

# NEW JERSEY FLOODPLAIN NEWS

January 2010, Issue No. 7

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## MESSAGE FROM THE CHAIR

Joseph Ruggeri, P.E., CFM

I want to wish everyone a happy and healthy new hear and hope that the holidays were good to all. As NJAFM enters into its' sixth year, I am honored and very excited to be serving as Chair of this great organization and will strive to continue building upon the great accomplishments of the past board members.

Looking back at 2009, it was indeed a very productive year. Despite the hard economic times, we held a most successful (fifth) annual conference with a strong attendance. We also fostered better relationship and coordination with some of our key federal agencies, including the Federal Emergency Management Agency (FEMA) and the US Army Corps of Engineers (ACOE). Both FEMA Region II Acting Regional Administrator Michael F. Moriarty and ACOE New York District Colonel John R. Boule II conveyed inspiring and important messages at our conference.

Another milestone for 2009 was that New Jersey surpassed the 100 mark in the existing number of individuals that have attained their Certified Floodplain Manger (CFM) certification. This is truly a great achievement for NJAFM considering that only five years ago there were only 5 CFMs in New Jersey.

Looking forward to the year ahead, we are kicking off a brand new scholarship program initiative for local government officials. The scholarship award will cover the costs of the CFM technical training and review course sponsored by NJAFM, the ASFPM CFM exam application fee, the 2010 membership dues to the national ASFPM and the 2010 membership dues to NJAFM. This will greatly assist NJAFM in its goal to educate and train local officials in floodplain management so that they are better equipped in understanding and performing their job duties.

In 2010 we also plan to continue our outreach and training opportunities. We will continue to offer the popular CFM training and review course, FEMA's Elevation Certificate training and other floodplain management training workshops and courses. We hope to use these courses to also promote the education of local government officials in the most important aspects of floodplain management.

In 2010 we will also continue to assist both the NJ State Hazard Mitigation Office (SHMO) and the NJ State NFIP Coordinators Office. One of the goals of the SHMO is to ensure that all of NJ municipalities are covered by a FEMA approved all-hazards mitigation plan so that communities will be eligible to apply for available FEMA hazard mitigation grant funding. The State NFIP Coordinators Office, through Community Assistance Visits or Contacts, assists local floodplain administrators in understanding the requirements of the NFIP. The State NFIP Coordinators Office also works in close coordination with FEMA on updating the states floodplain mapping.

The NJAFM mission is to reduce loss of life and property damage resulting from floods and to promote sound floodplain management at all levels of government. NJAFM has only been successful thus far thanks to our active members and strong support from our public and private partners. Therefore, in order to continue our success, I would like to challenge each and every one of us to think about what we could do in 2010 and beyond to assist in the NJAFM mission.

If you have any thoughts or comments that you would like to share, please contact me via email at chair@njafm.org.

Sincerely,

Joseph Ruggeri, P.E., CFM

NJAFM Chair

## NJAFM 6<sup>TH</sup> ANNUAL CONFERENCE

Mark your 2010 calendars!

The NJAFM 6<sup>th</sup> annual conference will be Thursday and Friday, **October 14-15, 2010** at the Palace at Somerset Park in Somerset, NJ.

#### ASFPM 34<sup>TH</sup> ANNUAL CONFERENCE

Mark your 2010 calendars!

The ASFPM 34<sup>th</sup> annual conference will be the week of **May 16-21, 2010** in Oklahoma City, Oklahoma. The theme, "Building Blocks of Floodplain Management" and early registration discounts are available through April 3, 2010. Visit <a href="www.floods.org">www.floods.org</a> for more information.

## CERTIFIED FLOODPLAIN MANAGERS

CFMs in New Jersey Hit the Century Mark!

The year 2009 was a watershed year for the Certified Floodplain Manager (CFM) program in New Jersey as we passed the century mark. NJAFM can be proud of the fact that when we were beginning discussions about starting a New Jersey Chapter of ASFPM in 2004, there was a grand total of 5 CFMs in the Garden State. In just five years we have seen phenomenal growth; there have been around 20 new CFMs every year. There are currently 107 CFMs in New Jersey.

Since 2005, NJAFM has sponsored two CFM training classes and at least two CFM exam offerings per year. These training sessions have been well attended by professionals throughout New Jersey as well as surrounding states. It is worth noting that the number of new CFMs annually in New York, Pennsylvania, and Delaware has also spiked recently.

