

GOVERNMENT OF THE DISTRICT OF COLUMBIA
District Department of the Environment



Office of the Director

MEMORANDUM

TO: DDOE Staff

FROM: George S. Hawkins
Director *GR for GTH*

DATE: Friday, September 18, 2009

SUBJECT: Protection of the District's Groundwater and the EISF Review Process

1. Statement of Policy

This policy clarifies DDOE's approach to groundwater protection during the process of reviewing Environmental Impact Statement Forms (EISF). While we will evaluate and protect groundwater during the EISF process as well as under other regulatory regimes, we will not use the EISF process to gather groundwater characterization data except in unusual circumstances. Instead, we will focus on applying the groundwater criteria in 20 DCMR 7201.2 during the EISF process. These criteria require DDOE to evaluate, among other things, whether a project will ". . . significantly degrade groundwater resources." This strategy will result in a more focused approach for protecting the District's groundwater, and will more narrowly tailor the kinds of ground-water investigations done during the EISF process.

This policy comprises one component of the District's approach towards protecting groundwater in the District. In addition to this policy, DDOE's Water Quality Division is updating a comprehensive strategy for protecting the District's groundwater. The updated strategy will focus on the priority actions that this Department must take to identify the nature and extent of contaminants in the District's groundwater, potential sources of groundwater contamination, potential impacts of groundwater contamination on human health and the environment, and strategies for protecting and improving the quality of groundwater in the District.

In addition to updating the comprehensive groundwater strategy, DDOE intends to:

- a. promulgate standards pursuant to the District's voluntary cleanup laws, that will aid in expediting risk-based cleanups;
- b. promulgate a body of regulations with which to implement the District's site remediation law set forth at D.C. Official Code §§ 8-631.01, *et seq.* The District intends to increase

- the use of response authorities to bring to the table those persons whose activities may have caused ground-water contamination in the first instance;
- c. enforce financial assurance requirements; and
 - d. devise model settlement agreements to expedite cleanups by responsible parties.

2. The EISF Process

The District's regulations at 20 DCMR §§ 7201, *et seq.*, describe the District's program and procedures for evaluating the environmental impact of certain actions in the District. The Environmental Impact Statement Form (EISF) is the initial step in the process of evaluating the potential impact of a project. For any action that would cost more than \$1 million (in 1989 dollars), the developer must submit an EISF to the lead agency, and any other reports or information to support the EISF, such as a project description, environmental assessments and traffic analyses.

In most cases, several departments within the District review the EISF, and the lead agency is responsible for coordinating the review of the departments and determining whether a full "Environmental Impact Statement" (EIS) is required. If the lead agency determines that an EIS is required, then the departments of the District are prohibited from issuing any permits for the project until the developer completes the EIS.¹

The regulations exempt certain actions from the EISF process, such as actions within the "Central Employment Area," actions that cost less than \$1 million (unless the action imminently and substantially affects the public health, safety, or welfare), and actions for which an Environmental Impact Statement ("EIS") has been prepared under the National Environmental Policy Act of 1969.

When DDOE reviews a draft EISF, groundwater is one of several issues this Department examines, and the EISF regulations are specific about the criteria that DDOE must evaluate when reviewing the potential impact of the project on groundwater. As mentioned in Section 1 – Statement of Policy, the EISF regulations guide DDOE's review of an EISF. These regulations require DDOE to review the EISF to determine whether the proposed action:

- might significantly deplete . . . groundwater resources;
- might significantly . . . degrade groundwater resources;
- might significantly interfere with groundwater recharge; or
- might cause significant adverse change in existing surface water quality or quantity.²

3. The Challenges of the EISF Review Process

When a developer submits an EISF to the District for review, DDOE must evaluate the potential impact of the proposed project on groundwater resources using the criteria listed above in Section 2. However, the groundwater characterization data submitted during the EISF process

¹ 20 DCMR § 7203.6

² 20 DCMR § 7201.2

comes to this Department piecemeal, as a result of a random process that depends on the timing of applications for development permits. Thus, DDOE receives groundwater data from locations that are not necessarily related to DDOE's priorities for groundwater protection.

