



505 Fifth Ave Suite 850  
Des Moines IA 50309  
515.244.1194  
[iaenvironment.org](http://iaenvironment.org)

May 27, 2025

Chad Fields  
Iowa DNR  
Water Supply Engineering Section  
6200 Park Ave, Suite 200  
Des Moines, IA 50321

**RE: Comments on Modification of Pattison Sand Company Water Use Permit # 33,483**

Dear Mr. Fields:

The Iowa Environmental Council (IEC) offers the following comments on the proposed revisions to the modification of the water use permit for Pattison Sand Company. These comments represent the views of the Iowa Environmental Council, an alliance of more than 100 organizations, at-large board members from business, farming, the sciences and education, and over 500 individual members. IEC's members hike, fish, paddle, swim, and recreate in and around wetlands, lakes, rivers, and streams throughout the state.

The Iowa Department of Natural Resources (DNR) has issued a public notice of a draft permit modification to allow increased water withdrawals by Pattison Sand Company. We are concerned that the proposed permit modification does not align with DNR's rules and will negatively affect our members by reducing access to groundwater.

**I. Background**

Pattison Sand Company operates mining facilities in northeastern Iowa, near Garnavillo and Guttenberg. The facilities utilize water for silica sand processing and related uses. Pattison has an existing water use permit that authorizes use of up to 3700 gallons per minute (gpm) or 976 million gallons per year (mgy). Pattison sources this water from a combination of surface water (the Mississippi River), alluvial aquifers, and the Jordan aquifer. In the past, Pattison requested a modification to its permit that would allow the company to export water from Iowa to other states. Pattison now requests an increase to nearly quadruple its authorized water use.

**Table 1. Pattison Requested Water Use Authorization**

<b>Source water</b>	<b>GPM</b>	<b>MGY</b>
Mississippi River alluvial aquifer	850	423 million
Jordan aquifer	2800	1435 million
Mine pond	150	77 million
Mississippi River	1100	564 million
Quarry dewatering	4800	1244 million
<b>Total</b>	<b>9,700</b>	<b>3,743 million</b>
<b>Authorized in draft permit</b>	<b>9,675</b>	<b>3,743 million</b>

Pattison issued a public notice on March 18, 2025, and DNR held a public meeting at which the public raised many questions about the intended water use. DNR then extended the public comment period to May 27, 2025.

## **II. The Permit Must Apply Requirements of Chapter 50**

DNR’s permit summary document states that “the compliance provisions of the Jordan rule do not apply to the permit” because the aquifer is unconfined at this location.<sup>1</sup> DNR’s rules do not contain such an exception.

Instead, the department’s rules require restrictions on withdrawals from the Jordan aquifer, without exception for the unconfined portions of the aquifer.<sup>2</sup> These include a limitation of 2000 gallons per minute – significantly less than allowed in the draft permit. The rule expresses concern for wells pumping over 25,000 gallons per day from the Jordan aquifer. In contrast, the draft permit allows 2800 gallons per minute, totaling 4,032,000 gallons per day.

In addition, the rule applies limits on Jordan aquifer withdrawals based on a tiered system that relies on differences from historical 1978 aquifer levels.<sup>3</sup> The rule requires additional restrictions if the water levels are below those of 1978. Unfortunately, the DNR summary notes that the department and the permittee have no record of the 1978 aquifer levels.<sup>4</sup> There is no way to determine whether the additional protections should apply. DNR should not allow an increase in withdrawal above the base level in rule, particularly when the historical change in water elevation is not available.

## **III. DNR Should Assess Potential Well Interference**

DNR found that the significant increase in water use will create “a regional cone of depression in the Jordan aquifer around the Pattison Sand Company’s mining footprint, depending on the dewatering depth and extent utilized.”<sup>5</sup> That depression may affect nearby users because many nearby wells also rely on the Jordan aquifer.<sup>6</sup>

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<sup>1</sup> DNR Summary at 2.

<sup>2</sup> IOWA ADMIN. CODE r. 567-51.11(2).

<sup>3</sup> *Id.*

<sup>4</sup> DNR Summary at 4.

<sup>5</sup> DNR Summary at 3.

<sup>6</sup> *Id.*

Neither Pattison nor DNR provided analysis of the extent of the cone of depression from the increased water withdrawal. DNR also failed to determine whether the withdrawal would constitute a sustainable rate of withdrawal, even though DNR has found that the Jordan aquifer has had a downward trend in elevation for years.<sup>7</sup> The lack of historical water level for the wells in the Jordan aquifer exacerbates the potential problem. Data from a well-calibrated model would allow analysis of the cone of depression created by the withdrawal. Without that evidence, there is no certainty or clarity about how increased withdrawals by Pattison would impact neighboring users.

While state law does allow permit modification “to prevent substantial injury to persons or property,”<sup>8</sup> the lack of analysis for this permit means that DNR cannot show *prevention* of such injury. Instead, nearby residents may be injured by lack of access to water and then seek a remedy. This approach is not what the statute requires.

#### IV. Conclusion

We appreciate DNR’s efforts to evaluate the permit application but disagree with the agency’s proposed decision. DNR must ensure that the permit does not draw down the Jordan aquifer in a way that interferes with other users, and that could have longer-term consequences for Iowans. We encourage DNR to modify the permit as requested above.

Sincerely,

/s/ Michael R. Schmidt

Michael R. Schmidt  
General Counsel  
Iowa Environmental Council

/s/ Colleen Fowle

Collen Fowle  
Water Program Director  
Iowa Environmental Council

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<sup>7</sup> See Gannon, J. Michael, et al., “Groundwater Availability Modeling of the Cambrian-Ordovician Aquifer in Iowa,” Iowa Department of Natural Resources (2009), available at <https://www.iahr.uiowa.edu/igs/publications/uploads/WRI-2A.pdf>.

<sup>8</sup> IOWA CODE § 455B.271(1)(d).