

New Stream Encroachment Rules

In the October 2, 2006, New Jersey Register, NJDEP published a new proposed set of Flood Hazard Control Act Rules (more commonly known as stream encroachment rules), requesting public comment by December 31, 2006. The intent of the new rules is to reorganize, clarify, and strengthen the rules while making them more consistent with the Freshwater Wetlands rules, Stormwater Management rules, Coastal Zone Management rules and Highlands Water Planning and Protection Act rules. To emphasize the importance of the new rules and the fact that they apply to anywhere that floods and not just streams, permits issued under these rules are no longer referred to as “stream encroachment permits” but rather, “flood hazard area permits.” While primarily aimed at limiting development in flood hazard areas, there are a number of provisions of the new rules that will affect the agricultural community.

Provisions potentially affecting agriculture

Riparian Zone [NJAC 7:13-4.1 and 10.2]

The new rules emphasize the ecological importance of riparian zones (areas adjacent to regulated water bodies) and provide greater protection to these zones. Under the old rules [NJAC 7:13-1.3(a)2 and 3], the regulated zone was either 25 or 50 ft from the top of bank, depending on the type of stream and resources present. The new rules expand this protected zone to:

1. **300 ft** for Category One waters and upstream tributaries within the same HUC-14 watershed;
2. **150 ft** for upstream tributaries to trout production waters, trout maintenance waters and tributaries within one mile upstream, waters flowing through areas that support water-dependent threatened or endangered species (e.g., wood turtles, bog turtles, red shouldered hawks, swamp pink) and tributaries within one mile upstream, and waters that flow through areas that contain acid producing soils;
3. **50 ft** along all other waters.

Flood Storage displacement (net fill) [NJAC 7:13-10.4]

The existing rules allow for up to 20 percent of existing flood storage volume to be displaced during development of most non-tidal flood hazard areas (commonly referred to as “20% net fill”) except in the Central Passaic Basin and Highlands Preservation Area, where a no net fill rule is in effect (“zero-percent net fill”). The new rules extend the zero-percent net fill rule statewide and restricts off site flood storage compensation to the same flood hazard area and watershed.

Permits-by-rule [NJAC 7:13-7]

The new rules introduce permits-by-rule for 46 regulated activities, which replace existing provisions for non-regulated uses in the floodway at N.J.A.C. 7:13-1.3(e) and non-regulated uses in the flood fringe at N.J.A.C. 7:13-1.3(f). A permit-by-rule is an authorization to undertake a specific regulated activity without the need to obtain prior written approval from the Department provided all conditions of the permit-by-rule are satisfied. The existing regulations require permission from NRCS for certain soil

conservation practices (tile drains, ponds, terracing, grass drainage ways) but exempt virtually all other agricultural activities in the floodway and flood fringe including repair or in-kind replacement of roads and culverts that do not change the cross-section of the drainage way. For reference, Appendix I contains the text of current rules on non regulated activities in floodway and flood fringe.

The new rules [NJAC 7:13-7.2(f)] establish four permits-by-rule for agricultural activities. Prior notification of the Department is not required before undertaking activities authorized under these permits-by-rule. The permit-by-rule at proposed N.J.A.C. 7:13-7.2(f)1 authorizes the continuation of existing, ongoing agricultural activities and requires that the activities must have been established **by October 2, 2006** in order to be authorized under the permit-by-rule. The new rules also define “actively farmed” as those areas farmed within the past five years. The five year limit on fallow areas is consistent with the Freshwater Wetlands rules [NJAC 7:7A-1.4]. The proposed permit-by-rule also clarifies that these activities may not involve placement of fill or structures.

