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+Also Admitted in Pennsylvania
-Only Admitted in New York
Please Reply to Roseland, NJ

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March 7, 2014

## VIA FEDERAL EXPRESS

Office of Legal Affairs
Attention: Rulemaking Petitions
Department of Environmental Protection
Mail code 401-04L
401 East State Street, 4<sup>th</sup> Floor
P.O. Box 402
Trenton, New Jersey 08625-0402

Re: Petition for Rulemaking Pursuant to N.J.S.A. 52:14 B-4(f) and N.J.A.C. 7:1D-1.1 to Amend Coastal Wetlands Maps t252-2112 and t259-2112

Block 1.63, Lot 1, Block 1.64, Lot 1, Block 1.66, Lot 1, Block 1.68, Lot 1, Block 1.71, Lots 5 and 6, Long Beach Township (Holgate), Ocean County, New Jersey (the "Property")

Dear Sir/Madam:

This firm represents Mark Davies Builders & Developers LLC ("Davies") with respect to the above matter. Pursuant to the New Jersey Administrative Procedure Act, N.J.S.A. 52:14B-4(f), N.J.A.C. 7:1D-1.1 and N.J.A.C 7:7-2.2, Davies along with the current Property owners, David Collins and Esther Tessel Collins, Kim Lambert and Michelle Forte (collectively referred to as "Petitioners") submit this Petition for Rulemaking ("Petition") to the New Jersey Department of Environmental Protection ("NJDEP") to modify Coastal Wetlands Maps/Tidelands Grid numbers t252-2112 and t259-2112.

# 1. The Full Name and Address of the Petitioners

#### Petitioners:

Mark Davies Builders & Developers LLC 4306 Long Beach Boulevard Brant Beach, New Jersey 08008

David Collins and Esther Tessel Collins 15951 San Fernando Mission Boulevard Grenada Hills, California 91344

Kim Lambert 307 Larch Ct. Flemington, New Jersey 08822

Michelle Forte 155 Dorrance Street Hamden, Connecticut 06518

# Copies of all communications:

Petitioners request that all communications related to this Petition be forwarded to:

Kevin J. Coakley, Esq. Connell Foley LLP 85 Livingston Avenue Roseland, New Jersey 07068

# 2. The Substance or Nature of the Rulemaking Which is Requested

Petitioners, David Collins and Esther Tessel Collins, Kim Lambert and Michelle Forte, are the current owners of the Property, which is designated as Block 1.63, Lot 1, Block 1.64, Lot 1, Block 1.66, Lot 1, Block 1.68, Lot 1, Block 1.71, Lots 5 and 6, Long Beach Township (Holgate), Ocean County, New Jersey. The Township of Long Beach tax map of the area is attached hereto as Exhibit 1. Petitioner Davies is the contract purchaser of the Property and intends to develop the Property for residential purposes. Together, Petitioners request that NJDEP amend the Coastal Wetlands Maps t252-2112 and t259-2112 that are listed in N.J.A.C. 7:7-2.2(c) to exclude an approximately 2.2 acre upland portion of the Property that does not meet the definition of coastal wetlands as described further below.

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# 3. The Reasons for the Request

The Wetlands Act of 1970 defines coastal wetlands as:

any bank, marsh, swamp, meadow, flat or other low land subject to tidal action in the State of New Jersey along the Delaware bay and river, Raritan bay, Barnegat bay, Sandy Hook bay, Shrewsbury river including Navesink river, Shark river, and the coastal inland waterways extending southerly from Manasquan Inlet to Cape May Harbor, or at any inlet, estuary or tributary waterway or any thereof, including those areas now or formerly connected to tidal waters whose surface is at or below an elevation of 1 foot above local extreme high water, and upon which may grow or is capable of growing some, but not necessarily all, of [listed species].

N.J.S.A. 13:9A-2.

