



images courtesy of NJDEP

Stream Encroachment

- What is stream encroachment?
 - Stream encroachment in the Land Use Program is a term that refers to development, construction and/or disturbance within the flood plain.
 - "Development" means any construction activity or other manmade land disturbance.



Before you Buy, Before you Build

Anyone thinking of buying property by a river for a new office building, store or shopping center?

Or maybe building a little cottage by a pond, lake or stream?

Maybe expanding an existing building or home and a small stream is in the way, or crossing a stream with your new driveway.

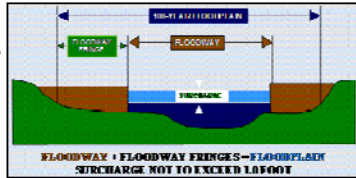
In all these cases you are most likely in a flood plain and you probably need a Stream Encroachment Permit before you build. In New Jersey and throughout the country, building in areas subject to flooding is regulated to protect lives, property, and the environment.



So what is the Flood Plain?

"Flood plain" means the area inundated by the regulatory flood including the watercourse that creates it. The extent of the flood plain is determined by the area that would flood in a 100 year storm.

(A 100 year storm is a storm that has a 1 in 100 chance of occurring during any particular year)



Why does the Floodplain matter?

There are two main reasons the state regulates work in the floodplain.

1. To minimize losses due to the estimated \$690 million in losses paid in NJ since 1978.
2. When you build on a flood plain and the waters begin to rise, the buildings on your property displace water thus increasing the height of the rising waters and making the flooding worse everywhere along the banks.



New Jersey Department of Environmental Protection

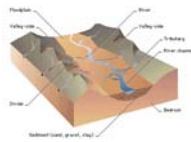
Definitions

- **The floodway** - the channel and portions of the flood plain adjoining the channel which are reasonably required to carry and discharge the regulatory flood. For the purpose of this chapter the term floodway shall refer to both the delineated floodway on State Adopted Studies and the area between the encroachment lines located on both sides of a non-delineated watercourse.
- **The flood fringe** - means that portion of the flood plain outside of the floodway or encroachment lines.

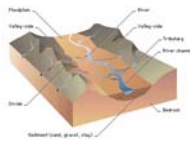


How to Determine if a Property is in the Floodplain

- Every body of water has a floodplain.
 - If there is a stream, lake, pond, or river on or near the property, it is likely in a flood plain.
 - If the land near the water body is flat it is more likely to be in the flood plain.
 - If there are steep slopes around the water bodies, the flood plain may be smaller and more restricted.



Since a flood plain's size depends on so many factors, it can be accurately determined only through a detailed engineering analysis, in which an engineer calculates and maps the flood plain based on water movement and topography.



Streams, Lakes or Ponds

If your stream, lake, or pond is not already mapped, you can obtain a jurisdictional determination from the DEP. To determine who to call, click the link below and locate the appropriate number for your county.



<http://www.state.nj.us/dep/landuse/contact.html>

Does being in the Floodplain mean nothing can be built?

Building in the Flood Plain requires a permit.
There are two types of permits:
major and minor



image from <http://fcgov.com>

Regulatory Definitions

•A flood hazard area exists along every regulated water that has a drainage area of 50 acres or more. If a regulated water has a drainage area of less than 50 acres, the water does not have a flood hazard area that is regulated under this chapter. The flood hazard area is comprised of a flood fringe and a floodway, except for the Atlantic Ocean and other non-linear tidal waters such as bays and inlets, which do not have a floodway.

•Therefore, the entire flood hazard area along these tidal waters is considered to be a flood fringe.

•A riparian zone exists along every regulated water, except there is no riparian zone along the Atlantic Ocean nor along any manmade lagoon, stormwater management basin, or oceanfront barrier island, spit or peninsula. The regulated water itself is also part of the riparian zone.

Determining the Presence of a Floodway

There are six methods for determining the flood hazard area and floodway:along a regulated water:

Method 1 (Department delineation method) 2

Method 2 (FEMA tidal method)

Method 3 (FEMA fluvial method)

Method 4 (FEMA hydraulic method)

Method 5 (approximation method)

Method 6 (calculation method)

Building in a Floodplain requires permits:

- **Minor Permits** - a minor permit is required if the flooding impacts are easy to determine.
 - Examples:
 - Utility Lines
 - Single Family Homes
- **Major Permits** - a major permit is required if the flooding impacts or the project are complex
 - Examples
 - Roads over streams
 - Complex projects

Applying for a permit

- A form can be obtained from the NJ DEP website at <http://www.state.nj.us/dep/landuse/forms/index.html#SE>
- An engineer would most likely prepare the permit application of the proposed work.

Summary of Permit By Rule

Permit-by-Rule is a category of permits for developments, which the Department has determined have minimal potential for environmental impact.

Table A
SUMMARY OF PERMITS-BY-RULE
This Table is for informational purposes only. See N.J.A.C. 7:13-7.2(a) through (f) for specific applicable limits and requirements for each permit-by-rule

(a) Activities that require 14-day prior notice to the Department
1. Reconstructing a lawfully existing structure outside a floodway
2. Constructing in a disturbed riparian zone or at or below grade in a flood hazard area
3. Elevating a building above the flood hazard area design flood elevation
4. Constructing an addition to a building of no more than 300 square feet outside a floodway
5. Removing a major obstruction from a regulated water with machinery
6. Constructing a boat launching ramp of no more than 1,000 square feet
7. Constructing an aquatic habitat enhancement device
8. Constructing a USGS-approved flow gauge or weir

Riparian Zone Protection

- 300 feet on both sides of Category One water and upstream tributaries within the same HUC-14 watershed; (Hydrologic Unit Codes for 970 sub-watersheds);
- 150 feet on both sides of an upstream tributary to a trout production water not in the HUC-14 watershed;
- A trout maintenance water body and all upstream tributaries within one mile;
- Any segment of water flowing through an area containing documented habitat for a threatened or endangered species of plant or animal;
- Any segment of water flowing through an area containing acid producing soils.
- 50 feet along both sides of all other waters.