Looking forward, there will be a 1 ½ day training session and exam offering on February 2 -3 at the Jacques Cousteau Coastal Center in Tuckerton, NJ. Those interested should download the application from the NJAFM website.

Congratulations to all 107 New Jersey Certified Floodplain Managers!

Addonozio-Bianco, Cynthia, Chester Agnoli, Nicholas, Little Falls Andreassen, Carl, Chatham Apgar, Heather, Mount Arlington Ardito, Steven, Point Pleasant Beach Bach, Walter, Neptune Banff, Andrew, Burlington Benosky, Christopher, Long Branch Black, Peter, Rockaway Bochanski, Daniel, Tabernacle Bolan, Richard, Maywood Carballo, Zayibeth, Linden Casey, Michele, Flemington Chayko, John, Flemington Cheff, Philip, Totowa Chhibber, Avishek, Jersey City Cofrin, Nicole, West Orange Constantine, Edward, Franklinville Dariano, Anthony, Deptford Dasanayaka, Devage, Delran Dattilio, Daniel, Riverside Dening, John, Basking Ridge Depasque, Natalie, Clinton Desai, Pratik, W. Milford DeSimone, Salvatore, Rio Grande Diehl, David, Blairstown

DiLorenzo, Jennifer, Monmouth Reach Dilworth, George, Cape May Disko, Michael, Springfield Fairfield, Edwin, Hackettstown Femia, Joseph, Old Bridge Figanmese, Ayse, Cliffside Park Fofanah, Abdulai, Hopatcong Foley, Anna, Verona Franks, Richard, Verona Fromuth, Richard, Trenton Funk. Bruce. Longport Gaestel, Robert, Manahawkin Galantino, Guy, Linwood Gandhi, Bhavin, Wayne Gardner, Michael, Forked Road Goodrow, Sandra, Old Bridge Gould, Alan, Monroe Twp. Graham, Michael, Sewell Gunawardana, Vajira, Holmdel Hipolit, Andrew, Sparta Holzapfel, George, Wayne Janisiewicz, Janusz, Westwood Katala, Tshiamala, Pennsauken Kemp, William, Wildwood Kilmer, Tracy, Cinnaminson

Kisinger, Kirk, Flemington Kong, Sonny, Fairview Kull, Robert, Trenton Laliberte, Rejean, Red Bank Lange, Jeromie, Manahawkin Leahey, Matt, Point Pleasant Beach Lee, Wai, Nutley Lim, Justin, Wavne Little, Tom, Blackwood Mabry, Marshall, Atlantic Highlands Malise, Nicole, Flanders Marchuk, Louis. Stratford Marks, Stephen, Kearny Marucci, Nick, Whippany Meola, Frederick, Cedar Knolls Mihlbachler, Thomas, Princeton Junction Miller, John, Lambertville Miller, Robert, Titusville Miskiman, Alison, Florham Park Mitchell, Karen, Frenchtown Modelle, Gregory, Somers Point Muthu, Suria, Morristown Nader, Wassim, Hackettstown Nollstadt, Kevin, Phillipsburg Pagan, Ed, Flemington Patel, Jeepsi, Branchburg

Pazwash, Hormoz, Clifton
Penrose, Robert, Cape May Court House
Pera, Jonathan, Pequannock
Perez-Gonzalez, Melissa, Hackettstown
Pierson, Jay, Pine Beach
Poudrier, Raymond, Ocean View
Raser, Jonathan, Denville
Rimawi, Hani, Morristown
Rogers, Kenneth, Flemington
Ruggeri, Joseph, Monroe Township
Sandoval, Alejandro, Budd Lake

Shah, Mitul, Wallington Shaw, Brian, Howell Siddiqui, Zahid, Old Bridge Slowinski, Thomas, Trenton Slutsky, Adam, Mendham Smith, Cleighton, Medford Smith, Gail, Philipsburg Sobota, Richard, Cherry Hill Sonner, David, Cape May Court House Theodos, Chris, Ocean Gate Thomas, Gary, Oceanview Thomas, Scott, Union Thumpayil, Brian, East Hanover Vargo, Michael, Franklinville Vargo, Robert, Franklinville Venturini, Ralph, Ramsey Watt, James, Manasquan White, William, Oceanport Wojnas, John, Ewing

## COMMITTEE UPDATE

Joining a Committee is a great way to get involved with NJAFM. The NJAFM Committees and their 2010 chairs are as follows:

Annual Conference Committee: Chair - Nicole Malise, CFM, NSmith@falconengineering.com

Membership Committee: Chair - Wassim Nader, naderw@medinaconsultants.com

Website Committee; Chair - Chris Gould, Alan.Gould@dep.state.nj.us

Training Committee: Chair - Cleighton Smith, cleighton.smith@dewberry.com

Legislative Committee: Chair - Ed Pagan, ed@paganaffiliates.com

Stormwater Committee: Chair - Ray Zabihach, rzabihach@co.morris.nj.us

Community Rating System (CRS) Committee: Chair - Jonathan Raser, Jonathan.Raser@ttemi.com

Awards Committee: Chair - Laura Tessieri, Laura. Tessieri@drbc.state.nj.us

#### **NEWS**

#### **President Declares Major Disaster For New Jersey**

Release Date: December 22, 2009 Release Number: HQ-09-159

WASHINGTON, D.C. -- The head of the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) today announced that federal disaster aid has been made available for New Jersey to supplement state and local recovery efforts in the area struck by severe storms and flooding associated with Tropical Depression Ida and a nor'easter during the period of November 11-15, 2009.

Federal funding is available to State and eligible local governments and certain private nonprofit organizations on a cost-sharing basis for emergency work and the repair or replacement of facilities damaged by the severe storms and flooding in the counties of Atlantic, Cape May, and Ocean.

Federal funding is also available on a cost-sharing basis for hazard mitigation measures statewide.

William L. Vogel has been named the federal coordinating officer for federal recovery operations in the affected area. Vogel said additional designations may be made at a later date if requested by the state and warranted by the results of further damage assessments.

FEMA's mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.

## **Looking for Volunteers to Measure New Jersey** Rain and Snow

By: Dr. David Robinson, Rutgers University, and Mathieu Gerbush, Rutgers University

The Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS), a nationwide volunteer precipitation-observing network, welcomed New Jersey into the program in early 2008. The NJ chapter of CoCoRaHS is based out of the Office of the New Jersey State Climatologist (ONJSC) at Rutgers University's Agricultural Experiment Station.



Over 350 New Jersey residents have already signed up to take daily observations of precipitation. However, it's still not enough to fully monitor the wide variations in rain and snow that play such a large role on the state's water resources. Therefore, NJ CoCoRaHS is looking to enlist hundreds of additional volunteers who are willing to take a few minutes each day to report the amount of rain or snow that has fallen in their backyards. All that is required to participate is an inexpensive 4" diameter plastic rain gauge, a ruler to measure snow, an internet-connected computer, and most importantly, the desire to watch and report weather conditions.

Observations from CoCoRaHS volunteers are widely used by the ONJSC, the National Weather Service, and scientists within many state and federal agencies whose decisions depend on timely

high-quality precipitation data. In particular, hydrologists and meteorologists benefit from the program as the data are used for flood and drought monitoring purposes. The data are also commonly utilized by many other organizations and individuals such as emergency managers, city utilities, insurance adjusters, engineers, mosquito control programs, farmers, teachers/students, and the general public.

CoCoRaHS volunteers are asked to read their rain gauge and measure any snow on the ground at the same time each day (preferably between 5 AM and 9 AM). Measurements are uploaded by the observer to the CoCoRaHS website, where they can be viewed in tables and maps. Training is provided for CoCoRaHS observers, either through online training modules or, preferably, in group training sessions that are held throughout the state.