The permit-by-rule at proposed N.J.A.C. 7:13-7.2(f)2 authorizes new agricultural activities that do not result in the placement of fill or an aboveground structure. ***Vegetation in the riparian zone can be disturbed to accommodate new agricultural activities only where previous development or disturbance has occurred, such as a lawn, garden or abandoned parking area.***

The permit-by-rule at proposed N.J.A.C. 7:13-7.2(f)3 authorizes certain soil conservation and agricultural activities provided they take place on land that has been continuously farmed as of the ***proposal of these new rules (October 2, 2006)***. Since these activities may introduce fill into the flood fringe, this restriction will ensure that ***only ongoing agricultural operations are permitted-by-rule. Farms that are established after the proposal date of these new rules will need an individual permit for such activities.*** A restriction on destruction of vegetation in the riparian zone is also included in the proposed permit-by-rule, as well as a limit on the proximity to a channel (25 ft).

The permit-by-rule at proposed N.J.A.C. 7:13-7.2(f)4 authorizes the construction of an agricultural building without a foundation. This is currently a non-regulated use under the existing rules. Under the proposed permit-by-rule, the size of the building is limited to 1,000 square feet. Larger structures require an individual permit. A restriction on destruction of vegetation (***no trees can be disturbed***) in the riparian zone is included in the proposed permit-by-rule, as well as a limit on the proximity to a channel (25 ft). For reference the complete text of the new permits-by-rule is reproduced in Appendix II.

Agricultural General Permits [NJAC 7:13-8.4]

The new rules establish 16 general permits to allow activities within flood hazard areas that are assessed to have minimal impacts. These activities include stream cleaning, scour protection, stormwater facility maintenance by public entities, relocation and reconstruction of damaged buildings, and various agricultural activities under NRCS oversight. These general permits do not require public notice but do require application to NJDEP (which has 45 days to review them), certification from a NJ-licensed Engineer (PE), and a \$500 application fee. Seven of the general permits (2A through 2G) are agriculture-specific and ***require design and oversight by NRCS***. These general permits are designed to promote water quality improvement on farms and will replace both the existing provisions at N.J.A.C. 7:13-4.5 and an obsolete 1978 agreement with the State Soil Conservation Committee. The seven general permits are designed to facilitate

approvals for beneficial activities targeted under agricultural initiatives developed by the NRCS, with special focus on stream bank restoration, riparian zone restoration and best management practices. Through these initiatives, the State and USDA have provided funding to farmers who wish to restore riparian zones along streams and ponds on their land and to install pumps, fences and fords to limit both human and animal intrusion into stream corridors. The new agricultural general permits allow these activities and provide standards for them in order to promote the Department's objective of improving surface water quality and preserving riparian zones while setting conditions to ensure that the activities do not adversely affect flooding or the environment.

Proposed general permit 2A authorizes soil erosion control, bank stabilization and bank restoration projects. In order to protect the biota of the stream, all work must be accomplished by regrading the eroded areas to a stable slope and replanting the disturbed areas with suitable vegetation, where possible. Where this technique alone is not sufficient to stabilize erosion, or if excessive tree removal would occur as a result, soil-bioengineering may be used (using vegetation and other natural materials as described in Chapter 16 of NRCS Field Handbook). The amount of vegetation removed in a riparian zone must be minimized, and replanting in the riparian zone is required for all temporary disturbances. In order to preserve the flood-carrying capacity of the channel, and thereby ensure that the project will not exacerbate flooding, the cross-sectional area of the channel and floodway may not be significantly altered and the proposed activity must not obstruct flow. Activities authorized by this permit must be done *under the supervision of the NRCS or local SCD*.

Proposed general permit 2B authorizes the removal of accumulated sediment and debris from a regulated water *under the supervision of the NRCS or local SCD*.

Proposed general permit 2C authorizes the construction of a roadway crossing on a farm, provided certain structural and hydraulic conditions are satisfied. This activity would need a stream encroachment permit under the existing rules. The general permit makes it easier to obtain approval of such a crossing, but includes limits to minimize impacts and *must be performed under the supervision of the NRCS or local SCD*.

Proposed general permit 2D authorizes the filling of a manmade channel for the purpose of freshwater wetlands restoration, provided certain conditions are satisfied. The general permit will encourage restoration and includes limits to minimize impacts. Again, this work *must be performed under the supervision of the NRCS or local SCD*.

