Agriculture's Irrigation Return Flow Exemption

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Overview

The Clean Water Act (CWA) imposes upon the federal government the responsibility for eliminating pollution from point sources by establishing federal restrictions on discharges of pollutants from these sources and enforcing them by means of a federal permit system. This federal permit system, known as the National Pollutant Discharge Elimination System (NPDES) is the chief mechanism for control of discharges. No one may discharge a "pollutant" from a point source into the "navigable waters of the United States" without a permit from the EPA.

The NPDES system only applies to discharges of pollutants into surface water. Discharges of pollutants into groundwater are not subject to the NPDES permit requirement even if the groundwater is hydrologically connected to surface water. Well… kind of.

In 2020, the U.S. Supreme Court in *County of Maui v. Hawaii Wildlife Fund, 590 U.S. 165 (2020),* addressed the question of whether the CWA requires a permit when pollutants that originate from a non-point source can be traced to reach navigable waters through mechanisms such as groundwater transport. The Supreme Court ruled that such non-point discharges require a permit when they are the "functional equivalent of a direct discharge". This decision means that even if pollutants travel through groundwater before reaching navigable waters, they still fall under the CWA's jurisdiction if the discharge is functionally equivalent to a direct discharge. Recently, the Maryland Court of Appeals decided a case involving spray irrigation which involved the application of the "*Maui* factors."

Under 1977 amendments to the CWA, agricultural irrigation return flows are *not* considered point sources and don't require a discharge permit, what implications do the 2020 Supreme Court decision, and the recent Maryland appellate court decision have on the ag irrigation return flow exemption?

Agricultural irrigation return flow exemption and "Maui factors" – that's the topic of today's post.

The *County of Maui* Decision

In *County of Maui*, the County operated a wastewater reclamation facility on the island of Maui. The facility collected "sewage from the surrounding area, partially treated it, and pumped the treated water through four wells hundreds of feet underground." The effluent, which amounted to four million gallons each day, traveled a half mile or so through groundwater where, several environmental groups claimed, it was discharged into the Pacific Ocean. The Supreme Court held that an NPDES permit was required "when there is a direct discharge from a point source into navigable waters or when there is the *functional equivalent of a direct discharge*." The

Supreme Court set forth a non-exhaustive list of seven factors to determine whether an indirect discharge falls under the jurisdiction of the Clean Water Act:

- Transit time;
- Distance traveled;
- The nature of the material through which the pollutant travels;
- The extent to which the pollutant is diluted or chemically changed as it travels;
- The amount of pollutant entering the navigable waters relative to the amount of the pollutant that leaves the point source;
- The manner by or area in which the pollutant enters the navigable waters;
- The degree to which the pollution (at that point) has maintained its specific identity.

  Note: Time and distance will be the most important factors in most cases, but not necessarily every case.

The Supreme Court sent the case back to the Ninth Circuit for application of the factors. The Ninth Circuit then sent the case back to the trial court for an application of the factors to the facts of the case. Ultimately, the trial court concluded, based on the factors, that the County of Maui's wastewater discharges into groundwater, which then reached the Pacific Ocean, required a permit. The Ninth Circuit affirmed. *Hawaii Wildlife Fund v. County of Maui, No. 12-00198 SOM-KJM, 2020 U.S. Dist. LEXIS 259725 (D. Haw. Oct. 7, 2020), aff'd., No. 21-15207, 2022 U.S. App. LEXIS 15089 (9th Cir. Jun. 1, 2022).*

The Maryland Case

In the recent Maryland case, the town of Trappe and the Trappe East Holdings Business Trust applied for a groundwater discharge permit from the Maryland Department of the Environment for a wastewater treatment facility that would dispose of treated effluent through spray irrigation onto crop fields. The permit included effluent limitations, requirements for a nutrient management plan, and conditions to ensure complete uptake of nutrients by vegetation, resulting in zero net discharge to groundwater or surface waters. The permit allowed the use of spray irrigation to discharge 100,000 gallons of treated wastewater per day onto Talbot County farm fields.

The Chesapeake Bay Foundation (CBF)and other parties challenged the permit, arguing it was the functional equivalent of a surface water discharge requiring an NPDES permit and that it did not ensure zero discharge of nutrients. The CBF argued that this method would increase pollution from the development and change in land use, potentially harming local waterways. The CBF claimed that the "Maui factors" established that the effluent discharged from the Facility required an NPDES permit because it would reach a creek in about 12 days after travelling approximately 1,159 feet, and that "dilution and 'changed condition' of nutrients in question is immaterial because the remaining [n]itrogen will enter surface waters despite the form it travels in." The Maryland Department of the Environment (MDE) argued that the spray irrigation method would result in "zero net discharge" of nitrogen and phosphorus pollution to local waterways, as the treated wastewater would be absorbed by the soil and vegetation. The MDE also maintained that the permit met all regulatory requirements and that the spray irrigation system would not harm the environment.

The Talbot County Circuit Court dismissed CBF's challenge, upholding MDE's permit. The court reasoned that MDE's assumption of "zero net discharge" of nitrogen and phosphorus pollution to local waterways was valid and dismissed the case. On appeal, the Maryland Court of appeals affirmed. *In re Chesapeake Bay Foundation, Inc., 264 Md. App. 107 (Md. Ct. App. Dec. 23, 2024).* The appellate court agreed with the MDE, concluding that the Department clearly considered the "Maui factors" and that the record supported the MDE's findings and conclusions. The court found that the Department's determination that the discharge was not the functional equivalent of a direct discharge to surface waters was supported by substantial evidence because the MDE considered the "Maui factors" and provided a detailed factual basis for its conclusion. The court also found that the MDE's determination that the nutrient management plan would ensure 100 percent uptake of nutrients, as state law required, was supported by substantial evidence. The MDE evaluated the plan under its own land application guidelines, considered related issues, and imposed monitoring and reporting requirements to ensure compliance. As a result, an NPDES permit was not required.

Impact on Agricultural Irrigation Activities

Both cases highlight the scrutiny given to agricultural practices and their impact on water quality. The *County of Maui* decision emphasizes that even indirect discharges of pollutants into navigable waters require permits, which could lead to stricter regulations for agricultural operations that use groundwater for irrigation.

Similarly, the Maryland case could result in more stringent controls on spray irrigation practices to prevent runoff pollution. This might include requirements for buffer zones, improved irrigation techniques, or the use of best management practices to minimize the environmental impact.

Overall, these legal decisions underscore the importance of sustainable agricultural practices and the need for farmers to stay informed about regulatory changes that could affect their operations. By adopting environmentally friendly practices, farmers can help protect water quality while ensuring the long-term viability of their agricultural activities.

Until the Supreme Court's 2023 decision in *Sackett v. United States Environmental Protection Agency, 598 U.S. 651 (2023)* it was believed that the Supreme Court's opinion in the *County of Maui* case could have significant implications for the irrigation return flow exemption. However, the *Sackett* decision's narrowing of the definition of WOTUS has narrowed the application of the *County of Maui* decision. By limiting the scope of waters protected under the CWA, the *Sackett* ruling may reduce the number of water bodies that require permits for indirect discharges of pollutants.

In any event, there is likely to remain a need for agricultural operations to carefully manage their runoff and consider the potential regulatory implications of various agricultural practices. In particular, farming operations might be prudent to consider whether any of the following should be implemented:

- Implementation of more efficient irrigation systems to minimize runoff and ensure that water is used more effectively. This could include drip irrigation, soil moisture sensors, and other technologies that reduce water waste.
- The establishment of buffer zones and vegetation around water bodies to help filter "pollutants" before they reach navigable waters.

- The adoption of nutrient management practices to help prevent excess fertilizers from entering water bodies, including the use of precision agriculture techniques that apply fertilizers more accurately and efficiently.
- In areas of the country where it is possible, the planting of cover crops to reduce soil erosion and runoff and improve soil health.

Conclusion

The agricultural irrigation return flow exemption remains an important exemption from the CWA discharge permit requirement. The "Maui factors" apply but have been limited in application by the Supreme Court's 2023 *Sackett* decision.