The current delineation of the coastal wetlands boundary on the Property depicted on Coastal Wetlands Map t252-2112 and t259-2112 does not reflect current property conditions since upland areas that do not meet the definition of coastal wetlands are included within the mapped coastal wetlands boundary on the Property. Specifically, aerial imagery from 2013 demonstrates that sand is present within an approximate 2.2 acre area on the Property such that it is does not meet the definition of coastal wetlands. See, e.g., Exhibit 2 at Figure 1 (Aerial Photography Comparison, prepared by EcolSciences, Inc., dated September 2013) and Figure 2 (Sand Deposition Compared to UWB, prepared by EcolSciences, Inc. dated September 2013).

As noted above, this 2.2 acre upland area of the Property, which is depicted in blue cross hatch on Exhibit 2 at Figure 2, is currently mapped by NJDEP as coastal wetlands on maps t252-2112 and t259-2112. See N.J.A.C. 7:7-2.2(c). See also Exhibit 2 at Figures 1 and 2, and Exhibit A. However, as discussed below and depicted on the attachments to this Petition, this 2.2 acre portion does not meet the definition of coastal wetlands since the area in question is not a bank, marsh, swamp, meadow, flat or other low land subject to tidal action, or an area connected to tidal waters whose surface is at or below an elevation of 1 foot above local extreme high water, and upon which may grow or is capable of growing the designated coastal wetland species.

Petitioners hereby submit a report of EcolSciences, Inc. ("EcolSciences") dated March 7, 2014 to provide technical and scientific support in evaluating the 2.2 acre area and determining whether this area is coastal wetlands. A copy of the EcolSciences report is attached hereto as Exhibit 2, which concludes that the approximately 2.2 acre area in question is not coastal or freshwater wetlands, will not revert to wetlands, and is not capable of growing the listed wetlands species.

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Specifically, based upon EcolSciences field investigation and updated topographical mapping (see Exhibit 2 at Exhibit A), areas that were previously mapped as coastal wetlands are no longer wetlands. In fact, these upland areas are not subject to tidal action and the majority of the upland areas have an elevation greater than 3 feet above mean sea level, with a range in elevation from approximately 3 to 7 feet above mean sea level, which is more than 1 foot above elevation 1.77 (NAVD), the local extreme high water for this Property. See Exhibit 2, Figure 2 and Exhibit A. Furthermore, much of the 2.2 acre upland area consists of unvegetated sand and none of the defined coastal wetland species were identified in this area. See N.J.S.A. 13:9A-2. EcolSciences concludes that based upon vegetation and topographic elevation the 2.2 acre upland area is not coastal wetlands. Similarly, based upon soils, hydrology and vegetation the upland area in question is not freshwater wetlands. Also, with respect to the upland areas, EcolSciences found there is no coincidence of hydric soils, wetland hydrology or hydrophitic plant species that are characteristic of freshwater wetlands. As a result, a new wetland boundary was delineated that is consistent with the delineation methodology utilized under the NJDEP's Coastal and Freshwater Wetlands rules. See Exhibit 2, Figure 2 and Exhibit A.

For the reasons set forth above, Petitioners request that NJDEP revise Coastal Wetlands Maps t252-2112 and t259-2112 to exclude the upland 2.2 acre portion depicted in blue crosshatch on Exhibit 2, Figure 2, and as more fully depicted on Exhibit 2 at Exhibit A (Map prepared by Horn, Tyson & Yoder dated September 24, 2013 entitled "Wetlands Location Map").

4. The Petitioner's Interest in the Request, Including Any Relevant Organization Affiliation or Economic Interest

Petitioners, David Collins and Esther Tessel Collins, Kim Lambert and Michelle Forte, are the current owners of the Property. Petitioner, Davies is the contract purchaser of the Property and intends to develop a portion of the property for residential purposes.

5. The Statutory Authority Under Which the Department of Environmental Protection May Take the Requested Action

N.J.S.A. 13:9A-1 to N.J.S.A. 13:9A-10 (The Wetlands Act of 1970), and N.J.S.A. 52:14B-4(f).