Proposed general permit 2E authorizes the construction of a ford across a channel for livestock. A ford is a shallow area along the bed of a stream where the channel can be crossed by walking or driving a vehicle. The construction of a ford involves locating such a shallow place in a channel and stabilizing the crossing with hard material such as concrete in order to provide livestock with stable footing and to prevent channel erosion. This activity needs a stream encroachment permit under the existing rules. When large numbers of livestock access and/or cross a stream with a natural bed, the repetitive trampling causes erosion, sediment discharge, destruction of stabilizing vegetation and deterioration of channel integrity. If livestock are permitted to cross streams anywhere on site, large portions of channel are continually damaged. By permitting a small amount of short term disturbance in order to construct a stable ford, and thereby concentrating access and crossings at one stable location, the proposed general permit will prevent larger disturbances with far greater long term impacts. No

trees may be disturbed in the riparian zone under this proposed general permit. While the general permit is proposed to allow livestock to cross the stream on existing agricultural land, the NJDEP recognizes that agricultural machinery will likely also use the ford. Again, this work *must be performed under the supervision of the NRCS or local SCD*.

Proposed general permit 2F authorizes the construction of a fence along or across a channel to limit livestock access to a channel and also to prevent livestock from leaving the farm and deer or other animals from entering. This could in some cases entail the construction of a fence in a floodway, which is classified as a "prohibited use" under existing N.J.A.C. 7:13-2.2(a). However, the proposed restrictions on the fence will ensure that it will have negligible flooding impacts and such a fence will provide long term environmental benefits. Again, no trees may be disturbed in the riparian zone under this proposed general permit and work *must be performed under the supervision of the NRCS or local SCD*.

Proposed general permit 2G authorizes the construction of a pump and/or water intake structure in or along a channel in order to provide a source of water to livestock outside the channel. It is common for livestock to access a stream as a water source. However unlimited access to a stream by livestock can quickly destroy any vegetation along the banks and result in direct deposition of a large amount of animal waste in the stream. Limiting livestock access to only a few, stable locations along a stream, or preventing access completely, is, therefore, an important way to improve the biota of a stream. This proposed general permit, therefore, allows a pump and/or intake structure to be constructed along a channel, which will then carry water to a remote location away from the channel so the animals do not have to access the stream to drink. Again, no trees may be disturbed in the riparian zone during construction and the work *must be performed under the supervision of the NRCS or local SCD*.

For reference, the complete text of the new rules regarding agricultural general permits is reproduced in Appendix III.

Agricultural Industry Impact

As part of their review of the proposed rules, NJDEP provides the following comments on the impact of the new rules on the agricultural industry:

“Pursuant to N.J.S.A. 52:14B-4, the Department has evaluated this rulemaking to determine the nature and extent of the impact of the proposed new rules and amendments on the agriculture industry. The Department believes that the proposed rules and amendments will have an overall positive impact on agriculture for a number of reasons as discussed below.

The proposed new rules will expand the benefits of the existing rules as regards minimizing erosion and flood damage. The benefits of reduced flood-damage potential afforded by the implementation of these new rules will be realized by all landowners in flood hazard areas, including farmers, since the inappropriate development of flood hazard areas causes the frequency and extent of flooding to be exacerbated. Furthermore, the implementation of stringent new standards for development in riparian zones will reduce erosion and increase the quality of the State's surface waters, which will create a positive impact on the agriculture industry.

The proposed rules also include seven general permits specifically created to facilitate certain environmentally responsible agricultural practices. These general permits include reduced application fees, minimized application requirements and a shortened processing time, which will reduce the administrative burden of the existing rules for these projects. Additionally, a number of proposed permits-by-rule will ensure that existing agricultural practices can continue within flood hazard areas and riparian zones without further approval from the Department.

