FWR 2.13

Applicant Check-off
for
The Submittal of Stormwater Management Plans

I. Site Characteristic Information to be included in the Stormwater Management Plan (SMP).

A. Pre-development conditions:

[ ] 1. the existing watersheds on the property, as well as upgradient areas contributing runoff to the property;

[ ] 2. location of all surface waters and wetlands on or adjacent to the site;

[ ] 3. the delineation of the 100 year flood elevation as indicated on the Federal Emergency Management Act (FEMA) maps. If FEMA maps do not exist or if the waterbody or watercourse 100-year flood elevation is not indicated on the map, the elevation shall be calculated utilizing an appropriate methodologies such as NRCS TR-55 or TR-20 or HEC2. **Note: The floodplain location determined by the FEMA maps are approximate. When a specific elevation is given, the location of the floodplain shall correspond to that elevation.**

[ ] 4. the principal vegetation types sufficient to determine an appropriate curve number;

[ ] 5. a. the topography described at 1 foot intervals;

[ ] b. with areas of steep slopes over 15% highlighted;

[ ] 6. the soil types on the site and the hydrological soil groups based the most current Natural Resource Conservation Service soils map of the site (available at the NRCS office in Barnstable);

[ ] 7. the location of any public or private water supplies within 100 feet of the property, Zone II of public water Supplies or Interim Zone IIs as well as on the property;

[ ] 8. soil logs for each proposed BMPs control system site (documentation should be for a minimum of 4 feet below the bottom of the BMP and be submitted for both flood control BMPs and pollution reduction BMPs) and

[ ] 9. maximum groundwater levels at the proposed BMPs locations.

[ ] 10. the flow path(s);

[ ] 11. design points for each watershed; and

[ ] 12. areas of ponding or swamping.

B. Post development conditions:

[ ] 1. changes in topography at 1 foot intervals;

[ ] 2. areas where vegetation will be cleared or otherwise altered;

[ ] 3. the proposed watersheds on the property, as well as upgradient areas contributing runoff to the property;

4. the proposed development layout including:

[ ] a. locations of roadways, common parking areas, and undisturbed lands;

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[ ] b. locations of drainage systems and stormwater treatment facilities;

5. areas to be utilized in overland flow, i.e. grass swales and filter strips, showing:

[ ] a. proposed vegetation; and

[ ] b. the soil susceptibility to erosion (using the NRCS classification).

[ ] 6. the flow path(s) for the 2-, 10-, 25-, and
[ ] 100-year 24 hour storm event

[ ] 7. design points for each watershed;

II. Water Quantity/Duration/Quality Information to be submitted in the SMP.

A. Pre-development conditions in narrative form or calculations:

[ ] 1. peak discharge rate, based on the 2-,
[ ] 10-,
[ ] 25-, and
[ ] 100-year 24 hour storm event using NRCS TR-55 or TR-20; and

[ ] 2. volume of the surface runoff for 10-year 24 hour storm event using NRCS TR-55 or TR-20;

[ ] 3. existing state surface water quality classifications found in 314 CMR 4.04.

B. Post development conditions:

[ ] 1. peak discharge rate, based on the 2-,
[ ] 10-,
[ ] 25-, and
[ ] 100-year 24 hour storm event using NRCS TR-55 or TR-20; and

[ ] 2. volume of the surface runoff for the 10-year 24 hour storm event using NRCS TR-55 or TR-20;

[ ] 3. design point(s) for each watershed.

[ ] 4. detention/retention time, discharge rate, and approximate time of concentration through the BMP for the water quality storm;

[ ] 5. a description of and calculations for the proposed outlet structure(s); both the principle outlet and emergency spillway; and

[ ] 6. a discussion regarding whether the proposed BMPs meet or exceed the performance standards identified in FWR 1.16(3), as well as an evaluation of the pollutant removal efficiency of each proposed treatment facility or group of facilities;