Public Comment
Draft Construction Permit
Deadline: 6/11/08 by 12 p.m.

CITY OF ORANGE

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Ms. Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street 24th Floor
Sacramento, CA 95814

Subject: Draft General Construction Storm Water Permit

Dear Ms. Townsend:

The City of Orange appreciates the opportunity to comment on the revised Draft General Permit for Storm Water Discharges Associated with Construction Activity (General Permit). The City supports the draft permit's goal of minimizing sediment laden and contaminated discharges from construction sites. Because the proposed General Permit regulates large municipal projects, its comments are focused on those elements it believes do not achieve the goal of water quality improvement while imposing significant compliance costs. The City also supports by reference the broader comments submitted by the California Stormwater Quality Association (CASQA).

Of particular concern to the City are the regulation of small capital projects less than an acre under the General Permit simply because they are part of the Capital Improvement Program; receiving water monitoring requirements; the proposed Risk levels and other permit requirements. These issues and concerns are fully discussed in the attachment to this letter.

We hope these comments and concerns are considered by the state before formally adopting the General Permit.

Sincerely,

John W. Sibley
City manager

cc: Gail Farber, Public Works Director
Joe DeFrancesco, Deputy Public Works Director
Frank Sun, City Engineer

Attachment: Comments on General Construction Permit

Attachment

Comments on General Construction Permit

Capital Projects

Page 21 of the Fact Sheet states that projects part of an agency's larger Capital Improvement Project Plan are subject to the requirements of the General Permit.

The logic to require projects less than one acre to comply with the General Permit simply because they are in an agency's Capital Improvement Program (CIP) is unclear. There are many reasons to include small projects within a city's CIP program. It may be that the projects to be undertaken vary from the routine program and require special funding or it may be because the costs of the project exceed a specified amount that requires special approval. Regardless of the reason, projects that are not contiguously tied to other projects and do not exceed the one-acre threshold should not be required to comply with the General Permit. This has been the practice in previous years and one that the City supports.

Within its CIP program, the City annually includes street overlay projects that do not expose underlying soil. These are considered maintenance activities specifically exempted by the General Permit but because they are also in the CIP, they could potentially be required to develop Storm Water Pollution Prevention Plans (SWPPPs) and meet the other requirements of the General Permit. The two separate statements in the General Permit are also in conflict with each other and should be clarified.

In another example: the City's CIP program also includes a street tree replacement program and purchasing of equipment or improvements to City buildings. The tree replacement program results in very little soil disturbance usually in an area 4 feet x 4 feet and each tree replacement is completed within a matter of hours. Improvements to buildings may not result in any soil disturbance at all but under the proposed General Permit, a SWPPP would be required for these activities. We do not believe this should be the intent of the construction program.

Recommendation: It is recommended that only projects that result in the disturbance of soil equal to or greater than one acre be subject to the requirements of the General Permit as stated in the beginning of the Fact Sheet. The requirement that any project, regardless of size, that is part of an agency's Capital Improvement Project Plan is subject to the General Permit should be deleted.

Electronic Permit Application Submittal

We appreciate the clarification provided at the Los Angeles workshop on May 7, 2008 regarding the time frame for project commencement is greatly appreciated.

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In that workshop it was noted that acceptance of project documents is based solely on the completeness of the information provided and feedback from the CIWQS system, which is immediate. This should allow agencies the opportunity to schedule appropriate project commencement dates.

Many of the documents required to be submitted as part of a project's permit registration documents (PRDs) are spread throughout the General Permit. By not placing all of the required PRDs in one place the chances of having a permit application denied are increased. The General Permit should identify all of the required PRDs in Section I or VI to assure easy compliance.

One important item that is not addressed in the filing of the electronic PRDs concerns the construction coverage currently provided to the City and other Orange County cities through its MS4 permit. In its MS4 permit, the City is required to comply with the General Permit but is not required to submit separate fees for project coverage.

Under the proposed electronic submittal, project coverage would not commence until all fees are paid. This will result in delays of City project's that are not required to pay General Permit fees and would be inconsistent with its MS4 permit. The CIWQS system needs to be modified to allow those cities with MS4 construction project coverage to have the permit fee requirement waived.

In addition, consideration should be given to setting up a single account for cities or agencies that are likely to have multiple projects at various times. This type of system has already been set up as part of state WDR for agencies with sewer collection systems. To require a new account for every new project would be inefficient and an unnecessary waste of City and state resources.

Recommendations: a) Revise the General Permit to identify all PRDs in Section I or VI.

b) The electronic submittal system should be set up to allow fee waivers for cities with MS4 construction project coverage.

c) The electronic submittal system should allow for a single account for agencies or cities that may have more than one project.

Risk factors

As indicated in its previous comments, the City supports a risk based system that makes sense. One that includes implementation measures commensurate with the risk level. We believe the previous version of the General Permit did not provide measurable risk differentiation between projects and that most projects would end up being categorized as Medium and High (Level 2 or 3 in the

proposed General Permit). It was suggested that additional parameters be included in the revised General Permit to add meaningful differentiation between the various risk levels.

From comments and discussion at the Los Angeles May workshop state board staff indicated that there had been an attempt to do exactly that. Unfortunately, we do not believe that to be the case. The revised General Permit is now overly complex and it appears that most projects will be categorized as Level 2 or 3 while eliminating some projects from General Permit coverage altogether.

The new risk levels are based on a combined score of sediment discharges from the site and an evaluation of the receiving waters. Project sediment risk levels are ranked Low, Medium or High based projected annual sediment discharges using the Revised Universal Soil Loss Equation (RUSLE). Receiving water risk scores are based on watershed and site characteristics.

From the examples provided in Attachment A, it is not clear if a project can ever be designated a Level 1 (the lowest category with least monitoring requirements). Using RUSLE to determine sediment impacts will result in very few projects achieving a Low designation. This designation can only be achieved if grading does not occur during the rainy season or if the project is fairly flat (1%) and the pad slope length does not exceed 100 feet and has a soil Erosivity Index less than 40. These restrictions will allow very few projects, if any, to achieve a Low designation since most projects will grade during the rainy season and exceed a 1% pad slope since pad grading is required to be a minimum of 2%.

The minimum score a project can achieve under the receiving water category is a Medium designation based on an assigned base score of 10 provided in the spreadsheet example in Attachment A. This means that even a project that achieves a Low designation under the sediment risk analysis (very few to begin with) will still be designated a Level 2 (Combined Risk Level Matrix Attachment A) when combined with the receiving water analysis.

Omitting the base score provided in the Attachment A spreadsheet will improve the chances of achieving a Low designation in the receiving water analysis but only if the project does not discharge into a sediment impaired water body or one that is designated COLD or SPAWN regardless of project size.

We also believe the channel stability assessment (Question B.2 in Attachment A) is particularly complex and difficult to answer. The question requires an analysis of channel geomorphology and the flood plain. Answering these questions will be difficult for most engineers and individuals working on construction projects and will require specially trained individuals specializing in this type of analysis. This will add costs and time delays to conduct the required research.

These costs and delays are of particular concern because the channel stability analysis does not seem to make much difference in the receiving water assessment. Points assigned to other factors such as discharging to an impaired water body or to a water body designated COLD or SPAWN have a disproportionate value that outweighs the entire channel analysis and are assessments that can be made without additional costs.

Recommendations: a) Consideration should be given to increasing the sediment allowed under the Low category to something greater than one ton such as 10 tons or one that will include a greater number of projects. As noted above, achieving less than one ton of sediment discharge under the RUSLE equation will be almost impossible to achieve for most projects.

b) The base score in the receiving water analysis should be deleted. Using a base score of 10 means the minimum designation a project can achieve is Medium and this combined with a Low designation in the sediment risk analysis means the project is automatically a Level 2 project potentially subject to receiving water monitoring.

c) The risk analysis should consider project size in the receiving water analysis. Small or infill projects that have been previously graded are not sources of significant soil discharges and should be given special consideration.