Allowed Riparian Disturbances

The allowed riparian zone disturbances range from 300 square feet for reconstruction of a driveway in a 50-foot riparian zone to 5,000 square feet for construction of a private residence in a 300-foot buffer that received preliminary or final subdivision approval before October 2, 2006 and that meets the Stormwater Management Regulations.



Riparian Zone Disturbance Will Only be Allowed if:

- The basic purpose of the project cannot be accomplished on site without disturbing vegetation in the riparian zone;
- Disturbance to the riparian zone is eliminated where possible and minimized where not possible by relocating the project, reducing the size of the project, or situating the project in portions of the riparian zone where previous development or disturbance has occurred;
- Any temporarily cleared area of vegetation must be replanted with indigenous, non-invasive vegetation;
- An applicant must also meet the additional requirements for the specific proposed activity. The riparian zone regulations also set a limit on the amount of disturbance allowed for 69 specific activities.

A number of permits allow disturbance in the riparian zone only 25 feet from the top of bank, including:

- New private residences on a lot that received preliminary or final approval before October 2, 2006;
- An addition to an existing building or construction of a building appurtenant to an existing building;
- A public access way along a tidal water;
- Construction of a water dependent project that requires clearing, cutting, removing vegetation in the riparian zone.

Waivers

The New Jersey Department of Environmental Protection (NJDEP) will issue hardship waivers for projects that go beyond the limits set for riparian zone projects. The applicants must



- Provide 2:1 compensation in the form of re-vegetation;
- Place a deed restriction on the compensation area.

- The Stream Encroachment Administrative Checklist, found at <http://www.state.nj.us/dep/landuse/forms/chkstream.doc>

is required for permits and guides you through the requirements for obtaining one

Other Regulations?

In addition, the following regulatory programs administered by other agencies may affect projects in New Jersey flood plains:

- NJ - IRC (International Residential Code) and NJ - IBC (International Building Code)
- Local flood damage prevention ordinances.
- The Federal Emergency Management Agency (FEMA) provides FIRMs Call (800) 358-9616. For flood insurance information call (888) 379-9531
- Federal Wetlands Program (404 Program). In some parts of New Jersey, in addition to a DEP freshwater wetlands permit, you may also need a federal wetlands permit, issued by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. An Army Corps permit is needed in the Hackensack Meadowlands area, Greenwood Lake, and in any tidally flowed waters or wetlands. Contact the U.S. Army Corps of Engineers in Philadelphia at (215) 656-6500, or New York City at (212) 264-4185



Electronic Forms Available Online:

<http://www.state.nj.us/dep/landuse/forms/index.html#SE>

FLOOD HAZARD AREA FORMS & DOCUMENTS			
Description	Format	Date	Updated
Flood Hazard Area Applicability Determination Checklist	Word Doc	01/29/09	11/19/2007
Flood Hazard Area General Permit #1 Checklist	Word Doc	01/29/09	11/19/2008
Flood Hazard Area General Permit #2,3 Checklist	Word Doc	01/29/09	11/19/2008
Flood Hazard Area Individual Permit Checklist	Word Doc	01/29/09	11/19/2007
Flood Hazard Area Modification Checklist	Word Doc	01/29/09	11/19/2007
Flood Hazard Area (F) Certification Form - coming soon			
Flood Hazard Area Wetland Manual - coming soon			
List of Endangered and Endangered Species that are Critically Dependent on Regulated Waters for Survival	Adobe PDF	01/29/09	11/19/2008
Completion Report	Adobe PDF	01/29/09	N/A
Construction Report	Adobe PDF	01/29/09	N/A
Map/Map of Flood Hazard Area	Adobe PDF	01/29/09	N/A
Stormwater Runoff Fee Worksheet	Word Doc	11/19/08	11/19/2008

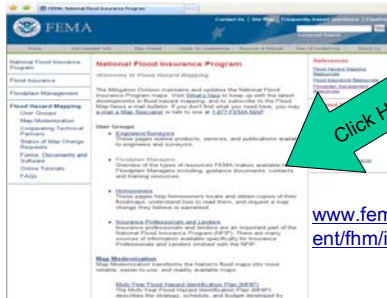
General Information about NJDEP Land Use Regulations

www.state.nj.us/dep/landuse/index.html



The point of this next section is to familiarize you with other resources that are available. Please take the time to click on and follow each of the links provided.

FEMA: Flood Hazard Mapping



Click Here

www.fema.gov/plan/prev ent/fhm/index.shtm



Click here

www.fema.gov/pla n/prevent/fhm/tp main.shtm



Click Here

www.fema.gov/business/nfip/



Any of the links on this page might be helpful to you
www.fema.gov/business/nfip/infosl.shtm

Select FEMA Manuals

Answers to Questions About Substantially Damaged Buildings
www.fema.gov/hazard/flood/pubs/lib213.shtm

Protecting Building Utilities From Flood Damage
<http://www.fema.gov/hazard/flood/pubs/pbuffd.shtm>

Reducing Damage from Localized Flooding
<http://www.fema.gov/hazard/flood/pubs/flood-damage.shtm>

Increased Cost of Compliance Coverage
<http://www.fema.gov/plan/prevent/floodplain/ICC.shtm>

Repairing Your Flooded Home
www.redcross.org/services/disaster/0.1082.0_570_.00.html

Community Rating System

The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance
