang hime established by the Commissioners appoints ed under the authority of the act aforesaid approved april 11 000, Q. D. 1864, and the supple ments thereto, said front being distant & even buindred and ten 6-2/100 (710 07/100) gest northeasterly along the centre line Perinsylvania avenue extended from the pontemesterly line of to hestinist arence, deence mortherey seeing said Exterior wharg Fine, as shown on the map hereto annexed, I line hundred and figty six 1/10 (316 \$10) geet to ra print in line with the centre line of Jaike and please perethinesterly along said Centre

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have got solid filling and the exterior line for prease, or either of said lines, we we established, on lunce that many be hereafter established, by the Repariance boundarsons or other lawful and in the of the State of new garacy, aball be transflar chang in by the action of the anthontees of the united States Gromermuns with and the grantee herem or my party channing hereinder shall sugger annagies, the clarce of claims therefor must be made of anisit the authorities of the united States blovern. ment, and not against the States of new yercey. Jogethe's with all and singular the dereditaments and appurterances thereinto beinging be have and it hold all and singular the above grant. iii and described lands under water and prem weer, subject to the terms, conditions nice limit ations, aforesaid, unto the said charles mart, Instee, and to his here and assigns forever. In Witness Whereof. The said commissioners have hereinsto respectively set their hands, and these presents have been signed by the Governor, and the Graat Seal of the State has been harmito affixed and attested by the Secretary of State, this Thirty-first day of march in the year princteen hundred and your. Mote: Eight printed lines on 3rd. Franklin Murphy page insea before execution. Howener. gohn to Raynee. Willand to Fick. The great William Eloke John J. Holt seal of thes State of mui John J. Farrell generg Wetness. John G. Payne, attest: S. D. Dickinson Secry of State State of new geracy, county of Hudson so. Be it Remembered, That on this mineteenthe day of april uneteen hundred and four before me the subscriber, a master in & haveny of Mice. Jersey presoundly appeared John & Raynes who having me duly avor on his oath, salthe that he, sau transler murphy, bovernot, Willand & Fiale, William Eloke John I. Holt and John J. Farrell the watching nomed dominissioners, sign and deliver the within deed as their voluntary act and that he, the said your b. Payne there pour subscriber his name as an attacting witheres thereto. humm and subscribed before me 'form & layne. gersey licty the day and year aforesaid. Heorge S. Record master in Chancery of Merogenser.

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Combination of Tidelands Maps

#063-1962 (map jacket A-41) #056-1962 (map jacket A-32)

Exhibit 2

The Coastal Research Center

Ph. 609-652-4245 Fax 609-748-0656



30 Wilson Avenue Port Republic, NJ 08241

www.stockton.edu/crc

NEW JERSEY'S DISTINCTIVE PUBLIC UNIVERSITY

June 23, 2016

Brian Hunkins, DAG Dept. of Law & Public Safety Division of Law, Tort Litigation Section Hughes Justice Complex 25 Market St., P.O. Box 116 Trenton, NJ 08625

Dear Mr. Hunkins, '

I have reviewed multiple depositions, photographs and videos in this case as well as the report of plaintiff's expert Dr. Richard Weggel (Smith v. North Wildwood, et al., Docket No. CPM-L-331-14). I reviewed the map on which Mr. Sunderland marked the location where he and Mr. Smith went into the water. I am very familiar with the beaches at North Wildwood and along the Hereford Inlet because of all the work I have done in the area over the years. I am personally familiar with the water and sand conditions and I have expertise with regard to the nature and cause of those conditions. Within a reasonable degree of coastal engineering probability, the water and sand conditions that contributed to the incident in this case were completely natural and unaffected by any improvements in the area. Neither the seawall nor any beach replenishments nor any other improvement played a role. The seawall does at times create a whirlpool or vortex in the immediate vicinity of the seawall. The seawall has no effect in the area where Mr. Sunderland says he and Mr. Smith went into the water. In the area where Mr. Sunderland and Mr. Smith went into the water, there is a channel that has been created by water flowing into and out of the inlet with the tides. The water can be turbulent in the area of this channel where the incident occurred specifically where the ebb currents meet a sand wedge deposited along the beach at or near low tide elevations that is formed by the flood tide. The slope of sand that forms the margin of the channel is inherently unstable. In my opinion, Mr. Sunderland and Mr. Smith stepped onto the channel margin slope and the slope gave way. This is not unlike what a hiker might experience while crossing a steep slope of rock scree. The broken rock pieces give way and the hiker will slide down with it, sometimes ending up more than a couple of feet down the hill. Under water, the swift currents rushing by the channel slope makes the situation that much more unstable as the angle of slope increases.

I disagree with Dr. Weggel to the extent that he may be saying that a shelf of sand was created and collapsed. I have not seen any evidence of that occurring in the area of the incident and had it occurred, witnesses would have described a subsidence of the sand above the waterline. Even if that had occurred, however, it would have been completely the result of interacting natural forces. It would not have been the result of any improvements in the area.

Sincerely,

Stewart Farrell

Dr. Stewart Farrell Executive Director Coastal Research Center

Exhibit 3

3 INDEX 1 2 PAGE WITNESS 3 SUPERIOR COURT OF NEW JERSEY LAW DIVISION - CAPE MAY COUNTY DOCKET NO. CPM-6-331-14 STEWART FARRELL 4 4,139 Examination By Mr. D'Amato Ş Examination By Mr. Grassi Examination By Mr. Hunkins Examination By Mr. Rozeli 122 5 з 145 SANDY SHITH, 148 ENDIVIDUALLY AND AS EXECUTAIN OF THE ESTATE OF HER LATE HUSBAND GEORGE BRADLEY SMITH, 6 CIVIL ACTION VIDEOTAPED 5 7 DEPOSITION TESTIMONY OF: STEWART FARRELL 6 Planotiff. я EXHIBITS vs. 9 ä CITY OF NORTH WILDWOOD, STATE OF NEW JERSEY, JOHN DOE, MARY DOE, ABC PARTNERSHIPS and XYZ DESCRIPTION Id. 9 NUMBER 10 1-0 Letter from Brian Hunkins 11 Farrell-1 CORPORATIONS. Unidentified document 4 11 Farrell-2 Defendants. Interview 4 12 Farrell-3 12 Farrell-4 Unidentified document 4 13 Farrell-5 Dr. Weggel's report Aerial photograph 13 22 Farrell-6 Copy of Sunderland-2 Farrell-7 62 14 14 79 Farrell-8 Photograph TAKEN BEFORE: LYNN SMJTH, & Cortified Court 15 84 Photograph 15 Farrell-9 Reporter of the State of New Jersey, hicense No. 84 Photograph Farrell-10 16 Newspaper article 86 16 Farrell-11 XIO1520, at the D'AMATO LAW FIRM, 2900 Fire Road, 17 91 Newspaper article Farrell-12 Interview of Mr. Sunderland 93 Suite 200, Egg Harbor Township, New Jersey, on 17 Farrell-13 18 Digital elevation map 103 Farrell-14 Nodnesday, June 29, 2016, commoncing at 10:15 A.M. 19 Digital elevation map 105 18 Farrell-15 105 Farrell-16 Digital elevation map 20 121 Copy of Farrell-6 19 Farrell-17 WORD FOR WORD REPORTING, LLC CERTIFIED COURT REPORTERS & VIDEOGRAPHERS 6 NORTH BROAD STREET, SUITE 202 WOODBURY, NEW JERSET 08096 Ph. (856) 384-2770 Fax. (856) 384-2779 21 Farrell-18 Photograph 140 2012 Annual Report 2012 Annual Report 143 20 Farrell-19 22 152 Farrell-20 154 21 Article 23 Farrell-21 24 22 Requests: 25 1. Transcripts reviewed by Dr. Farrell, page 32 23 2. Log, page 130 24 25 WORD FOR WORD REPORTING, LLC 4 APPEARANCES: (Exhibits Farrell-1 through Farrell-S 1 2 received and marked for identification.) D'AMATO LAW FIRM 2 2900 Fire Road, Suite 200 3 VIDEOGRAPHER: Today is Wednesday, June Egg Harbor Township, New Jersey 08234 BY: PAUL R. D'AMATO, ESQUIRE 3 4 29th, 2016. This is the videotaped deposition of 4 For the Plaintiffs 5 Stewart Farrell. We are going on record at 10:15 5 BARRY, CORRADO & GRASSI 6 a.m. The appearance of counsel will be noted on the 6 2700 Pacific Avenue 7 Wildwood, New Jersey 08260 stenographic record. 7 609-729-1333 Will the court reporter please swear 8 BY: JOSEPH C. GRASSI, ESQUIRE 8 For the Plaintiffs 9 in the witness? 9 10 STEWART FARRELL, 10 BARKER, GELFAND & JAMES 210 New Road having been first duly sworn, testified as follows: Linwood, New Jersey 08221 (609) 601-8677 8Y: WILL ROZELL, ESQUIRE 11 11 EXAMINATION BY MR. D'AMATO: 12 12 For the Defendant, North Wildwood Dr. Farrell, my name is Paul D'Amato, and I 13 Ô. 13 represent Mrs. Sandy Smith, the widow of Brad Smith, 14 14 and we represent the adult children of Brad and the STATE OF NEW JERSEY 15 DEPARTMENT OF LAW AND PUBLIC SAFETY 15 minor children of Brad and Sandy. DIVISION OF LAW 16 16 R.J. Hughes Justice Complex The process that we're going through 17 25 Market Street Trenton, New Jersey 08625 (609) 777-4872 17 18 today is a deposition. BY: BRIAN HUNKINS, ESQUIRE 18 Have you ever gone through this process 19 For the State of New Jersey 19 20 before? 20 21 A. Yes. Also present: Lou Dijoseph Sandy Smith (via telephone) 22 Ο. How many times? 23 Several. Videographer: Josh Grossman A. 44 Okay. More than 12, or less than 12? 24 Q. 23 Less than 12. 25 Α. 24 25 WORD FOR WORD REPORTING, LLC

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	5		7
1	Q. Less than five?	1	chemistry from Lafayette College. Then I went to the
2	A. Maybe, but probably not.	2	University of Massachusetts, where I got a Masters
3	Q. All right. I'll get into those depositions	3	degree in geology and coastal science, followed by a
•	in a moment, but I just want you to know that if any	4	Ph.D. in 1972.
	time you need to take a break, you just tell us you	5	Q. And the Ph.D. was in what area?
6	want to take a break.	6	A. Plasticine geology, which is the last 10,000
7	I have been speaking to the deputy	7	years, to modern coastal processes.
8	attorney general about the areas that I wanted to ask	8	Q. Okay. What was your thesis for your in
9	you questions, and after receiving his letter with	9	order for you to get your doctorate?
10	the report attached, instead of asking you questions	10	A. The location was at Saco Bay, State of Maine.
11	for about an hour, I think it's going to be two	11	Q. And what was the topic?
12	hours, maybe a little bit more.	12	A. It was the holocene, which is the recent
13	I've ordered a tray of sandwiches from	13	stuff, holocene processes in coastal history of Saco
14	Fitzpatrick's in Somers Point, and as I told counsel,	14	Bay, Maine.
15	if we take a break, it will just be for 10, 15	15	Q. Okay. While you were getting your Ph.D.,
16	minutes, just get a little something to eat, and then	16	were you working for a private business, or
17	we'll finish up, we'll get you out of here.	17	government, or college?
18	Even though you've gone through the	18	A. Well, we were supported by the university
19	process of a deposition before, I just like to	19	Q. Okay.
20	emphasize a few things.	20	A on grants. And I had what was called a
21	If I or my co-counsel, Joseph Grassi,	21	National Defense Education Fellowship.
22	who's sitting to my left, if either of us asks you a	22	Q. All right. After getting your Ph.D. in 1972,
23	question that you find inherently confusing, or just	23	could you give us an overview of your employment up
24	doesn't make any sense to you, don't answer it. Just	24	until today?
25	simply say, I don't understand the question. We are	25	A. In the fail of 1971, I started work for the
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2 of 61 sheets

		······	11
4	9	1	Q. The students that have been employed, if you
1	O All right And could you repeat the year	2	will, by the Institute, are they eligible by virtue
2	the way exerted working for the Coastal Research	3	of that work and any additional studies to get a
3	Conton was 20112	4	Ph.D. through Stockton University?
	Center was 2011:	5	A. No.
~	A. No. 1 Jounded the institute in 1900,	6	Q. Okay, I see. Now, you used the phrase client
0	following Hurricane Gioria, uriven by requests nom	7	base. What is the client base of the institute from,
1	the Department of Environmental Protection	8	let's say, 2000 the year 2000 up until now, 2016?
8	Q. Okay.	9	A I can give you a laundry list.
9	A for information about the storin damage to	10	Q Well
10	New Jersey beaches. And as a result of that award of	11	A Dom
11	funding, we began what was a fairly small operation,	12	Q Go ahead. I'm sorry.
12	with three people, that grew over time to what it is	12	Δ It's dominated by work with either the
13	today.	14	Philadelphia District Corps of Engineers, or the
14	Q. All right. And how many employees does the	46	Rureau of Coastal Engineering from the New Jersey
15	institute have?	10	Department of Environmental Protection.
16	A. Nine.	17	
17	Q. Okay. And what is your title presently	10	A Other clients would be local municipalities.
18	relative to the institute?	10	A. Other clients would be rocal that explanation
19	A. I think I'm the executive director of the	19	of the institute?
20	Coastal Research Center.	20	
21	Q. And can you give me a summary of what the	21	A. ICS. O Okay Calif if the institute has an
22	other eight people do that are employed by the	22	Q. Oray, Solit If the institute has an
23	institute?	23	assignment from the bureau of coastar Lingmoornay
24	A. They start as student workers, doing field	24	and the institute periorities that assignment, the
25	work under the direction of a full-time staff member.	25	
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3	10		A Convert
1	They choose to stay and continue learning what we do		A. Correct.
2	and how to do it better. And they become invited, if	2	Q. Okay. And that would be the same for the
3	they are qualified, to become full-time staff	3	United States Corps of Army Corps of Engineering:
4	members, if they can fill a niche that we need as a	4	A. Yes.
5	result of changing interests on the part of the	5	Q. Okay. Now, let's talk about the City of
6	client base. Some there's like four people who do	6	North Wildwood.
7	information mapping, geographic mapping of spacial	7	Given your extensive background, can
8	data. Anything with a geographic attachment to it	8	you estimate for us the first year that you,
9	can be mapped. It has become highly electronic, and	9	personally, had some involvement in any way, snape,
10	highly sophisticated since the days of a drafting	10	or form with the City of North Wildwood? And you can
11	board and felt pens.	11	always estimate.
12	Q. Yeah.	12	A. Pretty clearly, summer of 2009.
13	A. Others deal with animal coastal interactions,	13	Q. Okay. And how did that come about?
14	salt marsh growth. Right now we're working with the	14	A. Through a joint project between the state of
15	horseshoe crab migration in Delaware Bay, followed by	15	New Jersey, Bureau of Coastal Engineering, and the
16	the red knots eating the horseshoe crab eggs for fuel	16	City of North Wildwood, to restore the beach along
17	to get to the Arctic. It's a rehabilitation of the	17	the oceanfront.
18	habitat that was damaged by Hurricane Sandy, funded	18	Q. Okay. The area that was going to be restored
19	by the Department of the Interior, as a matter of	19	was from Second Street or Avenue to 26th Street or
20	fact. And so there are folks who specialize in that.	20	Avenue?
21	And one individual is the office manager. We need	21	A. Basically, the oceanfront beach, yes.
	one of those. And then of the crew of nine, three	22	Q. Okay. And when you use the phrase oceanfront
23	are what are called temporary services employees.	23	beach, you're you would distinguish that specific
24	They work for an hour's pay for an hour's work, doing	24	area from the Hereford Inlet?
25	jobs that are assigned to them.	25	A. The shoreline?
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}		13		15
	1	Q. Yeah.	1	right.
ļ	2	A. Yes.	2	To prepare for this deposition, what
	3	O . Okay. What was your next involvement with	3	did you review?
	Ā	the City of North Wildwood after that first project?	4	A. Fairly extensive laundry list of previous
1		A The initial construction of the beach Was	5	depositions, a report by Dr. Richard Weggel, and
	a	interrupted by a northeast storm in November of 2009.	6	collected from sources out on the Internet, the
	7	Was called the Veteran's Day Storm. As a result of	7	weather of the day of the incident, the tidal
	0	the damage to the beach from that storm, since the	8	conditions on the day of the incident, and from
	0	me damage to the beach from that storm, since this	9	Google Earth, the nearest collection of aerial
	3	City of North Wildwood, they were eligible for what	10	nhotography that Google possesses.
		in Improve an a Presidential Disaster Declaration	11	Q . From what Brian told me, you didn't bring any
		is known as a presidential Disaster Declaration	12	of those items with you here today?
		reimbursement funding through the PEMA, receive	13	A No.
	13	Emergency Management Administration.	14	Ω All right Can you tell us what transcripts
1	14	So we were asked to get down there as	15	of what depositions you reviewed?
	15	soon as possible after the storm and quantity the	16	A The one from Mr. Sunderland.
11	16	damages done to the project, in terms of sand volume	17	Ö Pight
1	17	lost from the beach due to erosion, which we did.	10	A And another one that I remember being
1	18	Q. Okay. Was there another project after the	10	A. And another one that I remember being
1	19	first two that you just described?	19	nublic works director of City of North Wildwood
2	20	A. Well, this project was continuously, you	20	O Okay Did you road the transcript of the
2	21	know, suitable for FEMA reimbursement, should there	21	denosities of Chief Couplier, who is the head of the
12	22	be another disaster declaration. Turns out, there	22	All the second s
1	23	was. March 10th, 2010, December 23rd, I believe,	23	North Wildwood Beach Patrol:
	24	2010, and then Hurricane Irene in August of 2011,	24	A. I can t say that I recall doing that.
	25	and, of course, the big one on everybody's plate,	25	Q. Okay. How about Lieutenant Linusay of the
	-	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
i.		14		10
	1	Hurricane Sandy in 2012. Most recently, a northeast	1	North Wildwood Beach Patrol?
	2	storm which now has a name called lonas. January	2	A. I may have read it. It's part of the file.
		Storm which now has a name cance somely samely		and an extension of the second formula
	3	23rd, 2016.	3	But I don't recall too much from it.
	3 4	23rd, 2016. So each of these events triggers a	3	But I don't recall too much from it. Q. Okay. Now, I've had marked for
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	17		19
1	A. There's nothing there that I blatantly	1	A. Well, he they were on their way to the
2	disagree with.	2	southeast, away from the wall, when this incident
3	Q. Okay. Now, if you could go to Farrell-1,	3	occurred. They had gone the length of the beach, and
	which is the third page of your report.	4	turned around, and were headed back to where they had
	A. Yes.	5	been sitting. The various testimony I read had them
6	Q. It's right under	6	in water between ankle deep and calf deep. That's a
7	A. Yeah.	7	range of a few inches, but calf deep is definitely
8	Q Professor Weggel's report. Okay? And if	8	deeper than ankle deep. The tide was approximately
9	you look at the last full paragraph, it says quotes,	9	halfway between high tide and low tide, with the ebb
10	"I disagree with Dr. Weggel to the extent that he may	10	in full development. So there was a decent ebb
11	be saying that a shelf of sand was created and	11	current going out the inlet.
12	collapsed."	12	Q. Into the ocean?
13	Where in Dr. Weggel's report do you see	13	A. Into the ocean, yes, sir.
14	where he may be saying that a shelf of sand was	14	Q. All right.
15	created and collapsed?	15	A. According to Mr. Sunderland, they found
16	A. Where he opines that the steepness of the	16	themselves going rapidly off the edge, in some
17	channel margin equaled or exceeded his angle of	17	fashion they were unable to fully describe.
18	repose of 28 degrees.	18	The current, presumably immediately
19	Q. Okay, Could you find that in the report for	19	picked them up, and they found themselves in water
20	me?	20	over their heads before they could stand up and walk
21	A. Well, it's throughout the report. The	21	out again, if there was an ability to do that.
22	Q. Okay.	22	So they ended up being transported from
23	A. This is an analysis of slope failure.	23	ankle or calf deep water into water at least deep
24	Q. Right.	24	enough so that a current flowing would carry them
25	A. Leading to the conclusion that the slope	25	along without them being able to stand up against it.
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
1		····	
	18		20
1	18 failed due to the excessive steepness. That's	1	20 Whether or not what that depth was,
1 2	18 failed due to the excessive steepness. That's basically his thesis, which is not untrue.	1 2	20 Whether or not what that depth was, I have no idea.
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	04		23
	4	1	any statements of Dr. Weggel in his report that you
	2 Labiest to the form	2	disagree with?
	2 1 object to the form.	3	Ă. Yes.
	1 O Yeah I'm going to tell you it's accurate.	4	Q. Okay. Would you give us the first one,
	because Lives record the transcript this morning.	5	please? And tell us the page and paragraph.
	Decause 1 Just relead the transcript this morning.	6	A. Okay. First page, line three, is a minor
	but go anedu. 7 A - Would you repeat the question, please?	7	point; while walking in ankle deep water.
	Cure Blasse have the stenggrapher read it	8	Q. Okay.
	o back	9	A. Was that applied to all four individuals, or
4	9 Dack. 0 (Record read)	10	just one?
- 1 - 1	1 A Not having been there, not having reviewed	11	Q. Okay, Next.
1	2 the evidence immediately after the incident, but	12	A. Page two, the Escoffier 1977 graph is not
1	3 being familiar with the territory, it is it is	13	what Miles Hayes et al in 1970s came out with in
1	A exceedingly probable that they simply walked off the	14	terms of the title of the article they published on
1	5 steen edge of the tidal channel as it existed on that	15	this was Flood/Ebb Tidal Asymmetry, that the maximum
1	6 day in July of 2012.	16	flow does not occur at midtide. It's late in a
1	7 Q. Okay. Now, to try to save time	17	channel, because that's when the difference is the
1	8 A. Um-hum.	18	greatest between the water in the bay and the open
1	9 Q what I'm going to ask you to do is, you	19	ocean. And similarly, when the flood tide comes in,
2	0 have a highlighter there, I would like for you to go	20	the greatest volume and velocity of flow occurs just
2	1 to page one of Dr. Weggel's report, and with the	21	before the peak elevation in the tide, and then
2	2 consent of all counsel, I'm going to suggest that we	22	dissipates quickly.
2	23 go off the record and have you highlight in yellow	23	So basically, this was done on New
2	24 any statement in the 12 pages of or 13 pages of	24	England estuaries, not in New Jersey. But the tide
2	25 his report that you disagree with. And that will	25	difference is, you know, significant, but not going
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
	22		24
	1 save us time if we do it that way, instead of having	1	to make it impossible to be similar.
	2 you on the video. Okay?	2	Q. Okay. So
	3 A. Okay.	3	A. Again, this is this is just points in
	4 MR. D'AMATO: All right. So with the	4	science.
	5 consent of counsel, we'll go off the stenographic	5	Q. Okay, all right. And you've high can you
	6 record and the video record, and we'll allow Dr.	6	just show the camera what you've highlighted?
	7 Farrell to read the report. Okay? Thank you.	7	A. (Witness complies.)
	8 VIDEOGRAPHER: Time is now 10:47 a.m.	8	Q. Okay. All right. Now, the next entry?
	9 We are going off the record.	9	A. Page five, the writer's opinion in paragraph
	10 (Discussion off the record.)	10	one under the North Wildwood Iniet Beach Conditions
	11 MR. HUNKINS: We've had some	11	at the time of browning, this hist paragraph, this
	12 discussions about Dr. Farrell, and the timing of his	12	The energies data that you're referring to is
	13 deposition, and I think we have an agreement that if	13	Q. The specific data that you're referring to is
	14 necessary, the state can serve a supplemental report	14	what:
	15 by Dr. Farrell, and if we were to do that, you know,	10	A. The slope conditions, and the root att of the
	16 he could be deposed again.	10	randre of the edge of the channel was part of sta
	17 MR. D'AMATO: Lagree.	10	cquation that was manuatory to cause this inclusion to
	18 MR. HUNKINS: Thanks.	10	
	19 (Discussion off the record.)	18	A Resulted in the heach sloughing into the
	20 (Aerial photograph received and marked	20	A. Resulted in the beach and gring into the
	21 for identification as Exhibit Farrell-6.)	21	 channely carrying etc. smith and its companions into the abbing current
1	VIDEOGRAPHER: Time is now 11:01 a.m.	44	O Okay The second centerce of that naradranh
-	23 We are back on the record.	20	the cover audites "A deep hole adjacent to the North
	24 BY MR. D'AMATO:	24	 Says quotes, in deep note tagaterit to the working Wildwood jolet shoreline is a persistent feature
	25 Q. Dr. Farrell, have you highlighted in yellow	2	WORD FOR WORD REPORTING. LLC
1	WORD FOR WORD REPORTING, LLC		TTOTOT FOR TOTOL OF CHILDED