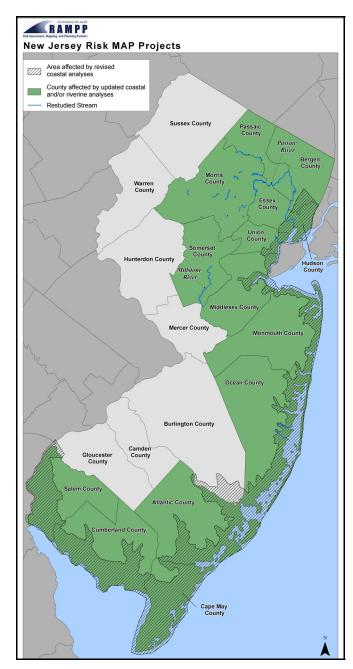
For more information about program or to sign up, please visit the CoCoRaHS website at <a href="http://www.cocorahs.org">http://www.cocorahs.org</a> or contact the NJ CoCoRaHS state coordinators:

Dr. David Robinson, Rutgers University, drobins@rci.rutgers.edu, 732-445-4741, and Mathieu Gerbush, Rutgers University, njcocorahs@climate.rutgers.edu, 732-445-3076

## RAMPP Partners with FEMA for New Jersey Flood Engineering and Mapping Projects

By: Samara Ebinger, Dewberry Lead Geographer Dewberry, Fair Fax, VA

Risk Assessment, Mapping, and Planning Partners (RAMPP) is a joint venture between Dewberry & Davis LLC, URS Group Inc., and ESP Associates. providing production and technical services for FEMA Regions II (NJ, NY, PR, and VI), III (DC, DE, MD. PA. VA. WV), and VI (AR. LA. NM. OK. TX) as a part of FEMA's Risk Mapping, Assessment, and Planning (Risk MAP) initiative. RAMPP shares FEMA's commitment to delivering quality digital flood hazard data and mapping that will assist in reducing risk and increasing public awareness. RAMPP is responsible for operating Regional Support Centers (RSCs) located near the FEMA regional offices, processing Letters of Map Correction, and providing comprehensive floodplain mapping, GIS, outreach, and hazard risk assessment and mitigation planning services.



Flood engineering and mapping work has begun on the following projects that impact communities in New Jersey:

• New coastal flood hazard analyses for the New Jersey shoreline, affecting the following counties: Atlantic, Cape May, Cumberland, Essex, Hudson, Ocean, Middlesex, Monmouth, Salem, and Union. Storm surge modeling will be performed for the Atlantic Ocean and will be refined within the subject counties' shoreline areas for increased detail within bays, inlets, streams and estuaries. Following the storm surge modeling, overland wave propagation modeling and hazard mapping will be performed. Each of the above county's Digital Flood Insurance Rate Map (DFIRM) and Flood Insurance Study (FIS) will be revised to reflect the updated coastal analyses.

- Updated hydraulic and hydrologic analyses and floodplain mapping for the flooding sources listed below; Field surveys are currently underway and are expected to be completed by August 2010.
  - The lower 48 miles of the Passaic River (from the confluence with Newark Bay to the West Caldwell and Fairfield Township boundaries) with resulting DFIRM/FIS revisions to be made for Bergen, Essex, Hudson, Morris, and Passaic Counties:
  - The Millstone River (15.9 miles from the confluence with Raritan River to the Somerset/Mercer county boundary), with resulting DFIRM/FIS revisions to be made for Somerset County;
  - Reaches of 14 different streams (approximately 30 miles in total), within Morris County, including Watong Brook and Beaver Dam Brook;
- Additional flooding sources: North Branch of Forked River and Cedar Creek in Ocean County, Elizabeth River in Union County, and Saddle River, Hohokus Brook, and Ramsey Brook in Bergen County.
- Atlantic, Cape May, Cumberland and Salem counties will be mapped in a countywide FIS/DFIRM format for the first time. All existing detailed-studied riverine flooding sources in these 4 counties will be redelineated based on updated topographic information, and new approximate 1% annual chance floodplain analyses will be performed throughout the counties.

Preliminary FISs and DFIRMs reflecting the revisions described above are expected to be issued between late 2010 and mid-2012, depending on the complexity of the tasks performed, and the schedule agreed upon by FEMA.

For more information on RAMPP, the services it provides, or the projects described above, please contact Jean Huang, RAMPP Regional Manager, at 703.849.0264 or jhuang@dewberry.com.

#### NJMC Winning Flood Fight in the Meadowlands

The New Jersey Meadowlands Commission is the zoning and regulatory agency for the 30.4 square-mile Meadowlands District, composed of parts of 14 municipalities in Bergen and Hudson counties.

