On December 27, the public comment period closed for the Environmental Protection Agency's (EPA) proposed guidance (88 FR 82891) on applying the U.S. Supreme Court's *County of Maui v. Hawaii Wildlife Fund* (140 S. Ct. 1462) decision. In *Maui,* the Supreme Court held that point source discharges into waters of the United States through groundwater require a National Pollutant Discharge Elimination System (NPDES) permit if the discharge is the "functional equivalent" of a direct discharge to the waters of the United States. EPA issued the draft guidance to describe the functional equivalent analysis and explain the types of information that should be used to determine which discharges through groundwater may require a NPDES permit. Western state agencies that submitted comments included the Alaska Department of Environmental Conservation (ADEC), the Kansas Department of Health and Environment (KDHE), the Oregon Department of Environmental Quality (ODEQ), the South Dakota Department of Agriculture and Natural Resources (SD DANR), and the Wyoming Department of Environmental Quality (WDEQ).

Burden on Facilities/Operators

The commenting states shared their concern over the expectation that potential permittees—rather than the permitting authority, usually state agencies with delegated Clean Water Act (CWA) authority—should be required to evaluate whether any discharge to groundwater reaches waters of the United States, or may meet the functional equivalent standard. ODEQ said: "The focus on operators greatly limits the utility of this guidance as a whole. In our current experience, it is not the operators who are identifying whether their discharge is a functional equivalent, but [ODEQ's] permitting staff. In these situations, the permittee already has a state issued Water Pollution Control Facility permit to protect groundwater resources, or even already has an NPDES permit for a different discharge than the one in question. It is uncommon for the state to receive a request to permit a functional equivalent discharge as part of a new application. The state is often identifying potential functional equivalent discharges as part of a permit renewal. As a result, our staff are often dealing with situations where we have relatively little data and a short time window in which the permit should be renewed."

KDHE agreed: "We do believe that the expectation of a permittee to self-declare they could be subject to *Maui* is illusionary. In Kansas, it will be more likely that KDHE staff will flag projects intended to be non-discharging as potential *Maui* candidates. Staff would require subsequent information from the project sponsor to address several of the factors identified by the Supreme Court in the consideration of identifying a functional equivalent of a direct discharge to the waters of the state."

SD DANR said: "This draft guidance would place an unprecedented burden on permittees to determine if they need to conduct costly, technically subjective evaluations to determine if they have a 'functional equivalent' discharge to Waters of the U.S."

ADEQ agreed, noting that the technical language appears to require an expert: "It 'recommend[s]' that potential permittees provide the permitting authority with information like 'site-specific hydraulic conductivity, hydraulic gradient, groundwater flow velocity, soil type, and effective porosity, considered along the trajectory of groundwater flow from the point source to the surface water body' and descriptions of 'in-situ processes such as sorption, biological uptake, or microbial transformation.'" ADEQ added that, similar to the concerns raised in *Sackett*, "When a person needs a scientific expert to determine whether an act applies, the due process flag is raised."

Discharge Presumptions

Several states emphasized that it is inappropriate to assume that all discharges touching groundwater—which falls under state jurisdiction and may already be subject to state groundwater protection programs—will require a functional equivalent evaluation. ADEC said that under this proposed guidance: "Regardless of the likelihood that a pollutant will reach WOTUS, a facility with a groundwater discharge is now expected to produce an evaluation of the likelihood or the lack thereof. In other words, functional equivalency appears to be the beginning premise." ADEC added that the guidance "should expressly state that a preliminary evaluation is not a necessary component of a permit application." They recommended that the guidance "explain that not all discharges are functionally equivalent to a direct discharge."

WDEQ does "not agree that all groundwater discharges need to be analyzed for communication with the waters of the United States. Only in cases where there is a reasonable potential for groundwater discharges to reach waters of the United States would [WDEQ] require an analysis for functional equivalency." They recommended using a distance qualifier, such as "operators of facilities with discharges to groundwater in close proximity to waters of the United States…." They noted that the "purpose of a functional equivalency test is to determine whether or not an NPDES permit is required for certain discharges to groundwater. Thus, an operator of a groundwater discharge facility should only submit an NPDES application if the functional equivalency test determines an NPDES permit is needed; an NPDES application should not be required if a discharge to the surface is only assumed or is only a potential." WDEQ recommended deleting section four entirely.

SD DANR said the guidance needed to "recognize that groundwater is not a point source under the Clean Water Act…." They also provided examples of wastewater lagoons, holding ponds, concentrated animal feeding operations, and green stormwater infrastructure where it would be inappropriate to require a costly technical evaluation without some existing evidence that seepage, leaks, or water moving through a soil nutrient profile are a functional equivalent of a direct discharge to waters of the U.S. "The draft guidance places an unnecessary burden on existing permitted entities and entities potentially needing permits. Prior to requiring substantial and potentially expensive study to determine if a groundwater conduit is a functional equivalent of a direct discharge, a tiered approach may be more pragmatic. This approach could be used to methodically expand the degree of burden of proof based on site specific conditions."

