

~~CITY/VILLAGE OF~~ Ringwood

ORDINANCE NO. 2016 - 6-2

AN ORDINANCE ADOPTING BY REFERENCE OF THE MCHENRY COUNTY
STORMWATER MANAGEMENT ORDINANCE

ADOPTED BY THE
PRESIDENT/MAYOR AND BOARD OF TRUSTEES

OF THE

~~CITY/VILLAGE OF~~ Ringwood

THIS 14th DAY OF June, 2016.

PUBLISHED IN PAMPHLET FORM BY THE AUTHORITY OF THE PRESIDENT/MAYOR
AND BOARD OF TRUSTEES OF THE ~~CITY/VILLAGE OF~~ Ringwood ILLINOIS,
THIS 14th DAY OF June, 2016.

ORDINANCE NO. 2016 - 6-2

**AN ORDINANCE ADOPTING BY REFERENCE OF THE MCHENRY COUNTY
STORMWATER MANAGEMENT ORDINANCE**

WHEREAS, the County of McHenry, pursuant to the powers granted to it by 55 ILCS 5/5-1062, adopted the McHenry County Stormwater Management Ordinance on or about April 5, 2016, effective April 5, 2016, establishing rules and regulations for floodplain and stormwater management throughout the County of McHenry and superseding any less restrictive municipal rules and regulations therein; and,

WHEREAS, the President/Mayor and Board of Trustees of the ~~City~~/Village of Ringwood have previously adopted Ordinances No. *****, and *****, which adopted by reference the McHenry County Stormwater Management Ordinances; and,

WHEREAS, the County of McHenry, pursuant to the powers granted to it by 55 ILCS 5/5-1062, adopted a resolution approving amendments to the McHenry County Stormwater Management Ordinance on or about April 5, 2016, effective April 5, 2016; and,

WHEREAS, the President/Mayor and Board of Trustees of the ~~City~~/Village of Ringwood find it to be in the best interests of the ~~City~~/Village of Ringwood to require all development to meet, at least, the minimum standards prescribed by the McHenry County Stormwater Management Ordinance to the fullest extent practicable; and,

WHEREAS, one copy of the McHenry County Stormwater Management Ordinance has been on file in the Office of the ~~City~~/Village Clerk of the ~~City~~/Village of Ringwood, and available for inspection.

NOW, THEREFORE, BE IT ORDAINED by the President/Mayor and Board of Trustees of the ~~City~~/Village of Ringwood, McHenry County, Illinois, as follows:

SECTION I: That there is hereby adopted by reference, as if fully set out herein, that certain ordinance known as the McHenry County Stormwater Management Ordinance, approved as amended by the County of McHenry, State of Illinois, one copy of which has been and will continue to be on file in the office of the City/Village Clerk.

SECTION II: That in the event that the rules, regulations, terms or conditions imposed pursuant to the McHenry County Stormwater Management Ordinance are either more restrictive or less restrictive than comparable rules, regulations, terms or conditions imposed by any other applicable rule, regulation, resolution, ordinance, statute or law, then the most restrictive rules, regulations, terms or conditions shall govern.

SECTION III: That Section *** of the ~~City/Village~~ Code of the ~~City/Village~~ of Ringwood is amended by deleting existing Section ***, and replacing it with the following:

*****: STORMWATER MANAGEMENT REGULATIONS:**

The McHenry County Stormwater Management Ordinance, as most recently amended by the County of McHenry on April 5, 2016, is hereby adopted by reference and is in full force and effect within the ~~City/Village~~ of Ringwood and is found in its own compilation.

SECTION IV: That all ordinances and resolutions, or parts thereof, in conflict with the provisions of this Ordinance are, to the extent of such conflict, expressly repealed.

SECTION V: That this Ordinance shall be in full force and effect ten (10) days after its passage, approval and publication in pamphlet form, as provided by law.

PASSED and approved by the President/Mayor and Board of Trustees of the ~~City/Village~~ of Ringwood, McHenry County, Illinois, this 14th day of June, 2016 by a roll call vote as follows:

TRUSTEES

AYE

NAY

	<u>TRUSTEES</u>	<u>AYE</u>	<u>NAY</u>
1.	Meyer	✓	
2.	Hewes	✓	
3.	Kepes	✓	
4.	Bauer	✓	
5.	Reinwall	✓	
6.	Bushroe	✓	
7.			
8.			
9.			
10.			

APPROVED THIS 14th DAY OF June, 2016;

By: Richard E. Mack
PRESIDENT/MAYOR

CITY/VILLAGE OF Ringwood

ATTEST:

Roni Gallas-Bushroe
City/Village Clerk

STATE OF ILLINOIS)
)
COUNTY OF MCHENRY) ss.

I, Roni Gaddis Bushroff do hereby certify that I am duly appointed, qualified and acting as
City/Village Clerk of the City/Village of Ringwood, McHenry County, Illinois, and keeper of
the records and seal of said City/Village, and that the attached and foregoing Ordinance is a true and
correct copy of said Ordinance entitled:

ORDINANCE NO. 2016 - 6-2

AN ORDINANCE ADOPTING BY REFERENCE OF THE MCHENRY COUNTY
STORMWATER MANAGEMENT ORDINANCE

ADOPTED BY THE
PRESIDENT/MAYOR AND BOARD OF TRUSTEES
OF THE CITY/VILLAGE OF Ringwood,
THIS 14th DAY OF June, 2016.

In Witness Whereof, I have hereunto set my hand and caused to be affixed the Corporate Seal of the
City/Village of Ringwood, McHenry County, Illinois.

Done at: Illinois this 14th day of June, 2016.

(SEAL)

Roni Gaddis-Bushroff
City/Village Clerk

CERTIFICATIONS

I, Roni Gaddis Bushroe do hereby certify that I am the duly appointed, acting and qualified City/Village Clerk of the City/Village of Ringwood, McHenry County, Illinois, and that as such Clerk, I am the keeper of the records and minutes and proceedings of the President/Mayor and Trustees of said City/Village of Ringwood.

I do hereby further certify that at a regular meeting of the President/Mayor and Trustees of the City/Village of Ringwood, held on the 14th day of June, the foregoing Ordinance entitled: "AN ORDINANCE ADOPTING BY REFERENCE OF THE MCHENRY COUNTY STORMWATER MANAGEMENT ORDINANCE" was duly passed by the President/Mayor and Board of Trustees of the City/Village of Ringwood.

The pamphlet form of **Ordinance 2016 - 6-2**, including the Ordinance and a cover sheet thereof, was prepared, and a copy of such Ordinance was posted in the City/Village Hall, commencing on the 14th day of June 2016, and continuing for at least 10 days thereafter. Copies of such Ordinance were also available for public inspection upon request in the office of the City/Village Clerk.

I DO FURTHER certify that the original, of which the attached is true and correct copy, is entrusted to me as the Clerk of said City/Village for safekeeping, and that I am the lawful custodian and keeper of the same.

GIVEN under my hand and seal this 14th day of June, 2016.

Roni Gaddis-Bushroe
Name of Clerk
City/Village Clerk
City/Village of Ringwood,
McHenry County, Illinois



McHenry County
Department of Planning and Development

www.co.mchenry.il.us/plandev

OFFICE: McHenry County Admin. Bldg.
667 Ware Road, Woodstock, Illinois

MAIL: 2200 N. Seminary Ave.
Woodstock, Illinois 60098

EMAIL: plandev@co.mchenry.il.us
P: 815-334-4560 F: 815-337-3720

May 6, 2016

PRESIDENT MACK
VILLAGE OF RINGWOOD
6000 BARNARD MILL RD
RINGWOOD, IL 60072

Subject: McHenry County SMO Adoption, Training & Annual Report Documentation

Dear President Mack:

The McHenry County Board adopted 23 amendments to the McHenry County Stormwater Management Ordinance (SMO) on April 5, 2016. The SMO amendments include the minimum countywide standards for regulated development including FEMA and IDNR mandates and minor text corrections. Attached please find a copy of the SMO amendments. Municipalities that are certified to enforce the provisions of the SMO, such as the Village of Ringwood, will be required adopt and enforce an ordinance that is at least as stringent as the amended SMO in order to maintain certification.

All municipalities located wholly within McHenry County are required to adopt the revised SMO by October 5, 2016. Multi-county municipalities may adopt an ordinance of an adjacent county if the municipality has corporate authority within that county. Adoption is required to:

- Meet National Flood Insurance Program (NFIP) minimum standards
- Maintain Community Certification status

An Ordinance adoption template is attached and changes can be made to the form as needed by your community. After the Ordinance has been executed by the Community Corporate Authority and signed by the Community President, please mail an **original** to McHenry County Planning and Development in order to stay in compliance with the above requirements. **All original executed and signed forms must be returned to our office by October 5, 2016.** The adoption process may take time, so I encourage you to start the process soon.

Prior to adopting the SMO, we recommend that the Village send at least one representative to the upcoming workshop that will be hosted by the County. **Enforcement Officers are required to attend.** The workshop will be offered on Thursday, June 9, 2016 from 1:00 pm – 4:00 pm in Conference Rooms A & B of the County Administration Building (667 Ware Road, Woodstock). The presentation will cover the following topics:

- Overview of the SMO amendments;
- Annual report template; and
- Revised National Pollutant Discharge Elimination System (NPDES) permit requirements – presented by IEPA.

Following the presentation, the workshop will include a time for questions and answers. A hard copy of the SMO will be distributed to each community at the training. Please RSVP by e-mail to jscolletti@co.mchenry.il.us by Monday, June 6th.

For your reference, the currently effective SMO is available for download at the following URL:
<https://www.co.mchenry.il.us/home/showdocument?id=7922>

O:\STORMWATER\Community Certification\2016 SMO Adoption\form letter-certified community 2016.doc

Additionally, all certified communities are now required to submit an annual report to the county describing all stormwater management permit activity within the previous year. This will be the first year that the county will be requesting the annual report and should cover from January 1, 2016 through December 31, 2016.

The annual report shall include the information stated in Article X, Section F.2.e, including the following:

- Names and contact information for the Enforcement Officer, Professional Engineer, and Wetland Specialist.
- A summary of the stormwater management permits issued during the previous year. For each permit issued, the summary should indicate:
 - The proposed hydrologic disturbance area;
 - The existing and proposed impervious area on the development site;
 - The impervious area on the development site prior to the effective date of the SMO (January 20, 2004);
 - Whether or not the development site contained a flood hazard area;
 - Whether or not the development site contained an Isolated Waters of McHenry County;
 - The development classification (Minor, Intermediate, Major, Mining or Public Road);
 - The name of the Enforcement Officer who issued the stormwater management permit;
 - The name of the Professional Engineer (if applicable) and Wetland Specialist (if applicable) who reviewed and recommended approval of the stormwater management permit application;
 - A list of any stormwater management permits issued for regulated development that were designed and reviewed by the same firm;
 - A summary of the nature of any variance issued for a provision of the SMO; and
 - A list of any pending violations to the provisions of the SMO.

To simplify the process, we have provided a template spreadsheet for all required documentation. The document can be downloaded from our website here:

<http://www.co.mchenry.il.us/Home/ShowDocument?id=58949>. Note the columns for "yes/no" answers and for the "development type" have drop down menus and can only be filled in with appropriate answers. Please add rows to the tables as appropriate.

All annual report documents must be returned to McHenry County Department of Planning & Development by February 1, 2017.

If you have any questions, feel free to contact me at (815) 334-4560. Thank you for your cooperation.

Sincerely,



Joanna S. Colletti, P.E., CFM
Chief Stormwater Engineer

Encl: SMO Amendments
Ordinance Adoption Template

Cc: File
Roni Gaddis, Community Clerk
John Tierney, Engineering Consultant (via e-mail)
Tom Ganfield, Wetland Specialist (via e-mail)

EXHIBIT A

Stormwater Management Ordinance Text Amendments Regarding Various Provisions

SMO AMENDMENT #1

Article II, Section B.2.b (Page 8)

- b. Any development located partially or completely within the boundary of a wetland or waters; or

SMO AMENDMENT #2

Article III, Section A.3.k.(2) (Page 18)

- (2) If either the existing building or proposed deck is within a flood hazard area, The deck shall be constructed as a stand-alone structure and shall not be attached to an existing building.

SMO AMENDMENT #3

Article III, Section B.2.b (Page 22)

- b. For regulated development disturbing 20,000 square feet or more, the development plan shall be prepared by a licensed professional engineer and include the following additional information:
- (1) A benchmark referenced to NAVD88;
 - ~~(1)~~(2) Existing contours extending 100 feet beyond the development site with a maximum contour interval of 1 foot;
 - ~~(2)~~(3) Existing spot elevations demonstrating drainage patterns;
 - ~~(3)~~(4) Top of foundation and lowest entry elevation of all existing buildings within 100 feet of the development site;
 - ~~(4)~~(5) All existing impervious areas such as roadways, structures, parking lots, driveways, sidewalks, pathways, trails;
 - ~~(5)~~(6) The existing stormwater management system including storm sewers, drain tiles, culverts, and inlets on the development site and 100 feet beyond the development site. Information regarding the invert and rim elevations, pipe sizes, pipe lengths, and material type shall be provided;
 - ~~(6)~~(7) Existing utilities including sanitary sewer, water main, onsite waste disposal system, well, or any other utilities that exist on the site and 100 feet beyond the development site. On development sites where an infiltration facility is proposed, existing water supply wells shall be shown 200 feet beyond the development site. Information regarding the invert and rim elevations, pipe sizes, pipe lengths, and material type shall be provided;

- ~~(7)~~(8) Location and limits of all existing and proposed deed or plat restrictions;
- ~~(8)~~(9) Existing trees and vegetation areas on the development site;
- ~~(9)~~(10) Proposed contours throughout the development site with a maximum contour interval of 1 foot;
- ~~(10)~~(11) Proposed spot elevations demonstrating drainage patterns;
- ~~(11)~~(12) Top of foundation, lowest floor, low opening elevation, and floodproofing elevations of all proposed structures adjacent to a stormwater management facility or along an overland flow path;
- ~~(12)~~(13) All proposed impervious areas such as roadways, structures, parking lots, driveways, sidewalks, pathways, trails;
- ~~(13)~~(14) The proposed stormwater management system including pipes, drain tiles, culverts, and inlets on the development site. Information regarding the invert and rim elevations, pipe sizes, pipe lengths, and material type shall be provided;
- ~~(14)~~(15) Proposed utilities including sanitary, storm, water main, onsite waste disposal system, well, or any other utilities on the site. Information regarding the invert and rim elevations, pipe sizes, pipe lengths, and material type shall be provided;
- ~~(15)~~(16) Design details for proposed stormwater management system including, but not limited to major and minor stormwater systems, ~~and~~; and
- ~~(16)~~(17) Cross-sections for overland flow paths, sufficient to demonstrate compliance with the freeboard requirements of this Ordinance.

SMO AMENDMENT #4

Article III, Section B.2.j (Page 23)

- j. ~~Article III, Section B.3.a.~~ Disturbance of vegetation shall be kept to a minimum during construction to prevent erosion and sedimentation. The Enforcement Officer may add requirements or conditions as necessary to control soil erosion and sedimentation.

SMO AMENDMENT #5

Article V, Section G.3 (Page 35)

- (3) A Letter of No Impact or a Wetland Determination Report, prepared by a wetland specialist, shall be submitted for all WOTUS and IWMC on the development site, if applicable.

SMO AMENDMENT #6

Article VI, Section A (Page 37)

Table 3. Applicability of Soil Erosion and Sediment Control Performance Standards

Type of Development	Basic Requirements A.1	Requirements for Development Disturbing 1 acre or More A.2	Channel Requirements A.3	Inspections and Maintenance Requirements A.4	Notification Requirements A.5	Special Precautions A.6
General Permit	Waived*	WaivedN/A	Waived*	Waived*	Waived*	Waived*
Minor	X	N/A	If Channel Construction Included	X	X	X
Intermediate	X	N/A	If Channel Construction Included	X	X	X
Major	X	X	If Channel Construction Included	X	X	X
Public Road	X	If Dev \geq 1 ac	If Channel Construction Included	X	X	X
Mining	X ⁵	If Dev \geq 1 ac	If Channel Construction Included	X	X	X
Flood Hazard Area	X	If Dev \geq 1 ac	If Channel Construction Included	X	X	X
Wetland	X	If Dev \geq 1 ac	If Channel Construction Included	X	X	X

* Refer to the Performance Standards and Terms and Conditions of Specified Development of the specific General Permit.

SMO AMENDMENT #7

Article VI, Section A.4.c. (Page 42)

- c. For regulated development disturbing 1 acre or more, a qualified inspector (provided by the applicant) shall inspect the development site at the following intervals:
- (1) Upon completion of installation of soil erosion and sediment control measures (including perimeter controls and diversions), prior to proceeding with any other earth disturbance or grading;
 - (2) After stripping and clearing;
 - (3) After rough grading;
 - (4) After final grading;
 - (5) After seeding and landscaping;
 - (6) After final stabilization and landscaping, prior to removal of sediment controls;
 - (7) At least once every 7 calendar days; and
 - (8) Within 24 hours of the end of a storm that is 0.5 inch or greater rain event or a discharge due to snowmelt.
 - (8)(9) Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is 0.5 inch or greater rain event, or a discharge due to snowmelt occurs.

SMO AMENDMENT #8

Article VI, Section C.2 (Page 55)

2. Determining the BFE and Limits of a Flood Prone Area
- a. The BFE shall be determined utilizing one of the following methodologies:
- ~~b.~~(1) Adding 3 feet to the Flood of Record indicated on the USGS-Hydrologic Investigation Atlas;
 - ~~c.~~(2) Adding 0.5 foot to the surface overflow of a depressional storage area. Where a smaller depressional storage area exists within a larger depressional storage area, the BFE shall be based on the highest surface overflow; or
 - ~~d.~~(3) The BFE may be determined by a licensed professional engineer using a model or technique identified in Appendix 5 of this Ordinance or otherwise approved by MCSC or IDNR/OWR.
- e.b. The limits of a flood prone area shall be the projection of the BFE onto the development site topography.

SMO AMENDMENT #9

Article VI, Section C.8.a.(2)iii. (Page 58)

iii. Not exceed 0.1 foot upstream flood height increase for the base flood event, except as allowed by the Bridge and Culvert standards of this Ordinance.

SMO AMENDMENT #10

Article VI, Section C.9 (Page 58)

9. Additional Standards for Designated Floodways

~~Any regulated development within a designated floodway shall meet the appropriate use standards as determined by IDNR/OWR.~~

a. The only development in a designated floodway which will be allowed is an appropriate use, which will not cause a rise in the BFE, and which will not create a damaging or potentially damaging increase in flood heights or velocity or be a threat to public health and safety and welfare or impair the natural hydrologic and hydraulic functions of the floodway or channel, or permanently impair existing water quality or aquatic habitat. Construction impacts shall be minimized by appropriate mitigation methods as called for in this Ordinance. Only those appropriate uses listed in 17 Ill. Adm. Code Part 3708 will be allowed. The approved appropriate uses are as follows:

- 1) Flood control structures, dikes, dams and other public works or private improvements relating to the control of drainage, flooding, erosion or water quality or habitat for fish and wildlife.
- 2) Structures or facilities relating to the use of, or requiring access to, the water or shoreline, such as pumping and treatment facilities, and facilities and improvements related to recreational boating, commercial shipping and other functionally water dependent uses.
- 3) Storm and sanitary sewer relief outfalls.
- 4) Underground and overhead utilities.
- 5) Recreational facilities such as playing fields and trail systems, including any related fencing (at least 50% open when viewed from any one direction) built parallel to the direction of flood flows, and including open air pavilions and toilet facilities (4 stall maximum) that will not block flood flows nor reduce floodway storage.
- 6) Detached garages, storage sheds, or other non-habitable accessory buildings that will not block flood flows nor reduce floodway storage.
- 7) Bridges, culverts, roadways, sidewalks, railways, runways and taxiways and any modification thereto.

8) Parking lots built at or below existing grade where either:

a) The depth of flooding at the base flood event will not exceed 1.0 foot;
or

b) The depth of flooding can be greater than 1.0 foot for parking lots used for short-term outdoor recreational use facilities, provided the applicant agrees to restrict access during overbank flooding events and agrees to accept liability for all damage caused by vehicular access during all overbank flooding events.

9) Designated floodway regrading, without fill, to create a positive non-erosive slope toward a channel.

10) Floodproofing activities to protect previously existing lawful buildings including the construction of water tight window wells, elevating buildings, or construction of floodwalls around residential, commercial or industrial principal buildings where the outside toe of the floodwall shall be no more than 10-feet away from the exterior wall of the existing building, and which are not considered substantial improvements to the building.

11) The replacement, reconstruction, or repair of a damaged building, provided that the outside dimensions are not increased and provided that the Building Protection Standards are met if the replacement, reconstruction, or repair is a substantial improvement or if the building is considered substantially damaged.

12) Modifications to an existing building that would not increase the enclosed floor area of the building below the BFE, and which will not block flood flows, including but not limited to, fireplaces, bay windows, decks, patios and second story additions. Substantial improvements shall meet the Building Protection Standards.

b. Appropriate uses do not include the construction or placement of any new buildings, fill, building additions, buildings on stilts, excavation or channel modifications done to accommodate otherwise non-appropriate uses in the floodway, fencing (including landscaping or planting designed to act as a fence) and storage of materials except as specifically defined above as an appropriate use.

c. Development of an appropriate use will be considered permissible provided that the development meets the following criteria:

1) All effective designated floodway conveyance lost due to the development will be replaced for all flood events up to and including the base flood event. In calculating effective designated floodway conveyance, the following factors shall be taken into consideration:

a) $K = (1.486/n)(AR^{2/3})$

where "n" is Manning's roughness factor, "A" is the effective flow area of the cross-section, and "R" is the ratio of the area to the wetted perimeter.

- b) The same Manning's "n" value shall be used for both existing and proposed conditions unless a recorded maintenance agreement with a federal, state, or local unit of government can assure the proposed conditions will be maintained or the land cover is changing from a vegetative to a non-vegetative land cover.
- c) Transition sections shall be provided and used in calculations of effective designated floodway conveyance. The following expansion and contraction ratios shall be used (unless alternate ratios are approved by IDNR/OWR) for excavations in the designated floodway, between cross-sections with rapid expansions and contractions, and when matching the designated floodway boundary on an adjoining property:
 - i. Water will expand no faster than at a rate of 1 horizontal foot for every 4 feet of the flooded stream's length.
 - ii. Water will contract no faster than at a rate of 1 horizontal foot for every 1 foot of the flooded stream's length.
 - iii. Water will not expand or contract faster than 1 vertical foot for every 10 feet of flooded stream's length.
 - iv. All cross-sections used in the calculations shall be located perpendicular to the flood flows.
 - v. In the design of excavations in the designated floodway, erosion or scour protection shall be provided on land upstream and downstream of proposed transition sections.

SMO AMENDMENT #11

Article VI, Section C.13.b.(3) (Page 68)

- (3) For regulated development in a riverine flood hazard area:
 - i. Hydraulically equivalent compensatory storage volume shall be provided at ratios at least equal to:
 - (a) 1.5 times the flood storage volume lost or displaced; or
 - (b) 1.2 times the flood storage volume lost or displaced, provided that as-built plans are submitted.
 - ii. For a Public Road Development that cannot reasonably provide the compensatory storage volume required by this Ordinance;

- (a) The hydraulically equivalent compensatory storage volume required at a minimum 1:1 ratio may be waived by the Enforcement Officer as long as the total compensatory storage ratio is at least equal to 1:1. The waiver shall be the minimum necessary to afford relief. Any compensatory storage within a designated floodway shall be approved by IDNR/OWR.
- ii. (b) The additional compensatory storage volume required beyond a 1:1 ratio may be waived by the Enforcement Officer. The waiver shall be the minimum necessary to afford relief.
- iii. Any additional compensatory storage volume required beyond a 1:1 ratio may be provided above or below the 10 year flood elevation.
- iv. The compensatory storage area shall be located in close proximity to the fill area and shall drain freely and openly to the channel.

SMO AMENDMENT #12

Article VI, Section C.15 (Page 69)

15. Standards for On-Stream Structures Built for the Purpose of Backing Up Water

- a. Any water surface profile increase shall:
 - 1) Be contained within the banks of the water body; or
 - 2) Be contained within the development site, property in which the applicant has an ownership interest, or a deed or plat restriction; or
 - 3) Not exceed 0.1 foot upstream flood height increase for all events up to and including the base flood event.
- b. All dams and impoundment structures shall meet the applicable requirements of 17 Ill. Adm. Code Part 3702 (Construction and Maintenance of Dams).
- c. If the proposed activity involves a modification of the channel or floodway to accommodate an impoundment, it shall be demonstrated that:
 - 1) The impoundment is determined to be in the public interest by providing flood control, public recreation, or regional stormwater detention;
 - 2) The impoundment will not prevent the migration of indigenous fish species, which require access to upstream areas as part of their life cycle, such as for spawning;
 - 3) The impoundment will not cause or contribute to degraded water quality or habitat conditions. Impoundment design should include gradual bank slopes, appropriate bank stabilization measure, and a pre-sedimentation basin; and
 - 4) A nonpoint source control plan has been implemented in the upstream watershed to control the effects of sediment runoff as well as minimize the input of nutrients, oil and grease, metals and other pollutants. If there is

more than one municipality in the upstream watershed, the municipality in which the impoundment is constructed should coordinate with upstream municipalities to ensure comprehensive watershed control.

SMO AMENDMENT #13

Article VI, Section C.16 (Page 69)

16. Bridge and Culvert Standards

a. Designated Floodways

1) New bridges and culverts

a) Any water surface profile increase shall:

- i. Be contained within the banks of the water body; or**
- ii. Be contained within the development site, property in which the applicant has an ownership interest, or a deed or plat restriction; or**

b) The proposed structure shall not result in an increase of upstream flood stages greater than 0.1 foot for all flood events up to and including the base flood event; and

c) If the proposed construction will increase upstream flood stages greater than 0.1 foot within a designated floodway, the applicant shall contact IDNR/OWR to obtain a permit for a dam or waiver.

2) Reconstruction or modification of existing bridges, culverts and approach roads

a) The bridge or culvert and roadway approach reconstruction or modification shall be constructed with no more than 0.1 foot increase in backwater over the existing flood profile for all flood frequencies up to and including the base flood event, if the existing bridge or culvert is not a source of flood damage.

b) If the existing bridge or culvert and roadway approach is a source of flood damage to buildings in the upstream floodplain, the applicant's engineer shall evaluate the feasibility of redesigning the structure to reduce the existing backwater, taking into consideration the effects on flood stages on upstream and downstream properties.

c) The determination as to whether or not the existing crossing is a source of flood damage and should be redesigned must be prepared in accordance with 17 Ill. Adm. Code Part 3708 (Floodway Construction in Northeastern Illinois) and submitted to IDNR/OWR for review and concurrence before a permit is issued.

b. Non-Designated Floodways and Flood Prone Areas

1) New bridges and culverts

- a) Documentation must be provided that the proposed crossing will not cause demonstrable flood damage; and
- b) Any water surface profile increase shall:
 - i. Be contained within the banks of the water body; or
 - ii. Be contained within the development site, property in which the applicant has an ownership interest, or a deed or plat restriction; or
- c) In urban areas, the water surface profile increase would not exceed 0.5 foot at the structure, nor 0.1 foot at a point 1000 feet upstream of the structure, for all flood events up to and including the base flood event, as determined by the horizontal projection of the increase and the slope of the hydraulic grade line for the existing and proposed conditions hydraulic models; or
- d) In rural areas, the water surface profile increase would not exceed 1.0 foot at the structure, nor 0.5 foot at a point 1000 feet upstream of the structure, for all flood events up to and including the base flood event, as determined by the horizontal projection of the increase and the slope of the hydraulic grade line for the existing and proposed conditions hydraulic models; and
- e) Any increase in the average channel velocity would not be beyond the scour velocity of the predominant soil type of the channel; or
- f) Increased scour, erosion and sedimentation would be prevented by the use of rip-rap or other design measures.

2) Reconstruction or modification of existing bridges, culverts and approach roads

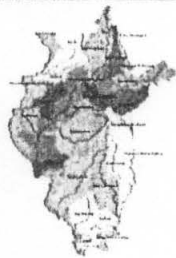
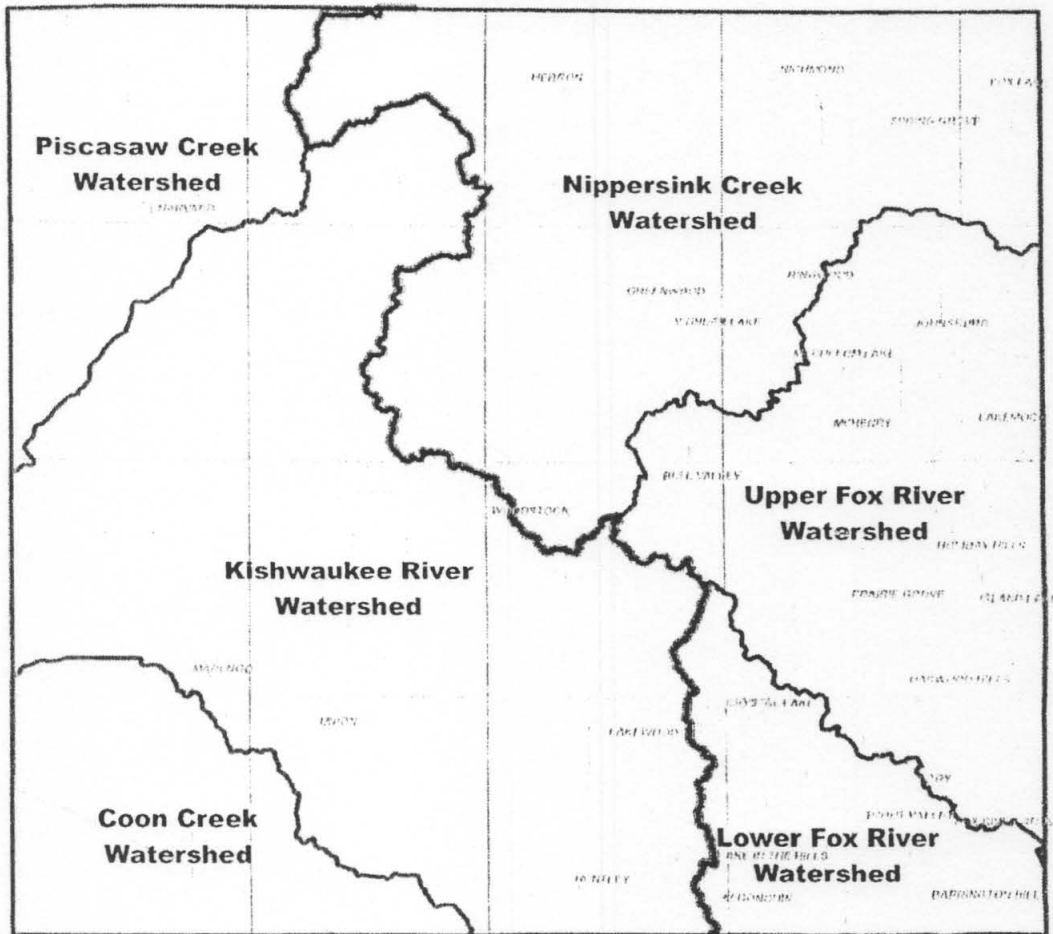
- a) The reconstruction (including approach roads) shall be no more restrictive to normal and flood flows than the existing bridge or culvert crossing; and
- b) Documentation must be provided that the existing crossing has not caused demonstrable flood damage. In the case of public projects, certification by a District Engineer of the Department of Transportation's Division of Highways, a County Engineer (if a registered professional engineer), or a Municipal Engineer (if a registered professional engineer) that the existing crossing has not caused demonstrable flood damage will be adequate documentation.

SMO AMENDMENT #14

Appendix 9: McHenry County Watersheds (Page 115)

Map of McHenry County depicting the major watersheds of the county including the Crystal Lake sub-watershed boundary.

**McHenry County, Illinois
Watersheds**



- McHenry County Watersheds
- Crystal Lake Watershed
- Fox-Kishwaukee Watersheds Divide



TOWNSHIPS

CARLETON	ALTON	HERON	FOX LAKE	CRISTINA
DEERFIELD	WATKINS	GREENWOOD	ROCKFORD	WINDY HILLS
WILSON	WELLS	DUFF	LANA	WINDY HILLS
WINDY HILLS	WINDY HILLS	WINDY HILLS	WINDY HILLS	WINDY HILLS

SMO AMENDMENT #15

Appendix 10: McHenry County Watershed Plans (Page 116)

Add Boone-Dutch Creek Watershed to list of plans

SMO AMENDMENT #16

Appendix 12: Definitions (Page 126)

~~adequate downstream stormwater capacity: A downstream channel or stormwater management system with the ability to store and convey the anticipated 100-year stormwater runoff without damage to an adjacent or downstream building.~~

SMO AMENDMENT #17

Appendix 12: Definitions (Page 130)

development: Any man-made change to real estate by private property owners or public agencies including, but not limited to:

- A. Construction, reconstruction, repair or remodeling, maintenance or placement of a building or any addition to a building, including "ag exempt" buildings;
- B. Installing a manufactured home on a site, preparing a site for a manufactured home, or installing a recreational vehicle or travel trailer on a site for more than 180 days (if the recreational vehicle or travel trailer is on the site for less than 180 days, it must be fully licensed and ready for highway use);
- C. Drilling, mining, installing utilities, construction of roads, bridges, or similar projects;
- D. Demolition of a structure or redevelopment of a site;
- E. Construction or erection of levees, walls, fences, dams, or culverts;
- F. Channel modification;
- G. Filling, dredging, grading, excavating, paving, or other alterations of the ground surface;
- H. Storage of materials;
- I. Extensive removal of vegetation; or
- J. Any other activity of man that changes the ~~direction~~, height, or velocity of flood or surface water.

SMO AMENDMENT #18

Appendix 12: Definitions (Page 136)

hydrologically disturbed: An area where the land surface has been cleared, grubbed, compacted, graded, excavated, filled or otherwise modified in a manner that changes runoff volumes, or rates, or direction.

SMO AMENDMENT #19

Appendix 12: Definitions (Page 143)

rural area: The rural area designation within non-designated floodways shall be determined by IDNR/OWR. In flood prone areas, all residential, commercial or other non-residential land uses that are not defined as or included within an Urban Area, as defined by the U.S. Department of Commerce, Census Bureau (USCB) or as approved by the Enforcement Officer.

SMO AMENDMENT #20

Appendix 12: Definitions (Page 145)

urban area: The urban area designation within non-designated floodways shall be determined by IDNR/OWR. In flood prone areas, any densely developed residential, commercial or other non-residential land uses in which the U.S. Department of Commerce, Census Bureau (USCB) census block or tract contains a population density of at least 2,500 people, at least 1,500 of which reside outside institutional group quarters or as approved by the Enforcement Officer. Urbanized Areas and Urban Clusters, as defined by the USCB, are subsets of urban areas. A map of all urban areas of the county can be found on the USCB website: <http://tigerweb.geo.census.gov/tigerweb/>.

SMO AMENDMENT #21

Appendix 12: Definitions (Page 126)

Rearrange location of "agricultural building" definition from after "accessory building" to after "Advanced Identification Wetland Study(ADID)".

SMO AMENDMENT #22

Article VI, Section B.5.d.(4)ii (Page 52)

- ii. Detention within IWMC shall require IWMC mitigation, unless the detention facility is vegetated according to the standards of the *Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois* (NRCS, et al.) and the pre-development IWMC is comprised of:
- (a) Farmed wetlands;
 - (b) Non-farmed wetlands that are not HQAR covered by at least 85% of one or more of the following species:
 - (i) Reed canary grass (*Phalaris arundinacea*)
 - (ii) Purple loosestrife (*Lythrum salicaria*)
 - (iii) Common reed (*Phragmites australis*)
 - (iv) Buckthorn (*Rhamnus spp.*)
 - (c) Non-farmed wetlands that are not HQAR with a FQI of 7 or less; or
 - (d) Open water that is not HQAR.