By: Robert Ceberio Executive Director, New Jersey Meadowlands Commission

Throughout the past decade the New Jersey Meadowlands Commission has been aggressively addressing flood control issues in the Meadowlands District. During this time the NJMC has funded nearly \$10 million in infrastructure projects ranging from drainage and pipe upgrades to major tide gate replacements. We've also included \$150,000 in our 2010 budget for tide gate maintenance throughout the District. Our efforts have paid off for District property owners, who not only see less flooding but are also eligible for flood insurance discounts through the Federal Emergency Management Agency.

Our work is not limited to bricks and mortar. We've also pursued new technologies to better monitor our tide gate systems and help towns safely prepare for coming storms. This comprehensive approach is better protecting residents and businesses and keeping traffic flowing freely in the Meadowlands.

Below are a few highlights of the NJMC's recent flood control initiatives.

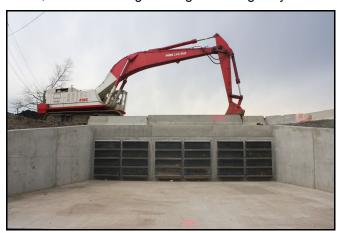
#### <u>Infrastructure</u> Route 17 Project

The NJMC is currently overseeing a \$5.5 million flood control project – the largest in the commission's history – to reduce flooding on Route 17 near the Rutherford-East Rutherford border, one of the busiest stretches of highway in Northern New Jersey.

In the fall of 2009 the NJMC completed the installation of six (6) 4-foot by 6-foot rectangular concrete culverts with six (6) associated tide gates in Rutherford and five (5) 72-inch diameter culverts with five (5) associated tide gates in East Rutherford. The new tide gates, both situated along Berry's Creek, have resulted in reduced highway closings during fluvial and storm surge events.



The project's second phase, a drainage ditch restoration in conjunction with the state Department of Transportation, is set to begin in January 2010. The work involves the removal of 14,000 cubic yards of soil, sediment and debris from a 3/4-mile ditch in Rutherford. This will provide a positive slope to the drainage ditch to allow runoff to flow unobstructed through the ditch and into Berry's Creek, further reducing flooding on the highway.



Moonachie Creek/Bashes Creek Tide Gates The NJMC plans to install new tide gate systems in the spring of 2010 at the Moonachie Creek and Bashes Creek culverts under the New Jersey Turnpike Western Spur in Carlstadt. The culvert openings for Moonachie Creek and Bashes Creek are 12-by-20-feet and 10-by-10-feet, respectively. This \$414,000 project will protect businesses along Washington Avenue in Carlstadt from the flooding caused by the tidal influence of the Hackensack River. The area became prone to flooding after a 2007 nor'easter damaged a levee system along the river. Contractors have since made temporary fixes to the levee system, eliminating the flooding that resulted from the damage.

West Riser Tide Gates

Looking ahead, the Commission also plans to replace the West Riser Tide Gates in Moonachie. This upgrade would help protect Teterboro Airport and its surrounding areas from flooding, including Industrial Avenue in Teterboro and residential streets in neighboring Moonachie. The 35-year-old tide gates – located on Berry's Creek just south of the airport – would be replaced with a new sheet pile structure and tide gate system that would provide protection from tidal storm surges. The Commission has received \$552,000 in funding from the Port Authority of New York and New Jersey toward this project.

## <u>Technology</u> <u>Digital Flood Control Monitoring System</u>



In 2009 the NJMC's Meadowlands Environmental Research Institute (MERI) began installing high-tech digital flood monitors at critical tide gates throughout the District. These solar-powered remote deployment terminals use cutting-edge military technology and satellite communication to record hourly readings on the water level and mechanical functions of the tide gates. The data is transmitted to NJMC engineers who monitor the systems in real time and without leaving their desks. The devices are being placed on 12 older tide gates that are considered key to protecting critical and developed areas from flooding. The technology allows engineers to ensure that tide gates are working properly and, if problems are discovered, to make repairs before storms hit.

#### Flood Maps/Email Alert System

With 90 percent of the Meadowlands District only two feet above high tide, towns must constantly be prepared to address flooding. To that end, MERI's Geographic Information Systems team recently developed digital flood maps for each District municipality. These maps show exactly what streets and properties – down to the block and lot number – in each town would flood during a 2-foot, 4-foot, 6-foot or 8 feet and higher storm surge, allowing local emergency responders to better prepare for and combat storms. The elevation model is based on 2002 topographic data and the height of each tide gate structure is also labeled accordingly.