6. Existing Federal or State Statutes and Rules Which the Petitioner Believes May Be Pertinent to the Request

N.J.S.A. 13:9A-1 to N.J.S.A. 13:9A-10 (The Wetlands Act of 1970), N.J.S.A. 13:9B-1, et seq., N.J.A.C 7:7E-1.1, et seq., N.J.A.C. 7:7-1.1, et seq. N.J.A.C. 7:7-2.2 (c).

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### Conclusion

For the reasons set forth above, Petitioners request that NJDEP amend Coastal Wetlands maps t252-2112 and t259-2112 to exclude the approximately 2.2 acres of upland area described above and depicted on the attachments to this Petition. Please act upon this Petition in the time provided by N.J.A.C. 7:1D-1.1(f) and N.J.A.C. 1:30-4.2(a).

Very truly yours, Kern Coakleynt

Kevin J. Coakley

/MTT

cc:

Michele T. Tantalla, Esq.

## **EXHIBIT LIST**

- Exhibit 1 Township of Long Beach Tax Map of Area
- Exhibit 2 Report of EcolSciences, Inc. Dated March 7, 2014.

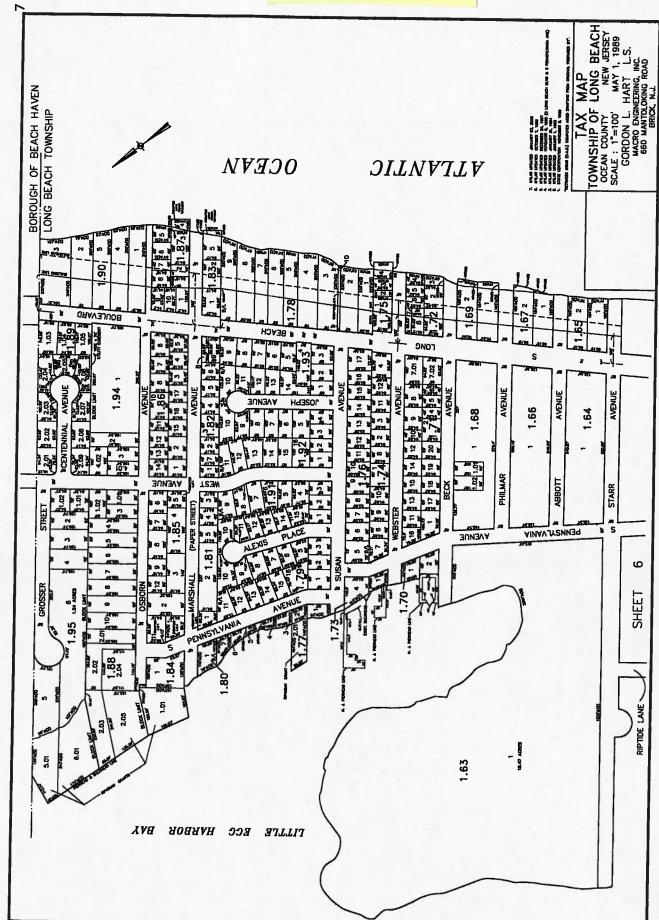
Curriculum Vitae of David P. Moskowitz

Figure 1: Aerial Photography Comparison, prepared by EcolSciences, Inc. dated September 2013

<u>Figure 2</u>: Sand Deposition Compared to UWB, prepared by EcolSciences, Inc. dated September 2013

Figure 3: Existing Conditions Photographs

Exhibit A: Map prepared by Horn, Tyson & Yoder dated September 24, 2013 entitled "Wetlands Location Map"



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March 7, 2014

Kevin Coakley, Esq. Connell Foley LLP 85 Livingston Avenue Roseland, NJ 07068

Re: Wetland Delineation

BL 1.63 LT 1 approx. 19 acres

BL 1.64 LT 1 approx. 1.66 acres

BL 1.66 LT 1 approx. 1.75 acres

BL 1.68 LT 1 approx. 1.64 acres

BL 1.71 LT 5 and 6 approx. 0.11 acres

Long Beach Township, Ocean County, New Jersey (the "Property")

Dear Mr. Coakley:

As requested, EcolSciences conducted a wetland evaluation and delineation at the above-referenced site. The purpose of the investigation was to determine the current wetland boundary on the Property. Based upon a site investigation and a topographic survey prepared by Horn, Tyson & Yoder dated September 24, 2013, sand is present across much of the eastern portion of the site ranging in depth from approximately one to six feet above mean sea level (Figures 1 and 2 and photos attached hereto). A copy of the map prepared by Horn, Tyson & Yoder dated September 24, 2013 entitled "Wetlands Location Map" for the Property is attached hereto as Exhibit A. Elevations in this area, range from approximately three to seven feet with most of the area between four and six feet. The majority of this area was previously mapped as Coastal wetlands by New Jersey (see t252-2112 and t259-2112). Based upon the field investigation and the Horn, Tyson & Yoder topographic survey (Exhibit A), portions of the previously mapped Coastal wetlands are no longer wetlands and will not revert to wetlands. We understand this letter report will be attached to a Petition for Rulemaking to modify Coastal Wetlands Maps/Tidelands Grid numbers t252-2112 and t259-2112 for this Property.

#### A. Wetland Definitions

i. New Jersey Coastal Wetlands (N.J.S.A. 13:9A-2)

"For the purposes of this act the term "coastal wetlands" shall mean any bank, marsh, swamp, meadow, flat or other low land subject to tidal action in the State of New Jersey along the Delaware bay and Delaware river, Raritan bay, Barnegat bay, Sandy Hook bay, Shrewsbury river including Navesink river, Shark river, and the coastal inland waterways extending southerly from Manasquan Inlet to Cape May Harbor, or at any inlet, estuary or tributary waterway or any thereof, including those areas now or formerly connected to tidal waters whose surface is at or below an elevation of 1 foot above local extreme high water, and upon which

75 Fleetwood Drive	Suite 250	Rockaway, New Jersey 07866	973/366-9500	FAX: 973/366-9593
		www.EcolSciences.com		

Kevin Coakley, Esq. March 7, 2014 Page 2

may grow or is capable of growing some, but not necessarily all, of the following: Salt meadow grass (Spartine patens), spike grass (Distichlis spicata), black grass (Juncus gerardi), saltmarsh grass (Spartina alterniflora), saltworts (Salicornia Europaea, and Salicornia bigelovii), Sea Lavendar (Limonium carolinianum), saltmarsh bulrushes (Scirpus robustus and Scirpus paludosus var. atlanticus), sand spurrey (Spergularia marina), switch grass (Panicum virgatum), tall cordgrass (Spartina pectinata), hightide bush (Iva frutescens var. oraria), cattails (Typha angustifolia, and Typha latifolia), spike rush (Eleocharis rostellata), chairmaker's rush (Scirpus americana), bent grass (Agrostis palustris), and sweet grass (Hierochloe odorata)."

#### ii. New Jersey Freshwater Wetlands (N.J.S.A. 13:9B-3)

"Freshwater wetland" means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation; provided, however, that the department, in designating a wetland, shall use the 3-parameter approach (i.e. hydrology, soils and vegetation) enumerated in the April 1, 1987 interim-final draft "Wetland Identification and Delineation Manual" developed by the United States Environmental Protection Agency, and any subsequent amendments thereto.

#### B. <u>Current Wetland Conditions</u>

Based upon the field investigation and the updated topographic mapping (Exhibit A), areas previously mapped as Coastal wetlands are no longer wetlands. These areas are generally at an elevation of 2.8 feet above mean sea level and higher with the majority of the new wetland boundary corresponding to an elevation 3.1 feet above mean sea level. As determined by the project surveyor, local extreme high water is at an elevation of approximately 1.77 feet above sea level (NAVD). See Exhibit A. The upland areas are generally more than 1-foot above the local extreme high water for this property. These areas do not meet the definition of either Coastal wetlands based upon vegetation and topographic elevation or Freshwater wetlands based upon soils, hydrology and vegetation. Much of the area consists of unvegetated sand. There was no evidence of tidal flooding in these areas. None of the plant species noted at 13:9A-2 were found in the areas delineated as uplands, although many were present at lower elevations identified as wetlands. These lower areas also had saturated soils exhibiting redox and evidence of tidal flooding and ponding. In addition, there was no coincidence of hydric soils, wetland hydrology or hydrophytic plant species characteristic of freshwater wetlands in the areas identified as uplands. Attached as Figure 3 hereto are existing conditions photos of the area of the Property at issue. As such, a new wetland boundary was delineated based upon plant species composition, topographic elevation, soil characteristics and apparent hydrology. This new wetland boundary is now consistent with the delineation methodology of both the Coastal and Freshwater wetlands Rules.