d) Reconsider the use of the channel stability analysis. Even with state training, this is not an analysis that can be performed by most individuals. Assessing the stage of a channel and whether it is degrading or aggrading is extremely difficult and can be performed only if there is a significant historical record of the channel that include cross- sections and characteristics over time. This is a very costly effort to undertake.

e) The "receiving waters" referenced in the attachments should be clarified. A project that discharges to a tributary that then discharges to an impaired or COLD or SPAWN water body should not be categorized as discharging directly or indirectly to these water bodies. A definition of "directly and indirectly discharges" is provided later in these comments.

f) Clarification should also be provided in the General Permit that considers the effect of erosion control measures. The sediment risk analysis assumes that the entire site is disturbed and this may not be the case over time. How the permit may alter its risk category should be provided in the General Permit.

Monitoring

Most City projects are located within urban areas where construction site discharges first enter the storm drain system before they discharge into nearby

creeks and flood control channels. In some instances the storm drain system carries the runoff several miles before entering the flood control conveyance facilities.

The Permit requires receiving waters monitoring for pH and turbidity for projects designated a Risk Level 3 and for project designated Risk levels 2 when the Numeric Effluent Limitation (NEL) for turbidity has been exceeded. We believe this sampling is not likely to provide any useful information since discharges from the construction site will comingle with other urban runoff in the storm drain system. Assessing compliance of the construction site with the General Permit will be almost impossible and this General Permit requirement will simply result in unnecessary costs and additional monitoring resources.

Monitoring of receiving waters in the City will also be difficult because most are flood control conveyance facilities owned by the Orange County Flood Control District. These facilities are locked for safety and not easily accessible. Monitoring will require obtaining a permit for the right to enter the facility, which will add costs and delays to the project. Safety is also a major concern because water levels in the channels are unpredictable and could easily overtop their banks. It will also be difficult to take samples because many facilities are rectangular concrete channels that limit the location of where samples can be taken. The general practice is to discourage people from entering these facilities during storm events and the General Permit is requiring exactly the opposite.

Also, Table 3 and Section E of the Monitoring Program require sampling of turbidity and pH beginning the first hour of any new discharge of a storm event. This is problematic when the discharge occurs during nighttime and on weekends when no one is on site. Monitoring during the night is unsafe and inconsistent with other parts of the General Permit that require sampling during normal working hours and when it is safe to do (Section D Monitoring Program).

Recommendation: a) Revise the General Permit to require sampling only on those projects that discharge directly to receiving waters. That is, the site is next to the receiving water where the discharge can accurately be traced to the discharge point and monitoring can be done safely.

b) Revise the General Permit to require sampling only during daylight hours when it is safe to do on normal working days. Sampling during the first hour of a storm event may not be practical.

Active Treatment Systems (ATS)

The use of active treatment systems (ATS) is new to California and trying to implement a new technology with which there is little experience could lead to unintended consequences. Specifically, there could be a loss of sediment to

downstream natural water bodies and beaches that depend on this sediment to replenish it losses.

Requiring a site that utilizes an ATS to meet the 10 NTU requirement by capturing the large soil particles and particles 20ug and smaller may not be wise. Meeting the 10 NTU requirement means the discharged water is practically devoid of sediment. While this is good for recreation, it could potentially deprive downstream natural streams and beaches of their sediment source. The previous General Permit only required that sites not exceed the pre-existing sediment discharge levels.

Natural water bodies depend on upstream sources to replenish their sediment supply. When these downstream water bodies lose their upstream sediment sources their equilibrium is changed and the loss of the sediment source must be acquired from a different source, usually stream banks. This is likely to result in increased stream erosion, the very thing the General Permit is attempting to avoid through the hydromodification requirements.

It also highly unlikely that discharges will be able to account for the loss of downstream sediment by discharging other sediment downstream to balance the lost sediment. This will put dischargers in violation of the General Permit.

Recommendation: ATS systems should be used with caution and the permit should consider the downstream consequences of using these systems.