In addition, the EISF process often overlaps with the District's voluntary site remediation programs (the Voluntary Cleanup Program or "VCP" and the Voluntary Remedial Action Program or "VRAP"). The VCP and VRAP are designed to encourage cleanup of contaminated property, and to manage and oversee such cleanups. It would be clearer for all parties involved, including DDOE, other District departments, and the developers, if the Department addressed groundwater once during one process, but not both.

4. Groundwater and the EISF Process

Section 2 of this Directive describes the criteria that apply when the District reviews an EISF for potential impact on groundwater. Beginning on the date of this directive, DDOE will follow the approach described below using these criteria to evaluate the potential impact of an action on groundwater.

- "Might significantly deplete groundwater." Under this criterion, DDOE will evaluate whether a proposed action will remove a significant amount of groundwater without replenishing groundwater through re-injection or re-charge. If a proposed action will not involve any pumping or dewatering activity, or any other activity that removes groundwater, then the project will not significantly deplete groundwater, and the action is consistent with this criterion. If, however, a proposed action will use groundwater as a source of water, then DDOE will evaluate the volume of groundwater proposed to be used. Most buildings in the District rely on the public water supplied through the D.C. Water and Sewer Authority (WASA) - not on groundwater. Therefore, the District expects that it will be the rare project that proposes to use groundwater for any purpose, especially in volumes that would "significantly" deplete groundwater. For purposes of this policy, an action that "significantly deplete[s] groundwater" is one that may cause a significant change in the base flow of a surface water body or wetland.

When a developer excavates property during the construction phase of a project, it is common for the excavation to encounter groundwater. In this situation, the developer usually "de-waters" the site by pumping the groundwater from the excavation, and discharging the water off site. The de-watering process can continue after construction to keep basements and garages dry. Generally, DDOE believes that it is unlikely that the de-watering process will "significantly deplete" groundwater.

If the EISF applicant can show that groundwater is "perched" (meaning that the groundwater sits on an impervious or semi-pervious material such as clay), then DDOE will not apply this criterion ("significantly deplete groundwater") except in unusual situations.

- "Significantly degrade groundwater resources." To evaluate whether a proposed action will "significantly degrade groundwater resources," DDOE will examine descriptions in the EISF of the construction phase of the project as well as the

operations of the proposed action post-construction. DDOE expects that the proposed action could significantly degrade groundwater resources where:

- the construction activities themselves will add pollutants from the proposed project to the groundwater; (merely drawing contaminated groundwater from off-site through a dewatering process is not sufficient to “significantly degrade” groundwater); or
- the post-construction uses will add pollutants to the groundwater.

Under these criteria, DDOE will evaluate only the pollutants generated by the project and added to the groundwater. DDOE will not attribute pre-existing groundwater contamination to the proposed project described in the EISF. If the groundwater at a site that is the subject of an EISF is contaminated from previous activities, and the project will not add any new pollutants to the groundwater, then DDOE will presume that the project will not significantly degrade groundwater.

DDOE must examine, therefore, whether the proposed action, after completion of construction, will result in additional pollutants in the groundwater. This evaluation will focus on the nature of the operations proposed. For example, if the proposed action will involve the handling of hazardous substances or pollutants in a manner likely to result in spills, leaking, or any other discharge to groundwater, then DDOE will closely scrutinize the potential impact of the proposed action on groundwater. If, however, the proposed action described in the EISF will not add any pollutants to the groundwater, then DDOE will presume that the proposed action will not “significantly degrade groundwater resources.”

If the proposed action could have any of the above-described effects, or others that DDOE determines are endangering public health or the environment, then DDOE will need enough information to determine if the proposed project will in fact significantly degrade groundwater. For purposes of this interim policy, “significant degradation of groundwater resources” will not be triggered during the EISF review process solely by an exceedance of a water quality standard, except in those instances where the District determines that the proposed action may pose an imminent threat to public health (e.g., sensitive sub-populations) or the environment.