Kevin Coakley, Esq. March 7, 2014 Page 3

#### C. Summary

Significant sand was deposited in portions of the Property previously mapped as Coastal wetlands. The sand altered existing conditions invalidating the previous Coastal wetland mapping by converting wetland areas to uplands. As detailed above, these upland areas will not revert to wetlands and are not capable of growing the above-listed wetland species under current conditions. A new wetland boundary was delineated based upon plant species composition, topographic elevation, soil characteristics and apparent hydrology. This new wetland boundary is now consistent with the delineation methodology of both the Coastal and Freshwater wetlands Rules.

I trust this information is helpful. However, please do not hesitate to reach out if you have any questions or need anything else. A copy of my curriculum vitae is attached hereto.

Very truly yours,

EcolSciences, Inc.

David Moskowitz Senior Vice President

Attachments

#### DAVID P. MOSKOWITZ

**EDUCATION:** 

B.A., 1984 - Environmental Studies

George Washington University, Washington, D.C.

M.S. 2000 - Environmental Policy Studies

New Jersey Institute of Technology, Newark, N.J.

Ph.D. Program - Entomology

Rutgers University, New Brunswick, N.J.

PROFESSIONAL AFFILIATIONS:

Society of Wetland Scientists

Association of Field Ornithologists

ASTM Environmental Committee (1998-2002)

Dragonfly Society of the Americas

PROFESSIONAL CERTIFICATIONS:

Professional Wetland Scientist - SWS

Certified Wetland Delineator - Corps of Engineers

USEPA Wetland Delineation - WTI Qualified Ornithologist - NJDEP

Qualified Bog Turtle Surveyor - USFWS

**OTHER:** 

Wetland Journal Technical Review Board (2000-2002)

SWS Certification Review Panel (1998-2001) Poricy Park Board of Directors (1999-2002) East Brunswick Environmental Commission

USFWS N.J. Breeding Bird Survey Coordinator (1995-1997)
Identification of Sedges and Rushes - Rutgers University
Field Identification of Raptors - University of Maine
Identification of Adult Dragonflies - University of Maine
Identification of Larval Dragonflies - University of Maine

Systematics & Conservation of Lepidoptera - University of Maine

Identification of Microlepidoptera - University of Maine

#### **EXPERIENCE:**

Mr. Moskowitz is a Senior Vice President with EcolSciences, Inc. During the past 28 years, Mr. Moskowitz has conducted more than 4,000 environmental studies for a wide range of clients including government agencies, and the development, legal, engineering and financial professions. These studies have focused on wetland and wildlife issues including delineations, mitigation, field surveys and regulatory compliance as well as Phase I, Phase II and Brownfields Redevelopment. Mr. Moskowitz has also provided expert testimony before numerous municipal boards and the New Jersey Meadowlands Commission and has been qualified as an expert in Superior Court of New Jersey, New Jersey Office of Administrative Law, New Jersey Condemnation Commission, and the Morris County Board of Taxation. Mr. Moskowitz has published more than two-dozen technical and popular papers on wildlife, wetland, and threatened and endangered species related topics and has lectured widely on numerous environmental topics.



**Wetland Studies** 

Directed and participated in more than 3,000 field studies in NJ, NY, PA, MD and CT evaluating all aspects of wetland ecology. Representative experience includes:

• The evaluation of more than 10,000 acres in the New Jersey Highlands.

 The evaluation of more than 7,500 acres in the complex red soils of the New Jersey Piedmont.

• The evaluation of nearly 3,000 acres on Staten Island, New York.

**Brownfields and Site Investigation Studies** 

Principal in charge of numerous Phase I Environmental Assessments, historic pesticide investigations and remediatial activities, hazardous waste investigations and brownfields redevelopment projects.

Wetland Mitigation Studies

Numerous mitigation plans have been prepared to remedy regulatory violations of various State and Federal wetland laws, and to compensate for wetland losses resulting from permitted wetland fills. Two examples of the wide variety of studies include:

Preparation of mitigation plans and specifications for the remediation of wetlands and shorelines of the Freshkills Sanitary Landfill, Staten Island, New York.

Design and implementation of a 13-acre wetland restoration project in Morris County, New Jersey utilizing air conditioning condensation as a hydrologic supplement.

Threatened and Endangered Species Studies

Designed, directed and participated in numerous field studies for rare plant and animal species including Bog Turtle, Bald Eagle, Wood Turtle, Northern Pine Snake, Long-eared owl, Blue Spotted Salamander, Long Tailed Salamander, Pine Barrens Tree Frog, Great Blue Heron, Coopers Hawk, Grasshopper Sparrow, Savannah Sparrow, Upland Sandpiper, Barred Owl, Swamp Pink, Knieskern's Beaked Rush, Curly Grass Fern and Barrett's Sedge.

**Ornithological Studies** 

Numerous studies conducted throughout the northeast designed to evaluate and census individual species, avian communities and habitats, to assess potential impacts upon the species and habitats associated with land development proposals, and to comply with State and Federal Wildlife regulations. Two examples of the wide variety of studies include:

Long-eared owl habitat evaluation, pellet analysis and management plan in Somerset County, New Jersey.

Two-year avian census, habitat evaluation and regulatory assessment for the proposed redevelopment of Flushing Airport in Queens, New York by the New York City Economic Development Corporation. Breeding, wintering and migratory utilization of the site was comprehensively evaluated and barn owl pellet analysis was conducted to augment small mammal population studies.



Bald eagle Assessments – Habitat assessments and field surveys for bald eagle have been conducted throughout New Jersey, New York, New Hampshire and Pennsylvania. These assessments have been part of due diligence investigations and site planning. In addition, the reviews have involved negotiations with regulatory personnel at both state and federal agencies and testimony before the New Jersey Office of Administrative law.

#### Commercial/Residential/Industrial Studies

More than 3,000 properties have been evaluated throughout NJ, NY, PA, and CT to assess potential environmental impacts from proposed development and to insure regulatory compliance with various Local, State and Federal environmental laws. Tasks have included wetland delineation, permit acquisition and mitigation planning.

#### **Corridor Studies**

Designed, directed and participated in ecological studies and regulatory assessments for more than 350 linear miles of road corridors, gas and electric transmission right of ways and sewer and water alignments. Studies have been performed for the New Jersey Turnpike Authority, New Jersey DOT, Jersey Central Power and Light, New Jersey Natural Gas, and numerous local governments.

#### **Special Environmental Studies**

A wide range of ecological studies have been conducted for various private clients, the USEPA and other government agencies. Representative studies include:

- Bird, mammal, dragonfly, damselfly, butterfly and floral surveys for the proposed Catskill/Delaware Water Treatment Facility in Weschester County, New York.
- Habitat assessments for Pine Barrens Tree Frog and River Otter in New Jersey.
- An avifaunal study of a 500-acre proposed incinerator ash landfill site in New York, conducted for a county agency, to evaluate FAA concerns about bird strike hazards to aircraft passing over the site, resulting in the preparation of a Bird Deterrent Plan.
- Biological studies of the impacts of Folcroft Landfill upon ecological communities of Tinicum National Environmental Center, Philadelphia, PA for the USEPA, Region III.
- Red-Headed Woodpecker evaluation of two central New Jersey properties.

#### **Publications/Articles**

Moskowitz, D.P., 1996. Swamp Pink: A Federally-Listed Threatened Species. Wetland Journal 8(3): 14-16.

Moskowitz, D., Auffenorde, T. and M. Kovacs, (1997). Vegetation and Surrounding LandscapeCharacteristics of Long-Eared Owl (*Asio otus*) Winter Roosts in Central New Jersey. Records of New Jersey Birds. (23)1: 2-6.



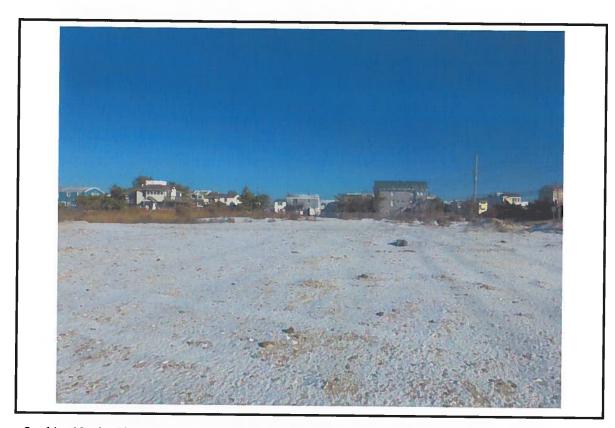
- Moskowitz, D.P., 1997. Wetland Restoration Using Non-Contact Cooling Water and Stormwater Runoff as a Supplemental Hydrologic Source. Wetland Journal 9(1): 17-20.
- Moskowitz, D.P., 1997. Hine's Emerald Dragonfly (Somatochlora hineana): The First FederallyEndangered Dragonfly. Wetland Journal (9)3: 12-14.
- Moskowitz, D.P., 1997/98. Fall Migrant Landbird Observations at Sea. Records of New Jersey Birds. (23)4: 95.
- Moskowitz, D.P., 1998. Build a Wetland Garden. Water Gardening Magazine.(2)6: 58-60.
- Moskowitz, D.P., 1998. Tips Offered on Negotiating N.J.'s Mining, Dredging Rules. Mine Regulation Reporter. 11(4): 86-87.
- Moskowitz, D.P., 1998. Vegetation Change in a Forested Wetland after a Bird Roost. Northeastern Naturalist. 5(1): 61-66.
- Moskowitz, D.P., 1998. A Wetland Delineation Primer for the Professional Land Surveyor. Professional Surveyor Magazine. 18(1): 22-28.
- Moskowitz, D.P. and D.M. Bell., 1998. Archilestes Grandis (Great Spreadwing) in Central New Jersey, with Notes on Water Quality. Bulletin of American Odonatology. 5(3): 49-54.
- Moskowitz, D.P., 1999. The Pine Barrens Treefrog (Hyla Andersonii): An Ecologist's Dream. Wetland Journal 11(4): 8-13.
- Moskowitz, D.P., 2000. A Comparison of Field-Delineated Wetlands to the New Jersey Freshwater Wetland Maps. M.S. thesis New Jersey Institute of Technology.
- Moskowitz, D.P., 2000. Old Maps and Wetland Regulation. Professional Surveyor Magazine. 20(6): 22-30.
- Moskowitz, D.P. and T.A. Auffenorde., 2000. Persistence of Skunk Cabbage (Symplocarpus foetidus [L.] Nutt.) in a Drained Wetland. Wetland Journal 12(3): 23-29.
- Moskowitz, D., 2000. A New County Record for Archilestes Grandis in New York with Notes on Habitat and Water Quality. ARGIA 12(4): 7-8.
- Moskowitz, D.P., 2000. Habitat Notes on a Winter Saw-whet Owl (Aegolius acadicus) Roost in Central New Jersey. Records of New Jersey Birds. 26(4): 138-139.
- Moskowitz, D., 2000. Book Review: Dragonflies through Binoculars A Field Guide to Dragonflies of North America. Wetland Journal 12(4): 41.
- Poricy Park Citizens Committee. 2001. A Checklist and Guide to the Butterflies of Poricy Park. Pamphlet.



