

THE FIRST STATE WATERMARK



Delaware's Floodplain Management Newsletter

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Flood Mitigation Assistance Program

On April 29, 1997, the Federal Emergency Management Agency implemented the Flood Mitigation Assistance Program. The FMAP is a grant program aimed at reducing flood damage to property.

FEMA is known to many as the agency which responds to natural disasters by providing assistance and resources to help stricken areas recover and rebuild, and the agency which oversees the National Flood Insurance Program. During the 1990's, mitigation - a term used to describe a broad range of measures aimed at damage reduction - has been incorporated into almost every FEMA program.

The National Flood Insurance Program was a pioneer in mitigation by mapping flood hazard areas and requiring flood resistant building codes in any participating community. However, many flood-prone structures exist which were built prior to these Flood Insurance Rate Maps and codes. Repetitive damage to these "Pre-FIRM" structures has always been a major drain on the NFIP. The long term goal of the Flood Mitigation Assistance Program is to reduce or eliminate claims under the NFIP through mitigation activities.

ANNUAL FUNDING, MODEST AMOUNTS

Each state will get annual funding to help support FMAP activities. Annual funding levels are based on a formula of flood insurance policies, claims data, and other factors. Initially, Delaware has received \$141,000 which must be allocated prior to September 30, 1997. It is anticipated that Delaware's FY 1998 funding level will be similar.

PLANNING ASSISTANCE

Planning Grants are available to help County and local governments develop flood mitigation plans. Flood mitigation planning should identify problem areas through public meetings, identify specific solutions to flooding

problems and investigate technical and fiscal means to implement these solutions. Communities whose flood mitigation plans have been approved by FEMA may apply for Flood Mitigation Project Grants. Until a county or municipality has adopted an approved Flood Mitigation Plan, the Delaware Emergency Management Agency may apply for project grants on behalf of local interests.

PROJECT ASSISTANCE

Project Grants are available to implement projects which will protect insured or insurable structures from flood damage. FEMA's focus is on acquisition, relocation and elevation of structures which are insured by the National Flood Insurance Program. Other examples of eligible projects include minor flood control projects (drainage improvements, etc.) beach nourishment, and bringing structures into compliance with floodplain management standards.

TECHNICAL ASSISTANCE

The third category of FMAP assistance is technical assistance. This category includes technical projects such as obtaining 100-year flood elevations in order to pursue projects; determining the feasibility of elevating or relocating structures, determining floor elevations, foundation conditions, and other factors in order to identify projects; and conducting workshops in order to develop Flood Mitigation projects or write project applications.

MEETINGS HELD IN EACH COUNTY

This summer, meetings were held in Dover, Georgetown and New Castle in order to meet with county and municipal officials and provide guidance on the FMAP. Following these meetings, Delaware's Flood Mitigation Program Manager, Michael Powell, met with local officials and residents of flood-prone areas to review potential projects. By August 1, 1997, four flood prone homes were being evaluated for possible elevation/relocation.

KENT COUNTY FLOOD RESTUDY

The Federal Emergency Management Agency has announced that it intends to restudy Kent County for the purpose updating the mapping of Special Flood Hazard Areas. In July, 1996, a meeting was held at the DNREC in Dover to allow County and community officials to provide comments regarding the focus of this study. The meeting was well attended and it was generally agreed that the study of "approximated" A-zones (without base flood elevations) was the top priority.

Specifically, A-zones where development is expected to occur will be studied to establish base flood elevations and more accurately delineate the Special Flood Hazard Area (100-year floodplain). In order to maximize the area studied, FEMA will conduct mostly "limited detail" studies where base flood elevations are determined but floodways are not. In addition, certain coastal areas will be restudied where shoreline erosion which has occurred renders the previous study (1982) suspect. The following areas are proposed for this study:

Coastal

- Pickering Beach
- Kitts Hummock
- Bowers Beach (North and South)
- Big Stone Beach

