

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

NOTICE OF FINAL DETERMINATION TO REISSUE A WISCONSIN POLLUTANT DISCHARGE  
ELIMINATION SYSTEM (WPDES) PERMIT No. WI-0048747-05-0

Permittee: Dane County Regional Airport, 4000 International Lane, Madison, WI, 53704-3120

Facility Where Discharge Occurs: Dane County Regional Airport, 4000 International Ln

Receiving Water And Location: West Branch of Starkweather Creek

Brief Facility Description and Summary of Proposed Changes: Dane County Regional Airport is 2,150 acres in size and is served by a storm sewer system consisting of approximately 14 miles of separate storm sewers, of which 25% are perforated to serve as an underdrain. Runoff from rain and snow melt at the airport may contain propylene glycol used to deice or anti-ice aircraft, potassium acetate used for ice control on the runways and taxiways, and other pollutants from industrial activities at the airport. Deicing and anti-icing activities are mandatory requirements of the Federal Aviation Administration to ensure adequate safety for airport operations. Glycol is a potential issue because additives in the glycol can contribute to aquatic toxicity and has a high biochemical oxygen demand (BOD), which can deplete the dissolved oxygen in the receiving water. Estimated glycol usage averages around 80,000 gallons per year from 2014 – 2021. Only propylene glycol is used as ethylene glycol has been discontinued. The amount of glycol used varies depending on winter weather conditions. Contaminated runoff is a seasonal problem during the deicing season from October to May. At other times of the year, the runoff from the airport is characteristic of typical urban storm water runoff.

Airport runoff enters the storm sewer system and discharges from 38 outfalls into Starkweather Creek, which drains into Lake Monona. Pollutants of concern in the storm water include deicing and anti-icing chemicals, PFAS, petroleum products, suspended solids, and traces of toxic materials.

The WPDES permit regulates the discharge from the glycol recovery system and the separate storm sewer system serving the airport. Dane County is the sole permittee, with discretion to supervise several airport tenants who are responsible for pollution prevention efforts. Major components of the WPDES permit include the following: a storm water pollution prevention plan (SWPPP) to reduce pollutant sources, the capture of runoff containing glycol and other chemicals used to deice or anti-ice aircraft, monitoring of storm water discharges, monitoring upstream and downstream in Starkweather Creek, discharge requirements for reductions in pollutant loading through implementation of best management practices, and an end of season annual report to summarize and assess compliance with permit requirements.

Changes to permit reissuance include the following: the removal of a co-permittee list, additional monitoring parameters and limits applicable to the glycol recovery system outfalls, increased stormwater monitoring, monitoring for PFAS at several outfalls, and several compliance schedule items for actions such as a SWPPP update.

Permit Drafter's Name, Address and Phone: Nate Willis, DNR, 101 S. Webster St. PO Box 7921, Madison, WI, 53707-7921, (608) 266-3221

Basin Engineer's Name, Address, and Phone: Nathan Wells, 3911 Fish Hatchery Road, Fitchburg, WI 53711, (608) 716-9965

Date Permit Signed/Issued: 04/29/2022

Date of Effectiveness: 05/01/2022

Date of Expiration: 04/30/2022

Public Informational Hearing Held On: N/A

Following the public comment period the Department has made a final determination to reissue the WPDES permit for the above-named permittee for this existing discharge. The permit application information from the WPDES permit file, comments received on the proposed permit and applicable Wis. Adm. Codes were used as a basis for this final determination.

The Department has the authority to issue, modify, suspend, revoke and reissue or terminate WPDES permits and to establish effluent limitations and permit conditions under ch. 283, Stats.

Following is a summary of significant comments and any significant changes which have been made in the terms and conditions set forth in the draft permit:

Comments Received from the Applicant, Individuals or Groups and Any Permit Changes as Applicable

One comment was received by Dane County Regional Airport (DCRA).

- **Comment:** The permittee expressed concern that the WPDES permit includes both monitoring for PFAS and source reduction measures, both of which are already being undertaken independently of the

requirements of the WPDES permit. The permittee stated that they are committed to reducing PFAS sources on the airport, but that the permit terms are unnecessarily duplicative and could lead to unnecessary costs and confusion in the remediation process, potentially resulting in delays. The permittee requested that PFAS-related requirements in s. 5.2.12 of the proposed WPDES permit be removed.

**DNR Response:** The department recognizes DCRA's concerns related to reporting to two DNR programs (Water Quality and Remediation & Redevelopment) and is committed to maintaining strong communication between the two programs and DCRA on PFAS-related projects to prevent confusion or delays. However, the actions that the WPDES permit is imposing are independent of the Remediation & Redevelopment Program's required actions. While the Remediation & Redevelopment Program is requiring that the permittee clean up historical PFAS contamination, the requirements of this WPDES permit are focused on actions the permittee can take to actively reduce concentrations of PFAS in the permitted outfalls, with quarterly sampling proposed to track these reductions over time. For example, in addition to various aqueous film-forming foam management actions, in s. 5.2.12.2(b), the permit requires that DCRA "Mitigate the discharge of PFAS by performing routine inspections of all storm sewers that receive airport runoff and performing maintenance as necessary. Repair/reline/seal fractures in storm sewer pipes and/or contaminated paved areas." This WPDES permit is not requiring that DCRA remediate the contaminated PFAS groundwater plume, but rather this WPDES permit is requiring that DCRA reduce concentrations of PFAS in the permitted outfalls moving forward.

The requirements outlined in s. 5.2.12 of the proposed permit are consistent with the department's authority to include conditions in permits that are necessary to ensure the discharge meets state water quality standards. The water quality standard in s. NR 102.04(1)(d), Wis. Adm. Code, states that "Substances in concentrations or combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance..." Given the significant concentrations of PFAS which were detected in DCRA's permitted outfalls, the department has determined that the required actions in the WPDES permit are needed to reduce the PFAS concentrations to meet the water quality standard in s. NR 102.04(1)(d), Wis. Adm. Code.

Several comments were received from the PFAS Regulatory Coalition (Coalition).

- **Comment:** The Coalition expressed concern that with the proposed PFAS monitoring requirements in the permit, the permittee will be relying on a sampling method that is not yet approved, not approved for all of the PFAS analytes specified, or not approved for sampling effluent. The Coalition claimed that the entire scope of USEPA's approved test methods can measure up to a combined maximum of 29 different compounds, while the permit is requiring 33 compounds be sampled. The comment goes on to claim that Method 1633 is not yet approved and therefore is inappropriate to require use of it in a WPDES permit. The Coalition urges the department to remove monitoring requirements in both this permit and other WPDES permits until a test method is approved in accordance with the process outlined in 40 CFR Part 136.

**DNR Response:** While there are currently no EPA-approved methods for analyzing PFAS in 40 CFR Part 136, the department has authority to require monitoring for a pollutant using other suitable methods. Under 40 CFR 122.44(i)(iv)(B), if there are pollutant parameters for which there are no approved methods, monitoring shall be conducted according to a test procedure specified in the permit for such parameters. At the state level, under s. NR 149.42(2), Wis. Adm. Code, the department may use alternative methods after consulting with the lab certification and registration program and determining that the allowance does not result in a detrimental effect on the quality and defensibility of the sampling results. In the proposed WPDES permit, the permittee is expected to utilize a lab which is certified in Wisconsin to sample for PFAS. The Wisconsin PFAS Method Expectations document used to certify labs in Wisconsin has been developed based on the Dept. of Defense QSM, Version 5.3, which has been widely used at remediation sites for years and is a trusted reference in determining quality objectives for sampling for PFAS. Furthermore, the Dept. of Defense is actively collaborating with USEPA on their own method development.

- **Comment:** The Coalition expressed concern with the fact that the BMPs proposed in the WPDES permit are inconsistent with the proposed new rule WY-23-19. The Coalition claimed that the determination of need as specified in the rule has not been met, since the permit doesn't allow for two years of data collection prior to implementing the PFAS best management practices (BMPs). Furthermore, the Coalition questioned the department's authority to include BMPs in the absence of numeric water quality criteria for PFAS due to there being no reduction targets and thus no ability to determine the efficacy of the BMPs. Last, the Coalition urged the department to await forthcoming federal guidance on NPDES permits as proposed in the USEPA's PFAS Strategic Roadmap.