In cases where agricultural activities are proposed for expansion into these areas, however, the proposed rules limit the placement of fill material in flood hazard areas and the destruction of riparian zone vegetation. Since agricultural activities can often be undertaken in flood hazard areas without requiring the placement of fill, the proposed new rules are not anticipated to prohibit the expansion of new agricultural activities into flood hazard areas. However, given the stringent new requirements designed to protect riparian zone vegetation, the proposed new rules will likely limit the expansion of new agricultural activities into undisturbed riparian zones as compared with the existing rules. The Department believes this is appropriate, however, since increased agricultural development adjacent to streams can lead to increased sedimentation and pollution of surface waters. Nevertheless, the Department does not anticipate a significant number of farmers requesting to expand agricultural activities into riparian zones, since many riparian zones on existing agricultural lands are either currently farmed, and therefore not subject to the proposed riparian zone restrictions, or else cannot be farmed due to the presence of steep slopes, freshwater wetlands or other factors that make farming difficult or impractical.

Given the above, the Department anticipates that the proposed new rules and amendments will result in an overall positive impact on the agriculture industry.”

Conclusions

The bottom line is that the new rules DO place new restrictions on farmers, regulating many activities that are currently unregulated. While the new permit-by-rule provisions ease the pain for existing ongoing farming operations, there are new hoops to jump through for farmers that want to expand existing operations or farm areas that have not been actively farmed in the last five years. At the same time, the rules make other uses for riparian lands even more onerous. This means that farms with extensive riparian zones, especially those located in the Highlands or along C-1 streams will be less likely to be turned into housing developments. This will in turn put increased development pressure on farms that do not have large riparian zones on them. If fully implemented and complied with, the new rules should have a positive affect on water quality.

Appendix I

Text of current rules on non regulated activities in floodway and flood fringe

Excerpted from **NJAC 7:13-1.3(e)** and **(f)**

“Non regulated activities in floodway:

v. Minor repair, maintenance or replacement-in-kind of existing roads, bridges, culverts, gauging structures (including weirs) or retaining walls which will not change the cross-sectional area open to flow during the regulatory flood or increase the footprint of the structure;

vi. Agriculture uses such as general cultivation, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, forestry, sod farming, wild crop harvesting and on-going farming operations;

(1) Specific soil conservation practices such as terracing, construction of diversions, subsurface tile drainage and the construction of grassed waterways and dug ponds will be considered non-regulated uses only when approved in writing by the appropriate County Soil Conservation District Office and the local U.S.D.A. Soil Conservation Service;

3. Irrigation head gates along watercourse banks are non-regulated uses when approved in writing by a County Agriculture Agent pursuant to N.J.A.C. 7:20A-1.

Non regulated activities in flood fringe areas:

iii. Agriculture: General cultivation, pasture, grazing, fences, irrigation, outdoor plant nurseries, horticulture, viticulture, forestry, sod farming, wild crop harvesting, on-going farming operations, and registered farming operations, excluding greenhouses and all other structures related to any of the foregoing uses.

(1) Specific soil conservation practices such as terracing, construction of water diversions, subsurface drainage and the construction of grassed waterways and dug ponds will be considered non-regulated uses only when approved in writing by the appropriate County Soil Conservation District Office;

(2) Plastic covered greenhouses and other auxiliary utility buildings constructed without permanent foundations and anchored, pursuant to the Uniform Construction Code and all applicable local building codes, and fences associated with agricultural uses.”

Appendix II

Text of proposed permits-by-rule which regulate ongoing agricultural activities in floodway and flood fringe that are currently not regulated.

Excerpted from proposed **NJAC 7:13-7.2**

NJAC 7:13-7.2

(f) The permits-by-rule at (f)1 through 4 below apply to the specified agricultural activities listed therein.