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 along this beach." To you disagree with the 27 along this beach." To you disagree with the 27 a. True or false? Yes and no. I mean, it happens. Q. Kay. Do you have an opinion as to how frequently there is a, quotes, deep hole lands this beach? A. No, I do not. M. HUKINS: Suit object to the form. Do you want to clarify where along the beach? M. R. DYAMTO: Well, Tru talking about 17 The Intel Beach, Moore's Beach. M. R. HUKINS: Suit object to the form. M. R. DYAMTO: Well, Tru talking about 18 The Intel Beach, Moore's Beach. M. R. HUKINS: Carl just make a gugestion? I have a substantive commant. Tim going to suggest standing the variable of a drop-off, as he 14 that lake about a second hole of drop-off, as he 14 that sabout a second hole of drop-off, as he 14 that sabout a second hole of drop-off, as he 14 that sabout a second hole of drop-off, as he 14 that sabout a second hole of drop-off, as he 14 that sabout a second hole of drop-off, as he 14 that sabout a second hole of drop-off, as he 14 that sabout a second hole of drop-off, as he 14 that sabout a second hole of drop-off, as he 14 that sabout a second hole of drop-off, as he 14 that sabout a second hole cotorins. But my 110 and, 18 wert into the water. Farrell, you can ask him, is of 14 were a whitpool at or around where Standerhand were in the draw and the bioks that there's a whitpool to ar about shing in dow 11:0 a.m. M. HUKINS: Not, WCRD REPORTING, LLC work a second? work a second hole, quote, "adjacent to the rook wall. M. HUKINS: Yeah, turbulent. So my 11:0 a.m. M. HUKINS: Not, WCRD REPORTING, LLC work a second hole, quote, "adjacent to the rook wall. work a second of the resord. M. HUKINS: Not, N. HUKINS: Yeah, turbulent. So my 11:0 a.m. worki the asynd hole, quote, "adjacent to the shorte is a turbulence. M. HUKINS: Yeah, turbu					27
Integration A. True or faise? Yes and no. I mean, it The dependent of the channel that's A. True or faise? Yes and no. I mean, it The dependent of the channel that's Sunderland stepped into, not this dependent of the channel that's Q. Okay. Do you have an opinion as to how frequently there is a, quotes, deep hole along this beach? Sunderland stepped into, not this deep hole hata's Co. You was a substantive comment. True opinion MR. CHARSSI: Of course, that's very MR. HUNKINS: Can J ust make a MR. HUNKINS: Can J ust make a Suggestion? I have a substantive comment. True opinion The failer, The tables about of the commission of the case MR. DAMATO: Yeah. Let me ask you, would have tried to find where it s another one that the case The table depude where is another one that the case MR. DAMATO: Yeah. Let me ask you, would have tried to find where it s another one that the case The adjust of the colorid. MR. MUNKINS: No. MR. HUNKINS: No. The deploit of the commission that the case MR. MUNKINS: No. MR. HUNKINS: No. The deploit of the commission that the case MR. MUNKINS: No. MR. HUNKINS: No. The deploit of the commission that the case MR. MUNKINS: No. MR. HUNKINS: No. MR. HUNKINS: No. MR. MARCINS: No. MR. HUNKINS: No. MR. HUNKINS: No. <th></th> <th></th> <th>25</th> <th>1</th> <th>this deposition in his opinion, it was a the</th>			25	1	this deposition in his opinion, it was a the
 A. True or tailse? Yes and no. 1 mean, it's construction of the dep hole along the integration of the set of the tree of the test of the tree of the test of the test		1	along this beach." Do you disagree with that?	2	tidal the margin slope of the channel that
 anapers. G. Okay. Do you have an opinion as to how frequently there is a quotes, deep hole along this beach? A. No, I do not. M. P. MKINS: Just object to the form. M. P. MKINS: Just object to the form. Do you was to clarify where along the beach? M. P. MKINS: Can I just make a suggestion? I have a substantive comment. I'm going to do might next there's a vortex or light next to for 12 seconds. Suggestion? I have a substantive comment. I'm going to form the case withing the withers on the tax takes about a second hole or dropoff, as he case withing the wither is another one that to reaso the withing of the second withing about, they call it to the rock wall, and that where it as all two locations. would at correct the objection of were triad to ind where it as all two locations. would at correct help exching the withers out of the room just for 12 seconds. would at correct help exching the withers of at least 10 years. So just - so I integrates no testimony in the case that tax about a second hole or dropoff, as he calls it, associdaed with a vortex at that point. would have the sign double were triad to lind where it as all two locations. would have the sole the second it is near to set the point of the water. Farrell, you can ask him, is of mere seconds. J think Farrell dous believe that there's a neither of two releases that there's a neithform to a second hole or dropation for two WORD FOR WORD REPORTING, LLC would have the sole there is a goote. Account is spoot, and it is asset. Ad I think it's evident from Dr. Farrell's report. You as ask him, it's not elar, but there is a fair amount of - it might be in his report says a deep hole, guote, "alignent to the sole there is a goote. Cachin are alytic, addigaent to the rock wall. would have treastim there is a sonother or use of the record. <li< th=""><th></th><th>2</th><th>A. True or false? Yes and no. I mean, it</th><th>2</th><th>Sunderland stepped into not this deep hole that's</th></li<>		2	A. True or false? Yes and no. I mean, it	2	Sunderland stepped into not this deep hole that's
 G. Okay. Do you have an opnion as to now frequently there is a quotes, deep hole along this becah? only up at the rock wall. Do you want to clarify where along the beach? Do you want to clarify where along the beach? Do you want to clarify where along the beach? Do you want to clarify where along the beach? The hiel beach. Moore's Beach. suggestor 71 have a substantive comment. I'm going to ''. suggestor 71 have a substantive comment. I'm going to ''. suggestor 71 have a substantive comment. I'm going to ''. suggestor 71 have a substantive comment. I'm going to ''. suggestor 1 have a substantive comment. I'm going to ''. suggestor 1 have a substantive comment. I'm going to ''. suggestor and the withers with a solut a second hole or drop-off, as he suggestor and the withers with a solut as conductions. But my conductions		3	happens.	3	croated by the whiringol Because the whiringol is
Image: Product Procession Processin Processin Processin Procession Procession Procession Procession P		·	Q. Okay. Do you have an opinion as to how	4	only up at the rock wall
 Besh? A. No, I do not. M. HUNKINS: Just object to the form. Do you want to clarify where along the beach? M. D'ANATO: Well, T'm talking about the Hereford Talet, T'm talking about, they call it The finite Beach, More's Beach. Suggests beach. Suggests beach. M.R. UNKINS: Can J just make a suggests battice Comment. I'm going to suggest sending the witness out of the room just for 12 seconds. M.R. D'ANATO: Yeah. Let me ask you, would it cure the objection if I were to get the exhibit that we used with Chief Cavaller, where he said, okay, here's Moore's Beach, here's The Inlet Beach, and he blocked it off? esolve this real fast. Do you mind stepping out for WORD FOR WORD REPORTING, LLC We are off the record. (Witness excused.) M.R. HUNKINS: Colay. word there faster, Out Cavalier's any the class and the booked it off? gast a second? We are off the record. (Witness excused.) M.R. HUNKINS: Colay. We are off the record. (Witness excused.) M.R. HUNKINS: Colay. M.R. HUNKINS			frequently there is a, quotes, deep hole along this	5	MP D'AMATO, All right You know what
7 A. No, T do not. Imaging to 00 ⁻¹⁰ 8 MR, HUNKINS: Just object to the form. 9 O you want to clarify where along the backh? 10 MR, DYAMTO: Well, Tim talking about they call it 11 The Inite Each, Moore's Beach. 12 The Inite Each, Moore's Beach. 13 MR, HUNKINS: Can J just make a 14 suggestion? I have a substantive comment. I'm going 15 to suggest sending the witness out of the room just 16 for 12 seconds. 17 MR, DYAMTO: Yeah. Let me ask you, 18 would it cure the objection if I were to get the 19 exhibit that we used with Chief Cavalier, where he 19 exhibit that we used with Chief Cavalier, where he 19 resolve this real fast. Do you mind stepping out for 10 mere seconds? 11 just a second? 12 Just a second? 13 MR., DVAMTO: Okay. 14 We are of the record. 15 report says a deep hole, guote, "adjacent to the 16 MR. HUNKINS: Okay. 17 MR. DYAMATO: Okay. 16 <t< th=""><th></th><th>6</th><th>beach?</th><th>0</th><th>I'm going to do</th></t<>		6	beach?	0	I'm going to do
8 MR. HUNKINS: Just object to the form. 9 0 0 PUS USAN TO Cavalier says. Tory 9 Do you want to clarify where along the beach? 9 different than what Torn? Cavalier says. Tory 10 MR. DVANATO: Well, I'm talking about, they call it 10 Cavalier says that there's a vorter sen that 11 The linet Beach, moore's Beach. 11 the thereford for at least 10 years. So Just so I 13 MR. HUNKINS: Can J just make a 11 that subgestore one that 14 subgestore stantive comment. Tim ogina 16 reace of the case 14 that talks about a second hole or drop-off, as he calls it, associated with a vortex at that point. 16 for 12 seconds. MR. HUNKINS: Statt think were to get the 18 18 exhibit that we used with Chief Cavalier, where he 18 would have tried to find where stadt wool locations. 12 MR. DAWATO: Okay. 24 MR. HUNKINS: But think we can 24 14 Mater fast. Do you mind stepping out for We are off the record. 26 14 that second? 26 14 We the pointon that that doesn' hand where Sund		7	A. No, I do not.	(I III going to do
9 Do you want to clarify where atong the beach? 9 Dimensional clarify where atong the beach? 10 MR. DYAMATO: Well, The taking about, they call it 10 Cavaller says that there's a vortex or right next 11 the Hereford Indt, I'm taking about, they call it 10 Cavaller says that there's a vortex or right next 12 the Inter Beach, Moore's Beach. 11 to the rock wall, and that there's a vortex or right next 14 the Inter Beach, Moore's Beach. 11 to the rock wall, and that there's a vortex or right next 15 to suggestion? I have a substantive comment. I'm going 13 mean, it's not a sif there's no testimony in the case 16 for 12 seconds. If' man, PAMATO: Yeah. Let me ask you, 16 MR. HUNKINS: Rol, I'And earlier 16 would it curve the objection if I were to get the 16 MR. HUNKINS: No. 20 16 MR. DVAMATO: Okay. 20 11 the opinion that that deesn't happen there. 16 17 MR. HUNKINS: No. 23 MR. HUNKINS: No. 23 MR. HUNKINS: No. 23 24 MR. HUNKINS: No. 24 MR. HUNKINS: No.		8	MR. HUNKINS: Just object to the form.	Ö	different than what Tony Cavalier cave Tony
10 MR, DYAMATO: Well, I'm taking about 10 Cavaler says that there is another one that 11 the Hereford Inlet, I'm taking about, they call it 11 The Inlet Beach, Moore's Beach. 12 The Inlet Beach, Moore's Beach. 11 The thereford Inlet, I'm taking about, they call it 13 MR, HUNKINS: Can I just make a 11 The rock wall, and that there is another one that 14 the subjection if I were to get the 12 calls it, associated with a vortex at that point. 16 for 12 seconds. 17 that tails about a second hole or drop-off, as he 17 that tails about a second hole or drop-off, as he calls it, associated with a vortex at that point. 18 would it cure the objection if I were to get the 14 that tails about a second hole or drop-off, as he 19 exhibit the Chief Cavalier, where he 16 MR. HUNKINS: Not. 17 18 exhibit the Chief Cavalier, where he 18 today. I put if I had Cavalier's dep with me, I 19 exhibit the Chief Cavalier, Marce he 10 would have tried to find where it said two locations. 20 MR. HUNKINS: Wolt think we can 20 <td< th=""><th></th><th>9</th><th>Do you want to clarify where along the beach?</th><th>9</th><th>Covalian cove that there's a vertex or right next</th></td<>		9	Do you want to clarify where along the beach?	9	Covalian cove that there's a vertex or right next
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12 The Inite Beach, Moore's Beach. 12 The Iso Control of Least Dynamics Social Sciences Scie	1	11	the Hereford Inlet, I'm talking about, they call it	11	to the rock wall, and that there is another one that
13 MR. HUNKINS: Can I just make a 13 mean, it's not as it there's no testimony in the case 14 suggest sending the witness out of the room just to to suggest sending the witness out of the room just to for 12 seconds. 14 That taiks about a second hole or drop-off, as he 16 for 12 seconds. MR. PUMKINS: Right. And earlier 15 17 MR. D/AMATO: Yeah. Let me ask you, 16 MR. HUNKINS: Right. And earlier 18 would it cure the objection if I were to get the 18 would have tried to find where it said two locations. But my 19 skid, okay, here'S Moore's Beach, here's The Inlet 18 would have tried to find where it said two locations. But my 12 MR. D/AMATO: Okay. 12 there's a hir inposition of everything I've heard is that 12 MR. HUNKINS: Sut I think we can 26 14 the option that that doesset'h appen there. Whatever 14 were second? 12 with the rock wall. 28 15 resolve this real fast. Do you mind stepping out for 26 28 19 just a second? 26 with the rock wall. 20 MR. D/AMATO: Okay. 26 3 wore seconds, I think Farrell aces believe that	1	12	The Inlet Beach, Moore's Beach.	12	ne s observed for at least 10 years. So just - so I
14 suggestion? I have a substantive comment. I'm going 14 that takes about a second inde of under	1	13	MR. HUNKINS: Can I just make a	13	mean, it's not as it there's no testimony in the case
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4	We are back on the record	1		MR. HUNKINS: Object to form.	
1	We are back on the record.	2	Q.	Who?	
2	BY MR, D'AMATO:	3	A	It would be the cumulated information that I	
3	U. Doctor, the deputy attorney general wore the	4	read in	preparation for this case, in the	
	down, so I withdrew the question. But we re going to	5	denociti	ions.	
-	get on move on here.	6	O	Okay. And when you read those depositions.	
6	All right. Can you go to the next	7	did vou l	highlight them, mark them up as to	
7	entry in Professor weggers report that you disagree	8	Δ	No.	
8	with?	a	0	areas that you thought were important?	
9	A. Page six, figure six. This is a close-up	10	Δ.	No.	
10	view of one of our maps done for State of New Jersey.	11	C.	Okay. You told me you read Mr. Sunderland's	
11	The reature that he's pointing to with his black	12	denositi	on, and Harry Wozunk, his deposition,	
12	arrow in the drawing is actually the feature that was	13	correct?		
13	present at the time of the incident that was built by	14	A.	Yes.	
14	the moding tide, not a whiripool, not the ebb tide.	15	Q.	Can you think of anybody else that you read?	
15	Inis reature had been there for months preceding this	16	Α.	Well, the names escape me	
10	Incluent, in 2011 and 2012. It's a weage of salu	17	Q.	Okay.	
17	attached to the beach that has a very relatively	18	A.	but I did read through others.	
18	gentie channel-ward slope, but a very steep slope at	19	Q.	All right. When we take a quick 15-minute	
19	O All right. You used the phrase flooding tide	20	luncheo	n break at around 12 o'clock, is there someone	
20	a couple times	21	that you	I could call that could just give you the	
21		22	names	of the other transcripts that you read?	
22	What is the definition of a flooding tide?	23	Α.	No.	
23	A Slood tide starts after what is called low	24	Q.	Were the transcripts at your home?	
24	tide clack water. In other words, the current comes	25	Α.	No.	
20	WORD FOR WORD REPORTING. LLC			WORD FOR WORD REPORTING, LLC	
1	30			32	
*	30 to a stop. The water reverses direction and begins	1	Q.	32 Where are they?	
1	30 to a stop. The water reverses direction and begins moving back into the inlet to raise the water level	1 2	Q. A.	32 Where are they? On my computer	
1 2 3	30 to a stop. The water reverses direction and begins moving back into the inlet to raise the water level in the bays the inlet serves. And so the flooding	1 2 3	Q. A. Q.	32 Where are they? On my computer Okay.	
1 2 3 4	30 to a stop. The water reverses direction and begins moving back into the inlet to raise the water level in the bays the inlet serves. And so the flooding tide is the movement of the ocean water into the	1 2 3 4	Q. A. Q. A.	32 Where are they? On my computer Okay. at work.	
1 2 3 4 5	30 to a stop. The water reverses direction and begins moving back into the inlet to raise the water level in the bays the inlet serves. And so the flooding tide is the movement of the ocean water into the inlet, into the bays. The ebbing tide is the reverse	1 2 3 4 5	Q. A. Q. A. Q.	32 Where are they? On my computer Okay. at work. Can you access your computer remotely?	
1 2 3 4 5 6	30 to a stop. The water reverses direction and begins moving back into the inlet to raise the water level in the bays the inlet serves. And so the flooding tide is the movement of the ocean water into the inlet, into the bays. The ebbing tide is the reverse of that, where the bay water empties out the inlet	1 2 3 4 5 6	Q. A. Q. A. Q. A.	32 Where are they? On my computer Okay. at work. Can you access your computer remotely? No.	
1 2 3 4 5 6 7	30 to a stop. The water reverses direction and begins moving back into the inlet to raise the water level in the bays the inlet serves. And so the flooding tide is the movement of the ocean water into the inlet, into the bays. The ebbing tide is the reverse of that, where the bay water empties out the inlet into the ocean.	1 2 3 4 5 6 7	Q. A. Q. A. Q. A. Q.	32 Where are they? On my computer Okay. at work. Can you access your computer remotely? No. Okay. All right. Well, if we can make a	
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8 of 61 sheets

*	33		35
1	I would like you to look at the various	1	tides at Inlet Beach change very quickly and often
2	bullet points, and just, I think if I go through this	2	without notice."
3	with you, it could be faster.	3	A. True.
	A. Okay.	4	Q. Okay. Next bullet point: Quotes, "Farrell
	Q. And Mr. DiJoseph attributes your saying	5	was not sure what the municipal what the municipal
6	certain things, and I want to go over the bullet	6	regulations apply to Inlet Beach, but stated that the
7	points to see if you believe that Mr. DiJoseph	7	City of North Wildwood does allow for persons to
8	accurately stated in his report what you said.	8	enter the area of The Inlet Beach."
ğ	So the first paragraph states: Quotes,	9	A. Correct.
10	"Farrell was asked if he was familiar with the	10	Q. Okay. "During the endangered species nesting
11	upprotected North Wildwood Beach section where the	11	period, which ends August 15th of every year, access
12	Smith drowning occurred, and he replied ves. Farrell	12	to Inlet Beach is denied to the public because of the
12	said that the area of the unprotected beach at	13	area nesting."
17	Hereford Inlet was not part of the beach	14	A. This is correct.
14	replenishment process, and was specifically	15	Q. Next bullet point: Quotes, "Farrell read
10	included"	16	about the Smith drowning in the newspaper, and does
47		17	not believe that the City of North Wildwood and the
40	• "Evoluted " thank you "by the permitting	18	State of New Jersey provide maintenance to Inlet
10	aconcios Earrell referred to that specific area of	19	Beach."
10	the beach as The Inlet Beach " Is that accurate?	20	A. That is my belief.
20	A Accurate	21	Q. Okay. Now, I'd like to ask you a question.
21	O Okay Next page second bullet point:	22	I think it will be better if I ask you now.
22	Quotes "The Tolet Beach was created by natural ocean	23	When you mean maintenance, what type of
23	crossion of the oceanfront heach, which hegan in	24	maintenance were you referring to?
24	anarovimately 1998 "	25	A. Bringing in sand supplies, modifying the
20	WORD FOR WORD REPORTING. LLC		WORD FOR WORD REPORTING, LLC
	34		36
4	A Correct	1	slope gradient, dune field, other sorts of features.
2	• • • • • • • • • • • • • • • • • • •	2	I'm not talking about picking up trash.
2	is 60-foot deep in some areas, and has some	3	Q. Okay. All right. What you just described is
3	interacting current natterns due to waves and tidal	4	beach replenishment?
4	automatic and flooding. All of which"	5	A. Correct.
	MP HUNKINS: Do you mind if I it's	6	Q. Okay,
	MR. HUNKINS, DO you mind if we stop after	7	A. Well, yes, Beach replenishment means you
	your deposition. But do you mind it we stop ditter	8	increasing the sand volume. But there are other
	b every sentence and allow him to suy whether it's	9	things one does to rearrange it. So all of those
		10	things.
		11	Q. Okay, All right. Next sentence: Quotes,
		12	"The Inlet Beach area is, quotes, 'natural and never
1 14	C OKAY, SUTH	140	I have not after baseds replanishment project! "
140		113	has been part of a beach repletionment project.
13	A. Okay.	13	A. Correct.
13	 A. Okay. Q. Okay. We'll do it that way. Okay. Lot me read that last sentence 	13 14 15	A. Correct. Q. "Beach sand replenishment starts at the
13 14 15	 A. Okay. Q. Okay. We'll do it that way. Okay. Let me read that last sentence 	13 14 15 16	A. Correct. Q. "Beach sand replenishment starts at the Second Street jetty and proceeds south."
13 14 13 16	 A. Okay. Q. Okay. We'll do it that way. Okay. Let me read that last sentence here. 	13 14 15 16	A. Correct. Q. "Beach sand replenishment starts at the Second Street jetty and proceeds south." A. Correct.
13 14 18 10 17	 A. Okay. Q. Okay. We'll do it that way. Okay. Let me read that last sentence here. "The inlet waterway next to The Inlet Beach is 60 feat dop in some areas and has some 	13 14 15 16 17 18	A. Correct. Q. "Beach sand replenishment starts at the Second Street jetty and proceeds south." A. Correct. Q. "The Second Street jetty was buried by sand
13 14 18 16 17 18	 A. Okay. Q. Okay. We'll do it that way. Okay. Let me read that last sentence here. "The inlet waterway next to The Inlet Beach is 60-foot dep in some areas and has some Interesting current patterns due to wayes and tidal 	13 14 15 16 17 18	 A. Correct. Q. "Beach sand replenishment starts at the Second Street jetty and proceeds south." A. Correct. Q. "The Second Street jetty was buried by sand in 2009."
13 14 18 10 17 10 17	 A. Okay. Q. Okay. We'll do it that way. Okay. Let me read that last sentence here. "The inlet waterway next to The Inlet Beach is 60-foot dep in some areas and has some interesting current patterns due to waves and tidal 	13 14 15 16 17 18 19 20	 A. Correct. Q. "Beach sand replenishment starts at the Second Street jetty and proceeds south." A. Correct. Q. "The Second Street jetty was buried by sand in 2009." A. Yes, that is true.
13 14 18 16 17 18 19 20	 A. Okay. Q. Okay. We'll do it that way. Okay. Let me read that last sentence here. "The inlet waterway next to The Inlet Beach is 60-foot dep in some areas and has some interesting current patterns due to waves and tidal currents and flooding." 	13 14 15 16 17 18 19 20 21	 A. Correct. Q. "Beach sand replenishment starts at the Second Street jetty and proceeds south." A. Correct. Q. "The Second Street jetty was buried by sand in 2009." A. Yes, that is true. Q. Now, at this point, he says quotes, "Note,
13 14 18 16 17 18 19 20 20	 A. Okay. Q. Okay. We'll do it that way. Okay. Let me read that last sentence here. "The inlet waterway next to The Inlet Beach is 60-foot dep in some areas and has some interesting current patterns due to waves and tidal currents and flooding." A. Yeah, that's correct. 	13 14 15 16 17 18 19 20 21 21	 A. Correct. Q. "Beach sand replenishment starts at the Second Street jetty and proceeds south." A. Correct. Q. "The Second Street jetty was buried by sand in 2009." A. Yes, that is true. Q. Now, at this point, he says quotes, "Note, the Second Street jetty is approximately 300 yards
13 12 18 16 17 18 19 20 22	 A. Okay. Q. Okay. We'll do it that way. Okay. Let me read that last sentence here. "The inlet waterway next to The Inlet Beach is 60-foot dep in some areas and has some interesting current patterns due to waves and tidal currents and flooding." A. Yeah, that's correct. Q. "All of which contribute to the displacement 	13 14 15 16 17 18 19 20 21 22 22	 A. Correct. Q. "Beach sand replenishment starts at the Second Street jetty and proceeds south." A. Correct. Q. "The Second Street jetty was buried by sand in 2009." A. Yes, that is true. Q. Now, at this point, he says quotes, "Note, the Second Street jetty is approximately 300 yards south of the area where the Bradlev Smith entered the
13 14 15 16 17 16 17 16 17 16 17 20 20 20 20	 A. Okay. Q. Okay. We'll do it that way. Okay. Let me read that last sentence here. "The inlet waterway next to The Inlet Beach is 60-foot dep in some areas and has some interesting current patterns due to waves and tidal currents and flooding." A. Yeah, that's correct. Q. "All of which contribute to the displacement of sand around the beach." 	13 14 15 16 17 18 19 20 21 22 23 24	 A. Correct. Q. "Beach sand replenishment starts at the Second Street jetty and proceeds south." A. Correct. Q. "The Second Street jetty was buried by sand in 2009." A. Yes, that is true. Q. Now, at this point, he says quotes, "Note, the Second Street jetty is approximately 300 yards south of the area where the Bradley Smith entered the water."
13 14 15 16 17 16 17 16 17 16 17 16 17 18 19 20 20 20 20 20 20	 A. Okay. Q. Okay. We'll do it that way. Okay. Let me read that last sentence here. "The inlet waterway next to The Inlet Beach is 60-foot dep in some areas and has some interesting current patterns due to waves and tidal currents and flooding." A. Yeah, that's correct. Q. "All of which contribute to the displacement of sand around the beach." A. Yes. Q. "Samell agid that the surrent pattern and 	13 14 15 16 17 18 19 20 21 22 23 24 25	 A. Correct. Q. "Beach sand replenishment starts at the Second Street jetty and proceeds south." A. Correct. Q. "The Second Street jetty was buried by sand in 2009." A. Yes, that is true. Q. Now, at this point, he says quotes, "Note, the Second Street jetty is approximately 300 yards south of the area where the Bradley Smith entered the water."
13 14 15 16 17 16 17 16 17 20 22 22 24 22 24 22 24 22	 A. Okay. Q. Okay. We'll do it that way. Okay. Let me read that last sentence here. "The inlet waterway next to The Inlet Beach is 60-foot dep in some areas and has some interesting current patterns due to waves and tidal currents and flooding." A. Yeah, that's correct. Q. "All of which contribute to the displacement of sand around the beach." A. Yes. Q. "Farrell said that the current pattern and 	13 14 15 16 17 18 19 20 21 22 23 24 25	 A. Correct. Q. "Beach sand replenishment starts at the Second Street jetty and proceeds south." A. Correct. Q. "The Second Street jetty was buried by sand in 2009." A. Yes, that is true. Q. Now, at this point, he says quotes, "Note, the Second Street jetty is approximately 300 yards south of the area where the Bradley Smith entered the water." Would you be in a position to agree or WORD FOR WORD REPORTING, LLC