The NJMC also sends email alerts about predicted storms to local officials, providing early warnings about flooding scenarios and which maps they should consult. The NJMC collects the data from the National Oceanic and Atmospheric Administration's Sandy Hook Water Level Station.

#### <u>Federal Recognition</u> FEMA Insurance Discount

Thanks to the NJMC's flood control efforts. Meadowlands property owners can get a break on their flood insurance premiums. A new FEMA rating in 2009 – which gave high marks to NJMC flood control efforts - allows 2,300 District property owners to receive up to 15 percent reductions on new or renewed flood insurance policies. The discounts are provided through FEMA's National Flood Insurance Program Community Rating System. In addition to being recognized for its large scale flood control efforts, such as the Route 17 project, the NJMC was also commended by FEMA for exceeding requirements in other areas, including open space preservation, flood data maintenance. stormwater management standards and drainage system maintenance.

## **CALENDAR OF EVENTS**

January 19, 2010

NJAFM Board Meeting- Open to all members USGS, New Jersey Water Science Center 810 Bear Tavern Road, Suite 206 West Trenton, NJ 08628

January 27, 2010

NJ DEP Division of Land Use Regulations Presents: Navigating Your Clients through Bulkhead & Dock In 130 Great Bay Boulevard Tuckerton, NJ 08087 Contact: Lisa Auermuller, 609-812-0649

February 2 -3, 2010 CFM Training and Exam Jacques Cousteau Coastal Center 130 Great Bay Blvd. Tuckerton, NJ 08087

February 11, 2010 Preparing Your Community in the Face of a

Changing Climate Sea Oaks Golf Course

Route 539

Little Egg Harbor, NJ 08087 Contact: Lisa Auermuller, 609-812-0649

http://www.jcnerr.org/registration/registration\_prepar

ing climate change.php

May 16 – 21, 2010 ASFPM 34<sup>th</sup> Annual Conference Cox Convention Center Oklahoma City, Oklahoma

October 14-15, 2010 6th Annual NJAFM Conference The Palace at Somerset Park Somerset, NJ

### **CAREER CONNECTIONS**

If you would like include information about an employment opportunity at your organization or company in our next newsletter, please send a full description, including how to apply.

#### Research Internships in Ocean Sciences (RIOS)

RIOS is a program supported by a grant from the National Science Foundation, Research Experiences for Undergraduates. RIOS provides paid, 10-week summer internships to participate in a range of projects offered by the Institute of Marine and Coastal Sciences at Rutgers University. Continuing undergraduates pursuing majors in environmental sciences, engineering, geology, biology, physics, or mathematics are encouraged to apply. You will conduct an independent research project in a modern laboratory, or be part of field investigations in the region. You will be introduced to an active and collaborative research environment. The application deadline is approaching. Contact the Division of Ocean Science's REU Program Director, Lisa Rom at elrom@NSF.gov or (703) 292-7709 for more information.

## **MEMBERSHIP INFO**

Are you enjoying the benefits of an NJAFM membership?

Unlimited networking, scholarship opportunities, educational seminars and training can be available to you by becoming an NJAFM member. Have immediate access to a platform where issues that matter to floodplain professionals are the focus.

An Individual Membership is only \$30 per year and Corporate Membership is only \$200 per year. To join today, visit <a href="https://www.njafm.org">www.njafm.org</a> to download the membership forms.

#### THE NEWSLETTER

Share your successes, questions, and News with NJAFM!

New Jersey Floodplain News will be published January 15 and June 15 of each year. As our volunteer base grows, with your participation, we hope to publish issues more frequently. We welcome your suggestions, comments and submissions for articles and news items. We encourage you to share New Jersey Floodplain News with others, and to reproduce our articles.

Please send your suggestions, comments, submissions and questions to:

Ayse Figanmese Stantec Consulting Ltd. 365 W. Passaic St. Rochelle Park, NJ 07662 ayse.figanmese@stantec.com

## BOARD OF DIRECTORS, 2010

A thank you to our 2010 Board of Directors for all the time and energy they give to NJAFM.

Chair: Joseph Ruggeri, P.E., CFM Vice Chair: Richard Marsden Jr., P.E.

Secretary: Heidi Hoppe

Treasurer: Cynthia Bianco, CFM
Past Chair: Adam Slutsky, P.E., CFM