**DNR Response:** It is important to note that WY-23-19 has not been finalized and is not effective. Still, the proposed BMPs are consistent with the types of pollutant minimization actions that would be required of all permittees which the department determines have reasonable potential to discharge PFOA and/or PFOS in amounts that exceed water quality standards, if WY-23-19 is finalized. The proposed rule would allow *up to* two years of data collection, but the proposed rule also would allow for the department to make a reasonable potential determination using less data than 11 sample results collected over two years. WPDES permits must ensure that discharges with reasonable potential to cause or contribute to an exceedance of water quality standards, including narrative standards, are addressed as soon as possible. In this case, given the consistently high PFAS concentrations in the effluent samples, clear impact in the receiving water, and the public health significance of the resultant fish consumption advisory in Starkweather Creek and downstream waters, more immediate action is warranted.

This WPDES permit has been backlogged since January 2020, and in that time the permittee has continued to collect PFAS data, showing that PFAS contamination around the airport is of public health significance. In the absence of promulgated numeric water quality criteria and/or WY-23-19, the department relies on available toxicity data to inform what concentrations of PFOA/PFOS constitute levels which are of public health significance, such as the current EPA health advisory level (70 ng/L combined PFOA/PFOS), the WI DHS recommended health-based standards (20 ng/L combined PFOA/PFOS), fish consumption advisory data, and available bioaccumulation data. Furthermore, WY-23-19 proposes the numeric thresholds of 8 ng/L PFOS and 95 ng/L PFOA. In determining whether this permittee should be required to implement BMPs to reduce PFAS discharges from the site, the department compared the available toxicity and bioaccumulation data with the observed concentrations, finding that all outfalls for which the department is requiring PFOA/PFOS monitoring currently exceed the proposed health-based water quality standards and/or advisory levels for either PFOA or PFOS (or both).

In situations where a discharge has reasonable potential to cause or contribute to an exceedance of a water quality standard, including a narrative standard, the department must establish a water quality based effluent limit (s. NR 106.04(1), Wis. Adm. Code) or, where limits are infeasible or where BMPs are reasonably necessary carry out the purposes and intent of the Clean Water Act, require BMPs to control and abate the discharge of pollutants (s. NR 205.10, Wis. Adm. Code). The department concluded that BMPs are appropriate in this instance based on the criteria in s. NR 205.10, Wis. Adm. Code.

Although s. NR 205.10, Wis. Adm. Code, does not require establishment of reduction targets for BMPs, the purpose of the BMPs is elimination of the exceedance of the narrative standard in Starkweather Creek and downstream waters, which would potentially be evidenced by the removal of the need for fish consumption advisories in Starkweather Creek and downstream waters, absent other public health concerns in the receiving water. Data analysis supporting the WY-23-19 rulemaking suggests that this is expected to occur when the concentrations of PFOS in the receiving water are at or below 8 ng/L PFOS.

Finally, the BMP approach for addressing PFAS sources that is utilized by this permit is consistent with the approach endorsed by the US Environmental Protection Agency (EPA) in its April 28, 2022 memo entitled “Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority” ([https://www.epa.gov/system/files/documents/2022-04/npdes\\_pfas-memo.pdf](https://www.epa.gov/system/files/documents/2022-04/npdes_pfas-memo.pdf)).

#### Comments Received from EPA or Other Government Agencies and Any Permit Changes as Applicable

No comments received.

As provided by s. 283.63, Stats., and ch. 203, Wis. Adm. Code, persons desiring further adjudicative review of this final determination may request a public adjudicatory hearing. A request shall be made by filing a verified petition for review with the Secretary of the Department of Natural Resources within 60 days of the date the permit was signed (see permit signature date above). Further information regarding the conduct and nature of public adjudicatory hearings may be found by reviewing ch. NR 203, Wis. Adm. Code, s. 283.63 Stats., and other applicable law, including s. 227.42, Stats.

Information on file for this permit action may be inspected and copied at either the above-named permit drafter’s address or the above-named basin engineer’s address, Monday through Friday (except holidays), between 9:00 a.m. and 3:30 p.m. Information on this permit action may also be obtained by calling the permit drafter at (608) 266-3221 or by writing to the Department. Reasonable costs (15 cents per page for copies and 7 cents per page for scanning) will be charged for copies of information in the file other than the public notice and fact sheet. Pursuant to the Americans with Disabilities Act, reasonable accommodation, including the provision of informational material in an alternative format, will be made to qualified individuals upon request.