	37	-	39
1	disagree with that?	1	tidal currents at Inlet Beach are, quotes, 'fierce
2	MR. HUNKINS; Object to the form.	2	and can get very nasty'."
2	Δ 300 vards is 900 feet. The Second Street	3	A. That is generally true.
4	jetty is 2400 feet from the point of water entry.	4	Q. All right. How do you know that?
		5	A. We've measured them.
6	Δ I disagree.	6	Q. Okay. And let's say from 2009 up until July
7	O You disagree okay.	7	of 2012, can you estimate how many times you measured
י א	Next hullet point: Ouotes, "Numerous	8	these tidal currents?
0	northeasters storms have since wined out most of the	9	A. Twice a year; fall and spring.
10	heach replenishment near the Second Street jetty	10	Q. Okay. We obtained a lot of documents online
11	system, and the permitting agencies do not replenish	11	from the institute.
17	system, and the permitting agencies in the second Street jetty."	12	A. Oh, okay.
12	A Correct	13	Q. Yeah, your institute.
13	• Okay "Earrell described the permitting	14	A. Um-hum.
16	agencies as the City of North Wildwood and the State	15	Q. In what generic document would these
16	of New Jersey "	16	measurements be located that you just described?
17	A That's they're not permitting agency. The	17	A. They're not. They weren't required by the
17	State of New Jersey is a permitting agency. Wildwood	18	permitting agency, so we just never included them.
10	State of New Sersey is a portinition of a service	19	Q. Okay.
19	O Okay Maxt "Farrell believes the property	20	A. They're just raw data.
20	Lineway as Inlat Reach is owned by the City of North	21	Q. All right. If we needed that raw data, data,
21	Kilowit as Thiet beach is owned by the only of the term	22	that you just described, could you get that to Brian?
22	A That's a belief. I don't know it for sure.	23	A. Yes.
23	A. Mat's a benefit if won't known to the bar and	24	Q. Okay. Now, when you measure the tidal
24	that is a New Jarsey state park located inland near	25	currents, in your world, do you measure in miles per
25	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
	38		40
1	Surf Street "	1	hour?
1	Surf Street." A That's not correct.	1	hour? A. They can be converted to miles per hour.
1 2 3	Surf Street." A. That's not correct. O Okay	1 2 3	hour? A. They can be converted to miles per hour. Usually, it's in feet or meters per second.
1 2 3 4	Surf Street." A. That's not correct. Q. Okay. A. It's pear New York.	1 2 3 4	hour? A. They can be converted to miles per hour. Usually, it's in feet or meters per second. Q. Okay. And just given your experience with
1 2 3 4 5	Surf Street." A. That's not correct. Q. Okay. A. It's near New York. O New York Avenue, you mean?	1 2 3 4 5	 hour? A. They can be converted to miles per hour. Usually, it's in feet or meters per second. Q. Okay. And just given your experience with the measurements of the tidal currents at The Inlet
1 2 3 4 5 6	 Surf Street." A. That's not correct. Q. Okay. A. It's near New York. Q. New York Avenue, you mean? A. Yeah. New York Avenue. 	1 2 3 4 5 6	 hour? A. They can be converted to miles per hour. Usually, it's in feet or meters per second. Q. Okay. And just given your experience with the measurements of the tidal currents at The Inlet Beach, can you just give us an estimate of the a
1 2 3 4 5 6 7	 Surf Street." A. That's not correct. Q. Okay. A. It's near New York. Q. New York Avenue, you mean? A. Yeah, New York Avenue. Q. Okay. Next. "Farrell was not sure if the 	1 2 3 4 5 6 7	 hour? A. They can be converted to miles per hour. Usually, it's in feet or meters per second. Q. Okay. And just given your experience with the measurements of the tidal currents at The Inlet Beach, can you just give us an estimate of the a low and a high in miles per hour for the currents?
1 2 3 4 5 6 7 8	 Surf Street." A. That's not correct. Q. Okay. A. It's near New York. Q. New York Avenue, you mean? A. Yeah, New York Avenue. Q. Okay. Next, "Farrell was not sure if the sandbar known as Champagne Island, located in the 	1 2 3 4 5 6 7 8	 hour? A. They can be converted to miles per hour. Usually, it's in feet or meters per second. Q. Okay. And just given your experience with the measurements of the tidal currents at The Inlet Beach, can you just give us an estimate of the a low and a high in miles per hour for the currents? Just an estimate.
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			13
		4	reing out and cross over the submerged part of the
1	than one finds in the very heavily controlled inlet	2	joing out and cross over the submerged part of the
2	of Barnegat Inlet, which has rock jettles on both	2	jetty at mgn fide, to his much chagin, the account
3	sides, so the current streams out between the jettles	3	O lim hum
	and moves faster.	4 5 E	Q. On-num. A Contraction the reason they did it. It was
	Q. Okay. That was where?	0	A. So that's the reason they during it was
6	A. Barnegat Inlet.	6	caused by the vagrancies of the channel position on a
7	Q. You know, I read so much background material		day-to-day basis, the problems with the st there s a
8	on this case, I want to make sure I understand	8	tisning neet that uses it regularly and
9	something.	9	commercially, and so therefore, they decided it was
10	What does the existence of jetties in	10	worth improving.
11	the Barnegat Inlet have to do with the tidal	11	Q. Okay. If the Barnegat Inlet, going back to
12	currents?	12	my question, only had one jetty on one side, and the
13	A. Well, they form a non-movable barrier to	13	other side did not have a jetty, what effect would
14	flow. The rocks stay put. The channel is therefore	14	the existence of one jetty have on those tidal
15	confined between the rocks. And in Barnegat, they're	15	currents?
16	about 350 feet apart, those two jetties. And as	16	MR. HUNKINS: Object to the form.
17	such, that means that all of the tidal water has to	17	A. They would be more unpredictable and more
18	flow between those two rock jetties. There's no	18	variable.
19	Champagne Island to flow across. There's no north	19	Q. Okay. Would the existence of the channel
20	channel out past Stone Harbor to flow past. So you	20	have more ability to move periodically because there
21	have concentrated the flow in a fairly restricted	21	was only one jetty?
22	cross section.	22	MR. HUNKINS: Object to the form.
23	Q. If the Barnegat Inlet that we're talking	23	A. It would move more widely within a range of
24	about and I did read some materials on that	24	possibilities. The one jetty being the anchor for
25	only had one jetty, as opposed to two, what effect	25	big time movements.
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
	42		44
1	42 would that have on the tidal currents that run	1	44 The reason the jetties were built
1 2	42 would that have on the tidal currents that run through that inlet?	1 2	44 The reason the jetties were built initially was because the inlet was migrating into
1 2 3	42 would that have on the tidal currents that run through that inlet? A. If you go back prior to 1990, the jetties	1 2 3	44 The reason the jetties were built initially was because the inlet was migrating into Barnegat Inlet Barnegat Light Borough and
1 2 3 4	42 would that have on the tidal currents that run through that inlet? A. If you go back prior to 1990, the jetties were vastly different than they are today. There was	1 2 3 4	44 The reason the jetties were built initially was because the inlet was migrating into Barnegat Inlet Barnegat Light Borough and consuming it.
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 24 25	42 would that have on the tidal currents that run through that inlet? A. If you go back prior to 1990, the jettles were vastly different than they are today. There was a north jetty and a south jetty, which was built at a big angle to the north jetty. So folks called them the arrowhead jettles, because they came together at the very opening to the sea. And so the tidal flow between the two jettles was unpredictable and extremely variable, such that a navigator going out to sea in the morning would find a different channel pathway coming home. That happened more than once. And the accident rate was fairly high. So in 1988, '89, the Philadelphia District decided to realign the south Barnegat Inlet jetty parallel with the northern one to actually define the channel more succinctly. It was an engineering solution, and so they brought in lots of rocks and rebuilt the jetty. And since then, the channel has obviously stayed between the rocks, and dredging needs declined, because the faster flow kept it flushed out and deeper. And other than the errant boater who, at high tide, decides to take a fast port side turn	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	 The reason the jetties were built initially was because the inlet was migrating into Barnegat Inlet Barnegat Light Borough and consuming it. Q. I don't know if you saw these, but we took the deposition of the engineer of Cape May County. A. No, I did not. Q. Okaý. And I'm going to hand this to you. These were the aerial photographs that were attached to his transcript. Let me hand it to you. The exhibit was marked as County Designee 4 at a deposition on July 23, 2015. Take that. And if you just could quickly look at go to the third page. You'll see that yeah, third page, in the upper left-hand corner if you want to turn it this way there you go. You see the upper left-hand corner, it says number two? A. Yes. Q. Okay. So that's the that's an aerial map from Cape May County for the year 2012. Okay? If you go to number three, that's the aerial map for 2007. And if you go to number four, that's the aerial map for 2002. If you go to number five,

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	45		47
1	that's the aerial map for 2000. And if you look at	1	could you control the path of the tidal currents
2	number six, that's an aerial map from 1941. And if	2	similar to the Barnegat Inlet?
3	you look at number seven, that's an aerial map for	3	MR. HUNKINS: Hold your answer. He's
•	1930. And if you look at number eight, there's an	4	not being offered for any opinions on that.
	aerial map for 1930.	5	MR. D'AMATO: This is a discovery
6	Now, would you agree that the actual	6	deposition. I can I can explore this. He's been
7	inlet that is referred to as the Hereford Inlet, as	7	offered as an expert.
8	noted in these aerial photographs that we just looked	8	MR. HUNKINS: Same thing for so I'm
9	at, moves periodically, the actual inlet, where the	9	clear, your question is if a wall was built.
10	water is, moves, changes locations?	10	MR. D'AMATO: Well, I'll have the
11	A. Are we talking about the inlet, or its main	11	question read back.
12	channel?	12	MR. HUNKINS: Yeah, maybe you could
13	Q. The main channel.	13	have it read back. Thanks.
14	A. The answer is yes,	14	(Record read.)
15	Q. Okay, Why does that happen?	15	A. It would be
16	A. Because it's the equilibrium for the moment	16	MR. HUNKINS: Just hold your answer for
17	in time between the water volume, the tidal change,	17	a second.
18	high low high to low, the vertical tidal change,	18	MR. ROZELL: I'm going to object to the
19	and the wave conditions that are present in the ocean	19	form regardless.
20	over a period of months or weeks or even years.	20	MR. D'AMATO: Okay.
21	Q. Okav.	21	MR. HUNKINS: Yeah, object to the form.
22	A. So it's a combination of forces. It's the	22	You can answer it.
23	sand has no control over things. It's a passive	23	Q. Go ahead.
24	player in the game.	24	A. It would be extremely difficult.
25	O All right	25	Q. And why is that?
			WORD FOR WORD REPORTING, LLC
8	46		48
1	Δ The forces are the tidal currents and the	1	A. Because of the dimensions of Hereford Inlet.
2	wave action that accompanies ocean processes at a	2	Q. And what dimensions specifically?
3	shoreline like this.	3	A. The width.
4	The openings through the barriers.	4	Q. Okay.
5	themselves, the actual inlets, are determined mostly	5	A. There's this other island up there called
6	by tidal range.	6	Stone Harbor, or Seven Mile Beach.
7	Q Tidal range?	7	Q. I see. Normally let me rephrase the
8	A The height between high and low tide.	8	question.
9	Q. All right	9	Do the what is the purpose of
10	A. If you go to Texas, you will find barrier	10	jettles in the various inlets on the Jersey shore?
11	islands that are a hundred miles long, entire length	11	Why are they there?
12	of the Jersey coast, one island. That's because the	12	MR. HUNKINS: Object to the form.
13	tidal range is 18 inches. If you go to Yakutat Bay	13	A. Navigation aids.
14	in Alaska, tidal range is 16, 18 feet. There are no	14	Q. Okay.
15	barrier islands at all. It's all inland. Because	15	A. Do you want the science answer?
16	the tidal surge is so intense and so dramatic that no	16	Q. Yes.
17	sand can be deposited perpendicular to the flow. It	17	A. In a natural inlet, there is the gap between
18	gets strung out in bars in and out of the Yakutat	18	the barrier islands. That's the deep spot. But it's
19	Bay	19	a sand system, so sand is in transport at all times.
20	So here we are in New Jersev, with a	20	Where does the current dissipate? As you go out into
21	moderate tidal range, we have a moderate scale of	21	the ocean, the current has to dissipate. The ocean
1	islands, and we have 12 inlets.	22	isn't going anywhere. So the tidal flow goes out
22	O Okay Hypothetically if if money wasn't	23	into the ocean and dissipates, drops the sand. So
21	an object and you were to construct jettles one on	24	there is a body of sand deposited at the mouth of the
25	the North Wildwood side and another to be determined	25	inlet, which is a deterrent to navigation.
20	WORD FOR WORD REPORTING LLC		WORD FOR WORD REPORTING, LLC