1. The continuation of lawfully existing agricultural activities (such as grazing, harvesting, horticulture, irrigation, planting, tilling, viticulture and watering, as well as forestry under an approved forestry management plan that does not allow clear cutting), provided:

- i. The activities are undertaken on land that has been actively farmed since October 2, 2006; and**
- ii. The activities do not result in the displacement of flood storage volume or the construction of an aboveground structure;**

2. The commencement of new agricultural activities (such as grazing, harvesting, horticulture, irrigation, planting, tilling, viticulture and watering, as well as forestry under an approved forestry management plan that does not allow clear cutting) on land that is not actively farmed provided:

- i. The activities do not result in the displacement of flood storage volume or the construction of an aboveground structure; and**
- ii. No vegetation is cleared, cut or removed in a riparian zone, except where previous development or disturbance has occurred (such as an area maintained as a lawn or garden or an abandoned parking area that has partially revegetated);**

3. The continuation or commencement of soil conservation practices in a flood fringe, such as terracing, subsurface tile drainage or construction of a diversion, a grassed swale or an excavated pond, provided:

- i. The activities are undertaken on land that has been actively farmed since October 2, 2006;**
- ii. The activities are approved in writing by the local Soil Conservation District or the USDA Natural Resource Conservation Service;**
- iii. No disturbance related to the regulated activity is located within 25 feet of any top of bank or edge of water;**
- iv. No vegetation is cleared, cut or removed in a riparian zone, except where previous development or disturbance has occurred (such as an area maintained as a lawn or garden or an abandoned parking area that has partially revegetated); and**
- v. All vegetated areas temporarily disturbed within the riparian zone are replanted with indigenous, non-invasive species upon completion of the regulated activity; and**

4. The construction of a building with no foundation in a flood fringe on land that has been actively farmed, provided:

- i. The building is not located on land that has been actively farmed since October 2, 2006;**
- ii. The building has a footprint of no more than 1,000 square feet;**
- iii. The building is designed for agricultural use. Examples of such buildings include a plastic covered greenhouse, a roadside farm stand and a tool shed placed on an existing farm field;**
- iv. No disturbance related to the regulated activity is located within 25 feet of any top of bank or edge of water;**
- v. No vegetation is cleared, cut or removed in a riparian zone, except where previous development or disturbance has occurred (such as an area maintained as a lawn or garden or an abandoned parking area that has partially revegetated); and**
- vi. All vegetated areas temporarily disturbed within the riparian zone are replanted with indigenous, non-invasive species upon completion of the regulated activity.**

Appendix III

Text of proposed general permits for agricultural activities in floodway and flood fringe that are designed and supervised by NRCS.

Excerpted from propose NJAC 7:13-8.4

7:13-8.4 General permits 2A through 2G for agricultural activities designed by the NRCS

(a) This section sets forth general permits for seven agricultural activities in a regulated area. In addition to satisfying the requirements applicable to all general permits at N.J.A.C. 7:13-8.1(b), to qualify for a general permit under this section, an activity shall satisfy the requirements applicable to the specific general permit and shall:

- 1. Occur on land that is actively farmed;**
- 2. Be solely intended for agricultural purposes; and**
- 3. Be approved by and performed under the supervision of the USDA Natural Resource Conservation Service.**

(b) Applications for a general permit authorization under this section are subject to the application requirements and procedures at N.J.A.C. 7:13-8.1(c) through (e).

(c) Regulated activities satisfying (a) above shall qualify for authorization under one of the following general permits provided the conditions applicable to that general permit are satisfied:

1. General permit 2A: A soil erosion control, bank stabilization or bank restoration project, provided:

- i. The project is accomplished by re-sloping the eroded bank and planting vegetation where possible. Where these techniques alone will not stabilize erosion, or where more than 2,000 square feet of trees would be removed using such methods, soil bioengineering, shall be used;**
- ii. Disturbance to vegetation within the riparian zone is minimized;**
- iii. The cross-sectional area of the channel is not significantly altered;**
- iv. The activity will not obstruct flow in the channel or floodway; and**
- v. All cleared, cut or removed vegetation in the riparian zone is replanted with indigenous, non-invasive vegetation, except where the removed vegetation has been replaced by non-vegetative stabilizing material;**

