

# THE COSTS OF CAFOS FOR IOWANS



Manure from concentrated animal feeding operations (CAFOs) is a major source of pollution in Iowa's waterways. The public bears the burden of paying for the externalized costs of the water pollution impacts and mitigation. This includes a range of expenses for Iowans and their downstream neighbors, including healthcare, lost economic opportunity, and degradation of ecosystem services.

Learn more at [iaenvironment.org/costofcafos](http://iaenvironment.org/costofcafos).

## DRINKING WATER

**\$333 million**



If the current amount of nitrogen pollution from farm fields and CAFOs continues, Iowans will be responsible for up to \$333 million over the next five years to remove nitrates from drinking water.<sup>1</sup>

**12%**

of Iowa private wells tested from 2002-2017 had nitrate concentrations that exceed the drinking water standard.<sup>2</sup>

**260 communities**

face increasing nitrate in their drinking water supplies.<sup>3</sup>

Almost **50**

Iowa communities have already been forced to take action to address nitrate contamination in drinking water supplies.<sup>4</sup>

**\$1,200**

per person per year



Rural Iowans can pay as much as \$1,200 per person per year for nitrate treatment of drinking water.<sup>5</sup>

## Annual medical costs due to nitrate-attributable cancer cases:

**Nationwide:** \$250 million and \$1.5 billion<sup>6</sup>

**Iowa's portion:** \$6.25 million to \$37.5 million<sup>7</sup>

## Annual indirect costs of nitrate-attributable health impacts:

**Nationwide:** \$1.4 to \$6.7 billion<sup>8</sup>

**Iowa's portion:** \$35 million to \$167.5 million<sup>9</sup>

*Indirect costs include IQ point losses from preterm births, economic losses from disability, and life-years lost due to premature death.*

## HEALTH

**313**



Annual cancer cases in Iowa attributed to nitrate.

(2.3 to 10.43 per 100,000 people)<sup>10</sup>

Iowa's portion of national cancer cases is **150% greater** than its portion of the national population.<sup>11</sup>

## ESTIMATES OF ANNUAL COSTS OF NITRATE POLLUTION IN IOWA

Category	Lower estimate	Upper estimate
Medical expenses	\$6,250,000	\$27,500,000
Indirect medical costs	\$35,000,000	\$167,500,000
Public water supply treatment costs <sup>12</sup>	>\$52,200,000	>\$91,700,000
Private well treatment costs	\$4,000,000	\$7,400,000
Recreational impacts	>\$30,000,000	>\$30,000,000
Ecosystem services	Unknown	Unknown
<b>Total</b>	<b>\$127,450,000</b>	<b>\$324,100,000</b>

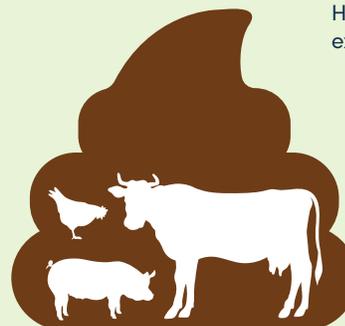
## ECOSYSTEM



Hundreds of Iowa waters have experienced fish kills in the last 40 years.<sup>13</sup>

The amount of livestock manure Iowa now generates is equal to the waste produced by 168 million people, or half the entire U.S. population.<sup>14</sup>

Manure management accounts for **23% of the agricultural greenhouse gas emissions.**<sup>15</sup>



## SOURCES:

- 1 "Rural Iowans Bear Brunt of Water Treatment Costs for Nitrate Pollution from Farms and CAFOs." Union of Concerned Scientists, 14 Jan. 2021, [www.ucsusa.org/about/news/rural-iowans-bear-brunt-water-treatment-costs-nitrate-pollution-farms-and-cafos](http://www.ucsusa.org/about/news/rural-iowans-bear-brunt-water-treatment-costs-nitrate-pollution-farms-and-cafos).
- 2 See "Iowa's Private Wells Overrun With Agricultural Contaminants," Iowa Environmental Council (Apr. 24, 2019), available at <https://www.iaenvironment.org/newsroom/water-and-land-news/iowas-private-wells-overrun-with-agricultural-contaminants> (last visited June 8, 2023).
- 3 Donnelle Eller, "High nitrate levels plague 60 Iowa cities, data show," Des Moines Register (July 4, 2015), available at <https://www.desmoinesregister.com/story/money/agriculture/2015/07/04/high-nitrates-iowa-cities/29720695/>.
- 4 *Id.* at 11.
- 5 *Id.*
- 6 Temkin, A., Evans, S., Manidis, T., Campbell, C., & Naidenko, O. V. (2019). Exposure-based assessment and economic valuation of adverse birth outcomes and cancer risk due to nitrate in United States drinking water. *Environmental Research*, 176, 108442.
- 7 See "Estimated Nitrate Attributable Cancer Cases for each State," Environmental Working Group, available at [https://www.ewg.org/interactive-maps/2019\\_nitrate/map/](https://www.ewg.org/interactive-maps/2019_nitrate/map/) (last visited June 13, 2023).
- 8 *Id.*
- 9 See "Estimated Nitrate Attributable Cancer Cases for each State," Environmental Working Group, available at [https://www.ewg.org/interactive-maps/2019\\_nitrate/map/](https://www.ewg.org/interactive-maps/2019_nitrate/map/) (last visited June 13, 2023).
- 10 See "Interactive Map: Nitrate Attributable Cancer Cases for each state," EWG (2019), available at [https://www.ewg.org/interactive-maps/2019\\_nitrate/map/](https://www.ewg.org/interactive-maps/2019_nitrate/map/) (last visited June 8, 2023).
- 11 See "Estimated Nitrate Attributable Cancer Cases for each State," Environmental Working Group, available at [https://www.ewg.org/interactive-maps/2019\\_nitrate/map/](https://www.ewg.org/interactive-maps/2019_nitrate/map/) (last visited June 13, 2023).
- 12 Low estimate includes 2024 water treatment expenses for [Des Moines Water Works](#) and [Cedar Rapids](#); high estimate assumes [Des Moines Water Works](#) and [Cedar Rapids](#)' annual water capital improvement expenses and the [Cedar River Source Water Partnership](#). The estimates do not include potential nitrate treatment costs for Iowa's [1,836 other public water systems](#).
- 13 Monica Cordero, "Animal waste and agrochemicals are leading cause of fish kills in Iowa waterways," Investigate Midwest (June 1, 2023) available at <https://investigatemidwest.org/2023/06/01/animal-waste-and-agrochemicals-are-leading-cause-of-fish-kills-in-iowa-waterways/>.
- 14 Chris Jones, "50 Shades of Brown," June 6, 2019, available at <https://www2.ihr.uiowa.edu/cjones/50-shades-of-brown/>.
- 15 *Id.* at 8



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