	49		51
1	Likewise, as the sand moves into the	1	Beach Island, New Jersey, 500 feet of shoreline next
2	inlet, it creates another pile of sand, which is	2	to their inlet suddenly, quotes, 'shuddered and
3	where the lagoons open up. And that's another	3	disappeared'." Correct?
	problem area.	4	A. Correct.
	So back in George Washington's time,	5	Q. "Three fisherman who were parked on the beach
6	the U.S. government decided that jetties were a	6	in pickup trucks were lucky they didn't get swept
7	solution to sailhoat navigation, which don't have	7	away from the erosion," correct?
י א	quite the control you do with an outboard motor, into	8	A. Correct.
a	and out of our commercial harbors. That concept has	9	Q. "One pickup truck in particular was
10	spread over time to include recreational inlets, as	10	approximately three feet away from a deep cliff of
10	wolf	11	sand."
11	• Doos an existence of a jetty in an inlet have	12	A. Correct,
12	W. Does an existence of a jetty in an internet neve	13	Q. Okay. Next bullet point, "The circular
13	an effect on where salid is being deposited in this	14	current at Inlet Beach acts similar to a whirlpool
14	process; tides going in and outr	15	and can make the beach area very unstable."
15	MR. HUNKINS: What jetty are you	16	MR_HUNKINS: He actually wrote inland
16	referring to?	17	beach but you're right be probably meant inlet.
17	MR. D'AMATO: Just generally.	1/	MP D'AMATO: Veah Okay
18	MR. HUNKINS: Okay, You're not	10	• It's true be says Inlet Beach but I think
19	referring to the one in this case?	19	he maant foldt Roach
20	MR, D'AMATO: Just generally.	20	Ne meant milet beach.
21	MR, HUNKINS: The rock walls? Okay.	21	Okay. So let's assume that The
22	Object to the form. You can answer.	22	correct, the circular current at the beach area
23	A. Well, the jetty is twofold. Keep the inlet	23	similar to a whilipool and call make the beach area
24	position from engulfing uplands adjacent to it. And	24	very unstable?
25	to maintain a suitable navigation channel where	25	MR. HUNKINS: Object to the form.
	WORD FOR WORD REPORTING 11 C		WORD FOR WORD REPORTING, LLO
	WORD FOR WORD REFORMING, LEG		52
	50		52
1	possible.	1	52 A. This is this is a supposition.
1 2	50 possible. Q. But do you remember my question, or do you	1 2	52 A. This is this is a supposition. Q. Okay. What is the basis of that supposition?
1 2 3	workb For workb REForming, EE 50 Q. But do you remember my question, or do you want it read back?	1 2 3	52 A. This is this is a supposition. Q. Okay. What is the basis of that supposition? A. It's the effects on, you know, a sand
1 2 3 4	50 possible. Q. But do you remember my question, or do you want it read back? A. No.	1 2 3 4	52 A. This is this is a supposition. Q. Okay. What is the basis of that supposition? A. It's the effects on, you know, a sand shoreline, or a sand body of any kind, of a circular
1 2 3 4 5	50 possible. Q. But do you remember my question, or do you want it read back? A. No. Q. Okay. Let me have my question read back.	1 2 3 4 5	52 A. This is this is a supposition. Q. Okay. What is the basis of that supposition? A. It's the effects on, you know, a sand shoreline, or a sand body of any kind, of a circular current. It's a rotating current, which, if it's
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1	horizontal to the slope of the material will never be	1	Q. Then explain that, then.
2	more than about 30 degrees.	2	A. There's a compon the particle of water has
3	Q. Okay. Next, wet sand is even less at 20 or	3	an X an X is horizontal in or out of the inlet.
A	25 degrees.	4	There's a Y component, and a Z component. In other
	A. The pour water makes it less stable.	5	words, there's a vertical part, and then there's
6	Q. Okay. This means that any erosion of sand at	6	here's your pathway in. It can go left or right, it
7	an angle oreater than 20 degrees becomes very	7	can go up or down. So there's an X, Y, and Z
8	unstable, and if you're walking on top of sand that	8	component to each water particle, all of which are
9	is undermined at an angle greater than 20 degrees,	9	constantly changing in some pattern, driven by the
10	the sand will either gradually slide into the water	10	topography, the flow, the everything that makes
11	or suddenly fall into deeper water.	11	the system function.
12	A. This is generally true.	12	Q. I see, okay. The next bullet point, quotes,
13	Q. Okay.	13	"The Inlet Beach tides" no, excuse me, I read
14	A. Yes, Just generic statement about unstable	14	that.
15	slopes.	15	Next sentence, quotes, "If you fall
16	Q. Okay. Next, "Farrell was advised that both	16	into an area which has horizontal and vertical tides,
17	Smith and Sunderland were good swimmers, and stated	17	the force can actually take you underwater, like
18	that sometimes people who are unfamiliar with rip	18	being sucked into a vortex."
19	currents have difficulty swimming."	19	A. If that's what you're involved with, yes. If
20	A. This is true.	20	there is a downward component to this flow, and you
21	Q. Okay. "While swimming in rip currents,	21	aren't ready for it in a fairly big way, you can have
22	people fight the current and panic, and often leads	22	a problem, yes.
23	to injury or death."	23	Q. Does the Hereford Inlet have that component?
24	A. Yes:	24	A. It's true in any flowing stream.
25	Q. The current is, quotes, 'very fierce' in the	25	Q. Okay. Next, "Farrell explained that a
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
	54		56
1	area of The Inlet Beach."	1	vertical current is not the common current where you
2	A. Yes.	2	can see water flow in one direction or another."
3	Q. Next, "The Inlet Beach tides are both	3	A. True.
4	horizontal and vertical."	4	Q. "A vertical current flows in spirals, and
5	A. That's a very big generalization.	5	often occurs in flooded rivers."
6	Q. Okay. How would you more, as a scientist,	6	A. Yes.
7	accurately describe what Mr. DiJoseph had written	7	Q. Okay, Quotes, "People who become stranded in
8	here?	8	their cars caught in flood water and exit their
9	A. The the actual pathway that a particle of	9	vehicles in waste deep water only to be sucked under
10	water, just pick a particle, any particle, pathway	10	due to vertical currents."
11	that that particle takes is not a straight line in	11	A. Well, this is this has been just
12	the inlet. It doesn't if a particle starts out at	12	illustrated in spades in Texas.
13	the surface, it doesn't stay at the surface all the	13	Q. Yeah. There was a piece on this on the loady
14	way up to the bridge.	14	Show. I don't know if you saw it.
15	Q. Got it.	15	A. I think I did.
16	A. The pathway is not a straight line. There's	16	Q. About how what happens to you if you re
17	a vertical and a horizontal component to the flow.	17	stuck in a vehicle.
18	Q. Okay. Let let me say something, as a	18	A. Yeah.
19	layman.	19	W. Yean. Next, "Farrell does not have an issue
20	When you talk about the flow of water	20	with the public being allowed to walk on the inlet
21	through the Hereford Inlet beach, and I'm thinking	21	Beach and stated, quotes, no one should ever swim
	that as the water is moving, these particles of water	22	there'."
23	are moving horizontally, but then there's also	23	A. This is generally true.
24	particles of water that are moving vertically.	24	. All right, why shouldn't people swim in the
25	A, Not really.	25	water off of this Iniet Beach?
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	57		59
1	A. I guess the answer is, it's wrapped up in the	1	MR. HUNKINS: Off
2	individual's personal safety.	2	Q. Here, you know what, let's use Sunderland-2
3	Q. Okay. Does it have anything to do with the	3	marked for identification on March 22, 2016. Here,
A	tidal currents there?	4	I'll hand this to you. And why don't you put a nice
	A. Well, the fact that there are tidal currents	5	sized X, so we know where that 60 foot area is.
6	is the reason for the safety problem.	6	A. (Witness complies.)
7	Q. Okay. "Farrell advised that people walk	7	VIDEOGRAPHER: Excuse me, counsel.
8	along the water's edge at Inlet Beach constantly, and	8	Just need a moment to change tape. Time is now 11:53
9	believes that someone should have placed warning	9	a.m., we are off the record.
10	signs in the area."	10	(Discussion off the record.)
11	A. • Well, this was a direct question.	11	VIDEOGRAPHER: Time is now 11:54 a.m.
12	Q. Yeah. What type of warning signs should have	12	We are back on the record.
13	been posted?	13	BY MR. D'AMATO:
14	A. I	14	Q. Can you show the cameraman what you've marked
15	MR. HUNKINS: Just	15	there?
16	A have no opinion on that.	16	A. (Witness complies.)
17	Q. Okay. Do you have an opinion as to whether	17	Q. All right. How do you know there is a
18	there is a potentially dangerous condition on the	18	60-toot drop off there?
19	beach alongside the that is part of The Inlet	19	A. Through repetitive bathymetric surveys that
20	Beach where people shouldn't be walking there at all?	20	O And how do you physically managing the depth
21	MR. HUNKINS: Just hold your answer.	21	Q. And now do you physically measure the depth
22	MR. D'AMATO: It's just whether he has	22	or the water?
23	an opinion.	23	A. The electronics do it for us,
24	MR. HUNKINS: Object to the form. Do	24	W. UKdy. A It's an acho counder and GDS combination so
25	you have an opinion?	25	WORD FOR WORD REPORTING 11 C
	WORD FOR WORD REPORTING, LLC		
	EO		60
A	58	1	60 the location position, the GPS does, the echo sounder
1	58 MR. ROZELL: Object to the form.	1	60 the location position, the GPS does, the echo sounder determines the depth. and puts them together.
1 2 2	58 MR. ROZELL: Object to the form. MR. HUNKINS: You can say yes or no,	1 2 3	60 the location position, the GPS does, the echo sounder determines the depth, and puts them together. Q. When is the first year that you and your
1 2 3	58 MR. ROZELL: Object to the form. MR. HUNKINS: You can say yes or no, and then we'll see where we go.	1 2 3 4	60 the location position, the GPS does, the echo sounder determines the depth, and puts them together. Q. When is the first year that you and your colleagues, as part of the institute, determined the
1 2 3 4	58 MR. ROZELL: Object to the form. MR. HUNKINS: You can say yes or no, and then we'll see where we go. A. No, I do not have an opinion. O Okay Part of what I'm trying to do here	1 2 3 4 5	60 the location position, the GPS does, the echo sounder determines the depth, and puts them together. Q. When is the first year that you and your colleagues, as part of the institute, determined the existence of that 60-foot drop?
1 2 3 4 5	58 MR. ROZELL: Object to the form. MR. HUNKINS: You can say yes or no, and then we'll see where we go. A. No, I do not have an opinion. Q. Okay. Part of what I'm trying to do here today is in the event this goes in front of a judge	1 2 3 4 5 6	60 the location position, the GPS does, the echo sounder determines the depth, and puts them together. Q. When is the first year that you and your colleagues, as part of the institute, determined the existence of that 60-foot drop? A. Well, first survey was in the fall of 2009
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1 2 3 4 5 6 7 8 9	58 MR. ROZELL: Object to the form. MR. HUNKINS: You can say yes or no, and then we'll see where we go. A. No, I do not have an opinion. Q. Okay. Part of what I'm trying to do here today is, in the event this goes in front of a judge or a jury, is to know what opinions are being offered and what opinions are not. So I'm trying to eliminate certain areas. If you will.	1 2 3 4 5 6 7 8 9	60 the location position, the GPS does, the echo sounder determines the depth, and puts them together. Q. When is the first year that you and your colleagues, as part of the institute, determined the existence of that 60-foot drop? A. Well, first survey was in the fall of 2009 Q. Okay. A that we did. The Army Corps has done others.
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1 2 3 4 5 6 7 8 9 10	58 MR. ROZELL: Object to the form. MR. HUNKINS: You can say yes or no, and then we'll see where we go. A. No, I do not have an opinion. Q. Okay. Part of what I'm trying to do here today is, in the event this goes in front of a judge or a jury, is to know what opinions are being offered and what opinions are not. So I'm trying to eliminate certain areas, if you will. Okay, the last page, top, quotes, "The area of Inlet Beach can be severely impacted by tidal	1 2 3 4 5 6 7 8 9 10 11	60 the location position, the GPS does, the echo sounder determines the depth, and puts them together. Q. When is the first year that you and your colleagues, as part of the institute, determined the existence of that 60-foot drop? A. Well, first survey was in the fall of 2009 Q. Okay. A that we did. The Army Corps has done others. Q. Do you know how far back the United States Army Corps of Engineering has gone back and measured
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	58 MR. ROZELL: Object to the form. MR. HUNKINS: You can say yes or no, and then we'll see where we go. A. No, I do not have an opinion. Q. Okay. Part of what I'm trying to do here today is, in the event this goes in front of a judge or a jury, is to know what opinions are being offered and what opinions are not. So I'm trying to eliminate certain areas, if you will. Okay, the last page, top, quotes, "The area of Inlet Beach can be severely impacted by tidal surges and currents that can alter the shelf of the area of beach near the water's edge." A. Yes, that's true. Q. "The current can wash away sand and create a drop off of approximately 60 feet." A. There is one.	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	60 the location position, the GPS does, the echo sounder determines the depth, and puts them together. Q. When is the first year that you and your colleagues, as part of the institute, determined the existence of that 60-foot drop? A. Well, first survey was in the fall of 2009 Q. Okay. A that we did. The Army Corps has done others. Q. Do you know how far back the United States Army Corps of Engineering has gone back and measured the depth there? A. No, I do not. Q. Okay. The this area where it's 60-foot deep, is it like a square, a rectangle, triangle, a circle? How would you describe it? A. It's an oval, elongated in the access of the
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	58 MR. ROZELL: Object to the form. MR. HUNKINS: You can say yes or no, and then we'll see where we go. A. No, I do not have an opinion. Q. Okay. Part of what I'm trying to do here today is, in the event this goes in front of a judge or a jury, is to know what opinions are being offered and what opinions are not. So I'm trying to eliminate certain areas, If you will. Okay, the last page, top, quotes, "The area of Inlet Beach can be severely impacted by tidal surges and currents that can alter the shelf of the area of beach near the water's edge." A. Yes, that's true. Q. "The current can wash away sand and create a drop off of approximately 60 feet." A. There is one. Q. And I'm going to have you mark it soon. But it's located where, that	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	60 the location position, the GPS does, the echo sounder determines the depth, and puts them together. Q. When is the first year that you and your colleagues, as part of the institute, determined the existence of that 60-foot drop? A. Well, first survey was in the fall of 2009 Q. Okay. A that we did. The Army Corps has done others. Q. Do you know how far back the United States Army Corps of Engineering has gone back and measured the depth there? A. No, I do not. Q. Okay. The this area where it's 60-foot deep, is it like a square, a rectangle, triangle, a circle? How would you describe it? A. It's an oval, elongated in the access of the channel. Q. Right.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	58 MR. ROZELL: Object to the form. MR. HUNKINS: You can say yes or no, and then we'll see where we go. A. No, I do not have an opinion. Q. Okay. Part of what I'm trying to do here today is, in the event this goes in front of a judge or a jury, is to know what opinions are being offered and what opinions are not. So I'm trying to eliminate certain areas, if you will. Okay, the last page, top, quotes, "The area of Inlet Beach can be severely impacted by tidal surges and currents that can alter the shelf of the area of beach near the water's edge." A. Yes, that's true. Q. "The current can wash away sand and create a drop off of approximately 60 feet." A. There is one. Q. And I'm going to have you mark it soon. But it's located where, that A. It's there.	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	60 the location position, the GPS does, the echo sounder determines the depth, and puts them together. Q. When is the first year that you and your colleagues, as part of the institute, determined the existence of that 60-foot drop? A. Well, first survey was in the fall of 2009 Q. Okay. A that we did. The Army Corps has done others. Q. Do you know how far back the United States Army Corps of Engineering has gone back and measured the depth there? A. No, I do not. Q. Okay. The this area where it's 60-foot deep, is it like a square, a rectangle, triangle, a circle? How would you describe it? A. It's an oval, elongated in the access of the channel. Q. Right. A. And it's not very big.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	58 MR. ROZELL: Object to the form. MR. HUNKINS: You can say yes or no, and then we'll see where we go. A. No, I do not have an opinion. Q. Okay. Part of what I'm trying to do here today is, in the event this goes in front of a judge or a jury, is to know what opinions are being offered and what opinions are not. So I'm trying to eliminate certain areas, if you will. Okay, the last page, top, quotes, "The area of Inlet Beach can be severely impacted by tidal surges and currents that can alter the shelf of the area of beach near the water's edge." A. Yes, that's true. Q. "The current can wash away sand and create a drop off of approximately 60 feet." A. There is one. Q. And I'm going to have you mark it soon. But it's located where, that A. It's there. Q. Right next to the seawall?	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	60 the location position, the GPS does, the echo sounder determines the depth, and puts them together. Q. When is the first year that you and your colleagues, as part of the institute, determined the existence of that 60-foot drop? A. Well, first survey was in the fall of 2009 Q. Okay. A that we did. The Army Corps has done others. Q. Do you know how far back the United States Army Corps of Engineering has gone back and measured the depth there? A. No, I do not. Q. Okay. The this area where it's 60-foot deep, is it like a square, a rectangle, triangle, a circle? How would you describe it? A. It's an oval, elongated in the access of the channel. Q. Right. A. And it's not very big. Q. How if you had to give the diameter?
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 23 23 23	58 MR. ROZELL: Object to the form. MR. HUNKINS: You can say yes or no, and then we'll see where we go. A. No, I do not have an opinion. Q. Okay. Part of what I'm trying to do here today is, in the event this goes in front of a judge or a jury, is to know what opinions are being offered and what opinions are not. So I'm trying to eliminate certain areas, if you will. Okay, the last page, top, quotes, "The area of Inlet Beach can be severely impacted by tidal surges and currents that can alter the shelf of the area of beach near the water's edge." A. Yes, that's true. Q. "The current can wash away sand and create a drop off of approximately 60 feet." A. There is one. Q. And I'm going to have you mark it soon. But it's located where, that A. It's there. Q. Right next to the seawall? A. Right next to this point, yes. Q. Okay. You know what, I think we've already	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	60 the location position, the GPS does, the echo sounder determines the depth, and puts them together. Q. When is the first year that you and your colleagues, as part of the institute, determined the existence of that 60-foot drop? A. Well, first survey was in the fall of 2009 Q. Okay. A that we did. The Army Corps has done others. Q. Do you know how far back the United States Army Corps of Engineering has gone back and measured the depth there? A. No, I do not. Q. Okay. The this area where it's 60-foot deep, is it like a square, a rectangle, triangle, a circle? How would you describe it? A. It's an oval, elongated in the access of the channel. Q. Right. A. And it's not very big. Q. How if you had to give the diameter? A. 200 feet wide and maybe 400 feet long. Q. Okay.
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	61		63
1	Q. All right. What created that 60-foot area	1	Q. All right. Okay? Let's continue and we'll
2	that we're talking about?	2	finish up with this DiJoseph report.
3	A. It's the acceleration of flow caused by the	3	The next sentence is, quotes, "The
4	parking lot that extends into the inlet by perhaps as	4	current can wash away sand and create a drop" oh,
	much as 150 feet, and armored by rocks. The rocks	5	"drop off of approximately 60 feet." I apologize.
6	don't move and the water has to flow by them. And	6	You just addressed that.
7	in so doing, it scours the bottom a little deeper	7	Next. "Farrell said that it is possible
2	than the normal	8	that Bradley Smith was walking on a shelf that was
0	O Okay I'm going to do something and the	9	undermined by extreme currents."
3	C. Oray. The going to do something, and the	10	A. In 2013, in February, it was certainly a
10	The multimeter ask you and lim	11	possibility.
11	The I fill going to ask you, and I fill	12	O Okay This event took place in July of 2012.
12	going to hand this exhibit, Sundenand-2, to you, to	12	Δ I know The question was asked in 2013, in
13	explain to those people that will be watching this	14	February
14	video, as you go south of the red spot of feet, what	15	O Ob okay. So let me ask you this then: In
15	your experience is generally with the depth of that	10	light of your comment, is it possible that in July of
16	water. And if you could just show that sit, show	10	2012 when Bradley Smith was walking on the beach.
17	potentially the jury nere.	10	that he was walking on a shelf that was undermined by
18	A. The small area of extremely deep water	10	evtreme currents?
19	decreases very quickly into the thirties within our	20	MP HINKINS: Object to the form lust
20	feet of the spot, and then gradually declines to live	20	hold on Object to the form. I think you're asking
21	or six feet of water down by the Second Avenue jetty,	21	for his aninian new correct?
22	that defines the oceanfront beach. The water depth	42	
23	out in here is extremely shallow. Because that's	23	MR. D'AMATO, Tes.
24	where the sand is being deposited by the ebb tide.	24	MR. HOINNINS. And you walk his opinion
25	So at low tide, you can walk out half a mile. Don't	25	
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LEO
		1	64
	62		64
1	62 advise it, but you could do it. Since we've surveyed	1	64 probability, right?
1 2	62 advise it, but you could do it. Since we've surveyed it, the water's like three feet deep under the boat.	1 2	64 probability, right? MR. D'AMATO: Yes,
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	65		67
1	A Definitely not	1	constructed, that parking lot area, which I've been
2	O Okay Ouotes "The rock wall that was built	2	to several times? Why was that done?
2	to the porth of Inlet Beach has caused the channel to	3	A. Why?
•	keep wanting to make its way to the southwest in the	4	MR. HUNKINS: Why?
	inlot towards North Wildwood "	5	Q. Why?
c	A Correct	6	MR. HUNKINS: Why?
7	O Okay When you had what we have re-marked as	7	A. Pure speculation.
(0	Encelle 7, which is an exhibit that was marked at Mr.	8	MR. HUNKINS: Don't speculate.
0	Sunderland's den and you were explaining to us the	9	A. Okay. I can't give you an answer.
10	movement of the water because of the rock wall, is	10	Q. You have no idea?
11	that what you were talking about in this statement	11	A. No idea that I can back up.
12	here?	12	Q. Okay. Is there something that you read that
13	MR. HUNKINS: Just object to the form.	13	in your mind would explain why that parking lot was
14	I'm going to ask that you rephrase that guestion.	14	built?
15	Q. Yeah, I will rephrase it.	15	MR. HUNKINS: Object to the form.
16	MR. HUNKINS: Because	16	MR, ROZELL: Same objection.
17	Q. Let me hand this to you, Doctor. There's	17	A. I don't know when the parking lot was built.
18	Farrell-7. Okay?	18	Q. Okay. I was reading a box of two boxes of
19	All right. In using Farrell-7, can you	19	documents that were given to me by Brian. And in one
20	please explain to those that will be watching this	20	of the boxes, it has correspondence between the
21	what you meant when you said, quotes, "Until the rock	21	Bureau of Coastal Engineering, the United States
22	wall was put in place, the channel used to push the	22	Corps of Army Engineering, and the City of North
23	sand as it moves across the beach in North Wildwood.	23	Wildwood, about building what I'm going to refer to
24	Now the current passes the rock wall and becomes	24	as a rock wall. And so you know what I'm talking
25	fierce as it tries to work its way back toward North	25	about, I pulled it, a photograph here. Hold on. I
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
	66		68
1	66 Wildwood."	1	68 had a photograph that was taken at ground level I
1 2	66 Wildwood." And just show the people that are	1 2	68 had a photograph that was taken at ground level I wanted to show you.
1 2 3	66 Wildwood." And just show the people that are looking at this, if you could. Thank you.	1 2 3	68 had a photograph that was taken at ground level I wanted to show you. Okay. Let me show you, which I'm going
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	69		71
1	tidal current passes the rock wall to the north of	1	A. That is a term we would use to describe
2	Inlet Beach and is forced back to the east in the	2	structures that were built for controlling where the
3	area where Bradley Smith was walking in the surf and	3	sand sits and doesn't sit, yeah.
•	fell into the water." Correct?	4	Q. Okay. Well, using Farrell-7
	A. Yes.	5	A. Um-hum.
6	Q. "Farrell believes the City of North Wildwood	6	Q could you identify all the control
7	permits people to swim near the rock wall in the	7	structures that are in the Hereford Inlet there?
8	areas protected by lifeguards."	8	MR. HUNKINS: Object to the form. It
9	A. Not correct.	9	assumes that there are some. But go ahead.
10	Q. Okay, What is your correct answer?	10	A. Basically, there's one rather irregularly
11	A. I believe, based on just being there, that	11	laid out, but continuous feature that acts as a
12	Second and Surf is the guarded part of The Inlet	12	control structure to inlet positioning. And it would
13	Beach.	13	start at the Second Avenue jetty at Second and
14	Q. Okay. Next, "On Wednesday, February 6, 2013,	14	Kennedy Boulevard, which is at the very
15	another article regarding the North Wildwood Beach	15	northeast-most part of the oceanfront beach.
16	replenishment project appeared in the Atlantic City	16	MR. HUNKINS: Northeast, or southeast?
17	Press. Farrell was once again quoted in this article	17	THE WITNESS: Well, southeast part of
18	regarding the condition of the North Wildwood Beach."	18	The Inlet Beach. Northeast part of the oceanfront
19	· Okay.	19	beach.
20	MR. HUNKINS: Before we go on, just	20	MR. HUNKINS: West part of the
21	bear with me for one second. I have a follow-up	21	THE WITNESS: No. North and east.
22	question relating to one of the statements you just	22	MR. HUNKINS: Oh, east, got you.
23	read. We can do it later, unless you want me	23	A. So that would be that's not where it
24	MR. D'AMATO: Can we do it later?	24	starts. It actually continues along the oceanfront
25	MR. HUNKINS: That's fine.	25	for some distance, as well.
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
	70		72
1	70 MR. D'AMATO: Let's do it later.	1	Q. Um-hum.
1 2	70 MR. D'AMATO: Let's do it later. We're going to take a quick break.	1 2	72 Q. Um-hum. A. All right? It comes up parallel to Second
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1 2 3 4 5	70 MR. D'AMATO: Let's do it later. We're going to take a quick break. And that's going to give us the opportunity for the attorneys on the plaintiff's side to talk. Sandy, I am thinking, it is 12:10,	1 2 3 4 5	Q. Um-hum. A. All right? It comes up parallel to Second Avenue, and then wanders across among the dunes, and then follows the contour of development all the way up to the big condos with the blue roofs up near
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	73	<u> </u>	75
1	Ω Yes that's what I was referring to.	1	know what I'm talking about?
2	A Probably	2	A. (Witness complies.)
2	O Okay is the parking lot structure	3	Q. Okay. So it's one, two, three. All right,
A	MR_GRASSI: Just one second.	4	good.
	(Discussion off the record)	5	All right. Thank you.
6	MR D'AMATO: Okay All right	6	What is one?
7	PR. DAMATO	7	A. One is the Second and Kennedy jetty.
· 0	\mathbf{O} Is the area to the left of the red dot on	8	Q. Okay, Two?
0	Earrell 7 which is the parking lot area, would you	9	A. Two is another short shore perpendicular
9 10	ranged that the size a control structure?	10	ietty.
10	MR HINKINS: Object to the form	11	Q. All right. And what do you call well,
12	MR_ROZELL: Same objection.	12	what is the location of the of number two jetty?
12	A It's a rock revetment, and interpreting is	13	A. It is Surf and Second.
13	a control structure is not out is correct. It is	14	Q. Okay. And the location of the jetty that we
14	correct it acts as a control structure.	15	marked as number one?
16	O All right New you should have in front of	16	A. Second and Kennedy.
17	You County Designee Exhibit 4 It's the photographs.	17	Q. All right. And then what is number three?
18	the perial photographs	18	A. It's another very short structure of some
10		19	kind. I don't know doesn't it's hard to tell
20		20	what it is. And that also is shore par
20	Can you look at the 1995 aerial	21	perpendicular, and is at knowing my North Wildwood
22	photograph? It's color	22	streets, Surf, Ocean is the next one.
23	Δ Let me see. Does it have a number?	23	Q. I think so.
24	Ω It will say actually, if you keep on	24	A. I think. Anyway, it's opposite the street
25	aoing	25	end, the third street in from the ocean.
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
-	74		76
1	A. This one?	1	Q. Now, I had asked you earlier about why a
2	Q. Keep on going. Here. Doc, it says this at	2	certain jetty at what I'm going to call the south
3	the top: 1995.	3	end
4	A. Oh, okay. Well	4	A. Um-hum.
5	Q. Yeah.	5	O okay was built. Why were jetties number
			dt. an okay, was bant they neve jettice hand -
6	A. They're not all labeled. 1920.	6	one and number two on that exhibit, which is a 1995
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	77		79
1	MR. HUNKINS: Talking about number two	1	deposition, you were talking about, in a general
2	and three, or	2	sense, the beach replenishment project that had been
3	MR. D'AMATO: One and two.	3	going on once, you know, you were associated with the
	MR. HUNKINS: One and two.	4	institute and you became involved with North
	A. Well, one one is your one is the Second	5	Wildwood.
6	Avenue jetty. And it is not buried.	6	As you sit here today, is the beach
7	Q. Okay.	7	replenishment of the North Wildwood beaches still an
8	A. Two and three are buried.	8	ongoing issue?
9	Q. All right.	9	A. Yes, it's still an ongoing issue. Most
10	A. Probably?	10	recently, as of Memorial Day 2016.
11	Q When did two	11	Q. And what happened?
12	A Probably between well, you have one in	12	A. Sand was excavated in the City of Wildwood
12	here 2000 All right?	13	and trucked north along the shoreline and deposited
13	MP HUNKINS: What's the question	14	between Third Avenue, street end on the beach front,
16	oending?	15	and about 15th Avenue, to repair the dune damage done
10	A Yeah	16	by northeast storm Jonas in January.
10	A. Team.	17	Q. All right.
17	Q. The question was, when did one and two become	18	MR D'AMATO: We're up to exhibit what.
10	burled? He said one is not burled. And you were	19	We're up to exhibit what? Excuse me. I'm looking
19	I think you were going to try to answer when two	20	for the exhibits that were marked.
20	became buried.	21	(Discussion off the record.)
21	A. All right. By 2000, number two is bulled.	22	(Copy of phytograph received and marked
22	Q. Okay, right.	22	for identification as Exhibit Farrell-8
23	A. And by 2002, number three is all but buried.	20	
24	Q. Got it.	25	\mathbf{O} i want to show you what has been marked for
25	Now, with respect to the jetty at Suri,	20	WORD FOR WORD REPORTING LLC
	WORD FOR WORD REPORTING, LLC		
	70		80
	78	1	identification as Farrell-8
* 1	78 which is number one on that 1995 aerial	1	identification as Farrell-8.
1	78 which is number one on that 1995 aerial A. At Surf? No. Second.	1 2 3	80 Identification as Farrell-8. And per chance, did you read an
1 2 3	78 which is number one on that 1995 aerial A. At Surf? No. Second. Q. Second, I'm sorry. That's my fault.	1 2 3	80 Identification as Farrell-8. And per chance, did you read an Interview of a woman by the name of Pat Poussey,
1 2 3 4	78 which is number one on that 1995 aerial A. At Surf? No. Second. Q. Second, I'm sorry. That's my fault. A. Second and Kennedy.	1 2 3 4	80 identification as Farrell-8. And per chance, did you read an interview of a woman by the name of Pat Poussey, P-O-U-S-S-E-Y, I think it is. She was interviewed by Mr. Dilecenth. She took this photograph, which is I
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		1	tostimony, you referred to a condition that would be
1	Q. Okay. When you I can represent to you	2	similar to what we're looking at in this particular
2	that this woman took this photograph, it was in North	2	shifting to what we relooking at in this particular
3	Wildwood Beach, and it was we can argue about now	3	photograph, which is ratien-o.
~	close it was to where Scott Sunderland said his	4	when you look at that photograph, as a
	incident took place, but it was within a certain	0	Scientist, what do you see:
6	number of yards.	0	MR. HUNKINS: Object to the form.
7	And here's my question: When you look		MR. ROZELE: Same objection.
8	at the condition of the sand there, and compare it to	8	Q. You can go anead and answer.
9	the water, all right, have you ever seen that type of	9	A. Well, this is a vertical sand escarpment,
10	configuration, where you have the sand and the water,	10	where material is actively sloughing off in Diock
11	on the North Wildwood Beach, specifically The Inlet	11	form and falling into the water.
12	Beach?	12	Q. Okay, what is the cause or what are the
13	MR. HUNKINS: Object to the form.	13	causes of such an event taking place?
14	A. I have never been present when this occurred.	14	A. Based on coastal experience, this is evidence
15	Q. Okay. Did you ever see any photographs of	15	for a large scale slope failure.
16	it?	16	Q. Okay. And could you define for those people
17	A. Yes.	17	that will be watching this videotape, what that is, a
18	Q. Okay. Who took the photographs, where, and	18	slope fell?
19	when?	19	A. The slope failure is where the sand, which is
20	A. They were part of the suite of things I was	20	a loose, non-irrigated material, the slope into the
21	given.	21	channel is so steep that a large mass of material
22	Q. All right. So were you given a batch of	22	literally moves as a chunk and breaks up as it does
23	photographs to review?	23	so into deeper water. Essentially, it's called a
24	A. No.	24	block fault landslide.
25	Q. Okay. Was it an exhibit to one of the	25	Q. Okay. Would the tidal currents that run
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
	82		84
1	depositions?	1	84 through the Hereford Inlet be a causative factor in
1 2	82 depositions? A. I don't know.	1	84 through the Hereford Inlet be a causative factor in that event taking place?
1 2 3	82 depositions? A. I don't know. Q. Okay. But you saw that particular photograph	1 2 3	84 through the Hereford Inlet be a causative factor in that event taking place? A. Something has to scour the slope to make the
1 2 3 4	82 depositions? A. I don't know. Q. Okay. But you saw that particular photograph before?	1 2 3 4	84 through the Hereford Inlet be a causative factor in that event taking place? A. Something has to scour the slope to make the instability. So the answer is most likely.
1 2 3 4 5	82 depositions? A. I don't know. Q. Okay. But you saw that particular photograph before? A. Not this particular photograph, no.	1 2 3 4 5	84 through the Hereford Inlet be a causative factor in that event taking place? A. Something has to scour the slope to make the instability. So the answer is most likely. Q. Okay. All right. Now, let me show you
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1 2 3 4 5 6 7	82 depositions? A. I don't know. Q. Okay. But you saw that particular photograph before? A. Not this particular photograph, no. Q. Okay. Then what did you see that is similar to that photograph?	1 2 3 4 5 6 7	84 through the Hereford Inlet be a causative factor in that event taking place? A. Something has to scour the slope to make the instability. So the answer is most likely. Q. Okay. All right. Now, let me show you what's been marked for identification as Farrell-9. (Photograph received and marked for
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	85		87
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4	A Yes	1	Identification as Farrell-11, which is a newspaper
1	A. tes.	2	article. I'm going to hand it to you.
2	G. All fight, bo you know now many rectificts	3	You are guoted as saying in the
3	entirety that reverment is: Fou could approximate.	4	article let me just read for the record, so Mrs.
	MR. HUNKINS, Length, of Width, of	5	Smith knows what I'm referring to, guotes "Stewart
~	MR. D'AMATO: Lengui, Thisony, Hom	6	Earrell director of the Richard Stockton Coastal
6	beginning to end.	7	Research Center, said the situation is the result of
(A. Probably six or 7,000 leet.	8	tidal currents that create a whirlpool effect that
8	Q. Okay, If that revelment du hot exist at	a	moves the sand. The tidal channel configuration
9	all, what effect would it have on the beaches of	10	allows it to develop. They bannen and the cost of
10	North Wildwood?	11	trying to control it would be in the millions.
11	MR. HUNKINS: Object to the form.	12	Earrell said adding, it is not an area that ever
12	MR. ROZELL: Object to the form.	12	resolves basch replenishment "
13	A. You can't answer the question without a very	13	Now bere's what I want to ask you' in
14	long discussion of where the inlet would be relative	14	this article, when you cay that the situation is a
15	to the uplands of North Wildwood. North Wildwood	10	this diffice, when you say that the studion is a
16	quite a bit of North Wildwood wouldn't exist. It	10	effect that le gaine back to your testimony earlier
17	would be in the inlet. So the most striking effect	17	effect, that is going back to your testimony earlier
18	on the position of the beaches would be where the	18	Where you explained the whilipool enect, correct:
19	inlet channel was relative to a fixed point on land.	19	MR, HUNKINS: Object to the form.
20	Q. Okay. All right. If the revetment that we	20	
21	see in the drone photograph, which was marked for	21	MR. HUNKINS: NO.
22	identification as Farrell-10, did not exist, what	22	Q. Or in this article, are you referring to
23	effect would it have on the tidal currents running	23	something else, other than what you described to us
24	through the Hereford Inlet?	24	earlier in this deposition? That's what I murying
25	MR. HUNKINS: Object to the form.	25	to get to.
12	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
I	86		00
1	A. The only real effect would be the absence of	1	MR. HUNKINS: Object to the form. Part
2	the parking lot. It wouldn't exist. It would be	2	of my objection is, part of this is a quote, part is
3	washed away. So the scour hole off the point of	3	a summary by this author, which may or may not be
	rocks here would not exist.	1 1	correct.
4			the plastate that the black him to
4 5	Q. Okay.	5	MR. D'AMATO: Well, that's for him to
4 5 6	Q. Okay.A. The uniformity of the channel floor would be	5	MR. D'AMATO: Well, that's for him to say. Now you're leading him.
4 5 6 7	Q. Okay. A. The uniformity of the channel floor would be more complete.	5 6 7	MR. D'AMATO: Well, that's for him to say. Now you're leading him. MR. HUNKINS: Yeah, object to the form.
4 5 6 7 8	 Q. Okay. A. The uniformity of the channel floor would be more complete. Q. If the revetment that is shown in the drone 	5 6 7 8	MR. D'AMATO: Well, that's for him to say. Now you're leading him. MR. HUNKINS: Yeah, object to the form. MR. D'AMATO: Now you're leading him,
4 5 6 7 8 9	 Q. Okay. A. The uniformity of the channel floor would be more complete. Q. If the revetment that is shown in the drone photograph was not present, would it change your 	5 6 7 8 9	MR. D'AMATO: Well, that's for him to say. Now you're leading him. MR. HUNKINS: Yeah, object to the form. MR. D'AMATO: Now you're leading him, and you know that's impermissible.
4 5 6 7 8 9	 Q. Okay. A. The uniformity of the channel floor would be more complete. Q. If the revetment that is shown in the drone photograph was not present, would it change your earlier testimony about the speed of the tidal 	5 6 7 8 9 10	MR. D'AMATO: Well, that's for him to say. Now you're leading him. MR. HUNKINS: Yeah, object to the form. MR. D'AMATO: Now you're leading him, and you know that's impermissible. A. Question, what's the date on this article?
4 5 6 7 8 9 10	 Q. Okay. A. The uniformity of the channel floor would be more complete. Q. If the revetment that is shown in the drone photograph was not present, would it change your earlier testimony about the speed of the tidal currents going in and out of Hereford Inlet? 	5 6 7 8 9 10	MR. D'AMATO: Well, that's for him to say. Now you're leading him. MR. HUNKINS: Yeah, object to the form. MR. D'AMATO: Now you're leading him, and you know that's impermissible. A. Question, what's the date on this article? Q. It's after the Smith incident in July of
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		1	
	89		91
1	beach erosion between Second and Fourth Avenues?	1	whirlpools. And I said, yes, they do exist. But
2	Now, here's my question: Were you	2	connecting those things up was not part of the
3	aware, when it happened, of the erosion that's being	3	discussion ever.
*	referred to in the first paragraph?	4	She asked me if whirlpools exist, and I
	MR. HUNKINS: Object to the form.	5	said, well, rotating currents do exist. But, you
6	A. Well, we were following beach changes since	6	know, what do they do at any given time, I didn't
7	2009, but only at six places along The Inlet Beach.	7	answer that one.
8	So, yes, we had profile stations, which we repeatedly	8	Q. Okay. Well, then let's try to answer it
9	measured, and things came and went with no particular	9	today.
10	pattern to them over time.	10	As a scientist, could the tidal
11	Q. And where are the six stations located?	11	currents that create a whirlpool effect cause the
12	A. Between the Second Avenue jetty and the	12	loss of beach with 10 to 12 foot drop-offs?
13	most northern one is located whatever this street is	13	MR. HUNKINS: Object to form.
14	called here. And I'm there is a name. We can get	14	A. Within the diameter of this rotating
15	you that.	15	whirlpool area, yes.
16	The one with the curve in it is	16	(Newspaper article received and marked
17	Central. That's what I believe it to be, anyway;	17	for Identification as Exhibit Farrell-12.)
18	Central Avenue.	18	Q. Okay. Now, let me show you what's been
19	Q. Okay. Now, what was the cause of these 10 to	19	marked for identification as Farrell-12. It's an
20	12 foot drop-offs?	20	article that appeared in the Press of Atlantic City.
21	MR. HUNKINS: Object to the form.	21	Here, I'll hand you I got an extra copy.
22	A. Well, these are the edges of the channel, the	22	A. All right.
23	steep channel edges. I mean, drop-off is just a	23	Q. On February 6, 2013. And I want to direct
24	generic term that the writer used.	24	your attention to where you are referred to. And if
25	Q. When I showed you the photograph taken by Ms.	25	you look at, I guess it would be the routh full
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
	90		92
1	Poussey	1	paragraph, it says, quotes, "Stewart Farrell,
2	A. Um-hum.	2	director of the Coastal Research Center at the
3	Q would you call that a drop-off?	3	Richard Stockton College of New Jersey, monitors the
4	MR. HUNKINS: Object to the form.	4	city's beach twice a year. After Sandy, ne found
5	A. A very local one. I mean, this is a very	5	that about 150,000 cubic yards or sand had been lost
6	local phenomenon. It's right there, at that moment	6	on the north end hear Second Avenue and JFK - JF
7	in time.		Kennedy Boulevard and along the city's dure system.
8	Q. Do you know, with respect to this article,	8	Did you, in fact, ten the reporter
9	where the location of these 10 to 12 foot drop-offs	9	Irudy Gittilian?
10	was located?	10	A. Yes.
11	MR. HUNKINS: Object to the form.	111	Q , Okay, I want to go to the next paragraph.
12	A. She didn't explain that when she asked me the	12	"The dune was basically erased, and the water nowed
13	questions.	13	Into the streets, Farrell salu of the dunes that had
14	Q. Okay. Okay. In the paragraph that says,	14	Where by reference to streets if
15	quotes, "Stewart Farrell, director of the Richard	10	where was this dupo that was erased?
16	Stockton Coastal Research Center, said the situation	10	you can, where was this durie that was erased:
17	is the result of tidal currents that create a	17	A. Wen, it was part of the 2009 project form
18	whirlpool effect that moves the sand," okay, did you	10	O Okay
19	tell the reporter from the Press of Atlantic City,	19	 Ukdy. And up between Third Avenue and Second
20	Trudy Gilfillian, that the loss of the beach, with	20	A. And up between inite Avenue and Second
21	the 10 to 12 foot drop-offs, was, in fact, the result	21	Avenue, right there at the northeast corner, the
	of tidal currents that create a whirlpool effect that	22	erosion of the sano beach took the dune, as well.
23	moves the sand?	23	And as a result of M.J. DEP insistence, the dune was
24	MR. HUNKINS: Object to the form.	24	the two other place at 21st second and Morey's is
25	A. Her interview was she kept talking about	20	WORD FOR WORD REPORTING 11 C
			WORD FOR WORD REFOREING, EEG