In cases where a property has pre-existing contamination, the contamination will usually be addressed under one of the District’s site remediation programs (such as the Voluntary Cleanup program, or the Underground Storage Tank program). These programs are designed to characterize the nature and extent of contamination and to implement remedial measures to address contamination on the property.

- “Significantly interfere with groundwater recharge.” This criterion requires DDOE to evaluate the potential impact of the proposed action on the property’s ability to recharge groundwater. Thus, DDOE will examine whether the proposed action will result in a net increase in impervious surfaces. If, for example, the proposed action is located on property that is currently covered by impervious surfaces, then any development will not interfere with groundwater recharge because the property is not

currently contributing to groundwater recharge. Under these circumstances, DDOE will presume that the proposed project is consistent with this criterion.

If, however, the proposed action will result in an increase in impervious surface, then the proposed action might reduce groundwater recharge, and DDOE would evaluate the significance of the potential interference with groundwater recharge. Note also that the development project may be subject to the District's stormwater regulations at 21 DCMR §§ 526 – 535.

- “Might cause significant adverse change in existing surface water quality or quantity.” DDOE will examine several factors under this criterion. First, DDOE will evaluate a proposed action to determine if the proposed action will increase the pollutant loadings in nearby surface waters. If the proposed action will increase pollutant loadings, then DDOE must examine the amount of each pollutant to determine whether the increase will be significant. If the amounts of additional pollutant loadings individually or together are significant, then the proposed action might cause a significant adverse change to surface waters. Conversely, if the amount of pollutant loadings is small, then the proposed action is unlikely to cause significant adverse impacts on surface water quality or quantity. For purposes of this policy, unacceptable amounts of pollutant loadings are those that may cause exceedances of TMDLs, or water quality standards, or amounts that may pose harm to sensitive biota (such as those in the Anacostia River or wetlands).

If a proposed project involves de-watering activities that will be regulated by an NPDES permit prior to discharge into a sewer system or surface waters, then for the purposes of the EISF review, DDOE will presume that the project will not cause significant adverse changes to surface water quality. DDOE will also evaluate whether the proposed action will significantly increase or decrease the volume of water in nearby surface waters. As an example, like the criterion in section 2 of this policy, DDOE will determine whether the proposed project will result in a net increase or decrease in impervious surface. If the proposed action will significantly increase or decrease the volume in nearby surface waters, then DDOE must also examine whether this is a desirable or undesirable result. In most cases, given the District's efforts to minimize storm water runoff, if a proposed action significantly increases runoff into surface waters, then the proposed action will likely produce a “significant adverse change in surface water quantity.”

- In those situations where DDOE needs groundwater characterization data to evaluate a proposed action during the EISF process, DDOE will be guided by the following principles: the EIS process is designed to identify significant impacts on the environment, not to characterize the site in detail. Therefore, DDOE will seek only the minimum groundwater characterization data necessary to complete its review of the proposed action. DDOE will generally accept “direct push” technology for environmental assessments during the EIS process unless DDOE determines there is a clear need for permanent monitoring technology.

5. Discharges During and After Construction

Under the Clean Water Act, it is unlawful to discharge a pollutant from a point source into navigable waters without first obtaining an NPDES permit. Often, a developer must “dewater” a construction site, and the discharge of this water may require an NPDES permit or regulatory approvals for discharge to a sewer system or surface waters. In some cases, these permits will require a developer to treat groundwater before discharging into the MS4 system or surface waters. DDOE has developed guidance on the permitting required for discharging contaminated groundwater, which is undergoing final review. The guidance will be available in the near future.

6. Conclusion

This directive is intended to streamline the review of EISFs, and to ensure that a person whose activities did not result in the groundwater contamination in the first instance, do not worsen a groundwater problem by adding pollutants themselves, either as a result of their construction activities, or as a result of their constructing projects whose post-construction uses will result in the addition of pollutants to groundwater.³

³ This document is intended solely as guidance for employees of the District Department of the Environment. The policies and procedures in this guidance do not constitute a rulemaking by DDOE and may not be relied on to create a substantive or procedural right or benefit enforceable at law by any person. DDOE has the right to take action at variance with this guidance.