KDHE requested "clarity on EPA's perspective of situations where historically non-permitted pollutants may be discharged to surface water via groundwater." Examples included individual onsite septic systems, non-discharging lagoons that seep to a small degree, groundwater remediation projects that involve contamination plumes that intersect with surface waters, and wetlands that serve as the final stage of effluent treatment systems that may—under dry conditions—seep toward an adjoining surface water. Some of these situations KDHE would not want to permit, due to the (1) regulatory burden on individual homeowners, (2) the elongated time of travel and volume/mass attenuation before discharge, (3) the state's protective measures already in place, or (4) the uncertainty in how to monitor for permit compliance.

ODEQ said: "To prevent confusion, [ODEQ] recommends that EPA clarify that facilities with point source discharges to groundwater should be evaluated for the presence of a functional equivalent discharge. The current language gives the impression that any type of discharge or infiltration to groundwater could be considered for an NPDES permit if the discharge reaches a water of the United States. [ODEQ] also recommends that EPA clarify the definition of point source discharge, or to direct the reader to other previously established definition to make this determination. Based on the language in [section two] it is unclear whether [ODEQ] would have to evaluate every potential discharge to groundwater that is anywhere near a water of the United States."

Oregon noted that there are unintentional discharges that should not require an NPDES permit. "While intent is not a factor in determining whether a discharge is a functional equivalent, EPA should include guidance as to whether an NPDES permit is the only available mechanism to deal with a functional equivalent discharge. For example, if a facility had a state issued permit that contained a clause requiring proper operation and maintenance of the facility [ODEQ] does not think that an NPDES permit would be an appropriate solution if a burst pipe or failed lagoon liner caused a functional equivalent discharge. The facility likely did not intend for the pipe to burst or the liner to crack, but the current guidance implies that a viable option is to grant an NPDES permit. In this situation, an appropriate action would be to require the facility to fix the pipe or the lagoon liner in accordance with the clause of the state permit and cease the discharge, not apply for an NPDES permit. The state recommends that EPA acknowledge these types of scenarios in the guidance."

Role of States

Several states expressed consternation that the guidance didn't to more to acknowledge the role of states in protecting groundwater under their jurisdiction, the role of state agencies in issuing NPDES permits for surface water discharges, and the valuable role in assisting with determinations about whether a functional equivalent evaluation is needed.

SD DANR said: "South Dakota has a well-established regulatory framework to allocate groundwater rights. South Dakota's responsibility under state law for groundwater quality protection should be recognized by EPA."

ODEQ said that overall, it believes "this guidance fails to properly address the important role of state regulatory agencies. By focusing on the permittee/operator as the main audience, the guidance does not adequately acknowledge the state's role, nor does it address key topics that are essential to the work state permitting programs perform in order to apply the Maui decision." ODEQ recommended that "EPA make substantive revisions to add information supporting state regulatory authorities in their critical role carrying out these requirements."

ADEC expressed concerns that the guidance failed to adequately acknowledge the role of states as critical partners in evaluating discharges to groundwater, and the importance of state groundwater protection programs. "The guidance should include language that explains that states have traditional authority over groundwater and that engaging with state groundwater protection programs should be utilized early to improve information and support for any analysis. Similarly, engagement with state groundwater protection programs may inform applicants of applicable state requirements regardless of if a federal permit is issued or not. A discharge which crosses multiple jurisdictions should encourage engagement of all jurisdictions." Alaska said the guidance also diminishes state programs. "Section 5b informs permittees that the existence or lack of existence of state groundwater protection programs are not relevant to analysis of a discharge. [The guidance] spends several paragraphs explaining how these programs do not obviate the need for a NPDES permit but spends no time advising permittees that these programs may be an excellent source of local information to assist permittees in conducting the analysis This final section of the guidance drives the point home that when evaluating a potential impact resulting from discharge to groundwater (which is uncontested State jurisdiction), the State has no role and

is irrelevant." ADEC said the EPA guidance "should instruct facilities to engage with states to consider whether a preliminary evaluation is prudent," and should "identify states as potentially critical partners in making these evaluations."

Kansas and Oregon expressed the concern that EPA allow states with delegated authority to make the final determinations regarding whether a permit is needed. KDHE said: "Our chief concern regarding the guidance will be the amount of discretion EPA will allow state agencies…in discerning *Maui* situations while issuing state and NPDES permits. We would hope that relative professional judgment can be exercised to not issue NPDES permits on the premise that few molecules of wastewater might reach surface water. We intend to utilize *Maui* factors to protect state ground and surface water from impacting pollutants, not unduly expand the universe of NPDES permitted facilities…. While the text supports a robust evaluation undertaken by the state agency and the permittee, we hope that EPA staff will grant the primacy agency adequate discretion to mitigate significant pollutant impacts while not absolutely requiring no discharge of pollutants into waters of the state to avoid issuing NPDES permit. Some allowance for a situation of *de minimus* discharge needs to be retained by the state agency charged with administering the Clean Water Act within its boundaries."