SMO AMENDMENT #23

Table 1 (Page 10)

TABLE 1 Regulation of Routine Projects			
Project Type	Exempt	General Permit	Individual Permit
Building Maintenance	Refer to Appendix 12: Maintenance of Existing Buildings	N/A	Refer to Appendix 12: Substantial Improvement
New Single Family Home	N/A	Refer to Article III, Section B: General Permit 2	All Other Development Regulated by Article II, Section B
Road Maintenance	Refer to Appendix 12: Maintenance of Roads and Trails	N/A Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Trails	Refer to Appendix 12: Maintenance of Roads and Trails	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Driveways	Refer to Appendix 12: Other Maintenance Activities	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Parking Lots	Refer to Appendix 12: Other Maintenance Activities	N/A	All Other Development Regulated by Article II, Section B
Culverts, Storm Sewers, and Drain Tiles	Refer to Appendix 12: Other Maintenance Activities	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Bridges	Refer to Appendix 12: Other Maintenance Activities	N/A Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Dredging	Refer to Appendix 12: Other Maintenance Activities	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Removal of an Obstruction	Refer to Appendix 12: Other Maintenance Activities	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Stormwater Management Facilities	Refer to Appendix 12: Other Maintenance Activities	N/A	All Other Development Regulated by Article II, Section B
Gardening and Landscaping	Refer to Article II, Section C: Exempted Development	N/A	All Other Development Regulated by Article II, Section B
Tillage and Similar Agricultural Practices	Refer to Article II, Section C: Exempted Development	N/A	All Other Development Regulated by Article II, Section B

Project Type	Exempt	General Permit	Individual Permit
Implementing a NRCS Conservation Plan	Refer to Article II, Section C: Exempted Development	N/A	All Other Development Regulated by Article II, Section B
Demolition	Refer to Article II, Section C: Exempted Development	N/A	All Other Development Regulated by Article II, Section B
Onsite Waste Disposal Systems and Wells	Refer to Article II, Section C: Exempted Development	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Sewer and Water Service Lines	Refer to Article II, Section C: Exempted Development	N/A	All Other Development Regulated by Article II, Section B
Underground and Overhead Utilities	Refer to Appendix 12: Other Maintenance Activities	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Seawalls	N/A	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Shoreline and Streambank Stabilization	N/A	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Boat Docks	N/A	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Signposts, Poles Fencing, and Guardrails	N/A	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Decks	N/A	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Pools	N/A	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Material Storage	N/A	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B
Wetland Restoration and Enhancement	N/A	Refer to Article III, Section A: General Permit 1	All Other Development Regulated by Article II, Section B

Table 2 (Page 12)

TABLE 2 Summary of General Permit 1			
Type of Regulated Development	Applicability	Authorization	Terms and Conditions
Underground and Overhead Utilities	A.1	A.2	A.3.a, A.3.b
Storm Sewer Outfalls, Drain Tile Outfalls, and Outlet Channels	A.1	A.2	A.3.a, A.3.c
<u>Road Maintenance and Bridges</u>	<u>A.1</u>	<u>A.2</u>	<u>A.3.a, A.3.d</u>
Sidewalks, Trails, Driveways, and Patios	A.1	A.2	A.3.a, A.3.de
Boardwalks	A.1	A.2	A.3.a, A.3.ef
Seawalls	A.1	A.2	A.3.a, A.3.fg
Other Shoreline and Streambank Protection	A.1	A.2	A.3.a, A.3.gh
Minor Non-Commercial Boat Docks	A.1	A.2	A.3.a, A.3.hi
Signposts, Poles, Fencing, and Guardrails	A.1	A.2	A.3.a, A.3.ij
Minor Modification of Culverts, Storm Sewers, and Drain Tiles	A.1	A.2	A.3.a, A.3.jk
Decks	A.1	A.2	A.3.a, A.3.kl
Topsoil and Sand Restoration	A.1	A.2	A.3.a, A.3.lm
Pools	A.1	A.2	A.3.a, A.3.mn
Replacement Onsite Waste Disposal Systems	A.1	A.2	A.3.a, A.3.no
Material Storage	A.1	A.2	A.3.a, A.3.op
Dredging	A.1	A.2	A.3.a, A.3.pq
Wetland Restoration and Enhancement	A.1	A.2	A.3.a, A.3.qr

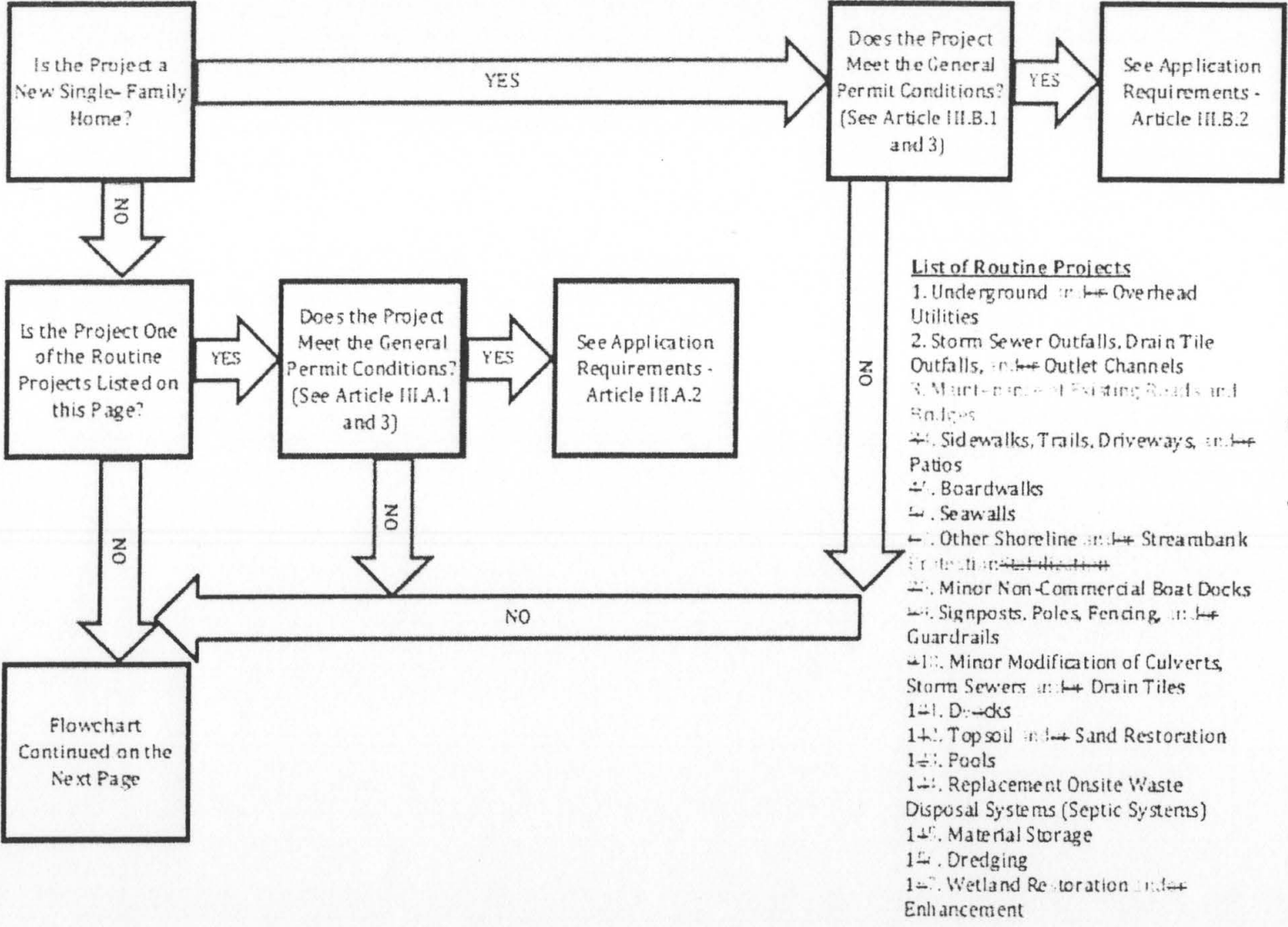
Article III, Section A.3.d (Page 15)