	93		95
1	at 25th. So the dune went out in front of the piers,	1	Q. Um-hum.
2	and the storm erased that part of the dune, as well.	2	A. I just superimposed it on the picture with a
3	Q. Okay. You can put that down.	3	wider view, so that we could discern the relative
л	We had marked at a prior deposition of	4	position of the supposed entry point into the water
	Mr. Sunderland as Sunderland-5 an interview of him.	5	at the incident with all the aspects of the rock
6	And I'm going to remark it this interview as	6	revetment and the beach all the way to the tail end
7	Earroll-13 And there is an aerial photograph where	7	of it.
8	Mr. Sunderland had made a marking as to his best	8	Q. If I may, what was the point of doing that?
0	estimate of where the incident involving him, his	9	You were trying to make a point.
10	daughter Mr. Smith and his daughter took place.	10	A. Seeing exactly where everyone or where the
10	(Interview of Mr. Sunderland received	11	most credible witness, the one that participated in
12	and marked for identification as Exhibit Farrell-13.)	12	the event, thinks it actually initiated.
12	A Have you seen this before?	13	Q. And assuming that Mr. Sunderland is correct,
13	A Mac	14	and he did give his best estimate, what is the
14	A. Tes.	15	significance of where he says the event took place,
16	MR D'AMATO: Now Brian, could I have	16	as a scientist?
17	that one?	17	A. It puts the initiation of the event right at
18	MR HUNKINS: Yeah, Which one?	18	the nose of the flood tidal feature that I had
10	MR D'AMATO: That one.	19	previously reviewed and kind of was making the case
20	MR HUNKINS: This?	20	that this was the feature that he had stumbled across
21	MR D'AMATO: Yes. I had it marked	21	going back towards the place that they started from.
22	And where are we?	22	The lobe of sand is right there, the little darker
23	Oh, there we go. There we go. Thank	23	patch in of sand is the trough.
24	you I'll give this back.	24	Q. Could you hold it up and show the cameraman,
25	•O. We had marked for identification as Farrell-6	25	so
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
5Q -	94		96
1	an aerial photograph. You can see on the back of it?	1	A. This darker strip in here is lower in
2	A. Um-hum.	2	elevation, and is the whole feature is being built
3	Q. Okay? And you'll see the words the word	3	this way by flooding tides. And you can see in the
4	Sunderland's, and next to it is an X.	4	water, the waves are breaking on a fairly gentle
5	Now, as I understand it from speaking	5	slope into the inlet.
6	to counsel, you created or made this Farrell-6?	6	Here, along this part, they're not.
7			
•	Correct?	7	It's a steeper beach.
8	Correct?	7 8	It's a steeper beach. So as they walked this way, they simply
8 9	Correct? A. Yes. Q. Okay. When I say created or made, exactly	7 8 9	It's a steeper beach. So as they walked this way, they simply walked off the end of this feature, and, yeah, maybe
8 9 10	Correct? A. Yes. Q. Okay. When I say created or made, exactly what did you do that resulted In Farrell-6?	7 8 9 10	It's a steeper beach. So as they walked this way, they simply walked off the end of this feature, and, yeah, maybe the sand did give way under their feet.
8 9 10 11	Correct? A. Yes. Q. Okay. When I say created or made, exactly what did you do that resulted in Farrell-6? A. Well, this is a Google Earth aerial image	7 8 9 10 11	It's a steeper beach. So as they walked this way, they simply walked off the end of this feature, and, yeah, maybe the sand did give way under their feet. Q. As they're walking off, you mean?
8 9 10 11 12	Correct? A. Yes. Q. Okay. When I say created or made, exactly what did you do that resulted in Farrell-6? A. Well, this is a Google Earth aerial image from May 2011, if I'm guessing right.	7 8 9 10 11 12	It's a steeper beach. So as they walked this way, they simply walked off the end of this feature, and, yeah, maybe the sand did give way under their feet. Q. As they're walking off, you mean? A. As they're walking off.
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	97		33
1	completely natural and unaffected by any improvements	1	Sunderland says he and Mr. Smith went into the water.
2	in the area. Neither the seawall nor any beach	2	All right?
3	replenishments nor any other improvement played a	- 3	Give me every single basis for that
A	role. The seawall does at times create a whirlpool	4	statement.
	or vortex in the immediate vicinity of the seawall.	5	A. The configuration of the shoreline, as shown
6	The seawall has no effect in the area where Mr.	6	in the aerial photograph, is right where the flood
7	Sunderland says he and Mr. Smith went into the	7	tide influence on the beach bar that's moving up the
8	water."	8	inlet every time the tide's moving in meets up with
9	Okay. Now, let me stop there. I'm	9	the ebb flow that's doing things just down stream of
10	going to end the quote.	10	the parking lot revetment. We are talking about
11	Now, what is the basis of the statement	11	the city blocks in Wildwood are 600 feet long and 250
12	that the seawall doesn't at times create a whirlpool	12	feet wide. Center line street, center line that's
13	or vortex in the immediate vicinity of the seawall?	13	from measuring them, okay? I just know that.
14	MR. HUNKINS: Did you say does, or	14	So from the rock parking lot, you have
15	doesn't?	15	six, 12, almost 1500 feet from where the whirlpool
16	MR. D'AMATO: No. I said what is the	16	could be generated to where the event we presume
17	basis that it does. Yeah. I'm just quoting from his	17	occurred.
18	statement there.	18	And so that basically takes the events
19	A. Well, we have observed the curved beach	19	that caused slope failure fairly much off the table
20	surface that says something is you know, beaches	20	most I mean, within the realm of probability, if
21	like to be straight. Normally, waves come in, and	21	you're going to have one, it's going to be up here,
22	they smooth the sand out in nice curvings or nearly	22	up at the north end of the very north end of that
23	straight lines.	23	sand beach. That's where it's going to be. And down
24	Just in this one photograph, I will	24	here, you've got the interplay between the flood and
25	point to an area up near the corner of the rocks and	25	the ebb tides with steep slopes at the end of where
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
C	09		100
{	98	1	100
1	98 the parking lot, there's a very pronounced curve.	1	the deposit is being formed every time the tide comes
1	90 the parking lot, there's a very pronounced curve . Q. Could you just take your finger off it, so	1 2	the deposit is being formed every time the tide comes in. And this is a steep slope, angle of repose
1 2 3	90 the parking lot, there's a very pronounced curve. Q. Could you just take your finger off it, so the	1 2 3	the deposit is being formed every time the tide comes in. And this is a steep slope, angle of repose slope. And if you walk on it, it's not stable.
1 2 3 4	 90 the parking lot, there's a very pronounced curve. Q. Could you just take your finger off it, so the A. (Witness complies.) 	1 2 3 4	the deposit is being formed every time the tide comes in. And this is a steep slope, angle of repose slope. And if you walk on it, it's not stable. Q. Can you, as a scientist, absolutely rule out
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	101		103
4	MP. POZELL: Object to the form.	1	A. Yes.
1	MR. KOZEEL. Object to the form	2	Q. Okay. All right. Now, we have three
2	degree	3	exhibits here that came from your institute, and I'm
3		4	going to have them marked for identification. I just
	A. WILLING	5	want to put them in proper order.
~	A with the employment of scientific	6	Okay, Here we go. Okay.
6	A. Within a reasonable range of scientific	7	The first one is Farrell-14. And I'm
(probability, I would say it called the a major	8	aging to place the sticker so it doesn't cover
8	contributor to that site where Mr. Sumueriand pot ins	9	anything.
9	X	10	(Digital elevation map received and
10	Q. Okay. You used the word major. New about a	11	marked for identification as Exhibit Farrell-14.)
11	minor?	12	MR. D'AMATO:
12	A. Well, how minor is minor? We can't be sure	13	O Would you share with us what we are looking
13	within zero percent. So I would say, in the range of	14	at?
14	one, two, three maybe, percent. It depends on the	15	Δ This is a digital elevation map model from
15	situation. And it's you know, anything is	16	data done July 25th. 2012, July 26th, 2012 up until
16	possible out here. I've learned that, but	17	July 31st of Hereford Inlet and the associated
17	probabilistically okay. In this picture,	18	oceanfront beach.
18	Farrell-8, way in the distance, there's a sand	10	O All right For the lavpeople that would be
19	shoreline showing in this picture.	20	looking at this, could you explain to them the
20	Q. Where your finger is, right below?	21	significance of what we see there?
21	A. Correct.	22	Δ This is a bathymetric, which is underwater
22	Q. Okay.	22	tonography, bathymetric elevation map of the
23	A. That's here. That's that's where Mr.	20	configuration as we manned it using our sonar and our
24	Sunderland put his X. Not here.	25	GPS locating equipment on board our vessel, combined
25	Q. And how do you know that?	20	WORD FOR WORD REPORTING 11 C
	WORD FOR WORD REPORTING, LLC		104
	WORD FOR WORD REPORTING, LLC 102	1	104 with work done on the beach by a beach survey crew
1	WORD FOR WORD REPORTING, LLC 102 A. It sticks out from the general trend. I also	1	work done on the beach by a beach survey crew using laser transit and GPS.
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1 2 3 4	WORD FOR WORD REPORTING, LLC 102 A. It sticks out from the general trend. I also could see that the flow of water here is flat and shiny. That means there's no waves. That means the current's dominating things. Okay? By the time you	1 2 3 4 5	104 with work done on the beach by a beach survey crew using laser transit and GPS. So we cover up to basically the point of rocks at the parking lot in this one. Q. And could you show the people, when you
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	WORD FOR WORD REPORTING, LLC 102 A. It sticks out from the general trend. I also could see that the flow of water here is flat and shiny. That means there's no waves. That means the current's dominating things. Okay? By the time you get down here, you see whitecaps, water, waves breaking down the beach, and generally a darker blue color to the sea. This is where the current has subsided substantially. Q. Okay. Could you get that red marker, and on the photograph that you just showed everyone, can you circle the area where you say the event involving the Sunderland and Smith family took place? A. This is I would add more, but I'll just put an arrow down somewhere within, you know, a range of Q. Okay. A that Q. Okay. A area. Q. So the event that took place here with the the actual seawall?	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	104 with work done on the beach by a beach survey crew using laser transit and GPS. So we cover up to basically the point of rocks at the parking lot in this one. Q. And could you show the people, when you where the parking lot would be then? Right there? A. Right there. Q. Okay. Now, relative to the opinions that you have shared with us today and the statements you have made, what document what relevance does that document have, if any? A. Well, it it shows that we pretty well mapped this lobe of sand that's shown by a minus nine contour, about minus 10 feet, coming in and then tucking in really quickly to the shoreline, with much steeper contours running up to the rocks. Q. But what relevance, if any, does that have to the opinions that are contained in your report and those opinions that you shared with us today? A. Well, this is the evidence that says there is a fairly dramatic change in shoreline configuration right at that location, which tends to correspond with where Mr. Sunderland put his X.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 23 24	WORD FOR WORD REPORTING, LLC 102 A. It sticks out from the general trend. I also could see that the flow of water here is flat and shiny. That means there's no waves. That means the current's dominating things. Okay? By the time you get down here, you see whitecaps, water, waves breaking down the beach, and generally a darker blue color to the sea. This is where the current has subsided substantially. Q. Okay. Could you get that red marker, and on the photograph that you just showed everyone, can you circle the area where you say the event involving the Sunderland and Smith family took place? A. This is I would add more, but I'll just put an arrow down somewhere within, you know, a range of Q. Okay. A that Q. Okay. A area. Q. So the event that took place here with the beach collapsing took place closer to the seawall, the actual seawall?	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 3 24	 104 with work done on the beach by a beach survey crew using laser transit and GPS. So we cover up to basically the point of rocks at the parking lot in this one. Q. And could you show the people, when you where the parking lot would be then? Right there? A. Right there. Q. Okay. Now, relative to the opinions that you have shared with us today and the statements you have made, what document what relevance does that document have, if any? A. Well, it it shows that we pretty well mapped this lobe of sand that's shown by a minus nine contour, about minus 10 feet, coming in and then tucking in really quickly to the shoreline, with much steeper contours running up to the rocks. Q. But what relevance, if any, does that have to the opinions that you shared with us today? A. Well, this is the evidence that says there is a fairly dramatic change in shoreline configuration right at that location, which tends to correspond with where Mr. Sunderland put his X. Q. Okay. Could you, on that exhibit, put an X
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 23 24 25	WORD FOR WORD REPORTING, LLC 102 A. It sticks out from the general trend. I also could see that the flow of water here is flat and shiny. That means there's no waves. That means the current's dominating things. Okay? By the time you get down here, you see whitecaps, water, waves breaking down the beach, and generally a darker blue color to the sea. This is where the current has subsided substantially. Q. Okay. Could you get that red marker, and on the photograph that you just showed everyone, can you circle the area where you say the event involving the Sunderland and Smith family took place? A. This is - I would add more, but I'll just put an arrow down somewhere within, you know, a range of Q. Okay. A. - That Q. Okay. A. - That Q. Okay. A. that Q. Okay. A. area. Q. So the e	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	104 with work done on the beach by a beach survey crew using laser transit and GPS. So we cover up to basically the point of rocks at the parking lot in this one. Q. And could you show the people, when you where the parking lot would be then? Right there? A. Right there. Q. Okay. Now, relative to the opinions that you have shared with us today and the statements you have made, what document what relevance does that document have, if any? A. Well, it It shows that we pretty well mapped this lobe of sand that's shown by a minus nine contour, about minus 10 feet, coming in and then tucking in really quickly to the shoreline, with much steeper contours running up to the rocks. Q. But what relevance, if any, does that have to the opinions that are contained in your report and those opinions that you shared with us today? A. Well, this is the evidence that says there is a fairly dramatic change in shoreline configuration right at that location, which tends to correspond with where Mr. Sunderland put his X. Q. Okay. Could you, on that exhibit, put an X where the Sunderland and Smith event took place? You

	105		107
1	know, I understand this is	1	between Central Avenue and the rocks.
2	A. I'm just getting a pile here. Okay. We got	2.	Q. Okay.
3	this one.	3	A. We just didn't do it. The focus here was on
	Central, Central, Right here, We	4	the inlet, itself.
	come down to the elbow.	5	And basically, the channel is narrower
6	\mathbf{O} Okay All right Now, the date of that is	6	and a little shallower by December.
7		7	The other thing that's happening is,
8	Δ July well July 31st was the final survey	8	the channel from Stone Harbor, opposite a place
q	date I don't know when any one of these was done.	9	called Champagne Island, which is an ephemeral island
10	but it was done between July 25th and July 31st.	10	that is above high tide rarely, mostly is awash at
11	O Of what year?	11	high tide, or submerged at high tide, but it's very,
12	Δ 2012	12	very, very shallow. There is a channel that
12	(Digital elevation mans received and	13	established itself in about 2010 out to sea to the
13	marked for identification as Exhibits Farrell-15 and	14	northeast, serving Stone Harbor, which has
14	Formulate)	15	subsequently gotten smaller and narrower with time,
10	O Okay New Jot me chew you Farrell-15 which	16	like it's virtually in the act of disappearing. If
47	in the upper right hand corner cave Hereford Inlet	17	you know where it is, you can follow it. I don't
40	In the upper right-hand comer says received met	18	advise the uninitiated trying to do it, because it's
10	A Non	19	kind of risky. But it is a tidal channel. There's
19	A. Tep.	20	two main channels in this system as of the last half
20	G. And can you and to save some time, here's	21	decade. And that's the other one. It was really
21	A Okay This is those are the three	22	dramatic around 2011, '12, and has faded since.
22	A. Okdy. This is these are the time to	23	
23	$\mathbf{O} = \mathbf{S} \mathbf{o} \text{ in locking at the date of the one you have}$	24	Δ So that's where the major changes are taking
24	in your bond. I conit can it	25	place, controlled by if this doesn't flow as well.
20			WORD FOR WORD REPORTING, LLC
	WORD FOR WORD REPORTING, LEO		
	106		108
	106	1	108
1	106 A. It is well, December '12 is the date it	1	108 this one has to flow harder.
1 2 2	106 A. It is well, December '12 is the date it was done, between the 6th and the 17th.	1 2 3	108 this one has to flow harder. Q. Referring to Stone Harbor? A If the Stone Harbor one doesn't flow as well.
1 2 3	106 A. It is well, December '12 is the date it was done, between the 6th and the 17th. Q. Okay. What significance, if any, does that	1 2 3	108 this one has to flow harder. Q. Referring to Stone Harbor? A. If the Stone Harbor one doesn't flow as well, then that enhances the flow through North Wildwood
1 2 3 4	106 A. It is well, December '12 is the date it was done, between the 6th and the 17th. Q. Okay. What significance, if any, does that particular exhibit have relative to the opinions that	1 2 3 4 5	108 this one has to flow harder. Q. Referring to Stone Harbor? A. If the Stone Harbor one doesn't flow as well, then that enhances the flow through North Wildwood main channel. And traditionally, that's been the
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1 2 3 4 5 6	A. It is well, December '12 is the date it was done, between the 6th and the 17th. Q. Okay. What significance, if any, does that particular exhibit have relative to the opinions that you've shared with us today? A. Well, it shows changes occurred. The	1 2 3 4 5 6 7	 this one has to flow harder. Q. Referring to Stone Harbor? A. If the Stone Harbor one doesn't flow as well, then that enhances the flow through North Wildwood main channel. And traditionally, that's been the main channel, over long periods of time. Q. Is as a scientist is it fair to say that
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1 2 3 4 5 6 7 8 9 10 11	A. It is well, December '12 is the date it was done, between the 6th and the 17th. Q. Okay. What significance, if any, does that particular exhibit have relative to the opinions that you've shared with us today? A. Well, it shows changes occurred. The shoreline of the area in the immediate vicinity of the incident has essentially been straightened by Q. Okay. A tidal flow, and that the channel is more defined by a fan going out to sea. It's deeper	1 2 3 4 5 6 7 8 9 10 11	 this one has to flow harder. Q. Referring to Stone Harbor? A. If the Stone Harbor one doesn't flow as well, then that enhances the flow through North Wildwood main channel. And traditionally, that's been the main channel, over long periods of time. Q. Is as a scientist, is it fair to say that when it comes to the Hereford Inlet, relative to the location of the channel of water where the where The Inlet Beach Is, it can vary day to day? A. Well, week to week. Q. Week to week, okay.
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 24 25	A. It is well, December '12 is the date it was done, between the 6th and the 17th. Q. Okay. What significance, if any, does that particular exhibit have relative to the opinions that you've shared with us today? A. Well, it shows changes occurred. The shoreline of the area in the immediate vicinity of the incident has essentially been straightened by Q. Okay. A tidal flow, and that the channel is more defined by a fan going out to sea. It's deeper less distance towards the ocean. It's shoaled up out towards the ocean. Q. Okay. A. This is something we did notice, and it continued. Q. All right. And then the final one, which is dated May 2013. A. This was based on data done between May 9th and May 24th. Q. And what relevance does that have relative to the opinions that you've shared with us today? A. The last information on land is at our Central Avenue cross section, so the that's where it stops. So it doesn't show much at the beach WOPD FOR WOPD PEROPTING. LLC	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	this one has to flow harder. Q. Referring to Stone Harbor? A. If the Stone Harbor one doesn't flow as well, then that enhances the flow through North Wildwood main channel. And traditionally, that's been the main channel, over long periods of time. Q. Is as a scientist, is it fair to say that when it comes to the Hereford Inlet, relative to the location of the channel of water where the where The Inlet Beach is, it can vary day to day? A. Well, week to week. Q. Week to week, okay. Now, what I want to do is, I want to go over some of the aerial photographs, then I'm finished. That would be the exhibit that you looked at before. I can see it right there. That's it. Okay. That, again, is County Designee Exhibit 4. And if you could, instead of going from front to back, if you could A. Back to front. Q. — look at the third exhibit from the back. It will have a marking of exhibit County Designee 6. That's it. Okay.

