MODEL STORMWATER MANAGEMENT IN CONSTRUCTION ACTIVITIES ORDINANCE LANGUAGE

This ordinance covers all aspects of pre and post construction projects that relate to stormwater runoff and pollution. Stormwater Management in Construction Activities ordinances are found mostly in Zoning and Subdivision Rules and Regulations bylaws. The purpose of the ordinance is to minimize stormwater runoff and nonpoint source pollution, as well as minimize the total annual volume of surface water runoff. Management guidelines are outlined to secure the maintenance and enforcement of the regulations. This model serves as just one example of stormwater management in construction activities ordinance language. Individual bylaw language may vary town to town.

1. Permit Requirements

Any land owner or operator desiring a permit for a land disturbance activity shall submit to the jurisdictional stormwater authority a permit application on a form provided by that authority for that purpose. A permit application must be accompanied by a stormwater management concept plan, a maintenance agreement, and a non-refundable permit review fee.

2. Exemption Requirements

Minimum requirements for stormwater management may be waived in whole or in part upon written request of the applicant, provided that one of the following applies: it can be demonstrated that the proposed development is not likely to impair attainment of the objectives of the ordinance; provisions are made to manage stormwater by an off-site facility, the stormwater authority finds that meeting the minimum on-site management requirements is not feasible due to the natural physical characteristics of the site; non-structural practices are provided that reduce the generation of stormwater from the site; the size and cost of stormwater storage and provide partial removal of many pollutants are to be used at the site.

3. Performance Criteria Equal or Exceeding State guidelines

Impervious Areas

- Utilize Existing Impervious Areas as much as possible.

Prohibit Untreated Discharge to Waterbodies

- All stormwater runoff generated from new development shall not discharge untreated stormwater directly into a jurisdictional wetland or local water body without adequate treatment.

Maintain Recharge from Predevelopment Conditions

- Annual groundwater recharge rates shall be maintained, by promoting infiltration through the use of structural and non-structural methods. At a minimum, annual recharge from the post development site shall mimic the annual recharge from pre-development site conditions

Water Quality Treatment Criteria

- For new development structural STPs shall be designed to remove % of the average annual post development total suspended solids loads (TSS). It is presumed that a STP complies with this performance standard if it is: sized to capture the prescribed water quality volume; designed according to the specific performance criteria outlined in the local stormwater design manual; constructed properly; and maintained regularly

Additional Performance Criteria for Sensitive Resources

- Channel protection criteria – best protection provided by 12 to 24 hour extended detention of the one-year 24-hour storm event, applying only to sites greater than ten acres in size

Additional Performance Criteria for High Risk Land Uses (hot spots)

4. Stormwater Management Design Requirements

Minimum Control Requirement

- All stormwater management practices will be designed so that the specific storm frequency storage volumes (e.g., recharge, water quality, channel protection, 10 year, 100 year) as identified in the current stormwater design manual are met.

Site Design Considerations

- Stormwater management practices for a site shall be chosen based on the physical conditions of the site. Among the factors that should be considered: topography, maximum drainage area, depth to water table, soils, slopes, terrain, head, location in relation to environmentally sensitive features or ultra-urban areas.

Structural Practices

- Specific criteria that is expected from certain BMPs regarding % of contaminants captured.

Conveyance Issues

- All stormwater management practices shall be designed to convey stormwater to allow for the maximum removal of pollutants and reduction in flow velocities. This shall include, but is not limited to: maximizing of flowpaths from inflow points to outflow points, protection of inlet and outfall structures, elimination of erosive flow velocities, providing of underdrain systems.

Pretreatment Requirements

- Every stormwater treatment practice shall have an acceptable form of water quality pretreatment, in accordance with the pretreatment requirements found in the current stormwater design manual. Certain stormwater treatment practices are prohibited even with pretreatment: stormwater from hot spots, stormwater carried in a conveyance system that all carries contaminated, non-stormwater discharges, stormwater being managed in a designated groundwater recharge area, certain geologic conditions exist that prohibit the proper pretreatment of stormwater.

Landscaping Requirements

- All stormwater management practices must have a landscaping plan detailing both the vegetation to be in the practice and how and who will manage and maintain this vegetation. This plan must be prepared by a registered landscape architect or soil conservation district.

Maintenance Agreements

- All stormwater treatment practices shall have an enforceable operation and maintenance agreement to ensure the system function as designed. This agreement will include any and all maintenance easements required to access and inspect the stormwater treatment practices, and to perform routine maintenance as necessary to ensure proper functioning of the stormwater treatment practice. In addition, a legally binding covenant specifying the parties responsible for the proper maintenance of all stormwater treatment practices shall be secured prior to issuance of any permits for land disturbance activities.

Nonstructural Practices

- The use of non-structural stormwater treatment practices is encouraged in order to minimize the reliance on structural practices. Credit in the form of reductions in the amount of stormwater that must be managed can be earned through the use of non-structural practices that reduce the generation of stormwater from the site. These non-structural practices are explained in detail in the current design manual and applicants wishing to obtain credit for use of non-structural practices must ensure that these practices are documented and remain unaltered by subsequent property owners.

5. Stormwater Management Plan

Map

- A map indicating the location of existing and proposed buildings, roads, parking areas, utilities, structural stormwater management and sediment control facilities. The maps will also clearly show proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; the limits of clearing and grading; A written description of the site plan and justification of proposed changes in natural conditions may also be required.

Proposed Management Measures

- Sufficient engineering analysis to show that the proposed stormwater management measures are capable of controlling runoff from the site in compliance with this ordinance and the specifications of the Stormwater Design Manual.

Calculations and natural resource information

- A written or graphic inventory of the natural resources at the site and surrounding area as it exists prior to the commencement of the project and a description of the watershed and its relation to the project site. This description should include a discussion of soil conditions, forest cover, topography, wetlands, and other native vegetative areas on the site.

Landscaping Plan

- The applicant must present a detailed plan for management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. This plan must be prepared by a registered landscape architect or by the soil conservation district.

Erosion and Sediment Control Plans

- Applicant must prepare an erosion and sediment control plan for all construction activities related to implementing any on-site stormwater management practices. Includes map, sequence of construction and control measures.

6. Construction Inspection

Notice of Construction Commencement

- Applicant must notify the jurisdictional stormwater authority in advance before the commencement of construction. Regular inspections of the stormwater management system shall be conducted by the staff of the said authority or certified by a professional engineer or their designee who has been approved by the jurisdictional stormwater authority. Must provide: date and location of the inspection; whether construction is in compliance with the approved construction specifications; and any violations that exist.

Landscaping and Stabilization

- Any area of land from which the natural vegetative cover has been either partially or wholly cleared or removed by development activities shall be revegetated within 10 days from the substantial completion of such clearing and construction. A landscaping plan must be submitted with the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed.

As Built Plans

- All applicants are required to submit actual “as built” plans for any stormwater management practices located on-site after final construction is completed. Must show final design specifications for all stormwater management facilities and must be certified by a professional engineer.

7. Maintenance and Repair

Maintenance Easement

- Provide access to facility at times for periodic inspection and for regular or special assessments of property owners to ensure facility is maintained in proper working condition.

Maintenance Contract

- Maintenance of facilities should be ensured through creation of a formal maintenance covenant. As part of the covenant, a schedule shall be developed for when and how often maintenance will occur to ensure proper function of stormwater management facility.

Stormwater Facilities Inspection

- Inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants.

8. Enforcement and Penalties

Violations

- Violators may be restrained by injunction or otherwise abated in a manner provided by law.

Civil and Criminal Penalties

- Violators pay fine and/or imprisonment. Such person shall be guilty of a separate offense for each day during which the violation occurs or continues.

Restoration of Lands

- The violator must restore land to undisturbed condition. If restoration is not undertaken within a reasonable time after notice, the jurisdictional stormwater authority may take necessary corrective action, the cost of which shall become a lien upon the property until paid.

Holds on Occupation Permits

- Permits not granted until corrections are made.