



COMMENT RESPONSE DOCUMENT AND ECONOMIC IMPACT STUDY

For the Draft Countywide Stormwater and Flood Plain Ordinance

DuPage County Stormwater Management

July 19, 2011



Comment Response

- 45 different sets of comments with over 900 individual comments
- Document is available on the website, due to file size it is broken into sections and appendices for easier downloading
- Document consists of:
 - ▣ Executive Summary
 - ▣ Comment Responses
 - ▣ Excerpts of New Language
 - ▣ Appendices:
 - Draft Ordinance
 - Minutes of Steering Committee Meetings
 - Minutes of Municipal Engineers Meetings

Procedural Issues



- Municipal Engineers Group is Formalized and provides Advisory recommendations to Stormwater Committee and Director, Creates General Certifications.
 - Appoints Municipal Technical Advisory Committee (MTAP)
- MTAP role is to act quickly to give advisory input to Director, applicants and Administrators on Technical Issues

Procedural Issues



- For Partial Waiver Communities, Administrators have much more ability to complete review at the Community rather than send to the County -Time and Cost savings.
- General Permits-Time and Cost savings.
- Letters of Permission-Time and cost savings.

Technical Requirements-Detention



- Detention based on Change to Total Impervious Surfaces comparing existing site to site with project
 - ▣ 25,000 sq. Ft. (from 1992) exclusion will weed out virtually all single family homes.
 - ▣ Increase in impervious surface allowed without detention if site is still less than 10% Impervious
 - ▣ In all other cases, no detention required if decrease in impervious surfaces by at least 5%

Technical Requirements-BMPs

- Water Control Volume is under BMP, and is termed a “Volume Control BMP”
- All BMP’s are triggered by an Increase in Total Impervious area of a site by 2500 Sq. Ft. of new impervious surface.
- Once that threshold is reached, BMP’s are required for Volume Control and Pollutant of concern, but only for newly constructed impervious surfaces
- Easements and follow-up inspections are not required for BMPs

Technical Requirements-Floodplains



- The ratio for Compensatory storage remains unchanged at 1.5:1, but the incremental check is limited to 1:1 for normal to 10-year, and 1:1 for 10-year to 100-year, with the 0.5:1 additional allowed to be placed anywhere below the 100-year.
- Zone A floodplains are not always floodways.
- Closed depression floodplains only must be compensated for at 1:1
- Accessory Structures will follow FEMA rules

Technical Requirements-Wetlands



- A wetland delineation is not necessarily required if it is obviously not impacted.
- Up to 0.1 acres of direct impact to wetlands is allowed without an alternatives analysis if:
 - The Wetland is isolated
 - The developer controls the whole wetland
 - Mitigation is provided.

Technical Requirements-Buffers



- Buffers are expanded to all of 100-year floodplain.
- Existing lawns and impervious surfaces are not considered buffers.

Cost Comparison-

6 Implementation Examples

- Six sites selected for comparison
 - ▣ EX. 1: Residential – Single Family Residence-Large lot Teardown
 - ▣ EX. 2: Residential – Single Family Residence Addition
 - ▣ EX. 3: Accessory Structure for a Single Family Residence
 - ▣ EX. 4. Routine Utility Maintenance involving Wetlands
 - ▣ EX. 5. Land Use Change-Residential to Mixed Use Development
 - ▣ EX. 6 Commercial Reconstruction of a Largely Impervious Site

Cost Comparison



- Does this Draft cost more, or less or is it cost neutral
- Compared to current Ordinance, will it take longer to get a permit?
- What new options are available to an applicant based on the draft Ordinance?

Cost Comparison Assumptions



- The site plans and materials utilized for this presentation illustrate hypothetical examples and should not be connected to actual permit submittals
- Identified costs are relative only to the examples discussed

EX. 1 Residential – Single Family Residence (Large Lot Teardown)

- Details of project
 - Existing home on 4.13 acres
 - Zone AE floodplain and wetland exist on north side of site
 - Demolish existing home
 - Construct new single family residence

EX. 1 Residential – Single Family Residence (Large Lot Teardown)

- Under Existing DCSFPO
 - No detention required
 - BMP required including easement
 - No impacts to floodplain, no floodplain related calculations
 - No wetland disturbance, wetland delineation required, however no wetland mitigation necessary
 - No riparian impacts, no calculations necessary
- Under proposed DCSFPO
 - No Detention Required
 - Since additional Total Impervious Area is less than 2500 sq. ft., BMP not required. Easements and follow-up inspections will not be required.
 - No impacts to floodplain, no floodplain related calculations
 - Administrator can review plan and based on information available Possibly waive a wetland delineation: possible cost savings \$2500
 - No Buffer impact. Nothing required.