2. General permit 2B: The removal of accumulated silt, sediment, debris and/or garbage from a regulated water, provided:

- i. Excavation does not extend below the natural bed or alter the natural banks. This general permit does not authorize the straightening or realignment of a channel. Straightening or realignment constitutes channel modification and requires an individual permit pursuant to N.J.A.C. 7:13-10.1(c);**

- ii. The project does not disturb the channel bank or the riparian zone, unless such disturbance is unavoidable, necessary to gain access to the channel and minimized;
- iii. The project is conducted from only one bank where possible;
- iv. All heavy machinery necessary for the conduct of the project is situated outside the channel. Heavy machinery may reach into the channel to dredge, but cannot be driven into or operated within the channel;
- v. Vegetation and tree canopy on the more southerly or westerly bank is preserved in order to shade the channel;
- vi. All proposed access points to the water are described in writing and with color photographs;
- vii. All disturbed areas in the riparian zone are replanted with indigenous, noninvasive vegetation upon completion of the project;
- viii. All removed sediment is disposed of in accordance with all applicable Federal, State and local laws. If the removed sediment is to remain in the flood hazard area, it is spread evenly at least 25 feet from any top of bank or edge of water and, if in a floodway, no more than three inches deep; and
- ix. The placement of the removed sediment does not interfere with the positive overland drainage of the receiving area;

3. General permit 2C: The construction of a roadway across a regulated water, provided:

- i. Construction in the channel is minimized and unset or raw cement is not allowed to come into contact with water in the channel during construction;
- ii. If the crossing is accomplished with a culvert, the culvert is stabilized with headwalls that have footings which extend at least three feet below grade, and which will prevent the culvert from displacement during the flood hazard area design flood;
- iii. If the crossing is accomplished with a bridge, the bridge is constructed with abutments that have footings which extend at least three feet below grade, and which will prevent the bridge from displacement during the flood hazard area design flood;
- iv. The proposed roadway surface and all embankments are designed to remain stable during the flood hazard area design flood;
- v. The perpendicular path of disturbance through the riparian zone is no more than 25 feet in width; and
- vi. It is clear to the Department from a visual inspection of submitted drawings that the proposed roadway crossing will not increase flooding offsite;

4. General permit 2D: The filling of a manmade regulated water for the purpose of freshwater wetlands restoration, provided:

- i. The regulated water originates onsite; and
- ii. The filling of the regulated water will not adversely affect overland drainage on adjoining properties;

5. General permit 2E: The creation of a ford for livestock to cross a regulated water, provided:

- i. Livestock currently cross the regulated water on a regular basis;**
- ii. The creation of a stable ford will reduce ongoing damage to the channel caused by the existing access to the channel by livestock;**
- iii. No trees are cleared, cut or removed in a riparian zone;**
- iv. The ford is situated at or below the existing channel bed so that the ford will not obstruct flow;**
- vii. The perpendicular path of disturbance through the riparian zone is no more than 20 feet in width; and**
- v. The ford is designed to remain stable during the flood hazard area design flood;**

6. General permit 2F: The construction of a fence along and/or across a regulated water to limit or manage livestock access to a channel, or to prevent livestock or other animals from accessing certain agricultural areas, provided:

- i. No trees are cleared, cut or removed in a riparian zone;**
- ii. The fence is placed parallel to the channel where possible;**
- iii. If the fence crosses a channel and/or is located in a floodway, it has sufficiently large openings so as not to catch debris during a flood and thereby obstruct floodwaters, such as a barbed-wire, split-rail or strand fence. A fence with little or no open area, such as a chain link, lattice or picket fence, is not permitted across a channel or in a floodway; and**
- iv. The fence will not impede bank-full flow in the channel; and**

7. General permit 2G: The construction of a pump and/or water intake structure in or along a regulated water, in order to provide water for livestock outside the channel (and thereby limit livestock access to the channel), provided:

- i. No trees are cleared, cut or removed in a riparian zone;**
- ii. Fill within the flood hazard area is minimized; and**
- iii. The pump or structure will not impede bank-full flow in the channel.**