Article VI: Performance Standards, Section B: Runoff Control

6. Post Construction Best Management Practices (PCBMP)
In addition to other applicable Runoff Control Performance Standards, the following requirements apply to all regulated development, except regulated development authorized by a General Permit.

~~6. Runoff Volume Reduction Hierarchy~~

~~In addition to other applicable Runoff Control Performance Standards, the following requirements apply to Major Development, Public Road Development and Mining Development disturbing 1 acre or more.~~

a. PCBMPs are required to treat the stormwater runoff for pollutants of concern and reduce runoff volume for all regulated development. Regulated development with site limitations such as roadway development, shall provide PCBMPs to the maximum extent possible. The applicant shall provide the following information for the development site:
   (1) A narrative description of the proposed use and activities of the development site and adjacent areas. Potential activities of concern include, but are not limited to, the following:
      i. Vehicle traffic areas for commercial or industrial sites;
      ii. Outdoor storage of items including, but not limited to, landscaping materials, fuel, dump sites, and salt storage;
      iii. Agricultural uses and practices. If the agricultural use or practice maintains agricultural best management practices in accordance with the USDA or other Federal, State or local guidelines and standards, the Enforcement Officer shall exempt the agricultural use or practice from needing a PCBMP;
      iv. Maintenance facilities;
      v. Gas or fueling tank stations.
   (2) A narrative description identifying potential pollutants of concern that may be generated by the proposed development. Potential pollutants of concern include, but are not limited to the following:
      i. Total suspended solids (TSS);
      ii. Metals and Oils;
      iii. Nutrients consisting of nitrogen and phosphorous.
   (3) Identification of PCBMPs for the treatment of the identified pollutants with supporting data and calculations used to size, locate, design, and maintain the PCBMPs. The supporting data and calculations shall meet the requirements under item c below. Table 3 can be used as a general guide to help identify potential pollutants according to the potential sources and choose an appropriate PCBMP. The potential pollutant sources and PCBMP treatment options are not limited to those shown in Table 3;
   (4) Published studies may be submitted to the Enforcement Officer for review and acceptance for a proposed PCBMP that demonstrates reduction efficacy for the identified pollutants;
   (5) For Major Developments, the PCBMP shall include infiltration of the first 1-inch of runoff where the soils and site features are feasible for this practice as determined by Article

VI.B.5.d.(5) of the SMO and in accordance with the Crystal Lake Watershed Stormwater Management Design Manual;

(6) A recorded maintenance plan for any proposed PCBMPs with signature from the Enforcement Officer;

(7) If the applicant can demonstrate that the proposed development would not generate any deleterious loading, or the development contains an existing PCBMP that can provide treatment for the potential pollutant of concern, the Enforcement Officer may waive the PCBMP requirement.

Table 3

Potential Sources	Pollutant	PCBMP Treatment Option
• Parking lots and roadway/driveways with vehicle traffic exceeding 10 vehicles per day or greater than 25 parking stalls • Exposed soils (streambanks or cleared vegetation) • Animal waste • Material storage (salt, gravel, soil, mulch, etc.)	Total Suspended Solids	• Detention basin • Wet bottom basin • Vegetated swale • Vegetated strip • Porous/permeable pavement • Rain garden
• Parking lots and roadway/driveways with vehicle traffic exceeding 10 vehicles per day or greater than 25 parking stalls • Storage of materials (paints, pesticides, etc.)	Metals	• Detention basin • Wet bottom basin • Vegetated swale • Vegetated strip • Bioretention • Rain garden • Porous/permeable pavement
• Parking lots and roadway/driveways with vehicle traffic exceeding 10 vehicles per day or greater than 25 parking stalls • Gas stations • Service areas • Industrial processes	Oils	• Detention basin • Wet bottom basin • Vegetated swale • Vegetated strip • Rain garden
• Storage of fertilizers or other nutrient enriching products • Yard waste disposal	Nutrients	• Wet bottom basin • Bioretention

• Exposed soil (cleared vegetation) • Animal waste		

~~a.~~b. For Major Development, Public Road Development, and Mining Development disturbing 1 acre or more, ~~T~~the applicant shall choose one or more strategy from the following hierarchy to minimize the increase in runoff volume from the development site:

(1) Preservation of natural features of the development site (e.g. natural storage and infiltration characteristics, floodplains, wetlands, prairies and woodlands);
(2) Preservation of the existing natural streams, channels and drainageways;
(3) Minimization of impervious surfaces created at the development site (e.g. narrowing road width, minimizing driveway length and width, clustering homes and shared driveways);
(4) Conveyance of stormwater in open vegetated channels;
(5) Natural landscaping as an alternative to turf grass;
(6) Structural measures that provide water quality and quantity control;
(7) Structural measures that provide only quantity control.

c. PCBMP Design Requirements

(1) All PCBMP design and calculations shall meet the minimum requirements of the Illinois Urban Manual and/or the Crystal Lake Watershed Stormwater Management Design Manual;
(2) The PCBMP specific requirements under Table 4, shown below, shall be incorporated into the design:
   i. Infiltration designs shall utilize a sediment forebay or similar BMP to remove sediment and other fine particles;
   ii. Dry bottom detention basins shall maximize inlet to outlet travel distance to the extent possible and have a minimum slope of 1.5% across the bottom.

~~(7)~~

~~7. Water Quality Protection~~

~~In addition to other applicable Runoff Control Performance Standards, the following requirements apply to all regulated development, except regulated development authorized by a General Permit.~~

~~d. Water quality treatment shall be provided for stormwater runoff from increased impervious areas.~~

~~(1) All sites shall provide water quality treatment using existing or proposed best management practices or green infrastructure methods specifically designed for water quality treatment.~~
~~(2) On highly impervious development sites, such as multi-family residential and non-residential developments, water quality treatment devices shall be designed to remove both floatable and settleable pollutants from as much of the stormwater runoff from increased impervious areas as possible. This requirement may be met by directing as much stormwater runoff from increased impervious areas as possible through a hydrodynamic separator, or into a catch basin fitted with a hooded outlet cover.~~

~~Alternate treatment methods providing a similar or higher level of water quality treatment may be approved by the Enforcement Officer.~~

~~(3)~~d. In Public Road Developments, the stormwater management system shall be designed to direct as much stormwater runoff from existing and increased impervious areas as possible through a vegetated swale, across a vegetated filter strip, or into a catch basin before being discharged from the development site. Alternate treatment methods providing a similar or higher level of water quality treatment may be approved by the Enforcement Officer.

e. Appropriate pre-treatment shall be provided for stormwater runoff directed to new or existing Class V injection wells.

f. Appropriate pre-treatment shall be provided for stormwater runoff directed to infiltration based practices in areas designated as High or Moderately High Potential for Aquifer Recharge/Contamination on the McHenry County Sensitive Aquifer Recharge Areas Map.