- d. Maintenance of existing roads and bridges – To be authorized by this General Permit Number 1, maintenance of existing roads and bridges shall meet the following criteria.
- (1) Rehabilitative maintenance, such as milling and overlaying, that does not increase the impervious area and does not increase the surface elevation. Maintenance also includes increasing the surface elevation with the following limitations:
- i. Resurfacing outside flood hazard areas;

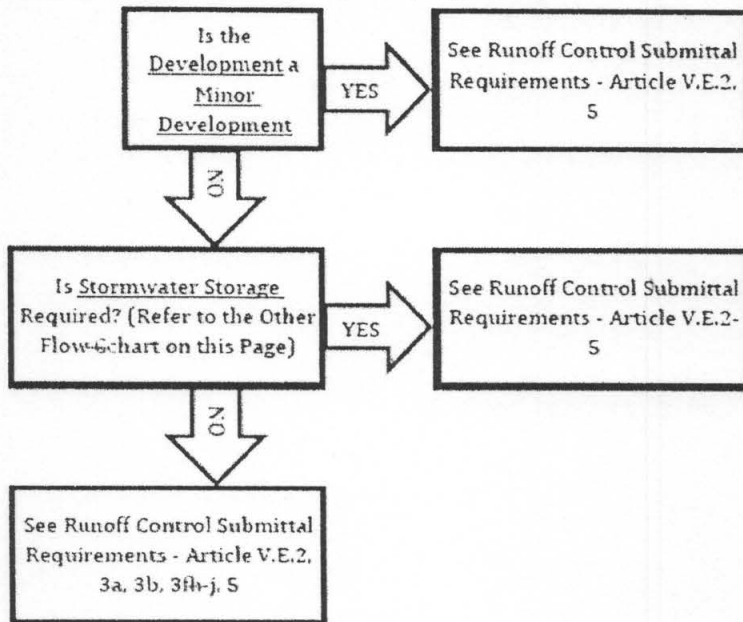
- ii. Resurfacing within flood prone areas;
 - iii. Resurfacing within the flood fringe, provided the difference between the elevation of the road or bridge surface after resurfacing and the elevation of the road or bridge surface on the effective date of this Ordinance is not more than two inches.
- (2) Repair, not including in-kind replacement, of an existing bridge outside the designated floodway.

Appendix 1: Permitting Flowcharts (Page 96)

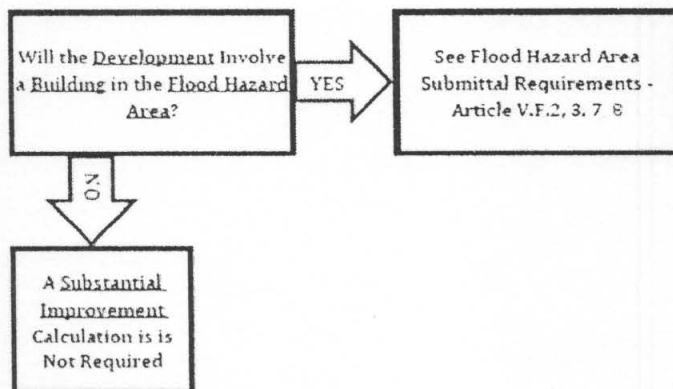
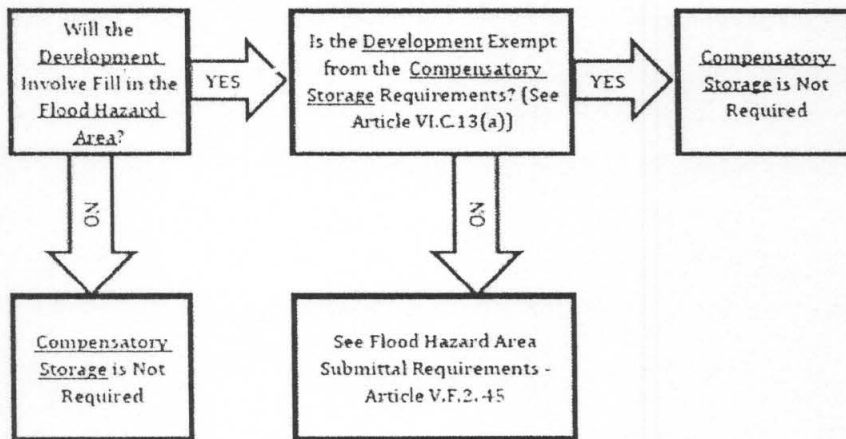
Development Classification Flowchart (Page 1 of 2)



Runoff Control Submittal Flowchart (Page 2 of 2)



Flood Hazard Area Submittal Flowchart (Page 3 of 3)



Wetlands, Waters and Buffer Area Submittal Flowchart