	109		111
1	Now, you'll see that somebody put a	1	but I don't have a scale.
2	pin, and there is the typed word accident.	2	In other words, I I see how much a
3	So we could kind of be you know,	3	block is here, how much a block is there, and then do
•	follow up on this, does this exhibit show where the	4	the ratio, and put it out based on
	Sunderland and Smith incident took place?	5	Q. Okay.
6	MR. HUNKINS: Object to the form, Just	6	A. I mean, this could be plotted. It's going to
7	hold on a second	7	be out here in the water somewhere, practically off
8	MR. ROZELL: Object to the form, also,	8	the map.
q	MR HUNKINS: Could you remind me when	9	Q. Okay. So why don't you show the jury,
10	County Decignog 6 was taken?	10	because I would like to move on, where where you
10	MR D'AMATO: You know what I don't	11	believe it's off the map?
12	know I mozo I could re I could research it	12	A. I'll put a
14	Rilow, Tillean, Tould Teller Tould Tescarch Tell	13	Q. Okay.
13	but it's a Google Earth photograph. And with an	14	MR. HUNKINS: This is an estimate,
14	this in filling, okay, i could ten you, i think this	15	without doing the measurement?
10	Was done by my former associate, i think.	16	Q. Right.
10	MR. HOWKINS. Only because, then, on	17	A Yeah this is an estimate. It's the
17	top of when it was taken, is the issue of the yellow	18	abotograph is later in time. Because we did this
18	pin says accident, and I don't know are you	10	with the Google nicture series when we made the map
19	representing	20	that we have created
20	MR. D'AMATO: No, I'm not making any	20	
21	representation. I'm just showing him this exhibit.	21	A So the configuration of the streets and roads
22	I'm just asking the doctor, if he's able to. If he	22	A. So the comparation of the success and rocks
23	can't, then that's fine.	23	puts it somewhere entier just on the map, or just
24	MR. HUNKINS: Okay, that's fine. Able	24	O Okaw
25	to	20	
14	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LEO
2.05		1	112
	110		112
1	110 A. Do what?	1	A. Or at the time the picture was taken.
1 2	110 A. Do what? Q. To be able to put a marking on this exhibit,	1 2	A. Or at the time the picture was taken. Q. Now, what I'd like you to do is, if you go to
1 2 3	110 A. Do what? Q. To be able to put a marking on this exhibit, which is County Designee 6, as to your best estimate	1 2 3	A. Or at the time the picture was taken. Q. Now, what I'd like you to do is, if you go to the next aerial, it's dated February 22, 2013 at the
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	113		115
	Q. Now, go to the next photograph, which is	1	ArcGIS, Geographical Information Systems. And they
;	March 14, 2012.	2	said, would you provide a proposal to digitize all of
	A. Um-hum.	3	the known topographic maps done by Coast Geodetic
	Q. All right?	4	Survey, United States Geologic Survey, Army Corps of
	A. All right.	5	Engineers, for us in this new GIS format, so we could
(Q. Look at the inlet, look at The Inlet Beach.	6	have historic shorelines for the State of New Jersey?
	A. Um-hum.	7	University of Maryland and Stockton participated in
	Q. And go to the next one, which is November 17,	8	this project. It was a half a million dollars, a lot
-	2009, look at the inlet channel and The Inlet Beach.	9	of time. Maryland had the fancy computer hardware.
1	The next one is 2007, March 19, 2007. Do the same	10	You know, we had the legs and could go places and get
1	thing.	11	the stuff and do the digitizing.
1	A. Um-hum.	12	So I went to the Army Corps, I went to
1	Q. And then go to the next one, which is April	13	the USGS, I went to the Coast Geodetic Survey, and we
1	6, 2005. Okay?	14	got all the maps.
1	5 A. Um-hum.	15	Shorten this up a lot, Hereford Inlet.
1	Q. The next one is April 1, 2003. Okay. The	16	In Hereford Inlet, we discovered, by looking at these
1	next one is 2002. The next one is 2000. All right?	17	maps, aerial photographs, and other charts that exist
1	A. Yep.	18	for this region, that there is a 30 28 to 30-year
1	Q. The next one is 1995.	19	cycle of spit growth, erosion. The shoreline
2) A. Um-hum.	20	retreats, and every time it would erode, North
2	Q. The next one is 1970.	21	Wildwood would lose real estate. Every time it would
2	2 A. Okay.	22	pour in there, like that 1941 picture, they actually
2	3 Q. And the next one is 1963.	23	put paper streets out there, they want to build
2	4 A. Okay.	24	houses on it. Fortunately, they didn't.
2	Q. The next one is 1956.	25	Q. Yeah.
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
1	114		116
	1 A. Um-hum.	1	A. And First Avenue really existed all the way
1			
	2 Q. The next one is 1941. Okay? The next one is	2	to the oceanfront. It went away in the 1965 through
	 Q. The next one is 1941. Okay? The next one is 1930. The next one is 1920. And we'll stop there. 	2 3	to the oceanfront. It went away in the 1965 through 1970 iteration of erosion.
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			110
	117		119
1	into Hereford Inlet, making this feature that the	1	how everything changed over time with the location of
2	Smiths chose to sit on in 2012. So it's an ephemeral	2	the inlet, The Inlet Beach. You said that the
3	feature in the long run, which undergoes very	3	Hereford Inlet, you commented, you used the word
	dramatic changes in a lifetime, in spite of the fact	4	dramatic. Is this what we see in aerial
	that it sits there in these pictures, you know, like	5	photographs, if we were to do the same thing for the
6	it's been there forever. It it comes and it goes.	6	Ocean City, Longport area, the Absecon Inlet, some
7	This happens in Absecon Inlet, it happens in Ocean	7	other inlets, would it be just as would it be just
8	City's inlet. It happens in all of New Jersey's	8	as dramatic as what we've seen in these aerials?
9	inlets where they're unrestricted.	9	A. Well, from the work we did back in 1989, yes,
10	Build a pair of ietties, doesn't happen	10	there's dramatic changes take place in all of them.
11	anymore. But the ones that are unrestricted, this is	11	Until, of course, they put the big structures in
12	this is the result of the interaction between	12	there, and like for Barnegat Inlet, that changed
13	northeasters, the sand arriving from the northern	13	that one for all time. The little ones up north,
14	barrier island into the inlet. and where the main	14	Manasquan and Shark River, used to migrate. And the
15	channel of that inlet is located relative to the	15	reason they built what they call government dike was
16	ocean, itself, not right along the island, but where	16	to keep from losing the Manasquan Fish and Hunt Club,
17	it enters the sea.	17	which bought the piece of property right next to the
18	And as far as we can tell, in 1995, the	18	inlet in 1880, 1879, and oh, my God, we're going to
19	channel went to the northeast. Shifted thousand, 500	19	lose our hunt club. They built a wall.
20	feet. The main exit went out to the northeast.	20	MR. D'AMATO: Okay. Thank you. We're
21	Didn't go near Second Avenue anymore. Just, we're	21	going to go off the record. I just need a couple
22	out of here, straight out. Well, what happens?	22	minutes to talk to my colleague here, and we'll be
22	Flood tide moves sand in, there's no ebb tide to	23	right back.
24	sweep it away. So the flood tide moves the sand in.	24	VIDEOGRAPHER: Time is now 1:57 p.m.
24	around the jetty, and up the inlet shoreline, as this	25	We are going off the record.
<i>a</i> . 0	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
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1	deposit of sand. And it's still going on to this	1	(There was a brief recess.)
1	deposit of sand. And it's still going on to this day	1	(There was a brief recess.) VIDEOGRAPHER: Time is now 2:13 p.m.
1 2 3	deposit of sand. And it's still going on to this day. Now, should the channel dramatically	1 2 3	(There was a brief recess.) VIDEOGRAPHER: Time is now 2:13 p.m. We are back on the record.
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	121		123
1	(Copy of Farrell-6 received and marked	1	A. All of the above.
2	for identification as Exhibit Farrell-17.)	2	Q. Now, how is the rock revetment different than
3	Q. And I'm going to hand this to you, and if you	3	a seawall?
A	could use the red marker to show us where the six	4	A. Just a little less robust.
	locations were where you've been doing this testing	5	Q. Okay.
6	or measuring since I think it was 2009.	6	A. Seawalls generally are bigger foundations,
7	A. No can do on this one. They're all southeast	7	higher in elevation. You wouldn't see over a
8	of this photograph.	8	seawall, because the object is to stop everything.
9	Q. Okay. Are they these locations, are they	9	So that would probably be you know, if you were
10	on what I'm going to say the beach that faces the	10	standing in the street, you'd just see a wall.
11	Atlantic Ocean, as opposed to The Inlet Beach?	11	Q. Okay. This particular 6000 plus feet
12	A. There's six profiles on The Inlet Beach. The	12	revetment that you referred to, do you know the
13	first one is essentially parallel with Kennedy	13	history of it?
14	Boulevard and goes straight out into the inlet,	14	A. Not really completely that I you know, I
15	parallel to Kennedy Boulevard.	15	was never involved in any of the design work or any
16	Q. All right.	16	of the permitting or any of the construction. But I
17	A. Then there is three more 200 feet apart,	17	kind of know its history.
18	ending at essentially Surf Ave. And then there's one	18	Q. Do you know when it was first constructed?
19	1200 feet from the jetty at the inlet, Ocean Avenue	19	A. Initial construction, lost probably pre me
20	maybe, or the next one up, Central Avenue.	20	pre 1971.
21	Q. Okay.	21	Q. Do you know if it was constructed in stages?
22	A. And the final one is located parallel to	22	A. It was definitely constructed in stages.
23	Central Avenue, going out into the inlet on this	23	Q. Which was the first stage?
24	picture. This that's the the 2400 foot, that's	24	A. I think up there to the northwest of the
25	just a distance from the zero point on the jetty.	25	parking lot.
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
	122		124
1	MR, D'AMATO: Okay. Got you.	1	Q. All right. And they I'm going to call the
2	All right. I'm finished. And I'm	2	parking lot the projection.
3	going to hand the mic over to Mr. Grassi.	3	A. Okay.
4	MR. GRASSI: Thank you, Paul.	4	Q. Because it it projects out into the
5	EXAMINATION BY MR. GRASSI:	5	channel.
6	Q. All right. Doctor, I have just a few	6	A. Yeah, no doubt about it.
7	auestions.		
8		7	Q. And as you have indicated, that projection
	What is it that those stations were	7 8	Q. And as you have indicated, that projection actually has some I'm going to call them profound
9	What is it that those stations were measuring?	7 8 9	Q. And as you have indicated, that projection actually has some I'm going to call them profound effects on the channel and the area of the channel;
9 10	What is it that those stations were measuring? A. The surface topography and offshore	7 8 9 10	Q. And as you have indicated, that projection actually has some I'm going to call them profound effects on the channel and the area of the channel; would you agree with me?
9 10 11	What is it that those stations were measuring? A. The surface topography and offshore bathymetry along the line.	7 8 9 10 11	Q. And as you have indicated, that projection actually has some I'm going to call them profound effects on the channel and the area of the channel; would you agree with me? MR. HUNKINS: Object to the form.
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	125		127
4	O But it's the reason they're constructed:	1	jetty, and may have almost exposed the next one in
1	W. Dutit's the reason they re constructed,	2	the series. So no, the northeasters have the major
2	A wheth they is constructed to have a control	3	control over how much sand is in the southeastern
ა	A. Well, they le constructed to have a control	4	part of this feature.
	effect. Why that projection is the way it is, a nave	5	Q. Okay. There's a an area between the
~	no ciue.	6	projection and the area at Central Avenue, which is,
6	Q. Okay. If you would pick up the county	7	I think pretty close to where Mr. Smith had his
(8	demise and that area's generally carved out.
8	A. Um-num.	9	Can you can you tell us why that Is?
9	Q and there's a map towards the back, March	10	MR_HUNKINS: Object to the form.
10	14th, 2012.	111	A well it's probably related to the excess
11	A. March 14, yes.	12	velocity due to the parking lot projection being
12	Q. Okay.	12	reflected in the lack of sand coming in and the
13	A. Um-hum.	14	ourrents making it not stay if it does come in.
14	Q. And I've chosen that one, because it's	16	O Okay
15	relatively close in time to our event, although it's	10	Δ There's a hig lobe of material in this
16	after the fact.	10	nhotograph in 2012 seeking to make entry.
17	A. Yeah, um-hum.	10	
18	Q. And it contains the area of sand that you've	10	A TE you flip forward bingo By February
19	called a spit?	13	2017 a lot of that area has been filled in.
20	A. Yes.	20	O Okay That area if you could go back to
21	Q. Okay. And is that entire spit the area that	21	2012 the area where you had your finger would you
22	you're referring to as the feature that was created	22	parco with me that's an interface between the area of
23	by the flow tide?	23	increased valority and the sand denosited by the flow
24	A. This white sand feature ending approximately	24	tido2
25	at Central Avenue, yes, that is the spit.	20	
	WORD FOR WORD REPORTING, LLC		128
	126		MD HUNKINS: Object to the form
1	Q. Okay. And that's the spit that you're saying		MR. ROTELL: Object to the form
2	is a feature that comes and goes in 20- to 30-year	2	A By the fleed tide?
3	cycles?	3	A. By the flow
4	A. Correct.	4	
5	Q. All right. In at this point in time, in	0	A. Flow,
6	2012, at what point in the cycle would you consider	0	Q. Flood tide?
7	that spit is?		A. Flood tide?
8	A. Late in the cycle.	8	Q. The the interaction range Vac
9	Q. And late in the cycle of coming or going?	9	A. That's the interfaction zone, yes.
10	A. Going. Well, late in the cycle in that I	10	A Mag
11	have been anticipating its severe erosion for a	11	MD WINKINS: Object to the form
12	number of years. Hasn't happened yet.		• And that interface is incredibly volatile'
13	Q. It hasn't, okay. Question, does the	13	G. And that interface is increating volution
14	construction of the southern portion of the rock wall	14	ISTITUS
15	have an effect in preserving that splt?	110	MR. DOZELL: Object to the form
16	MR. HUNKINS: Object to the form.	10	MR, ROZELL. Object to the form.
17	MR. ROZELL: Object to the form.	17	A. It's just steeper than it should a you know?
18	A. Not significantly.	18	It's steeper.
19	Q. All right. Would you agree with me that the	19	W. ILS (Edi SLEEP) ISH LIL!
20	eastern-most portion of the spit is anchored by the	20	
21	three jetties, two of which you didn't recall being	21	A. Tean.
1	there?	22	W. Let's go back to the maps that you made in
23	MR. HUNKINS: Object to the form.	23	July of 2012, bathymetric studies.
24	A. Well, actually, northeast storm Jonas scraped	24	A. UKay.
25	away a lot of the sand next to the Second Avenue	25	MR. D'AMATO: Do you need a copy?
1	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC

	129		131
1	MR. GRASSI: Yeah, that would be	1	Q. I've looked at this at a much larger scale.
2	helpful.	2	But when you look at this photograph, the areas that
3	A. Oh, let me see. 14.	3	are in yellow, are they uplands?
л	Q. That's Farrell-14?	4	A. No. The colors are based on elevation, true.
2	A. Correct.	5	The blues are deeper water. The yellows are
6	Q. Okay. You indicated that the mapping was	6	transitional to land. And you have contour, the
7	done both by a vessel with an echo sounder and GPS.	7	zero, is NAVD, North American vertical data of 1989,
8	And I'm assuming that what was happening is, as the	8	it's between high and low tide, depends on where you
9	vessel was going around taking the soundings, that	9	are what it is.
10	was all recorded on a computer?	10	So two would be roughly mean high tide,
11	A. Correct.	11	roughly.
12	Q. So that later, you had a computer to map this	12	Q. Okay.
13	all out for you?	13	A. Minus minus two is roughly mean low tide.
14	A Yeah.	14	Q. Okay.
15	Q. And similarly, using the rotating laser	15	A. You could follow them around.
16	transit to get the unlengths?	16	Q. All right. And 10 and 12 and 14, they're
17	A. The laser is just a single shot. It's like a	17	A. They're over your head.
18		18	Q. Okay. And they're up against the revetment?
19	Q Okay Did you actually participate in the	19	A. Oh. At the parking lot.
20	mannings?	20	Q. Okay. Is it fair to say that overall this
21	A. The data collection?	21	Inlet Beach has a much steeper slope than the beach
22	Q Yes	22	front?
23	A Yes	23	A. Well, actually, if you look between Surf and
24	O Okay And coincidently, it seems that your	24	Atlantic on the inlet, and look at the oceanfront
25	manning, which took place over a few days, actually	25	between Seventh and Ninth, they're pretty much the
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
	130		132
1	130 bracketed this incident.	1	132 same.
1	130 bracketed this incident. A. Well, 25th, yeah, it would have, yeah.	1 2	132 same. Q. Okay. And in fact, to a casual beachgoer,
1 2 3	130 bracketed this incident. A. Well, 25th, yeah, it would have, yeah. Q. So this is a pretty accurate representation	1 2 3	132 same. Q. Okay. And in fact, to a casual beachgoer, they would be the same; wouldn't they?
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	(00)		134				
	133	4	A No No It's natural It's a natural				
1	A. It's	2	intet				
2	Q at the shoreline where Central Avenue, if	2	• Even with this mile-long revetment?				
3	you draw a line with Central Avenue, you drew it out,	3	A It's not in the inlet It's on land.				
4	there's a line where all of the contour lines seem	5	A. It's not in the inter. It's of initial				
	there's a place where all the contour lines seem to	0	of the inlet: decent #2				
6	come together.	7	$7 \qquad A \qquad Tt constricts where it can be relative to the$				
7	MR. HUNKINS: Can you point to that?		fact land which nearly live on				
8	A. Well, here's Central.	0					
9	Well, they don't all come together.	10	A To the extent that the inlet would take half				
10	They get really close, but they don't come together.	10	A. To the extent that the infet would take the				
11	There is a slope.	11	of North Wildwood had nothing been doney only that				
12	Q. Okay. Could you put put that down for one	12	guess you a nave to alsouss that with the forks that				
13	second, so that I can make sure we're looking at the	13	O But that's what a natural inlet would do:				
14	same thing?	14	icolt #2				
15	And	10	MP HUNKINS: Objection				
16	A. Right.	17	A Well that's what all inlets do				
17	Q. I think we are. All right.	19	MR HUNKINS: Object to the form.				
18	So at this point right here	10	• So really the entire south wall of the inlet				
19	A. Um-hum.	20	throat is man-made; isn't it?				
20	Q. Do you have a dot on that point?	24	MR HUNKINS: Object to the form.				
21	A. That was the request made by Mr. D Amato.	22	MR_ROZELL: Object to the form.				
22	Q. Okay. Okay. Can you estimate what the slope	23	MR HUNKINS: Walt what's man-made:				
23	is at that point, at that point in time?	24	the reversent or the sand or what?				
24	MR. HUNKINS: Object to the form.	24	O The inlet throat is a revelment?				
25			WORD FOR WORD REPORTING, LLC				
	134		136				
	134	1	136 MR. HUNKINS: Object to the form.				
1	slope.	1	136 MR. HUNKINS: Object to the form. A. The only place the inlet revetment is in				
1 2	slope. 134 Q. And the angle of repose is? A	1 2 3	136 MR. HUNKINS: Object to the form. A. The only place the inlet revetment is in continual contact with the water is well to the west				
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	137		139			
1	with the CBRA, which is the Coastal Barrier Resources	1	VIDEOGRAPHER: Excuse me, counsel.			
2	group, and National Fish and Wildlife Service, and	2	Need to go off the record for one second. Time us			
3	the Army Corps of Engineers, these are the areas	3	now 2:38 p.m.			
4	permitted from which to take sand to nourish beaches	4	(Discussion off the record.)			
	in the area. Wildwood is allowed to use the southern	5	VIDEOGRAPHER: Time is now 2:38 p.			
6	two, and Stone Harbor gets the Northern three, little	6	We are back on the record.			
7	pieces.	7	MR. GRASSI: All right. I'm through			
8	Q. These are all the places that are	8	asking questions. Thank you.			
9	cross-hatched on here?	9	THE WITNESS: Okay.			
10	A. Yes.	10	FURTHER EXAMINATION BY MR. D'AMATO:			
11	Q. Okay. And does that dredging effect the flow	11	Q. I just have a couple here.			
12	of the channels in any way?	12	We were talking off the record about			
13	MR HUNKINS: Object to the form.	13	the helicopter that Mr. Grassi and I retained and the			
14	A This has been going on since 19 no. 2003.	14	professional photographer who took photos from the			
15	So thus far the answer is no	15	air on March 1, 2016.			
10	• Horeford Joint is not dradged by the U.S.	16	I graphed a couple of them. I'm going			
10	Coast Guard?	17	to hand them to you. Can you pick one that you feel			
10	A Not only not drodged not maintained	18	most comfortable with if you can pick one, that you			
10	A. Not only not dredged, not maintained.	10	could put an X on as to where the incident involving			
19	w. And in fact, the chambers aren't even marked,	20	Mr. Sunderland and Mr. Smith and their children took			
20	A That's what I mean by maintained	21	nlace2			
21	A. That's what's mean by maintained.	22	And again, it's not that I'm asking you			
22	Q, Okay, why is that?	22	to do it scientifically, but just so we for future			
23	A. They choose not to. You have to ask them.	23	nurnesses with the serial photograph			
24	Q. Okay. Would you agree with me that that a	24	A More			
25	revelment or a seawall will effect the slope of the	20				
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	141		143
1	distance out into the inlet, the distance along the	1	entered that critical phase of being entered into the
2	shoreline is compared to the X on Farrell-16	2	tidal flow.
3	Q. Okay.	3	Q. Okay. I didn't mark it.
	A Mr. Sunderland's X transferred onto our	4	(Discussion off the record.)
	Google Earth picture of the same date.	5	(2012 Annual Report received and marked
6	Q. Understood.	6	for identification as Exhibit Farrell-19.)
7	A. So the shoreline has retreated since the	7	Q. Let me show you, which I know you're familiar
8	incident. There is a fairly wide inter-tidal beach	8	with, what we've marked for identification as
9	now much more elongated and straight. And the dunes	9	Farreli-19, which is, it says at the bottom, prepared
10	show signs of hur northeast storm Jonas erosion,	10	by the Richard Stockton Coastal Research Center, 2012
11	which is what did all this, actually.	11	Annual Report to the City of North Wildwood on
12	Q. Okay. All right.	12	Condition of the City Beaches. All right?
13	Now, my second question relates to your	13	I would assume that you had substantial
14	report, which we marked for identification. It's	14	involvement in the preparation of that report?
15	under the pile there.	15	A. Yes, sir.
16	There you go.	16	Q. Okay. If you could go to page four. Okay?
17	If I may, let me point where I'm going	17	And there's a photograph, an aerial photograph that
18	to ask you a question about, where it says the slope	18	says North Wildwood Quarterly Survey Profile Lines.
19	there.	19	Are these the ones that you were
20	A. Yes.	20	referring to us before, or are these additional ones?
21	Q. Okay. Let me quote from your report.	21	A. These are these are on the oceanfront
22	Quotes, "The slope of sand that forms the margin of	22	beach.
23	the channel is inherently unstable. In my opinion,	23	Q. Correct.
24	Mr. Sunderland and Mr. Smith stepped onto the channel	24	A. There's quite a there's every 200 feet,
25	margin slope and the slope gave way. This is not	25	there's one. There's like 53 of them altogether.
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
	142		144
1	142 unlike what a hiker might experience while crossing a	1	144 Q. Okay. Now you've explained what I needed to
1	142 unlike what a hiker might experience while crossing a steep slope of a rock scree."	1 2	144 Q. Okay. Now you've explained what I needed to know.
1 2 3	142 unlike what a hiker might experience while crossing a steep slope of a rock scree." A. Yeah.	1 2 3	144 Q. Okay. Now you've explained what I needed to know. A. We selected a subset for illustrative
1 2 3 4	142 unlike what a hiker might experience while crossing a steep slope of a rock scree." A. Yeah. Q. "The broken rock pleces give way and the	1 2 3 4	144 Q. Okay. Now you've explained what I needed to know. A. We selected a subset for illustrative purposes, because we didn't want to waste all their
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1 2 3 4 5	142 unlike what a hiker might experience while crossing a steep slope of a rock scree." A. Yeah. Q. "The broken rock pleces give way and the hiker will slide down with it, sometimes ending up more than a couple of feet down the hill.	1 2 3 4 5 6	144 Q. Okay. Now you've explained what I needed to know. A. We selected a subset for illustrative purposes, because we didn't want to waste all their time, and I know they wouldn't look at them all. Q. All right. Page five, it says figure two,
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1	follow-ups.	1	in the beach over the years, based on recurrent
2	MR. D'AMATO: Go ahead, sure.	2	storms and there was a cycle you referred to. Do you
3	EXAMINATION BY MR. HUNKINS:	3	recall that?
•	Q. Doctor. I think we read this report a couple	4	A. Yes.
	of times already, but I'm reading two sentences, it's	5	Q. And are those effects allowed to happen
6	from your report	6	because there's no control structure like there is at
7	A Okay	7	Barnegat Inlet?
8	O "Within a reasonable degree of coastal	8	A. These these cycles occur in spite of man's
0	engineering probability water and sand conditions	9	efforts at any type of control. Historically, like I
10	that contributed to the incident in this case were	10	said, we went back to 1899 and found multiple cycles
14	completely natural and upaffected by any improvements	11	The most recent one concluded in 1965, with the loss
12	in the area. Neither the seawall nor any heach	12	of the spit, and the channel almost parallel with the
14	reatenishments per any other improvements played a	13	unlands. And, of course, post 1962, a lot of rock
4.A	rele "	14	construction went on everywhere on the Jersey coast
14	To that still your opinion?	15	So that's just a guess as to when work was done in
10		16	North Wildwood.
10	A. Tes, sil.	17	So the answer to the question is,
17	Q. Again, within a reasonable degree of	18	essentially, these things have a life of their own,
18	is it that the securil did not play a role where this	19	and absent very extensive in-the-water construction,
19	is it that the seaward where Mr. Sunderland said it	20	will continue to occur.
20	Incident occurred, where Mr. Sundenand solution	21	O is it your opinion that the conditions that
21	nappened? Why in your opinion did the seawait play	22	resulted in Mr. Sunderland going into the water and
22	no role?	23	Mr. Smith going into the water are the result of the
23	A. Because it's too far away from the incluent	24	natural action of the tides?
24	position, because its effects are dominated by	25	A The natural action between the ebb and the
25	proximity to it, within a couple nundred feet of	2.5	WORD FOR WORD REPORTING. LLC
	WORD FOR WORD REPORTING, LEC		148
	140	1	flow tide right at the unfortunate location they were
1	less. And the incident took place south and east of		actually at at the time they went in the water.
2	Central Avenue out on a beach that is well over 250	2	O Thank you And a few minutes and I might
3	feet wide at that point. That, and the absence of		have said Mr. Sunderland when I should have said Mr.
4	testimony by witnesses that there was any large-scale	5	Smith Bocause after all Mr. Smith is the person
5	slope failure that showed with evidence as	6	whole suing . So would all your questions be the same
6	illustrated in one of the photographs supplied to me		with regard to Mr. Smith?
(showing that.		A Correct
8	Q. Okay. And why, in your opinion, did the	0	MD HUNKINS: All right Thanks
9	revetment not play a role in the conditions where Mr.	10	That's all I have
10	Sunderland went into the water?	10	MR D'AMATO: One final question
11	A. Again, proximity. He they weren too they	12	MP_ROZELL: I may have a couple, too.
12	were not in the area where the accelerated currents	12	MR. D'AMATO: No. Go ahead, go ahead.
13	are chewing away at the beach more than hot.	13	MR. BARATO, No. Co aneda, go anodal
14	So in other words, this is this is a	14	VIDEOGRAPHER: Time is now 2:53 p.m.
15	gradual fade away, as you go away from the rock	10	Wolzo going off the record
16	rock-protected parking lot, the projection, as it's	10	(Discussion off the record.)
17	been called. The further away you get from that, the	17	(Discussion on the record.)
18	probability of any influence of a revetment or rock	10	Welve back on the record
19	wall just declines to zero fairly quickly.	19	EVANINATION BY MD DOZELL
20	Q. Would your opinion be the same with regard to	20	Dr. Farroll, I baliava you tartified earlier
21	the three jetties that were referred to on some of	21	We Dr. Farren, I believe you testined earlier
	these photographs?	22	that the location of the change from time to timotic that
23	A. They have absolutely nothing to contribute in	23	neretoro intel can change from time to time; is that
24	any way.	24	A Vec
25	Q. You did testify that there's wide variation	25	
L	WORD FOR WORD REPORTING. LLC		WUKD FUK WUKD KEFUKTING, LLC