EX. 1 Residential – Single Family Residence (Large Lot Teardown)

- Summary of changes with new ordinance
 - ... BMP trigger is changed, No BMP or Easement required. Potential savings \$800.
 - ... Administrator in Partial Waiver Community may opt to not send submittal to County since neither floodplain or wetlands impact. Potential time and review fee cost savings.

EX. 2 Residential – Single Family Residence Addition



- Details of project
 - Existing home on 0.81 acres
 - Zone A Floodplain and wetland buffer exist onsite
 - Construct an expansion to the existing attached garage.


EX. 2 Residential – Single Family Residence Addition

- Under Existing DCSFPO
 - No detention required
 - No BMP required
 - Zone A elevation must be established (NFIP)
 - FEQ Base Flood Elevation (BFE) available for applicant's use
 - No proposed impacts to floodplain, no floodplain calculations necessary
 - Wetland buffer disturbance, wetland submittal required
 - Buffer must be mitigated with native vegetation
 - Riparian impacts proposed, riparian submittal required
 - Riparian impacts must be mitigated at 1:1 ratio
- Under Proposed DCSFPO
 - No detention required
 - Less than 2500 sq. ft of TIA added, No BMP required
 - Zone A elevation must be established (NFIP)
 - FEQ Base Flood Elevation (BFE) available for applicant's use
 - No proposed impacts to floodplain, no floodplain calculations necessary
 - Wetland buffer disturbance, wetland submittal required
 - Wetland buffer must be mitigated, but if Buffer is turf grass, no buffer mitigation required.
 - Riparian Concept folded into buffers, no separate "riparian mitigation"

EX. 2 Residential – Single Family Residence Addition

- Summary of changes with new ordinance
 - ... Buffers and Riparian Areas are folded together since they have the same function. Existing Paved areas and turf grass in a buffer do not have to be mitigated if impacted. Small savings in plantings, and no forced change in landscaping from turf grass to Native landscaping. Savings less than \$500.

EX. 3 Accessory Structure for a Single Family Residence



- Details of project
 - Existing single family residence on 0.67 acres
 - Zone AE floodplain encroaches on rear of lot
 - Riparian environment consists of mowed turf grass
 - Construct new shed within the limits of the regulatory floodplain

EX. 3 Accessory Structure for a Single Family Residence

- Under Existing DCSFPO
 - Detention not required
 - BMP not required
 - Zone AE floodplain fill, submittal required
 - Incremental compensatory storage required at 1.5:1 ratio
 - Lowest usable space of shed must be one (1) foot above BFE
 - If FEQ higher than FEMA BFE, shed must be elevated to FEQ elevation
 - Riparian impacts proposed, riparian submittal required, mitigation ratio 1:1
- Under Proposed DCSFPO
 - Detention not required
 - BMP not required
 - Allowable at grade, so no floodplain fill required
 - In Buffer, but since existing buffer in this area is lawn, no mitigation required.

EX. 3 Accessory Structure for a Single Family Residence

- Summary of changes with new ordinance
 - ... This project can be done as either a general certification or a letter of permission, saving time and permit costs. Possible savings \$1500
 - ... Shed may be floodproofed instead of elevated so no compensatory storage required. Possible savings \$500
 - ... Recognizes that lawn has low function as a buffer, no mitigation. Possible savings \$200

EX. 4 Routine Utility Work Involving Wetlands



- Details of project
 - Pipeline integrity testing
 - Wetland exists on west side of site
 - Replace pipeline as necessary
 - Restore to preconstruction condition

EX. 4 Routine Utility Work Involving Wetlands

□ Under Existing DCSFPO

- ▣ No detention required
- ▣ BMP not required
- ▣ No floodplain submittal required
- ▣ Wetland disturbance, wetland submittal required
 - Permanent impacts must be mitigated at 1.5:1 ratio, while temporary impacts must be restored to pre-construction conditions
 - Buffer restoration at 1:1 ratio
- ▣ No riparian submittal required

□ Under Proposed DCSFPO

- ▣ No detention required
- ▣ BMP not required
- ▣ No floodplain submittal required
- ▣ Wetland disturbance, wetland submittal required
 - Permanent impacts must be mitigated at 1.5:1 ratio, while temporary impacts must be restored to pre-construction conditions
 - Buffer restoration at 1:1 ratio
- ▣ No riparian submittal required

EX. 4 Routine Utility Work involving Wetlands

- Summary of changes with new ordinance
 - ...Neutral on Technical Requirements
 - ... A General Certification is being prepared for these types of routine projects which will save both permitting time and costs to prepare applications. Potential savings of \$3500 plus possible savings in review fees.
 - ... Temporary wetland impacts are now formally recognized by the Ordinance as not requiring “mitigation” (1.5:1) if they can be restored.

