



# KANE COUNTY

Arnold, Huddleston, Kenyon, Peshke, Schumacher, Tansley

## STORMWATER MGT-AGRICULTURAL SUBCOMMITTEE

TUESDAY, SEPTEMBER 12, 2017

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Agenda

5:00 PM

**Kane County Farm Bureau 2N710 Randall Rd. St. Charles IL 60174**

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1. Call to Order
2. Approval of Minutes
3. Public Comment
4. Detention Threshold Triggers
5. Detention Design Parameters
6. Discharge of Runoff – Outfall and Downstream Impacts
7. Approval of Memos to Forward to TAC
8. New Business
9. Adjournment

**Recommended Detention threshold Triggers:**

Detention should be based upon impervious instead of zoning classifications

**Updated language should:**

1. Improve definition of Impervious and establish guidelines for when detention is required
2. Provide a definition for Stormwater Mitigation Measures (infiltration trench, rain garden, detention)
3. Provide definition for Watershed Benefit Measures (grassed buffer/waterway, 2 stage channel, edge of field practices, prairie or wetland creation, reconnection of wetland and floodplain to channel)
4. Require Stormwater Mitigation Measures where the downstream system doesn't have capacity or there are existing drainage issues.
5. Provide option for Watershed Benefit Measures in lieu of detention for large open space parcels and farms with a small percentage of impervious area.
6. Provide exemptions for linear projects (such as trails)
7. Consider a maximum impervious percentage for small lots
8. Consider credit for removal of existing impervious area
9. Better define redevelopment to clarify if existing impervious area being replace by new impervious area will require detention
10. Address how new development on a site with detention built before Jan 1, 2002 should be handled.

**Current Collar County Ordinance Detention threshold Triggers:**

DuPage	McHenry	Lake	Cook

**Recommended Detention Design Parameters:**

Detention Design should remain based upon 0.1 cfs/acre

**Updated language should:**

1. Address difference between Ordinance requirements and 2002 memo. Add more detail in Ordinance as appropriate and delete parts of memo people are not using.
2. Allow for lower release rate if the downstream system does not have capacity or there is an existing drainage issue
3. Provide detail on how bypass flow is to be handled.
4. Require a 4” minimum restrictor size
5. Require retention to be 1” over all new impervious area
6. Consideration of an intermediate overflow that still restricts flow to downstream drainage system capacity in case of a block restrictor in the freeboard for restrictor sizes below a certain size.

**Current Collar County Ordinance Detention Design Parameters:**

DuPage	McHenry	Lake	Cook

## **202: Discharge of Runoff – Outfall and Downstream Impacts:**

The discharge of runoff from new development should use Illinois Drainage Law as a guide and update existing Kane County Stormwater Ordinance language to protect downstream properties from extended release rates, increases in volume, increase flood elevations and flood damage, groundwater flow, and protect groundwater only systems from surface water.

### **Updated language should:**

1. Offsite outfall
  - a. Require developments to evaluate the downstream drainage to an open water course with base flow.
  - b. Require that offsite subsurface groundwater or drain tile systems shall not be used for surface water discharges, but may be used for retention or stormwater mitigation underdrains at a rate that does not exceed 0.03 cfs/acre (see language from Technical Manual). Flow from sump pumps and curtain drains must be conveyed in a storm sewer to an open water course with base flow
  - c. Require that offsite outfalls to agricultural surface drainage systems and steep slope zones that do not have a base flow must be conveyed 100% underground 48 hours after a 100 yr-24 hr event to prevent extended releases from stormwater facilities from damaging crops and accelerating erosion.
  - d. Require that offsite outfalls to depressional storage or urban flood areas shall not increase flood elevations and must mitigate for additional volume produced so not to increase flood duration in closed depressions
  - e. Require outfalls be constructed in rights of ways for developments in rural areas when engineering is feasible or reasonable
  - f. Require approval by Drainage District if the development discharges to an active drainage district within the County.
  - g. Work with Attorney to develop language based upon Illinois Drainage Law case law if downstream property owner refuses access across property and right of way option is not feasible or reasonable. Define maximum extent practicable.
2. Onsite
  - a. No changes
3. Offsite Tributary
  - a. Require sizing of offsite tributary for drain tile connections be sized based upon chart (see attached) to allow for subsurface drainage improvements to occur on upstream tributary farms
  - b. Require that offsite tributary drain tile connections have a free discharge into the drainage system within the development and are not subject to head pressure within the storm sewer system or surcharge resulting in fluctuating water elevations in a detention facility.

- c. Require that offsite adjoining tributary ag property be provided a grassed waterway through the development that bypasses the storm drainage system and detention within the development. Developer shall work with ag property owner and develop a means for a maintainable sediment and farm debris removal system. Maintenance costs for this system shall be included in long term maintenance plan for the development.

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