

8.13 Stormwater Management Standards for Boone County

8.13.01 INTENT

Stormwater runoff increases nonpoint source pollution, flooding, siltation, stream temperatures, and streambank erosion. The following requirements shall apply to development in Boone County to ensure site design minimizes the generation of stormwater runoff and maximized pervious areas, provide a single consistent set of performance goals that apply to all developments, protect functional values of all types of natural watercourses, protect life and property from dangers associated with flooding, maintain existing flow patterns, and promote infiltration and recharge of groundwater.

8.13.02 THRESHOLDS

Thresholds Development that meets any of the following thresholds shall be required to submit a Stormwater Management Plan, in addition to other applicable development permit applications, prior to commencing development activities.

- (1) Development, including common development that disturbs an area one-acre or greater in size.
- (2) Development that will result in the division of land into more than four development lots.

8.13.03 REQUIREMENTS

Developments required to submit a Stormwater Management Plan shall be designed, constructed, and maintained to achieve the purposes of the Ordinance, as stated above and to prevent flooding, minimize stream channel impacts, and protect water quality in accordance with the following criteria for stormwater management. (See the Iowa Stormwater Management Manual for details on the calculation of the criteria.)

- (1) The site shall be designed to manage the water quality volume of a rainfall depth of 1.25 inches and to manage corresponding recharge volume through infiltration practices.
- (2) To protect stream channels, the site shall be designed to provide 24-hours of extended detention of the channel protection volume determined for the 1 year, 24-hour storm.
- (3) Stormwater management shall be provided to limit the post development rate of runoff from the site area during the 5-year through the 100-year, 24 hour storm events to the less than the following value: runoff rates equivalent to those from a storm event based on conditions which exist as of the date of the proposed improvement plans (row crop

agriculture cover, contoured in good condition and surface soil types as identified from the County Soil Maps; unless otherwise approved.

- (4) Any development that disturbs one or more acres is required to obtain a National Pollutant Discharge Elimination System (NPDES) Permit from the Iowa Department of Natural Resources.
- (5) Development in a floodplain is discouraged. Any proposed development in the floodplain shall be done in accordance with the IDNR and US Corp of Engineers requirements.

8.13.04 PLAN REQUIRED

Contents of the Stormwater Management Plan shall include a site plan, narrative, and other attachments necessary to illustrate how runoff and associated water quality impacts resulting from the development is proposed to be managed meeting the requirement of this Chapter and following the Iowa Stormwater Management Manual or other professionally accepted best management practices.

- (1) Be signed and certified by an Iowa licensed professional engineer (PE).

8.13.05 INSPECTION AND RESPONSIBILITY

- (1) In no instance shall the acceptance of the Stormwater Management Plan by Boone County be construed as approval of the design, design methods, design calculations, detention facilities plan, construction, or concurrence that all design criteria have been satisfied. Boone County shall not be liable for damages resulting from stormwater runoff or discharge of stormwater detention facilities.
- (2) The applicant or owner of the site agree to provide for access to the BMP and the land it serves at reasonable time for periodic inspection by County or County's designee to ensure that the BMP is maintained in proper working condition to the requirements of this Chapter.

8.13.06 EXEMPTIONS

- (1) Agricultural. Except to the extent required to implement Section 335.2, Code of Iowa, the Stormwater Management Plan requirement shall not apply to development that is primarily adapted, by reason of nature or area, for use for agricultural purposed, while so used.
- (2) County Engineer. The County Engineer shall not be required to submit a Stormwater Management Plan for the maintenance and/or construction of public roads and public road right-of-way.

- (3) Prior Development. The maintenance of development that has legally occurred prior to the adoption of this Ordinance shall not be counted toward the threshold for submitting a Stormwater Management Plan of one -acre disturbed as part of a common development plan if the footprint of the maintenance work is the same area that was previously disturbed.
- (4) Feasibility. When infiltration is not feasible do to the natural or existing physical characteristics of a site the site shall be designed to provide water quality treatment for the runoff resulting from a rainfall depth of 1.25 inches and alternative practices such as a treatment train, constructed wetland forebays, retention ponds, filters grassed swales and channels, and vegetated filter strips shall be implement to the maximum extent practical with the goal of an 80% reduction in the annual average post-development total suspended solids load. The site limitations shall be identified in the Stormwater Management Plan.

8.13.07 EROSION AND SEDIMENT CONTROL

1. Erosion and sediment control BMP's shall be installed following the Iowa Statewide Urban Design and Specifications (SUDAS) Design Manual or other professionally accepted design criteria. All temporary erosion control barriers will be removed after a cover has been established.
2. An inspection for compliance with submitted erosion and sediment control plans and requirements of this Chapter will be conducted by Planning and Zoning Staff.
3. Final review and approval for Stormwater Plans shall be completed by the County Engineer.