EX. 5 Land Use Change-Residential to Mixed Use Development

- Details of project
 - Multiple existing residential homes on 12.46 acres
 - Zone AE floodplain (base flood elevation defined) and wetland exist onsite
 - Demolish existing homes
 - Construct new buildings, detention, compensatory storage for floodplain fill, parking, sidewalks

EX. 5 Land Use Change-Residential to Mixed Use Development

- Under Existing DCSFPO
 - Detention required for disturbed area
 - BMP required for disturbed area
 - Zone AE floodplain fill, submittal required
 - Incremental compensatory storage required at 1.5:1 ratio
 - FEQ BFE available and used for flood protection elevation if higher than FEMA elevation
- Under Proposed DCSFPO
 - Detention required for disturbed area-volume required reduced by credit for volume control BMP
 - BMP required for Impervious surfaces, including volume control BMP
 - Zone AE floodplain fill, submittal required
 - Incremental compensatory storage required at 1.5:1 ratio, placement of increment flexible
 - FEQ BFE available and used for flood protection elevation if higher than FEMA elevation

EX. 5 Land Use Change-Residential to Mixed Use Development

- Under Existing DCSFPO
 - Wetland disturbance, wetland submittal required
 - Practicable alternatives analysis required
 - Wetland mitigated at 1.5:1 (Fee-in-lieu)
 - Riparian impacts proposed, riparian submittal required
 - Riparian impacts must be mitigated at 1:1 ratio
- Under Proposed DCSFPO
 - Wetland disturbance, wetland submittal required
 - Practicable alternatives analysis required
 - Wetland mitigated at 1.5:1 (Fee-in-lieu)
 - Buffer mitigation not applicable for lawn and existing impervious surfaces.

EX. 5 Land Use Change-Residential to Mixed Use Development

- Summary of changes with new ordinance
 - ...Volume Control BMP required, but cost offset by reduced detention volume and reduced design requirement for BMPs overall. Cost neutral.
 - ... Floodplain Compensatory Storage placement is more flexible, only two increments specified at 1:1 and extra 0.5:1 volume anywhere below BFE. Cost savings.
 - ... No Separate Riparian analysis and mitigation required, Time savings.

EX. 6 Commercial Reconstruction of a Largely Impervious Site



- Details of project
 - Existing non-residential lot on 1.01 acres
 - Zone AE floodplain encroaches onsite by elevation
 - Demolish existing building
 - Construct new building, detention, compensatory storage, parking, sidewalks

EX. 6 Commercial Reconstruction of a Largely Impervious Site

- Under Existing DCSFPO
 - Detention required for 2 year 24 hour event (not 100 year)
 - BMP required
 - Zone AE floodplain fill, submittal required
 - Incremental compensatory storage required at 1.5:1 ratio
- Under Proposed DCSFPO
 - Detention not required since Impervious area reduced 5%
 - Additional BMP not required (recognizes reduction in impervious surface)
 - Zone AE floodplain fill, submittal required
 - Compensatory storage required at 1:1 ratio, area filled is a closed depression

EX. 6 Commercial Reconstruction of a Largely Impervious Site

□ Under Existing DCSFPO

- ▣ Riparian impacts proposed, riparian submittal required but no mitigation necessary (impervious to impervious)
- ▣ No wetland

□ Under Proposed DCSFPO

- ▣ Floodplain area considered Buffer, but no mitigation required for previously existing areas
- ▣ No wetland

EX. 6 Commercial Reconstruction of a Largely Impervious Site

- Summary of changes with new ordinance
 - ... Fully recognizes the stormwater Benefits of reducing Impervious surfaces. Not providing detention saves \$54,000.
 - ... Floodplain Fill Ratio reduction for depressions saves \$9000 in Construction alone.

Cost Comparison

Summary of Cost Comparison Examples: Existing vs. Proposed DCSFPO						
		Residential		Utility	Land use Change	Redevelopment
	EX. 1 Large Lot Teardown	EX.2 Addition	EX. 3 Accessory Structure	EX. 4 Maintenance with Wetlands	EX. 5 Residential to Mixed Use	EX 6 Teardown
Time Savings	Possible	Yes	Significant	Significant	Yes	Possible
Cost Savings	Yes	Yes	Significant	Yes	Neutral-minor	Significant



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<http://ec.dupageco.org/StormWaterUpdate/>

Questions???