Riverine/Ponds

- | | |
|--------------------------|-----------|
| • Tappahanna Ditch | 5.1 miles |
| • Tidbury Creek | 3.9 Miles |
| • Choptank River | 2.5 miles |
| • St. Jones River | 5.1 miles |
| • Fork Branch | 6.5 miles |
| • Maidstone Branch | 4.3 miles |
| • Cahoon Branch | 4.7 miles |
| • Little Creek | 4.3 miles |
| • Morgan Branch | 2.0 miles |
| • Penrose Branch | 2.7 miles |
| • Andrews Lake | 0.7 miles |
| • Corsey's Pond | 0.7 miles |
| • McGinnis Pond | 0.8 miles |
| • McColley Pond | 0.8 miles |
| • Marshyhope Creek/Ditch | 9.1 miles |
| • Horsepen Ditch | 2.5 miles |
| • GreenBranch | 4.1 miles |

- Duck Creek 5.2 miles

The latest word from FEMA is that preliminary copies of the new maps will be issued by late 1998. For more information please contact Michael Powell, Delaware's National Flood Insurance Program Coordinator at (302) 739-4411.

can detailed studanted ed beaches and related facilities such as dune improvements are considered to be eligible public infrastructure under the Robert T. Stafford Act. This means that during Presidentially declared disasters, FEMA will reimburse the State for up to 75% of the costs associated with repairing damage to these eligible beaches. Twice in 1992, and once again in 1996, storms resulting in disaster declarations eroded large quantities of sand from engineered Sussex County beaches. In each case, public assistance from FEMA enabled the Delaware DNREC to replace sand which had been lost from the beach. FEMA's proposed regulation would discontinue the eligibility of engineered beaches and related restoration work for Public Assistance in the event of a Presidentially declared disaster. To comment, contact Greg Ormsby, Federal Emergency Management Agency, 500 C Street SW., Washington, DC 20472.

Insurance coverage to meet code requirements

A basic intent of the National Flood Insurance Program's community flood hazard ordinances is to phase out non-conforming development. Specifically, when non-conforming structures are substantially damaged or substantially improved, they must meet current flood elevation requirements.

Under this proposed rule, the National Flood Insurance Program would add coverage to pay for the increased cost to rebuild or otherwise alter flood-damaged structures to conform with State or local floodplain management ordinances or laws. In other words, if a covered structure is flooded (or has suffered wind, fire or other damages) and is "substantially damaged" this new optional NFIP coverage will cover the expense of elevating the rebuilt strucutres

SussexCounty throughout the state are in very good shape entering this winter storm season. The Shoreline Management Branch beach crew has been tending to the dune grass and sand fencing throughout the spring and summer. As it stands now the Delaware beaches are well protected in most areas.

One area of concern is the southern portion of Dewey Beach, from McKinley Street south to Collins Street. In that area, the beach has suffered loss of sand over the past two years since the beach was nourished. The distance between the base of the dune and the ocean has diminished to the point that dune erosion and possible dune breaching would be expected if a moderate northeaster hits the coast. This area will be monitored closely this winter when storms arrive.

The Waterway Management Branch has conducted beach nourishment projects at two Delaware Bay beach communities this year. Broadkill Beach and Kitts Hummock have received additional sand to help reduce storm impacts. Due to the damaging effects of storms from the past few years, the Ted Harvey Wildlife Area also received sand nourishment to help protect this valuable wildlife area from additional storm damage. The State dredge is scheduled to pump sand onto Bowers Beach this fall to help that community endure the effects of storms.

Due to the ongoing efforts of the Shoreline and Waterway Management Section, Delaware's beaches are in very good condition entering the storm season. If nature cooperates and Delaware does not experience storms much more powerful than the typical northeasters common along our shores each winter, we expect to get through the winter with few problem areas.

Any questions about coastal conditions may be directed to Tony Pratt, Program Manager, Shoreline Management Branch. Questions about dredging may be directed to Chuck Williams, Program Manager, Waterway Management Branch

Sand Bypass Facility and the Indian River Inlet

The Sand Bypass Facility, located south of the Indian River Inlet, resumed pumping operations on September 9, 1996. We anticipate bypassing approximately 80,000+/- cubic yards of sand this season (Labor Day to Memorial Day). The south beach was unusually full this summer with sand accreting out to the end of the jetty and washing over the top of the jetty into the Inlet.

Since sand is not pumped during the summer, due to the high recreational use of the south beach, our bulldozer was used to stockpile some of the accreted sand into the dune. A sand dike was built parallel to the jetty to help retain the sand on the beach and keep it from washing into the Inlet. The north beach remained in reasonably good shape this year, considering that a sand deficit has existed there since the bypass operation was started in 1990 (The last major

dredge nourishment of that beach occurred in 1984 when 540,000 cy was placed. When the Bypass started in 1990, most of that material had been eroded. The Bypass is designed to maintain, not build, the beach on the north side.).

The Bypass continues to generate worldwide interest in its technology. On September 11, 1996, we put on a demonstration for representatives from the coastal agencies of the states of Queensland and New South Wales, Australia. They are considering a bypassing system for the Tweed River entrance, which separates the two states.

Any questions regarding the Sand Bypass facility may be directed to Robert Henry, Program Administrator.

Flood Insurance vs. Floodplain Management Ordinances: Can't we all just get along?

The National Flood Insurance Program is a partnership between the Federal government and local communities. Local communities agree to regulate development in flood-prone areas to Federal standards - the NFIP Regulations. In exchange, the Federal government provides affordable flood insurance to all residents of participating communities.

In most cases, these dual aspects of the program are consistent with each other. Most local floodplain ordinance requirements (i.e. lowest flood elevation, breakaway walls in V-Zones) are identical to criteria which insurance agents use to write a flood insurance policy.

However, a few floodplain ordinance requirements are different than those few writing a flood insurance policy. These differences are often a source of confusion:

Hydrostatic Venting:

Floodplain ordinances require a minimum of two openings having a net area of one square inch for every square foot of enclosed area. The bottom of the openings must be no more than **one** foot above grade.

Flood Insurance requires at least two openings with the bottom of each opening no more than **two** feet above grade for an enclosed area to be properly vented.

Equipment:

Floodplain ordinances require equipment to be located so as to prevent flood damage. In most communities this means that equipment may be located in enclosed areas below elevated lowest floors but must be elevated to the base flood elevation.

Flood Insurance may be very expensive if any equipment is located in the enclosed area below an elevated lowest floor; even if the equipment is elevated to the base flood elevation.

Manufactured Homes:

Floodplain ordinances generally require elevation certificates for all new construction.

Flood Insurance may be obtained without an elevation certificate for a new manufactured home if placed in an older manufactured home park or subdivision. Specifically, in manufactured home parks or subdivisions which started before the local community joined the NFIP, elevation certificates are not required, even for new placements.

The rule of thumb is that one aspect of the program must never weaken the other. For example, all new construction must be hydrostatically vented as required in the floodplain management ordinance even though the flood insurance standards are less restrictive. There may be other differences between the requirements in a floodplain management ordinance and the provisions of flood insurance policies. If you know of others, please let us know.

--- mpowell

Map Revisions Requested in Sussex County

Two communities in Sussex County have requested that FEMA review base flood elevation data in their areas for suspected inaccuracies. If FEMA determines that the June 16, 1995, Flood Insurance Study is inaccurate in these locations, map revisions are likely.

One of these communities is the Lakeview Estates subdivision west of the Town of Millsboro. In 1992, an insurance agent informed the State NFIP Coordinator of some homes which were proving exceedingly expensive to insure for flooding.

Because many homes in Lakeview Estates are located in the Zone A (no base flood elevation) floodplain, homeowners were required by lenders to purchase flood insurance. Surveyors determined the base flood elevation using the point-on-the-boundary method and found that many homes had their lowest floor several feet below the base flood elevation. The Flood Insurance Rate Map for this area did not appear to be based on existing conditions, which included a man-made pond and levee. Additionally, the

flood hazard area seemed unrealistically large and the base flood elevation appeared unreasonably high.

In 1993, the DNREC requested that FEMA restudy the area in detail. In 1995, with funding available, FEMA contracted with the United States Army Corps of Engineers to study this area in detail. By September 1, 1996, a preliminary map showing detailed base flood elevation data on accurate ground topography was due to FEMA.

Because the new data will change the Special Flood Hazard Area, the proposal to revise existing maps must be publicized for comment. After this comment period is over the Flood Insurance Rate Map for the Lakeview Estates area may be officially revised by FEMA to reflect the new floodplain and base flood elevation data.

The Town of South Bethany disagreed with the increase in base flood elevation along Little Assawoman Bay which was determined in the June 16, 1995, Sussex County Flood Insurance Study. The Town did not bring this objection to FEMA's attention until after the comment period had elapsed and the Study became final.

Believing that the previous base flood elevation of 4.0' NGVD was more accurate than the base flood elevation of 6.0' NGVD in the new study, the Town has contracted with Offshore and Coastal Technology, Inc., to calculate 100-year storm data for Little Assawoman Bay. Offshore and Coastal Technology, Inc. has done previous work in Ocean City, Maryland. The Town believes this previous work supports the lower base flood elevation. Currently, FEMA is reviewing this request from the Town of South Bethany.

--- mpowell

Elevation Reference Mark Catalogs Are Still Available

Attention Surveyors!! **The** elevation reference mark catalogs for New Castle and Sussex Counties are still available. The catalogs are a compilation of all the reference marks listed on the April 17, 1996 (New Castle County) and the June 16, 1995 (Sussex County) FIRM maps and located in the Delaware Geological Survey's BENCHMARK data base. To request your copy, please contact Karen Pollack at (302) 739-4411.

"And By The Way...": An Update to the Sussex County Catalog

The FLOOD MARKS in the FAI and FRA quads have NAVD88 elevations that are accepted by NGS into the national data base. Currently, they are listed as not compatible with NGVD29 except between themselves. This does not mean that they cannot be used as they are for flood surveys, only that they must close back to themselves or another flood monument. NAVD88 elevations for the Route 24 Flood Marks are as follows:

STATION	ELEVATION (ft. NAVD88)
Flood1	32.255
Flood2	28.878
Flood3	16.571
Flood4	19.429
Flood5	15.610
Flood6	13.887
Flood7	19.075
Flood8	18.829
Flood9	19.573
Flood10	18.960

These elevations have been converted from meters to feet using 3.280833333333 (12 decimal places) and rounded to three decimal places. Any questions about this change may be directed to William Schenck, Delaware Geological Survey, at (302) 831-8262.

ed. note - Flood 10 was left out of the Sussex County catalog by accident. The location description is as follows:

11.9mi SW along Rt 24 from its intersection with Rt 1 and at the T-road intersection of Rt 24 and RD 309. 61.2ft SE from the T-road intersection. 24.3ft S from the centerline of Rt 24. 10.0ft E from DP+L pole No. 57225/01751/11/85. Monument located on the S side of Rt 24 and SE of the intersection and near a corner of woods. 1.4ft N from a witness post and about 2in below ground level.

The mark is located on the Frankford Quadrangle map.

“Dead” Floodplain Maps

It’s official. Sussex County flood maps dated before June 16, 1995, “died” on December 16, 1995. And New Castle County flood maps dated before April 17, 1996, will “die” on October 17, 1996. For the purpose of new construction, projects which were permitted using the old maps, but where construction was not started by those dates must be re-permitted using the new map.

The National Flood Insurance Program requires development to comply with the floodplain map that was in effect at the time of “start of construction.” FEMA defines “start of construction” as the date that a permit was issued

provided actual work begins within 180 days. If more than 180 days elapses, a new permit must be issued and the project must comply with the new flood map.

December 16, 1995 is 180 days after the current Sussex County maps became effective. October 17, 1996 is 180 days after the current New Castle County maps became effective. Therefore, according to the local floodplain management ordinance, all permits issued under the old maps, for which construction has not started, are void.

Check your local floodplain management ordinance for the local definition and requirements of “start of construction.”

---mpowell

Flood Insurance Covers Sewer Backup and Seepage

(Texas Floodplain Management Newsletter, Summer 1996)

Since a policy change in late 1994, the National Flood Insurance Program (NFIP) covers losses due to sewer backup and seepage if **all** of the conditions below are true:

- there is a general and temporary condition of flooding in the area, and the flooding is the proximate cause of the sewer backup or seepage of water;
- the sewer backup or seepage of water occurs no later than 72 hours after the flood has receded; and
- the building must be insured at the time of loss for at least 80 percent of its replacement cost.

Previous Policy

In the past, the NFIP covered losses related to high water table or seepage **only when concurrent surface water damage** affected the insured building during a general condition of flooding.

Definitions Used in NFIP

According to Article 2, Definitions of the National Flood Insurance Program Dwelling Policy, a flood is defined as a **general** and **temporary** condition of partial or complete inundation of normally dry land area from the overflow of inland or tidal waters; the unusual and rapid accumulation or runoff of surface waters from any source. The term general condition of flooding has been further defined as widespread flooding displaced over two acres of insured property, or two or more adjacent properties.