Oregon's perspective was similar: "Additionally, [ODEQ] believes that it would be beneficial to remind operators that states, with few exceptions, are the authority that implements the federal NPDES permitting programs with oversight from EPA. Therefore, the state's permitting program will make the final decision as to whether the facility requires an NPDES permit, and it is well within the permitting program's authority to request additional information in order to make the final determination as to whether a functional equivalent discharge is present." Oregon acknowledged that groundwater regulations vary from one state to another. "While it is understood that there are many situations where a state level groundwater protection permit may not be protective of surface water quality, there may be scenarios where groundwater regulations are more stringent that surface water regulations. The state recommends that when a groundwater permit (or other state issued permit) would contain more restrictive limits compared with an NPDES permit, that the state issued permit be given priority as vehicle for the protection of water quality. For example, when a state permit requires a discharge to meet background water concentrations that are more stringent than state water quality standards a functionally equivalent analysis would not be required."

Clarity

Several states requested clarification of vague terms, more accurate information in the technical details, and more thorough guidance for states as well as operators.

Alaska noted that the implementation guidance is vague in section three, repeating the factors in *Maui* while providing "no practical utility for applicants unfamiliar with permitting and hydrogeology." The guidance should "provide factors to consider and scenarios that clearly will not demonstrate functional equivalence," and should "include a clear statement that hydraulic connectivity is a factor to consider but is not the same as functional equivalency." It should also "aim to generate a test that an ordinary person can employ."

South Dakota said: "…EPA needs to explain how this guidance is consistent with current NPDES regulations that have gone through formal rulemaking, the existing NPDES permit writer's manual, and other guidance, forms, and instructions." The guidance lacks sufficient information for the permittee or the regulatory authority to "determine an outfall location, design pollutant treatment, and establish the compliance sampling location." They pointed out the need for EPA to better define terms such as "clearly ascertainable" and "fairly traceable" to demonstrate consistency with the intent of the Maui decision and the stated policy. While time and distance will be the most important factors in most cases, that is not necessarily true in all cases. The guidance definition of hydraulic conductivity is too simplified, and ignores that groundwater can be the source of the hydraulic gradient, not the pollutant source.

SD DANR also noted that groundwater data analysis is extremely complex. "The draft guidance needs to provide more information and specific examples on how to address the comingling of plumes/pollutants from multiple point and nonpoint sources…. In some instances, clearly determining the source of contaminants in groundwater with any certainty is nearly impossible. Language in the draft guidance indicates that measuring a plume, a relatively higher mass of pollutants, or a relatively higher concentration of pollutants when leaving the point source can support a finding of a 'functional equivalent' discharge. This information alone cannot support this finding."

Oregon pointed out that the guidance does not address many issues that are important to regulators. "This guidance needs to address at a minimum how to evaluate mixing zones or dilution when permitting a functionally equivalent discharge, identifying compliance locations, performing reasonable potential analysis, and accounting for the presence of naturally occurring compounds and chemical interactions with substrate and groundwater."

ODEQ noted that the "overall idea of using one pollutant as a reasonable indicator for other constituent pollutants may be controversial, and further guidance as to what can be considered a 'reasonable indicator,' complete with examples, should also be considered. EPA should also reinforce that the permitting authority has the discretion to ask for information on additional pollutants aside from the indicator pollutant."

Oregon requested additional guidance to support states in determining functionally equivalent discharges when it is not expected. ODEQ said: “This guidance relies heavily on the time and distance factors of Maui, grouping the other five factors into one section. While this may be more straightforward for the facility operator, the guidance is ambiguous as to whether a regulatory agency can also make a determination based solely on distance and time traveled in a situation where an operator is reluctant to apply for an NPDES permit and has not provided the necessary information. Coupled with a lack of a bright line test, this can lead to situations where an operator may believe that they are not a functional equivalent based on time and distance while regulatory staff make the opposite determination. To prevent confusion and combative circumstances, [ODEQ] recommends that EPA provide further clarifying language reminding the operator that the regulatory agency makes the final determination as to the presence of a functional equivalent discharge….”

Federalism

ADEC noted that the guidance risks unauthorized federal intrusion into states’ traditional authority to regulate groundwater, and that the presumptions laid out in the guidance risk placing groundwater under federal control. SD DANR expressed similar concerns: “While EPA’s draft guidance states that it is not meant to bind parties in any way, the tenor of the draft guidance as written reads like a regulation. [It] attempts to greatly expand the authority of EPA while increasing the burden on delegated state staff and those applying for permits. EPA should not use guidance to establish or expand its authority.”

ODEQ thanked EPA for “clarifying the differences in applicability between state waters and waters of the United States [in footnote 2]. This issue has already come up for us and the additional guidance is appreciated.”