Runon and Runoff Controls

Two sentences in Section VIII paragraph C appear to conflict with each other. The second sentence requires that all runon be managed effectively. The last sentence of the paragraph requires that runon onto the construction site be directed away from disturbed areas

Managing runon should be left to the discharger. As long as appropriate measures have been implemented to deal with the runon, directing runon from disturbed areas should not be a permit requirement since it is not always possible. It may be easier and more cost effective to allow runon through the project as opposed to diverting it around the project.

Recommendation: Allow runon onto the construction site as long as measures are implemented to effectively deal with the runon on to the site.

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Sediment Controls

Paragraph VIII.D.3 requires erosion and sediment controls on active areas of the construction site.

The paragraph as written may be misinterpreted since it implies that erosion controls must be applied to areas undergoing soil disturbance. This paragraph is in conflict with paragraph VIII.B.2, which only requires erosion control measures on inactive areas as defined in the footnotes.

Paragraph VIII.B.2 appears to be the correct approach. It does not make sense to apply erosion controls such as mats or soil binders on areas that will be disturbed in less than 14 days.

In addition, Table 2 regarding the use of slope lengths includes slope designations of 0-25%. Generally, gradients less than 10% are not considered slopes. The City's grading manual requires slopes 5:1 (H:V) to be vegetated.

Recommendation: a) Revise paragraph VIII.D.3 to read that "an effective combination of erosion and sediment control practices shall be applied to the project site." This will maintain the same language that is in the current General Permit.

b) Revise the designation of a slope. 20% is suggested as the limit for the use of Table 2 and slope lengths.

Soil Particle Size Analysis

Paragraph VII.B.1 requires all dischargers to conduct a soil particle size analysis of the site to determine the percentage of soil particles less than 0.02 mm (20um). This requirement appears to be leftover from the previous draft of the General Permit where all sites containing medium sized silt particles of 20um or less and constituted at least 10% by weight of all site soils were required to employ an active treatment system (ATS). Since this previous requirement has been clarified, it appears that soil particle analysis is now only used to size sediment basins. Therefore, requiring a soil particle analysis for all sites is unnecessary.

Recommendation: Require soil particle analysis only on projects that use sediment basins.

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Clarification Items

Direct and Indirect Discharges

The definition of Direct should be consistent with the definition currently provided in the existing General Permit, which is defined as: "..discharges that directly enter a water body." "Discharges that flow through tributaries ...or that flow into the Municipal Separate Storm System (MS4) are not subject to these sampling and analysis requirements."

To paraphrase: a Direct discharge is a discharge that must directly enter a water body. It cannot enter the water body through a tributary or the MS4 storm drain system to be considered a Direct discharge.

An Indirect discharge should be defined as: A discharge that enters a water body directly through the MS4 system or other conveyance mechanism. A discharge which first outlets to a tributary that then confluences to another water body that discharges to a sediment impaired water body is not considered an indirect discharge.

Numeric Action Level and Numeric Effluent Limitations Reporting

Page 13 of the Fact Sheet states that the use of Numeric Action Levels are intended solely as a means to assist dischargers in assessing the performance of their erosion and sediment control measures. However, section M of the Monitoring Reporting requirements require dischargers to report exceedances of their NALs to the State Board.

If the intent of the NALs are to help assess BMP performance and the need for additional implementation measures, this should not be a reportable item. Similarly, will the discharger be subject to additional enforcement if NELs are exceeded and reported as required? These points need to be clarified.

Sensitive Receiving Waters

Sensitive receiving waters should be fined as Areas of Special Biological Significance (ASBS) or sediment impaired water bodies in keeping with the intent of the construction permit. Any definition should be consistent with the definition used within the local region.

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Air deposition

The intent of section VII F-6 regarding controls for dust deposition is not clear. What is meant by "implementing appropriate controls to control air position?"

Design Storm Event

The General Permit does not designate any particular storm event size and is requesting suggestions on this topic. EPA currently uses a 2 yr. 24 hr. storm to design sediment basins and we believe that is appropriate. For larger projects (25 acres or more) that may extend for several years, a 5 yr. design storm may be appropriate since the probability of larger storm events occurring are increased with longer project times.