Hurricane Terms

FLOOD WATCH: A flood watch means flash flooding is possible in the area. Stay alert.

FLASH FLOOD WARNING: A flash flood warning means flash flooding is imminent. Take immediate action.

GALE FORCE WINDS: Winds that are 39 mph (34 knots) or greater.

GALE WARNINGS: Issued in advance of a storm when gale force winds are expected.

STORM SURGE: An abnormal rise of the sea along a shore as the result, primarily, of the winds and low pressure of a storm.

STORM TIDE: The combination of the storm surge and the normal astronomical tide.

TROPICAL DEPRESSION: A tropical depression is a counter-clockwise circulation with sustained winds 38 mph (33 knots) or less.

TROPICAL STORM: A tropical storm is a distinct counter-clockwise circulation with sustained winds between 39 mph and 73 mph (34-63 knots).

Tropical Storm Watch: A tropical storm watch is issued when tropical storm conditions (winds from 39 mph to 73 mph) pose a threat to a specified coastal area generally within 36 hours.

Tropical Storm Warning: A tropical storm warning is issued when tropical storm conditions (winds from 39 mph to 73 mph) pose a threat to a specified coastal area generally within 24 hours or less.

HURRICANE: A hurricane is a pronounced counter-clockwise circulation with sustained winds of 74 mph (64 knots) or greater.

Hurricane Watch: A hurricane watch is issued for a specified coastal area when there is a threat of hurricane conditions (winds of 74 mph or greater) generally within 36 hours.

Hurricane Warning: A hurricane warning is issued for a specified coastal area when there is a threat of hurricane conditions (winds of 74 mph or greater and/or dangerous high tides and waves) generally within 24 hours or less.

Need Help with Environmental Permits? Contact the Development Advisory Service.

What is the Development Advisory Service?

The Development Advisory Service (DAS) is comprised of representatives of the Department of Natural Resources and Environmental Control, the Department of Health and Social Services, the Department of Transportation, the Department of Agriculture, the Department of State, the Public Services Commission, the State Fire Marshal, and the Delaware Economic Development Office - state agencies that can help you with environmental permits and other requirements for major development projects in the state.

The DAS was established by the Department of Natural Resources and Environmental Control (DNREC) in December, 1981 to cut red tape for people seeking information about environmental permit requirements. It has since expanded to include other state agencies having related concerns and requirements.

What are the Types of Development Projects Considered by the DAS?

The types of projects considered by the DAS include residential developments and commercial, industrial or utility projects. Such projects include but are not limited to the following:

Residential

subdivisions
townhouses
condominiums

Industrial

manufacturing plants
light industry
solid waste or hazardous
waste facilities or operations

Commercial

shopping centers
office complexes

Recreational

marinas
campgrounds

What Can the DAS Do For You?

The DAS Coordinator can arrange for you to meet with representatives of all agencies requiring environmental permits and other approvals. The DAS members can advise you of all permit requirements, standards to be met, and procedures to follow. The DAS can refer you to other federal, state, or local agencies if necessary.

How Does the DAS Benefit You?

The DAS saves you the time and effort. Instead of trying on your own to locate the appropriate state agencies and meet with the right people, the DAS brings the right people to you in a one-step personal meeting. The DAS keeps you from discovering too late in the development project that a permit or approval has been overlooked. By using the DAS early in the planning stages, you may avoid the expense of having plans redesigned to meet state requirements.

When Should You Contact the DAS?

- When you are considering purchasing property for a development.
- When you are in the first phase of planning a major development requiring any state environmental permit, license or other approval.
- When you are considering expanding your present development or operation.
- When you are considering relocating or establishing a new industrial or commercial operation in Delaware.
- Prior to obtaining approvals from local jurisdictions in Delaware.

How Do You Contact the DAS?

You may contact the DAS by calling the Coordinator, Mr. Lee Emmons, at 302-739-6400 (FAX 302-739-6242) or by writing:

Mr. Lee Emmons
DAS Coordinator
Office of the Secretary
Department of Natural Resources and Environmental Control
89 Kings Highway, P.O. Box 1401
Dover, DE 19903

Arrangements can be made to meet with the DAS members at their regularly scheduled meetings. The DAS is scheduled to meet the first Thursday of every month (except July 11 and Oct. 10, 1996) in Dover. The time and specific location are confirmed prior to each meeting.