- Moskowitz, D. P. 2001. First Record of the Queen Butterfly (*Danaus gilippus* Cramer) in New Jersey. News of the Lepidopterists' Society 43(3): 72, 74.
- Moskowitz, D., J. Moskowitz, S. Moskowitz and H. Moskowitz. 2001. Notes on a large dragonfly and butterfly migration in New Jersey. Northeastern Naturalist 8(4): 483-490.
- Moskowitz, D. P. 2002. An unusual interaction between a banded hairstreak butterfly (Satyrium calanus) Lycaenidae and a stink bug (Banasa dimidiata) Pentatomidae. Entomological News 113:(3) 183-186.
- Moskowitz, D. P. 2002. Was there an invasion of the Queen butterfly (*Danaus gilippus* Cramer) in the northeastern United States in 2001? News of the Lepidoptersists' Society 44(2): 66-67.
- Newgard, L. and D. Moskowitz. Bog turtle: It's small, secretive, rare, and it's in our hiking region Trailwalker 29(4): p. 5.
- Moskowitz, D.P. and C. Westphal. 2002. Notes on the larval diet of the Painted Lichen moth Hypoprepia fucosa: Hubner (Arctiidae:Lithosiinae). Journal of the Lepidopterist's Society 56 (4): 289-290.
- Moskowitz, D. P. and T. M. Auffenorde. 2003. Bird Use at Two Simulated-Tree Cellular Towers in New Jersey. Records of New Jersey Birds. 28(4): p. 88-91.
- Moskowitz, D.P. 2003. The Queen Dilemma in the Northeastern United States. New York State Butterfly Records 2002. New York Chapter, North American Butterfly Association. p. 49-51.
- Moskowitz, D.P., Kovacs, M. and J. Tesauro 2003. Glyptemys (Clemmys) muhlenbergii (Bog Turtle). Abnormal Coloration. Herpetological Review. 34(3): p. 240.
- Moskowitz, D.P. 2004. The Queen (Danaus gilippus Cramer) Dilemma in the Northeastern United States. News of the Lepidopterist's Society. 45(2): 62-63.
- Moskowitz, D.P. 2004. A new late flight record for Lestes congener in North America. ARGIA 15(4):22-23.
- Wikelski, M., Moskowitz, D., et al. 2006. Simple rules Guide Dragonfly Migration. Biology Letters.
- Moskowitz, D. February 2007. The Spring Peeper The Tiny Frog with the Loud Voice. NJ\NY Trailwalker.
- Moskowitz, D. May 2007. Butterflies Along The Appalachian Trail. NJ\NY Trailwalker
- Wikelski, M., et al. 2010. Large-range Movements of Neotropical Orchid Bees Observed Via Radio Telemetry. PloSOne 5(5).



- Moskowitz, D. 2010. First Record of the Ectoparasitic Beaver beetle (*Platypsyllus castoris* Ritsema) in New Jersey (Coleoptera: Leiodidae: Platypsyllinae). Coleopterist's Bulletin.
- Moskowitz, D. and D. Golden. 2011. First Record of the Green Lacewing Leucochrysa pavida (Hagen) in New Jersey (Neuroptera: Leucochrysa: Chryspoidae). Entomological News.
- McDonnell S. and D. Moskowitz. 2012. First Report of Mating in New Jersey of the Cicada Okanagana rimosa (Say) (Homoptera: Cicadidae, Tibicininae). Northeastern Naturalist.
- Moskowitz D. and L. Haramaty. 2012. A Note on the Agreeable Tiger Moth (Spilosma congrua) feeding on the fungus Trichaptum biforme. Journal of the Lepiodpterist's Society.
- Moskowitz D. and L. Haramaty. 2013. National Moth Week A new global Citizen Science project. Terrestrial Arthropod Reviews.



Looking North - Photograph of extensive sand deposition in areas previously mapped as coastal wetlands.



Looking West - Photograph of extensive sand deposition in areas previously mapped as coastal wetlands.

Figure 3 – Current Photographs





Looking Southwest - Photograph of extensive sand deposition in areas previously mapped as coastal wetlands.



Looking South - Photograph of extensive sand deposition in areas previously mapped as coastal wetlands.

Figure 3 – Current Photographs