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1	• • • • • • • • • • • • • • • • • • •	1.	Q. Are there times where the slopes can be
2	didn't say on a day-to-day basis, but possibly on a	2	fairly flat?
2	week-to-week hasis?	3	A. Locations where they tend to be flatter than
Л	A The changes are fairly quick. The most	4	others, yes.
	dramatic change I ever nersonally witnessed was	5	Q. Is there any way to predict on a daily or
c	hotwoon on inspection we did prior to the 2009 beach	6	weekly basis where the side where the edge of a
0 -7	fill back in when problems were just being	7	channel or what the slope is going to be, or where
(0	neticed by the sity and a visit to survey the	8	the slope where the slope is going to be?
0	noticed by the city, and a visit to survey the	9	A. Well, for the lavperson, no. But if you look
40	twin T same down plans the rock wall, past the	10	out and watch the wave break, if you're a surfer, you
10	trip, I came down along the rock wall, past the	11	probably could figure it out.
11	parking lot promontory, and went straight out the	12	Wayes break in water at some fraction
12	channel to the Atlantic Ocean. December of 1996, 1 m	12	of their wave beight. And if they're breaking out
13	doing the same run, I come down, and I see this gray	13	there 70, 80 feet out from the water's edge. You got
14	thing in front of me. As I get closer to it, it's	16	a pretty good idea that it's pretty flat slone going
15	all sand. And I had to change course to the port	10	a pretty good lidea that it's pretty hat slope yours
16	side by 40 degrees to avoid running aground on what	10	analytic deeper right past where the wave breaks.
17	had not been there six months earlier.	40	O Okay
18	So that was the initiation of this	10	A Course there is a way to anecdetally come to
19	series of growth that lead to the cycle we're	19	M. Su yes, there is a way to anectotany come to
20	presently in of the spit growth. So that was pretty	20	the conclusion of slope on a beach. But as fair to
21	dramatic. That was six months.	21	quantitatively measuring it, I mean, you ve got to
22	Q. So the so the edges or the sides of the	22	O Co I mean where the wayor are breaking may
23	channel can move?	23	Q. So I mean, where the waves are breaking may
24	A. They can prograde and erode, and have been	24	or may not be accurate as to where
25	demonstrably shown to do so in this series of	25	A. It may not well, it's certainly not
I	WORD FOR WORD REPORTING, LLC	4	
	150		
1	pictures supplied from the county.	1	accurate. It's just an estimate.
1 2	150 pictures supplied from the county. Q. And now, how about the slopes on the sides of	1 2	accurate. It's just an estimate. MR. ROZELL: Okay. I don't have any
1 2 3	150 pictures supplied from the county. Q. And now, how about the slopes on the sides of the channel, as far as the steepness goes, can that	1 2 3	accurate. It's just an estimate. MR. ROZELL: Okay. I don't have any other questions.
1 2 3 4	150 pictures supplied from the county. Q. And now, how about the slopes on the sides of the channel, as far as the steepness goes, can that change?	1 2 3 4	accurate. It's just an estimate. MR. ROZELL: Okay. I don't have any other questions. THE WITNESS: Thank you.
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1 Okay. That's all right. This will work. 0, Now, you'se on page 66? A. Um-hum. 0, Now, you'se on page 66? BY MR. DMATO: 1 Order, it's attrain at ope 66? 0, Way, Yon's you's and us boud what I've BY MR. DMATO: 1 Sock with a compounds the rate of deposition and erosion for 1 Sock with a compounds the rate of deposition and erosion for 1 Sock with a compounds the rate of deposition and erosion for 1 Sock with a compounds the rate of deposition and erosion for 1 Sock with a compounds the rate of deposition and erosion for 1 Sock with a compounds the rate of deposition and erosion for 1 Cock with a compounds the rate of deposition and erosion for 1 Cock with a compounds the rate of deposition and erosion for 1 Cock with a compounds the rate of deposition and erosion for 1 Cock with a compounds the rate of deposition and erosion for 1 Cock with a compounds the rate of deposition and erosion for 1 Cock with a compounds the rate of deposition and erosion for 1 Cock with a compounds the rate of deposition and erosion for 1 Cock with we compounds the rate of deposition 2		4	153	1	VIDEOGRAPHER: This begins DVD number
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3 0, Nr, Is actually and many and any barrow of the structure		2	A. Okay, mat's an right. This will work.	3	record.
A. Induk, You set on puipt of: 5 Q. Doctor, is that the first time you read that 6 Q. Why don't you read out loud what I've 6 7 A. Induk, You read out loud what I've 6 8 about that. 6 9 A. "Trilet activity at Hereford Inite also 9 10 Compounds the rate of deposition and erosion for rock out its and its and the adjacent to a situation where the main to channel migrates to the north cousing a wide ocean 10 11 North Wildwood, changing the inite tork reading a wide ocean 11 Q. Okay. Where is Mr. Nordstrom presently? 12 A. Retgers University. 11 Q. Okay. Where is Mr. Nordstrom presently? 13 wide oceanfront beach to a situation where the main to the initet creating a vast spit of the soft rom see in the inter occ the committee. 13 A. Tays on a thesis committee for one of his most recered Ph.D. students, one Daniel Barone, who worked for me, so he put ne on the committee. 14 O. Do you agree with the author's statements and in 1967. 2 A. Tays on a thesis committee for one of his new buikeed and grains in 1967. 14 Q. Okay. Row, let - are you familiar with ant 2 A. He's taking about stone Harbor. 15 A. Okey, Stam. A. He's tatking about stone H		3	\mathbf{O} Now you see on page 662	4	BY MR. D'AMATO:
A. Uniform G. Why don't you read out loud what I've highlighted? I'm going to ask you a quick question A. "Traitet activity at Hereford Inlet also about that. G. All right. How are you familiar with it? A. "Traitet activity at Hereford Inlet also G. All right. How are you familiar with it? G. Core out and the rate of deposition and eracision for G. All right. How are you familiar with it? A. "Traitet activity at Hereford Inlet also G. All right. How are you familiar with it? A. "Traitet activity at Hereford Inlet also G. Okay. Due you have any interaction with him the anal indigrates to the north causing a wats spit of G. Okay. Due you have any interaction with him the anal ong the inlet creating a variate occan G. Okay. Due you have any interaction with him there? North Wildwood Beach has retreated over 800 feet imost recent Ph.D. students, once Daniel Barone, web Work you have any interaction of the and boyou goagne with the author's statements G. Okay. Now, let are you familiar with an d. Okay. Now, let are you familiar with an G. Okay. Now, let are you familiar with an d. Okay. Now, let are you familiar with an G. Okay. Use and grains in 1967. d. Okay. Now, let are you familiar with and G. Okay. Can youlet simply stated, how Work POR WORD		~	A Itm hum	5	Q. Doctor, is that the first time you read that
 G. Will boll you failed bask you a quick question about that. A. "Traite activity at Hereford Inlet also A. "Traite activity at Hereford Inlet also C. All right. How are you familiar with it? A. Well, Yee – I have it in the library, so Wee, you know, have it as a reference. Q. Okay. Where is Mr. Nordstrom presently? A. Rutgers University. C. Okay. Use is Mr. Nordstrom presently? A. Rutgers University. C. Okay. Use is Mr. Nordstrom presently? A. Rutgers University. C. Okay. Use is Mr. Nordstrom presently? A. Rutgers University. C. Okay. Use is Mr. Nordstrom presently? A. Rutgers University. C. Okay. Use is Mr. Nordstrom presently? A. Rutgers University. C. Okay. Use is Mr. Nordstrom presently? A. Rutgers University. G. Okay. Use is Mr. Nordstrom presently? A. No. Wildwood Beach has retreated over 900 feet incer 1989." G. Do you agree with the author's statements there?. A. Yes, I do. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand the form officer for Shore Protection and Oredging Projects on Beach Configuration Unjetted Mand this to you, and Tm going to thereford Inlet from 1952 to othe barsite. Mand this to you, and Tm going to therer		c	A. Ulli-right. O Why depit you read out loud what I've	6	abstract by Mr. Nordstrom?
about that. about that. about the new builknead and groins in 1967.<		0	blablighted? I'm going to ask you a quick question	7	A. No.
 a. Yinlet activity at Hereford Inlet also compounds the rate of deposition and erosion for North Wildwood, changing the inite shoreline from a situation where the main channel migrates to the north causing a wide ocean in the channel adjacent to a wide ocean into the inite creating a vast split of land along the inite store revertment. This process is the north Wildwood Beach has retreated over 800 feet since 1959." A. Yes, I an. Worker Versitement. Q. Okay. Now jet error sy ou familiar with an expert by the name of Carl F. Nordstrom? A. Yes, I an. Worker or worker of the rest of the adjacent of the statements of Carl F. Nordstrom? Q. Okay. Now jet error sy ou familiar with an? Q. Okay. New jet error sy ou familiar with an? Q. Okay. Now jet error sy ou familiar with an? Q. Okay. New jet error sy ou familiar with an? Q. Okay. New jet error sy ou familiar with this? A. Yes, I an. Worke FOR WORD REPORTING, LLC Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. Q. Okay. Let me hand to you Exhibit 21. G. Okay. Let me hand to you Exhibit 21. G. Okay. Let me hand to you Exhibit 21. G. Okay. Let me hand to you Exhibit 21. G. Okay. Can you - let - simply stated, how would the new bulkhead and groins in 1967. G. Okay. Bay are sublished in 1977. And this is an article that was published in 1977. And this is an article that was published in 1977. A. Hend this to you, and I'm going to have size of main and the story of the record. G. Okay. Bah and this to you, and I'm going to the thereford Intel from 1952. G. Okay. Bah and this to you, and I'm g		(0	about that	8	Q. All right. How are you familiar with it?
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Originality in the one of the statements of the original state in the original state original state in the original state original state in the original state originstate original state original state original state or		9 10	compounds the rate of denosition and erosion for	10	we, you know, have it as a reference.
11 Prock will facing a deep inlet channel adjacent to a situation where the main in the channel adjacent to a situation where the main in the inlet creating a wide ocean front beach to a situation where the main in the sector marks into the inlet creating a wide ocean front beach to a situation state 195. The intervent is process is incerted PD. Students, one Damiel Barone, who if worked for me, so he put me on the committee. 12 A. Rutgers University. 13 wide ocean front beach to a situation where the main into the inlet creating a vata spit of currently ongoing, having started in late 1995. The intervent PD. Students, one Damiel Barone, who if worked for me, so he put me on the committee. 14 by vitue of your position? 15 beach to march into the inlet creating a vata spit of currently ongoing, having stated over 800 feet intervent PD. Students, one Damiel Barone, who if worked for me, so he put me on the committee. 14 by vitue of your position? 15 A. Yes, I do. 16 Q. Okay, Now, let - are you familiar with an expert by the name of Carl F. Nordstrom? 16 Q. Okay. Let me hand to you Exhibit 21. 16 Q. Okay. Let me hand to you Exhibit 21. 17 Q. Okay. Let me hand to you Exhibit 21. 18 Q. Okay. Let me hand to you Exhibit 21. 19 G. Okay. 19 Data this is an article that was published in is 1963, and it's entitied effects of Shone Protection is and Dre		11	North Wildwood, changing the inlet shoreline from a	11	Q. Okay, Where is Mr. Nordstrom presently?
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1 channel migrates to the north causing a wide ocean 14 by virtue of your position? 15 beach to march into the intel creating a vast spit of 15 A. T was on a thesis committee for one of his 16 land along the inter cork revertment. This process 16 A. T was on a thesis committee for one of his 17 currently ongoing, having started in late 1995. The Morth Wildwood Beach has retreated over 800 feet 18 north Wildwood Beach has retreated over 800 feet 17 19 most recent Ph.D. students, one Daniel Barone, who 20 Do you agree with the author's statements 20 21 A. Yes, I do. 20 22 A. Yes, I do. 22 23 A. Oh, yes, I am. 23 24 expert by the name of Carl F. Nordstrom? 24 25 A. Oh, yes, I am. 25 26 Okay. Let me hand to you Exhibit 21. 154 27 A. restitled Effects of Shore Protection 166 3 and Dreiging Projects and Barch form 1952 to 166 3 hard this to you, and I'm going to direct your 3 38 hand this to you, and I'm going to direct your <t< th=""><th></th><th>13</th><th>wide oceanfront beach to a situation where the main</th><th>13</th><th>Q. Okay. Do you have any interaction with him</th></t<>		13	wide oceanfront beach to a situation where the main	13	Q. Okay. Do you have any interaction with him
15 beach to march into the inlet creating a vast spit of 15 A. I was on a thesis committee for one of his 16 land along the inlet rock revetment. This process is 15 A. I was on a thesis committee for one of his 18 North Wildwood Beach has retreated over 800 feet 16 in most recent Ph.D. students, one Daniel Barone, who 19 North Wildwood Beach has retreated over 800 feet 18 O. No you agree with the author's statements 19 O. Do you agree with the author's statements 10 The - the statement that he makes 21 here? A. Yes, I do. 20 Are you familiar with and 22 A. Yes, I do. 21 A. He's talking about Stone Harbor. 23 Q. Okay. Now, let are you familiar with and 23 A. He's talking about Stone Harbor. 24 Q. Okay. Let me hand to you Exhibit 21. 1 Q. Okay. Can you let simply stated, how 26 Math tis an article that was published in 156 166 3 Identification as Exhibit Farrell-21.3) 4 4 4 And this is an article that was published in 5 MR. HUNKINS: Object to the form. 5 1989, and it's entitled Effects of Shore Protection		14	channel migrates to the north causing a wide ocean	14	by virtue of your position?
16 land along the inlet rock revetment. This process is currently ongoing, having started in late 1995. The importance of the committee. 17 worked for me, so he put me on the committee. 18 North Wildwood Beach has retreated over 800 feet 18 Q. Yeah. Linkk 1 know Mr. Barone, yeah. 19 Since 1989." Q. Yeah. Linkk 1 know Mr. Barone, yeah. 20 Q. Do you agree with the author's statements 20 21 The the statement that he makes 20 22 A. Yes, I do. 20 23 Q. Okay. Now, let are you familiar with anta? 23 24 A. Oh, yes, I am. WORD FOR WORD REPORTING, LLC WORD FOR WORD REPORTING, LLC 16 15 154 1 Q. Okay. But are you familiar with this? 25 A. Oh, yes, I am. WORD FOR WORD REPORTING, LLC WORD FOR WORD REPORTING, LLC 17 16 Q. Okay. Can you let simply stated, how 2 26 Q. And this is an article that was published in 196 196 398, and it's entitled Effects of Shore Protection 6 A. Were Harbor side is two and a half 30 Dredging Projects on Beach Configuration Unjetted 6 A. Wath. Het Stone Harbor side is two and		15	heach to march into the inlet creating a vast spit of	15	A. I was on a thesis committee for one of his
17 currently ongoing, having started in late 1995. The since 1989." 17 worked for me, so he put me on the committee. 18 North Wildwood Beach has retreated over 800 feet since 1989." 18 Q. Yeah. I think I know Mr. Barone, yeah. 19 The the statement that he makes 20 right here, he's referring to the construction of the 12 20 A. Yes, I do. 22 A. Yes, I do. 23 21 A. Yes, I do. 23 A. He's talking about Stone Harbor. 22 A. Yes, I am. 24 Q. Okay. But are you familiar with this? 23 A. Oh, yes, I am. 23 A. He's talking about Stone Harbor. 24 Q. Okay. Let me hand to you Exhibit 21. 25 A. Yeah. 26 Q. Okay. Let me hand to you Exhibit 21. 16 Q. Okay. Can you let simply stated. how 26 Q. Okay. Let me hand to you Exhibit 21. 1 Q. Okay. Can you let simply stated. how 26 Mat this is an article that was published in 1 9 A. Well, the Stone Harbor side? 3 Identification as Exhibit Farrell-21. 4 Hereford Iniet, Stone Harbor side? 5 3 Identification as Exhubit Farrell-21. 7		16	land along the inlet rock revetment. This process is	16	most recent Ph.D. students, one Daniel Barone, who
18 North Wildwood Beach has retreated over 900 feet 18 Q. Yeah. I think I how Mr. Barone, yeah. 19 ince 1989." The the statement that he makes 20 Q. Do you agree with the author's statements 19 21 there? The the statement that he makes 22 A. Yes, I do. 22 23 Q. Ckay. Now, let are you familiar with an 23 24 expert by the name of Carl F. Nordstrom? 24 25 A. Oh, yes, I am. 25 24 Q. Okay. But are you familiar with this? 25 25 A. Oh, yes, I am. 154 26 Okay. Let me hand to you Exhibit 21. 154 21 Q. Okay. Let me hand to you Exhibit 21. 154 23 identification as Exhibit Farrell-21. 154 1 34 A. He's talking about Stone Parotection 16 35 Jags, and it's entitled Effects of Shore Protection 16 16 36 It's entitled frees in New Jersey. And I'm going to in the tor 17 18 36 Pare joing off thereford linet from 1952 to 10 10 10 10		17	currently ongoing, having started in late 1995. The	17	worked for me, so he put me on the committee.
19 since 1989." 19 The - the statement that he makes 20 Q. Do you agree with the author's statements 20 right here, he's referring to the construction of the 21 here? 21 new bulkhead and groins in 1967. 22 21 Q. Okay. Now, let are you familiar with an 23 A. He's talking about Stone Harbor. 22 A. Oh, yes, I an. 23 A. He's talking about Stone Harbor. 22 A. Oh, yes, I an. 23 A. He's talking about Stone Harbor. 24 Q. Okay. Let me hand to you Exhibit 21. 154 14 Q. Okay. Can you let simply stated, how 2 (Article received and marked for 156 14 Q. Okay. Can you let simply stated, how 2 (Article received and marked for 156 14 Q. Okay. Can you let simply stated, how 3 identification as Exhibit Farrell-21. 14 Q. Okay. Can you let simply stated, how 4 Q. And this is an article that was published in 15 1988, and it's entitled Effects of Shore Protection 6 and Dredging Projects on Beach Configuration Unjetted 16 A. Well, the Stone Harbor side? 9 Attention to page 4		18	North Wildwood Beach has retreated over 800 feet	18	Q. Yeah. I think I know Mr. Barone, yeah.
20 Q. Do you agree with the author's statements 20 right here, he's refering to the construction of the 21 there? 22 A, Yes, I do. 22 Are you familiar with that? 22 A, Yes, I do. 22 Are you familiar with that? 23 24 expert by the name of Carl F. Nordstrom? 24 Q. Okay. New, let are you familiar with that? 25 A. Oh, yes, I am. 23 A. He's talking about Stone Harbor. 25 A. Oh, yes, I am. 23 A. He's talking about Stone Harbor. 26 A. Oh, yes, I am. 23 A. He's talking about Stone Harbor. 27 A. Oh, yes, I am. WORD FOR WORD REPORTING, LLC WORD FOR WORD REPORTING, LLC 28 A. And this is an article that was published in 154 Q. Okay. Can you let simply stated, how 29 G. And this is an article that was published in 5 MR. HUNKINS: Object to the form. 3 and bredging Projects on Beach Configuration Unjetted 6 A. well, the Stone Harbor side is two and a half 7 Near Tidal Inlets in New Jersey. And I'm going to 8 A for starters. After the 1962 northeaster, 10 of the updrift barrier island occurred a		19	since 1989."	19	The the statement that he makes
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22 A. Yes, I do. 22 A re you familiar with that? 23 Q. Okay, Now, let are you familiar with an 23 A. He's talking about Stone Harbor. 24 expert by the name of Carl F. Nordstrom? 24 Q. Okay. But are you familiar with this? 25 A. Ohy yes, I am. 25 A. Yeah. WORD FOR WORD REPORTING, LLC WORD FOR WORD REPORTING, LLC 26 Morean Familiar With this? 23 A. He's talking about Stone Harbor. 26 A. Ohy yes, I am. WORD FOR WORD REPORTING, LLC WORD FOR WORD REPORTING, LLC 27 (Article received and marked for 156 16 3 identification as Exhibit Farrell-21.) 1 Q. Okay. Can you let simply stated, how 4 Q. And this is an article that was published in 5 Marchiber Abor side? 5 1988, and it's entitled Effects of Shore Protection 6 A. Well, the Stone Harbor side? 7 Near Tidal Inlets in New Jersey. And I'm going to 7 Miles away 9 attention to page 449, figure six, where he has four 9 A for starters. After the 1962 northeaster, 10 opting thic theord Inlet from 1952 to 11 13		21	there?	21	new bulkhead and groins in 1967.
23 Q. Okay. Now, let are you familiar with an accepted by the name of Carl F. Nordstrom? 23 A. He's talking about Stone Harbor. 24 expert by the name of Carl F. Nordstrom? 24 Q. Okay. But are you familiar with this? 25 A. Oh, yes, I am. 24 Q. Okay. But are you familiar with this? 26 A. Oh, yes, I am. 26 A. Yeah. 27 Q. Okay. Let me hand to you Exhibit 21. 154 166 2 (Article received and marked for 154 1 Q. Okay. Can you let simply stated, how 2 (Article received and marked for 1 2 0. Okay. Can you let simply stated, how 3 identification as Exhibit Farrell-21.) 4 Q. Okay. 2 would the new bulkhead and groins in 1967 have caused 4 Issa and it's entitled Effects of Shore Protection 5 MR. HUNKINS: Object to the form. 6 A. Well, the Stone Harbor side? 7 miles away 8 And this to you, and I'm going to direct your 8 A for starters. After the 1962 northeaster, 10 arck revetment toe in front of the timber to 1 arck revetment toe in front of the timber to 11 177. And h		22	A. Yes, I do.	22	Are you familiar with that?
24 expert by the name of Carl F. Nordstrom? 24 Q. Okay. But are you familiar with this? 25 A. Oh, yes, I am. 25 A. Oh, yes, I am. 25 25 A. Oh, yes, I am. 25 A. Oh, yes, I am. 25 26 A. Oh, yes, I am. 25 A. Yeah. 27 Q. Okay. Let me hand to you Exhibit 21. 16 28 (Article received and marked for 3 36 30 identification as Exhibit Farrell-21.) 4 Q. Okay. Can you let simply stated, how 4 Q. And this is an article that was published in 5 9 Would the new bulkhed and groins in 1967 have caused 4 Mear Tidal Inlets in New Jersey. And I'm going to direct your 8 A. Well, the Stone Harbor side? 5 5 M. HUNKINS: Object to the form. 6 A. Well, the Stone Harbor side? 6 10 aerial photographs of Hereford Inlet from 1952 to 10 8 A for starters. After the 1962 northeaster, 11 1977. And he says, quotes, "Rapid erosion of the tip 11 a rock revetment toe in front of the timber to 12 of the updrift barrier island occurred after 12 protect it from wa		23	Q. Okay. Now, let are you familiar with an	23	A. He's talking about Stone Harbor.
25 A. Oh, yes, I am. WORD FOR WORD REPORTING, LLC 25 A. Yeah. WORD FOR WORD REPORTING, LLC 164 154 164 17 Q. Okay. Let me hand to you Exhibit 21. (Article received and marked for identification as Exhibit Farrell-21.) 164 Q. Okay. Can you let simply stated, how would the new bulkhead and groins in 1967 have caused this rapid ersion that he's referring to in the 4 18 Q. And this is an article that was published in 5 1988, and it's entiled Effects of Shore Protection and Dredging Projects on Beach Configuration Unjetted 7 A. Well, the Stone Harbor side? 18 Near Tidal Inlets in New Jersey. And I'm going to and Dredging Projects, may derege take, stention to page 449, figure six, where he has four a actial photographs of Hereford Inlet from 1952 to 1977. And he says, quotes, "Rapid erosion of the tip 20 of the updrift barrier island occurred after 31 construction of the new bulkhead and groins in 1967. 326 of photo D is slightly larger than the other 316 Just orient yourself, and when you're 317 ready, I'll ask the question. 318 VIDEOGRAPHER: Time is now 3:01 p.m. 319 We're going off the record. 320 MR. D'AMATO: Okay. 321 VIDEOGRAPHER: Yeah, I'm going to have 422 to change it. 323 MR. D'AMATO: Okay. 324 chance to take a look at the document. 325 (Discussion of the record.) 325 WORD FOR WORD REPORTING, LLC 33 24 chance to take a look at the document. 326 chance to take a look at the document. 327 (Discussion of the record.) 328 WORD FOR WORD REPORTING, LLC 34 24 chance to take a look at the document. 326 (Discussion of the record.) 327 (Discussion of the record.) 328 (Discu		24	expert by the name of Carl F. Nordstrom?	24	Q. Okay. But are you familiar with this?
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1541541Q. Okay. Let me hand to you Exhibit 21.1Q. Okay. Can you let simply stated, how2(Article received and marked for2would the new bulkhead and groins in 1967 have caused3identification as Exhibit Farrell-21.)3this rapid erosion that he's referring to in the4Q. And this is an article that was published in4Hereford Inlet, Stone Harbor side?51988, and it's entitled Effects of Shore Protection5MR. HUNKINS: Object to the form.6and Dredging Projects on Beach Configuration Unjetted6A. Well, the Stone Harbor side?7Near Tidal Inlets in New Jersey. And I'm going to direct your8Q. Okay.9attention to page 449, figure six, where he has four9A for starters. After the 1962 northeaster,10aerial photographs of Hereford Inlet from 1952 to10Stone Harbor elected to put in a timber bulkhead and111977. And he says, quotes, "Rapid erosion the the?11a rock revetment toe in front of the timber to12of the updrift barrier island occurred after12protect it from waves direct attack.15bits orient yourself, and when you're18A. The goal was to retain sand in Stone Harbor, is called16Just orient yourself, and when you're18A. The goal was to retain sand in Stone Harbor, is called16Sust orient yourself, and when you're18A. The goal was to retain sand in Stone Harbor, is called17VIDEOGRAPHER: Time is now 3:01 p.m.18A. The goal was to retain sand			WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
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 identification as Exhibit Farrell-21.) Q. And this is an article that was published in 1988, and it's entitled Effects of Shore Protection and Dredging Projects on Beach Configuration Unjetted Near Tidal Inlets in New Jersey. And I'm going to hand this to you, and I'm going to direct your attention to page 449, figure six, where he has four aerial photographs of Hereford Inlet from 1952 to aerial photographs of Hereford Inlet from 1952 to of the updrift barrier island occurred after construction of the new bulkhead and groins in 1967. Scale of photo D is slightly larger than the other three." Just orient yourself, and when you're ready, I'll ask the question. We're going off the record. We're going off the record. We're going off the record. M.R. D'AMATO: That will give him a Chance to take a look at the document. M.R. D'AMATO: That will give him a M.S. D'AMATO: That will give him a M.S. D'AMATO: That will give him a M.S. D'AMATO: That		2	(Article received and marked for	2	would the new bulkhead and groins in 1967 have caused
4Q. And this is an article that was published in4Hereford Inlet, Stone Harbor side?51988, and it's entitled Effects of Shore Protection5MR. HUNKINS: Object to the form.6and Dredging Projects on Beach Configuration Unjetted6A. Well, the Stone Harbor side is two and a half7Near Tidal Inlets in New Jersey. And I'm going to direct your8Q. Okay.9attention to page 449, figure six, where he has four9A for starters. After the 1962 northeaster,10aerial photographs of Hereford Inlet from 1952 to10Stone Harbor elected to put in a timber bulkhead and111977. And he says, quotes, "Rapid erosion of the tip11a rock revetment toe in front of the timber to12of the updrift barrier island occurred after12protect it from waves direct attack.13construction of the new bulkhead and groins in 1967.13Q. Okay.14Just orient yourself, and when you're16Just orient yourself, and when you're15three."18A. The goal was to retain sand in Stone Harbor, is called10MR. D'AMATO: Okay.18A. The goal was to retain sand in Stone Harbor, is called20MR. D'AMATO: That will give him a24that's a natural area; bird nesting,24Chance to take a look at the document.23blah, blah, people walk it, that's about it.25(Discussion off the record.)WORD FOR WORD REPORTING, LLC25		3	identification as Exhibit Farrell-21.)	3	this rapid erosion that he's referring to in the
5 1988, and it's entitled Effects of Shore Protection 5 MR. HUNKINS: Object to the form. 6 and Dredging Projects on Beach Configuration Unjetted 6 A. Well, the Stone Harbor side is two and a half 7 Near Tidal Inlets in New Jersey. And I'm going to 6 A. Well, the Stone Harbor side is two and a half 8 hand this to you, and I'm going to direct your 8 Q. Okay. 9 attention to page 449, figure six, where he has four 9 A for starters. After the 1962 northeaster, 10 aerial photographs of Hereford Inlet from 1952 to 10 Stone Harbor elected to put in a timber bulkhead and 11 1977. And he says, quotes, "Rapid erosion of the tip 11 a rock revetment toe in front of the timber to 12 of the updrift barrier island occurred after 12 protect it from waves direct attack. 13 construction of the new bulkhead and groins in 1967. 13 Q. Okay. 14 A Scale of photo D is slightly larger than the other 14 A. In addition, at 123rd Street, which is 15 three." 15 basically south of the development, they built a rock 16 Just orient yourself, and when you're 18 A. The goal was to retain sand in Stone Harbor,		4	Q. And this is an article that was published in	4	Hereford Inlet, Stone Harbor side?
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111977. And he says, quotes, "Rapid erosion of the tip of the updrift barrier island occurred after construction of the new bulkhead and groins in 1967.11a rock reverment toe in front of the timber to protect it from waves direct attack.12of the updrift barrier island occurred after construction of the new bulkhead and groins in 1967.12protect it from waves direct attack.13construction of the new bulkhead and groins in 1967.13Q. Okay.14Scale of photo D is slightly larger than the other three."14A. In addition, at 123rd Street, which is basically south of the development, they built a rock groin or jetty out to sea.16Just orient yourself, and when you're ready, I'll ask the question.17Q. Okay.18VIDEOGRAPHER: Time is now 3:01 p.m.18A. The goal was to retain sand in Stone Harbor, not let it go into Hereford Inlet.20MR. D'AMATO: Okay.20Well, the southern bit of Seven Mile 2121VIDEOGRAPHER: Yeah, I'm going to have to change it.23Buh, blah, blah, people walk it, that's about it.24chance to take a look at the document.23blah, blah, blah, people walk it, that's about it.25(Discussion off the record.) WORD FOR WORD REPORTING, LLC24That piece began to deteriorate because to sand was coming around to nourish to feed that WORD FOR WORD REPORTING, LLC	1	10	aerial photographs of Hereford Inlet from 1952 to	10	Stone Harbor elected to put in a timber buikilead and
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13 construction of the new bulkhead and groins in 1967. 13 C. Okay. 14 Scale of photo D is slightly larger than the other 14 A. In addition, at 123rd Street, which is 15 three." 14 A. In addition, at 123rd Street, which is 16 Just orient yourself, and when you're 15 basically south of the development, they built a rock 16 Just orient yourself, and when you're 16 groin or jetty out to sea. 17 ready, I'll ask the question. 17 Q. Okay. 18 VIDEOGRAPHER: Time is now 3:01 p.m. 18 A. The goal was to retain sand in Stone Harbor, 19 We're going off the record. 19 not let it go into Hereford Inlet. 20 MR. D'AMATO: Okay. 20 Well, the southern bit of Seven Mile 21 VIDEOGRAPHER: Yeah, I'm going to have to change it. 22 South Point. It's a natural area; bird nesting, 23 MR. D'AMATO: That will give him a 23 blah, blah, blah, people walk it, that's about it. 24 chance to take a look at the document. 24 That piece began to deteriorate because 25 (Discussion off the record.) WORD FOR WORD REPORTING, LLC WORD FOR WORD REPORTI		12	of the updrift barrier island occurred after	112	O olion
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 15 three." 16 Just orient yourself, and when you're 17 ready, I'll ask the question. 18 VIDEOGRAPHER: Time is now 3:01 p.m. 19 We're going off the record. 20 MR. D'AMATO: Okay. 21 VIDEOGRAPHER: Yeah, I'm going to have to change it. 23 MR. D'AMATO: That will give him a 24 chance to take a look at the document. 25 (Discussion off the record.) WORD FOR WORD REPORTING, LLC 16 Just orient yourself, and when you're 17 Q. Okay. 18 A. The goal was to retain sand in Stone Harbor, not let it go into Hereford Inlet. 20 Well, the southern bit of Seven Mile 21 South Point. It's a natural area; bird nesting, 22 blah, blah, blah, people walk it, that's about it. 23 WORD FOR WORD REPORTING, LLC 		14	Scale of photo D is slightly larger than the other	14	A. In addition, at 125tu Street, which is
 Just orient yourseir, and when you reaction is grown of jetty out to sea. ready, I'll ask the question. VIDEOGRAPHER: Time is now 3:01 p.m. We're going off the record. MR. D'AMATO: Okay. VIDEOGRAPHER: Yeah, I'm going to have to change it. MR. D'AMATO: That will give him a chance to take a look at the document. (Discussion off the record.) WORD FOR WORD REPORTING, LLC Dust orient yourseir, and when you reaction is of jetty out to sea. Grown of jetty out to sea. O Change it. O Cokay. A. The goal was to retain sand in Stone Harbor, not let it go into Hereford Inlet. Well, the southern bit of Seven Mile Island, which is Avalon, Stone Harbor, is called South Point. It's a natural area; bird nesting, blah, blah, blah, people walk it, that's about it. WORD FOR WORD REPORTING, LLC 		15	three."	10	aroin or jetty out to see
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 18 VIDEOGRAPHER: Time is now 3.01 p.m. 19 We're going off the record. 20 MR. D'AMATO: Okay. 21 VIDEOGRAPHER: Yeah, I'm going to have to change it. 23 MR. D'AMATO: That will give him a 24 chance to take a look at the document. 25 (Discussion off the record.) WORD FOR WORD REPORTING, LLC 10 FR. Prie goth its to retain build in better in build in bu		17	ready, FIF ask the question.	19	A The goal was to retain sand in Stone Harbor.
 19 We're going on the record. 20 MR. D'AMATO: Okay. 21 VIDEOGRAPHER: Yeah, I'm going to have to change it. 23 MR. D'AMATO: That will give him a 24 chance to take a look at the document. 25 (Discussion off the record.) WORD FOR WORD REPORTING, LLC 19 Interfecting thread to interfec	1	18	VIDEOGRAPHER: Time is now 5:01 p.m.	10	not let it ao into Hereford Inlet.
20 MR. D'AMATO: Okay. 20 Month the dodution and of obtained and of		19	we're going orr the record.	20	Well, the southern bit of Seven Mile
21 VIDEOGRAPHER: Teall, Fill going to have 21 Istatus, When is Availably of the fill by istatus, o		20	MR, D'AMATU: UKay.	21	Island, which is Avalon. Stone Harbor, is called
23 MR. D'AMATO: That will give him a 23 blah, blah, people walk it, that's about it. 24 chance to take a look at the document. 24 That piece began to deteriorate because 25 (Discussion off the record.) 25 NORD FOR WORD REPORTING, LLC		21	VIDEOGRAPHER: Tean, I'm going to have	22	South Point. It's a natural area: bird nesting.
24 chance to take a look at the document. 24 That piece began to deteriorate because 25 (Discussion off the record.) 25 no sand was coming around to nourish to feed that WORD FOR WORD REPORTING, LLC WORD FOR WORD REPORTING, LLC	1	-	to change it. MP_D'AMATO: That will give him a	23	blah, blah, blah, people walk it, that's about it.
24 Charles to take a look at the document. 25 (Discussion off the record.) WORD FOR WORD REPORTING, LLC WORD FOR WORD REPORTING, LLC		24	chance to take a look at the document	24	That piece began to deteriorate because
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		<i>a</i> . U	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC

		r	
	157	1	159
1	beach, as sand went off into Hereford Inlet.	1	VIDEOGRAPHER: Are there any follow-up
2	Q. Got you.	2	questions?
3	A. So that's what he's referring to. The the	3	MR. HUNKINS: No.
•	structures that were built in the beach front of	4	MR. ROZELL: Uht-uht.
	Stone Harbor had a negative effect on South Point.	5	VIDEOGRAPHER: This concludes the
6	In fact, by 1990, South Point was gone	6	deposition. Time is now 3:09 p.m. We are off the
7	completely. And Hereford Inlet was one vast area of	7	record.
8	inter-tidal shoals and bars and sand bodies	8	(Deposition concluded at 3:09 p.m.)
9	everywhere. It's amazing. Then the Army Corps	9	
10	pumped sand well, actually in 1997, Stone Harbor	10	
11	did a state job, we guided. In 2003, the Army Corps	11	
12	took over Avalon, Stone Harbor with the federal	12	
13	project they built.	13	
14	Q. Okay.	14	
15	A. And they pumped a lot of sand up onto Stone	15	
16	Harbor, which then went over and around the jetty,	16	
17	and which was still there. And within five years,	17	
18	taking us to about 2007, eight, South Point was 7,000	18	
19	feet longer than it was in 1990.	19	
20	MR, HUNKINS: Okay. Hold on one	20	
21	second. And your question was?	21	
22	A. Yeah.	22	
23	Q. No, he's explaining his answer.	23	
24	MR. HUNKINS: Yeah. I lost the I	24	
25	don't know what	25	
	WORD FOR WORD REPORTING, LLC		WORD FOR WORD REPORTING, LLC
0.00	158		160
1	A. Well	1	
2	Q . He's explaining the difference.	2	CERTIFICATE
3	MR. HUNKINS: What the question was.	3	
	Q . Tunderstand what you're saving. Go ahead.	4	I, LYNN SMITH, a Certified Court Reporter of the
5	Let him finish up, that's all.	5	State of New Jersey, do hereby certify that prior to
6	A. So basically, basically the process that	6	the commencement of the examination, STEWART FARRELL
7	Nordstrom is referring to in the late eighties is	7	was duly sworn by me to testify the truth, the whole
8	is the net effect of the restriction of sand movement	8	truth and nothing but the truth.
6	by control structures. And the sand on New Jersey's	9	
10	beaches has always been kind of a nagging problem	10	I DO FURTHER CERTIFY that I am neither a relative nor
11	anyway. And so this federal program of beach	11	employee nor attorney nor counsel of any of the
12	nourishment that New Jersey adopted in a big way in	12	parties to this action, and that I am neither a
13	1990-ish has brought about 160 million yards of new	13	relative nor employee of such attorney or counsel,
14	sand never on New Jersey's beaches back on them.	14	and that I am not financially interested in the
15	Q. Okav.	15	action.
16	A. So a lot of these problems that came out of	10	
17	structures getting built really kind of went away,	10	
18	especially in Stone Harbor.	10	i i
19	Q. I got it. Thank you. I'm finished, and	20	Ling Jatri CCR
20	really, thank you for your time.	10	Certified Court Reporter
2	Sandy, I will call vou later. Okay?	21	License No. XIO1520
1.	We have to clean up here and get all these exhibits	~ 1	
2:	in order. Okav?	22	
2	MS. SMITH: Okay. Thank you.	23	
2	MR. D'AMATO: Right, Okay.	24	
1 1	, in a notion again on a	1	
	WORD FOR WORD REPORTING, LLC	25	

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CHRISTOPHER S. PORRINO ATTORNEY GENERAL OF NEW JERSEY Attorney for Defendant New Jersey Department of Environmental Protection Hughes Justice Complex 25 Market Street P.O. Box 093 Trenton, New Jersey 08625

By: Kristina Miles Deputy Attorney General (609) 633-2038 Attorney No. 003282011

SANDRA SMITH, INDIVIDUALLY AND AS EXECUTRIX OF THE ESTATE OF GEORGE BRADLEY SMITH, AND AS GUARDIAN AD LITEM FOR HER CHILDREN KOLE SMITH AND BRANDY SMITH, NICOLE GAETA, KYLE SMITH, Plaintiffs,	: SUPERIOR COURT OF NEW JERSEY CAPE MAY COUNTY - LAW DIVISION DOCKET NO. CPM-L-415-16 Civil Action
v. CITY OF NORTH WILDWOOD, and STATE OF NEW JERSEY,	: : : Certification of Christopher : Jones :
Defendants.	:

Christopher Jones, being of due age, hereby certifies:

 I, Christopher T. Jones, currently serve as a Manager with the Division of Land Use Regulation Bureau of Urban Growth and Redevelopment for the New Jersey Department of Environmental Protection ("NJDEP"). I have served with the NJDEP for over 28 years.

- 2. I have been responsible for DEP's permitting of environmental land use permits including issuance of Coastal Area Facilities Review Act ("CAFRA") Waterfront Development, Flood Hazard, coastal wetlands, and freshwater wetlands permits besides the issuance of Federal Consistency Determinations and federal Water Quality Certificates.
- 3. Altogether, I have examined hundreds of different properties for environmental natural resources, wetlands, coastal, waterfront, and flood hazard compliance during my tenure.
- 4. I am providing this certification in support of the State of New Jersey's opposition to an Order to Show Cause in the matter of <u>Smith v. City of North</u> <u>Wildwood and the Department of Environmental</u> Protection.
- 5. Pursuant to CAFRA, DEP is authorized to issue permits for development within the geographic coastal area set by the Legislature. <u>N.J.S.A.</u> 13:19-4.
- 6. The Legislature has defined development under CAFRA to include "the construction, relocation or enlargement of any building or structure and all

site preparation therefor, the grading, excavation
or filling on beaches or dunes..." N.J.S.A. 13:19-3.
7. Pursuant to CAFRA's inclusion of "grading" in the
 "development" definition, maintenance and raking of
 beaches is considered an activity for which a
 permit is required.

- 8. The City of North Wildwood ("City") applied for and obtained a CAFRA general permit to maintain some of the City's beaches. A true and accurate copy of the permit is attached hereto as Exhibit A.
- 9. In support of the CAFRA general permit application, the City also submitted plans depicting where the City planned to maintain the beaches. A true and accurate copy of page 3 of these plans which depicts the portion of the City's beaches by Hereford Inlet is attached hereto as Exhibit B.
 - 10. The City's permit is still valid per the Permit Extension Act and will expire in July, 2017.
 - 11. As part of the coastal zone management program implemented, in part, by CAFRA, DEP generally promotes on a nondiscriminatory basis and to the extent practicable, public access to and use of the

State's tidal waterways and their beaches. N.J.A.C. 7:7-16.9(a) and (b).

- 12. Despite DEP's general promotion of public access to the State's tidal waterways and its accompanying beaches and shores, the agency recognizes that public access must be tempered so that access does not create conditions that may reasonably be expected to endanger public health or safety. To that end, DEP recognizes that access may be restricted seasonally, hourly or in scope such as restricted access to certain beach areas within a municipality. <u>N.J.A.C.</u> 7:7-16.9(b)4.
- 13. Similarly, to protect public health and safety, access may be limited to certain uses such as fishing but not swimming in waters with frequent or consistent strong currents. <u>Ibid</u>.
- 14. DEP also recognizes that actual beach operations and public safety are administered directly by municipalities and not by the DEP as held in the Appellate Division of the Superior Court. Borough of Avalon v. New Jersey Dep't of Envtl. Prot., 403 N.J. Super. 590 (App. Div. 2008).
 15. Upon a showing that an unreasonable risk to public safety exists, DEP would not object to a

closure of the waters or to the beach or a part of the beach adjoining the Hereford Inlet. This is a decision for which authority and responsibility rest with the City of North Wildwood.

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CERTIFICATION

I hereby certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements is willfully false, I am subject to punishment.

Manager, NJDEP Land Use Regulation Program

Date

Exhibit A



State of New Jersey

Department of Environmental Protection

LAND USE REGULATION PROGRAM PO BOX 439 TRENTON, NJ 08625-0439 (609) 292-8115 (Fax) www.state.nj:us/dep/landuse

mailed 8.2.05

Bradley M. Campbell Commissioner

JUL 1 3 2005

Steven C. Morey Lomax Morey Consulting P.O. Box 9 Cape May Court House; N.J. 08210

> RE: Authorization for Coastal General Permit LURP File No.: # 0507-03-0009.1 CAF 030001 CITY OF NORTH WILDWOOD Block(s): N/A; Lot(s): N/A North Wildwood, Cape May County

Dear Mr. Morey:

The Land Use Regulation Program has reviewed the referenced application for a General Permit authorization pursuant to the requirements of the Coastal Permit Program Rules at N.J.A.C. 7:7-7 and in accordance with the Coastal Area Facility Review Act (N.J.S.A. 13:19 et seq.) and/or the Waterfront Development Law (N.J.S.A. 12:5-3).

This permit authorizes beach and dune maintenance activities conducted in accordance with Best Management Practices as found in the Rules on Coastal Zone Management at N.J.A.C. 7:7E-3A. The names, title, address and telephone number of the person(s) responsible for supervising the proposed activities to ensure compliance with N.J.A.C. 7:7E-3A.1, 3A.2 and 3A.3 are:

City of North Wildwood Department of Public Works P.O. Box 499 901 Atlantic Ave. North Wildwood, NJ 08260 Tim O'Leary, Superintendent (609) 522-4646 Phone (609 522-1141 FAX

Van Note-Harvey Associates 211 North Main Street, Suite 203 Cape May Court House, NJ 083210 Ralph Petrella, Jr., P.E. & L.S.

Richard J. Codey Acting Governor

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(609) 465-2600 Phone (609) 465-8028 FAX

This permit authorizes beach and dune maintenance activities only, and does <u>NOT</u> authorize the replacement of any street-end bulkheads.

The approved maintenance area is within the outlined areas, specifically identified as the **Recreation Beach Area**, as shown on three sheets, entitled "Map to Accompany Application for: General Permit For Beach & Dune Maintenance Activities, City of North Wildwood, Cape May County, N.J.", dated April 15, 2005, last revised July 7, 2005, and prepared by Van Note-Harvey Associates, N.J.P.E. License No. 23226.

By this permit, the State of New Jersey does not relinquish tidelands ownership or claim to any portion of the subject property or adjacent properties.

Project Specific Conditions

In addition to the conditions noted at N.J.A.C. 7:7-1.5, the activities allowed by this authorization shall comply with the following conditions. Failure to comply with these conditions shall constitute a violation of the Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.) and/or the Waterfront Development Law (N.J.S.A. 12:5-3).

- 1. This permit does not authorize the repair or reconstruction of street end seawalls and/ or bulkheads.
- 2. The City of North Wildwood must continue to maintain metered public parking along the streets adjacent to the beach.
- 3. The City of North Wildwood must continue to provide handicapped accessible public access to the beach from all street-ends. If, at some future date, any or all of the street-ends are vacated by the City, they must include in the vacation documents, provisions for the maintenance of public access to the beach. Copies of the vacation documents must be provided to the Program for review and approval prior to enactment.
- 4. The City cannot limit vertical or horizontal public access to the dry sand area nor interfere with the public's right to free use of the dry sand for intermittent recreational purposes connected with the ocean and wet sand. However the City may charge a fee to those member of the public who remain upon and use its beach for an extended period providing it cleans the beach, picks up trash regularly, and permits use of its shower facilities, if provided. The City must also provide customary lifeguard services for members of the public who use the ocean areas up to the high water mark regardless of whether they are just passing through or remaining on the beach area.

5. Raking of the beach may only occur within 100 yards of **manned** lifeguard station.

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- 6. No raking may occur within vegetated areas of the beach.
- 7. In areas documented by the Department as habitat for threatened or endangered beach nesting shorebirds, no raking of the beach may occur between April 1 and August 15.
- 8. The proposed activities MUST be conducted in accordance with Best Management Practices as defined by the Department in the Rules on Coastal Zone Management, N.J.A.C. 7:7E-3A (copy enclosed). Activities other than those outlined in this Subchapter (3A) shall require additional authorization from the Program. Failure to receive such additional authorization prior to activities may warrant enforcement action by the Bureau of Coastal and Land Use Enforcement.
- 9. Sand transfers to or from wetland areas that may exist on a beach are <u>NOT</u> authorized by this permit.
- 10. Records of all sand transfer activities shall be maintained by the township, and shall be available for inspection by the Department, upon request. These records shall include, but not be limited to, dates of transfer, borrow area limits, fill area limits, estimates of amount of sand transferred, the name of the person supervising the transfer activities, and the engineering certification required (if appropriate) for all sand transfer activities.
- 11. Bulldozing, excavation, grading, vegetation removal or clearing and relocation of existing dunes whether existing or constructed in conjunction with this permit are <u>NOT</u> authorized under this general permit.

Standard Permit Conditions

The following standard conditions shall apply to all General Coastal Permits:

- 1. This permit is NOT VALID until the permit acceptance form has been signed by the applicant, accepting and agreeing to adhere to all permit conditions, and returned to the appropriate regional office within the Land Use Regulation Program.
- 2. This permit, including all conditions listed herein, shall be recorded in the office of the County Clerk (the Registrar of Deeds and Mortgages if applicable) in the county or counties wherein the lands included in the permit are located within ten (10) days after receipt of the permit by the applicant. A copy of the recorded permit shall be forwarded to the Land Use Regulation Program immediately thereafter.
- 3. The permittee shall notify, in writing, the NJDEP, Bureau of Coastal and Land Use Enforcement at 1510 Hooper Avenue, Toms River, NJ 08753, three working days prior to the commencement of construction on the site or site preparation.

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- 4. The issuance of this permit shall in no way expose the Department to liability for the sufficiency or correctness of the design of any construction or structures. Neither the State nor the Department shall be liable for any loss of life or property which may occur by virtue of the activity or development resulting from any permit.
- 5. The permittee shall allow the authorized representatives of the Department free access to the site at all time when construction activity is taking place, and at other times upon notice to the permittee.
- 6. The activities shown by plans and/or other engineering data, which are this day approved, shall be constructed and/or executed in conformity with such plans and/or engineering data and conditions herein. No change in plans or specifications upon which this permit is issued shall be made except with the prior written permission of the Department, in accordance with N.J.A.C. 7:7-4.10.
- 7. A copy of this permit and approved plans shall be kept at the construction site and shall be exhibited upon request to any person.
- 8. The permittee shall immediately inform the Department of any unanticipated adverse effects on the environment not described in the application or in the conditions of this permit. The Department may, upon discovery of such anticipated adverse effects, and upon the failure of the permittee to submit a report thereon, notify the permittee of its intent to suspend the permit, pursuant to N.J.A.C. 7:7-4.11.
- 9. This permit does not waive the obtaining of any local, State or Federal permits which may be required. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.
- 10. All fill and other earth work on the lands encompassed within this permit authorization shall be stabilized in accordance with "Standards for Soil Erosion and Sediment Control in New Jersey," (obtainable from local Soil Conservation District Offices) promulgated by the New Jersey State Soil Conservation Committee, pursuant to the soil Erosion and Sediment Control Act of 1975, N.J.S.A. 4:24-42 et. seq. and N.J.A.C. 2:90-1.3 through 1.14. These standards are hereby incorporated by reference.

Duration of Authorization/Notification of Work

This authorization for a General Permit is valid for a term not to exceed five years from the date of receipt from the Department. If the term of this authorization exceeds the expiration date of the general permit issued by rule, and the permit upon which the authorization is based is modified by rule to include more stringent standards or conditions, the permittee must comply with the requirements of the new regulations by applying for a new General Permit authorization unless construction is already underway. If this General permit is not reissued, the permittee must apply for an individual CAFRA permit unless construction pursuant to the prior General Permit is underway. The expiration date of the General Permits issued by rule is October 16, 2005.

In order to promote inter-governmental cooperation in management of our natural resources, a copy of this decision shall be shared with appropriate local and federal agencies.

If you have any questions regarding this General Permit authorization, please contact Gail J. Moore of our staff at (609) 292-8262. Please reference the permit number in any future communication concerning this action.

Sincerely,

Christopher M. Dolphin Supervisor, Coastal Region Land Use Regulation Program

c. NJDEP, Bureau of Coastal and Land Use Enforcement, Toms River US Army Corps of Engineers, Philadelphia District

Exhibit B

